Land South of Mildenhall Road, Fordham, Cambridgeshire

Archaeological Evaluation Report

August 2019

Client: RPS

Issue No: 3
OA Report No: 2358
NGR: TL 6397 7070
Event Number: ECB 5919

oxfordarchaeology

Client Name:	RPS
Document Title:	Land South of Mildenhall Road, Fordham, Cambridgeshire
Document Type:	Evaluation Report
Report No.:	2358
Grid Reference:	TL 6397 7070
Planning Reference:	17/00481/OUM
Site Code:	ECB 5919
Invoice Code:	FORMHR19
Receiving Body:	Cambridgeshire County Council Stores
Accession No.:	ECB 5919
OA Document File Location:	Y:\Cambridgeshire\FORMHR19_Mildenhall Road Fordham
OA Graphics File Location:	Y:\Cambridgeshire\FORMHR19_Mildenhall Road Fordham\Project Data\Graphics
Issue No:	V. 3
Date:	August 2019
Prepared by:	Robin Webb (Project Officer)
Checked by:	Matt Brudenell (Senior Project Manager)
Edited by:	Rachel Clarke (Post-Excavation Editor)
Approved for Issue by:	Paul Spoerry (Regional Manager)
Signature:	

OA South
Janus House
Osney Mead
Oxford
OX2 0ES

t. +44 (0)1865 263 800

OA East
15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SQ

t. +44 (0)1223 850 500

OA North
Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD
t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk
w. oxfordarchaeology.com
Oxford Archaeology is a registered Charity: No. 285627

Land South of Mildenhall Road, Fordham, Cambridgeshire

Archaeological Evaluation Report

Written by Robin Webb BA MA ACIfA.

With contributions from Lawrence Billington MA PhD, Zoë Uí Choileáin MA MSc BABAO, Martha Craven, Carole Fletcher HND BA ACIfA and Nick Gilmour MA ACIfA

and illustrations by David Brown BA and Isobelle Ward BA MA PCIfA

Contents

List of Figures

List of Plates

List of Tables

Summary

Between the 8th and 15th of July 2019 Oxford Archaeology East conducted an archaeological evaluation on land to the rear of nos. 98 to 118 Mildenhall Road, Fordham, Cambridgeshire (centred on TL 6397 7070).

The evaluation consisted of 14 trenches that were excavated within an area of proposed residential development, covering 3% of a *c*.4.1ha area. This was increased to 3.6% with the extension of Trenches 4 and 6. The site was located on flat ground on the eastern edge of the village with the Snail Valley to the south-west.

The earliest remains revealed within the trenches were natural hollows, with associated earlier Neolithic worked flint and pottery, in the eastern two thirds of the site. Ditches probably associated with medieval and post-medieval field strips were evident across the site, while a grouping of nine undated postholes were found in the middle of the site, and three shallow depressions with gravel embedded in their bases on the western edge.

Only a small finds assemblage was recovered from the site, with the majority of the post-medieval artefacts coming from bucket sampling of the subsoil and topsoil of the trenches. Finds included two sherds of prehistoric, probably Early Neolithic pottery, a sherd of Roman pottery, three sherds of post-medieval pottery and a fragment of early modern pottery; a fragment of clay tobacco pipe stem and a fragment of ceramic building material. Worked flint of probable earlier Neolithic date inadvertently incorporated into later features was recovered. The faunal assemblage includes poorly preserved cattle, horse and sheep/goat all recovered from the western half of the site.

Environmental sampling of features across the site revealed only two wheat grains and a grass seed from a natural hollow, alongside snail shells from five samples and charcoal from disturbance within a natural hollow.

Overall the archaeological works have confirmed the presence of limited preserved remains across the site, with the subsoil depth varying greatly across the area whilst the ploughsoil retained a consistent depth. The results of the evaluation provide evidence of the edge of village fields pre-dating and associated with the 1809 Inclosure.

Acknowledgements

Oxford Archaeology East (OA East) would like to thank RPS for commissioning this project. Thanks are also extended to Gemma Stewart who monitored the work on behalf of Cambridgeshire County Council Historic Environment Team (CCC HET).

The project was managed for Oxford Archaeology by Matt Brudenell. The fieldwork was directed by Robin Webb, who was supported by Edmund Cole and Leanne Robinson Zeki. Survey was carried out by Isobelle Ward and digitising by Joanna Nastaszyc. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Natasha Dodwell, processed the environmental remains under the management of Rachel Fosberry, and prepared the archive under the supervision of Katherine Hamilton.

1 INTRODUCTION

1.1 Scope of work

1.1.1 OA East was commissioned by RPS to undertake a trial trench evaluation on land to the rear of nos. 98 to 118 Mildenhall Road, Fordham, Cambridgeshire ahead of a proposed new residential development. The proposed development is for the erection of up to 100 new dwellings, sustainable drainage, open space, landscaping and access from Mildenhall Road.

1.1.2 The work was undertaken as a condition of planning permission (planning ref. 17/00481/OUM). A brief (Stewart 2019) was set by Gemma Stewart of CCC HET outlining the Local Authority's requirements for work necessary to inform the planning process, and a written scheme of investigation (WSI; Blackbourn and Brudenell 2019) was produced by OA East detailing the methods by which OA East proposed to meet the requirements specified in the brief and the requirements of the EAA Standards for Field Archaeology in the East of England (Gurney 2003).

1.2 Location, topography and geology

1.2.1 The site lies to the south of Mildenhall Road, on the eastern edge of Fordham (NGR 6397 7070) and covers an area of *c*.4.1ha (Figure 1). The field slopes up slightly from 17.5m OD along the southern edge to 18.9m OD at the northern end, with the majority lying between 17.6 and 18.4m OD. To the south-west of the site lies the Snail Valley, with the River Snail dividing into several channels as it flows past the village (Wareham and Wright 2002, 389).

1.2.2 The area of proposed development consists of an open field, formerly an arable field now covered in low weeds and a small overgrown grassland area in the central northern part of the site separated by a wooden fence. An area of hard-standing with a later 20th century steel building is located in the north-western corner of the site. The northern edge of the site is bounded by Mildenhall Road (B1102) and residential properties; the eastern edge by residential properties; the western edge by an industrial area and agricultural land; and the southern edge by arable fields.

1.2.3 The geology of the area is mapped as Zig Zag Chalk Formation overlain by superficial River Terrace Deposits of sand and gravel (BGS 2019).

1.3 Archaeological and historical background

Introduction

1.3.1 The following archaeological and historical background of the site is based on the background provided in the desk-based assessment (DBA; Gilbey 2017) and the WSI (Blackbourn and Brudenell 2019). This is based on a full 1km radius search of the Cambridgeshire Historic Environment Record (CHER) centred on the evaluation site that was commissioned from CCC HET (under licence number 19-3969). Pertinent nearby records are shown on Figure 2 and in **bold** in the text.

Prehistoric (c.10,000BC-AD43)

1.3.2 Earlier prehistoric activity within the vicinity of the site is limited to findspots, with a number having been recorded within the search area of the site. These include seven worked flints (**07467B**) recovered 850m to the south of the site. These have not been more closely dated and include a scraper and three long blades.

1.3.3 Findspots of Mesolithic material include a 'Thames pick' (**07511**) recovered just over 1km to the north-west of the site, with a Mesolithic tranchet axe (**07551**) and a Neolithic polished stone axe (**07552**) nearby.

1.3.4 Further Neolithic findspots include two polished axe heads (**00390**, **07556**) that were recovered 1km to the north-west of the site, whilst closer in, a polished Neolithic flint sickle was recorded 850m to the north-west (**07553**) along with a polished chisel of the same date (**07555**).

1.3.5 Findspots of Bronze Age material include a socketed and looped axe (**07741**) that was recovered alongside decorated Bronze Age pottery 300m to the west of the site. A Bronze Age flint scatter (**11536**) has also been recorded approximately 900m to the south-east, perhaps indicative of prehistoric occupation.

1.3.6 Three Early Iron Age inhumations (**07549**) were uncovered 300m to the north-west of the site along with sherds of Iron Age pottery that were hand made with large flint grit inclusions. An Iron Age pottery scatter (**11287**) has also been recorded approximately 600m to the south-west of the site.

Roman (AD43-410)

1.3.7 Findspots of a Roman date have also been uncovered within the CHER search area, with a number of bronze objects (**07467**) having been recovered 850m to the south of the site. These objects comprise two fibulae, three brooches (including an example in the shape of a chicken), a bronze pin in the form of an acorn, a bronze pin with a blue glass bead and a bronze awl. Metal finds dating to the Roman period have also been recorded from metal detecting immediately to the north-east of the site, including a copper-alloy fitting and possible Roman coins (**11516**).

1.3.8 Roman pottery sherds were recovered during fieldwalking 1km north-west of the site (**07739**), with further pottery and metal finds; including coins and brooches, recorded 700m south-west of the site (**11287A**).

1.3.9 Cropmarks with a rectangular form and layout that are thought to represent a Roman villa have been recorded 1km north-west of the site (**MCB 18677**).

Anglo-Saxon (AD410-1066)

1.3.10 Many of the excavations which have taken place in Fordham and within 1km of the site have revealed extensive Anglo-Saxon remains. An excavation 600m to the west-north-west in 2000 (**ECB 420**; Connor 2001) revealed a post-built structure as well as two parallel ditches and further postholes thought to represent property boundaries. Finds from the site included Late Saxon pottery, knife blades, a whetstone, a spindle whorl and fragments of lava quern dating to the Late Saxon period. Further work at the site in 2016 (**ECB 4713**; Webster 2017) revealed additional evidence for Late Saxon

features to the east and south-east. This comprised a series of ditches that appear to have divided the site into three plots, one of which contained evidence for a sunken-floored building (SFB) containing 10th to 12th-century pottery within its backfill.

1.3.11 Evidence for Anglo-Saxon activity was also identified 700m to the west of the current site where an evaluation (**ECB 421**; Casa Hatton 2001) revealed a boundary ditch, gullies and postholes containing a few finds related to domestic activity. To the north of this, an earlier evaluation (**ECB 4407**; Robinson and Kenney 1996) and excavation (**ECB 422**; Mould 1999) at Hillside Meadow revealed three phases of Saxon activity including ditches and gullies representing enclosures containing pits and SFBs, as well as four burials of individuals aged between 10 and 15 years old. Finds such as pottery, animal bone, worked bone objects and loomweights were recovered from features across the site. Nearby, also along Hillside Meadow, an evaluation (**ECB 876**; Sutherland and Wotherspoon 2002) revealed five ditches and a gully, on a similar alignment to the other Anglo-Saxon features in the area, containing a few Anglo-Saxon pottery sherds, whilst the adjacent watching brief (**ECB 3833**; Gdaniec 2012) revealed undated ditches and 19th and early 20th century rubbish pits at the western end. A separate evaluation (**ECB 715**; O'Brien and Gardner 2002) in the same area also identified ditches thought to represent sparse domestic and/or agricultural activity on the periphery of the main settlement.

Medieval and post-medieval (AD1066-present)

1.3.12 Fordham lies within the Staploe Hundred, with the historic core *c*.700m to the west of the site. The church (**07574**), dedicated to Saints Peter and Mary Magdalene, lies 100m closer, and includes a number of elements dating to the 13th century as well as some Norman remains. The current structure was restored in the 1830s and 1870s.

1.3.13 Although excavations undertaken 850m to the west of the site at Mill Lane (**ECB 418**; Hatton 2001) uncovered two narrow ditches and the lowest course of a clunch wall. Only a single sherd of medieval pottery was recovered, and this is thought to relate to medieval activity to the north. Further medieval activity, probably land divisions between the core of the village and Fordham Abbey, were identified during an evaluation on River Lane (**ECB 5291**; Edwards 2018), 840m to the south-west of the site, and a large medieval quarry pit to the west (**ECB 5795**).

1.3.14 Just over 1km to the south-west is the location of Fordham Abbey which is surrounded by elaborate parks and gardens (**12340**). The abbey was founded in 1227 and dissolved in 1538.

1.3.15 Findspots of medieval material include a purse mount with a zig-zag decoration and niello inlay that was recovered bent by a plough 850m to the south (**07467A**) and a medieval strap fitting that was found immediately north of the site (**11516A**). Pottery dating to the medieval period was recovered from a dark midden area 1km to the north-west (**07738**). Immediately to the south-west of this, further medieval pottery sherds were noted (**07739**).

1.3.16 Enclosure took place at Fordham in 1809, with much of the land to the east and south of the village still under arable cultivation. Prior to this, cultivation took the form of triennial rotation, with the field in which the site lies part of the arable open fields,

within Chippenham (also called Kenninghall and Church) Field (Wareham and Wright 2002, 389).

1.3.17 Post-medieval quarrying can be seen 175m to the west of the site with an evaluation (**ECB 5389**; Revell 2018) revealing 18th and 19th century sand extraction pits, with further gravel quarrying (**MCB 21559**) 300m to the north-west of the site.

Undated cropmarks

1.3.18 Cropmarks have been identified within 1km of the site which remain undated. A field boundary cropmark has recently been identified 1km to the north-west (**11106**). In addition, an undated ring ditch cropmark lies 1km to the south-east (**11109**). Cropmarks indicating the presence of enclosures can be seen 1.1km to the north (**09018**) and 745m to the south-west (**MCB 23367**).

Previous works on the site

1.3.19 No intrusive archaeological work has previously been undertaken on the site, but a geophysical survey and desk-based heritage assessment (**ECB 5147**; Bunn 2017; Gilbey 2017) were carried out. The geophysical survey (see Figure 10) recorded no clearly defined evidence of buried archaeological remains; instead it revealed modern disturbance and anomalies probably associated with natural features or modern cultivation (Bunn 2017, 3). The heritage assessment, incorporating map regression, indicated the division of the current site into narrow strips reminiscent of the medieval strip field system from the time of the 1809 Inclosure Map, and as three fields from the First Edition Ordnance Survey Map of 1887 onwards (Figure 3). The alignment of the fields varied slightly, with the earlier north-west to south-east axis evident on the 1809 Inclosure Map becoming replaced by a north to south axis from the late 19th century. These axes follow the alignment of the road (east to west to the north of the site, becoming north-east to south-west to the north-east of the site).

2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The evaluation aims were to seek to establish the character, date and state of preservation of archaeological remains within the proposed development area. These are detailed below:

i. 'ground-truth' the geophysical survey results by targeting seemingly 'blank' areas of the survey
ii. establish the presence or absence of archaeological remains on the site, characterise where they are found (location, depth and extent), and establish the quality of preservation of any archaeological and environmental remains
iii. provide sufficient coverage to establish the character, condition, date and purpose of any archaeological deposits
iv. provide sufficient coverage to evaluate the likely impact of past land uses, and the possible presence of masking deposits
v. provide – in the event that archaeological remains are found – sufficient information to construct an archaeological mitigation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables, and orders of cost.

2.2 Research Frameworks and Excavation Standards

2.2.1 This evaluation took place within, and will contribute to the goals of the Regional Research Frameworks relevant to this area:

i. Glazebrook J. (1997). *Research and Archaeology: A Framework for the Eastern counties: 1. Resource Assessment*. East Anglian Archaeology Occasional Papers 3.
ii. Brown, N. and Glazebrook, J. (2000). *Research and Archaeology: A Framework for the Eastern counties: 2. Research Agenda and Strategy.* East Anglian Archaeology Occasional Papers 8; and
iii. Medlycott, M. (2011). *Research and Archaeology Revisited: A Revised Framework for the East of England*. East Anglian Archaeology Occasional Papers 24.

2.2.2 The archaeological evaluation and analysis was conducted in accordance with current best archaeological practice and the appropriate national and regional standards and guidelines – the Chartered Institute for Archaeologists' *Code of Conduct* (CIfA 2014a) and *Standard and Guidance for Archaeological Field Evaluations* (CIfA 2014b), and in accordance with the East of England's Standard for Field Archaeology (Gurney 2003), Historic England's *Management of Research Projects in the Historic Environment* (HE 2015), CHET's Evaluation Report Guidance (CHET 2016) and CCC deposition guidance (CCC 2017).

2.3 Methodology

2.3.1 A total of 14 trenches measuring 45m by 2.1m were opened, providing a 3% sample of the *c*.4.1ha proposed development area and distributed across the site (Figure 3).

Trenches were positioned so that they did not cross known services – including a rising main running north to south between Trenches 3 and 11, and a sewage pipe running north-west to south-east across the area of Trench 1 that resulted in the trench being split into two sections.

2.3.2 Two additional areas were opened up following the CCC HET monitoring meeting to answer questions regarding features identified in Trenches 4 and 6. An area of 125m^2 was opened at the western end of Trench 4, adjacent to Trench 5 to establish whether there was a continuation to the line of postholes identified there. Furthermore, an area of 50m^2 was opened on the northern edge of Trench 6, opposite the northern end of Trench 7, to identify the extent of a gravelled area. The results of these are described with the results of the corresponding trenches in Sections 3.5 and 3.6 below.

2.3.3 Prior to machine excavation the footprints of the trenches were scanned using a CAT and Genny with a valid calibration certificate. Trial trenches were excavated by a 360-degree 20 tonne tracked mechanical excavator to the depth of geological horizons, or to the upper interface of archaeological features or deposits, whichever was encountered first. A toothless ditching bucket with a bucket width of 2.1m was used to excavate the trenches. Overburden was excavated in spits not greater than 0.1m thick, and all machine excavation took place under the supervision of a suitably qualified and experienced archaeologist.

2.3.4 Spoil was stored alongside trenches. Topsoil, subsoil, and archaeological deposits were kept separate during excavation to allow for sequential backfilling of the trenches. Trenches were backfilled once approved by the CCC HET archaeologist.

2.3.5 All archaeological features were investigated by hand excavation and recorded to provide an accurate evaluation of archaeological potential, with relationships (where present) between features established and recorded. All excavated slots in linear features were at least 1m in width and discrete features were half sectioned, except those on the edge of trenches where they were excavated to the edge of the trench. Natural features were identified during the evaluation, and test slots put in to sufficiently establish their nature. Where these contained finds they were recorded.

2.3.6 Spoil, exposed surfaces and features were scanned with a metal detector set to not discriminate against iron. A bucket sampling exercise was undertaken whereby 90 litres of soil from each soil horizon was hand sorted to characterise the artefact content. The results of both of these are presented in the finds summary in Section 3.10 below.

2.3.7 Environmental samples (up to 40 litres) were taken from features and deposits to aid the recovery of plant remains, fish, bird, small mammal and amphibian bone and other small artefacts, with a summary provided in Section 3.11 below.

2.3.8 Records comprise survey, drawn, written and photographic data, with all archaeological features recorded using OA East pro-forma sheets. Trench locations, plans and sections were recorded at appropriate scales and high-resolution digital photographs were taken of all relevant features and deposits, as well as general site shots. Photographs include a scale, north arrow, site code and feature number (where relevant) unless they are to be used in publications, with the photograph register

recording these details and photograph numbers listed on the corresponding context sheets.

2.3.9 A register was kept of the trenches, features and photographs. All features and deposits have been issued with unique context numbers. All site drawings include the following information: site code, scale, section number, orientation, date and initials of the archaeologist who prepared the drawing.

2.3.10 Sections of features were drawn at scales of 1:10 or 1:20. Site survey was carried out using a survey-grade differential GPS (Leica GS08) fitted with “Smartnet” technology with an accuracy of 5mm horizontal and 10mm vertical. All sections were tied in to Ordnance Datum and the site plan was tied into the Ordnance Survey National Grid.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the evaluation are presented below and include a stratigraphic description of the trenches that contained archaeological remains. Trenches that did not contain archaeological features will not be discussed in any further detail (apart from in the context inventory in Appendix A). Trench plans and selected sections illustrating the results can be found in Figures 3-9. The setting of the archaeology and a selection of photographs of trenches and excavated features can be seen in Plates 1-11. The full details of all trenches, with dimensions and depths of all deposits form the content of Appendix A. Finds data, reports and spot dates can be found in Appendix B, and environmental data and reports in Appendix C.

3.1.2 Context numbers reflect the order in which features were excavated and are largely (though not exclusively) grouped by trench. These begin at 1, with cut numbers shown in **bold**.

3.2 General soils and ground conditions

3.2.1 The soil sequence in the trenches was fairly uniform, although the thickness of the subsoil varied greatly with the presence of natural hollows in areas of the site, notably across the centre and towards the south-east. The natural geology (1) varied across the site (Plates 1-2), but largely consisted of a soft dark brown red silt sand with 30% of the area formed of a soft dark brown yellow silt sand and 5% by a white chalk. This was overlain by a soft mid red brown sand silt subsoil (2) measuring between 0.06m and 0.9m thick, and which was in turn overlain by a friable dark grey brown sand silt topsoil (3) that although it varied in thickness between 0.25m and 0.55m, was consistent for the majority of the site at around 0.3m. The greater depths of topsoil and subsoil coincided with the presence of the natural hollows, with the overall ground level of the field remaining fairly flat.

3.2.2 In addition to periglacial striations, natural features (green on Figure 3) were present across the site as shallow undulations in the natural geology and disturbance from rooting activity. The periglacial scars were visible as pale sand bands across the trenches and were predominantly in the sandier natural geology. Additional periglacial cracks could be seen in Trench 14 with an irregular sided linear feature and in Trench 9 with the sand undercutting the chalk to the west of ditch **30**. Disturbance from rooting could be seen in Trench 2 with two irregular shaped bands extending into the hollow to the west of pit **51**.

3.2.3 Ground conditions throughout the evaluation were generally good with strong sunshine for the majority of the time, and the site remaining dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology and remained visible despite being baked by the sun.

3.3 General distribution of archaeological deposits

3.3.1 Archaeological features were present in seven of the 14 trenches (2, 4, 6, 9, 10, 12 and 14), with additional modern features identified in Trench 1 and natural hollows in Trenches 1, 2, 8, 9, 10 and 14. The details of these features are described below.

3.3.2 A pattern of north-to-south aligned ditches running perpendicular to the trenches was identified across the site (**14**=**19**, **30**, **33**, **37**, **53** and **63**), with a single corresponding east to west aligned ditch (**25**), and two oriented north-east to south-west (**17** and **61**). Postholes (Group **39**), where they were present, were grouped at the western end of Trench 4 (**39**, **41**, **43**, **45**, **47**, **49**, **68**, **70** and **72**), and a large pit (**51**) and shallow hollows (**35**, **57** and **59**) were present in Trenches 2 and 6 to the north and west of the site. Four natural hollows (**4**, **23** and two not numbered) were identified across the site: one towards the north (in Trenches 1 and 2) and three along the southern edge (in Trenches 8, 9 and 10, and 14).

3.3.3 Of the ditches that were identified, three could be described as continuing between trenches: ditch **14** (Trench 14) continuing north through Trench 12 (ditch **19**); ditch **30** (Trench 9) continuing north through Trench 2 (ditch **63**); and ditch **33** (Trench 9) continuing north through Trench 2 (ditch **53**), with part of ditches **30** and **33** having been ploughed out where they crossed Trench 4.

3.3.4 The majority of features did not contain any dating material, probably due to a mixture of the sand geology and the apparent low level of activity on the site. Where material was recovered it was largely from the bucket sampling of the topsoil, but also with some residual material from the natural hollows. Animal bone was recovered from the upper level of the hollow (**23**, excavated as slot **27**) extending across Trenches 9 and 10 as well from the rooting (**21**) that disturbed it. In addition, animal bone was recovered from pits **51** (Trench 2), **35** (Trench 6) and **59** (Trench 6) and ditch **61** (Trench 2). Worked flint was recovered from the natural disturbance (**10**) in the hollow in Trench 14, the rooting (**21**) in Trench 10, and ditches **61** and **63** (Trench 2). A single fragment of pottery was recovered from the large pit (**51**) in Trench 2, as well as tiny fragments from the natural disturbance in Trench 10 (**21**) and Trench 14 (**12**). Additional pottery was recovered from the topsoil of Trench 12 as well as one sherd coming from the subsoil above ditch **19** (Trench 12). Ceramic building material (CBM) was recovered from the topsoil of Trench 13, and a single fragment of clay pipe stem was recovered from the topsoil of Trench 10.

3.3.5 The trenches are described in numerical order below, with features described spatially from either the northern or eastern end of the trench depending on the orientation of the trench. Where features intersected they have been described with the stratigraphically earlier feature first.

3.4 Trenches 1 and 2

3.4.1 Trench 1 (Figures 3-4) was located at the northern edge of the site on a north-east to south-west alignment. This trench was split into two sections towards the south-western end due to the presence of a sewage pipe running across the site. This trench contained two modern intrusions (a cable slot and ditch) cutting through the subsoil, and the northern end of a natural hollow. This trench produced no finds.

3.4.2 A large hollow started 3.6m from the southern end of Trench 1a and continued through Trench 1b and across Trench 2. It was filled by the subsoil (2) and reached a maximum depth of 0.9m in Trench 1b. Where this hollow continued into Trench 2 its full width was identified, reaching 27.68m.

3.4.3 Trench 2 (Figures 3-4) was located to the south of Trench 1, and besides the edges of the hollow described above, this trench contained a quarry pit and three ditches.

3.4.4 Located 10.86m from the eastern end of the trench, ditch **61** (Plate 3) was on a north-east to south-west alignment with gentle sides and a flat base and measured 1.2m wide and 0.16m deep. This ditch was filled by a soft dark grey brown silt sand (62) that contained one fragment (41g) of horse bone and a single Mesolithic or earlier Neolithic tertiary flint blade.

3.4.5 A further 5m to the west, ditch **63** had a similar profile to ditch **61**, but was wider (2.06m), deeper (0.22m) and on a north to south orientation. This ditch was filled by a friable dark brown grey sand silt (64) that contained six fragments of Mesolithic/earlier Neolithic worked flint comprising of an irregular waste flake, a tertiary flake, three secondary blades and a tertiary blade.

3.4.6 Pit **51** (Figure 9, Section 17) lay 1.5m to the west, extending beyond both the northern and southern edges of the trench. Where the edges where visible they suggested that the pit was sub-circular in plan. It had gentle sides, an uneven base, and measured 7.89m wide and 0.58m deep. It was filled by a soft mid brown grey silt sand (55 and 56) that was overlain by a soft mid grey silt sand (52) that contained a single sherd (26g) of locally-produced Roman pottery and one fragment (60g) of horse mandible and one fragment (59g) of horse scapula.

3.4.7 Ditch **53** (Figure 9, Section 17) cut into this pit 0.66m from its eastern edge. This ditch was on a north-to-south alignment with gentle sides, a concave base and measured 1.84m wide and 0.61m deep. This ditch was filled by a compact dark grey clay silt (54) that contained no finds.

3.5 Trench 4

3.5.1 Trench 4 (Figures 3, 5; Plates 4-5), on an east-to-west alignment, was located to the south of Trench 2 and following the discovery of six postholes (**39**, **41**, **43**, **45**, **47** and **49**) was enlarged at its western end to reveal a further three postholes (**68**, **70** and **72**). These postholes were all within a 23.5m^2 area at the western end of the trench, with a possible main line incorporating postholes **39**, **43**, **47**, **68** and **70** on a north-west to south-east alignment. Bucket sampling and metal detecting of this trench revealed no artefacts.

3.5.2 The postholes were all sub-circular in plan. Postholes **39** (0.35m by 0.43m wide and 0.44m deep; Figure 9, Section 20), **43** (0.38m by 0.4m wide and 0.46m deep; Figure 9, Section 22), **68** (0.39m by 0.43m wide and 0.36m deep) and **70** (0.48m by 0.42m wide and 0.4m deep; Figure 9, Section 27) had steep to vertical sides and flat bases, whilst posthole **41** (0.36m wide and 0.39m deep; Figure 9, Section 21) had a vertical western edge and steep eastern edge with a concave base. In contrast, postholes **45** (0.25m by 0.24m wide and 0.16m deep), **47** (0.42m by 0.38m wide and 0.2m deep), **49** (0.41m wide and 0.16m deep; Figure 9, Section 25) and **72** (0.39m by 0.45m wide and 0.25m

deep) had less steep sides and slightly concave bases. Notably, these postholes with less steep sides were the smaller postholes.

3.5.3 Whilst the exact profile and size of these postholes varied slightly, they contained a consistent fill that comprised of a soft mid red brown clay sand (40, 42, 44, 46, 48, 50, 69, 71 and 73 respectively), with none containing any finds. Samples <4>, <5> and <6> taken from postholes **39**, **41** and **43** respectively, revealed occasional snail remains in posthole **40** and less than 1ml of charcoal in each of the three postholes sampled. Once recorded, these postholes were all 100% excavated.

3.6 Trench 6

3.6.1 Trench 6 (Figures 3, 5) was located to the south-west of Trench 4 on the western edge of the site, to the south of a concrete yard and was on an east to west orientation. This trench contained a ditch terminus (**37**) as well as three areas of shallow and irregular depressions or hollows (**35**, **57** and **59**; Plate 6). When first revealed, depression **35** (Figure 9, Section 19) appeared as though it may have contained a metalled surface, and following the CCC HET monitoring meeting the trench was extended on its northern edge to establish the extent of this. This trench contained animal bone in pit **59** whilst bucket sampling and metal detecting revealed no additional finds.

3.6.2 The ditch terminus (**37**) was located 15.2m from the eastern end of the trench and extended 2.1m from the southern edge, into the extended area. It was linear in plan with gentle sides and a concave base and measured 1.2m wide and 0.17m deep. It was filled by a soft light brown grey silt sand (38) that contained no finds.

3.6.3 Located 1m to the north were natural depressions **57** and **59**. These were sub-circular in plan with gentle sides and concave bases. They measured 1.48m by 1m wide and 0.09m deep (depression **57**) and 1.3m wide and 0.12m deep (depression **59**) with depression **59** possibly cutting the northern edge of depression **57**, although there was very little difference between the fills. Both depressions were filled by a compact light grey brown sand silt (67 and 68 respectively) that contained 75% moderately sorted sub-rounded to sub-angular gravel of up to 3cm diameter. These were overlain in both cases by a friable light grey brown sand silt (58 and 60 respectively). Of these deposits, deposit 60 (depression **59**) contained two fragments (149g) of horse pelvis in amongst the gravel (Plate 7), probably pressed in from above. The environmental sample <7> taken from depression **59** revealed occasional snail fragments and less than 1ml of charcoal.

3.6.4 A further 1.6m to the west was a larger (5m by 4m wide) shallow (0.12m deep) natural depression (**35**) that had an amorphous shape in plan, gentle sides and uneven base. This was filled by a compact light grey brown sand silt (65) that contained 75% moderately sorted sub-rounded to sub-angular gravel of up to 4cm diameter. This was overlain by a compact light grey brown sand silt (36). One fragment (4g) of sheep/goat radius and one fragment of cattle bone was pressed into the gravel.

3.7 Trenches 9 and 10

3.7.1 Trenches 9 and 10 (Figures 3, 6) were located to the south of Trench 4 and formed a 'T' shape with Trench 9 on an east to west orientation and Trench 10 on a north to

south axis at the eastern end of Trench 9. Trench 9 contained two ditches (**30** and **33**) as well as the western edge of a large natural hollow (**27**; Plate 8). This hollow extended to the east through Trench 10, which also contained a ditch (**25**). Bucket sampling and metal detecting of these trenches revealed a fragment of clay pipe from the topsoil of Trench 10.

3.7.2 Where Trench 9 joined Trench 10 a hollow (**27**) was exposed for 15.9m and which, where visible, was sub-circular in plan. The western edge was gentle and, where it was reached (at a depth of 0.54m) in a test pit, the base was sloping down slightly to the east. The was filled by a soft mid brown red silt sand (32) that had 25% streaks of a dark brown yellow. This was overlain by a soft mid red brown silt sand (28) and a friable mid grey brown sand silt (29) that contained one fragment (48g) of cattle bone. The environmental sample <2> taken from the area around the animal bone revealed abundant snails and less than 1ml of charcoal.

3.7.3 Located 8.5m to the west of the hollow was a ditch (**30**) on a north-to-south alignment with gentle sides and a flat base. This ditch was 0.9m wide and 0.15m deep. It was filled by a friable dark grey brown sand silt (31) that contained no finds.

3.7.4 A further 5m to the west was a second shallow ditch (**33**) with the same profile, but measuring 1m wide and 0.17m deep. This ditch was filled by a friable dark red brown sand silt (34) that contained no finds.

3.7.5 Trench 10 contained the continuation of the hollow in Trench 9, exposed for a distance of *c*.20.1m. In this trench the hollow (**23**) was investigated with a test pit (Figure 9, Section 3), which revealed a slightly concave or sloping base with a depth of 0.25m. At this point, the hollow was filled by a soft mid brown red silt sand (24) that was disturbed to the north of the test pit by rooting (**21**) with a very diffuse edge that was filled by a soft mid brown grey silt sand (22). This contained a single sherd (less than 1g) of prehistoric pottery, two Neolithic worked flints (a secondary and tertiary flake), a fragment (1g) of unworked burnt flint, and one fragment (61g) of cattle bone. An environmental sample <1> taken from the deposit revealed two wheat grains and a single grass seed (the only plant remains recovered from the site), frequent snail remains and 12ml of charcoal.

3.7.6 Located 1.3m to the south of the hollow was a linear ditch (**25**; Figure 9, Section 4) on an east-to-west orientation and measuring 1.55m wide and 0.3m deep. This ditch had gentle sides, a concave base, and was filled by a soft dark red brown sand silt (26) that contained no finds.

3.7.7 The topsoil (3) of this trench contained a single short fragment (1.5g) of post-medieval (1600-19th century) clay tobacco pipe stem.

3.8 Trench 12

3.8.1 Trench 12 (Figures 3, 7) was located towards the eastern edge of the proposed development area, to the south of Trench 11, and was on an east-to-west orientation. This trench contained a single ditch (**19**; Plate 9). Bucket sampling and metal detecting of this trench revealed a single sherd (8g) of a post-medieval (1550-1800) redware jar or bowl and a sherd (1g) of an early modern (1770-1840) blue transfer-printed pearlware plate or bowl/dish from the topsoil (3). An additional abraded sherd (4g) of

a post-medieval redware possible jar was recovered from the subsoil (2) above the ditch (**19**) when the section was being cleaned.

3.8.2 The ditch (**19**) was located *c*.23m from the eastern end of the trench. It measured 1.6m wide and 0.09m deep, with gentle sides and a slightly concave base. It was filled by a soft dark red brown sand silt (20) that contained no finds.

3.9 Trench 14

3.9.1 Trench 14 (Figures 3, 8) was located to the south of Trench 13, in the south-eastern corner of the site and entirely within the area of a hollow. Besides the hollow (**4**; Plate 10) the trench contained two ditches (**14** (Plate 11) and **17**) and natural disturbance of rooting (**8**, **10** and **12**). Although bucket sampling and metal detecting of this trench revealed a single sherd (10g) of a post-medieval redware possible bowl or jar base with internal glazing, eight earlier Neolithic worked flints (two secondary flakes, a tertiary flake, four tertiary blades and the proximal end of a leaf-shaped arrowhead) and Early Neolithic pottery was recovered from some of the areas of rooting.

3.9.2 The large hollow was deeper at the eastern end of the trench (from *c*.7m from the eastern end), with a test pit identifying an uneven edge and base (similar to periglacial hollows identified in Exning; Blackbourn 2019, 4) extending down 0.77m from the base of the trench. This was filled by a compact dark grey sand silt (5) that was overlain by a soft mid orange brown sand silt (6) and a soft mid grey sand silt (7). This hollow contained no finds.

3.9.3 Located *c*.1.5m to the west of the deeper part of the hollow was a small area of rooting (**8**) with an amorphous shape and diffuse lower horizon boundary. It measured 0.25m by 0.24m wide and 0.14m deep and was filled by a soft dark grey sand silt (9) that contained no finds.

3.9.4 A further *c*.12.5m to the west was an amorphous area of natural disturbance (**10**), probably from tree rooting, covering an area of 1.08m wide and 0.31m deep and that was filled by a soft mid brown grey sand silt (11) that contained the eight earlier Neolithic worked flints. An environmental sample <3> taken from this revealed abundant snail shells and less than 1ml of charcoal. This was truncated at its northern end by further disturbance (**12**) which was sub-circular in plan, with gentle sides and flat base that measured 2m wide and 0.2m deep. This was filled by a soft mid brown grey sand silt (13) that contained a single sherd (2g), now broken into three fragments, of Early Neolithic pottery.

3.9.5 Ditch **14** (Figure 9, Section 12) lay a further 0.5m to the west, on a north-to-south alignment, with gentle sides and a concave base. It measured 2.21m wide and 0.56m deep and was filled by a soft mid grey brown sand silt (15) that was overlain by a soft dark grey sand silt (16). This ditch contained no finds.

3.9.6 A final ditch (**17**) was located 6.6m to the west on a north-east to south-west orientation, measuring 0.4m wide and 0.13m deep with gentle sides and a concave base. This ditch was filled by a soft mid grey brown sand silt (18) that contained no finds.

3.10 Finds summary

3.10.1 Only a limited range of artefacts were recovered from across the site. These included ceramic building material (CBM), clay pipe stem, pottery and worked flint. Where recovered from within features, both the pottery and worked flint was recovered from a diagonal swathe across the middle of the site (Trenches 2, 10 and 14). The pottery that was recovered dated to the Early Neolithic, Roman, post-medieval and early modern periods, whilst the flint is dated to the earlier Neolithic.

3.10.2 Metal detecting before and after excavation revealed only modern fragments of metal and a shotgun cartridge.

3.10.3 The lithics assemblage (Appendix B.1) comprises 17 worked flints and a single (1g) unworked burnt flint. These were recovered from two ditches (**61** and **63** in Trench 2) and from natural features (hollow **21** in Trench 10 and rooting **10** in Trench 14). The majority dates to the earlier Neolithic period and represents material inadvertently incorporated into the fills of later ditches and natural features.

3.10.4 The pottery assemblage (Appendix B.2-3) comprises two sherds (2g) of prehistoric (probably early Neolithic) pottery, a single sherd (26g) of locally produced Roman pottery, three sherds (22g) of post-medieval redware, and a single sherd (1g) of post-medieval pearlware. This included three sherds (18g) of post-medieval pottery (all except one sherd (4g) of redware) recovered during bucket sampling. The bucket sampling pottery was recovered from the topsoil (3) of Trenches 12 and 14, along the eastern edge of the site. In addition, a single sherd (4g) of post-medieval glazed redware was recovered from the subsoil (2) above ditch **19** when the section was being cleaned. The single sherd of Roman pottery was recovered from a pit (**51**) in Trench 2, towards the north of the site.

3.10.5 A single fragment (1.5g) of post-medieval clay tobacco pipe stem (Appendix B.4) was recovered during bucket sampling of the topsoil (3) of Trench 10.

3.10.6 The CBM (Appendix B.5) that was recovered, a total of one fragment (9g) of undiagnostic material that had been reworked by ploughing, was recovered from bucket sampling the topsoil (3) of Trench 13 towards the south-east corner of the site.

3.11 Environmental summary

3.11.1 The animal bone assemblage (Appendix C.1) comprises nine fragments (462g) and represents cattle, horse and sheep/goat bone. Where animal bone was recovered it was within features in the western two thirds of the site (Trenches 2, 6, 9 and 10), and other than the horse bone recovered from pit **51**, all of the bone came from undated or natural features. The animal bone recovered from pit **51** is likely to have been Roman or later, the single abraded sherd of Roman pottery not being enough to confidently date the pit.

3.11.2 A total of seven environmental samples (Appendix C.2) were taken from a mixture of natural and archaeological features across the site. Where they were taken from the natural features this was when either artefacts or ecofacts were recovered (disturbance **10** and hollow **27**), or when a large amount (12ml) of charcoal was identified (disturbance **21**), or from above the gravel deposits of a depression (**59**).

From archaeological features, the environmental samples were taken from the more substantial postholes (**39**, **41** and **43**). The environmental samples revealed only two wheat grains and a single grass seed from across the entire site, and these were concentrated in the disturbance (**21**) on the edge of hollow **23**. Charcoal was only recovered in small quantities (less than 1ml) in samples, other than in the disturbance (**21**) on the edge of hollow **23**, where 12ml were recovered. Mollusc remains, however, were prevalent in all of the samples taken from natural hollows, and appeared occasionally in the sample from a depression (**59**) in Trench 6.

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 Archaeological features were clearly visible when the trenches were first opened, showing as darker patches against the natural geology, with patches of gravel (Trenches 1 and 2) or chalk and red sand (Trenches 9, 10 and 14) in the natural geology at the base of some hollows distinguishing them from the subsoil above. No additional features weathered out as the week of works progressed. Test slots were put into natural features in order to establish that they were in-fact natural, and to characterise the type of deposits within them – generally a pale yellow grey sand. The overlying soil horizons were clearly visible, with the subsoil filling the majority of the hollows, other than the lower levels where additional deposits have been described in the results section above. The dry conditions and shallow nature of most of the trenches meant that water from flooding or groundwater levels was not an issue. The results of the evaluation trenching, therefore, are considered to have a good level of reliability.

4.2 Evaluation objectives and results

4.2.1 The aims of the evaluation were to establish the character, date, and state of preservation of archaeological remains within the proposed development area. These were set out in the WSI (Blackbourn and Brudenell 2019) and Section 2.1 above:

i. *'ground-truth' the geophysical survey results by targeting seemingly 'blank' areas of the survey:*
The evaluation trenches revealed a limited number of archaeological features and large, probably natural hollows. Although the archaeological features were not detected in the geophysical survey (Figure 10), it is possible to retrospectively identify areas for the natural hollows in the greyscale image of the processed data (Gilbey 2017, fig. 2). It is also possible to identify the area of shallow depressions with gravel in Trench 6 with the magnetic anomalies extending from the area of the modern yard to the north. It is likely that the archaeological features were not identified due to their predominantly shallow nature and their fills having a high sand composition comparable to the surrounding natural geology and subsoil.

ii. *establish the presence or absence of archaeological remains on the site, characterise where they are found (location, depth and extent), and establish the quality of preservation of any archaeological and environmental remains:*
Excavation of the evaluation trenches revealed the presence of archaeological features, their location, depth and extent across the site. A total of 20 definitely archaeological features were identified (including three ditches that appear to extend across two trenches, a total of seventeen individual features). The low number of finds suggest that either material was not being preserved in the sands or that there was not much activity in the area. Where features of particular interest were identified extending beyond the trench footprints (Trenches 4 and 6) the areas were extended to ascertain the full extent of the features and to try to limit the need for further mitigation. Environmental sampling also showed that there was poor preservation of organic remains.

iii. *provide sufficient coverage to establish the character, condition, date and purpose of any archaeological deposits:*
The 3% sample area covered by the trenches was increased to 3.6% with the widening of Trenches 4 and 6, fully encapsulating the identified areas of archaeology. Where ditches were identified it was possible to trace three of them through two trenches (ditch **14** in Trenches 12 and 14, and ditches **30** and **33** in Trenches 2 and 9). Dating of features proved somewhat elusive with the scarcity of finds, and with the pottery and flint likely to have been inadvertently worked into the fills. However, the presence of earlier Neolithic flint and pottery around the hollows suggest that they had an earlier date, although it is most likely that this material was also residual in these contexts. The presence of post-medieval and early modern pottery and post-medieval clay tobacco pipe in the subsoil and topsoil, along with the correlation of some ditches with the alignments of boundaries shown on historic mapping (Figure 3), suggest that the ditches formed part of Fordham's medieval and later field systems.

iv. *provide sufficient coverage to evaluate the likely impact of past land uses, and the possible presence of masking deposits:*
The location of the trenches spread across the development area, and the percentage covered, means that the full extents of the site have been covered for alignments of ditches. The narrow range and low number of features identified during the evaluation, in conjunction with the geophysical survey results, suggest that there would be limited further features, and where these have not been identified through trenching, they would probably relate to further strips and boundaries of the medieval and later field systems.

v. *provide – in the event that archaeological remains are found – sufficient information to construct an archaeological mitigation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables, and orders of cost:*
Archaeological remains were identified within seven trenches (2, 4, 6, 9, 10, 12 and 14) across the site, and two trenches (4 and 6) were enlarged to identify the extents of groups of features or potentially interesting deposits. The depths of different types of features have been established along with the degree of preservation of artefacts and ecofacts. This means that should further mitigation be required there is basis for establishing timetables and costs.

4.3 Interpretation

Natural and periglacial features

4.3.1 A swathe of deep natural hollows was identified running across the central and southern end of the site (Trenches 1, 2, 8, 9, 10 and 14); it is possible that some of the steeper-sided examples were sand quarries (see below). The hollows measured a maximum of 0.9m in depth and can be seen in the greyscale geophysical survey plot (Figure 10) as sweeping lines of light and dark. The lower reaches of these hollows contained separate deposits, whilst the upper portions were filled by the subsoil. In only a single instance (hollow **23** in Trench 10, also excavated as slot **27** in Trench 9) was material recovered from a hollow, and this was animal bone from the upper fill

(29 in slot **27**) and pottery, flint and animal bone from an area of disturbance (rooting **21**) that also included charcoal. This charcoal may have signified some burning of wood for fuel, but may also be the result of vegetation burning. The recovery of the animal bone suggests that cattle, horse and sheep/goat passed through the area, whilst the flint may have been inadvertently incorporated into the fill. The uneven sides and bases reflect periglacial hollows identified in variable chalk and sand geology at Exning, Suffolk (Suffolk HER EXG 112; Blackbourn 2019, 4), 5.5km to the south-west. These Suffolk examples, which although smaller, also contained possible Early Neolithic pottery and evidence for molluscs.

4.3.2 In the south-eastern corner (Trenches 10 and 14) there were a number of small natural disturbances that were investigated and that contained earlier Neolithic worked flint and pottery (rooting **10**, **12** and **21**), likely to represent the passage of people in the vicinity towards the more fertile Snail Valley to the south-west. Other small hollows were identified that did not contain artefacts and are likely to have been of natural origin.

4.3.3 Shallow depressions (**35**, **57** and **59**) were also present towards the western edge of the site (Trench 6). Although these may have been pits, their shallow nature, the presence of gravels pressed into the natural geology, and the increasing presence of gravel in the natural geology of this area suggest that they are more likely to have been periglacial shallow depressions. The animal bone recovered from depression **59** is perhaps indicative of some stock-keeping activity in the vicinity, or the passage of cattle, horse and sheep/goat close-by.

Medieval and post-medieval strip fields

4.3.4 Two alignments of ditches were identified across the site: a north-east to south-west alignment at both the northern and southern extremes (Trenches 2 and 14), and a north-to-south alignment extending across the site (Trenches 2, 6, 9, 12 and 14) with a corresponding perpendicular ditch towards the southern edge (Trench 10). Only ditch **61** produced any material (animal bone). The historic mapping (Figure 3), however, can be used to suggest that the north to south alignment relates to the medieval and later field systems with the correlation in alignments. Where the boundaries from the historic maps have been drawn on Figure 3, it should be noted that a fairly wide margin of error should be allowed for due to the process of georeferencing and the slight shift of boundaries since the maps were created. The ditches themselves, though are likely to represent the agricultural strips between the mapped boundaries.

4.3.5 The north-east to south-west alignment is represented by two ditches (**17** in Trench 14 and **61** in Trench 2). They both had different dimensions, although the depth at which ditch **17** was identified suggests that it may have been much larger. This southern ditch also lay broadly parallel to the alignment of the plot boundaries where they change to a north-east to south-west orientation to the east, and the line of the road to the north-east. It is possible that these ditches represent the truncated base of pre-enclosure boundary or drainage ditches.

4.3.6 By the time of the 1809 Inclosure Map the direction of boundaries had started to revert to the cardinal compass directions, aligned on the road. The north-to-south alignment of ditches also corresponds with the orientation of boundaries on the 1887 First Edition Ordnance Survey Map (Figure 3). Although none of the identified ditches align with the mapped boundaries, it could be expected that those ditches within the trenches represent the strips within these fields. With these ditches, the alignment of ditch **17** in Trench 14 with ditch **19** in Trench 12, along with the similarity in their profile, suggest that they may be the same ditch (Figure 3). Similarly, the alignment of ditch **30** in Trench 9 with ditch **63** in Trench 2 and ditch **33** in Trench 9 with ditch **53** in Trench 2 suggest that they may be the same ditch, with the difference in size due to the difference in natural geology within the trenches. Where ditches **30** and **33** would be expected to cross Trench 4 there was no sign of them, and the shallowness of Trench 4 in conjunction with the more solid natural geology, suggest that at this point the ditch is likely to have been ploughed out.

Quarry pit

4.3.7 A single pit (**51**), that in hindsight can be seen on the geophysical survey data (Figure 10), was present within Trench 2, towards the north of the site. The size of the pit in plan (7.89m wide) along with the irregular nature of the base suggest that it may have been the result of quarrying. The single sherd of pottery that was recovered suggests a Roman date and may have been associated with the Roman metalwork identified in the CHER to the north-west (**11516**) or the pottery to the south (**11287A**). However, a single sherd of pottery is not conclusive. In addition, the abraded nature indicates that the sherd may have been reworked, and there is the possibility that the pit is medieval or later. This activity may relate to the sand quarrying identified during works to the west of the site (**ECB 5389**) or to gravel quarrying identified further north (**MCB 21559**).

Postholes

4.3.8 A group (**39**) of nine postholes (**39**, **41**, **43**, **45**, **47**, **49**, **68**, **70** and **72**) was identified at the western end of Trench 4. Within the initial line of the trench six (**39**-**49**) were revealed. Of these, four (**39, 41**, **43** and **49**) were on a north-west to south-east alignment, with postholes **45** and **47** just to the south of the alignment. The area around these postholes was stripped in order to establish whether the alignment continued. Only a further three postholes (**68**, **70** and **72**) were revealed, although none of these were on the main alignment: postholes **68** and **70** were to the north and posthole **72** to the south. Within this cluster of postholes there were two main groups: the larger ones with steeper sides and flatter bases (**39**, **41**, **43**, **68** and **70**), and the smaller ones with gentler sides and concave bases (**45**, **47**, **49** and **72**). Of the main alignment, only the south-westernmost (**49**) was of the smaller postholes, suggesting that the remaining three (**39**, **41** and **43**) were the main 'structure'. However, a slightly more north-north-west to south-south-east alignment could also be made from postholes **39**, **45**, **68**, and **70**, again with the southernmost including one of the less substantial variants.

4.3.9 Although it may be possible to create small lines from these postholes, there is no sign of a closed structure and the two alignments that can be made are only short (four postholes). As such, it is not possible to definitively say what the posts were used for, but it is possible that they formed a fenced sub-division (adjusted over time) within the medieval or post-medieval field divisions. Despite their substantial nature, the absence of finds mean that they cannot be accurately dated.

4.4 Significance

4.4.1 The evaluation identified the remnants of possibly medieval or post-medieval strip field ditches across the proposed development area, along with a large pit that may have been related to medieval quarrying for sands or gravels, and a cluster of undated postholes. In addition to this, natural features (especially hollows) were identified, associated with which were residual abraded artefacts and animal bone. This is indicative of the passage of people and animals (possibly in the earlier Neolithic and later periods) across the area, probably en route to/from the Snail Valley to the south-west.

4.4.2 The (albeit low-level) presence of medieval and post-medieval remains within the site is not unexpected given the proximity of the site to the village of Fordham. The results appear to confirm the evidence of historic maps which indicate that this area lay within open fields that were enclosed in the early 19th century.

APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1a						
General description					**Orientation**	NE-SW
Trench contains two modern features and the northern end of a natural hollow. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	35
					Width (m)	2.1
					Avg. depth (m)	0.69
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.32	subsoil	-	-
3	layer	-	0.37	topsoil	-	-

Trench 1b						
General description					**Orientation**	NE-SW
Trench contains only a natural hollow. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	10
					Width (m)	2.1
					Avg. depth (m)	1.1
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.65	subsoil	-	-
3	layer	-	0.45	topsoil	-	-

Trench 2						
General description					**Orientation**	E-W
Trench contains a quarrying pit and three ditches. Consists of topsoil and subsoil overlying natural geology of silty sand with gravels.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.67
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.35	subsoil	-	-
3	layer	-	0.32	topsoil	-	-
51	cut	7.89	0.58	cut of pit	-	-
52	fill	7.89	0.46	fill of pit **51**	animal bone; pottery	Roman or later
53	cut	1.84	0.61	cut of ditch	-	-
54	fill	1.84	0.61	fill of ditch **53**	-	-
55	fill	1.86	0.18	fill of pit **51**	-	-
56	fill	3.97	0.13	fill of pit **51**	-	-
61	cut	1.2	0.16	cut of ditch	-	-
62	fill	1.2	0.16	fill of ditch **61**	animal bone, flint	-
63	cut	2.06	0.22	cut of ditch	-	-
64	fill	2.06	0.22	fill of ditch **63**	flint	-

Trench 3						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.43
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.12	subsoil	-	-
3	layer	-	0.31	topsoil	-	-

Trench 4						
General description					**Orientation**	E-W
Trench contains nine postholes. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.35
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.08	subsoil	-	-
3	layer	-	0.27	topsoil	-	-
39	cut	0.43	0.44	cut of posthole	-	-
40	fill	0.43	0.44	fill of posthole **39**	-	-
41	cut	0.36	0.39	cut of posthole	-	-
42	fill	0.36	0.39	fill of posthole **41**	-	-
43	cut	0.4	0.46	cut of posthole	-	-
44	fill	0.4	0.46	fill of posthole **43**	-	-
45	cut	0.24	0.16	cut of posthole	-	-
46	fill	0.24	0.16	fill of posthole **45**	-	-
47	cut	0.38	0.2	cut of posthole	-	-
48	fill	0.38	0.2	fill of posthole **47**	-	-
49	cut	0.41	0.16	cut of posthole	-	-
50	fill	0.41	0.16	fill of posthole **49**	-	-
68	cut	0.43	0.36	cut of posthole	-	-
69	fill	0.43	0.36	fill of posthole **68**	-	-
70	cut	0.42	0.4	cut of posthole	-	-
71	fill	0.42	0.4	fill of posthole **70**	-	-
72	cut	0.45	0.25	cut of posthole	-	-
73	fill	0.45	0.25	fill of posthole **72**	-	-

Trench 5						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.41
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.12	subsoil	-	-
3	layer	-	0.29	topsoil	-	-

Trench 6						
General description					**Orientation**	E-W
Trench contains a ditch terminus or pit and three shallow depressions or pits. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.55
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.22	subsoil	-	-
3	layer	-	0.33	topsoil	-	-
35	cut	4	0.12	cut of depression	-	-
36	fill	3.44	0.09	fill of depression **35**	-	-
37	cut	1.2	0.17	cut of ditch terminus	-	-
38	fill	1.2	0.17	fill of ditch **37**	-	-
57	cut	1	0.09	cut of depression	-	-
58	fill	1	0.04	fill of depression **57**	-	-
59	cut	1.3	0.12	cut of depression	-	-
60	fill	1.3	0.09	fill of depression **59**	animal bone	-
65	fill	4	0.05	fill of depression **35**	animal bone	-
66	fill	1	0.05	fill of depression **57**	-	-
67	fill	1.3	0.04	fill of depression **59**	-	-

Trench 7						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of silty sand and chalk.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.42
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.12	subsoil	-	-
3	layer	-	0.3	topsoil	-	-

Trench 8						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of silty sand and chalk.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.49
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.16	subsoil	-	-
3	layer	-	0.33	topsoil	-	-

Trench 9						
General description					**Orientation**	E-W
Trench contains two ditches and the western edge of a natural hollow. Consists of topsoil and subsoil overlying natural geology of silty sand and chalk.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.53
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.2	subsoil	-	-
3	layer	-	0.33	topsoil	-	-
27	cut	-	0.54	cut of natural hollow	-	-
28	fill	-	0.2	fill of hollow **27**	-	-
29	fill	-	0.19	fill of hollow **27**	animal bone	-
30	cut	0.9	0.15	cut of ditch	-	-
31	fill	0.9	0.15	fill of ditch **30**	-	-
32	fill	-	0.24	fill of hollow **27**	-	-
33	cut	1	0.17	cut of ditch	-	-
34	fill	1	0.17	fill of ditch **33**	-	-

Trench 10						
General description					**Orientation**	N-S
Trench contains a ditch, a natural hollow and rooting disturbance. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.70
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.33	subsoil	-	-
3	layer	-	0.37	topsoil	clay pipe	post-medieval
21	cut	0.46	0.13	cut of rooting disturbance	-	-
22	fill	0.46	0.13	fill of rooting **21**	animal bone, flint, pottery	Neolithic
23	cut	-	0.25	cut of natural hollow	-	-
24	fill	-	0.25	fill of hollow **23**	-	-
25	cut	1.55	0.3	cut of ditch	-	-
26	fill	1.55	0.3	fill of ditch **25**	-	-

Trench 11						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.42
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.1	subsoil	-	-
3	layer	-	0.32	topsoil	-	-

Trench 12						
General description					**Orientation**	E-W
Trench contains a single ditch. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.43
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.13	subsoil	pottery	post-medieval
3	layer	-	0.3	topsoil	pottery	post-medieval
19	cut	1.6	0.09	cut of ditch	-	-
20	fill	1.6	0.09	fill of ditch **19**	-	-

Trench 13						
General description					**Orientation**	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural geology of silty sand and chalk.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.42
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.12	subsoil	-	-
3	layer	-	0.3	topsoil	CBM	-

Trench 14						
General description					**Orientation**	E-W
Trench contains two ditches, a natural hollow and rooting disturbance. Consists of topsoil and subsoil overlying natural geology of silty sand.					**Length (m)**	45
					Width (m)	2.1
					Avg. depth (m)	0.83
Context No.	**Type**	**Width (m)**	**Depth (m)**	**Description**	**Finds**	**Date**
1	layer	-	-	natural geology	-	-
2	layer	-	0.52	subsoil	-	-
3	layer	-	0.31	topsoil	pottery	post-medieval
4	cut	-	0.77	cut of natural hollow	-	-
5	fill	-	0.21	fill of hollow **4**	-	-
6	fill	-	0.38	fill of hollow **4**	-	-
7	fill	-	0.18	fill of hollow **4**	-	-
8	cut	0.24	0.14	cut of natural rooting	-	-
9	fill	0.24	0.14	fill of rooting **8**	-	-
10	cut	1.08	0.31	cut of natural rooting	-	-
11	fill	1.08	0.31	fill of rooting **10**	flint	-
12	cut	2	0.2	cut of natural rooting	-	-
13	fill	2	0.2	fill of rooting **12**	pottery	Neolithic
14	cut	2.21	0.56	cut of ditch	-	-
15	fill	1.3	0.14	fill of ditch **14**	-	-
16	fill	2.21	0.23	fill of ditch **14**	-	-
17	cut	0.4	0.13	cut of ditch	-	-
18	fill	0.4	0.13	fill of ditch **17**	-	-

APPENDIX B FINDS REPORTS

B.1 Flint

By Lawrence Billington

Introduction

B.1.1 A small assemblage of 17 worked flints and a single fragment (1g) of unworked burnt flint was recovered during the evaluation. The assemblage was derived from the fills of four features and is notable for the very high proportion of blade-based flintwork, much of which is probably of earlier Neolithic date. The assemblage has been fully catalogued and is quantified by context in Table 1.

Trench	Context	Cut	Context type	Sample No	Irregular waste	Secondary flake	Tertiary flake	Secondary blade	Tertiary blade	Leaf-shaped arrowhead	Total worked	unworked burnt count	unworked burnt weight (g)
2	62	61	Ditch						1		1		
2	64	63	Ditch		1		1	3	1		6		
10	22	21	Natural			1	1				2	1	1
14	11	10	Natural						2		2		
14	11	10	Natural	3		2	1		2	1	6		
Totals					**1**	**3**	**3**	**3**	**6**	**1**	**17**	**1**	**1**

Table 1: Flint catalogue

Condition and raw materials

B.1.2 The assemblage is generally in good condition – especially the two larger assemblages from natural feature **10** (Trench 14; eight pieces) and ditch **63** (six pieces), and there is little evidence that any of the material has sustained significant post-depositional damage. Around half of the assemblage displays some recortication ('patination') but this does not appear to be of any chronological significance.

B.1.3 Raw materials are good quality and where cortical surfaces survive, appear to derive from cobbles with a hard and abraded cortex probably derived from local secondary sources of glacio-fluvial gravels.

Characterisation of the assemblage by context

B.1.4 Two features, ditch **61** (Trench 2) and natural feature **21** (Trench 10), produced small assemblages of one and two struck flints respectively. The single worked flint from ditch **61** is a tertiary blade of Mesolithic or earlier Neolithic date, whilst the two flakes from natural feature **21** comprise one decortication flake and one probable axe-thinning flake – the latter very probably of Neolithic date.

B.1.5 A more substantial assemblage of six worked flints was recovered from ditch **63** (Trench 2). This material is made up entirely of unretouched material but includes a very high proportion of blade-based pieces of Mesolithic/earlier Neolithic date. This material is in good condition and appears to represent a coherent assemblage, but its recovery from a ditch suggests it is likely to be residual.

B.1.6 The largest assemblage of flint derived from natural feature **10** (Trench 14), although only two pieces were collected during hand excavation, a further six flints were recovered from the heavy residue of a bulk soil sample <3>. This assemblage is, again, dominated by blade-based material, but also includes the broken proximal end of an invasively retouched arrowhead, which was almost certainly originally of leaf-shaped form. This highly diagnostic piece dates to the earlier Neolithic and, as a whole, the flintwork from this feature is likely to represent a single period assemblage of this date.

Discussion

B.1.7 Although small, the assemblage is remarkable for the high proportion of blade-based material of Mesolithic/earlier Neolithic date – with an absence of demonstrably later (Late Neolithic/Early Bronze Age) material. On the basis of the leaf-shaped arrowhead from natural feature **10**, and the probable thinning flake from natural feature **21**, it seems likely that most, if not all, of this material is of earlier Neolithic date. Much of the assemblage is likely to have been inadvertently incorporated into natural or later archaeological features, deriving from surface scatters of flintwork – although it is possible the coherent assemblage from natural feature **21** was deliberately deposited into a natural hollow/tree throw feature of some kind (cf. Evans *et al* 1999).

B.1.8 As it stands, the assemblage is small and does not allow any detailed characterisation of the activity taking place at the site during the earlier Neolithic. Nonetheless, this material should be seen in the context of larger assemblages of broadly contemporary material recovered from buried soils excavated along the course of the Fordham Bypass (Mortimer 2005) and extensive ploughsoil lithic scatters of Neolithic date on the fen-edge to the north and west (*e.g.* Brown 1996, Gdaniec *et al* 2007) which attest to widespread activity and occupation in the area during this period.

B.2 Prehistoric Pottery

By Nick Gilmour

Introduction

B.2.1 The evaluation yielded two sherds (2g) of prehistoric pottery with a low mean sherd weight (MSW) of 1.0g. The pottery was recovered from two contexts relating to natural feature **12** in Trench 14 and natural disturbance **21** in Trench 10.

Methodology

B.2.2 All the pottery has been fully recorded following the recommendations laid out by the Prehistoric Ceramic Research Group (2011). 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 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, shoulder and/or other diagnostic features, the vessel was categorised by ceramic tradition (*e.g.* Collared Urn, Deverel-Rimbury etc.)

Results and discussion

B.2.3 Only two sherds of prehistoric pottery were recovered. The single sherd from context 22 (fill of natural feature **22**) weighs less than one gramme. It is too small to be certain of the fabric, however, it does contain quartz sand and is not well fired. It appears to be prehistoric in character but cannot be more closely dated.

B.2.4 The second sherd (2g) originated from context 13 (fill of natural feature **12**). This sherd has recently been broken into three pieces. This sherd contains moderate medium (>3mm) flint inclusions, in a sandy clay matrix. The sherd is plain and from the body of a quite a thin-walled vessel (4mm thick). This sherd is not diagnostic. However, the fabric (with flint inclusions) is normally of either Early Neolithic, Late Bronze Age or Early Iron Age date, when found in Cambridgeshire. In the context of the other finds from this site (lithics), it is probable that this sherd is of Early Neolithic date.

B.3 Roman and Post-Medieval Pottery

By Carole Fletcher

Introduction and Methodology

B.3.1 The evaluation produced a single fragment of Roman pottery from Trench 2 and a small assemblage of post-medieval pottery from Trenches 12 and 14. The material from Trenches 12 and 14 was recovered from bucket sieving.

B.3.2 The Prehistoric Ceramics Research Group (PCRG), Study Group for Roman Pottery (SGRP), and The Medieval Pottery Research Group (MPRG), 2016 *A Standard for Pottery Studies in Archaeology* and the MPRG *A guide to the classification of medieval ceramic forms* (MPRG 1998) act as standards. The form of the single Roman sherd recovered is taken from the unpublished classification system for Roman Pottery from Suffolk sites established by Plouviez and others, subsequently used for the type series at Scole (Lyons and Tester 2014, 262-75).

B.3.3 Due to the small size of the assemblage, a simplified method of recording has been undertaken, with fabric, basic description, weight and count recorded in the text. The pottery and archive are curated by OA East until formal deposition or dispersal.

Assemblage

B.3.4 Trench 2, pit **51** produced a single moderately abraded body sherd (0.026kg) from a Roman Sandy Grey ware, Type 5 wide-mouthed jar or bowl. The specific type could not be firmly established, and its date is also broad at 1st-3rd century AD.

B.3.5 Trench 12 produced post-medieval and early modern pottery from the topsoil (3). Firstly, a moderately abraded to abraded sherd from a Post-medieval redware (*c*.1550-1800) jar or bowl (0.008kg), and a fragment from the rim of a Pearlware (*c*.1770-1840) plate or bowl/dish (0.001kg), with internal, blue transfer-printed decoration. The subsoil (2) produced a small, moderately abraded to abraded, externally glazed sherd of Post-medieval redware (0.004kg), possibly from a jar.

B.3.6 Topsoil 3 in Trench 14 produced a sherd from a Post-medieval Redware vessel, internally glazed and abraded; the sherd (0.010kg) may be from the base of a bowl or jar.

Discussion

B.3.7 The Roman sherd is very probably a locally-produced sandy grey ware. Roman metalwork has been recovered to the north-west and pottery to the south of the site (see section 1.3.7-1.3.9). It is possible that the pit from which the pottery was recovered is Roman, although dating the feature from a single sherd of pottery is problematic and a Roman date must be only a suggestion.

B.3.8 The pottery recovered from the topsoil and subsoil may relate to 18th century manuring and reworking by ploughing.

Retention, dispersal or display

B.3.9 If further work is undertaken, the pottery report should be incorporated into any later catalogue. Further work is likely to produce additional Roman and post-medieval pottery, although the sherds would probably be sparsely distributed. If no further work is undertaken, this statement acts as a full record and the sherds may be dispersed prior to archive deposition.

B.4 Clay Tobacco Pipe

By Carole Fletcher

Introduction and Methodology

B.4.1 During the evaluation, a single fragment of white ball clay tobacco pipe was recovered from Trench 10. Simplified recording only has been undertaken, with basic description and weight recorded in the text. Terminology used in this report is taken from Oswald's simplified general typology (Oswald 1975, 37–41), and Crummy and Hind (Crummy 1988, 47-66).

Assemblage

B.4.2 Topsoil (3) in Trench 10 produced a short length (20mm) of moderately abraded, slightly oval clay tobacco pipe stem (1.5g, 8.3 x 7.7mm), with an off-centre bore and trimmed mould seams.

Discussion

B.4.3 The fragment of clay tobacco pipe recovered represents what is most likely a casually discarded pipe and does little, other than to indicate the consumption of tobacco on, or near, the site, sometime after 1600, and up until the 19th century.

Retention, dispersal or display

B.4.4 The assemblage is fragmentary and is of little significance. If no further work is undertaken, this statement acts as a full record and the clay tobacco pipe stem may be deselected prior to archival deposition.

B.5 Ceramic Building Material

By Carole Fletcher

Assemblage

B.5.1 A single abraded fragment of ceramic building material (CBM), weighing 0.009kg, was recovered from the topsoil (3) in Trench 13. The fragment is in a dull red silty fabric with swirls of cream and darker red and has a single partial surface surviving. The fragment is undiagnostic and not closely datable, although it is very probably post-medieval. This small abraded fragment has been heavily reworked, probably by ploughing.

Retention, dispersal or display

B.5.2 The plain and fragmentary nature of the CBM means it is of little interest. However, it does indicate that, if further work is undertaken, CBM is likely to be produced, although only at low levels. Should further work be undertaken, the CBM report should be incorporated into any later archive. If no further work is undertaken, this statement acts as a full record and the CBM may be deselected prior to archival deposition.

APPENDIX C ENVIRONMENTAL REPORTS

C.1 Animal Bone

By Zoë Uí Choileáin

Introduction and Methodology

C.1.1 Nine fragments of recordable animal bone weighing 462g were recovered from the site. The material was recovered from natural features, pits and ditches. All bone was identified using Schmid (1972). Surface preservation was evaluated using the 0-5 scale devised by Brickley and McKinley (2004, 14-15).

Results

C.1.2 The surface condition of the bone on average represents a 2-4 on the scale devised by Brickley and McKinley (2004, 14-15). Most surfaces are masked by erosion and several fragments are so heavily weathered that little information can be gleaned from the material.

Taxon	NISP	NISP %	MNI	MNI %
Cattle (*Bos taurus*)	3	33.33	2	50
Horse (*Equus caballus*)	5	55.55	1	25
Sheep/Goat (*Ovis/Capra*)	1	11.11	1	25
Totals	**9**	**100**	**4**	**4**

Table 2: NISP (Number of identifiable specimens) and MNI (minimum no. of individuals) summary

C.1.3 All nine fragments of bone are identifiable to taxon; cattle, horse and sheep/goat. A minimum number of individuals (MNI) of one is recorded for horse and sheep/goat. Although a higher percentage of horse bone is present, two right cattle radii are recorded giving an MNI of two for this taxon. A single fused proximal cattle radius is present in natural hollow **27** and a fused distal horse metapodial is recorded in ditch **61**. Nothing else of note is present.

Trench	Cut	Context	Feature	Taxon	Element	Count	Weight (g)
10	21	22	natural hollow	cattle (*Bos taurus*)	radius	1	61
9	27	29	natural hollow	cattle (*Bos taurus*)	radius	1	48
2	51	52	pit	horse (*Equus caballus*)	mandible	1	60
2	51	52	pit	horse (*Equus caballus*)	scapula	1	59
6	59	60	depression	horse (*Equus caballus*)	pelvis	1	66
6	59	60	depression	horse (*Equus caballus*)	pelvis	1	83
2	61	62	ditch	horse (*Equus caballus*)	metapodial	1	41
6	35	65	depression	sheep/goat (*Ovis/Capra*)	radius	1	4
6	35	65	depression	cattle (*Bos taurus*)	metatarsus	1	40
Totals						**9**	**462**

Table 3: Total weight, count, taxon and elements present.

Summary and Recommendations

C.1.4 The assemblage is small, highly fragmentary and poorly preserved. There is little other information that can be gleaned from the material.

C.1.5 All material from unphased features is recommended for dispersal.

C.2 Environmental Samples

By Martha Craven

Introduction

C.2.1 Seven bulk samples were taken from features within the evaluated area 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 encountered within Trenches 4, 6, 9, 10 and 14 from deposits that are largely undated.

Methodology

C.2.2 The total volume (up to 20L) of each sample was processed by tank flotation using modified *Sīraf*-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 0.5mm sieves.

C.2.3 The dried flots were scanned using a binocular microscope at magnifications up to x60 and an abbreviated list of the recorded remains is presented in Table 4. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers *et al*. 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

C.2.4 For the purpose of this initial assessment, items such as seeds and cereal grains have been scanned and recorded qualitatively according to the following categories:

= 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

C.2.5 Items that cannot be easily quantified such as charcoal and molluscs have been scored for abundance

+ = occasional, ++ = moderate, +++ = frequent, ++++ = abundant

Results

C.2.6 Preservation of plant remains is by carbonisation and is generally poor to moderate; many of the flots contain rootlets which may have caused movement of material between contexts.

C.2.7 Sample 1, fill 22 of hollow **21** (Trench 10), contained two wheat grains (*Triticum* sp.) and a single grass seed (Poaceae). The other samples from this site did not contain any archaeobotanical remains, except for charcoal.

C.2.8 Most of the samples contained only a small quantity of charcoal, except for Sample 1 which contained 12 millilitres.

C.2.9 The quantity of molluscs in the samples from this site were quite variable. Sample 2 (fill 29 of hollow **27**, Trench 9) and Sample 3 (fill 11 of hollow **10**, Trench 14) contained the largest quantity of relatively well-preserved molluscs.

Trench No.	Sample No.	Context No.	Cut no.	Feature type	Volume processed (L)	Flot Volume (ml)	Cereals	Weed Seeds	Snails from flot	Charcoal volume (ml)	Flint debitage
4	4	40	39	posthole	18	5	0	0	+	<1	0
4	5	42	41	posthole	8	1	0	0	0	<1	0
4	6	44	42	posthole	17	10	0	0	0	<1	0
6	7	60	59	pit	17	1	0	0	+	<1	0
9	2	29	27	hollow	20	25	0	0	++++	<1	0
10	1	22	21	hollow	18	30	#	#	+++	12	0
14	3	11	10	hollow	20	15	0	0	++++	<1	##

Table 4: Environmental samples from the site

Discussion

C.2.10 The recovery of a small quantity of cereal grains, weed seeds, and a moderate amount of charcoal indicates that there is the potential for the preservation of plant remains at this site. The sparse amount of cereal grains and weed seeds recovered from Sample 1 are, unfortunately, not significant but are indicative of human activity. The moderate amount of charcoal from this sample is indicative of the burning of wood for fuel.

C.2.11 If further excavation is planned for this area, it is recommended that environmental sampling is carried out in accordance with Historic England guidelines (HE 2011).

APPENDIX D BIBLIOGRAPHY

Blackbourn, K. 2019. *Land South of Burwell Road, Exning, Suffolk. Archaeological Evaluation Report*. OA East Report 2301 (unpublished)

Blackbourn, K. and Brudenell, M. 2019a. *Land to the Rear of 98 to 118 Mildenhall Road, Fordham. Written Scheme of Investigation*. OA East (unpublished)

Brickley, M., & McKinley, J., (eds.), 2004. Guidelines to The Standard for Recording Human Remains. IFA Paper 7 (Reading: IFA/BABAO)

Brown, A. 1996. Use and non-use: aspects of the prehistoric exploitation of the fen-edge at Isleham. In Hall, D. *The Fenland Project, No. 10: Cambridgeshire Survey, Isle of Ely and Wisbech.* East Anglian Archaeology 79., 202-12

Bunn, D. 2017. *Archaeological Geophysical Survey. Land off Mildenhall Road, Fordham, Cambridgeshire*. Pre-Construct Geophysics Ltd (unpublished)

Cappers, R.T.J, Bekker R.M, and Jans, J.E.A. 2006 *Digital Seed Atlas of the Netherlands*. Groningen Archaeological Studies 4, Barkhuis Publishing, Eelde, The Netherlands. www.seedatlas.nl

Casa Hatton, R. 2001. *Early-Mid Saxon Activity at Land Adjacent to No. 12 Hillside Meadow, Fordham: An Archaeological Evaluation*. CCC Archaeological Field Unit Report A192 (unpublished)

CCC 2017. *Deposition of Archaeological Archives in Cambridgeshire*. Version 2. Cambridgeshire County Council

CHET 2016. *Evaluation Report Guidance*. Cambridgeshire Historic Environment Team

CIfA 2014a. *Code of Conduct*. Chartered Institute for Archaeologists

CIfA 2014b. *Standard and Guidance: Archaeological Watching Briefs*. Chartered Institute for Archaeologists

Connor, A. 2001. *A Middle and Late Saxon Property at Fordham Primary School, Cambridgeshire: An Archaeological Excavation*. CCC Archaeological Field Unit Report 186 (unpublished)

Crummy, N. and Hind, J. 1988. Clay Tobacco Pipes. In N. Crummy. *The post-Roman small finds from excavations in Colchester, 1971-85*. p46-66. Colchester Archaeological Report No 6 Colchester Archaeological Trust

Edwards, N. 2018. *Eastern Plot, Builders Yard, Rear of 3-7 River Lane, Fordham, Cambridgeshire. An Archaeological Evaluation*. Archaeological Solutions Report 5503 (unpublished)

Evans, C., Pollard, J. and Knight, M. 1999. Life in Woods: Tree-throws, 'settlement' and forest cognition. *Oxford Journal of Archaeology* 18: 241-54

Gdaniec, K. 2012. Archaeological Observations at Plot 2, to the rear of 27 Mill Lane, Fordham.

Gdaniec, K, Edmonds, M. and Wiltshire, P. 2007. *A Line Across Land: Fieldwork on the Isleham-Ely pipeline, 1993-4.* East Anglian Archaeology 121. Cambridge: Cambridge Archaeological Unit.

Gilbey, R. 2017. *Land off Mildenhall Road, Fordham, Cambridgeshire. Heritage Desk-Based Assessment*. Pegasus Group Report BIR 5432 (unpublished)

Gurney, D. 2003. *Standards for Field Archaeology in the East of England*. East Anglian Archaeology Occasional Paper 14

Hatton, A. 2001. *Medieval Features at 69 Mill Lane, Fordham. An Archaeological Evaluation*. CCC Archaeological Field Unit Report B083 (unpublished)

HE 2011. *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (2nd edition),* Centre for Archaeology Guidelines

HE 2015. *Management of Research Projects in the Historic Environment (MoRPHE)*. Historic England

Jacomet, S. 2006. *Identification of cereal remains from archaeological sites. (2nd edition*) IPNA, Universität Basel / Published by the IPAS, Basel University.

Lyons, A and Tester, C. 2104. Roman pottery forms. In T. Ashwin and A. Tester. *Romano-British Settlement in the Waveney Valley: Excavations at Scole,1993–4*. EAA Report No 152 Norfolk pp.262-275

Medieval Pottery Research Group. 1998. *A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Group Occasional Paper I

Mortimer, R. 2005. *Neolithic, Bronze, Iron Age and Romano-British occupation along the route of the Fordham Bypass, Fordham, Cambridgeshire. Post excavation assessment*. Cambridgeshire County Council Archaeological Field Unit Report No. 816 (unpublished)

Mould, C. 1999. *Hillside Meadow, Fordham, Cambridgeshire. Archaeological Investigations 1998. Post-Excavation Assessment and Research Design*. BUFAU Report 565 (unpublished)

O'Brien, L. and Gardner, R. 2002. *Land Adjacent to 20 Hillside Meadow, Fordham, Cambridgeshire. An Archaeological Evaluation*. Hertfordshire Archaeological Trust Report 1062 (unpublished)

Oswald, A. 1975. *Clay Pipes for the Archaeologist*. British Archaeological Reports No. 14, Oxford

PCRG 2011. *The Study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication.* Oxford: Prehistoric Ceramics Research Group Occasional Papers 1 and 2 (fourth edition)

PCRG SGRP MPRG. 2016 *A Standard for Pottery Studies in Archaeology*

Revell, T. 2018. *37-55 Mildenhall Road, Fordham, Cambridgeshire: Archaeological Evaluation*. Pre-Construct Archaeology Report

Robinson, B. and Kenney, S. 1996. *Middle Saxon Settlement Remains at Hillside Meadow, Fordham: An Archaeological Evaluation*. CCC Archaeological Field Unit Report (unpublished)

Schmid, E. 1972. *Atlas of Animal Bones* Elsevier Publishing Company

Stace, C. 1997. *New Flora of the British Isles. 2nd edition*. Cambridge University Press

Stewart, G. 2019. *Land Rear of 98 to 118 Mildenhall Road, Fordham. Brief for Archaeological Evaluation*. CCC HET

Sutherland, M. and Wotherspoon, M. 2002. *17 Hillside Meadow, Fordham, Cambridgeshire. An Archaeological Evaluation*. Hertfordshire Archaeological Trust Report 1118 (unpublished)

Wareham, A.F. and Wright, A.P.M. 2002. *Fordham. A History of the County of Cambridge and the Isle of Ely: Volume 10, Cheveley, Flendish, Staine and Staploe Hundreds (North-Eastern Cambridgeshire)*. London, pp. 389-395. British History Online http://www.british-history.ac.uk/vch/cambs/vol10/pp389-395 accessed 16 July 2019

Webster, M. 2017. *Fordham Primary School, Isleham Road, Fordham, Cambridgeshire. Excavation Report and Updated Project Design*. OA East Report 1921 (unpublished)

Zohary, D. and Hopf, M. 2000. *Domestication of Plants in the Old World – The origin and spread of cultivated plants in West Asia, Europe, and the. Nile Valley*. 3rd edition. Oxford University Press

Maps Consulted

British Geological Survey (BGS). 2019. Available: http://mapapps.bgs.ac.uk/geologyofbritain/home.html Accessed 16 July 2019

1809 Plan of the Parish of Fordham Inclosure Map

1887 First Edition Ordnance Survey Map

APPENDIX E SITE SUMMARY DETAILS / OASIS REPORT FORM

Site name: Mildenhall Road, Fordham
Site code: ECB 5919
Grid Reference TL 6397 7070
Type: Evaluation
Date and duration: 8th – 15th July 2019
Area of Site 4.1ha
Location of archive: The archive is currently held at OA East (15 Trafalgar Way, Bar Hill, Cambridgeshire, CB23 8SQ), and will be deposited with Cambridgeshire County Store in due course, under the following accession number: ECB 5919.

Summary of Results: The fourteen trenches revealed medieval or later field strip ditches along with a medieval quarrying pit. Also in the site was a cluster of nine undated postholes, three large natural hollows and a scattering of natural disturbance that contained residual material. The features yielded a very small assemblage of material including pottery, worked flint and animal bone.

Project Details

OASIS Number	oxfordar3-360187
Project Name	Mildenhall Road, Fordham

Start of Fieldwork	8 July 2019	End of Fieldwork	15 July 2019
Previous Work	No	Future Work	-

Project Reference Codes

Site Code	ECB 5919	Planning App. No.	17/00481/OUM
HER Number	ECB 5919	Related Numbers	-

Prompt	NPPF
Development Type	Residential
Place in Planning Process	After outline determination (eg. A a reserved matter)

Techniques used (tick all that apply)

☐ Aerial Photography – interpretation	☐ Grab-sampling	☐ Remote Operated Vehicle Survey
☐ Aerial Photography - new	☐ Gravity-core	☒ Sample Trenches
☐ Annotated Sketch	☐ Laser Scanning	☐ Survey/Recording of Fabric/Structure
☐ Augering	☐ Measured Survey	☒ Targeted Trenches
☐ Dendrochronological Survey	☒ Metal Detectors	☒ Test Pits
☐ Documentary Search	☐ Phosphate Survey	☐ Topographic Survey
☒ Environmental Sampling	☐ Photogrammetric Survey	☐ Vibro-core
☐ Fieldwalking	☐ Photographic Survey	☐ Visual Inspection (Initial Site Visit)
☐ Geophysical Survey	☐ Rectified Photography	

Monument	Period
Ditch	Medieval (1066 to 1540)
Posthole	Uncertain
Pit	Uncertain
-	-
-	-
-	-
-	-

Object	Period
Animal bone	Uncertain
Pottery	Neolithic (- 4000 to - 2200)
Pottery	Roman (43 to 410)
Pottery	Post Medieval (1540 to 1901)
CBM	Post Medieval (1540 to 1901)
Clay tobacco pipe	Post Medieval (1540 to 1901)
Lithics	Early Neolithic (- 4000 to - 3000)

Insert more lines as appropriate.

Project Location

County	Cambridgeshire
District	East Cambridge
Parish	Fordham
HER office	CCC HET
Size of Study Area	4.1ha
National Grid Ref	TL 6397 7070

Address (including Postcode)

Land to the rear of 98 to 118 Mildenhall Road,
Fordham,
Cambridge,
CB7 5NR

Project Originators

Organisation	OA East
Project Brief Originator	CCC HET
Project Design Originator	OA East
Project Manager	Matt Brudenell
Project Supervisor	Robin Webb

Project Archives

	Location	ID
Physical Archive (Finds)	CCC HET	ECB 5919
Digital Archive	OA East	ECB 5919
Paper Archive	CCC HET	ECB 5919

Physical Contents	Present?	Digital files associated with Finds	Paperwork associated with Finds
Animal Bones	☒	☒	☒
Ceramics	☒	☒	☒
Environmental	☒	☒	☒
Glass	☐	☐	☐
Human Remains	☐	☐	☐
Industrial	☐	☐	☐
Leather	☐	☐	☐
Metal	☐	☐	☐

Stratigraphic		☐	☐
Survey		☒	☒
Textiles	☐	☐	☐
Wood	☐	☐	☐
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☒	☒	☒
None	☐	☐	☐
Other	☐	☐	☐

Digital Media

Database	☒
GIS	☒
Geophysics	☐
Images (Digital photos)	☒
Illustrations (Figures/Plates)	☒
Moving Image	☐
Spreadsheets	☐
Survey	☒
Text	☒
Virtual Reality	☐

Paper Media

Aerial Photos	☐
Context Sheets	☒
Correspondence	☐
Diary	☐
Drawing	☐
Manuscript	☐
Map	☐
Matrices	☐
Microfiche	☐
Miscellaneous	☐
Research/Notes	☐
Photos (negatives/prints/slides)	☐
Plans	☐
Report	☒
Sections	☒
Survey	☐

Further Comments

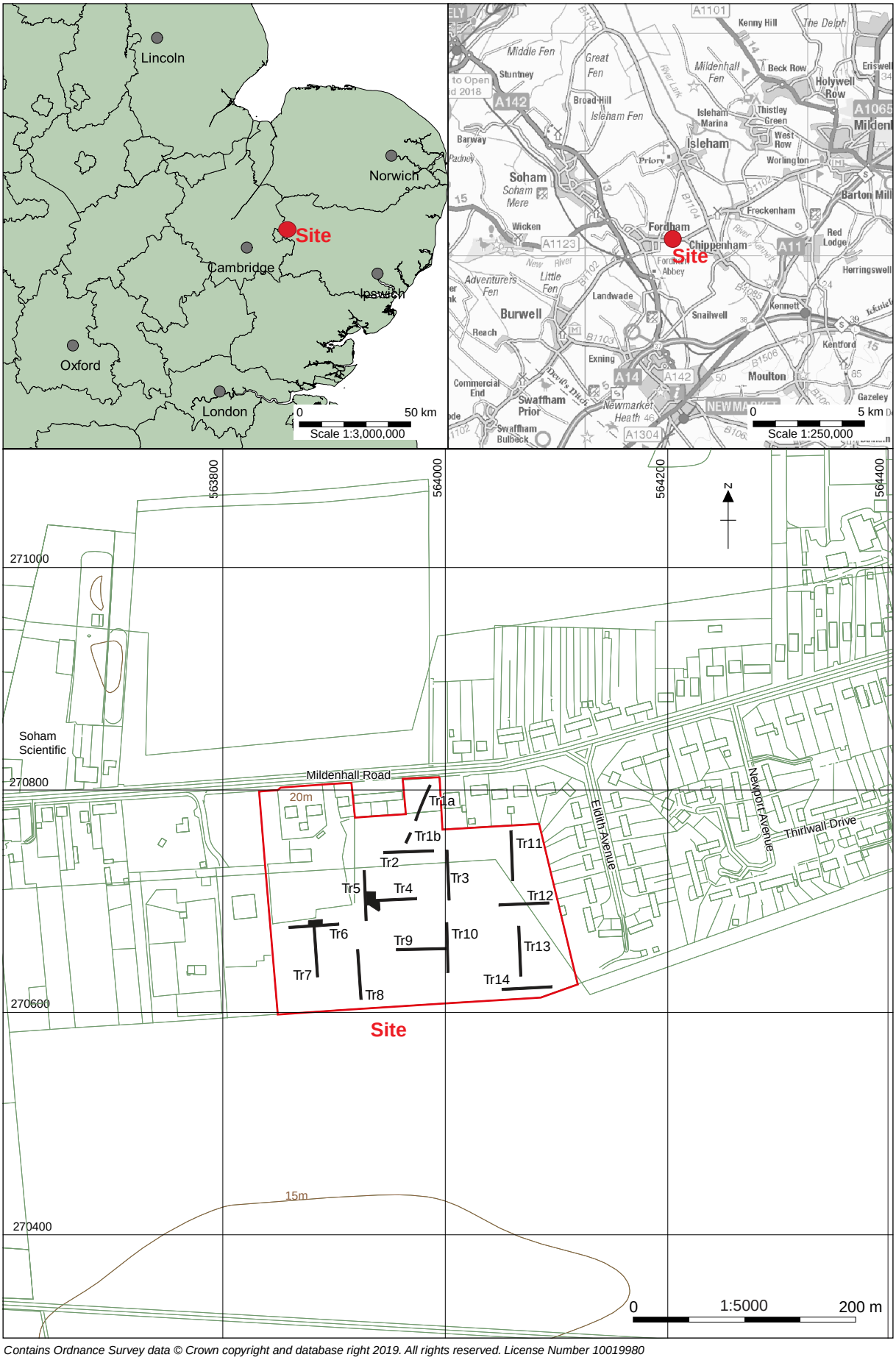


Figure 1: Site location showing archaeological trenches (black) in development area (red)

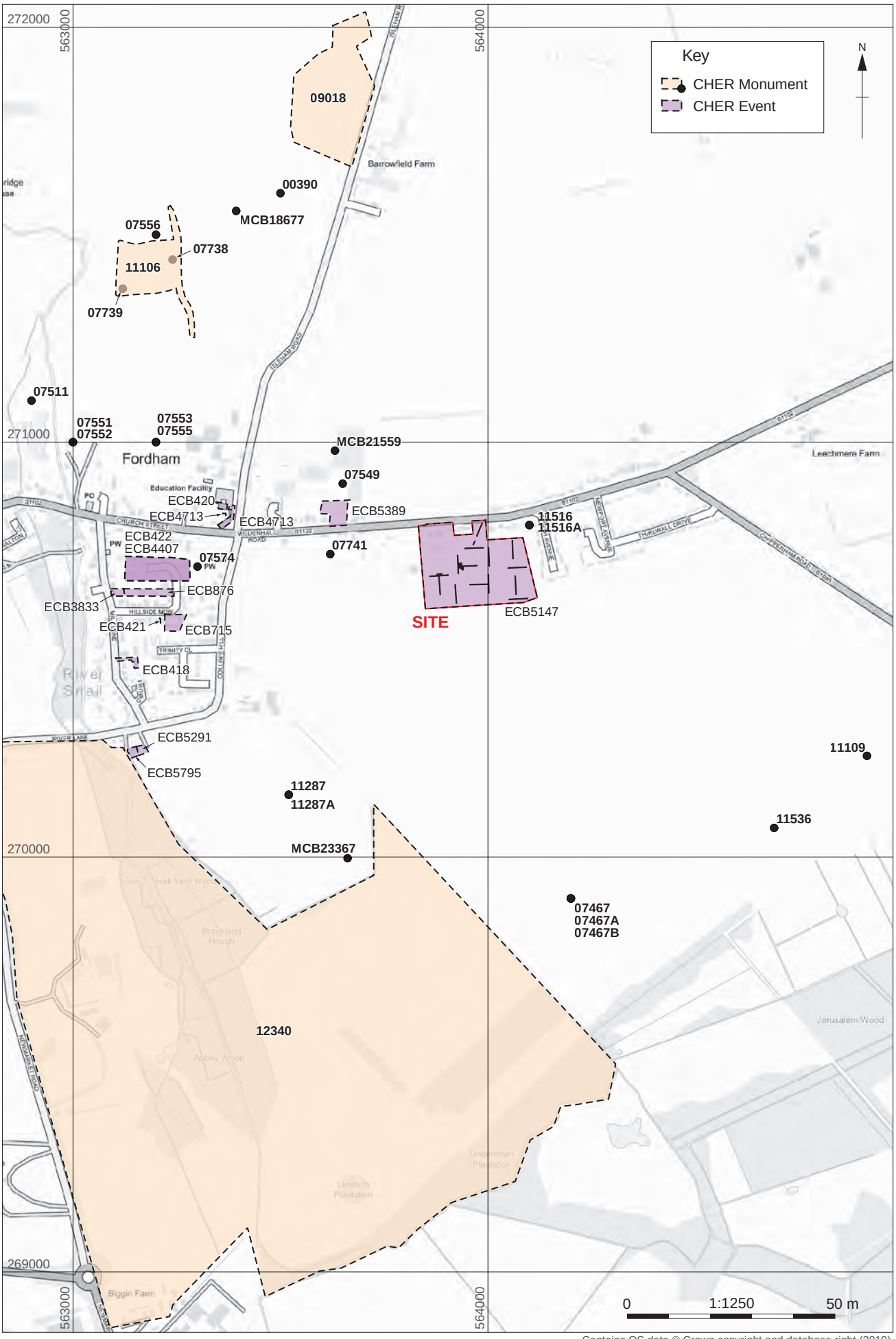


Figure 2: CHER entries mentioned in the text

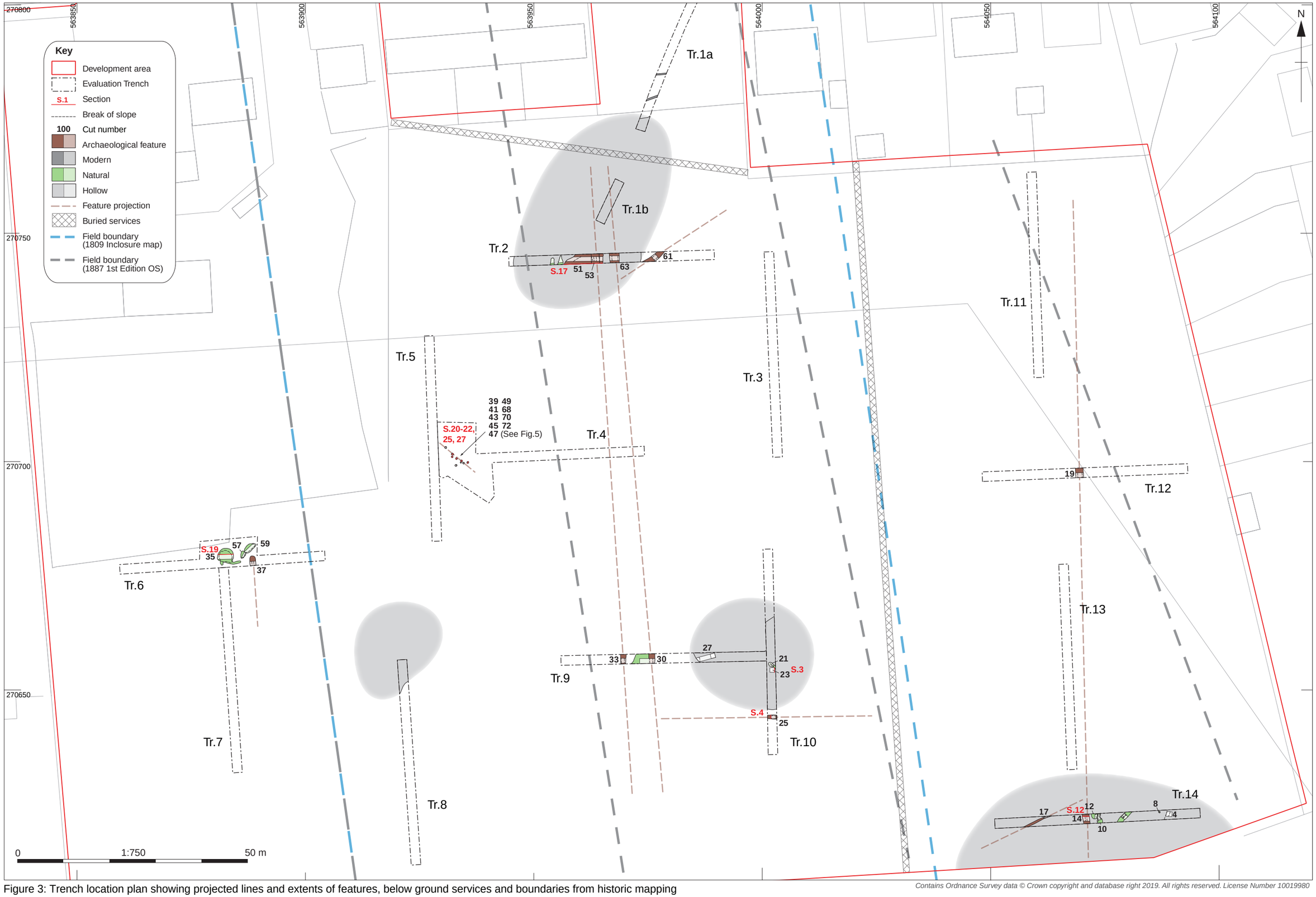


Figure 3: Trench location plan showing projected lines and extents of features, below ground services and boundaries from historic mapping

563940
563960
563980
270780
270760
N
Tr.1a
Tr.1b
Tr.2
S.17
51
53
63
61
0
10 m
Scale 1:200

Key

- Development area
- Evaluation Trench
- S.1 Section
- Break of slope
- 100 Cut number
- Archaeological feature
- Modern
- Natural
- Hollow

Figure 4: Detail of features within Trenches 1 and 2

Figure 5: Detail of features within Trenches 4 and 6

563960 563980 564000 564020

N

270680

Tr.10

270660

33 30 27

Tr.9

21

S.3
23

S.4
25

270640

Key

- Evaluation Trench
- S.1 Section
- Break of slope
- 100 Cut number
- Archaeological feature
- Modern
- Natural
- Hollow

0 10 m
Scale 1:200

Figure 6: Detail of features within Trenches 9 and 10

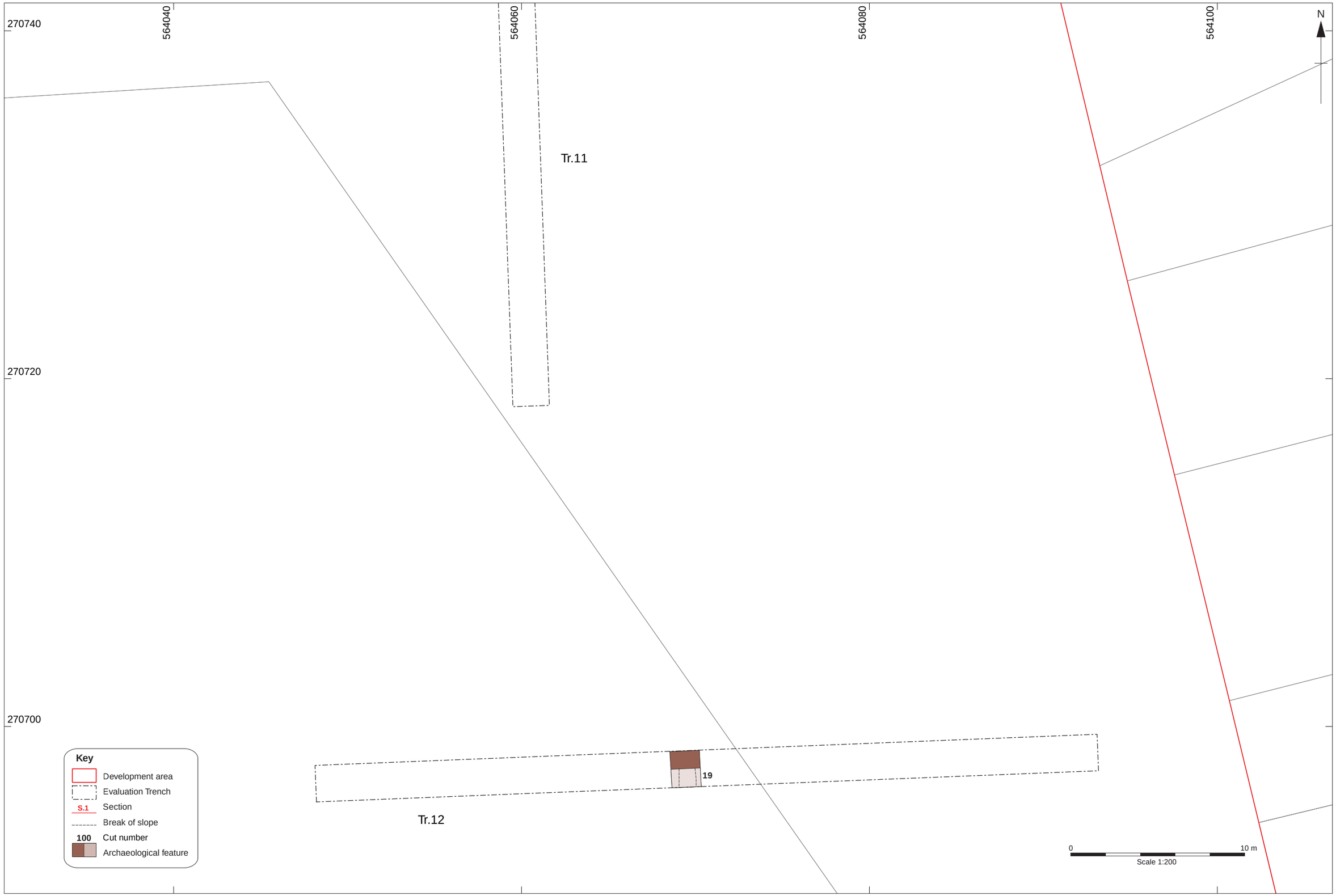


Figure 7: Detail of features within Trenches 11 and 12

564040 564060 564080 564100

N

Key

- Development area
- Evaluation Trench
- S.1 Section
- Break of slope
- 100 Cut number
- Archaeological feature
- Modern
- Natural
- Hollow

270640

Tr.13

Tr.14

S.12

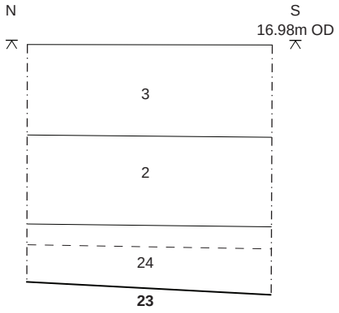
17 14 12 10 8 4

270620

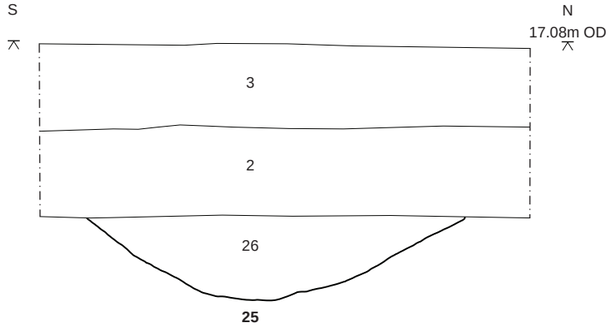
0 10 m
Scale 1:200

Figure 8: Detail of features within Trenches 13 and 14

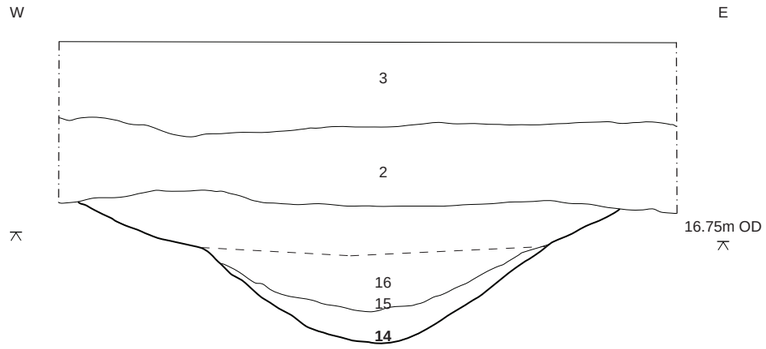
Section 3 Trench 10



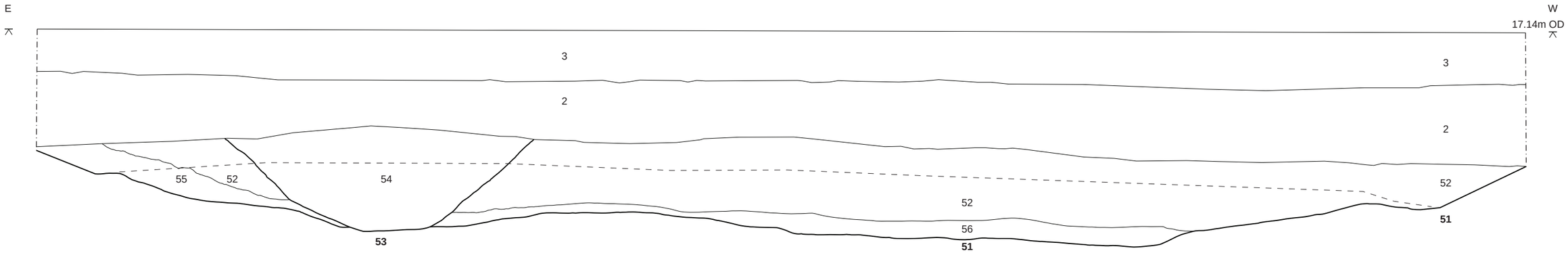
Section 4 Trench 10



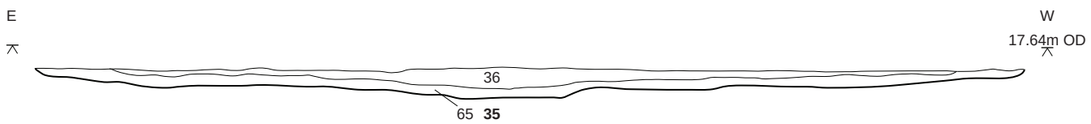
Section 12 Trench 14



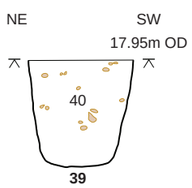
Section 17 Trench 2



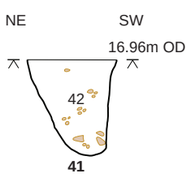
Section 19 Trench 6



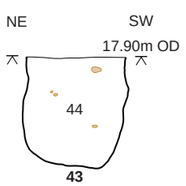
Section 20 Trench 4



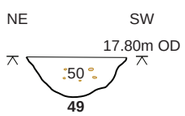
Section 21 Trench 4



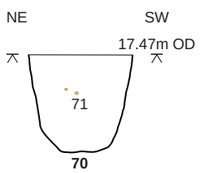
Section 22 Trench 4



Section 25 Trench 4



Section 27 Trench 4



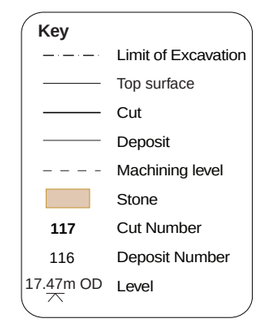


Figure 9: Selected Sections

Figure 10: Trench location plan showing geophysical survey greyscale image of processed data, with interpretation (after Bunn 2017)

Plate 1: Blank trench (Trench 3) showing the natural sand geology with the pale sand variation in the foreground, looking north

Plate 2: Blank trench (Trench 8) showing the variation in the natural geology, with the gravelly sand geology in the foreground and the chalk and sands behind, looking south

Plate 3: North-east to south-west aligned ditch **61** (Trench 2), looking south-west

Plate 4: Posthole grouping **39** (Trench 4), looking south-east

Plate 5: Posthole grouping **39** (Trench 4), 100% excavated, with the setting including the Snail Valley in the distance, looking south

Plate 6: Shallow depressions **35**, **57** and **59** (Trench 6)**,** looking west

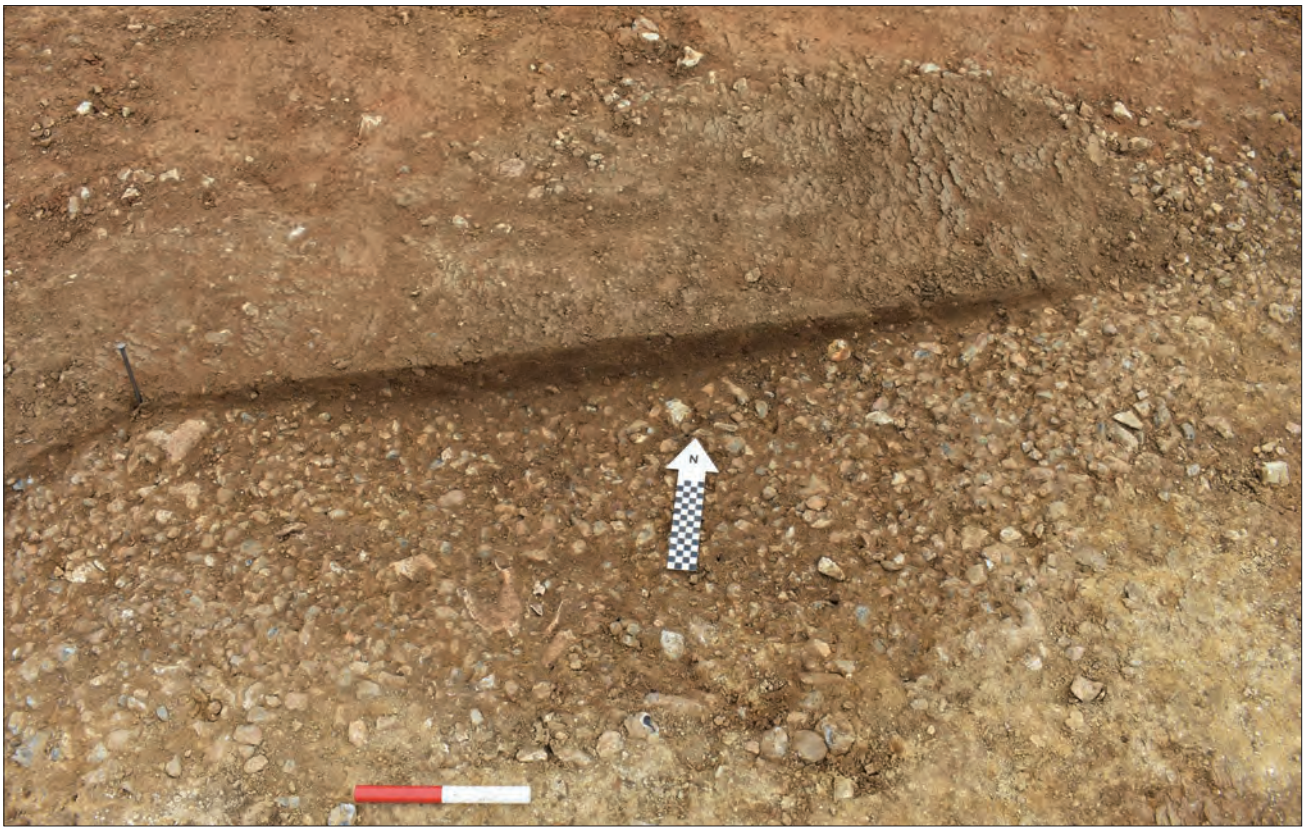


Plate 7: Shallow depression **59** (Trench 6) showing the animal bone in the gravel, looking north

Plate 8: The western edge of natural hollow **23** (excavated as slot **27,** Trench 9), looking south-east

Plate 9: North to south aligned ditch **19** (Trench 12), looking south

Plate 10: Deeper area of natural hollow **4** (Trench 14), looking north

Plate 11: North to south aligned ditch **14** (Trench 14), looking north

oxfordarchaeology

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
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com