Land West of Chitts Hill, Stanway, Colchester, Essex

Archaeological Excavation Report

December 2019

Client: Hopkins Homes Ltd

Issue No: Final
OA Report No: 2373
NGR: TL 9574 2566

oxfordarchaeology

Client Name:	Hopkins Homes Ltd
Client Ref No:.	22969
Document Title:	Land West of Chitts Hill, Stanway, Colchester, Essex
Document Type:	Full Excavation Report
Report No.:	2373
Grid Reference:	TL 9574 2566
Planning Reference:	172049
Site Code:	XEXCHS19
Invoice Code:	XEXCHS19
Event No:	ECC4366
Receiving Body:	Chelmsford Museum/Stores
Oasis No.:	Oxfordar3-376667
OA Document File Location:	X:\Active-Projects_Use-KT\Essex\XEXCHS19_Chitts Hill-Stanway\Project Reports
OA Graphics File Location:	X:\Active-Projects_Use-KT\Essex\XEXCHS19_Chitts Hill_Stanway\Project Data\Graphics\pdf
Issue No:	Final
Date:	December 2019
Prepared by:	Steven Graham (Project Officer)
Checked by:	Dr Matthew Brudenell (Senior Project Manager)
Edited by:	Tom Phillips (Senior Project Manager, Post-Excavation)
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 west of Chitts Hill, Stanway, Colchester, Essex

Archaeological Excavation Report

Written by Steven Graham BA ACIfA

With contributions from Denise Druce BA PhD and Rachel Fosberry ACIfA and illustrations by Dave Brown BA and Gillian Greer BSc

Contents

List of Figures

List of Plates

List of Tables

Summary

In September 2019 Oxford Archaeology East (OA East) carried out archaeological excavations at land to the west of Chitts Hill, Stanway, Colchester, Essex. Two areas were opened up within the proposed 5.77ha residential development, targeting a ring-ditch defined by a previous evaluation undertaken in 2017 and also across the projected line of the presumed Roman (post Boudican) Gryme's Dyke.

Area 1 was a 30m x 30m excavation area centred on the ring-ditch; however, following extensive investigation, the feature was shown not to exist. The only additional archaeological features present were two small charcoal-rich pits, one of which was radiocarbon dated to the Middle-Late Anglo-Saxon period; the pits most probably related to charcoal production.

Area 2 was a 30m x 6m trench across the projected line of Gryme's Dyke, targeting a possible feature identified by geophysical survey. However, the dyke was not present within the excavated area and a linear feature noted in the geophysical survey was most likely a modern drain pipe. The dyke was clearly not present at this location and could possibly have been located to the east, outside of the development area. No further archaeological features or deposits were evident.

Acknowledgements

OA East would like to thank Hopkins Homes for funding and Richard Mortimer of RPS Group for commissioning this work. Thanks are also extended to Jess Tipper who monitored the work on behalf of Colchester Borough Council.

The project was managed for OA East by Dr Matthew Brudenell. The fieldwork was directed by Steve Graham, who was supported by Yerai Francisco Benet, Stephen Foster, Jamie Hurst and Kerree Kendall. Survey and digitising was carried out by Gareth Rees. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the supervision of Natasha Dodwell, processed the environmental remains under the supervision of Rachel Fosberry, and prepared the archive under the supervision of Kat Hamilton.

1 INTRODUCTION

1.1 Scope of work

1.1.1 OA East was commissioned by RPS Group (on behalf of Hopkins Homes Ltd) to undertake an excavation at land west of Chitts Hill, Stanway, Colchester, Essex. (Fig. 1; NGR TL 9574 2566).

1.1.2 The work was undertaken as a condition of Planning Permission (planning ref. 172049). A written scheme of investigation was produced by OA detailing the methods by which OA East proposed to meet the requirements of the brief.

1.1.3 The site archive is currently held by OA East and will be deposited with the appropriate county stores under the HER Event No. ECC4366 in due course.

1.2 Location, topography and geology

1.2.1 The site is located in Stanway, on the north-western fringe of Colchester, west of Chitts Hill road (Fig.1).

1.2.2 The area of proposed development was irregular in shape, approximately 5.77ha in extent, and was in use as an agricultural field divided by a line of mature trees at the time of excavation. It is bounded to the north by the Great Eastern Main Line railway, to the south by Holmwood House School and associated playing fields, to the west by Iron Latch Lane, and to the east by Chitts Hill Road. The site was located *c*. 500m south-west of the River Colne at *c*. 35-41m OD, with the land sloping gently down to the east towards the river valley.

1.2.3 The geology of the area was mapped as Cover Sand, which consists of sand, silt and clay, overlying a Solid geology of London Clay Formation (www.bgs.ac.uk). The two areas of excavation were located on sands and gravels. The topsoil was a dark friable silt clay with occasional gravels, 0.21-0.38m thick. A very thin subsoil (0.1m or less) was noted on the eastern side of the site.

1.3 Archaeological and historical background

1.3.1 The archaeological and historical background (Fig.2) of the site is based on a 1km search of the Essex Historic Environment Record (HER) supplemented by information from available historic maps and other documentary evidence as outlined in the desk-based assessment/WSI (Harrison 2016; Brudenell 2019).

Prehistoric (c. 4000BC – 100BC)

1.3.2 Earlier prehistoric activity in the surrounding landscape is attested by finds of worked flint dating from the Palaeolithic to Neolithic. These have been recovered to the south and north-east of the site (MCC7701; MCC8065; MCC8158; MCC7449; MCC7475; MCC7476). In 1973, a Middle Bronze Age cemetery consisting of seven small barrows was investigated, 650m north-east of the site, close to the River Colne (MCC7286).

1.3.3 A series of cropmarks have been plotted from the site (MCC7715), which form part of a wider complex of linear features recorded from aerial photographs north of

Colchester (*e.g.* MCC7482; MCC7480; MCC7708). Those on the site itself include a ring-ditch with a central pit in the south-central area of the site, and a series of linear features which may relate to a prehistoric or later boundary system (Fig. 2a). The evaluation (Germany 2017) suggested the presence of the ring-ditch and central pit, though these were revealed to be shallow features. A small quantity of undiagnostic burnt bone was recovered from the central pit and was radiocarbon dated to the later Iron Age (BETA-459918, 2050±30 BP; cal 165 BC – AD 20; 95.4%), whilst the ring-ditch yielded fragments of Roman/medieval lava quern. No other features corresponding to the postulated prehistoric boundary system were encountered in the evaluation.

Late Iron Age and Roman (c. 100BC-AD410)

1.3.4 The north section of Gryme's Dyke is projected to run north-south along the eastern boundary of the site (Fig.4), along the line of Chitts Hill road to the River Colne to the north (at New Bridge). This is the western-most boundary in a system of twelve dykes (banks and ditches) believed to have been constructed to define and defend the Iron Age and Roman centres of *Camulodunum.*

1.3.5 Gryme's Dyke is now considered to be one of the later dykes in the system, and is thought to be post-conquest, possibly even post-Boudican (Hawkes and Crummy 1995, 174). However, the dating of the dyke (which may be multi-phased), rests on material recovered from a single (rescue) excavation in the middle section undertaken in 1977 (MCC7465; Hawkes and Crummy 1995, 109-115).

1.3.6 The remains of the dyke in the north section are no longer visible at surface level, though the line is recorded to the north and south of the development area (MCC7463, MCC8204 and MCC8212). Immediately south of the site, observations made in a 'pit' in the 1920s recorded what may have been part of the ditch of Gryme's Dyke (MCC8204).

1.3.7 A broad linear cropmark running north-west to south-east across the west end of the site (marked in Fig.2) was thought to represent part of a Roman road running between Colchester and Cambridge (MCC7715). No features corresponding to the cropmark were found in the evaluation (Germany 2017). However, a section was excavated across the road line immediately west of Iron Latch Lane (MCC7092), and two further sections were excavated across the road *c*. 300m to the south of the site (MCC7093).

1.3.8 The only potential Roman remains found in the evaluation of the site were fragments of lava quern recovered from the supposed ring-ditch (Germany 2017).

Anglo-Saxon and medieval (c.AD410-AD1500)

1.3.9 The line of Gryme's Dyke became the boundary of Stanway parish, suggesting the earthworks were still visible in the Late Saxon and medieval periods. It is also noted that the name Gryme's Dyke is recorded as a place name from the late medieval period onwards (www.essex.ac.uk/history/esah/essexplacenames) and is etymologically of Anglo-Saxon origin.

1.3.10 The site lies beyond the historic core of Stanway. The single Anglo Saxon or medieval record on the HER within the vicinity of the study site, is the site of Lambs Cross, at the junction of Halstead Road and King Ceol Road, southeast of the study site (MCC7515).

Post-medieval and modern (AD1500 onwards)

1.3.11 The earliest historic maps show the site in woodland during the late 18th century (Fig. 3), but by 1808 it had become part of an expansive field system defined by rectilinear boundaries. The north boundary of the site was defined by the construction of the London to Ipswich railway in the 1840s, and the field system layout to its south has remained largely unchanged.

1.3.12 Evaluation of the site revealed two post-medieval ditches. The westernmost ditch aligned east-west in Trench 36 corresponded with a boundary depicted on the Ordnance Survey mapping between 1876 and 1953-1966. A north-east to south-west aligned ditch in Trench 30 corresponded with a boundary marked on the 1808 Stanway parish map and 1839 Stanway Tithe Map, and runs parallel with Iron Latch Lane.

1.4 Previous fieldwork

Geophysical Survey

1.4.1 A magnetometry survey (Harris 2016) identified a north-north-west to south-south-east aligned ditch-like linear anomaly at the eastern end of the site (Fig.5) that coincides with the Stanway parish boundary as shown on historic mapping. The parish boundary correlates with the projected alignment of Gryme's Dyke, which suggests the parish boundary has reused Gryme's Dyke as a boundary feature (Harrison 2016). Two former field boundaries were also detected across the site, along with several other linear anomalies of uncertain origin.

Evaluation

1.4.2 An archaeological evaluation was carried out by at the site by Archaeology South-East in February 2017 (Germany 2017). This was in response to the cropmark evidence and the preceding geophysical survey indicating linear boundary features including a possible Roman road (on the western side of the development area) and also a potential prehistoric barrow.

1.4.3 The evaluation demonstrated a low occurrence of archaeological remains across the site with the majority of features being ether post- medieval or not extant below the ground. There was no indication of the potential Roman road.

1.4.4 The presence of Gryme's Dyke could not be verified by the evaluation due to the location of a possible electric cable running along its line. This proved at excavation to have been a surface water drain.

2 EXCAVATION AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims and objectives were to preserve by record the archaeological evidence contained within the footprint of the development area, prior to construction, and investigate the origins, date, development, phasing, spatial organisation, character, function, status, and significance of the remains revealed, and place these in their local, regional and national archaeological context.

2.2 Regional Research Aims

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

Research and Archaeology: A Framework for the Eastern counties: 1. Resource Assessment (Glazebrook 1997, East Anglian Archaeology Occasional Papers 3);

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

Research and Archaeology Revisited: A Revised Framework for the East of England (Medlycott 2011, East Anglian Archaeology Occasional Papers 24)

2.3 Site Specific Research Objectives

2.3.1 *Area 1*: The ring-ditch - What was the function of the ring-ditch? Was it a funerary monument or a domestic structure (a roundhouse)? Could the ring-ditch be more accurately dated? Did it match the radiocarbon date achieved from burnt bone recovered from the central pit?

2.3.2 *Area 2*: Gryme's Dyke ditch - What were the surviving dimensions of the ditch? When was the ditch constructed? Was there any evidence to suggest the ditch may have been constructed prior to the Roman conquest? Was there any evidence that the ditch was re-cut or maintained? Did the ditch gradually silt up over time, or was it deliberately infilled at any stage in its history? Was the excavation able to yield sufficient material to radiocarbon date the ditch fills and secure an absolute chronology? What was the environment like in the vicinity of the dyke? Could a reconstruction be offered on the basis of environmental samples recovered from the excavation? Could the excavation shed further light on the wider development of Gryme's Dyke and its possible function?

2.4 Additional Research Objectives

2.4.1 Due to the paucity of the results from the excavation, a post-excavation assessment was deemed to be unnecessary. The absence of both the ring-ditch in Area 1 and Gryme's Dyke in Area 2 meant very few, if any of the original research aims and objectives could be answered from the results of the excavation. As such no additional research objectives arose following the excavation.

2.5 Fieldwork Methodology

2.5.1 The methodology followed that outlined in the brief (Tipper 2018) and detailed in the Written Scheme of Investigation (Brudenell 2019).

2.5.2 The overall area of the development site was 6.7ha. Within this, two smaller areas (1 and 2) were targeted on the evaluation results. Area 1 located in the centre of the site, was sub-rectangular in plan and encompassed an area of 786m^2.

2.5.3 Area 2, located in the eastern half of the site, was directly adjacent to the eastern limit of excavation. Area 2 was rectangular in plan, 10.5m in length with a north-east to south-west orientation and encompassed an area of 139m^2. In both areas, the top and sub-soils were machine excavated to the natural soils to expose any archaeological features and deposits.

2.5.4 Machine excavation was carried out by a 360 tracked mechanical excavator using a 1.8m wide flat-bladed ditching bucket under constant supervision of a suitably qualified and experienced archaeologist.

2.5.5 Spoil, exposed surfaces and features were scanned with a metal detector. There were no metal-detected or hand-collected finds that were able to be retained for inspection.

2.5.6 A total of two environmental samples (90L) were taken from the pit features identified in Area 1 for environmental flotation and radiocarbon dating purposes.

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

2.5.8 Ground conditions throughout the excavation were generally good, and the site remained dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology.

2.5.9 Prior to the excavation, two 'live' water mains were identified by the client running across Area 1 in a north-east to south-west alignment. It was agreed with the client, the consultant and the county archaeologist that an area of 0.5m either side of the pipe route would be left unexcavated by machine, in order to avoid any accidental 'machine strike' of the service pipe.

2.5.10 Three modern services were noted running across Area 2 in a north-west to south-east direction. There were two field drainage pipes located 7m from the eastern edge of the excavation area, at a depth of 0.75m and a modern surface water pipe located 9.5m from the eastern edge of the excavation area, which was at a depth of 1.10m.

2.5.11 Site survey was carried out using a survey-grade differential GPS (Lecia 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 excavation are presented below, and include a stratigraphic description of the archaeological remains. Details of all contexts are included in Appendix A and B. There were no finds recovered and the environmental reports are presented in Appendix C.

3.1.2 Cut numbers appear in **bold.**

3.1.3 Site Phasing: Only three datable features were identified during the excavation, these are ascribed to the following periods:

Period 1: Late Iron Age (*c*. 100 BC-AD 43)

Period 2: Anglo-Saxon (*c*. AD 410 – 1066)

Period 3: Modern (*c*. AD 1700 onwards)

3.2 General soils

3.2.1 The natural geology of London Clay Formation was overlain by a clay silt subsoil, which in turn was overlain by topsoil/ploughsoil with an average thickness of 0.35m. In Area 1 the natural clays were overlain by a thin narrow band of clay silt subsoil (51) in general 0.1m thick or less. This was overlain by a topsoil (50) which was 0.3m thick. In Area 2 the topsoil (50) was up to 0.35m thick; there was no subsoil within this part of the site.

3.3 Area 1

3.3.1 Following stripping of topsoil there was no evidence of the ring-ditch identified during the evaluation (Fig.6 and Plate 1). Even when the proposed circumference of the ring-ditch was plotted using data from the evaluation and the area was re-cleaned, there was no physical evidence of the feature. The issue was further compounded by a live modern water service pipe and associated ditch cutting through the area of the ring-ditch (Section 2.5.9).

3.3.2 The evaluation identified five features associated with the ring-ditch; a central pit (**005**) containing two smaller pits (**007** and **009**) and two interventions through the ring-ditch (**003** and **012**). The central pit (**005**) and the two associated smaller pits (**007** and **009**) had previously been fully excavated during the evaluation, therefore it was deemed unnecessary to expose and excavate these features again.

3.3.3 The feature that had been identified as the western extent of the ring-ditch (**003**) was revealed to be a discrete, and slight hollow. This was accordingly re-excavated as pit/hollow **61** (Period 2, see below). The feature that was interpreted in the evaluation as part of the northernmost extent of the ring-ditch (**012**) was located directly over the area of the water service trench. As such, this feature was considered to have been incorrectly interpreted and instead formed part of the mains trench.

Period 1: Iron Age

3.3.4 During the evaluation a small quantity of undiagnostic burnt bone was recovered from the fill of a large pit originally thought to be in the centre of the possible ring-ditch (**22/005**). A fragment of the burnt bone was radiocarbon dated to the later Iron Age (cal 165 BC – AD 20; BETA-459918; 2050±30 BP; cal; 95% probability). No further features of later Iron Age date were identified during the excavation.

Period 2: Anglo-Saxon

3.3.5 Three pits were encountered in the western half of Area 1. Two of these (**53** and **56**) were morphologically similar and both contained charcoal-rich fills. One pit (**56**) was radiocarbon dated to the Middle Anglo-Saxon period. The third pit, or slight hollow (**61**) had been partially excavated during the evaluation (where it was recorded as part of the possible ring-ditch). It was phased as Anglo-Saxon due to fragments of lava quern found within it at the evaluation stage.

3.3.6 Pit **53** (Plate 2) was a circular feature located in the south-western part of Area 1, 4.5m from the western edge of excavation. The pit was 0.6m in diameter and was 0.12m deep, with gently sloping sides and a concave base. The feature contained two fills: an initial fill (54) of mid brown grey silt sand with occasional charcoal flecks that was 0.12m thick, overlain by a very dark brownish grey, charcoal-rich silt sand (55) which was 0.04m thick. Environmental sample <1> contained abundant oak charcoal (Appendix C.1). No datable finds were retrieved from this feature.

3.3.7 Pit **56** was located 5.2m to the north-east of pit **53**. This was also a circular feature with gently sloping sides and a concave base. This pit also contained two fills including a basal fill of very dark brownish grey silt sand (57) containing an abundance of charcoal flecks that was 0.12m thick. This fill was overlain by a mid-grey silt sand (58) that was 0.06m thick. No datable finds were recovered from either fill. Environmental sample <2> from the basal fill contained abundant oak charcoal, a fragment of which was radiocarbon dated to the Middle-Late Anglo-Saxon period (cal AD 773 – AD 937; SUERC-90156; 1178 ± 20 BP; 95% probability).

3.3.8 Pit/hollow **61** (previously investigated as ditch **23/003** in evaluation trench T23) was sub-circular (Plate 3) measuring 0.54m in diameter in 0.13m deep. The pit was U shaped in profile with gradually sloping sides and a concave base. The bulk of the fill was redeposited material from the evaluation; however, there was approximately 40% of the original fill remaining. This was a mid-brown silt sand (62) that contained no finds. During the evaluation, the fill (as 23/004) produced fragments of lava quern of possible Roman to medieval date.

Period 3: Modern

3.3.9 A narrow ditch (**59**) was identified running across the eastern side of Area 1, aligned north-east to south-west. This was steep-sided and U-shaped in profile with a width of 0.24m and was 0.13m deep. The single fill (60) was a sterile silty sand. This feature was interpreted as a modern drainage channel and no further investigation was required.

3.4 Area 2

3.4.1 There was no evidence of Gryme's Dyke within any part of Area 2 (Fig.7), nor of any other archaeological feature except three modern service pipes (as discussed in section 2.5.10). A change in the natural sandy clays corresponded to the most probable location of the dyke. At this location a slot measuring 6m long by 2m wide was hand excavated to a depth of 0.8m in a north-east to south-west direction (Plate 4).

3.4.2 Only natural clays were evident within the hand excavated slot. In discussion with the county archaeologist, further machine excavation was carried out in Area 2 (Plates 5 and 6). The original excavation area was extended by machine for a further 4.5m (total length was 14.5m) and to a depth of 1.5m. There was no indication of any archaeological features following the additional machining.

3.5 Finds and environmental summary

3.5.1 With the exception of a single fragment of modern drain ceramic within Area 2, there were no finds recovered during the excavation.

3.5.2 Bulk samples were taken from two charcoal-rich pits within Area 1 (**53** and **56**). Both samples produced flots that are comprised completely of oak (*Quercus* sp.) charcoal.

4 DISCUSSION

4.1 Area 1

4.1.1 Contrary to both the supposed cropmark evidence and the evaluation results, there was no trace of a ring-ditch in Area 1. The only features recorded were shallow pits and hollows; two uncovered during the excavation (**53** and **56**), a pit/hollow (**61**) mistaken in the evaluation as part of the (non-existent) ring-ditch and three pits excavated during the evaluation (**22/005**, **22/007** and **22/009**).

4.1.2 The largest pit found during the evaluation (**22/005**) was radiocarbon dated to between 165BC and AD20, during the later Iron Age. Considering the proximity of the site to Colchester to the west, it would perhaps be more surprising if there was no activity at all on the site dating from the 1st century BC. However, in the absence of any other evidence from the Iron Age in Area 1, beyond reaffirming the conclusions from the evaluation very little else can be stated.

4.1.3 The abundant oak charcoal in pit **56** provided a Middle-Late Anglo-Saxon radiocarbon date (cal AD 773 – AD 937; SUERC-90156; 1178 ± 20 BP; 95% probability). Pit **53** was clearly similar in terms of morphology and fill, which also contained abundant oak charcoal. The re-excavated pit or hollow (**61**) has been grouped with the other pits; when excavated during the evaluation its fill yielded fragments of lava quern, dated between the Roman and medieval periods. The absence within the excavated area of any other indications of habitation, such as structures, would preclude that these features were domestic (*i.e.* cooking pits) and the most probable interpretation of these features is industrial. It is possible that pit **61** was a natural hollow only 'excavated' as it was thought to represent part of a ring ditch and lava quern fragments were seen on its surface.

4.1.4 The two charcoal pits at Chitts Hill share many of the characteristics of a growing list of similar features across Norfolk, Suffolk and also in Essex, including around Colchester. Notable examples around Colchester include Cuckoo Farm, Myland, where one out of a group of 30 such pits was radiocarbon dated to the Late Iron Age/Early Roman period (Dyson 2015), while an evaluation at Colchester Northern Gateway Sports Hub revealed 24 charcoal-rich pits; two were radiocarbon dated, the first returned a Middle Iron Age date and the second returned a Late Anglo-Saxon/early medieval date (Pooley 2018). In Norfolk charcoal pits have been encountered at several sites on the outskirts of Norwich including Laurel Farm, Beeston St Andrew (Bishop and Proctor 2011), the Norwich Northern Distributor Road (NNDR) excavations (Moan 2018) and at Lodge Farm, Costessey (Firth 2019). The findings from Laurel Farm and NNDR suggest that the pits were utilised for charcoal production and were possibly located underneath charcoal clamps. At NNDR there was also evidence to suggest that charcoal production was linked to iron smithing. The burning process would have consisted of burning ("charring") the wood at a very slow, controlled rate so that the combustion is never allowed to complete and turn the wood into ash. The process would have involved controlling the amount of air in the reaction by covering the clamp in earth. The fact that many of the sites mentioned are clustered around major urban centres including Colchester and Norwich, suggests that the charcoal was being produced to supply these centres.

4.1.5 The environmental samples were comprised completely of mature oak charcoal. It is possible to argue that this is similar to the examples identified at Lodge Farm (Firth 2019) and that the area around Chitts Hill was heavily wooded (possibly with mature oak) during the Anglo-Saxon period and away from cleared areas of settlement and cultivation. The site at Chitts Hill would fit the pattern of a production site, located in a wooded region, where the heavy branchwood (or coppice) was cut (Edlin 1949). It is likely, therefore, that the charcoal producers at Chitts Hill, and many of the other sites in the region had access to large stands of mature oak woodland. The charcoal from Chitts Hill provides tentative evidence for the use of green, unseasoned, wood, which may support a source from recently felled/lopped, or fallen, trees/branches.

4.2 Area 2

4.2.1 The 2016 cart-based magnetometry survey (Harris 2016) indicated a ditch-like feature that correlated with the projected line of Gryme's Dyke (Fig.5). This projection was a continuation of the known Scheduled portion of Gryme's Dyke that had been recorded 850m south of the development area. There was, however, no below ground evidence for any form of ditch or bank feature that would normally be expected from such a substantial feature and the excavation trench in Area 2 did not reveal any archaeology to a depth of 1.2m (Plates 4, 5, 6).

4.2.2 Topographical profiles taken to the north and south of Area 2 show no potential locations for the route of the postulated dyke either to the west or the east of the area excavated (Figs.7&8).

4.2.3 Running across the excavation area was a modern surface drainage pipe with a soakaway located directly to the north of the excavation area and dug into a band of clays which were tested by both hand and machine and proved to be natural. These were the most probable explanations for the anomalous readings obtained from the magnetometry survey.

4.2.4 The current archaeological consensus is that the northern extent of Gryme's Dyke begins 1km north-west of the site at New Bridge before reaching the development Area (Fig.4). The course of the dyke then proceeds a further 2.4 km south-east of the site, before seemingly terminating (at the site of Westlands Country Park). The modern road directly to the south of New Bridge (The Chitts Hill road) was assumed to run along the length of the dyke's levelled rampart with the accompanying ditch noted as a line on a 1933 aerial photograph (Hawkes and Crummy 1995). The ditch ceased to be evident in plan as the course of the dyke ran southwards up Chitts Hill. It was assumed therefore that the course of the dyke continued from the railway line (on the northern edge of the development area) south-south-east until it reached the London Road 650m further to the south-east of the site. The complete absence of evidence of the dyke within the excavation trench leads to the conclusion that either there was a break in the line of the dyke, that the line of the dyke ran to the east of the development area's eastern boundary, or that it terminated closer to the London Road and all potential sightings further north have been erroneous.

4.3 Significance

4.3.1 The Anglo-Saxon pits located in Area 1 are of local significance and can be added to a growing list of features around Colchester and further afield which appear to be related to charcoal production. The complete lack of evidence for Gryme's Dyke in Area 2 is significant in itself and will contribute to the efforts of future excavations in attempting to locate the extant remains of this feature.

5 PUBLICATION AND ARCHIVING

5.1 Publication

5.1.1 A summary report on the excavation will be prepared for the annual round up of sites in the Transactions of the Essex Society for Archaeology and History.

5.2 Archiving, Retention and Dispersal

5.2.1 The site archive (under the HER Event No: ECC4366) will be deposited with Colchester Museum services and comprises a maximum of one bulk finds / document box. The digital archive will be deposited with ADS.

APPENDIX A EXCAVATION CONTEXT INVENTORY

Context	Category	Feature Type	Function	Cut	Filled By	Breadth	Depth	Colour	Fine component	Shape in Plan	Orientation	Profile
50	layer	n/a	Top Soil				0.4	dark grey	silt clay			
51	layer	n/a	Sub Soil				0.1	light grey brown	silt sand			
52	layer	n/a	Natural Soils					Light Red Brown	Sandy Clays			
53	cut	pit	use		54,55	0.6	0.12			sub-circular	n/a	U
54	fill	pit	use	53			0.12	mid brownish grey	silt sand			
55	fill	pit	use	53			0.04	dark brown grey	silt sand			
56	cut	pit	use		57,58	0.84	0.16			circular	n/a	U
57	fill	pit	use	56			0.12	very dark brown grey	silt sand			
58	fill	pit	disuse	56			0.06	mid grey	silt sand			
59	cut	gully	modern drainage		60	0.24	0.13			linear	SW-NE	U
60	fill	gully	backfill	59			0.13	mid brown grey	silt sand			
61	cut	pit	use		62	0.54	0.13			sub-circular	n/a	U
62	fill	pit	backfill	61			0.13	mid grey brown	silt sand			

APPENDIX B EVALUATION CONTEXT INVENTORY

Below is the list of recorded contexts from the 2017 Evaluation by Archaeology South-East (Germany 2017).
Note: each trench was allocated a separate set of numbers.

Context	Trench	Type	Interpretation	Length (m)	Width (m)	Depth (m)	Equivalent To
001	-	Layer	Topsoil	>30	>2	0.21-0.36	50
002	-	Layer	Natural	>30	>2	-	52
004	22	Fill	Fill of **005**	3.38	>1.75	0.24	-
005	22	Cut	Pit	3.38	>1.75	0.24	-
006	22	Fill	Fill of **007**	0.60	0.4	0.26	-
007	22	Cut	Pit	0.60	0.4	0.26	-
008	22	Fill	Fill of **009**	0.63	0.60	0.21	-
009	22	Cut	Pit	0.63	0.60	0.21	-
012	22	Cut	Ditch	2.2	1.15	0.22	-
013	22	Fill	Primary fill of **012**	-	-	0.14	-
014	22	Fill	Secondary fill of **012**	-	-	0.09	-
003	23	Cut	Ditch	>2	1.45	0.20	61
004	23	Fill	Fill of **003**	>2	1.45	0.20	62
004	30	Fill	Secondary fill of **006**	>2	1.77	0.52	-
005	30	Fill	Primary fill of **006**	>2	1.45	0.15-0.35	-
006	30	Cut	Ditch	>2	2.08	0.66	-
004	36	Fill	Fill of **005**	>2	0.90	0.43	-
005	36	Cut	Ditch	>2	0.90	0.43	-

APPENDIX C ENVIRONMENTAL REPORTS

C.1 Environmental Samples

By Rachel Fosberry

Introduction

C.1.1 Bulk samples were taken from two undated charcoal-rich pits with the aim to provide dating for these enigmatic burnt features.

Methodology

C.1.2 The samples were processed by tank flotation using modified Siraff-type equipment for the recovery of preserved plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the sample was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve.

C.1.3 The dried flots were subsequently scanned using a binocular microscope at magnifications up to x 60 and submitted to Denise Druce (OA North) for species identification.

Results

C.1.4 Both samples produced flots that are comprised completely of oak (*Quercus* sp.) charcoal. The residues were devoid of any artefacts.

Sample No.	Context No.	Feature No.	Feature type	Volume processed (L)	Charcoal volume (ml)
1	55	53	pit	18	200
2	57	56	pit	16	350

Table 1: Environmental bulk sample

C.2 The Wood Charcoal

By Denise Druce

Introduction

C.2.1 Two bulk samples taken during the excavations at Chitts Hill, Essex, were subject to charcoal analysis to identify suitable material for radiocarbon dating, and to determine the nature of fuel use at the site. Both samples came from burnt pits, representing probable charcoal production pits (or pit kilns), dated to the Anglo-Saxon period.

Methodology

C.2.2 The samples were processed using standard procedures and a representative amount of >2mm charcoal fragments were fractured to reveal transverse section, which were scanned using a binocular microscope at up to x40 magnification to gauge species/group diversity. The presence of any macrofossils, small round wood, sapwood, and short-lived wood species was noted, for the purpose of providing suitable material for radiocarbon dating. Characteristics, such as possession of tyloses in hardwoods, any insect damage, or radial cracking were also noted as an aid to assessing wood maturity, and condition prior to charring. The results were recorded on an assessment pro-forma, which will be kept with the site archive. Charcoal fragments submitted for radiocarbon dating were fractured to reveal both radial and tangential sections, which were examined under a Meiji incident-light microscope at up to x400 magnification. Identifications were made with reference to Hather (2000), and modern reference material.

Results

C.2.3 The results of the charcoal study are presented in Table 2. Both pits produced reasonably large, well preserved, charcoal assemblages, which comprised mature oak (*Quercus sp*) charcoal. Many of the oak fragments possessed tyloses, a feature more prevalent in mature trees at least 20/25 years in age (Dufraisse *et al* 2017). In addition, many of the observed fragments possessed small radial cracks, which although not conclusive, are considered more prone to occur in green wood during charring (Théry-Parisot and Henry 2012). A fragment of oak charcoal from one of the pits (pit **56**, fill 57) was extracted and submitted for radiocarbon dating (cal AD 773 – AD 937; Appendix F).

Sample no	Context no	Cut No	Flot size, ml	Charcoal
1	55	53	240	Mature oak, common >10 mm fragments, with radial cracking.
2	57	56	380	Mature oak, common >10 mm fragments, with radial cracking.

Table 2: Charcoal from the burnt pits

Discussion

C.2.4 Although the charcoal from both pits may represent *in-situ* or dumped hearth material, the proliferation of similar charcoal-rich pits in the region, especially during

the Anglo Saxon period, indicates fairly intensive activity associated with these features.

C.2.5 The evidence from Norfolk (*e.g.* Bishop and Proctor 2011, Moan 2018) and several other Anglo-Saxon charcoal pit sites in southern Britain, for example, Bradley Stoke, South Gloucestershire and Parnwell Way, Peterborough (Challinor 2011) suggests oak was the favoured wood for charcoal production. This is perhaps not surprising given oak's supreme burning qualities, especially when converted to charcoal (Edlin 1949). Evidence from the continent suggests that prior to *c*. AD 1200 charcoal production was mostly carried out in small pits or pit kilns (Deforce 2018), which involved digging a pit, filling it with stacked wood, and using the excavated earth to insulate and cover the wood whilst being fired (Warren *et al.* 2012). From AD 1200, charcoal was largely produced in above ground mound kilns (Deforce 2018), or, as in Britain, on so-called charcoal burning platforms (Hazell *et al*. 2017).

C.2.6 One of the main industries sustained by charcoal production, certainly by the later medieval period, was iron smelting (Edlin 1949). Indeed, evidence for an earlier, Anglo-Saxon, association of iron working with charcoal production has been discovered at several sites in the region, including NNDR (Moan 2018) and Laurel Farm (Bishop and Proctor 2011), both on the edge of Norwich. However, as Hazell *et al.* (2017) point out, the demands of other smaller scale industries, and domestic and craft-based activities should not be under-estimated. Nor too should the production of charcoal for funerary sites. Charcoal from Anglo-Saxon charcoal-burial sites, including St Oswald's, Gloucester, and St Aldate's, Oxford, comprised assemblages dominated by oak charcoal, including mature trunk and branch wood in the former (Heighway and Bryant 1999, Tyler *et al.* 2001).

C.2.7 Charcoal production sites are ideally located in wooded regions, where the heavy branch-wood (or coppice) was cut (Edlin 1949). It is likely, therefore, that the charcoal producers at Chitts Hill, and many of the other sites in the region had access to large stands of mature oak woodland. Indeed, based on the present evidence, it appears that Anglo-Saxon charcoal production in Norwich, and other areas in southern Britain, indicates little pressure on existing woodland cover, which may manifest as evidence for active woodland management in the form of coppicing. It is possible, of course, that the wood used for the charcoal production represents offcuts derived from other important industries such as timber manufacture, however, it is not possible to prove this on the present evidence. The charcoal from Chitts Hill provides tentative evidence for the use of green, unseasoned, wood, which may support a source from recently felled/lopped, or fallen, trees/branches.

C.2.8 The evidence from Norwich indicates that the use of pit kilns for charcoal production had ceased by the Late Saxon or post-Norman conquest periods (Moan 2018). It is not clear why this was the case; however, a decrease in charcoal demand and/or dwindling supplies of mature oak woodland may have been driving factors.

APPENDIX D ASSOCIATED FINDS AND SITE GAZETTEER

Below is a table of relevant sites and finds within a 1km radius of the site as referred to in the report text (see Fig.2 for locations).

HER Number	Description	Location	Period
MCC7092	Roman Road section at Iron latch lane	TL 953 255	Roman
MCC7093	Roman road sections at Iron latch lane	TL 958 252	Roman
MCC7449	Polished flint axe	TL 96 25	Neo-BA
MCC7463	Triple Dyke section (Shrub End Dyke)	TL 965 248	Iron Age
MCC7464	Grymes Dyke	TL 959 240	Roman
MCC7465	Grymes Dyke	TL 959 232	Iron Age
MCC7475	Chitts Hill-Worked flint	TL 958 265	Mesolithic
MCC7476	Chitts Hill-Worked flint	TL 958 265	Neo-BA
MCC7480	Chitts Hill-Rectangular enclosure and ditch	TL 958 263	Iron Age
MCC7482	Cropmarks	TL 960 262	No Date
MCC7515	Lamb Cross	TL 959 252	Anglo-Saxon
MCC7701	Prehistoric Axe	TL 960250	Palaeolithic
MCC7708	Cropmarks	TL 962 254	No Date
MCC7715	Cropmarks	TL 956 256	No Date
MCC8065	Flint tool	TL 958 251	Palaeolithic
MCC8158	Prehistoric pick	TL 959 251	No Date
MCC8204	Grymes Dyke	TL 948 256	Roman
MCC8212	Grymes Dyke	TL 958 258	Roman

Table 3: HER Gazetteer

APPENDIX E BIBLIOGRAPHY

Bishop, B. and Proctor, J., 2011, *Settlement, Ceremony and Industry on Mousehold Heath. Excavations at Laurel Farm (Phase II) Broadland Business Park, Thorpe St. Andrew, Norfolk.* PCA Monograph 13

Brudenell, M., 2019, *Land West of Chitts Hill, Stanway, Colchester*, Written Scheme of Investigation. OA East.

Challinor, D., 2011, 'The charcoal' in A. Simmonds, 'Prehistoric, Roman, and Anglo-Saxon activity at Willow Brook Centre, Bradley Stokes, South Gloucestershire', *Trans. Bristol & Gloucestershire Arch Soc*, 129, 11-35

Deforce, K., Vanmontfort, B. and Vandekerkhove, K., 2018, 'Early and High Medieval (c. 650 AD–1250 AD) Charcoal Production and Its Impact on Woodland Composition in the Northwest-European Lowland: A Study of Charcoal Pit Kilns from Sterrebeek (Central Belgium)', *Environmental Archaeology*, https://doi.org/10.1080/14614103.2018.1538087. Accessed 22/11/2019

Dufraisse, A., Coubray, S., Girardclos, O., Dupin, A. and Lemoine, M., 2017, 'Contribution of tyloses quantification in earlywood oak vessels to archaeological charcoal analyses: Estimate of a minimum age and influences of physiological and environmental factors', *Quaternary Online*, DOI: 10.1016/j.quaint.2017.03.070. Accessed 27/4/2017

Dyson, A., 2015, *Archaeological Investigations, Cuckoo Farm Park and Ride, Myland, Colchester, Essex: Post-Excavation Assessment and Updated Project Design Report*. Archaeology South-East Report No. 2015045

Edlin, H.L., 1949, *Woodland crafts in Britain*, London

Firth, D. and Billington, L., 2019, *Lodge Farm, Costessey, Norfolk (Phase 2)*. OA East Unpublished report 2292

Gale, R., 1998, *Cathedral Close, Exeter: Charcoal Samples for Radiocarbon Analysis*, Andover

Germany, M., 2017, *Land at Chitts Hill, Stanway, Colchester, Essex*. Archaeological Evaluation Report 2017129. Archaeology South-East

Hather, J.G., 2000, *The identification of the Northern European Woods*, London

Harris, C., 2016, *Geophysical Survey Report MSTL63 of Chitts Hills, Stanway, Essex*. Magnitude Surveys.

Harrison, C., 2016, *Land off Chitts Hill, Stanway, Essex. Archaeological Desk Based Assessment*. CgMs Ref: MF/CH/22520/01.

Hawkes C.F.C. and Crummy P., 1995, Colchester Archaeological report 11: *Camulodunum 2*. Colchester Archaeological Trust.

Hazell, Z., Crosby, V., Oakey, M., and Marshall, P., 2017, 'Archaeological investigation and charcoal analysis of charcoal burning platforms, Barbon, Cumbria, UK', *Quaternary International*, 458, 178-199

Heighway, C., and Bryant, R., 1999, *The Golden Minster: The Anglo-Saxon minster and later medieval priory of St Oswald at Gloucester*, York: Council for British Archaeology

Moan, P., 2018, *Norwich Northern Distributor Road, Norfolk. Archaeological Excavation Report*. OA East report 2100

Pooley, L., 2018, Archaeological evaluation at Colchester Northern Gateway Sports Hub, Plots 2-3, east of Colchester Park and Ride, Mile End, Colchester, Essex. Colchester Archaeological Trust Report 1219

Théry-Parisot, I. and Henry, A., 2012, 'Seasoned or green? Radial cracks analysis as a method of identifying the use of green wood as fuel in archaeological charcoal', *Jnl of Arch Science*, 39, 381-388

Tipper, J., 2018, *Brief for Archaeological Excavation at Chitts Hill, Stanway, Colchester*. Colchester Borough Council.

Tyler, R., A. Boyle and D. Challinor, 2001, 'Archaeological investigations during refurbishment of St Aldate's Church, Oxford'. *Oxoniensia*, 66, 369-410

Warren, G., McDermott, C., O'Donnell, L. and Sands, R., 2012, 'Recent excavations of charcoal production platforms in the Glendalough valley, C. Wicklow', *The Journal of Irish Archaeology*, Vol 21, 85-112

APPENDIX F RADIOCARBON DATING CERTIFICATE

Scottish Universities Environmental Research Centre
Rankine Avenue, Scottish Enterprise Technology Park, East Kilbride, Glasgow G75 0QF, Scotland, UK
Director: Professor F M Stuart Tel: +44 (0)1355 223332 Fax: +44 (0)1355 229898 www.glasgow.ac.uk/suerc

RADIOCARBON DATING CERTIFICATE

20 November 2019

Laboratory Code	SUERC-90156 (GU53601)
Submitter	Zoe Ui Choileain Oxford Archaeology East 15 Trafalgar Way Bar Hill Cambridgeshire CB23 8SQ
Site Reference	XEXCHS19
Context Reference	57
Sample Reference	2
Material	Charcoal fragment : Quercus sp
$\delta^{13}C$ relative to VPDB	-25.9 ‰
Radiocarbon Age BP	1178 ± 20

N.B. The above ^{14}C age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

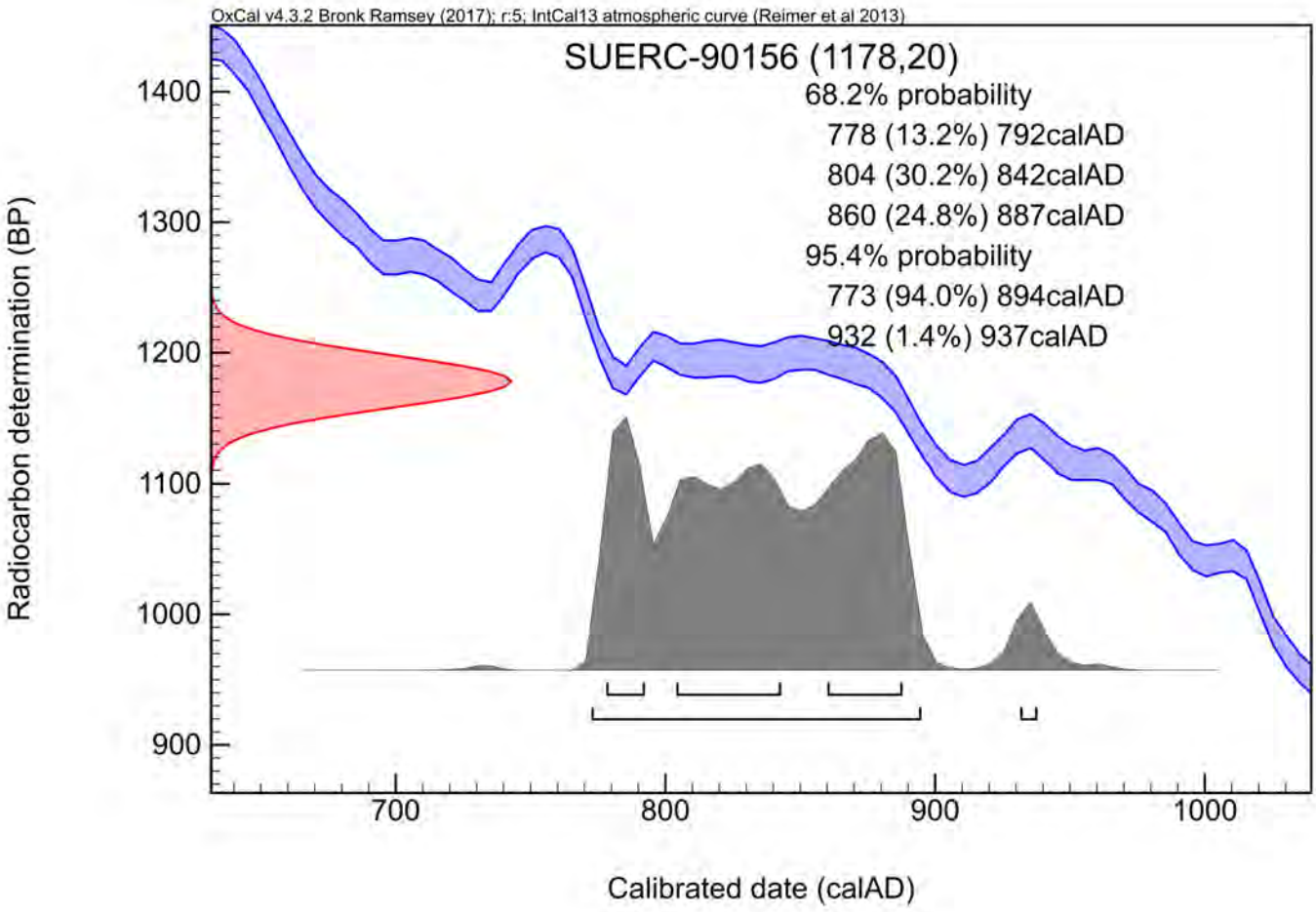
Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon 58(1) pp.9-23.*

For any queries relating to this certificate, the laboratory can be contacted at suerc-c14lab@glasgow.ac.uk.

Conventional age and calibration age ranges calculated by :

Checked and signed off by : E. Dunbar



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

* Bronk Ramsey (2009) *Radiocarbon 51(1) pp.337-60*
† Reimer et al. (2013) *Radiocarbon 55(4) pp.1869-87*

APPENDIX G OASIS REPORT FORM

Project Details

OASIS Number	Oxfordar3-376667
Project Name	Land West of Chitts Hill, Stanway, Colchester

Start of Fieldwork	02/09/2019	End of Fieldwork	20/09/2019
Previous Work	no	Future Work	no

Project Reference Codes

Site Code	XEXCHS19	Planning App. No.	172049
HER Number	ECC4366	Related Numbers	

Prompt	Direction from local Planning Authority
Development Type	Residential
Place in Planning Process	After full determination (eg. As a condition)

Techniques used (tick all that apply)

☐ Aerial Photography – interpretation	☒ Open-area excavation	☐ Salvage Record
☐ Aerial Photography - new	☐ Part Excavation	☐ Systematic Field Walking
☐ Field Observation	☐ Part Survey	☐ Systematic Metal Detector Survey
☒ Full Excavation	☐ Recorded Observation	☐ Test-pit Survey
☒ Full Survey	☐ Remote Operated Vehicle Survey	☐ Watching Brief
☒ Geophysical Survey	☐ Salvage Excavation	

Monument	Period	Object	Period
Pits	Early Medieval (410 to 1066)	none	None
Pits	Late Iron Age (-100 to 43)		Choose an item.
	Choose an item.		Choose an item.

Insert more lines as appropriate.

Project Location

County	Essex
District	Colchester
Parish	Stanway
HER office	Colchester Borough Council
Size of Study Area	5.77 ha
National Grid Ref	TL 9574 2566

Address (including Postcode)

Land West of Chitts Hill, Stanway, Colchester, CO3 0JR

Project Originators

Organisation	OA East
Project Brief Originator	Jess Tipper
Project Design Originator	Dr Matthew Brudenell
Project Manager	Dr Matthew Brudenell
Project Supervisor	Steve Graham

Project Archives

	Location	ID
Physical Archive (Finds)	Colchester Museum Services	ECC4366
Digital Archive	OA East	XEX CHS19
Paper Archive	Colchester Museum Services	ECC4366

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

APPENDIX H ESSEX HER SUMMARY SHEET

Site name/Address: Land west of Chitts Hill, Stanway, Colchester, Essex	
Parish: Stanway	***District:*** Colchester
NGR: TL 9574 2566	***Site Code:*** XEXCHS19
Type of Work: Excavation	***Site Director/Group*** Steve Graham, Oxford Archaeology East
Date of Work: 2nd-20th September 2019	***Size of Area Investigated:*** 1080m^2
Location of Finds/Curating Museum: Colchester Museum Services	***Funding source:*** Developer funded, Hopkins Homes Ltd
Further Seasons Anticipated?: No	***Related HER Nos:*** NA
Final Report: Graham, S., 2019, Land west of Chitts Hill, Stanway, Colchester, Essex. Archaeological Excavation. Oxford Archaeology East Report no. 2373.	
Periods Represented: None	
SUMMARY OF FIELDWORK RESULTS: Two areas were opened up within the proposed 5.77ha residential development, targeting a ring-ditch defined by a previous evaluation undertaken in 2017 and also across the projected line of the Roman (post Boudican) Gryme's Dyke. Area 1 was a 30m x 30m excavation area centred on the ring-ditch; however, despite extensive investigation, there was no indication of the ring-ditch. The only additional archaeological features present were two small charcoal-rich pits, one of which was radiocarbon dated to the Middle-Late Anglo-Saxon period. These were in addition to a pit previously investigated in the evaluation; the pits most probably related to charcoal production. A further three pits investigated during the evaluation were radiocarbon dated to the later Iron Age and therefore unrelated to the pits investigated in the excavation. Area 2 was a 30m x 6m trench across the projected line of Gryme's Dyke, targeting a possible feature identified by geophysical survey. However, the dyke was not present within the excavated area and a linear feature noted in the geophysical survey was most likely a modern drain pipe. The dyke was either not extant at this location or was possibly located to the east, outside of the development area. No further archaeological features or deposits were evident.	
Previous Summaries/Reports: NA	
Author of Summary: Steve Graham	***Date of Summary:*** 13/12/2019

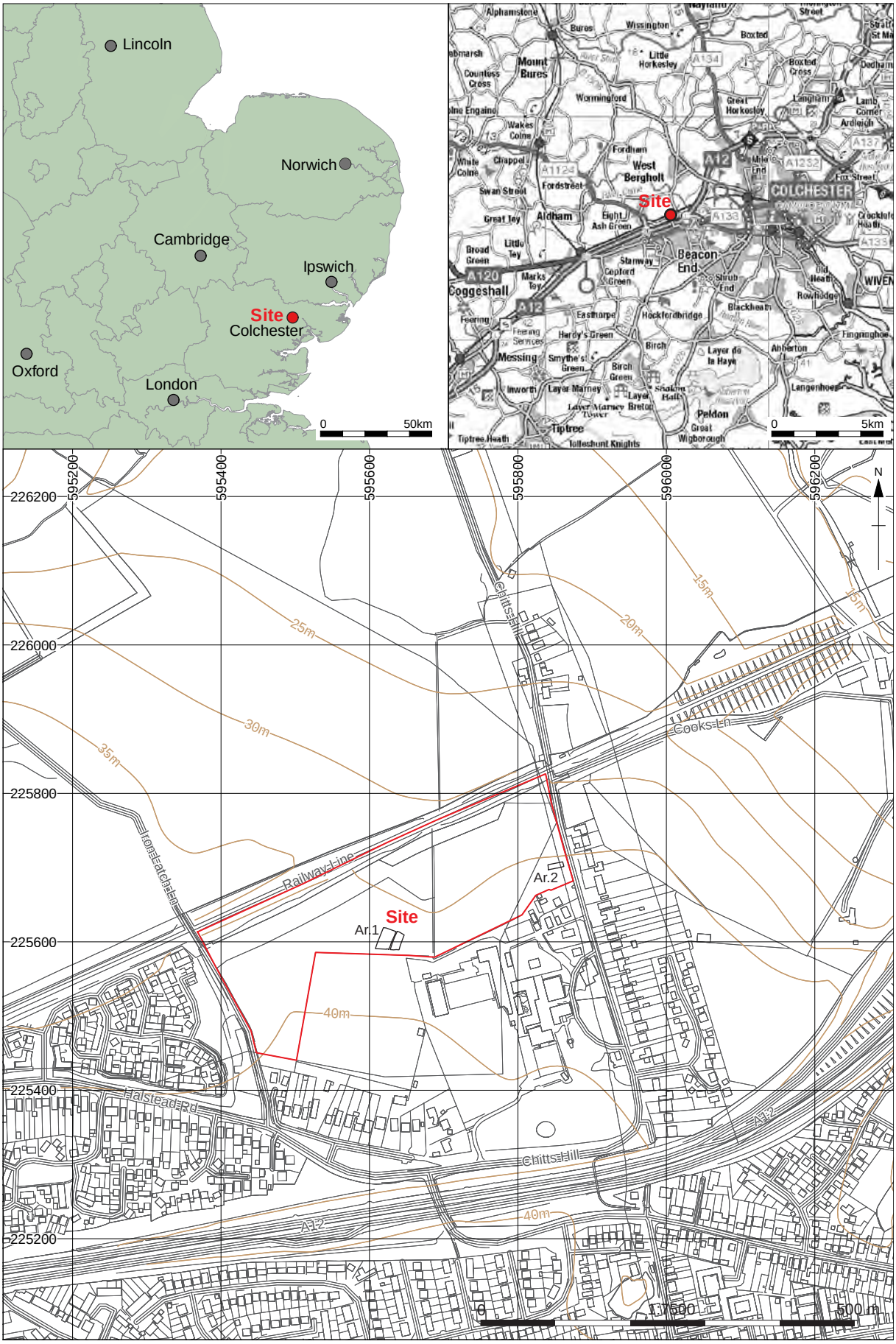
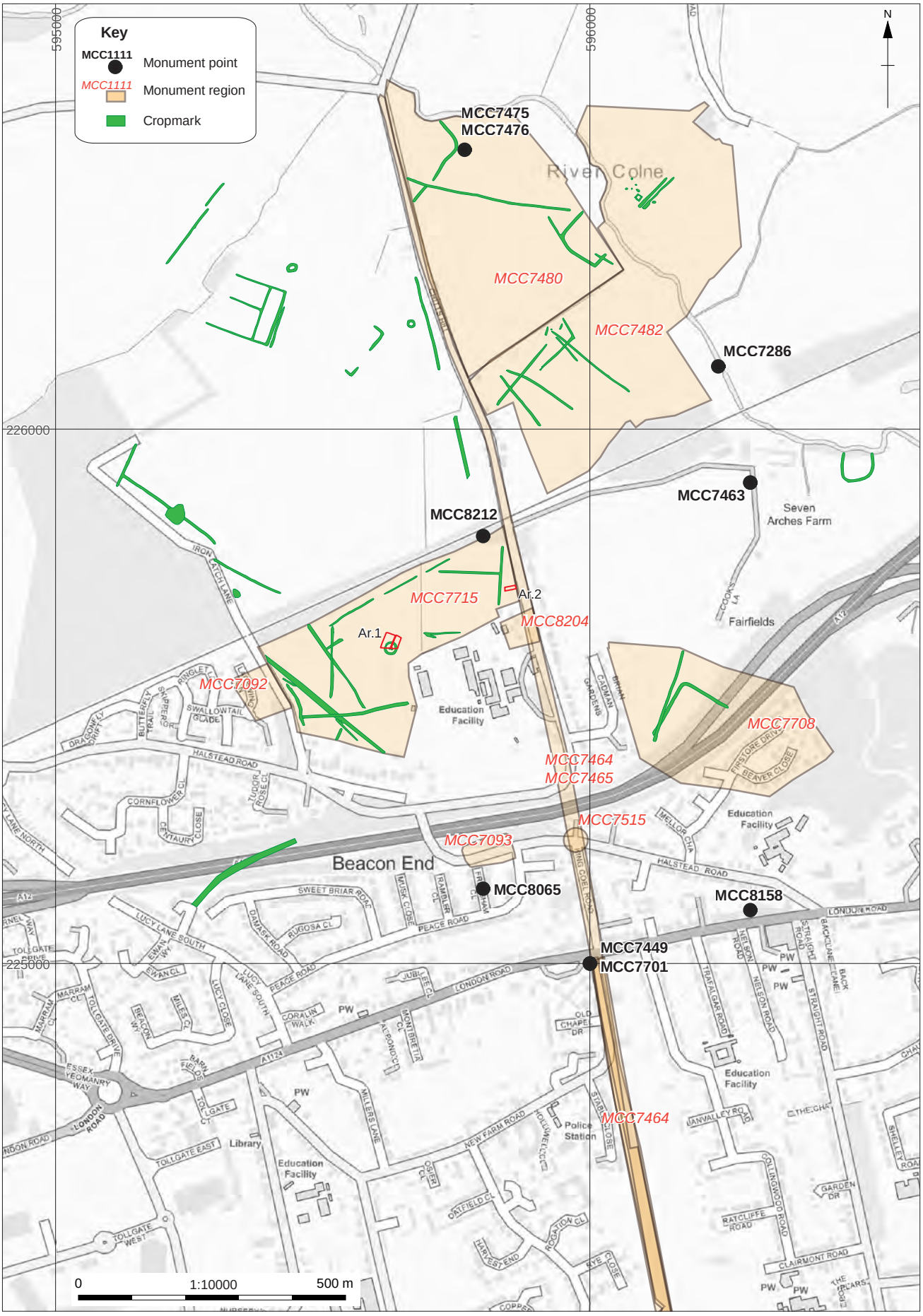


Figure 1: Site location showing excavation areas (black) in development area (red)



Contains Ordnance Survey data © Crown copyright and database right 2019

Figure 2: HER entries

Figure 2a: Elevation model with cropmarks overlaid (black)

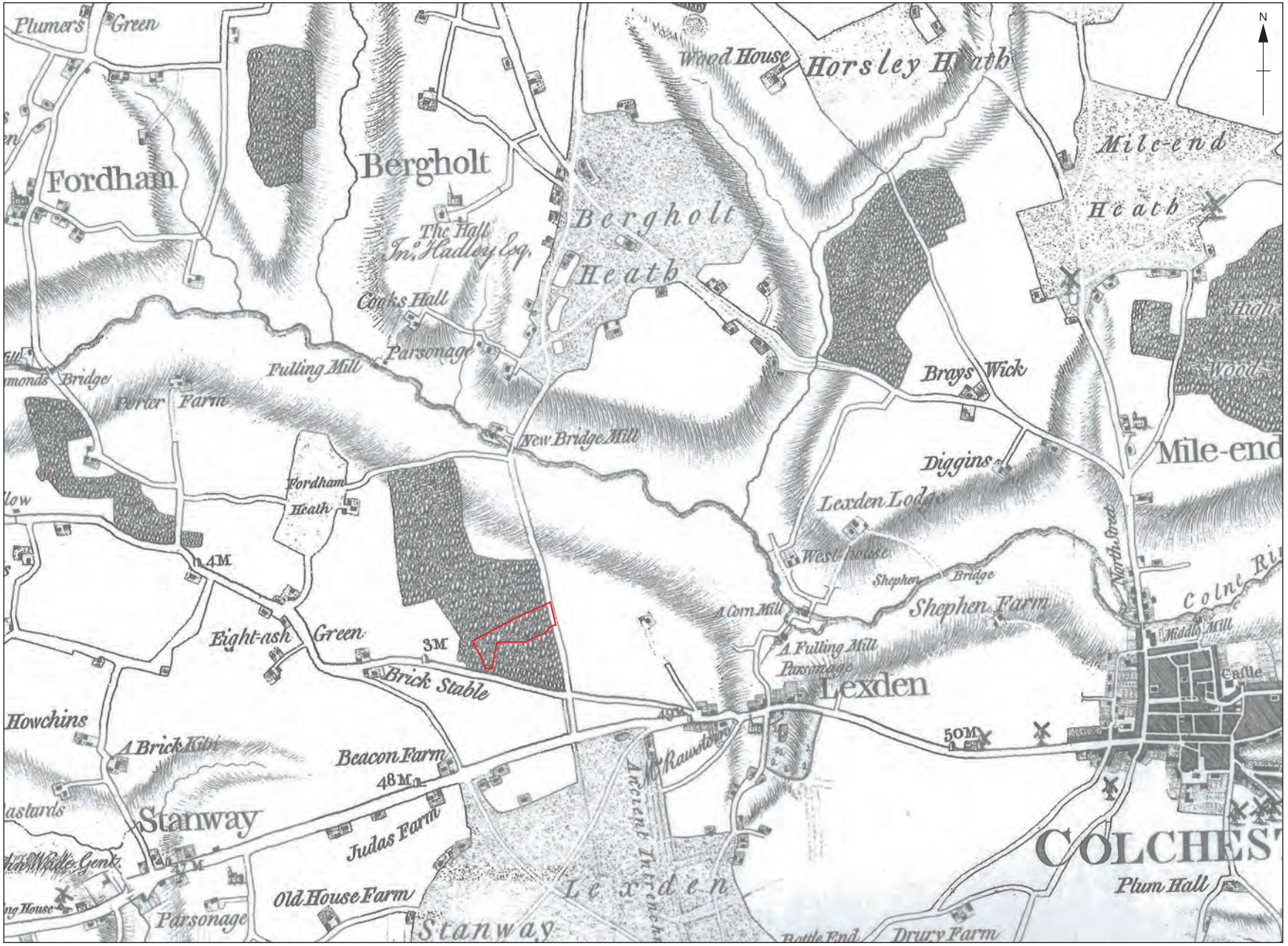


Figure 3: Site location (red) on 1777 Chapman and Andre Map

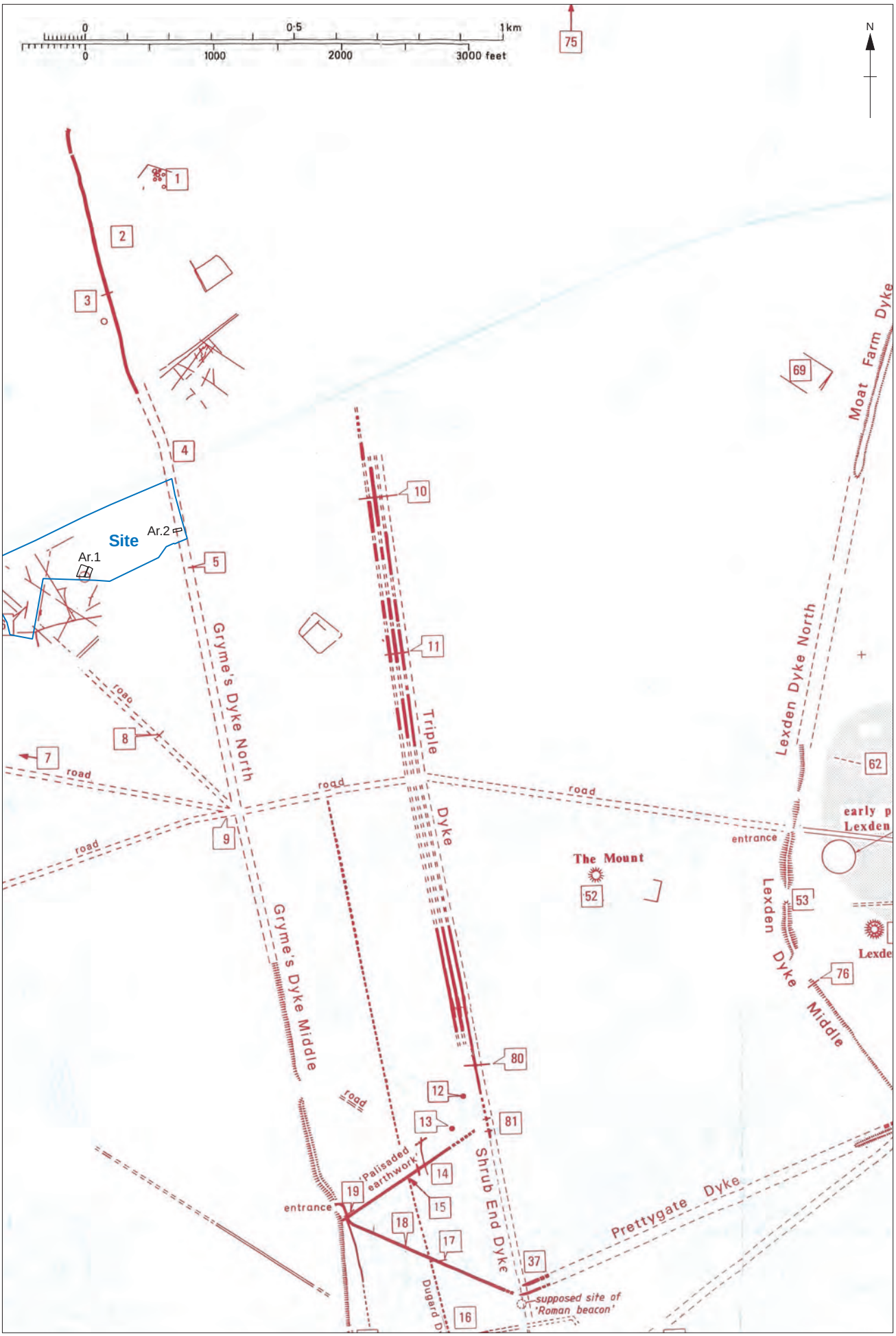


Figure 4: Site location (blue) in relation to position of Grymes Dyke (after Hawkes & Crummy 1995)

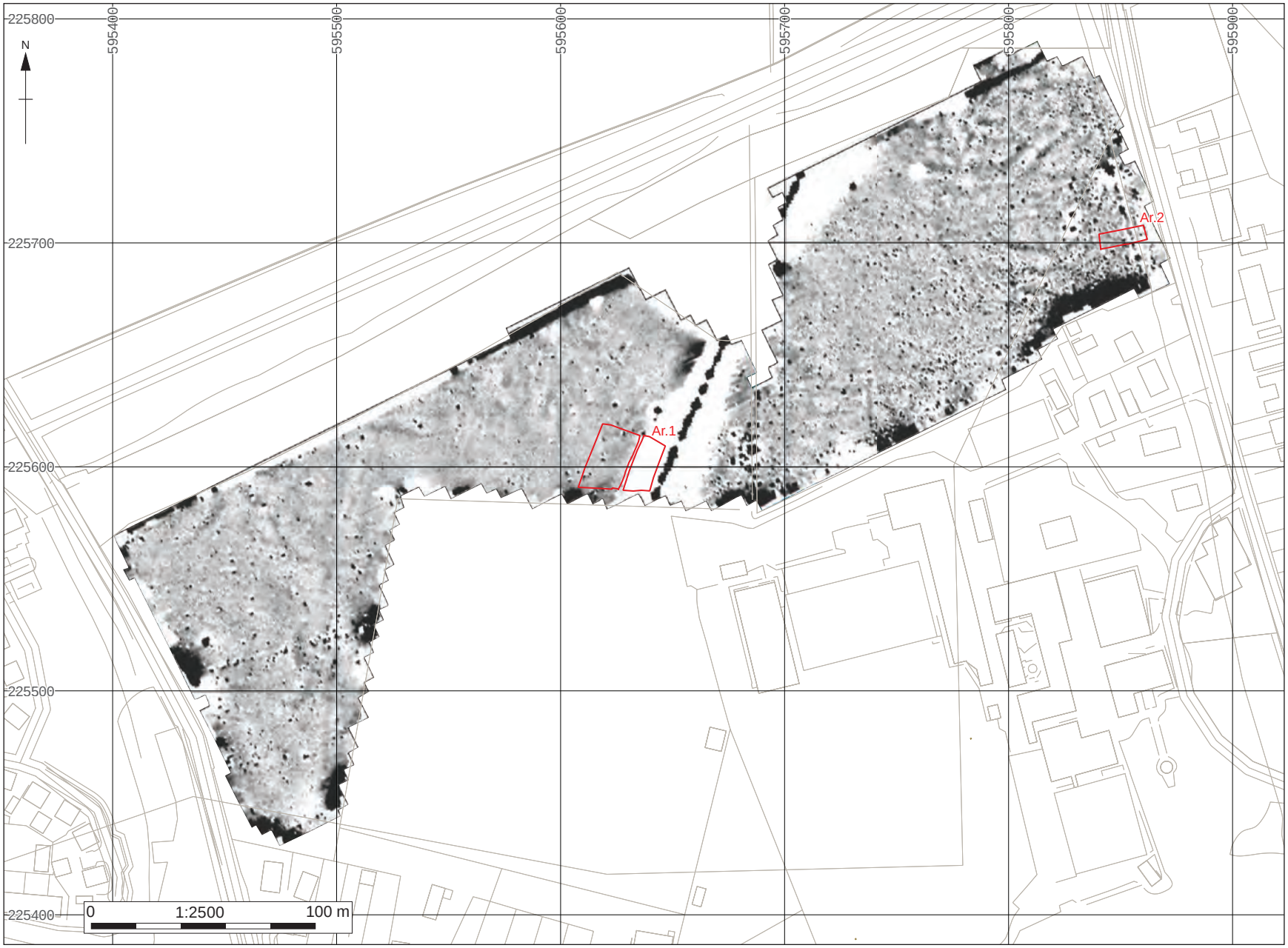


Figure 5: Plan of excavation Areas 1 and 2 with geophysics results overlaid

595580 595600 595620 595640 595660

225620 225600 225580

Section 1

N S

37.85 m OD

55 54 53

Section 2

N S

37.59 m OD

58 57 56

0 1:10 500 mm

Stone/pebble

Charcoal

Key

Limit of excavation

Evaluation Trench

S.1 Section

Break of slope

100 Cut number

Archaeological feature

Archaeological feature (evaluation)

Modern

Supposed ring ditch

N

56 S.2

53 S.1

S.4 61

59

22/007

22/009

22/005

Section 4

S N

37.90 m OD

62 61

0 1:10 500 mm

Stone/pebble

0 1:250 10 m

Figure 6: Plan of Area 1 with selected sections

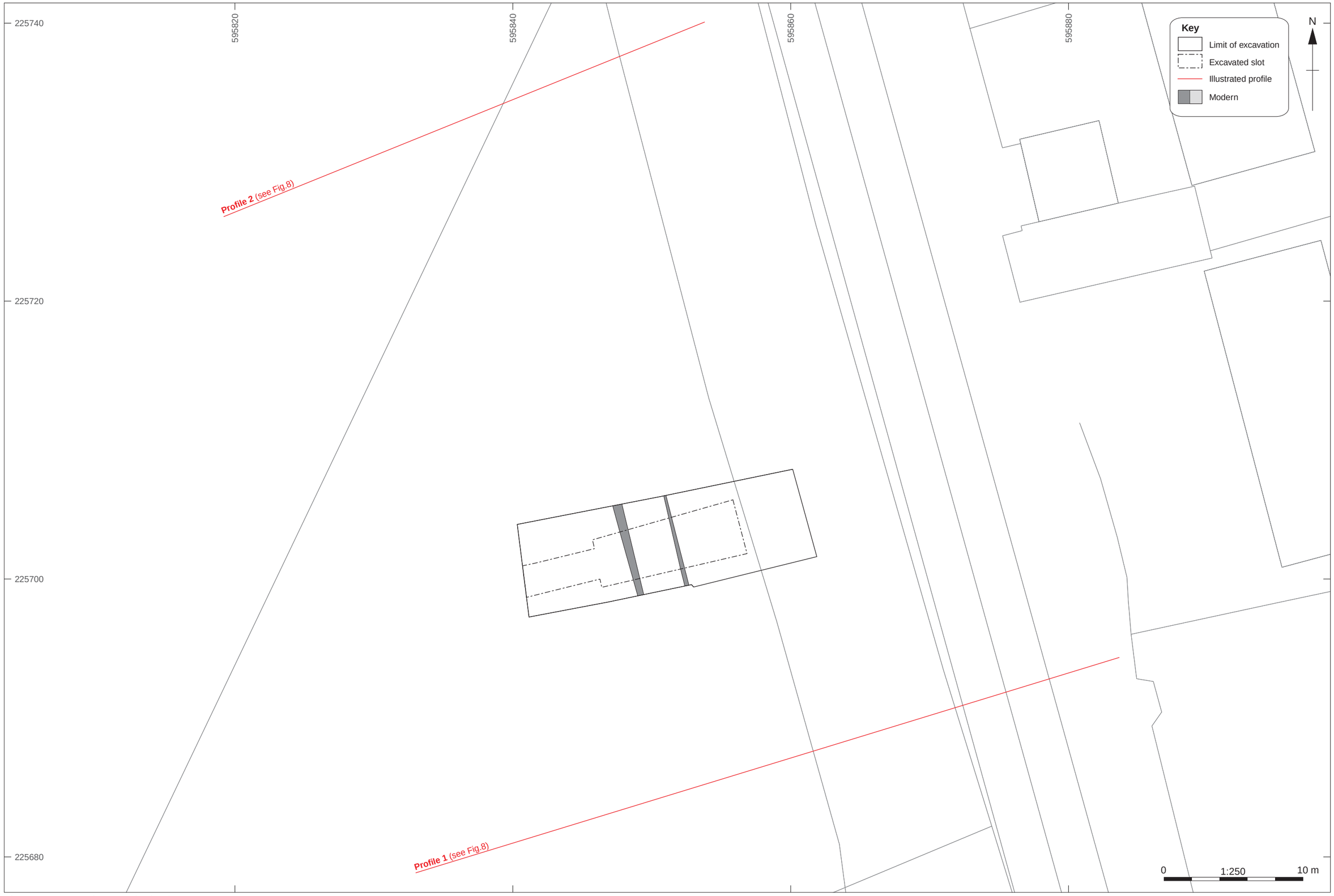


Figure 7: Excavation trench plan in Area 2

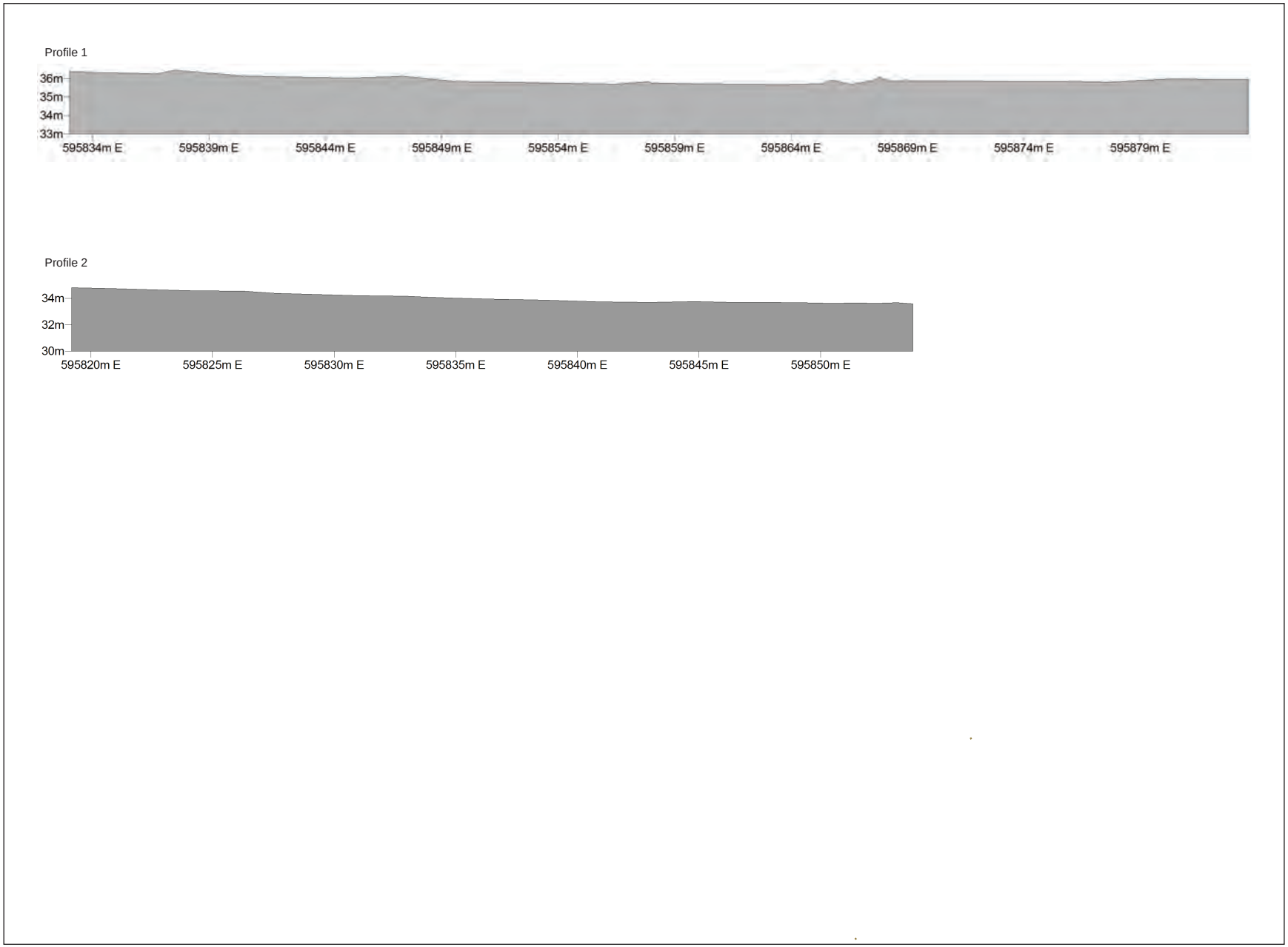


Figure 8: Area 2 profiles

Plate 1: Area 1 from the south (flags represent the inferred location of ring ditch)

Plate 2: Pit **53** from north-west

Plate 3: Pit **61** from the east

Plate 4: Area 2, excavation trench from the north (prior to further machine excavation)

Plate 5: Area 2, excavation trench from the south (after further machine excavation)

Plate 6: Area 2, excavation trench from the west (after further machine excavation)

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