

# The North Campus, Imperial War Museum, Duxford, Cambridgeshire: Archaeological Evaluation Report

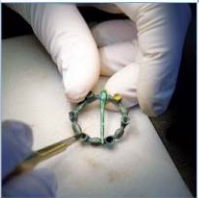
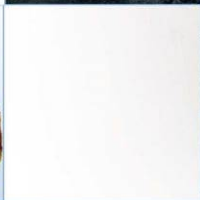
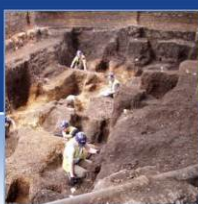
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National Grid Reference: TL45681 46508

AOC Project No: 33604

Site Code: ECB5303

January 2018



**AOC**  
Archaeology  
Group

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# The North Campus, Imperial War Museum, Duxford, Cambridgeshire:

## Archaeological Evaluation Report

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**National Grid Reference (NGR):** TL 45681 46508

**AOC Project No:** 33604

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**Date:** January 2018

This document has been prepared in accordance with AOC standard operating procedures.

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## Non-Technical Summary

*An archaeological evaluation was undertaken by AOC Archaeology, in December 2017, ahead of the construction of an archive paper store at the Imperial War Museum, Duxford, National Grid Reference (NGR) TL 45681 46508.*

*The evaluation revealed the natural Holywell Nodular Chalk Formation at an uppermost height of 26.92mOD. One wide palaeochannel was recorded, oriented north-south through the centre west of site, with a natural fissure to the west. Neither of these features contained any cultural or environmental remains. In Trench 2, six fragmentary pieces of Roman pottery were collected from the subsoil; these are likely to have been redistributed through past ploughing, as such no evidence for settlement activity was present on site.*

*Modern intrusions filled with post-war debris were apparent in two of the trenches, with 50% of the natural deposits cut away in trenches 1 and 2.*

*The results of the evaluation will be summarised and published in the annual London Archaeologist Fieldwork round-up and via the Archaeological Data Service (ADS) website under OASIS ID: aocarcha1-302369.*

## 1 Introduction

- 1.1 This document details the results of a trial trench evaluation undertaken by AOC Archaeology at the North Campus of the Imperial War Museum at Duxford, Cambridgeshire (Figure 1). The North Campus is located on the north side of the A505, with the main museum on the south side. The site comprises an area of open grass, lined by trees along its northern and western boundaries and by a tarmac path to the east and west. To the south are structures associated with the non-public area of the IWM Duxford. The site is centred at National Grid Reference (NGR) TL 45681 46508.
- 1.2 The archaeological trial trench evaluation comprised the excavation of four trenches (Figure 2).

## 2 Planning Background

- 2.1 The local planning authority is the South Cambridge District Council. Archaeological Advice is provided by the Cambridge Historic Environment Team (CHET), including Gemma Stewart.
- 2.2 No Scheduled Monuments, Listed Buildings, Conservation Areas, or Registered Parks and Gardens are located within the site. However, the southern boundary of one Scheduled Monument - the Roman settlement South of Chronicle Hills (list number: 1006794) is located within 150m of the northern edge of the site boundary, and within 1km of the site there are 39 Listed Buildings, all relating to RAF Duxford.
- 2.3 A desk-based assessment undertaken by AOC Archaeology (2017a) found that site has been part of the RAF Duxford Complex since the early 20<sup>th</sup> century, prior to which it was set within open fields. Archaeological investigations nearby have produced evidence for prehistoric and Roman activity in the form of multiple flint assemblages, Iron Age Barrows and a Roman settlement (a Scheduled Monument).
- 2.4 A Planning application was submitted for the construction of a Paper Store to house the paper collections and archives of the IWM (Planning Reference S/1765/17/FL). The building will be a single storey concrete frame building, clad in weathered steel and with a mezzanine to part of the floor plan. Planning permission has been granted, with conditions. Condition 16 addresses the archaeological requirements:

No demolition/development shall take place until an archaeological written scheme of investigation (WSI) has been submitted to and approved in writing by the local planning authority. For land that is included within the WSI, no development shall take place other than in accordance with the agreed WSI which shall include:

- the statement of significance and research objectives;
- The programme and methodology of site investigation and recording and the nomination of a competent person(s) or organisation to undertake the agreed works
- The programme for post-excavation assessment and subsequent analysis, publication & dissemination, and deposition of resulting material.

Developers will wish to ensure that in drawing up their development programme, the timetable for the investigation is included within the details of the agreed scheme.

(Reason - To secure the provision of archaeological excavation and the subsequent recording of the remains in accordance with Policy CH/2 of the adopted Local Development Framework 2007.)

- 2.5 In advance of the fieldwork, a Written Scheme of Investigation (WSI) was produced by AOC Archaeology (AOC 2017b), in response to a brief for work produced by CHET (CHET 2017). The

detailed WSI was designed in accordance with current best archaeological practice and local and national standards and guidelines:

- Chartered Institute for Archaeologists – Standards and Guidance for Archaeological Investigation and Recording of Standing Buildings and Structures (ClfA 2014a).
- Chartered Institute for Archaeologists – Code of Conduct (ClfA 2014b).
- Department for Communities and Local Government – National Planning Policy Framework (NPPF) (DCLG 2012).
- English Heritage – Management of Archaeological Projects (EH 1991).

### 3 Geology

3.1 The site occupies level ground at approximately 30m AOD and has been previously landscaped during construction of RAF Duxford. According to the British Geological Survey GeoIndex (BGS 2017), the site is underlain by solid geological chalk deposits which are part of the Holywell Nodular Chalk Formation, a sedimentary bedrock formed approximately 89 to 100 million years ago in the Cretaceous Period when the local environment would have been dominated by warm seas.

3.2 There are no superficial deposits recorded at the site by the BGS, however, recent ground investigations by MLM Consulting (2017) identified superficial deposits above the chalk strata in all their exploratory hole locations. They recorded the following general strata sequence across the site.

Stratum	Depth range (m bgl)		Proven Thickness range (m)
	Top	Base	
Topsoil	GL	0.20 – 0.40	0.20 – 0.40
Made Ground	0.20 – 0.30	0.50 – 2.30	0.20 – 2.05
Glaciofluvial Deposits	0.20 – 2.30	1.50 – 3.00*	0.10 – 1.70*
Chalk strata	1.50 – 1.90	2.00 – 3.00*	0.10 – 1.50*

\* Base of stratum not proven in all holes

3.3 The made ground present in boreholes WS102, WS104 and WS106 comprised fragments of ash, wood (potentially treated), metal, and brick. Asbestos cement sheet was also observed within WS102.

3.4 The made ground across the site is sporadic, and has been suggested to possibly be infilling three historical pits that include a larger area defined by boreholes WS102, WS104 and WS106 and two smaller areas localised to IWM pits TP2 and TP5 (Plate 1).

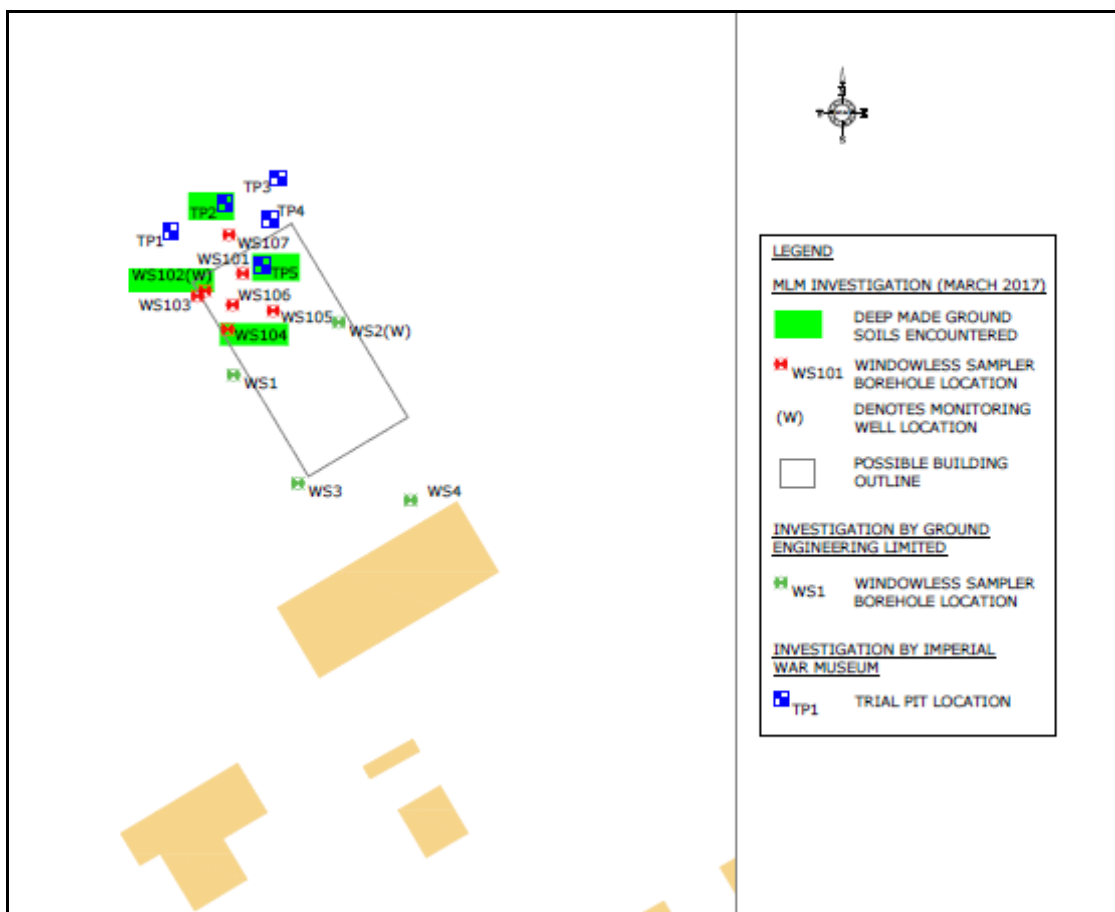


Plate 1: Extent of deep made ground (MLM Consulting 2017, Drawing 775042-DWG-ENV-002)

## 4 Archaeological and Historical Background

4.1 The archaeological and historical background below is based on the current records of the Cambridgeshire Historic Environment Record. .

### Prehistoric and Roman Periods (c.8,000 BC – AD 410)

4.2 There are no known prehistoric or Roman assets within the site. There are however a number of sites situated within a 1km radius. Numerous prehistoric artefacts have been attested to the exploitation of the lowland landscape surrounding the site in the early prehistoric period. Finds of this date recorded in the HER include a Palaeolithic handaxe (CHER 10985), numerous flint artefacts and a Neolithic axe (CB 15401). Flint artefacts include a flint tool assemblage (CHER 04032) located directly west of the site, and a Mesolithic core to the south (CHER 04086), with further flint implements (CHER 04119) discovered to the north and to the east.

4.3 During development of a housing estate (Heathfields Estate) to the south-west of the site, a field walking survey (MCB 19931) was carried out to investigate the plough soil flint distribution. A total of 3,543 pieces of worked flint were recovered in total; an assemblage indicative of large scale production (Last, 2002). Further evaluation and monitoring recovered both struck and burnt flint and an assemblage including two Mesolithic flaked axes, a Mesolithic blade and a potential Neolithic arrowhead (CHER CB 14656 & MCB 17959). Excavation to the east of the site (CHER 11969) also revealed a natural feature, probably a solution hollow, to be the likely source of raw lithic material in the area, making it a focus for industrial and domestic activity. A Neolithic pit was also recorded at this site containing sherds of highly decorated pottery from multiple vessels.

- 4.4 The site of a complex of Iron Age Barrows (CHER 04300 - 04307) is situated roughly 1200m to the north of the site. Three barrows were situated in line from north to south; two of which were known to be levelled in 1819. The two barrows contained inhumations in a so-called "soroi" which is thought to be a description of pebble built vaults which were lined with wood and surrounded by circular walls. One vault contained two inhumations, a knife, iron nails and remains of oak on the floor which was stained by the decomposition of a bronze vessel. The other also contained two inhumations as well as an iron spear and iron nails. Three earthworks labelled as 'tumuli' are portrayed on the First Edition Ordnance Survey (OS) Map. Five ring ditches were recorded from AP's near the barrows and may include the original three recorded barrows, however no further information is known about these sites.
- 4.5 Further sites are recorded within the HER through cropmark evidence seen on APs and their origins are likely within the prehistoric period. A possible Neolithic causewayed enclosure (MCB19185) is recorded c.200m west of the proposed development site boundary. A 20m diameter ring ditch (CHER 11845) and a sub-rectangular enclosure – suggested to be an Arras-type Iron Age Barrow (CHER 11844) have also been identified within the Scheduled Monument area and are overlain by rig and furrow.
- 4.6 Geophysical survey and subsequent excavation (MCB19295, MCB19605, MCB19670, MCB20196, MCB20197) to the south of the Iron Age barrows recorded surface finds of roof and hypocaust tile suggesting a substantial Roman building had stood at the location. Also identified was a mosaic lying at a depth of 1.02 metres, which remains in situ. The building material recovered, namely the hypocaust tile, tesserae, plaster and opus signinum, coupled with the sloping line of the building debris and the low amount of pottery recovered suggested that the building on this site was a bath house. Further excavation revealed the location of a hypocaust on a northwest to southeast alignment which supported the previous suggestion of this site being a Roman bath house.
- 4.7 The Scheduled Monument of the Roman settlement South of Chronicle Hills (CHER 04142, 04304a, 04308, 04309, 04310, 04311, 04312, 04313, 04314, 09764) lies 150m to the north of the site's northern boundary. The scheduling covers an area of c. 0.27km<sup>2</sup> and consists of cropmarks identified through aerial photographs (APs) representative of a settlement. Roman building debris has also been recorded on the surface of the area, including tegulae, hypocaust tile, tesserae, Castor ware and Samian ware, and many other finds suggesting a substantial Roman building or villa being present at the site. The cropmarks include circular soil marks most likely to be old ponds or even sink-holes, which could be explained by the sites location at the bottom of a valley above an area of natural springs. Further ring ditch (CHER 11845) and linear feature cropmarks are recorded but no explanation has been given as to their function; however, the linear features could be representative of tracks.

### **Early Medieval and Medieval Periods (AD 410 – AD 1536)**

- 4.8 There are no Early Historic or Medieval remains known within site. The ridge and furrow recorded through Aerial Photography (CHER 04142A) is the only archaeological asset within 1km of the site whose origins may be within the medieval period. Duxford itself is named in the Domesday Book as *Dochesworde*, (Wright, 1978), and has Saxon origins.

### **The Post Medieval (AD 1536 – AD 1900) and Modern (AD 1900 – Present) Periods**



- 4.9 Early Pre-Ordnance survey maps of the site tend to be schematic and lack detail, although can give some idea of the nature of settlement in the surrounding area. Cary's map of 1794, Verron's map of 1799 and Hyett's Map of 1808 do not show detail and illustrate the site and the surrounding area as open fields. This depiction continues into the Ordnance Survey (OS) Maps from 1886 onwards, however, the site of Chronicle Hills begins to be shown on the OS maps as three earthworks with the description 'Chronicle Hills (Tumuli): Human Remains, Ancient Pottery, found AD.1819'.
- 4.10 The Ordnance Survey maps continue to depict the area in the same manner up until 1960 when the 7<sup>th</sup> Edition OS map removes the Chronicle Hills detail and reverts to simple open fields. The 7<sup>th</sup> Edition OS is the first to depict 'Duxford Airfield' which although built before this date, was not depicted or named on maps.
- 4.11 RAF Duxford (CHER 11843) was an RAF airfield built at the end of World War I, opening in 1919 as a Flying Training School. The aerodrome at Duxford was built during the First World War and was one of the earliest Royal Air Force Stations. The first Spitfire entered RAF service here with 19 Squadron and several squadrons were based here during the Battle of Britain in 1940. USAAF fighters used Duxford from 1942 to 1945 and RAF use continued into the Cold War period, until closure in 1961. From 1970 the Imperial War Museum has used the remaining and new buildings to house mainly aviation exhibits, with many historic aircraft. Three double hangars from the original establishment with wooden roof trusses are Grade II\* Listed Buildings (DCB4803, DCB5836, DCB5369). The World War II Control Tower (DCB7803) is still in use and a Bailey bridge over the A505 joins the parts of the site on either side of the road. The spectacular glass-fronted American Air Museum, named Building of the Year 1998, displays American military aircraft, mainly from World War II.
- 4.12 A number of the buildings at RAF Duxford are Listed Buildings. Closest to the site is Building 4 (Heating Plant- DCB7803), which is Grade II listed due to its very effective yet simple design reflecting the influence of the Royal Fine Arts Commission on RAF buildings in the 1930's Expansion Period. It has Art Deco characteristics, and is set on the main axis of the North Camp, centred on the parade ground, barracks and Institute.

## 5 Aims of Investigation

- 5.1 The aims of the investigation were defined as:
- To establish the presence/absence of archaeological remains within the site.
  - To determine the extent, condition, nature, character, quality and date of any archaeological remains encountered.
  - To record and sample excavate any archaeological remains encountered.
  - To determine the presence/ absence of palaeosols and old land surface soils/deposits.
  - To determine the character of deposits and their contents within negative features.
  - To record palaeochannels.
  - To examine the site formation processes, and study and retrieve faunal and floral evidence from suitable charred or waterlogged deposits.
  - To enable the archaeological advisor to make an informed decision on the status of the planning condition.
  - To make public the results of the evaluation, subject to any confidentiality restrictions.

## 6 Methodology

- 6.1 A written scheme of investigation (WSI) prepared by AOC Archaeology (2017b) defined the site procedures for the trial trench evaluation. The WSI corresponded to the specification produced by Cambridge Historic Environment Team (CHET 2017). All work was carried out in accordance with current best archaeological practice and local and national standards and guidelines:
- Department for Communities and Local Government – National Planning Policy Framework (NPPF) (DCLG 2012).
  - Historic England – Management of Archaeological Projects (HE 2015).
  - Chartered Institute for Archaeologists – Standards and Guidance for Archaeological Field Evaluations (ClfA 2014a).
  - Chartered Institute for Archaeologists – Code of Conduct (ClfA 2014b).
- 6.2 A unique site code for the project (ECB5303) was assigned by Cambridge Historic Environment Team to the project and used as the site identifier. The County Archive Facility will be the receiving depository for the archive.
- 6.3 The evaluation was supervised by Les Capon, AOC Project Manager, and managed by Catherine Edwards, AOC Operations Manager. The site was monitored by Gemma Stewart of Cambridge Historic Environment Team, on behalf of South Cambridge District Council
- 6.4 Four trial trenches were machine excavated. These measured 25m by 2m. Trenches 2 and 3 had sondages cut by machine through palaeochannel deposits in order to further characterise the soil formation processes.
- 6.5 Metal detecting was carried out within the topsoil and subsoil prior to machining, and then at the bases of all open trenches. The only metal items identified were objects such as paint cans and rusted metals in the fills of the modern intrusions.
- 6.6 The subsoil and topsoil were both examined for artefacts by hand and at three sample locations in each trench, outside of the soils recognised as fills of modern intrusions. No artefacts were retrieved. Trench 2 was examined more thoroughly, due to the presence of Roman finds in the subsoil deposit (see section 7.12 below). The subsoil deposit at the northeastern end of the trench was fully hand-excavated. No artefacts were retrieved.

## 7 Results

## Trench 1

- 7.1 Trench 1 was located near the northeast of the site, oriented northwest-southeast (Figure 2). It measured 25m long and 2.2m wide. No archaeological features were revealed.

### Table of the stratigraphic sequence

Context No	Thickness (m)	Height of Deposit (mOD)	Description/Interpretation
101	0.10m	26.82	Topsoil
104	>0.32m	26.72	Made ground (also fills pit [103])
105	0.06m	26.40	Subsoil
102	NFE	26.34	Natural Chalk and Sand

- 7.2 Naturally-lain chalk (102) lay at 26.34mOD at the northwestern end of the trench and was sealed by a heavily truncated layer of brown sandy clay subsoil (105), surviving to only 0.06m thick, these was due to widespread truncation by deep 20<sup>th</sup> century pits. Two other patches of natural chalk survived between the intrusions.
- 7.3 The three modern intrusions [103, 106 and 109] had generally straight edges, and were probably excavated by plant. The largest intrusion was 10.40m wide [103], and deeper than 0.35m. The fill was mixed brown clayey sand with inclusions of flint, plastic and metal (104). The fill also overlay the surviving subsoil, becoming almost a levelling layer. The two other intrusions were smaller. Southeast of the large pit [103], was a second intrusion, measuring 4.5m wide and greater than 0.6m deep [106], again filled with mixed brown sandy clay, flint, metal, plastic and CBM (105). The third intrusion, [109], continued beyond the southeast end of the trench, and had a similar fill to the others, comprising mixed soils with metal, plastic and building materials (108). Specialists in Ordnance and Asbestos attended the excavation, with special care taken within these intrusive pits.

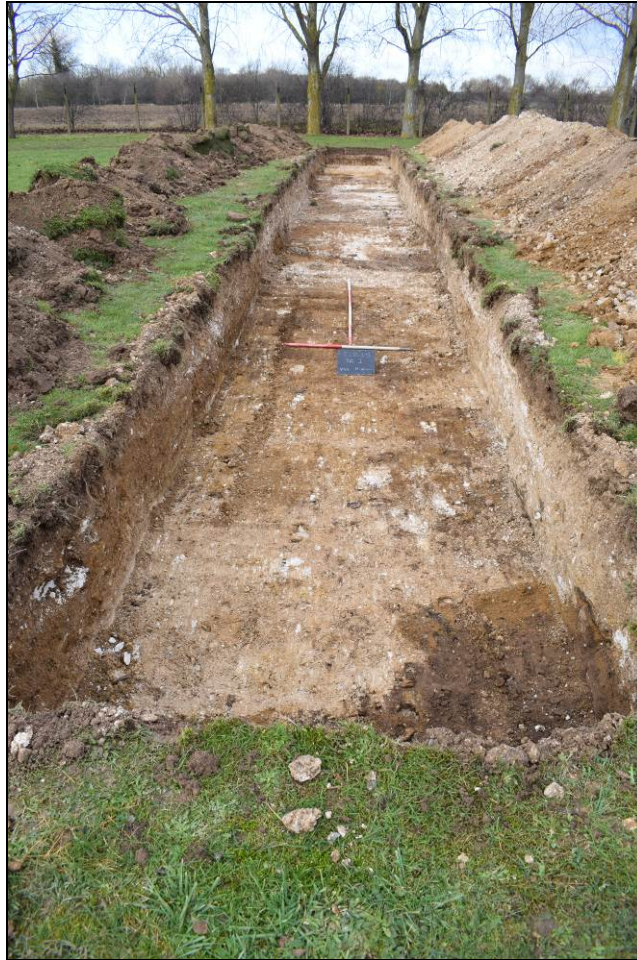


Plate 2: Trench 1, Looking Northwest

- 7.4 The fill (104) of the largest pit was also noted spread across the truncated subsoil to 26.72mOD at the northwestern end of the trench to 27.11mOD at the southern end. This was overlain by 0.10m depth of dark brown clayey sand, lying generally at 27.21mOD at the southeast end of the trench dropping northward to 26.82mOD. This change in topography is caused by the depth of made ground over the infilled pits.

### Trench 2

- 7.5 Trench Two was located in the western part of site, and was 25m long and 2m wide, oriented southwest-northeast. One excavated feature was potentially a ditch but may have been a natural fissure with accumulated soils.

### Table of the stratigraphic sequence

Context No	Thickness (m)	Height of Deposit (mOD)	Description/Interpretation
201	0.18m	27.21	Topsoil
202	0.26m	27.03	Subsoil
203	0.15m	26.77	Weathered natural
207	0.76m	26.77	Glacio-fluvial deposit
204	NFE	26.61	Chalk

- 7.10 The earliest deposit encountered in Trench 2 was solid chalk (204), the natural geology of the site, lying at generally level at 26.61mOD. This was overlain in the southwest of the trench by weathered chalk (203) up to 0.15m thick, whereas, at the northeastern trench, 0.76m depth of reddish brown sandy clayey silt (207) is most likely a glacio-fluvial deposit, filling a palaeochannel cutting into the chalk. The boundary between the two naturally-lain deposits was truncated.
- 7.11 The chalk was cut by an irregular sided linear hollow [206], 1.45m wide and 0.65m deep, with a rounded base. This may be a natural fissure filled with a gradually accumulated silty sand with high chalk content (205), which had eroded gradually into the opening, however it is possible that the feature could also be a ditch of prehistoric date as flint was collected. Some of the flint was frost-cracked, none were worked, suggesting that this is most likely a natural fissure.
- 7.12 The glacial deposit (207) at the northeastern end of the trench was overlain by 0.26m depth of reddish brown subsoil (202) which contained six abraded sherds of Roman pottery dating from the late 2<sup>nd</sup> to early 3<sup>rd</sup> century AD. Although not within a specific feature, the presence of small pieces of pottery indicates Roman activity in close proximity to the site, but their fragmentary nature suggests redistribution of the pieces through ploughing or similar agricultural activity.
- 7.13 The subsoil and fissure-like feature were truncated by a deep, broad straight-edged modern intrusion [209] which was 8m wide and more than 0.6m deep, with a fill including brick, tile, plastic, fibreglass, and other building materials (208). A second, smaller intrusion lay at the northeastern end [211], with a similar fill (210).
- 7.14 Topsoil overlay the backfilled pits, which was 0.18m depth of dark brown organic sandy clay (201). The surface of the trench lay at 27.21mOD.



Plate 3: Trench 2 Looking Southwest, Northeast end



Plate 4: Fissure [206] Looking West

### Trench 3

- 7.15 Trench three was located in the southwestern part of site and was 25m long and 2m wide, oriented southeast-northwest. The entire sequence was composed of natural deposits, of probable glacial origin.

#### Table of the stratigraphic sequence

Context No	Thickness (m)	Height of Deposit (mOD), northwest end of trench	Description/Interpretation
301	0.14m	27.20	Topsoil
302	0.23m	27.06	Subsoil
303	0.49m	26.83	Glacial deposit
305	0.06m	26.34	Glacial deposit
304	0.38m	26.28	Chalky layer
306	NFE	25.90	Chalk geology

- 7.16 The earliest deposit encountered in Trench 3 was natural chalk (306), at the base of a sondage through a palaeochannel. This lay at 25.90mOD, and was overlain by a layer of brown silty clay with high chalk content (304). This lay at 26.43mOD at the southeastern end of the trench and 26.28mOD at the northwestern end, with a hollow between dropping to 25.99mOD; this hollow represents part of the filling process of the palaeochannel. This lowest deposit was overlain by a thin deposit of clayey silt (305) just 0.06m deep. Above this was 0.49m thick layer of reddish brown silty clay (303), with inclusions of flint, but no cultural material. The lack of finds and the depth of the deposit suggests that this is most likely a palaeochannel, its limits lying beyond the edges of the trench. This is probably part of the same feature that had one edge located in Trench 4 discussed below.

- 7.17 The glacial deposits were overlain by 0.23m depth of reddish brown silty clay subsoil (302), in turn overlain by 0.14m depth of topsoil (301), which was dark brown sandy clay silt, lying at 27.20mOD at the northwest end of the trench, dropping away to 26.82mOD at the southern end.



Plate 5: Sample Section, Trench 3

#### Trench 4

- 7.18 Trench Four was located in the middle of the eastern part of site and was 25m long and 2m wide. It was dug in an L-shape, to achieve the correct length of trial trenching, but to avoid a stand of trees. One excavated feature was potentially archaeological and there was the edge of a large palaeochannel, oriented north-south.

#### Table of the stratigraphic sequence

Context No	Thickness (m)	Height of Deposit (mOD)	Description/Interpretation
401	0.14m	27.20	Topsoil
402	0.14m	27.06	Subsoil
405	NFE	26.92	Fill of Palaeochannel
407	NFE	26.92	Chalk

- 7.19 The earliest deposit encountered in Trench 4 was solid chalk (407), lying generally level across the whole trench, at 26.92mOD. This was cut through by a straight-edged channel oriented north-south, at the southwest corner of the trench [406]. The cut was filled by reddish brown sandy clay (405), which was identical to the reddish brown layer in Trench 3 (303), and probably represents the same event.
- 7.20 In the northwestern part of the L, a narrow gully 0.40m wide and 0.20m deep [404] had a rounded profile and a rounded end. The fill of brown sandy clay (403) contained small flint fragments which

have been assessed and showed no evidence for having been worked. This gully is most likely the remains of an animal burrow.

- 7.21 The features were covered by 0.14m depth of subsoil (402). This was cut by a modern intrusion [409], at the northeastern end of the L-shaped trench, with a fill including plastic (408). The topsoil across the whole of the trench was 0.14m thick, lying at 27.20mOD.



Plate 6: Trench 4 Looking Northeast Across Edge of Palaeochannel

## 8 Finds

- 8.1 The finds assemblage consists of Roman pottery, collected from the subsoil in Trench 2. The pieces were small and abraded, and date to the late 2<sup>nd</sup> to early 3<sup>rd</sup> centuries AD. The full report is presented as Appendix B.

## 9 Conclusion

- 9.1 The evaluation successfully characterised both the stratigraphic sequence and the archaeological potential of the site with the trenches excavated revealing natural geology at an uppermost height of 26.92mOD, in Trench 4, dropping to 26.61mOD in Trench 2, to the west, and to 26.34mOD in the north. Above this were occasional patches of subsoil, surviving amid modern truncation through pit-digging and landscaping.
- 9.2 The trenches were dominated by natural features, comprising a large hollow oriented north-south, probably a palaeochannel, with the deepest part exposed in Trench 3 at 25.90mOD, indicating a depth of 0.93m+. One edge of the channel was seen in the western end of Trench 4: a second edge may have been present in Trench 2, where a change from chalk natural to a reddish brown silty clay deposit was truncated by a modern pit. Also, in Trench 2, a fissure in the chalk was filled with gradually-lain natural silts and frost-cracked flints. The existence of the fissure may relate to weak ground caused by the palaeochannel. No faunal or environmental remains were present in the fills of the channel, which was oriented north-south. Geotechnical works undertaken prior to the archaeological evaluation (MLM 2017) also encountered this deposit, and thought that the soils in the what is clearly a palaeochannel were cryofluvial in origin.
- 9.3 There were no buried palaeosols on the site. In the trenches where chalk geology was encountered (Trenches 1, 2 and 4), the Cretaceous chalk deposits were seen to be weathered (Trench 2) or



directly overlain by subsoil (Trenches 1 and 3). If buried soil horizons had existed on the site, they may have been reworked by agricultural activity, or truncated.

- 9.4 As well as a lack of buried soil horizons, there were no suitable waterlogged or charred deposits that had the potential for evidence of past environments.
- 9.5 The only finds recovered during the excavations was a small assemblage of six sherds of abraded Roman pottery. These small sherds are likely to have been disturbed through agricultural re-working of the subsoil: no archaeologically significant features were present. One feature was excavated, which was roughly linear with a rounded end, but had no cultural artefacts or inclusions, so is thought likely to be the remains of an animal burrow.
- 9.6 It was apparent that the original topography of the site had been altered, with subsoil having been removed from parts of Trenches 1 and 2 and only Trenches 3 and 4 having a clear deposit of subsoil. This loss of subsoil is likely to be associated with modern events, which include the excavation of large pits and filling thereafter with building materials, plastics, fibreglass, scrap metal, and other debris post-dating The Second World War. No significant archaeological remains were found, but the presence of Roman pottery indicates some Roman activity in the vicinity. The proportion of deep truncation apparent was 68% of Trench 1 and 32% of Trench 2.
- 9.7 The limited archaeological results do not indicate direct occupation of the site except in the modern, post-war period. There may be features beyond the area of the site that was examined, but the Roman pottery that was collected is abraded, and probably redeposited from its original location. The lack of significant findings may indicate that there is no requirement for further work to satisfy Planning Condition 16, but the decision rests with the archaeological advisors from CHET.

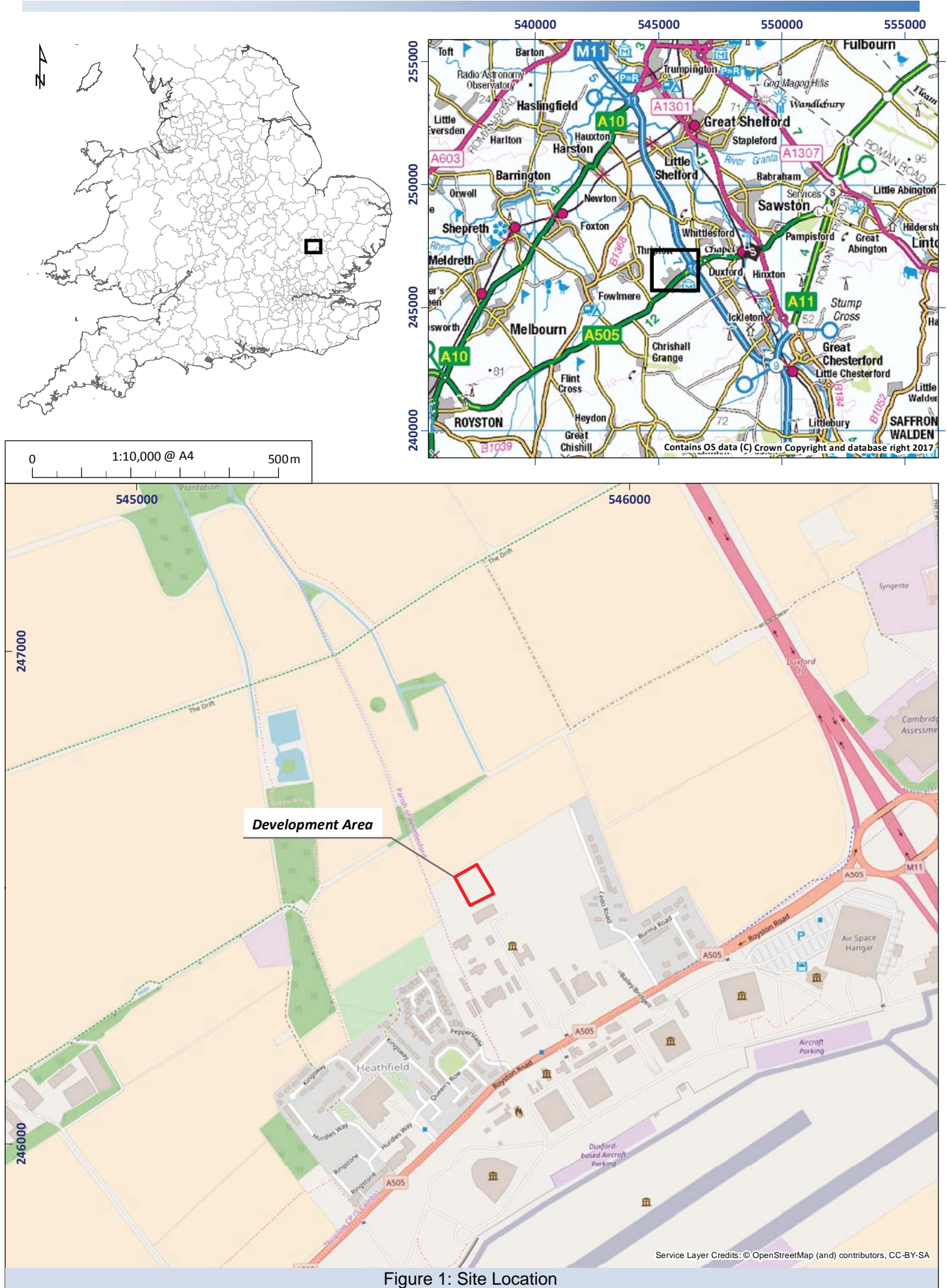
## 10 Publication and Archive Deposition

- 10.1 Publication will consist of an entry with the Archaeological Data Service (ADS) website under OASIS ID: aocarcha1-302369 (Appendix C) and an entry in the annual London Archaeologist Field Work round up.
- 10.2 The archive, consisting of paper records, drawings and digital photographs, will be prepared in accordance with guidelines for the preparation of excavation archives for long-term storage (UKIC 1990; and Brown 2011). It will security copied and deposited with the County Archive Facility.

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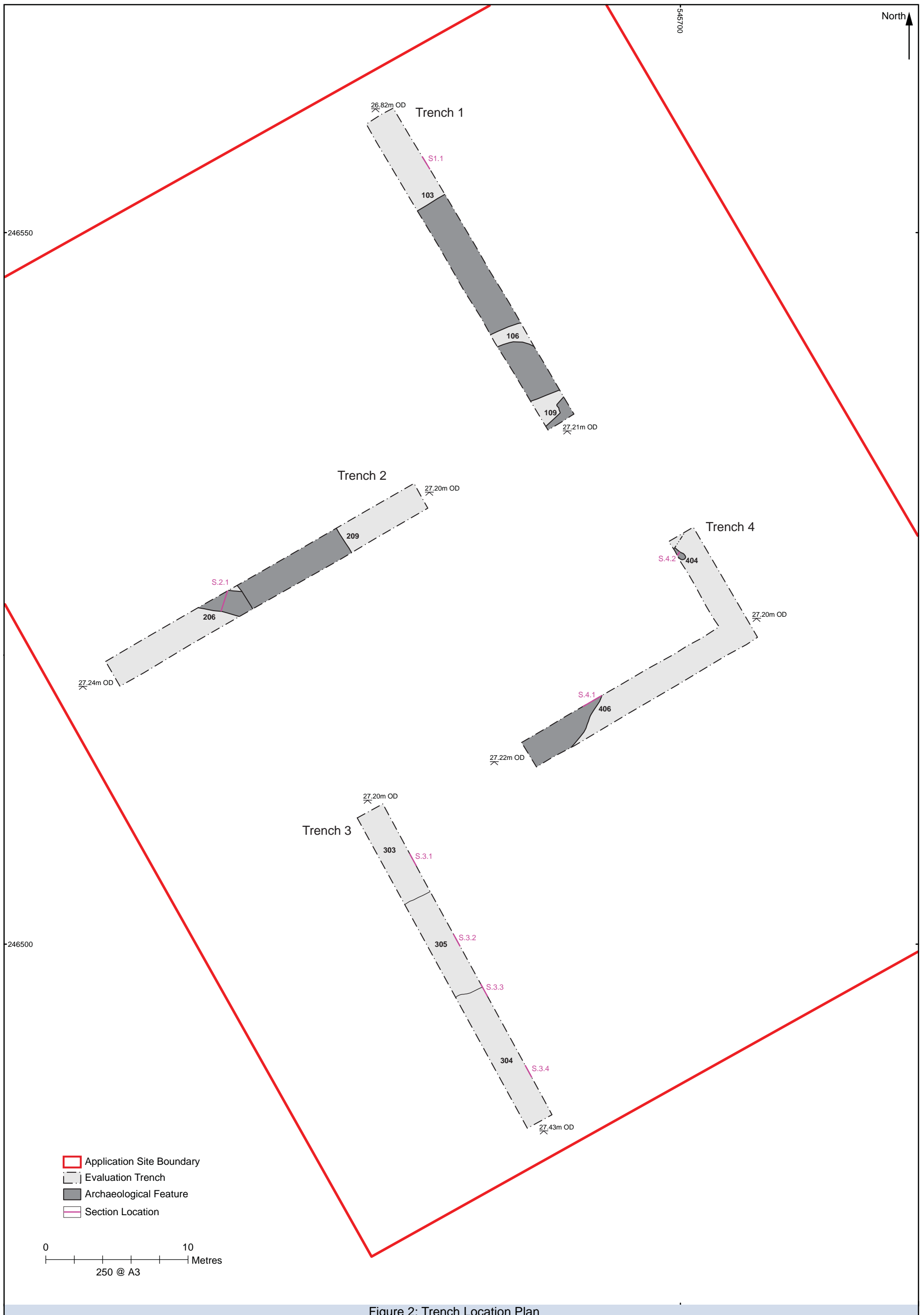


Figure 2: Trench Location Plan

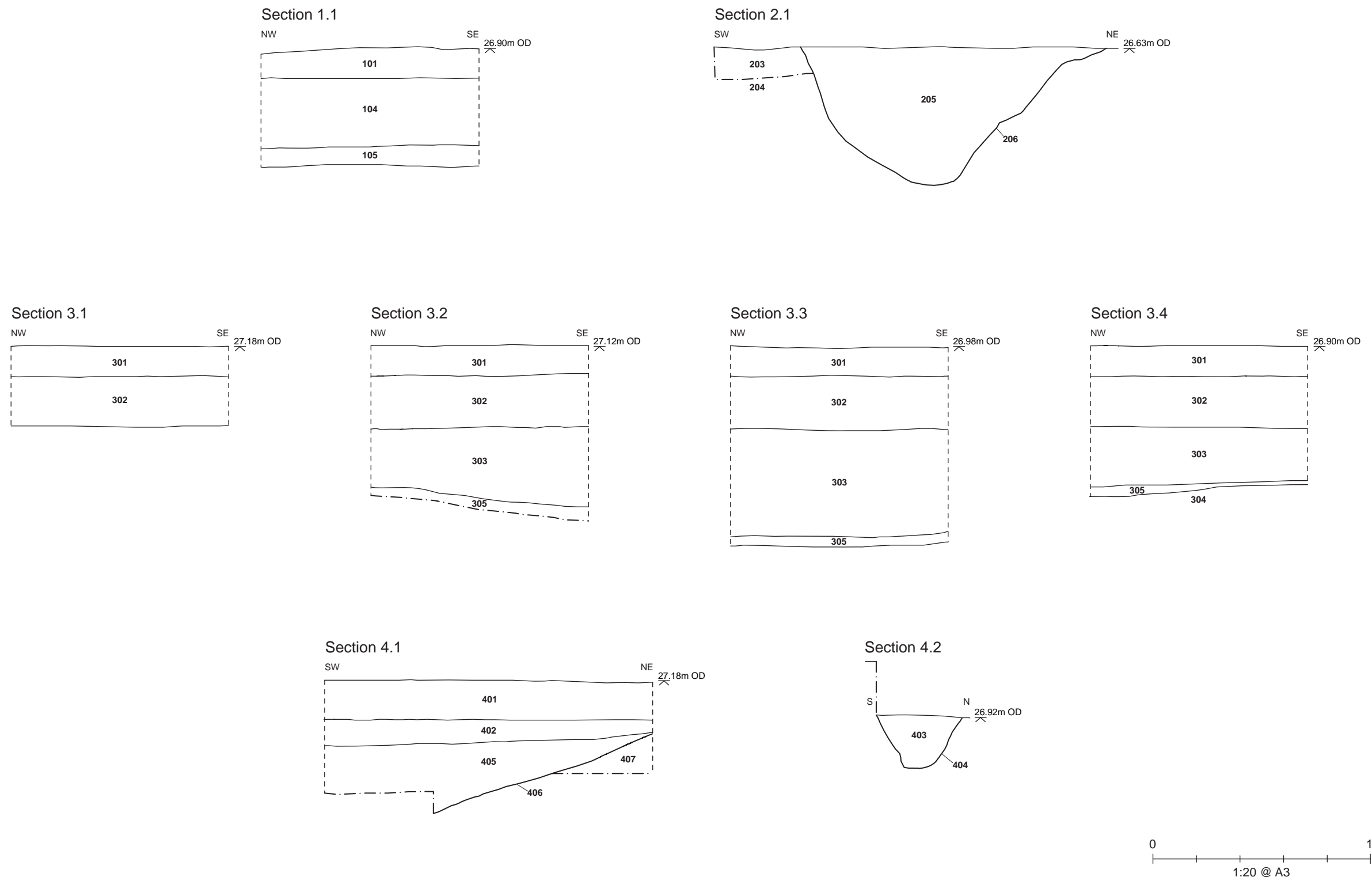


Figure 3: Section

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## Appendices

## Appendix A – Context Register

Context	Description	Length	Width	Thickness
<b>Trench 1</b>				
101	Topsoil	25.00m	2.20m	0.10m
102	Natural chalk and sand	7.00m	2.20m	NFE
103	Modern intrusion	10.00m	2.20m	>0.35m
104	Fill of [103]	10.00m	2.20m	>0.35m
105	Subsoil	7.00m	2.20m	0.06m
106	Modern intrusion	4.50m	2.20m	>0.60m
107	Fill of 106	4.50m	2.20m	>0.60m
108	Fill of 109	2.20m	1.50m	>0.60m
109	Modern intrusion	2.20m	1.50m	>0.60m
<b>Trench 2</b>				
201	Topsoil	25.00m	2.00m	0.18m
202	Subsoil	25.00m	2.00m	0.26m
203	Weathered chalk	11.00m	2.00m	0.15m
204	Natural chalk deposit	11.00m	2.00m	NFE
205	Fill of [205]	2.00m	1.45m	0.65m
206	Ditch or fissure	2.00m	1.45m	0.65m
207	Glacio-fluvial deposit	6.00m	2.00m	0.76m
208	Fill of [209]	8.00m	2.00m	>0.60m
209	Modern intrusion	8.00m	2.00m	>0.60m
210	Fill of [211]	2.40m	0.40m	>0.50m
211	Modern intrusion	2.40m	0.40m	>0.50m
<b>Trench 3</b>				
301	Topsoil	25.00m	2.00m	0.14m
302	Subsoil	25.00m	2.00m	0.23m
303	Glacial deposit	25.00m	2.00m	0.49m
304	Glacial deposit	11.40m	2.00m	NFE
305	Glacial deposit	13.60m	2.00m	0.48m
<b>Trench 4</b>				
401	Topsoil	25.00m	2.00m	0.14m
402	Subsoil	25.00m	2.00m	0.14m
403	Fill of [404]	1.20m	0.40m	0.24m
404	Burrow or linear cut	1.20m	0.40m	0.24m
405	Fill of [406]	6.50m	2.00m	0.32m
406	Cryofluvial channel	6.50m	2.00m	0.32m
407	Natural chalk with outcropping sand	21.00m	2.00m	NFE
408	Fill of [409]	1.50m	0.68m	>0.20m
409	Modern intrusion	1.50m	0.68m	>0.20m

## Appendix B – Finds Report

### The Roman Pottery

*Andrew Peachey*

Trial-trench excavations recovered a total of 6 sherds (26g) of Roman pottery, entirely contained in (202) in a highly fragmented and moderately abraded condition. The Roman pottery is limited to coarse wares (Table B1) but the fabric and form types present, including a black burnished ware dish suggest a date in the late 2<sup>nd</sup> to 3<sup>rd</sup> centuries AD.

#### Methodology

The pottery was quantified by sherd count, weight (g) and R.EVE; with fabrics examined at x20 magnification in accordance with the guidelines of the Study Group for Roman Pottery (Barclay *et al* 2016; Darling 1994). Fabric codes and descriptions were cross-referenced, where possible, to the National Roman Fabric Reference Collection (Tomber & Dore 1998), while local or indistinguishable coarse wares were assigned an alpha-numeric code and fully described in the report:

COL BB2 Colchester black-burnished ware 2 (Tomber & Dore 1998, 131)

GRS1 Sandy grey ware 1. Mid grey with inclusions of common quartz (0.1-0.25mm), sparse fine mica, black iron rich grains (0.25-1.5mm), and occasional flint (<3mm). A hard fabric with a slightly abrasive to smooth feel.

ROB SH Romano-British shell-tempered ware 1 (Tomber & Dore 1998, 212), wheel-made with common, moderately sorted shell (0.5-3mm)

Feature type/group	Sherd Count	Weight (g)	R.EVE
COL BB2	2	15	0.08
GRS	2	5	-
ROB SH	2	6	-
<i>Total</i>	6	26	<i>0.08</i>

Table B1: Quantification of Roman pottery fabrics

#### Commentary on the Roman Pottery

The only diagnostic vessel in the (202) group comprises a COL BB2 dish with a rounded bead rim (Symonds & Wade 1999, 469: Cam.37/38B), although the sherds are of insufficient size to ascertain whether the dish was plain or decorated. This type of dish is typically present in deposits dating to the late 2<sup>nd</sup> to 3<sup>rd</sup> centuries AD, including at the Shrine, Castle Hill, Cambridge (Hull & Pullinger 1999: vessels 728 & 735). The presence of increasing quantities of shell-tempered ware (ROB SH), probably produced at Harrold, Bedfordshire is consistent with this chronology, while the sandy grey ware (GRS) represents a generic local product. The combination of these coarse wares suggests they might be derived from some form of domestic activity in the vicinity, but the low quantity limits any further conclusions.

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## Appendix C– OASIS Form

**OASIS ID: aocarcha1-302369**

<b>Project details</b>	
Project name	The North Campus, Imperial War Museum, Duxford
Short description of the project	A trial trench evaluation showed a palaeochannel cutting through natural chalk. Residual Roman pottery in subsoil. Deep modern truncations
Project dates	Start: 15-12-2017 End: 21-12-2017
Previous/future work	No / Not known
Any associated project reference codes	33604 - Contracting Unit No.
Any associated project reference codes	ECB5303 - Museum accession ID
Type of project	Field evaluation
Site status	Listed Building
Current Land use	Grassland Heathland 5 - Character undetermined
Monument type	PALAEOCHANNEL Uncertain
Significant Finds	BOWL Roman
Methods & techniques	"Sample Trenches"
Development type	Public building (e.g. school, church, hospital, medical centre, law courts etc.)
Prompt	Direction from Local Planning Authority - PPS
Position in the planning process	After full determination (eg. As a condition)
<b>Project location</b>	
Country	England
Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE DUXFORD The North Campus, Imperial War Museum, Duxford
Postcode	CB22 4XT
Study area	4200 Square metres
Site coordinates	TL 545681 246508 51.89846683972 0.246796787977 51 53 54 N 000 14 48 E Point
<b>Project creators</b>	
Name of Organisation	AOC Archaeology
Project brief originator	Cambridgeshire Historic Environment Team
Project design originator	AOC Archaeology
Project director/manager	Catherine Edwards
Project supervisor	les capon
<b>Project archives</b>	

Physical Archive recipient Cambridgeshire County Council Archaeology Store

Physical Archive ID ECB5303

Physical Contents "Ceramics"

Physical Archive notes held at AOC until transfer

Digital Archive recipient Cambridgeshire County Store

Digital Archive ID ECB5303

Digital Contents "Ceramics", "Stratigraphic", "Survey"

Digital Media available "Spreadsheets", "Survey", "Text"

Digital Archive notes held at AOC until transfer

Paper Archive recipient Cambridgeshire County Store

Paper Archive ID ECB5303

Paper Contents "Ceramics", "Stratigraphic", "Survey"

Paper Media available "Photograph", "Plan", "Report", "Section", "Survey "

Paper Archive notes held at AOC until transfer

#### Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title The North Campus, Imperial War Museum, Duxford, Cambridgeshire: Archaeological Evaluation Report

Author(s)/Editor(s) Capon, L.

Date 2018

Issuer or publisher AOC Archaeology

Place of issue or publication London

Description 28 pages. 6 plates, 3 figures. A4



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