Archaeological evaluation and excavation on the site of the proposed M&S Food Hall, Kirby Road, Walton-on-the-Naze, Essex, CO14 8QP

September 2017 - January 2018



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1 Summary

Archaeological evaluation (four trial-trenches) followed by an area excavation was carried out at the former Martello Caravan Park, Kirby Road, Walton-on-the-Naze on the site of the proposed new M&S Food Hall. Previous investigations on the Kirby Road redevelopment site have revealed a prehistoric landscape, predominantly of Bronze Age/Late Bronze Age date, with a smaller instances of Roman and medieval activity.

Investigations on the current development site revealed prehistoric activity dating from the Neolithic to the Late Bronze Age/Early Iron Age. This consisted of three ditches, three pits, a ditch/pit and a cremation burial. The cremation burial contained the remains of an adult, over 25 years old. Radiocarbon dating on a sample of cremated bone produced a 2-sigma calibrated date (at 95.4% confidence) of 1190 to 996 BC for this burial.

An erosion hollow, probably used as a watering-hole or as a stock-holding pen, and two associated drainage ditches are probably of a Roman date. A small pit was also either of a Roman or later date.

Nine undated features (five postholes, three pits and a pit/tree-throw) were also excavated along with two natural features.

2 Introduction (Fig 1)

This is the archive report for an archaeological (trial-trenching) evaluation and excavation at the former Martello Caravan Park, Kirby Road, Walton-on-the-Naze from 25th September 2017 to 22nd January 2018. The work was commissioned by James Orbell of Orbell Associates, on behalf of Kilo Properties Ltd, on the site of the proposed new M&S Food Hall, and was undertaken by Colchester Archaeological Trust (CAT).

In response to consultation with Essex County Council Place Services (ECCPS), Historic Environment Advisor (HEA) Teresa O'Connor advised that in order to establish the archaeological implications of this application, the applicant should be required to commission a scheme of archaeological investigation in accordance with the *National Planning Policy Framework* (DCLG 2012).

All archaeological work was carried out in accordance with the requirements as stated by Teresa O'Connor, and as laid out within a written scheme of investigation (WSI) prepared by CAT and agreed with ECCPS (CAT 2017a).

In addition to the WSI, all fieldwork and reporting was done in accordance with English Heritage's *Management of Research Projects in the Historic Environment (MoRPHE)* (English Heritage 2006), and with *Standards for field archaeology in the East of England* (EAA **14** and **24**). This report mirrors standards and practices contained in the Institute for Archaeologists' *Standard and guidance for archaeological field evaluation* (CIfA 2014a), *Standard and guidance for archaeological excavation* (CIfA 2014b) and *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (CIfA 2014c).

3 Archaeological background

The following archaeological background draws on the Essex Historic Environment Record (EHER) held at Essex County Council, County Hall, Chelmsford, Essex.

The Walton area is significant for the established presence of prehistoric archaeological remains, particularly of the later Neolithic, the discovery of much of which is linked to the results of the Hullbridge Survey (Wilkinson and Murphy 1995). Thousands of worked flints, including polished axes, have been collected from the vicinity of the Naze

and form a large component of the entries in the EHER. More recently, a Middle Bronze Age bucket urn containing cremated human bone was recovered from the foot of the cliffs at the Naze having eroded from the cliff edge.

At the northern end of the Naze, on the foreshore in front of low-lying marshland, remains described as 'red hills' have been noted (e.g. EHER 3511). These features are typically associated with salt working, and are mainly of Late Iron Age or Roman date. Towards the south of the Naze, Late Iron Age and Roman pottery was recovered during development on the west side of Old Hall Lane (EHER 3563/3564). Another potential 'red hill' has been recorded on low-lying land to the north-west of the site (EHER 3529). On farmland, also to the north-west of the site, cropmarks of former field boundaries have been plotted along with the tentatively identified remains of a possible ring-ditch (EHER 17239).

In the medieval period Walton was part of the 'soke' or estate of St Pauls, along with Kirby and Thorpe. Walton Hall was first recorded as a separate entity in 1222. The Tendring Historic Environment Characterisation Project (ECC 2008) notes that no buildings pre-dating the 18th century survive within Walton and that the town's historic core developed from the early 19th century onwards. The lack of earlier buildings can be blamed on coastal erosion as the medieval settlement originally extended further east with the former medieval church being lost to the sea in 1796. Medieval features and deposits have been identified around the periphery of Hamford Water, which probably relate to marsh edge farming whilst the marshes themselves were utilised for the grazing of both sheep and cattle.

To the northeast of the development site is Martello Tower K, built *c* 1810-1812 and one of the largest of the eleven Clacton Defence Towers. It is a grade II listed building (NHLE no. 1111504) and, along with a battery situated 80m further west (NHLE no. 1016787), is also a scheduled monument (SM 29434).

A full archaeological and historic background can be found in *Archaeological Desk Based Assessment: Martello Caravan Park, Walton-on-the-Naze* by John Duffy, L-P: Archaeology (2015).

There have been five recent archaeological investigations on land surrounding the proposed development site (as part of the wider redevelopment of the caravan site). A full summary of the results of these investigations and their potential impact on the proposed development site can be found in *A site-specific desk-based assessment of the proposed M&S Food Hall site, former Martello Caravan Park, Kirby Road, Walton-on-the-Naze, Essex, CO14 8QP* by Howard Brooks, CAT Report 1156 (2017). Discarding the modern features (largely associated with the former caravan park), the majority of the dated features from these four sites were of prehistoric origin.

- 1) In 2015 Archaeology South-East carried out an evaluation on land around the present Care Home (centred 120m NNE) (ASE 2015). Only three of the six trenches contained significant archaeological remains, mainly centred on their Trench 2.
- 2) In March 2016 CAT excavated an area measuring 20m x 25m over ASE Trench 2 (centred 100m N) (CAT Report 927). Excavation revealed 40 Late Bronze Age features, two Roman and four medieval.
- 3) In June 2016 Pre-Construct carried out an evaluation on the future Aldi site, located between the proposed development site and Kirby Road (centred 80m SSE) (PCA 2016). Eleven Neolithic or Bronze Age features were identified. In particular, significant archaeological remains were excavated in Trench 1, 20m south of the southern edge of the proposed development site.

- 4) In August/September 2016, CAT carried out an evaluation on land northwest of the Martello Tower in advance of the construction of a housing estate (centred 300m N) (CAT Report 1015). Four Bronze Age or Iron Age features were identified, together with three of LIA/Roman date, three medieval and four post-medieval.
- 5) In March 2018, CAT carried out an evaluation on land to the northeast of the development site (CAT Report 1246). It revealed a ditch of Late Bronze Age or Early Iron Age date and three prehistoric features (two postholes and a pit) which were probably contemporary with the ditch.

4 Aim

The aim of the archaeological investigation were to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains, and to determine if any of the archaeological remains recently identified on adjacent sites continue into the development site.

5 Methodology

Archaeological fieldwork was carried out in two phases.

Phase 1: archaeological trial-trenching evaluation

Phase 1 took place from the 25th to 27th September 2017. Four trial-trenches (T1-T4, totalling 120m long by 1.8m wide) were machine excavated under the supervision of a CAT archaeologist. As a number of significant archaeological remains were identified, the Essex County Council Historic Environment Advisor decided that an area excavation was required.

Phase 2: archaeological excavation

Excavation took place from the 15th to 22nd January 2018 within the footprint of the proposed new store. An area measuring 913 square metres was machine excavated under the supervision of a CAT archaeologist.

The following section comprises the combined results of both phases of archaeological investigation.

6 Results (Figs 2-5)

Five layers were recorded. Modern surface and crush (L1-L2, c 0.1-0.45m thick) overlay subsoil (L4, c 0.1-0.35m thick, medium to dark grey silty-clay) which sealed natural clay (L3, identified at a depth of c 0.42-0.48m below current ground level). A band of natural clay ran NE/SW across the middle of the site which had been stained black by an old tarmac road (L5).

Prehistoric

On the western edge of the excavation area were three prehistoric ditches. Ditch F23 measured 0.9m wide by 0.12m deep. It was aligned NNW/SSE but only measured 4m long and contained a single sherd of possible Neolithic pottery. Close-by were ditches F16 and F21, dated to the Late Bronze Age/Early Iron Age and Bronze Age respectively. Ditch F16 was a curved ditch 1.5-1.8m wide and 0.12m deep, although the northern extent of this feature could not be traced. Ditch F21 was 0.9m wide by 0.26m deep. A fourth feature, F20, was only partially excavated in evaluation trench T2 and could be a ditch or pit probably dated to the Late Bronze Age.

Four pits were also excavated dating from the Neolithic to Bronze Age (F27), Late Bronze Age (F12 and F13) and prehistoric period (F8).

On the eastern side of excavation area was a single cremation burial (F25) sealed (and likely cut) by ground hollow F26. The burial pit measured 0.45m by 0.3m and 0.12m deep, and contained a quantity of cremated human bone but no associated finds. It has been identified as the bone from an adult over 25 years old. Radiocarbon dating was carried out on this cremated bone. A 2-sigma calibrated date (at 95.4% confidence) of 1190 to 996 BC was produced (see Appendix 3). This period of the 10th to 13th centuries BC is generally placed within the later Middle Bronze Age (1500-1000BC) and the earliest Late Bronze Age (1000-700BC).

Roman and later

On the eastern edge of the site was a large silt-filled erosion hollow (F1/F14/F26). As excavated it measured 11m E/W by 8m N/S, and c 0.3m deep. A small quantity of finds of a prehistoric and Roman (late 1st-2nd century) date were recovered from this feature.

Associated with the erosion hollow were linear features running to the south of the site, all of which appeared to be interconnected. These were F10 and F15/F19/F24 running to the SSW and F9/F28/F31 to the SSE. Ditch F15/F19/F24 was recorded for a distance of 27m and measured between 2.6-3.2m wide by 0.2-0.3m deep. It was identified as having moderately sloping and uneven sides, with a base that was irregular and undulating in places. The presence of F10 to the north of the ditch, which was only half the width of the larger feature (1.2m wide by 0.18m deep), may suggest that F15/F19/F24 represents two phases, an earlier ditch and later recut. The only finds recovered from this ditch were residual prehistoric pottery sherds.

Gully F9/F28/F31 was much narrower at 0.57-0.84m wide by 0.16m deep. Finds included residual prehistoric pottery as well as Roman pottery, a sherd of probable Anglo-Saxon pottery (dating from the late 5th to the 8th/9th century), and a sherd of medieval pottery from the surface (14th to early 16th century). The Anglo-Saxon and medieval pottery is likely intrusive, and the feature is probably contemporary with the erosion hollow.

Hollow F1/F14/F26 may have been used a watering-hole for grazing animals. Alternatively it could represent an area of erosion formed by continuous use of the site as a stock-holding pen (perhaps for feeding or milking), such as that seen on Area 6 of the Colchester Garrison PFI Project (CAT Report 292). Unlike Area 6, no associated postholes/stake-holes for fences or tethering posts were present at Walton. However, drainage gullies were identified on both sites, with the Walton erosion hollow being drained downhill to the SSW by ditch F10/F15/F19/F24 to the SSE by gully F9/F28/F31. This movement of silt/water would account for the irregular nature of the base of ditch F15/F19/F24.

Pit F17 is of Roman or later date. Undated features included a cluster of five postholes in T2 (F2-F6), three pits (F7, F11 and F30) and a pit/tree-throw (F29). Two natural features were also excavated (F18 and F22).



Photograph 1 Southeastern corner of the excavation area with L5 on the left and F24 on the right, looking NE.



Photograph 2 Silt-filled ground hollow F1/F14/F26, looking NNW

7 Finds

7.1 Bulk finds

by Stephen Benfield (unless otherwise stated)

Introduction

The archaeological work (evaluation and excavation) produced a moderate quantity of finds, primarily pottery and flint of prehistoric (Neolithic to Bronze Age/Early Iron Age) date. Heat altered (burnt) stones recovered are probably of the same period. There are also a few pottery sherds that can be dated to the Roman, Anglo-Saxon and medieval period, together with a few small fragments of brick/tile that are of Roman or later date.

All of the finds from the archaeological work are listed and described by context in Table 2. Pottery fabrics referred to are listed and described in Table 1. For the prehistoric pottery these broadly follow Brown (1988) while for the Roman and post-Roman pottery they refer to the fabric type series in *CAR* **7** (post-Roman) and *CAR* **10** (Roman).

Fabric code	Fabric description
Prehistoric:	
В	Mix of small-medium crushed flint (common)
С	Mix of small-medium crushed flint (common-abundant) with occasional lar-
	ger pieces (circa >2 mm)
D	Mix of small-large crushed flint (poorly sorted)
E	Flint & sand
F	Sand-tempered with occasional flint inclusion
M	Grog, often with some sand and flint
0	Quartz and flint and some sand (poorly sorted)
Roman:	
BSW	Black surface ware
GX	Other coarsewares, principally locally-produced greywares
Anglo-Saxon:	
Fabric 1	Saxon vegetable (chaff) tempered ware
Medieval:	
21	Medieval sandy orange wares (general)

Table 1 Pottery fabrics

Prehistoric

Pottery

In total the archaeological work produced 59 sherds of prehistoric pottery with a combined weight of 244g. This is made up of 40 sherds (104g) from the evaluation and 19 sherds (140g) from the excavation. Overall for the assemblage the average sherd weight is 4.1g. The average weight from the evaluation is quite low (2.6g) with that from the excavation being significantly higher (7.4g). The largest amounts of pottery from any one context come from ditches F9 (9 sherds, 28g), F16 (10 sherds, 30g) & F28 (6 sherds, 54g) and pit F12 (14 sherds, 26g). Other contexts with pottery produced only one or a few sherds each.

The assemblage is comprised almost exclusively of flint-tempered fabrics. These predominate during the Neolithic and Bronze Age but fade in the Iron Age as sand replaces flint. In terms of dating, much depends on the nature of the fabrics as there are almost no sherds that are otherwise diagnostic. There is a single rim which comes from ditch F24 (24) and which appears typical of Middle Bronze Age bucket or urn-like pots, current in the mid-late 2nd millennium BC. Also, one very small sherd, from ditch F16 (18) appears possibly to be Late Neolithic grooved ware current c 2800-2000 BC (Gibson 2002, 84), but the size precludes a positive identification. These suggest that, while difficult to date, potentially the assemblage (as represented by the remaining

sherds) spans the Neolithic to Bronze Age. The only other sherd that is not a plain body sherd comes from F16 (10) and has part of two small finger indentations but is not of itself diagnostic.

That a proportion of the pottery is Neolithic is also suggested by a number of coarse flint-tempered sherds (Fabric D), many of which have dark-coloured fabrics. Some of these at least are more likely to be of Neolithic date than later. It can be noted that they were mostly recovered during the excavation phase and come from ditches F16 (18), F23 (21), F24 (25), F28 (32), pits F12 (7) and F27 (28), and with L4 (27). However, none of the sherds should be taken as an indication of a Neolithic date for the feature. The remaining pottery is either in fabrics generally common to the Neolithic and Bronze Age or is in finer flint fabrics where the flint is moderately well sorted and well embedded and these are likely to be of later Bronze Age or Early Iron Age date. None of the pottery is typical of the Middle or Late Iron Age of Essex.

Flints by Adam Wightman

There are a small number of worked flints, nine in total. These include a probable axe thinning flake from F16 (18) that can be dated to the Early Neolithic and a probable end scraper, made on a thick blade-like flake, from F26 (30). The other pieces are a collection of unmodified struck flakes using a hard hammer technique and a core fragment. While not closely dated these are more typical of later prehistoric (Late Neolithic and Bronze Age) flint working.

Burnt stones

One or two burnt (heat altered) stones were common finds among the features and are generally common around prehistoric sites. Almost all of the stones are small flints, several of these can be shown to be small, water-rounded stones. There are only three pieces of burnt stone that are sandstone/quartzite, sometimes specially selected for their superior thermal properties, but which are much rarer in comparison to flint among the Essex gravels (Crummy et al 2007, 18-21).

Roman and later

A small number of finds are datable to the Roman, Anglo-Saxon and medieval period. These are pottery sherds and pieces of ceramic building material (CBM).

The pottery consists of a small group of Roman sherds from one feature and individual sherds from three other features. Sherds from the rim of an early Roman (1st-2nd century) beaker were recovered from silt filling a ground hollow (F26 (30)) and a single very small sherd was present in ditch F28 (33). A single sherd of abraded late medieval pottery was recovered from the surface of the same ditch (32).

Of interest is a small, abraded sherd, heavily-tempered with chaff, which was recovered (alongside some flint-tempered prehistoric sherds) from ditch F9 in T4. This is almost certainly Anglo-Saxon in date, but within that period is not more closely-datable than late 5th to 8th/9th century (*CAR* **7**, 23).

The CBM consists of a few, small fragments in a moderately hard, orange sandy fabric from pit F17 (11) and which appear to be brick/tile fragments of Roman or later date.

Discussion of bulk finds

The prehistoric finds indicate activity in this area in the Neolithic and Bronze Age/Early Iron Age. The poor dating resolution of the pottery (almost all flint-tempered sherds) does not allow more than an impression of the balance of activity within that period, although overall the pottery and flint suggest that most of the finds are Mid to Late Bronze Age and possibly also Late Bronze Age/Early Iron Age. The activity creating this does not appear to continue far into the Iron Age period and certainly not into the Middle Iron Age. The broken and abraded nature of the prehistoric and later pottery would suggest that much if not all of it is either, by degrees, residual in the features

from which it was recovered, or that it represents secondary deposition away from the main settlement focus such as might result from manure scatter. The former appears more likely to apply to the prehistoric material and the later to the Roman and medieval pottery. It can also be noted that there did not appear to be any significant localised concentrations of material, or any selective deposition of finds such as is sometimes encountered in ditch terminals on prehistoric settlement areas. A single sherd of chaff-tempered pottery probably indicates some limited activity here in the Anglo-Saxon period of the late 5th to 8th/9th century.

In many ways, the impression of the discernible nature of activity here in the past is similar to that revealed at the near adjacent Martello Caravan Park site (CAT Report 927), which saw some Late Mesolithic/Neolithic activity and increased activity in the Late Bronze Age with more limited, probably agricultural-based use thereafter.

Context	Find no	Type/ description	Finds spot date		
F1 (T1) Ground hollow	1	Flint: (1, 24g) thick piece struck from a rounded pebble with part of surface cortex, piece broken away at one side, smashed (not closely dated) Heat altered (burnt) stone: (1, 28g) grey/white (calcified) flint, crazed (probably prehistoric)	Prehistoric?		
F8 (T2) Pit	35	Burnt stone: single small flint (8g), calcified	Prehistoric?		
F9 (T4) Ditch	5	Prehistoric pottery: Fabric C (2 sherds, 12g), both abraded, one sherd oxidised, abundant flint-temper (medium size sherd) the other dark grey/black (small sherd) Heat altered (burnt) stone: (1, weight 54g) part of a pale coloured sandstone/quartzite pebble	Prehistoric		
	6	Finds from processing bulk sample Prehistoric pottery: Fabric C (6 sherds, 12g); Fabric F (1 sherd, 4g) Anglo-Saxon(?) pottery: Fabric 1 (1 sherd, 4g)	(Prehistoric) & Anglo-Saxon		
F10 (T2) Ditch	T10 (T2) 4 Charcoal: Piece of small roundwood (twig) charcoal				
	3	Finds from processing bulk sample Prehistoric pottery: Fabric C (1 sherd, 4g)	dated Prehistoric, Late Bronze Age?		
F12 (T2) Pit	7	Prehistoric pottery: Fabric C (2 sherds, 6g) one with rather ill-sorted flint; Fabric D (1 sherd, 2 g) dark fabric, coarse flint Flint: (1, weight 6g) secondary flake, irregular flake removals across dorsal face	Prehistoric, Late Bronze Age?		
	8	Prehistoric pottery: Fabric B (11 sherds, 18g), small sherds (some possibly Fabric C)	Prehistoric, Late Bronze Age?		
F13 (T2) Pit	9	Prehistoric pottery: Fabric B (2 sherds, 4g), oxidised surfaces, dark interior surface	Prehistoric, Late Bronze Age?		
F14 (T2) Ground	14	Heat altered (burnt) stone: (1, 28g) white (calcified) flint, crazed	Presumed prehistoric		
hollow	17	Prehistoric pottery: Fabric F (1 sherds, 2g), oxidised brownish-red	Prehistoric, Late Bronze Age?		
F16 (T2) Ditch	10	Prehistoric pottery: Fabric C (9 sherds, 18g), small, abraded sherds, surfaces mostly oxidised, flint rather ill sorted Flint: (1, 4g) ?primary squat flake, snapped, large (patinated) platform	Prehistoric, Bronze Age?		
	12	Finds from processing bulk sample Prehistoric pottery: Fabric B (1 sherd, 12g), medium-size abraded sherd, almost certainly from the flat base of a pot with dense flint gritting, typical of the Late Bronze Age and Early Iron Age	Late Bronze Age/Early Iron Age		
	18	Prehistoric pottery: (3 sherds, 18g), abraded, one sherd Fabric D with relatively dense flint (dated Neolithic?); two	Prehistoric, Late Neolithic		

Context	Find no	Type/ description	Finds spot date
		other sherds Fabric C with oxidised surfaces and less dense flint (Neolithic-Bronze Age); there are also a small number of pottery fragments/crumbs that include a small piece with some grog with a vesicular dark fabric and buff surface which has abraded, scored lines on the surface - appears to be Grooved ware (late Neolithic) Flint: two small flint flakes, one proximal end of a snapped flake, thin with platform preparation and parallel blade-like flaking scars on dorsal face, probably an axe thinning flake (Early Neolithic) Burnt stone: single piece (18g) part calcified, crazed	with possible Bronze Age?
F17 (T2) Pit	11	Not closely identified : small, moderately hard, orange sandy pieces/fragments (4 pieces, 2g), probably brick/tile fragments	Roman or later
F19 (T3) Ditch	13	Prehistoric pottery: Fabric C (1 sherd, 4g) brownish-red fabric, quite abraded	Prehistoric
F20 (T2) Ditch?	15	Prehistoric pottery: Fabric C (1 sherd, 2g); Fabric F, sand-tempered (1 sherd, 4g)	Prehistoric, Late Bronze Age?
F21 Ditch	19	Prehistoric pottery: single sherd (8g), oxidised brownish-red, slightly sandy fabric with moderate small-medium flint, Fabric E (Bronze Age?)	Prehistoric, Bronze Age
F23 (sx1) Ditch	21	Prehistoric pottery: single sherd, abraded (4g) Fabric D (Neolithic?)	Prehistoric, Neolithic?
F23 (sx2) Ditch	23	Burnt stone: single small flint (12g), calcified, heat fractured from a small, water rounded pebble/stone	Prehistoric?
F24 (sx1) Ditch	24	Prehistoric pottery: (2 sherds, 30g) rim sherd from a large, moderately thick walled pot with flat rim top (probably an urn or bucket-like pot), Fabric C (Bronze Age); small sherd with common small-medium flint, Fabric B (probably Bronze Age) Burnt stone: single, water rounded flint pebble/stone (26g), pale grey surfaces and white calcified body	Prehistoric, Bronze Age
F24 (sx2) Ditch	25	Prehistoric pottery: single sherd, some abrasion (4g), Fabric D (Neolithic-Bronze Age) Burnt stone: single, water rounded flint pebble/stone (30g), pale grey surfaces and white calcified body	Prehistoric, Neolithic-Bronze Age
F26 Ground hollow	30	Roman pottery: (4 sherds, 14g), rim sherds from a small jar or beaker with everted rim, Fabric BSW (slightly soft, brownish-red fine sand fabric with dark grey surfaces) (<i>c</i> late 1st-2nd century) Flint: single secondary blade-like flake with abrupt retouch all along distal edge and on two small areas on edges (one ventral one dorsal), possible end scraper	Roman, c L1-2C
	36	Prehistoric pottery: (2 sherds, 10g), abraded, body sherd, Fabric B (?Bronze Age); small body sherd with moderate flint inclusions, Fabric C (probably Bronze Age) Burnt stone: (2 pieces, 46g) flint, crazed, calcified Flint: thick broken piece/shatter piece	Prehistoric, Bronze Age
F27 Pit	28	Prehistoric pottery: (2 sherds, 6g), small body sherds, abraded, one sherd Fabric D (oxidised) the other Fabric C (reduced) (Neolithic-Bronze Age) Flint: two pieces; one an unmodified thick flint flake with a small area of earlier patination on the dorsal face; other is a small thick piece with flake scars and appears to be part of a core	Prehistoric, Neolithic to Bronze Age
F28 Ditch (surface finds)	32	Prehistoric pottery: (2 sherds, 6g) from two pots, abraded, Fabric D (Neolithic-Bronze Age). Medieval pottery: single, quite abraded sherd (8g), relatively fine sand fabric, grey core and orange margins, Fabric 21 (14th-early 16th century). Stone: single piece of flint (10g), bullhead flint with red margin, appears a natural and unmodified flake. One other	Late medieval (14-E16C)

Context	Find no	Type/ description	Finds spot date
	110	natural shatter piece of flint, not modified.	
F28 (sx1) Ditch	31	Prehistoric pottery: (3 sherds, 32g), abraded, one sherd Fabric B (well sorted and relatively fine flint) probably from a bucket-like pot; other sherd Fabric B, rather more coarse; both sherds oxidised surfaces (Bronze Age); one small sherd with sandy fabric and some coarse grog, Fabric M (? Bronze Age). Roman pottery: single small body sherd (2g), Fabric GX (Roman). Fired clay: single small abraded piece (3g) brownish orange sandy fabric with some darker ferrous sand/iron pan inclusions Burnt stone: (4 pieces, 88g) three flints (two calcified white) and one sandstone/quartzite (part of a water rounded pebble/stone)	Prehistoric, Bronze Age with Roman
F28 (sx2) Ditch	33	Prehistoric pottery: single sherd, abraded (16g), Fabric O, relatively thick sherd, brownish orange oxidised fabric (Neolithic-Bronze Age). Roman pottery: single very small sherd (1g), Fabric BSW Burnt stone: single very small piece (1g), white with some hairline fractures, pale red margin to the flint, possibly heat affected	Prehistoric and Roman
F31 ?Pit	34	Prehistoric pottery: single sherd, abraded (4g), Fabric B, possibly includes some irregular grog (Neolithic-Bronze Age) Burnt stone: small single piece, possibly heat altered rather than heavily burnt	Prehistoric, Neolithic-Bronze Age
L4 Subsoil	27	Prehistoric pottery: single sherd, quite abraded (6g), Fabric D, dark fabric (Neolithic?) Flint: irregular flake with small notch on lower edge	Prehistoric Neolithic?

Table 2 Finds by context

7.2 Cremated human bone from F25 (finds number 26)

by Julie Curl

Methodology

A single bag of burnt bone was submitted for recording and analysis. The contents were dry-sieved through a stack of 10, 5, 2 and 1mm sized mesh to ensure maximum recovery and assess the degree of fragmentation. Fragments measuring over 5-9mm were manually separated for analysis, those below 4mm were scanned, but not fully sorted and examined in greater depth for this report. Greatest lengths were measured for the larger pieces in the assemblage.

Quantification, provenance and preservation

A single cremation, amounting to 645 elements, totalling 317g, was recovered from a pit. Radiocarbon dating was carried out on bone from this cremation, which produced a 2-sigma calibrated date (at 95.4% probability) of 1190 to 996 BC.

Preservation is quite good, with many large fragments over 10mm in length surviving, although no particularly large fragments. Some small fragments below 4mm are present, but none of 1mm or less. The bulk of the bone is of human origin. One single piece of rodent bone was recorded that is unburnt. Due to the intrusive natural of the rodent bone, the bulk of this report deals only with the cremation.

>10mm	Wt	5-9mm	Wt	2-4mm	Wt	<1mm	Wt
283	279g	305	31g	57	7g	0	0

Table 3 Quantification of the cremated material by fragment size count and weight. This table does not include the single fragment of rodent that was identified.

Analysis results and discussion

Size of Cremation

The size of a cremation depends on the individual (age, sex, body mass, bone density), maintenance of the pyre, the extent of bone recovery from the pyre site and during excavation, as well as on the rate of bone preservation (McKinley, 1993).

The weight for the cremation at 317g in this assemblage is well below the middle weight in the weight range in comparison to average archaeological cremations (range: 57 - 3000 g) (McKinley, 2000) and less than half the lowest weight in comparison to a modern cremation (1000 - 3600 g) (McKinley, 2000).

Average weights for cremations compared to the Walton Cremation								
Cremations	Low weight	Low to medium weight	Medium weight	Medium to high weight	High weight			
Average Archaeological	57g	up to 750g	up to 1500g	up to 2250g	up to 3000g			
Average Modern	1000g	up to 1400g	up to 1800g	up to 2700g	up to 3600g			
Walton cremation compared to archaeological material		317g						
Walton cremation compared to modern material	317g							

 Table 4
 Quantification comparisons between average archaeological, modern and the Walton cremations.

Cremations in containers are normally larger than cremations in pits and finely crushed cremations tend to be smaller due to poor preservation. The Walton cremation at 317g is relatively small compared to both modern and average archaeological cremations. The lack of an urn at Walton would have undoubtedly led to the loss of small fragments of bone and possibly destruction of any poorly burnt fragments.

Fragmentation

The fragmentation of bone resulting from the cremation process may be increased by funerary practices such as raking and tending of the pyre, collection of bone at the pyre site, deliberate crushing prior to burial, as well as a result of post-depositional processes, excavation and processing (McKinley, 1989).

There is relatively little variation in fragment size with the bulk of the bone, in terms of fragment count, in just two groups: 5-9mm and over 10mm. The maximum size in this cremation was 35mm, the next greatest length is 30mm. Some cremations produce fragments of around 70-100mm or more. No bone was recorded as 1mm or less, where often there is considerable numbers of small fragments. The overall small range of sizes and lack of larger fragments and smaller fragments might suggest heavy raking of the cremation while burning. The lack of very large fragments and numerous smaller pieces is common with un-urned cremations,

In terms of fragment count, 44% of the fragments measured over 10mm in size, which is a greater degree of fragmentation than the average for an archaeological cremation. The overall degree of bone fragmentation is more than that generally seen in archaeological cremations where an average of 50% of bone fragments are over 10mm in size (McKinley, 1993). Around 47% of the bone measured between 5-9mm and approximately 9% was recorded at 2-4mm.

Colour

The colour of cremated bone depends on a range of factors including the maximum temperature reached, the length of the cremation process, the type and amount of fuel, the quantity of oxygen, the amount of body fat as well as on the degree of uniformity of exposure to the heat across the body. A correlation has been found between the temperature attained and colour changes. Cremated bone can exhibit a large range of heat-induced colour variation from normal coloured (unburnt), to black (charred: c 300°C), through hues of blue and grey (incompletely incinerated: up to c 600°) to fully oxidised white (> c 600°C) (McKinley, 2004).

Approximately 90% of the bone was fully oxidised, much of the bone was not fully cremated. Several fragments of blue-grey bone were recorded. The variation in colour might suggest that the cremation was not raked and tended sufficiently to ensure fully burning of all of the remains.

Surface Changes

Surface changes such as warping, cracking and fissuring are characteristics of cremated bone and are produced during the process of dehydration undergone by bone exposed to heat. The pattern of heat-induced bone changes in colour and texture can be exploited to infer the technological aspects of the ritual, the condition of the body at the time when the cremation process took place and the nature of post-depositional disturbance (Shipman *et al.* 1984).

Approximately 70% of the bone in this assemblage showed warping, twisting, cracking and fissures, with fragments that were burnt at higher temperature and fully oxidised.

Elements and species identified

Fragments of human skull, vertebrae, pelvis, upper and lower limb bones, were recorded.

In addition, one rodent bone was identified, which was part of a small mandible. The species of rodent compares well with Harvest Mouse (*Micromys minutus*), which, if contemporary with the cremation and perhaps residual in the soil at the time, would suggest quite open and rough tall grassland or cereals in close proximity.

Age, sex and pathologies

Fusion lines were visible, but fused on the skull, indicating an adult over 25 years, possibly older.

No elements were seen that would allow estimation of sex or stature.

No pathologies were observed on any of the bone. The lack of larger fragments would possibly affect this.

Additional finds

Small fragments of flint, most of which were burnt, were found within the cremated material. Small fragments of charcoal were also noted.

Conclusions

This cremation appears to be that of an adult, the fused sutures suggesting an age over 25 years, probably older, which remains unsexed.

The date of the cremated bone is likely either Middle Bronze Age or the earliest Late Bronze Age, and cremations are common from this period. However, many cremations are from urns at this time, which can substantially increase the quantity and quality of a cremation and lead to a greater number of larger fragments and generally better preservation. Some Bronze Age cremated material was recovered from a site at Brightlingsea in Essex (Curl, 2017) which produced considerably larger amounts of bone in each urned cremation and cremations without vessels were almost destroyed. The largest size fragment at Walton-On-The-Naze is 35mm in length, which, compared to Brightlingsea (Curl, 2017) where several of the larger fragments measured *c* 110mm, is small, again showing that the lack of a vessel has considerably affected the preservation of this cremation.

The presence of the probable Harvest Mouse (*Micromys minutus*), if contemporary with the cremation and perhaps residual in the soil at the time, would suggest quite open and rough tall grassland or cereals in close proximity to the burial site.

7.3 Radiocarbon dating

A sample of cremated human bone from F25 was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-77883; see Appendix 3). The purpose of submitting the sample was to date the cremation burial, which was devoid of finds, and to determine if it was contemporary with other dated features on the site.

A 2-sigma calibrated date (at 95.4% confidence) of 1190 to 996 BC was produced.

On the basis of the 2-sigma calibrated date (at 95.4% confidence), there is a 92.8% chance that the date lies between 1129 to 996 BC. On the basis of the 1-sigma calibrated date (at 68.2% confidence), there is a 58.5% chance that the date lies between 1091 to 1021 BC.

8 Environmental assessment

by Lisa Gray MSc MA ACIfA Archaeobotanist

Introduction – aims and objectives

Nine samples were taken from silt-filled hollows, ditches and pits dating from the Neolithic to Roman and later.

Sampling and processing methods

In total, 340 litres of soil were sampled and processed by Colchester Archaeological Trust. All samples were completely processed using a Siraf-type flotation device. Flot was collected in a 300 micron mesh sieve then dried.

Once with the author the flots were scanned under a low powered stereo-microscope with a magnification range of 10 to 40x. The whole flots were examined. The abundance, diversity and state of preservation of eco- and artefacts in each sample were recorded. A magnet was passed across each flot to record the presence or absence of magnetised material or hammerscale.

Identifications were made using modern reference material (author's own and the Northern European Seed Reference Collection at the Institute of Archaeology, University College London) and reference manuals (such as Beijerinck 1947; Cappers *et al.* 2006; Charles 1984; Fuller 2007; Hillman 1976; Jacomet 2006). Nomenclature for plants is taken from Stace (Stace 2010). Latin names are given once and the common

names used thereafter. Low numbers of non-charcoal charred plant macro-remains were counted. Uncharred plant remains, fauna and magnetic fragments were given estimated levels of abundance unless, in the case of seeds, numbers are very low in which case they were counted.

Results (Table 5)

The plant remains

These samples were quite unproductive. Samples <1> to <7> contained low to abundant uncharred root/rhizome fragment. Samples <7> to <9> contained flecks of charcoal too small to identify.

Sample <3> (F10, Roman or later ditch) contained a low number of identifiable charcoal fragments.

Samples <4> (F12, Late Bronze Age pit), <5> (F16, Late Bronze Age/Early Iron Age ditch) and <9> (F26, Roman or later silt-filled ground hollow) contained low numbers of uncharred/dried waterlogged seeds. These seeds survived as testas only, like seeds in waterlogged conditions do. No waterlogged conditions were present during excavation so it is possible that they had been waterlogged and were now dried. The seeds present were low numbers of fat hen (*Chenopodium album* L.) in sample <4>, less discernible goosefoot-type/orache-type (*Chenopodium/Atriplex* sp.) in sample <5> and hawkbit-type (*Leontondon* sp.) in sample <9>. Fat hen, Goosefoot-type and orache -type plants are ruderal plants common in cultivated and disturbed ground (Stace 2017, 486 and 489). Hawkbit species are common in chalky grassland (Stace 2017, 705).

Faunal remains

The only faunal remains found in these samples were low numbers of earthworm cocoons in sample <9> (F26, Roman or later silt-filled ground hollow)

Significant inorganic remains and artefacts

No significant inorganic remains were observed.

Sample	Finds No.	Sample description	Bulk sample volume (L)	Flot volume (ml)	Charcoal>4mmØ	Charcoal<4mmØ	Dried waterlogged seeds		Modern root/rhizomes	Details – main and significant taxa	
			-	正	а	а	а	d	р	а	
1	2	F1 Roman or later silt-filled ground hollow	40	1	-	-	-	-	-	1	-
2	6	F9 Roman or later gully	40	5	-	-	-	-	-	2	-
3	3	F10 Roman or later ditch	40	5	1	-	-	-	-	1	-
4	8	F12 Late Bronze Age pit	40	5	-	1	1	1	3	2	UNCH: fat hen (Chenopodium album L.)
5	12	F16 Late Bronze Age/ Early Iron Age ditch	40	2	-	ı	1	1	3	2	UNCH: goosefoot- type/orache-type (Chenopodium/ Atriplex sp.)
6	16	F20 Late Bronze Age ?ditch/pit	20	1	-	1	-	-	-	1	-
7	21	F23 ?Neolithic ditch	40	2	-	2		-	-	1	-
8	23	F24 Roman or later ditch	40	2	-	1		-	-	1	-
9	29	F26 Roman or later silt- filled ground hollow	40	2	-	2	1	1	2	2	UNCH: hawkbit- type (<i>Leontondon</i> sp.)

Table 5 Plant remains in samples

Key to Table 5:

UNCH = uncharred/dried waterlogged.

- a = abundance [1 = occasional 1-10; 2 = moderate 11-100; and 3 = abundant > 100].
- d = diversity [1 = low, 1-4 taxa types; 2 = moderate 5-10; 3 = high].
- p = preservation [1 = poor (family level only); 2 = moderate (genus); 3 = good (species identification possible)].

Discussion

Biases in recovery, residuality, contamination

Nothing with regards biases in recovery, residuality or contamination was highlighted for any of these samples. Uncharred root/rhizome fragments and earthworm cocoon can indicate that bioturbation is possible.

Quality and type of preservation

Preservation was by charring and waterlogging. The waterlogged plant remains were dried and waterlogged conditions were not present on site. Charring occurs when plant material is heated under reducing conditions where oxygen is largely excluded leaving a carbon skeleton resistant to decay (Boardman & Jones 1990, 2; English Heritage 2011, 17). These conditions can occur in a charcoal clamp, the centre of a bonfire or pit or in an oven or when a building burns down with the roof excluding the oxygen from the fire (Reynolds, 1979, 57). Preservation by waterlogging occurs when plant remains are in anoxic conditions such as sealed pits or layers or a high water-tables (English Heritage 2011, 13).

No plant remains were preserved by mineralisation (Green 1979, 281) or silicification (Robinson and Straker 1990), which means that there is no archaeobotanical evidence for the cess disposal or slow-burning aerated fires.

Significance and potential of the samples and recommendations for further work. The identifiable charcoal fragments were present in low numbers relative to sample size. These are small and durable enough to have been move about the site in backfill, re-working and bioturbation so cannot be guaranteed to be the same date as the sampled feature or context.

A recent study of intrusion and residuality in the archaeobotanical record for southern England (Pelling *et al* . 2015) has highlighted the problem of assigning charred plant remains such as these to the dated contexts they were taken from because it is possible that these durable charred plant remains survived being moved between contexts by human action and bioturbation so cannot be properly interpreted unless radiocarbon dates are gained from the plant macro-remains themselves. That is the only way to secure a genuine date for the charred plant macro-remains like these (Pelling *et al.* 2015, 96).

The dried waterlogged plant remains and charred plant remains have been named in the table so no further work is recommended on these samples.

The charcoal in sample <3> may be suitable for radiocarbon dating, if they are identified and found to be of a suitable taxa.

9 Discussion

Archaeological evaluation/excavation on the development site revealed nine features containing material from the Neolithic, Middle Bronze Age, Late Bronze Age and Late Bronze Age/Early Iron Age. It is unlikely that any of the features (except perhaps ditch F23) date to the Neolithic period, with most of the Neolithic pottery sherds (except recovered as residual finds. Evidence would suggest most of the prehistoric activity

recorded on the site dates from the Mid to Late Bronze Age, with perhaps some activity in the Early Iron Age.

Previous archaeological investigations at the former Martello Caravan Park site have revealed Late Bronze Age features 50m to the north (CAT Report 927) and Neolithic or Bronze Age features 40m to the south (Jackson 2016) (see Fig 6). Curved ditch F16 in particular is very similar to four L-shaped ditches of a Late Bronze Age date excavated to the north, where they were thought to be associated with stock management (CAT Report 927).

Of particular significance is the discovery of cremation burial F25, the first burial identified on the former Martello Caravan Park site. Dating to the later Middle Bronze Age or earliest Late Bronze Age, this is a seemingly isolated burial. However, a single rim from Roman ditch F24 is typical of Middle Bronze Age bucket or urn-like pots, perhaps suggesting the existence of a second cremation disturbed by later activity. Other burials of a similar date from Walton-on-the-Naze include a Middle Bronze Age bucket urn containing cremated human bone, found at the foot of the cliffs at the Naze having eroded from the cliff edge.

Less intensive phases of agricultural activity dating to the Roman and later periods have also been identified during previous archaeological investigations further to the north (CAT Reports 927 and 1015) (see Fig 6). The presence of the possible stockenclosure/watering-hole and associated drainage ditches, provide further evidence for marsh-edge farming and the management of animals on the development site in the Roman period. Ditch F15/F19/F24 appears to continue for a further 28m to the SSW where is was recorded during a 2016 evaluation (Fig 6), although gully F9/F28/F31 does not appear to have continued this far south (Jackson 2016).

This current archaeological work confirms the findings of previous investigations which indicated a long history of activity on the former Martello Caravan Park, probably to exploit the resources of the marshland. This ranges from the Neolithic through to the Late Bronze Age/Early Iron Age, with less intensive activity in the Roman and medieval periods.

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Note: all CAT reports, except for DBAs, are available online in PDF format at http://cat.essex.ac.uk

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12 Abbreviations and glossary

Anglo-Saxon period from c 500 – 1066 Bronze Age period from c 2500 – 700 BC

Bronze Age (Late) Late Bronze Age, period from c 1000 – 700 BC

CAT Colchester Archaeological Trust
CIfA Chartered Institute for Archaeologists

context specific location of finds on an archaeological site

ECC Essex County Council

ECCHEA Essex County Council Historic Environment Advisor

ECCPS Essex County Council Place Services EHER Essex Historic Environment Record

feature (F) an identifiable thing like a pit, a wall, a drain: can contain 'contexts'

Iron Age period from 700 BC to Roman invasion of AD 43 layer (L) distinct or distinguishable deposit (layer) of material

medieval period from AD 1066 to c 1500 modern period from c AD 1800 to the present

natural geological deposit undisturbed by human activity

NGR National Grid Reference

OASIS Online AccesS to the Index of Archaeological InvestigationS,

http://oasis.ac.uk/pages/wiki/Main

post-medieval from c AD 1500 to c 1800

prehistoric pre-Roman

residual something out of its original context, eg a Roman coin in a modern pit

Roman the period from AD 43 to c AD 410

section (abbreviation sx or Sx) vertical slice through feature/s or layer/s

wsi written scheme of investigation

13 Contents of archive

Finds: one box

Paper and digital record

One A4 document wallet containing:
The report (CAT Report 1226)
ECC evaluation brief, CAT written scheme of investigation
Original site record (feature and layer sheets, finds record, plans)
Site digital photos and log, attendance register, risk assessment

14 Archive deposition

The paper and digital archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Roman Circus Walk, Colchester, Essex CO2 7GZ, but will be permanently deposited with Colchester Museum under accession code COLEM: 2017.127.

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Distribution list:

James Orbell, Orbell Associates Kilo Properties Ltd ECC Place Services Historic Environment Advisor Essex Historic Environment Record, Essex County Council



Colchester Archaeological Trust

Roman Circus House, Roman Circus Walk, Colchester, Essex, CO2 7GZ

tel.: 01206 501785 email: lp@catuk.org

Checked by: Philip Crummy Date: 16.4.2018

Appendix 1 Context list

Trench no.	Context no.	Finds no. F:finds S:sample <>:sample no.	Context type	Description	Date
-	L1	-	Car park surface	Light brown sand with gravel, medium stones and CBM piece inclusions	Modern
-	L2	-	Crush layer	Firm medium grey/brown clay with frequent small, medium and large stone and CBM piece inclusions	Modern
-	L3	-	Natural	Very firm, moist medium orange clay	Post-glacial
-	L4	F: 27	Subsoil	Firm, moist, medium to dark grey/brown silty-clay with oyster shell and daub fleck inclusions and occasional stone piece inclusions	-
T1	F1	F:1 S: 2 <1>	Erosion hollow, part of F1/F14/F26	Firm, moist, dark grey silty-clay	Roman, late 1st to 2nd century
T2	F2	-	Possible posthole	Firm, dry, light orange/grey silty-clay with rare stone piece inclusions	Undated
T2	F3	-	Possible posthole	Firm, dry, light orange/grey silty-clay with rare stone piece inclusions	Undated
T2	F4	-	Possible posthole	Firm, dry, light orange/grey silty-clay with rare stone piece inclusions	Undated
T2	F5	-	Possible posthole	Firm, dry, light orange/grey silty-clay with rare stone piece inclusions	Undated
T2	F6	-	Possible posthole	Firm, dry, light orange/grey silty-clay with rare stone piece inclusions	Undated
T2	F7	-	Pit	Firm, moist, medium grey silty-clay with charcoal fleck inclusions	Undated
T2	F8	F: 35	Pit	Friable to firm, moist, medium grey mottled orange clay	Prehistoric
T4	F9	F: 5 S: 6 <2>	Gully, part of F9/F28/F31	Soft, moist, medium grey/brown silty-clay with rare stone piece inclusions	Roman or later
T2	F10	F: 4 S: 3 <3>	Ditch	Friable, moist, medium grey silty- clay with charcoal and iron pan fleck inclusions	Roman
T4	F11	-	Pit	Soft, moist, medium green/grey silty-clay	Undated
T2	F12	F: 7 S: 8 <4>	Pit	Hard, dry, medium orange/brown silty-clay	Late Bronze Age
T2	F13	F: 9	Pit	Firm, moist, medium grey silty-clay with charcoal fleck inclusions	Late Bronze Age
T2	F14	F: 14, 17	Erosion hollow, part of F1/F14/F26	Friable, moist, medium grey silty- clay with iron pan fleck inclusions	Roman, late 1st to 2nd century
T4	F15	-	Ditch, part of F15/F19/F24	Firm, moist, medium yellow/grey/brown silty-clay	Roman

T2	F16	F: 10, 18 S: 12 <5>	Ditch	Very hard, dry, medium orange/brown silty-clay	Late Bronze Age / Early Iron Age
T2	F17	F: 11	Pit	Very hard, dry, medium orange/brown silty-clay	Roman or later
T2	F18	-	Natural silt patch	Friable, dry, medium orange/grey/brown sandy-silt	Post-glacial
Т3	F19	F: 13	Ditch, part of F15/F19/F24	Firm, moist, medium grey silty-clay	Roman
T2	F20	F: 15 S: 16 <6>	Ditch/pit	Firm, dry, medium, orange/brown silty-clay with charcoal fleck inclusions	?Late Bronze Age
EXC	F21	F: 19	Ditch	Firm, moist, medium grey/brown silty-clay, <1% stone	Bronze Age
EXC	F22	-	Natural gully	Hard, moist, medium grey/brown silty-clay, <1% stone, occasional to frequent manganese flecks	Post-glacial
EXC	F23	F: 20, 22 S: 21 <7>	Ditch	Firm, moist, medium grey/brown with mottled yellow silty-clay, with rare inclusions of daub and manganese, rare stones	?Neolithic
EXC	F24	F: 24, 25 S: 23 <8>	Ditch, part of F15/F19/F24	Firm, moist, medium grey silty-clay, <1% stone, occasional to frequent manganese flecks	Roman
EXC	F25	F: 26	Cremation burial	Friable, firm, moist dark brown/black silty-clay with charcoal, <2% stone	Middle Bronze Age/ Late Bronze Age
EXC	F26	F: 30, 36 S: 29 <9>	Erosion hollow, part of F1/F14/F26	Friable, firm, dry, medium-dark grey/brown/blue silty-clay, <5% stone	Roman, late 1st to 2nd century
EXC	F27	F: 28	Pit	Firm, moist, medium yellow/grey/black silty-clay with rare daub and manganese inclusions, rare stone	Neolithic to Bronze Age
EXC	F28	F: 31, 32 33	Gully, part of F9/F28/F31	Firm, moist, medium grey/brown silty-clay, <1% stone, occasional manganese flecks	Roman or later
EXC	F29	-	Pit/tree-throw	Firm, moist, medium grey/brown clay with charcoal fleck inclusions, >1% stone	Undated
EXC	F30	-	Pit	Firm, medium grey/brown silty-clay, rare manganese flecks	Undated
EXC	F31	F: 34	Gully, part of F9/F28/F31	Firm, moist, medium grey/brown silty-clay, rare manganese flecks	Roman or later

Appendix 2 Summary catalogue of the cremated/burnt bone from the M&S Excavation at Walton.

Context	Finds No	Туре	Finds date	>10mm	Wt	5-9mm	Wt	2-4mm	Wt	<1mm	Wt	Level	Warp	Crack	Condition	Мах	Elem	2ndGl	Elem	T.Qty	T. Wt (g)	HSR	Σ	Species	NISP	Adult	Σ×	Element range	TI II	J.	Limb	V/R	Man	Skull	Pel	Misc	d Comments
F25	26	Cremation	1190-996 CalBC	283	279g	305	31g	57	79	0	60	grey-white	У	У	poob	35mm	limb	30mm	limb	645	317	645		Human	645	_	_	skull, limb, misc			81	3		12	1	548	limb inc femur and ulna, skull sutures fused
F25	26	Cremation	1190-996 CaIBC					-	0			unburnt			poob				jaw	-	0		_	Rodent	_			jaw					_				small rodent, ?Harvest Mouse



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 15 March 2018

Laboratory Code SUERC-77883 (GU47181)

Submitter Laura Pooley

Colchester Archaeological Trust

Roman Circus House Roman Circus Walk

Colchester

Essex CO2 7GZ

Site Reference Walton, COLEM: 2017.127

Context Reference F25

Sample Reference Finds no. 26

Material cremated human bone

 δ^{13} C relative to VPDB -21.2 %

Radiocarbon Age BP 2886 ± 23

N.B. The above ¹⁴C 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 Facility 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: P. Nayonto





OxCal v4.3.2 Bronk Ramsey (2017); r:5; IntCal13 atmospheric curve (Reimer et al 2013)

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

Calibrated date (calBC)

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

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

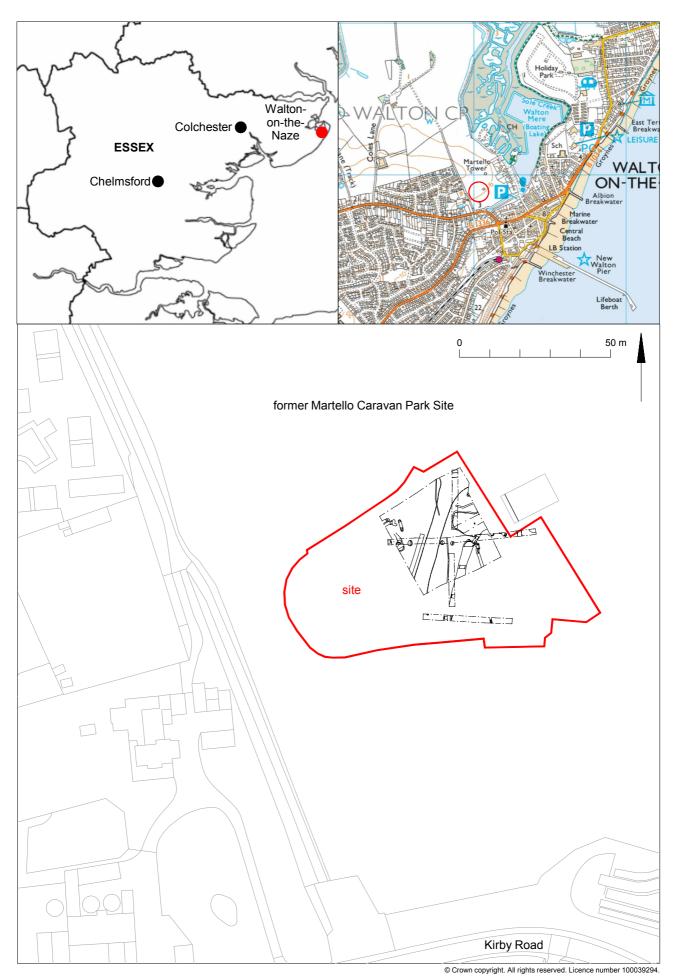


Fig 1 Site location.



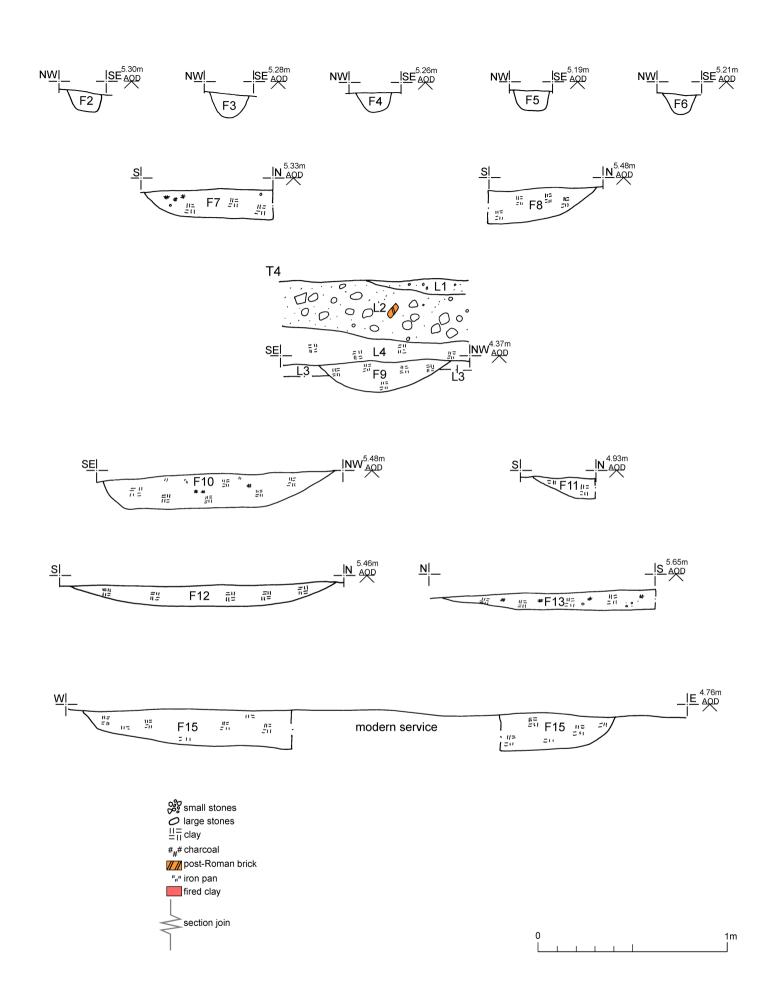


Fig 3 Feature and representative sections

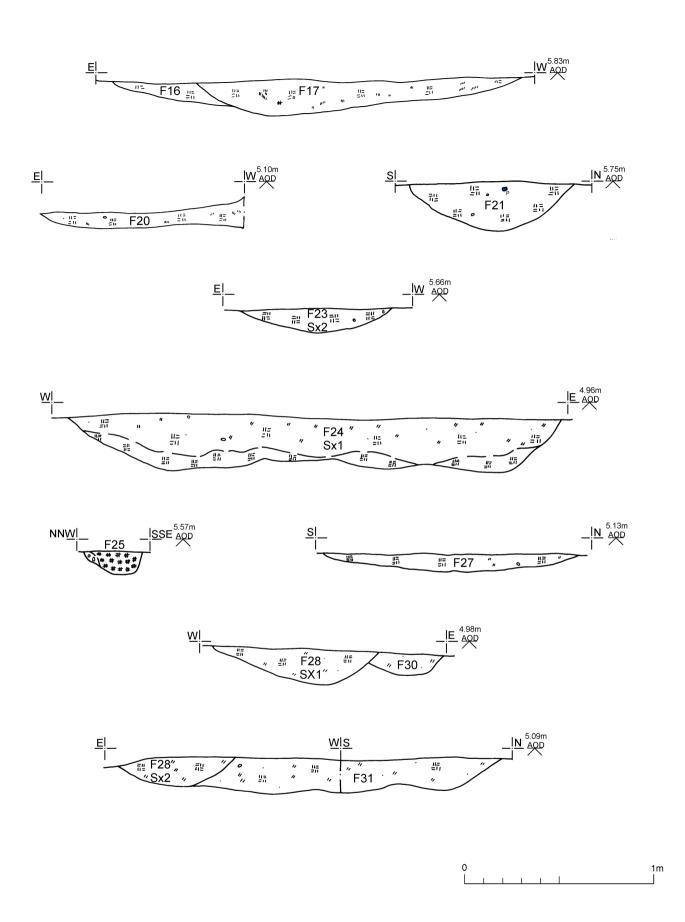


Fig 4 Feature sections

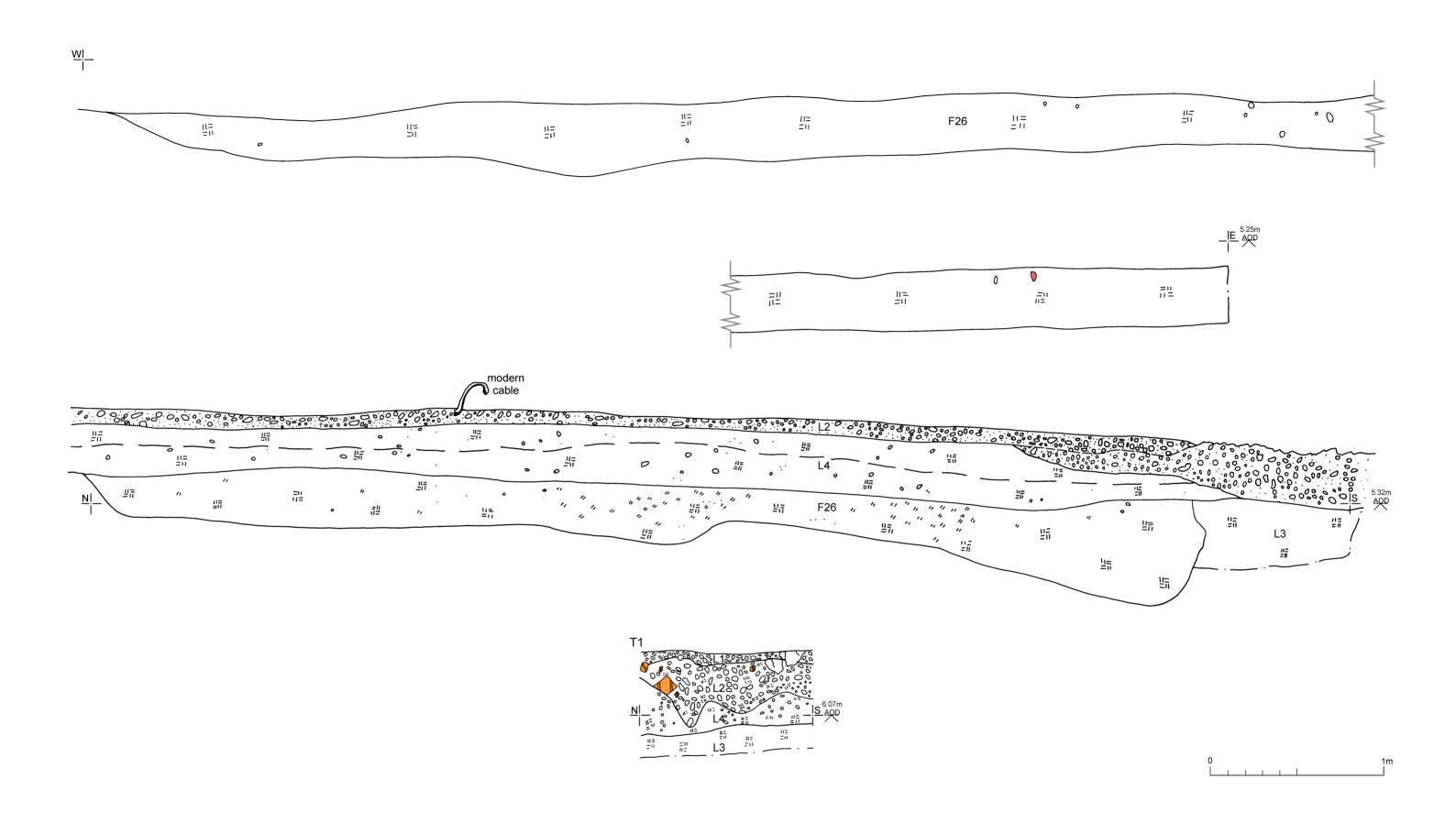


Fig 5 Feature and representative sections

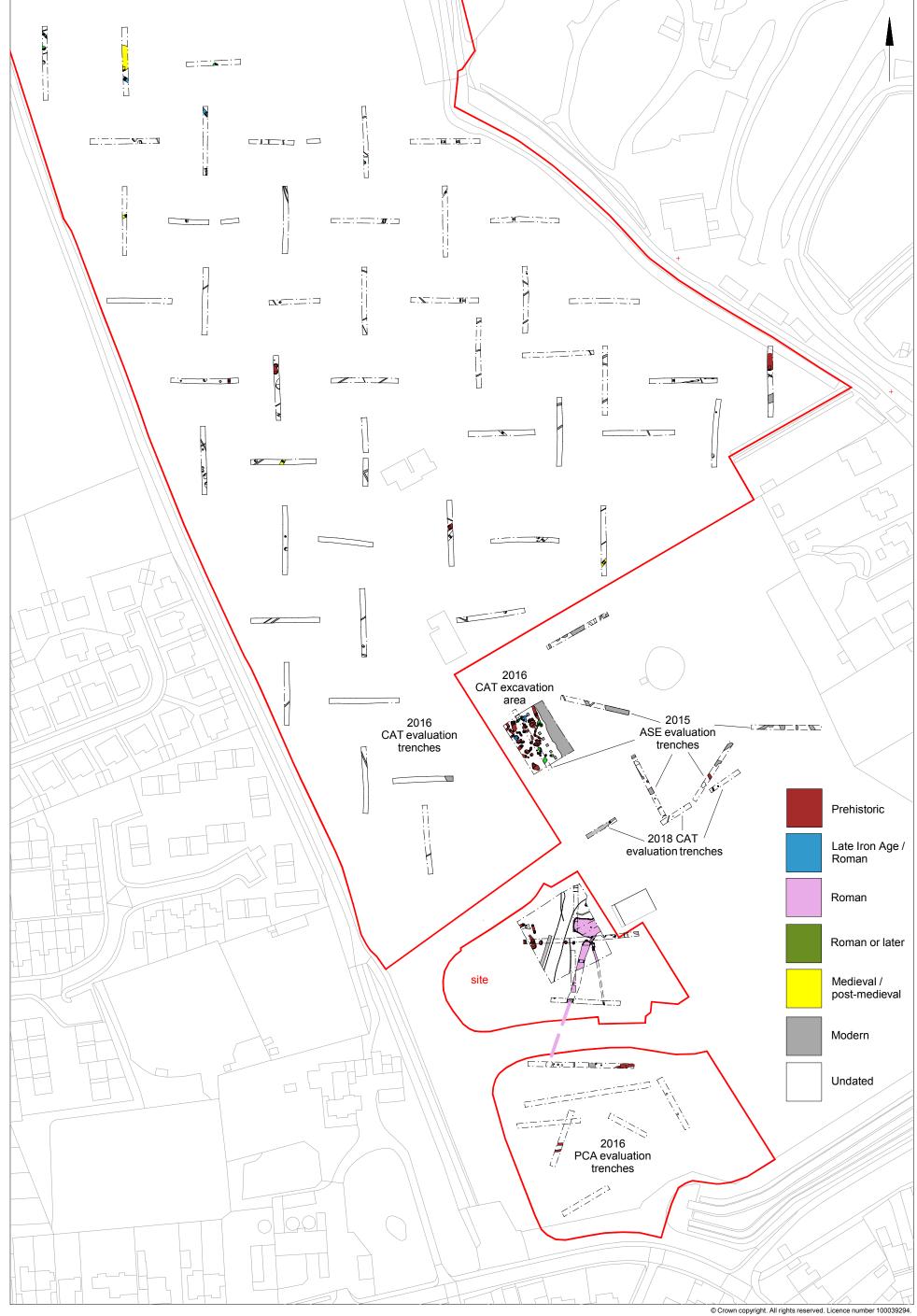


Fig 6 Results in relation to previous archaeological investigations

0 100 m

Written Scheme of Investigation (WSI) for archaeological evaluation on the proposed M&S Food Hall site, former Martello Caravan Park, Kirby Road, Walton-on-the Naze, Essex, CO14 8QP

NGR: TM 2501 2188 (centre)

Planning reference: 17/01090/FUL

Commissioned by: James Orbell (Orbell Associates)

Client: Kilo Properties Ltd

Curating museum: Colchester

Museum accession code: tbc

ECC project code: tbc CAT project code: 17/090

Oasis project ID: colchest3-296526

Site manager: Chris Lister

ECC monitor: Teresa O'Connor

This WSI written: 22.9.2017



COLCHESTER ARCHAEOLOGICAL TRUST, Roman Circus House, Roman Circus Walk, Colchester, Essex, CO2 7GZ

tel: 01206 501785 email: lp@catuk.org

Site location and description

The proposed development site is located to the north of Kirby Road and to the west of Walton Mere, on land at the former Martello Caravan Park (Fig 1). Site centre is National Grid Reference TM 2501 2188.

Proposed work

The proposed development comprises the redevelopment of the site through the construction of an M&S Foodhall together with associated car parking and landscaping and ancillary cafe.

Archaeological background

The following archaeological background draws on the Essex Historic Environment Record (EHER) held at Essex County Council, County Hall, Chelmsford, Essex.

The Walton area is significant for the established presence of prehistoric archaeological remains, particularly of the later Neolithic, the discovery of much of which is linked to the results of the Hullbridge Survey (Wilkinson and Murphy 1995). Thousands of worked flints, including polished axes, have been collected from the vicinity of the Naze and form a large component of the entries in the EHER. More recently, a Middle Bronze Age bucket urn containing cremated human bone was recovered from the foot of the cliffs at the Naze having eroded from the exposed upper strata and presumably deriving from a grave.

At the northern end of the Naze, on the foreshore in front of low-lying marshland, remains described as 'red hills' have been noted (e.g. EHER 3511). These features are typically associated with salt working, and are usually of Late Iron Age or Roman date. Towards the south of the Naze, Late Iron Age and Roman pottery was recovered during development on the west side of Old Hall Lane (EHER 3563/3564). Another potential 'red hill' has been recorded on low-lying land to the north-west of the site (EHER 3529). On farmland, also to the north-west of the site, cropmarks of former field boundaries have been plotted along with the tentatively identified remains of a possible ring-ditch (EHER 17239).

In the medieval period Walton was part of the 'soke' or estate of St Pauls, along with Kirby and Thorpe. Walton Hall was first recorded as a separate entity in 1222. The Tendring Historic Environment Characterisation Project notes that no buildings pre-dating the 18th century survive within Walton and that the town's historic core developed from the early 19th century onwards. The lack of earlier buildings can be blamed on coastal erosion as the medieval settlement originally extended further east with the former medieval church being lost to the sea in 1796. Medieval features and deposits have been identified around the periphery of Hamford Water, which probably relate to marsh edge farming whilst the marshes themselves were utilised for the grazing of both sheep and cattle.

To the northeast of the development site is Martello Tower K, built c 1810-1812 and one of the largest of the eleven Clacton Defence Towers. It is a grade II listed building (NHLE no. 1111504) and, along with a battery situated 80m further west (NHLE no. 1016787), is also a Scheduled Monument (SM 29434).

A full archaeological and historic background can be found in *Archaeological Desk Based Assessment: Martello Caravan Park, Walton-on-the-Naze* by John Duffy, L-P: Archaeology (2015).

There have been four recent archaeological investigations on land surrounding the proposed development site (as part of the wider redevelopment of the caravan site). A full summary of the results of these investigations and their potential impact on the proposed development site can be found in *A site-specific desk-based assessment of the proposed M&S Food Hall site, former Martello Caravan Park, Kirby Road, Walton-on-the-Naze, Essex, CO14 8QP by Howard Brooks, CAT Report 1156 (2017).* Discarding the modern features (largely associated with the former caravan park), the majority of the dated features from these four sites were of prehistoric origin.

- 1) In 2015 Archaeology South-East carried out an evaluation on land around the present Care Home (centred 120m NNE) (ASE 2015). Only three of the six trenches contained significant archaeological remains, mainly centred on Trench 2.
- 2) In March 2016 CAT excavated an area measuring 20m x 25m over ASE Trench 2 (centred 100m N) (CAT Report 927). Excavation revealed 40 Late Bronze Age features, two Roman and four medieval.
- 3) In June 2016 Pre-Construct carried out an evaluation on the future Aldi site, located between the proposed development site and Kirby Road (centred 80m SSE) (PCA 2016). Eleven Neolithic or Bronze Age features were identified. In particular, significant archaeological remains were excavated in Trench 1, 20m south of the southern edge of the proposed development site.
- 4) In August/September 2016 CAT carried out an evaluation on land NW of the Martello Tower in advance of the construction of a housing estate (centred 300m N) (CAT Report 1015). Four Bronze Age or Iron Age features were identified, together with three of LIA/Roman date, three medieval and four post-medieval.

Planning background

Planning application 17/01090/FUL was submitted to Tendering District Council in June 2017 for the redevelopment of the site through the construction of an M&S Foodhall together with associated car parking and landscaping and ancillary cafe.

As the site lies within an area highlighted by the Historic Environment Record as having a high potential for archaeological remains a full archaeological condition was recommended. This follows the guidelines given in National Planning Policy Framework (DCLG 2012) and states:

"No development or preliminary groundworks of any kind shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the local planning authority."

Requirement for work (Fig 1)

The required archaeological work is for evaluation by trial-trenching. No brief was produced, but the ECCHEA stated that 5% of the proposed development site was to be sample. This works out at 120m of trenching (all 1.8m wide).

On consultation with the ECCHEA it is proposed that four trenches (50m, 30m and two 20m trenches) will be laid out across the development site (Fig 1). If ground obstacles (ie concrete slabs) are encountered the size, length and position of the trenches may be altered slightly to avoid these.

If significant or unexpected archaeological remains are identified, the ECCHEA will be notified immediately. The ECCHEA may decide that further archaeological work is necessary, possibly comprising the top strip and excavation of all areas of significant groundworks. This will be the subject of an additional brief and wsi.

General methodology

All work carried out by CAT will be in accordance with:

- professional standards of the Chartered Institute for Archaeologists, including its Code of Conduct (ClfA 2014a, b)
- Standards and Frameworks published by East Anglian Archaeology (Gurney 2003, Medlycott 2011a)

relevant Health & Safety guidelines and requirements (CAT 2014)

Professional CAT field archaeologists will undertake all specified archaeological work, for which they will be suitably experienced and qualified.

Notification of the supervisor/project manager's name and the start date for the project will be provided to ECCHEA one week before start of work.

Unless it is the responsibility of other site contractors, CAT will study mains service locations and avoid damage to these.

At the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/project/oasis/ will be initiated and key fields completed on Details, Location and Creators forms. At the end of the project all parts of the OASIS online form will be completed for submission to EHER. This will include an uploaded .PDF version of the entire report.

A project or site code will be sought from the ECCHEA and/or the curating museum, as appropriate to the project. This code will be used to identify the project archive when it is deposited at the curating museum.

Staffing

The number of field staff for this project is estimated as follows: one supervisor plus three archaeologists for one day and one supervisor plus one archaeologist for a second day. In charge of day-to-day site work: Nigel Rayner

Trial-trenching methodology

Where appropriate, modern overburden and any topsoil stripping/levelling will be performed using a mechanical excavator equipped with a toothless ditching bucket under the supervision and to the satisfaction of a professional archaeologist. If no archaeologically significant deposits are exposed, machine excavation will continue until natural subsoil is reached.

Where necessary, areas will be cleaned by hand to ensure the visibility of archaeological deposits.

If archaeological features or deposits are uncovered time will be allowed for these to be excavated, planned and recorded.

All features or deposits will be excavated by hand. This includes a 50% sample of discrete features (pits, etc), 10% of linear features (ditches, etc) in 1m wide sections, and 100% of complex structures/features. Complex archaeological structures such as walls, kilns, ovens or burials will be carefully cleaned, planned and fully recorded, but where possible left *in situ*. Only if it can be demonstrated that the complex structure/feature is likely to be destroyed by groundworks will it be removed.

Fast hand-excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.

A sondage will be excavated in each trench to test the stratigraphy of the site. This will occur in every trench unless it can be demonstrated that a feature excavated within a particular trench has clearly penetrated into natural.

A representative section will be drawn of each trench, to include ground level, the depth of machining within the trench and the depth of any sondages.

A metal detector will be used to examine trenches, contexts and spoil heaps, and the finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on proforma record sheets. Registers will be compiled of finds, small finds and soil samples.

Site surveying

The evaluation trenches and any features will be surveyed by Total Station, unless the particulars of the features indicate that manual planning techniques should be employed. Normal scale for archaeological site plans and sections is 1:20 and 1:10 respectively, unless circumstances indicate that other scales would be more appropriate.

The site grid will be tied into the National Grid. Corners of excavation areas and trenches will be located by NGR coordinates.

Environmental sampling policy

The number and range of samples collected will be adequate to determine the potential of the site, with particular focus on palaeoenvironmental remains including both biological remains (e.g. plants, small vertebrates) and small sized artefacts (e.g. smithing debris), and to provide information for sampling strategies on any future excavation. Samples will be collected for potential micromorphical and other pedological sedimentological analysis. Environmental bulk samples will be 40 litres in size (assuming context is large enough)

Sampling strategies will address questions of:

- the range of preservation types (charred, mineral-replaced, waterlogged), and their quality
- concentrations of macro-remains
- and differences in remains from undated and dated features
- variation between different feature types and areas of site

CAT has an arrangement with Val Fryer/Lisa Gray whereby any potentially rich environmental layers or features will be appropriately sampled as a matter of course. Trained CAT staff will process the samples (unless complex or otherwise needing specialist processing) and the flots will be sent to VF/LG for reporting.

Should any complex, or otherwise outstanding deposits be encountered, VF/LG will be asked onto site to advise. Waterlogged 'organic' features will always be sampled. In all cases, the advice of VF/LG and/or the Historic England Regional Advisor in Archaeological Science (East of England) on sampling strategies for complex or waterlogged deposits will be followed, including the taking of monolith samples.

Human remains

During evaluation work CAT follows the policy of leaving human remains *in situ* unless there is a clear indication that the remains are in danger of being compromised as a result of their exposure. If circumstances indicated it were prudent or necessary to remove the remains from the site during the evaluation phase, the following criteria would be applied; if it is clear from their position, context, depth, or other factors that the remains are ancient, then normal procedure is to apply to the Ministry of Justice for a licence to remove them. In that case, conditions laid down by the license will be followed. If it seems that the remains are not ancient, then the coroner, the client, and ECCHEA will be informed, and any advice and/or instruction from the coroner will be followed.

Photographic record

Will include both general and feature-specific photographs, the latter with scale and north arrow. A photo register giving context number, details, and direction of shot will be prepared on site, and included in site archive.

Finds

All significant finds will be retained.

All finds, where appropriate, will be washed and marked with site code and context number.

Stephen Benfield (CAT) normally writes our finds reports. Some categories of finds are automatically referred to other CAT specialists:

small finds, metalwork, coins, etc: Laura Pooley animal bones (small groups): Adam Wightman

flints: Adam Wightman

or to outside specialists:

animal bones (large groups) and human remains: Julie Curl (Sylvanus)

environmental processing and reporting: Val Fryer / Lisa Gray

conservation of finds: staff at Colchester Museum / Laura Ratcliffe (LR Conservation)

Other specialists whose opinion can be sought on large or complex groups include:

Roman brick/tile: Ernest Black Roman glass: Hilary Cool Prehistoric pottery: Paul Sealey

Other: EH Regional Adviser in Archaeological Science (East of England).

All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

Requirements for conservation and storage of finds will be agreed with the appropriate museum prior to the start of work, and confirmed to ECCHEA.

Results

Notification will be given to ECCHEA when the fieldwork has been completed.

An appropriate archive will be prepared to minimum acceptable standards outlined in *Management of Research Projects in the Historic Environment* (English Heritage 2006).

The report will be submitted within 3 months of the end of fieldwork, with a copy supplied to the ECCHEA as a single PDF.

The report will contain:

- Aims and methods adopted in the course of the archaeological work.
- Location plan of excavated areas in relation to the proposed development. At least two corners of the development site will be given 10 figure grid references.
- A section/s drawing of every trench showing depth of deposits from present ground level with Ordnance Datum, vertical and horizontal scale.
- Archaeological methodology and detailed results including a suitable conclusion and discussion. Appropriate discussion and results sections assessing the site in relation to the Regional Research Frameworks (Brown and Glazebrook 2000 and Medlycott 2011a) and with the results of Great Chesterford report (Medlycott 2011b).
- · All specialist reports or assessments.
- A concise non-technical summary of the project results.

An OASIS summary sheet shall be completed at the end of the project and supplied to the ECCHEA. This will be completed in digital form with a paper copy included with the archive. A copy (with trench plan) will also be emailed to the Hon. Editor of the Essex Archaeology and History Journal for inclusion in the annual round-up of projects (paul.gilman@me.com).

Publication of the results at least a summary level (i.e. round-up in *Essex Archaeology & History*) shall be undertaken in the year following the archaeological fieldwork. An allowance will be made in the project costs for the report to be published in an adequately peer reviewed journal or monograph series.

Archive deposition

The requirements for archive storage shall be agreed with the Curating museum.

If the finds are to remain with the landowner, a full paper copy of the archive will be housed with the curating museum.

The archive will be deposited with the appropriate museum within one month of the completion of the final publication report and confirmed in writing to the ECCHEA.

A summary of the contents of the archive shall be supplied to the ECCHEA at the time of deposition to the museum.

Monitoring

ECCHEA will be responsible for monitoring progress and standards throughout the project, and will be kept regularly informed during fieldwork, post-excavation and publication stages.

Notification of the start of work will be given to the ECCHEA one week in advance of its commencement.

Any variations in this WSI will be agreed with ECCHEA prior to them being carried out.

ECCHEA will be notified when the fieldwork is complete.

The involvement of ECCHEA shall be acknowledged in any report or publication generated by this project.

References		
Archaeology South-East	2016	Archaeological Evaluation, Martello Caravan park, Walton on the Naze (author, T Ennis)
Brown and Glazenbrook	2000	Research and Archaeology: A Framework for the Eastern Counties 2 – Research Agenda and Strategy. East Anglian Archaeology
CAT	2014	Health & Safety Policy
CAT Report 927	2016	Archaeological excavation at the former Martello Caravan Park, Kirby Road, Walton-on-the-Naze, Essex, CO14 8QP: March 2016
CAT Report 1015	2016	Archaeological evaluation on land at the former Martello Caravan Park, Kirby Road, Walton-on-the-Naze, Essex, CO14 8QP: August-September 2016
CAT Report 1156	2017	A site-specific desk-based assessment of the proposed M& S Food Hall site, former Martello Caravan Park, Kirby Road, Walton-on-the-Naze, Essex, CO14 8QP: August 2017
ClfA	2014a	Standard and Guidance for archaeological evaluation
ClfA	2014b	Standard and guidance for the collection, documentation, conservation and research of archaeological materials
DCLG	2012	National Planning Policy Framework
English Heritage	2006	Management of Research Projects in the Historic Environment (MoRPHE)
Gurney, D	2003	Standards for Field Archaeology in the East of England. East Anglian Archaeology Occasional Papers 14 (EAA 14).
L-P Archaeology	2010	Archaeological desk-based assessment: Martello Site, Walton-on-the-Naze: May 2010 (author, Steven Campion)
Medlycott, M	2011a	Research and Archaeology Revisited: A Revised Framework for the East of England. East Anglian Archaeology Occasional Papers 24 (EAA 24)
Pre-Construct Archaeology	2016	Land at Martello Caravan park, Kirby Road, Walton-on-the-Naze, Essex: an archaeological trial trench evaluation. PCA report R12527 (author, Clare Jackson).

Wilkinson, T & 1995 The archaeology of the Essex coast, Volume 1: The Hullbridge Survey, East Anglian Archaeology, 71,

L Pooley



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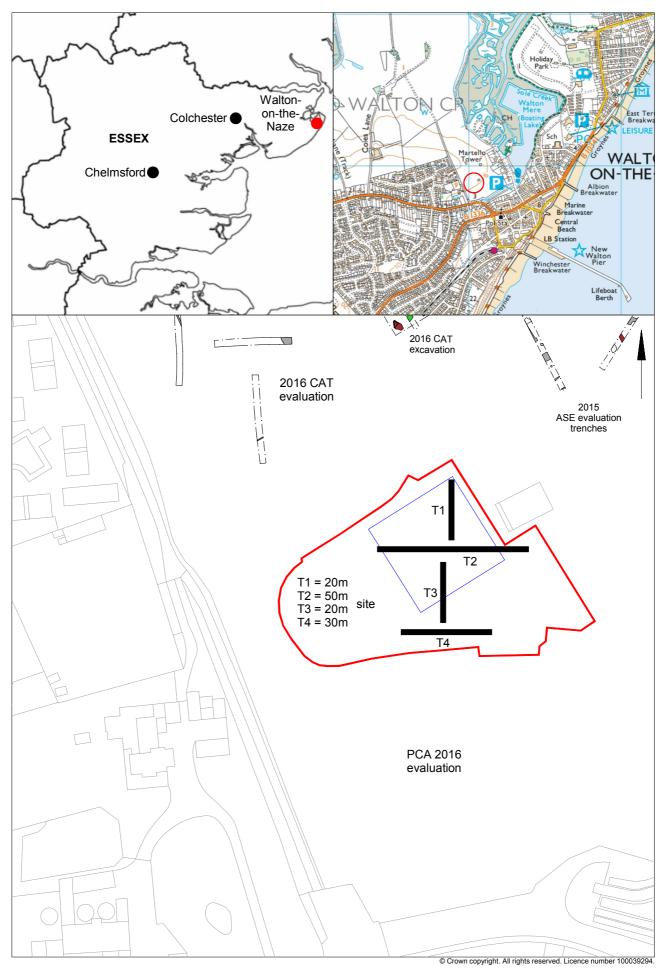


Fig 1 Site location.

0 50 m

OASIS DATA COLLECTION FORM: England

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Printable version

OASIS ID: colchest3-296526

Project details

Project name

Archaeological evaluation at the proposed M and S food hall, Kirby Road, Walton-on-the-Naze, Essex

Short description of the project

Archaeological evaluation (four trial-trenches) followed by an area excavation was carried out at the former Martello Caravan Park, Kirby Road, Walton-on-the-Naze on the site of the proposed new M and S Food Hall. Previous investigations on the Kirby Road redevelopment site have revealed a prehistoric landscape, predominantly of Bronze Age/Late Bronze Age date, with a smaller instances of Roman and medieval activity. Investigations on the current development site revealed prehistoric activity dating from the Neolithic to the Late Bronze Age/Early Iron Age. This consisted of three ditches, three pits, a ditch/pit and a cremation burial. The cremation burial contained the remains of an adult, over 25 years old. Radiocarbon dating on a sample of cremated bone produced a 2-sigma calibrated date (at 95.4% confidence) of 1190 to 996 BC for this burial. An erosion hollow, probably used as a watering-hole or as a stock-holding pen, and two associated drainage ditches are probably of a Roman date. A small pit was also either of a Roman or later date. Nine undated features (five postholes, three pits and a pit/tree-throw) were also excavated along with two natural features.

Project dates Start: 25-09-2017 End: 22-01-2018

Previous/future work

No / Not known

Any associated project reference

17/09o - Contracting Unit No.

Any associated

17/01090/FUL - Planning Application No.

project reference codes

FWMT17 - HFR event no.

Any associated project reference codes

Any associated project reference codes

COLEM: 2017.127 - Museum accession ID

Type of project Recording project

Site status None

Current Land use Community Service 2 - Leisure and recreational buildings

Monument type DITCH Neolithic

Monument type DITCHES Bronze Age

Monument type PITS Bronze Age

Monument type CREMATION BURIAL Bronze Age
Monument type EROSION HOLLOW Roman

Monument type DITCH Roman

Monument type GULLY Roman

Significant Finds POTTERY Neolithic

Significant Finds POTTERY Bronze Age

Significant Finds POTTERY Middle Bronze Age

Significant Finds POTTERY Late Bronze Age

Significant Finds POTTERY Early Iron Age

Significant Finds FLINT Late Prehistoric

Significant Finds POTTERY Roman
Significant Finds POTTERY Early Medieval
Significant Finds POTTERY Medieval
Investigation type "Open-area excavation"
Prompt Planning condition

Project location

Country England

Site location ESSEX TENDRING FRINTON AND WALTON proposed M and S Food Hall, former Martello Caravan Park, Kirby Road

Postcode CO14 8QP Study area 0.43 Hectares

Site coordinates TM 2501 2188 51.849505313821 1.267416407834 51 50 58 N 001 16 02 E Point

Height OD / Depth Min: 4.38m Max: 5.97m

Project creators

Name of Colchester Archaeological Trust

Organisation

Project brief none

originator

Project design Laura Pooley

originator

Project Chris Lister

director/manager

Project supervisor Nigel Rayner Type of Developer

sponsor/funding body

Project archives Physical Archive

Colchester Museum

recipient

Physical Archive COLEM: 2017.127

Physical Contents "Ceramics", "Human Bones", "Worked stone/lithics"

Digital Archive

Colchester Museum recipient

Digital Archive ID COLEM: 2017.127

Digital Contents "Human Bones", "Stratigraphic", "Survey", "other" Digital Media available

"Images raster / digital photography", "Survey", "Text"

Paper Archive

Colchester Museum

recipient

Paper Archive ID COLEM: 2017.127 Paper Contents "Stratigraphic","other"

Paper Media available

"Context sheet", "Miscellaneous Material", "Photograph", "Plan", "Report", "Section"

Project

bibliography 1

Grey literature (unpublished document/manuscript)

Publication type

Archaeological evaluation and excavation on the site of the proposed M and S Food Hall, Kirby Road, Walton-on-the-Naze, Essex, CO14 8QP: September 2017 - January 2018 Title

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Please e-mail Historic England for OASIS help and advice

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