



# Land to the rear of 19 Mess Road, Shoeburyness, Southend-on-Sea, Essex SS3 9UJ

Archaeological evaluation report

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Dr Jess Tipper, Inspector of Ancient Monuments for Historic England, and Victoria Rathmill, Assistant Curator of Archaeology at Southend-on-sea City Council, both monitored progress of the archaeological evaluation, having visited the site on Thursday 26th January 2023.

## Summary

*Between 25 and 27 January 2023, Canterbury Archaeological Trust undertook an archaeological evaluation at 19 Mess Road, Shoeburyness, Southend-on-Sea, Essex SS3 9UJ (NGR 593876 184530). The works were commissioned by Dino Forte, as part of preparations for the installation of a proposed outdoor swimming pool in the courtyard (Planning Application refs. 22/01086/FULH and 22/01087/LBC). The site lies within the grounds of Listed Officer Mess buildings which once formed part of the mid nineteenth century Shoebury Garrison and is located within a Scheduled Iron Age hillfort known as the 'Danish Camp' (List Entry nos. 1236531 and 1017206).*

*This report presents the results from the archaeological evaluation, which comprised the machine excavation of a single trench, conducted to assess the potential, character and extent of any buried archaeological resource.*

*The area of the evaluation trench was heavily impacted by the excavation of modern service runs. Undisturbed natural sand and gravel Head deposits were therefore only exposed within a small area of the trench. Two truncated, undated features - a north-west to south-east aligned potential ditch and a possible pit or post-hole - were partly exposed, cut into the natural. The ditch may have served as field boundary as it runs parallel to another recorded by earlier archaeological works c. 50m to the south-west. The significance of these two features in relation to the Scheduled Monument cannot be ascertained.*

*Two further cut features were investigated. One was exposed in the trench section and is unidentified. The second was a deep linear feature that runs through the centre of the trench. It was sample excavated to a depth of 1.80m below present ground level and due to its exposed vertical side and depth, it may represent a buried service, possibly an earlier version of the sewer pipe that overlies it today. Both these features are nineteenth or twentieth century in date and may relate to the original construction of the Officer's Mess buildings or later modifications.*

## 1 Introduction

### 1.1 Project background

- 1.1.1 Between 25 and 27 January 2023, Canterbury Archaeological Trust (CAT) undertook an evaluation at 19 Mess Road, Shoeburyness, Southend-on-Sea, Essex SS3 9UJ (NGR 593876 184530; Figure 1). The works were commissioned by Dino Forte (the Client), as part of preparations for the installation of a proposed outdoor swimming pool in the courtyard on the south-west side of the main building. Planning applications (Refs. 22/01086/FULH and 22/01087/LBC) were submitted to and validated by Southend-on-Sea Borough Council, the Local Planning Authority (LPA), on 19 May 2022. The proposed scheme is to include internal and external alterations to the annex building for ancillaries to the swimming pool.
- 1.1.2 The Proposed Development Area (PDA) for the swimming pool lies within the former mid nineteenth century Shoebury Garrison and is located within a Scheduled Monument, known as the 'Danish Camp', which is a middle Iron Age hillfort (List Entry no. 1017206).
- 1.1.3 In accordance with the National Planning Policy Framework (NPPF 2021), and in mitigation of the potential impact that the proposed scheme may have on the buried archaeological resource, the Client commissioned CAT to undertake a programme of archaeological works, commencing with an archaeological evaluation to inform on the PDA's potential to contain archaeological remains. The results will enable the LPA to determine the scope of any archaeological mitigation works that may be required. The implementation of the evaluation was subject to obtaining Scheduled Monument Consent, which was granted on 21 October 2021.
- 1.1.4 The archaeological evaluation comprised the machine excavation of a single trench, positioned within the footprint of the proposed swimming pool, and was undertaken in accordance with a Written Scheme of Investigation (WSI) prepared by CAT (2021) and approved by the LPA and the Historic England Inspector of Ancient Monuments.
- 1.1.5 This report sets out the results of the evaluation and will seek to define the extent and nature, so far established, of any significant archaeological resource within the PDA.

### 1.2 Location, topography and geology

- 1.2.1 The PDA comprises a paved, rectangular courtyard to the south-west side of the main building at 19 Mess Road (Figure 1). This property lies on the south-east side of Mess Road, on the foreshore at the eastern side of Shoeburyness. It is located within the south-east side of a Scheduled Monument (List Entry no. 1017206) that comprises a defended prehistoric settlement known as the 'Danish Camp'.
- 1.2.2 The PDA is surrounded by a complex of Grade II Listed, mid to late nineteenth century buildings that were originally mess buildings of the Horseshoe Barracks (List Entry no. 1236531) and which have recently been converted into a series of modern residences.
- 1.2.3 The present ground is level, being approximately 9m above Ordnance Datum (OD).
- 1.2.4 According to current data from the British Geological Survey (BGS on-line), the bedrock geology of the PDA comprises clay, silt and sand of the London Clay Formation, overlain by superficial River Terrace Deposits of sand and gravel.

## 2 Heritage setting

### 2.1 Introduction

2.1.1 The archaeological and historical background to the site has been set out within the WSI (CAT 2021) and is reproduced below. This is based mainly on the proximity of archaeological remains presently recorded in the Southend-on-Sea Borough Council Historic Environment Record (HER), as well as the results of archaeological investigations undertaken in the nearby proximity. A search of the HER covering a radius of approximately 500m around the PDA (centred on NGR 593876 184530) was undertaken, and the records assessed in terms of their relevance to the PDA and only significant evidence is cited in this report.

### 2.2 Archaeological and historical background

2.2.1 Shoebury and its surrounding area has had strategic importance since prehistoric times and the PDA is located within the north-eastern portion of a scheduled monument known as the 'Danish Camp', which comprises the buried and visible remains of a defended prehistoric settlement or hillfort. Although low-lying, the site belongs to a class of prehistoric monuments known as 'slight univallate hillforts' which are enclosures surrounded by a single boundary of substantial, though not especially imposing earthworks. Interpretations of their functions include stock enclosures, redistribution centres, places of refuge and permanent settlements.

2.2.2 The site was given the name the 'Danish Camp' by nineteenth century antiquarians and previously lay within a rural setting until 1849 when Shoeburyness was adopted as a range finding station by the Board of Ordnance and later developed into a complex of barracks and weapons ranges.

2.2.3 Sections of the prehistoric ramparts remain and recent excavations have revealed evidence of round-houses and other structures inside the defences. Surviving earthworks, comprising two sections of the perimeter bank/rampart, are recorded within 165m north-west and 190m south-west of the PDA. The northern half of the hillfort is already developed as mainly housing, with the course of the hillfort defined by Brigadier Way and Rampart Street.

2.2.4 The following information is provided from the site's entry with Historic England's list of scheduled monuments:

*'This bank (or rampart) is thought to have originally continued north and east, following a line to East Gate and Rampart Street, and enclosed a sub-rectangular area of coastal land measuring some 450m in length. The width of the enclosure cannot be ascertained as the south eastern arm (if any existed) is presumed lost to coastal erosion. The surviving section of the north west bank, parallel to the shore line and flanking Warrior Square Road, now lies some 150m-200m inland. It measures approximately 80m in length with an average height of 2m and width of 11m. The second upstanding section, part of the southern arm of the enclosure, lies some 150m to the south alongside Beach Road. This bank is similar in width although slightly lower overall, with some evidence of remodelling associated with two mid-19<sup>th</sup> century magazine buildings and a blast mound situated immediately to the south. The bank is flanked by an external ditch, now largely buried, which was shown by exploratory excavations in 1876 to be 12m wide and nearly 3m deep. More recent trial excavations (1999) have found pottery assemblages dating from the Middle and Late Bronze Age in association with the rampart.'*

*The area enclosed by these surviving banks, was investigated in 1998 as part of a wider archaeological evaluation of the Shoeburyness Barracks. Trial trenches were excavated to sample approximately 4% of this area and revealed a dense pattern of well preserved Iron Age features, including evidence of four round houses (identifiable from characteristic drainage gullies), two post- built structures, several boundary ditches and numerous post holes and pits. Fragments from a range of local and imported pottery vessels date the main phase of occupation to the Middle Iron Age (around the period 400-200 BC). Within this period, evidence was found to indicate a variety of domestic activities, including spinning, weaving, salt manufacture, cereal processing and butchery. Indications were also found that the interior of the defended settlement was subdivided, with some areas set apart for storage, particular dwellings or communal activities.*

*Slight evidence of earlier prehistoric activity, dating from both the Mesolithic period and the late Neolithic/Early Bronze Age, was found within the area of the settlement, although such evidence was also found beyond the ramparts and is probably representative of more general utilization of the marshland which formerly covered the promontory.*

*Evidence was also found of some form of occupation within the ramparts in the Late Iron Age, and of continued use after the Roman invasion. Material related to the demolition of a substantial Romanised structure, which had incorporated wattle and daub walls and a tiled roof, was found amidst later medieval debris in the south western corner of the settlement. Since no traces of such a structure were revealed by the other trenches or by geophysical survey, it is thought that this building may have stood to the east, seaward of Mess Road, where fragments of Roman pottery and Roman coins were discovered in the 1930s during the building work on the 19<sup>th</sup> century Officers' Mess (a Grade II Listed Building). This area is of interest not only for the location of the Roman structure but also for the continuation of Iron Age settlement activity towards the shoreline. It is therefore included in the scheduling. Trial trenches in the northern part of the settlement (as defined by the putative line of the ramparts to the north of Chapel Road) found considerable modern disturbance and no evidence of surviving Iron Age features. This northern area is therefore not included in the scheduling.*

*The former interpretation of the monument as a 'Danish Camp' is based on entries in the Anglo-Saxon Chronicles. These record the expulsion of Danish forces from their base at Benfleet in AD 893 and their subsequent regrouping, under the Viking leader Haesten, at a fort near Shoebury. Although the prehistoric earthwork might have been adopted for this purpose, the evidence for this period currently consists of only two fragments of Anglo-Saxon pottery (found during the 1998 investigation), and cannot be said to support this theory'.*

- 2.2.5 The PDA is located immediately east of the 1998 area of archaeological investigation that revealed a dense pattern of well preserved Iron Age features that included evidence of four round-houses, two post-built structures, several boundary ditches and numerous post-holes and pits; all indicating significant survival of archaeological remains (Wightman and Benfield 2013).
- 2.2.6 An excavation in 2003 of three areas in the North Camp revealed a multi-period site with archaeological activity dating from the middle Bronze Age to the Roman period, with the main focus on the middle Iron Age when at least four round-houses, along with associated ditches and pits, occupied the site (*ibid*, 12; HER: MSS1032843 and MSS1032844).



- 2.2.7 The Officers Mess site has been subject to a previous archaeological programme of test-pitting and a watching brief ahead of structural engineering and environmental ground investigations in 2010 (Brooks 2012). Test-pitting revealed nineteenth and twentieth century disturbance within the immediate proximity of the building, however some areas of undisturbed and un-truncated natural deposits were identified and three residual sherds of medieval pottery were retrieved. During conversion and extension of the Officers Mess site, archaeological monitoring recorded variable but widespread nineteenth and twentieth century disturbance along the north-west side of the Officers Mess and in areas of low disturbance, natural subsoil deposits were encountered at a depth of c. 0.4m (*ibid*). A single ditch was recorded and located 1.1m below modern ground surface.
- 2.2.8 An evaluation within a former car park site at the junction of Mess Road and Chapel Road in Shoebury Garrison in 2013, located 55–65m roughly north of the PDA, revealed ten potential archaeological features including four ditches and four small pits/post-holes (Wightman and Benfield 2013). The features were sealed by an undisturbed layer of buried topsoil and were exposed at 0.53–0.65m below modern ground level. Based on the finds assemblage, these features represent activity on the site in the early Iron Age period extending into the middle Iron Age. Previous excavations within the interior of the ‘Danish Camp’ have shown that the middle Iron Age was the principal period of occupation.
- 2.2.9 The HER lists finds and features of prehistoric date, most of which are attributed to the general area of Shoeburyness rather than from provenanced contexts. The finds are all from a 500m search radius centred on the PDA’s location. They include the following:
- A Palaeolithic axe head found in a sand pit near waterworks (HER: MSS32237).
  - A Mesolithic Thames pick found at Shoebury (HER: MSS32181).
  - An important collection of Neolithic implements were found in Shoeburyness (HER: MSS32143).
  - Six Neolithic flint arrowheads, three of them leaf-shaped, one lozenge and two barbed and tanged (HER: MSS32212).
  - Neolithic implements including scrapers, borers, a knife and arrowhead from Shoebury (HER: MSS32219).
  - A green jadeite axe was found by ‘Captain Sparrow’ in a brickfield behind the cinema (HER: MSS32155).
  - Eight fragmentary Beakers found in clay or gravel digging at Shoebury (HER: MSS32213).
  - A Beaker period storage pit found at Shoeburyness Old Ranges (HER: MSS1032780).
  - A palstave, two socketed axes, a socketed and looped spearhead all dated to the Bronze Age, found at Shoebury (HER: MSS32208).
  - Three Belgic pedestal urns and a small cup found in connection with a cremation in North Shoebury (HER: MSS32192).

- An Iron Age burial (HER: MSS32283)
  - An evaluation at Shoeburyness Hotel recorded ditches associated with the middle Iron Age enclosure and a series of earlier, late Bronze Age field ditches (HER: MSS1032847).
- 2.2.10 There is evidence of later occupation in Roman times and the possibility of a Roman building east of Mess Road. The HER lists finds and features of Roman date, most of which are attributed to the general area of Shoeburyness rather than from provenanced contexts. The finds are all from a 500m search radius centred on the PDA's location. They include the following:
- A Roman pottery lamp (African type) forms part of the Brentwood School collection from 1975 (HER: MSS32156)
  - Shoeburyness Old Ranges Roman saltern and fragments of a redeposited Roman structure (HER: MSS1032781).
  - Three Roman urns found near Dr Knapping's house 'Suttons' in c. 1866 (HER: MSS32201).
  - A Coin of Maximianus I found in 1959 in a brickyard south of Im Road (HER: MSS32168).
  - Sherds of Roman pottery and two coins found in 1930 in south Shoebury (HER: MSS32284 and MSS32288).
- 2.2.11 There is little evidence of occupation during the Anglo-Saxon period other than a couple of pottery sherds found during the 1998 investigation. Nineteenth-century antiquarians claimed the supposed 'Danish Camp' was built, or at least occupied, by the leader *Hasten* in 894 AD (HER: MSS32266) and there have been previous claims that an Anglo-Saxon period ditch was discovered at Rampart Street (HER: MSS32281), however there is currently little datable evidence to support this. Reportedly, graves found at Shoeburyness prior to 1903 were originally thought to be Saxon in date (HER: MSS32144).
- 2.2.12 There is little evidence of medieval and early post-medieval activity within the Shoeburyness area and it is likely the area remained isolated and rural during these times. However, medieval activity is represented by a boundary ditch identified at Shoeburyness Old Ranges (HER: MSS1032782) and, as mentioned above, three residual medieval pottery sherds were collected at the Officers Mess during archaeological investigations in 2010 (see para. 2.2.7).
- 2.2.13 In the mid nineteenth century, the site was incorporated within Shoebury Garrison, the area of which was originally chosen as a range finding station by the Board of Ordnance and later developed into a complex of barracks and weapon ranges. The Officers Mess and Servants Quarters, Mess Road were built in 1852 around a former coastguard station (built 1825), part of which is still visible. The Officers Mess forms part of a Grade II Listed block of buildings (List Entry no. 1236531) that have recently been converted into residential properties.

## 3 Aims and objectives

### 3.1 Objectives

- 3.1.1 As stated within the WSI (CAT 2021), the purpose of an archaeological field evaluation, as defined by the Chartered Institute for Archaeologists (CifA 2020a), is ‘to determine and report on, as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices’.
- 3.1.2 An evaluation is further explained as ‘a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts, and their research potential, within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, reports on them, and enables an assessment of their significance in a local, regional, national or international context as appropriate’.
- 3.1.3 The evaluation will thus provide sufficient information for all parties concerned, particularly the LPA, to devise appropriate mitigation strategies, if required. An evaluation may therefore result in the need for an agreed mitigation strategy and the implementation of further archaeological works, with a further WSI potentially required to fulfil planning conditions. Mitigation measures may, for example, include preservation *in situ* and/or further detailed archaeological excavation prior to development and/or an archaeological watching brief during construction work.
- 3.1.4 The principal objective of the evaluation work is to determine the extent, depth below ground surface, character, significance and condition of any archaeological remains present on site.

### 3.2 Site specific objectives

- 3.2.1 The site-specific objectives were compiled with previous archaeological knowledge of the site. These objectives would seek to:
- understand the nature, character, date and extent of any prehistoric, Roman, Anglo-Saxon, medieval and post-medieval activities present on site;
  - assess whether there is any evidence for Iron Age features that may relate to the site being part of a known middle Iron Age hillfort; and
  - place and assess any archaeological remains revealed within context of other recent investigations in the immediate area and within the setting of the local landscape and topography.

## 4 Evaluation methodology

### 4.1 Archaeological excavation and recording

- 4.1.1 The archaeological site investigation works were conducted in accordance with the approved WSI (CAT 2021) and to professional standards as set out in ClfA's *Standard and guidance for archaeological field evaluation* (ClfA 2020a). CAT is a Registered Archaeological Organisation (RAO) with ClfA.
- 4.1.2 The specification called for a single machine-cut evaluation trench, positioned within the footprint of the proposed swimming pool (Figure 2).
- 4.1.3 Mechanical excavation was limited to the removal of overburden to expose the uppermost archaeological deposits or the natural geological surface, whichever was the higher. Ground reduction was undertaken under constant archaeological supervision, with the use of a 0.8 tonne micro digger, fitted with a flat-bladed grading bucket. All overburden was removed in spits of c.100mm thickness.
- 4.1.4 Care was taken not to damage archaeological remains by unnecessary excavation. In general, the underlying geological deposits were not reduced but identified and recorded in terms of extent and depth below ground level (BGL), also expressed as height above OD.
- 4.1.5 Following the mechanical clearance of overburden, excavation of archaeological features was undertaken by hand. All features and deposits were excavated stratigraphically .
- 4.1.6 All archaeological contexts were recorded individually on a *pro forma* trench record sheet. A photographic record in digital format was kept. Trench plan and sections were drawn at an appropriate scale on polyester-based drawing film. Levels were established from an Ordnance Survey (OS) national benchmark (NBM 040) located on Chapel Road.

### 4.2 Health, safety and welfare

- 4.2.1 Health, safety and welfare followed CAT (2022) 'Company Policy and Procedural Manual for Health, Safety and Welfare'.
- 4.2.2 Site investigation works were conducted in accordance with a project specific risk assessment and method statement (CAT 2022).
- 4.2.3 All CAT operatives on site had valid Construction Skill Certification Scheme (CSCS) safety cards. CAT is a member of Constructionline and is Acclaim Safety Schemes in Procurement (SSIP) accredited.
- 4.2.4 All necessary precautions to the satisfaction of the statutory or other service authorities and the landowner concerned were taken to avoid interference with, or damage to, their services, and to comply with any applicable codes of practice. Prior to excavation, the trench location was scanned using a cable avoidance tool scanner.

### 4.3 Project archive and data processing

- 4.3.1 Site reporting and archiving was undertaken in accordance with the methodology outlined in the WSI (CAT 2021).

- 4.3.2 The project archive has been prepared in accordance with the 'Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives' (ClfA 2020b).
- 4.3.3 All fieldwork records have been collated and checked for consistency, with a full digital copy having been made. Photographic records have been catalogued and cross-referenced with trench records. A digitised plan of the trench and its archaeological resource has been compiled using AutoCAD (Figure 2).
- 4.3.4 All artefacts recovered and the environmental flots and residues are to be discarded.
- 4.3.5 The results from this work are held within the site archive under project code EV 19MRS 22, archive number 4946. The archive is presently stored at CAT, 92a Broad Street, Canterbury, Kent, CT1 2LU.

## 5 Trench results

- 5.1 The evaluation trench was located within the footprint of the proposed new swimming pool (Figure 1). Aligned south-west to north-east, it measured 8m in length and 1.8m wide, covering c. 14.4m<sup>2</sup>. This represented an approximate 45% of the footprint of the proposed pool.
- 5.2 Most of the evaluation trench was occupied by a series of services (Figure 2), comprising two sections of pipe which are part of the current sewer system, a British Telecoms (BT) cable and a disused metal gas pipe. A fourth service, believed to be an electric cable, was identified from scanning but was not exposed. Due to the presence of these services, only the north-west side of the trench's south-west half could be reduced to a sufficient depth to expose the natural geological deposit.
- 5.3 The natural deposit (100) was exposed at depths of 0.83–0.88m BGL (8.09–8.11m OD) and comprised loose to compact, mid orangey yellow/brown, medium to coarse grained sand, mixed with gravel. The gravel comprised primarily small rounded and sub-rounded flint pebbles (5–30mm) and sub-angular to rounded flint pea grit (<10mm), with occasionally larger rounded flint pebbles (30–60mm). With depth, the deposit became sandier and less coarse, more compact and slightly greyer in colour. It also contained less gravel with no pea-grit. It is seen to represent the superficial River Terrace Deposits, as mapped by the BGS in the area of the PDA (BGS on-line).
- 5.4 A sondage, excavated towards the north-east end of the evaluation trench, exposed the sewer pipe. A sand and gravel deposit was exposed in the edge of the sewer pipe trench and may represent undisturbed natural or the infill of the continuation of a linear feature [114] (see para. 5.10) recorded within the south-west half of the trench.
- 5.5 The natural deposit (100) was sealed by a similar sterile deposit (101), recorded in section only. It was up to 180mm thick and comprised compact mid orangey greyish-brown silty sand, mixed with rounded and sub-rounded flint pebble gravel. Here, the pebbles were larger (up to 60mm) and there was an absence of pea grit. The deposit was initially interpreted by the excavator as representing a developed soil horizon, derived from the reworking of the natural sands and gravels through agricultural or horticultural activities, such as ploughing or tilling. However, it shared a diffuse horizon with the underlying natural deposit and is more likely to represent the disturbed or eroded natural upper horizon.
- 5.6 Four archaeological features cut through natural deposits (100) and (101): a potential ditch [102], a possible pit or post-hole [109], a large unidentified feature exposed in the trench side [113] and a deep unidentified linear feature [114].
- 5.7 A potential linear feature [102] ran south-east out of the north-west side of the evaluation trench. Truncated to the south-east, it had an exposed length of just 0.90m. It exceeded a width of 1.91m; its full width could not be exposed, as the feature continued into the area to the north-east that could not be reduced. Sample excavation revealed the cut feature to have a gentle sloping south-west side, a flat base and a depth of 0.60m. Most of the cut was filled with loose to compact, mid to dark greyish-brown sandy silt (105), with occasional small rounded and sub-rounded flint pebbles, and very occasional charcoal flecking. An environmental sample <1> from fill (105) produced one small fragment each of burnt flint and slag/clinker. A disturbed gravel (104) and silty sand (103) were recorded underlying fill (105); both originated from the surrounding natural (100). No dateable cultural material was

recovered from the cut feature, which is interpreted as a potential ditch with an unknown function. It was sealed by a thin layer of chalk (106), up to 0.03m thick.

- 5.8 Partly exposed in the south-west corner of the evaluation trench was a pit-like feature [109], with visible dimensions in plan of 0.51m by 0.30m. It was excavated to depth of 0.68m in section (reaching the safe working limit of 1.20m BGL) but was not bottomed. The exposed edge was near vertical. The single fill (110) comprised soft to moderately compact, mid to dark greyish-brown sandy silt with very occasional charcoal flecking. No dateable cultural material was hand recovered on site, although an environmental sample <2> taken from (110) produced a fragment of clear vessel glass. This cut feature may represent the exposed remains of a possible post-hole or a much larger feature such as a pit.
- 5.9 Truncating feature [109] and occupying most of the evaluation trench's reduced north-west side, was a large unidentified cut feature [113] filled with a sequence of disturbed natural sand and gravel mixed with silty soils (107), (108), (111) and (112). The feature was viewed as late Post-medieval or modern disturbance relating to unidentified activity that occurred outside the trench, possibly for a service run. A glass vessel, recovered from the lowest exposed fill (107), dates from c. 1850 to 1920.
- 5.10 A deep linear feature [114], aligned south-west to north-east, ran the complete reduced length (4.15m) of the south-west half of the evaluation trench. Only its north-west edge was exposed due to the presence of the modern sewer run. Its south-east edge probably extended beyond the trench, indicating a width greater than 1.20m. Sample excavated to a depth of 1.80m BGL (the safe working limit), the feature was filled with a sequence of redeposited natural sand and gravel (116), (118) and (120), interspersed with layers of mid greyish-brown sandy silt (115), (117) and (119). There was evidence that the feature was cut from a much higher level than the height at which the natural was recorded. The exposed north-west side was near vertical, suggesting that it had been shored upon excavation. Dateable cultural material included two pieces of clay pipe stem, two fragments of ceramic sewer pipe, a mid seventeenth to late eighteenth century pottery sherd and two sherds of glass from fills (115) and (119). An environmental sample <3> from fill (115) produced further material, including thin opaque glass fragments (similar to the type of glass used in fluorescent light tubes), several fragments of china, and frequent coal and clinker. The profile and depth of this feature may suggest a service trench of late nineteenth or twentieth century date; possibly an earlier sewer run relating to the construction of the existing garrison mess buildings.

## 6 Finds

### 6.1 Quantification and provisional dating

6.1.1 A small finds assemblage was recovered on site during the evaluation works, totalling 10 individual objects with a combined weight of 634.5g (Table 1). These finds derived from three different contexts related to cut features [113] and [114].

Material	Context	Quantity	Weight (g)	Spot-date	Description
Vessel	107	1	148	c.1850 – 1920	Near complete vessel. Clear glass. 2 piece blown ware.
Clay pipe	115	1	1.5	Post-medieval	Stem fragment
Sewer pipe	115	1	45		Glazed, ceramic
Pottery	119	1	9.5	Mid C17 to late C18	Staffordshire slipware
Clay pipe	119	1	1.5	Post-medieval	Stem fragment
Glass	119	2	24	Late post-medieval or modern	1 x clear, 1 x green
Sewer pipe	119	3	405		Glazed, ceramic

Table 1 Table Table 1. The finds assemblage

### 6.2 Pottery

6.2.1 The fieldwork yielded a single sherd of pottery; a sherd of Staffordshire slipware of mid seventeenth to late eighteenth century date, weighing 9.5g, was recovered from fill (119) of linear feature [114].

### 6.3 Glass

6.3.1 A near complete clear glass vessel, weighing 148g, was recovered from the lowest exposed fill (107) recorded within feature [113]. The vessel is a two piece blown ware dating from the mid nineteenth to early twentieth century.

6.3.2 Two glass fragments, totalling 24g, were recovered from fill (119); one was clear glass, the second was green glass. Whilst undiagnostic, both are almost certainly of a late post-medieval or later date.

### 6.4 Clay pipe

6.4.1 Two undiagnostic fragments of Post-medieval clay pipe stem were recovered from fills (115) and (119) within linear feature [114].



## 7 Environmental Remains by Enid Allison

### 7.1 Introduction

7.1.1 Bulk environmental samples (BS/GBA samples sensu Dobney et al. 1992), with volumes of 10 – 30 litres, were taken from three features revealed during the archaeological evaluation at 19 Mess Road. The features were provisionally identified as a ?ditch [102], a ?pit [109], and a ?drain [114]. The area has been heavily impacted by modern activity.

### 7.2 Methods

7.2.1 Volumes for individual samples are given in Table 2. Each sample was soaked overnight in water containing washing soda (sodium carbonate) before carrying out wet-sieving with flotation for recovery of biological material (Kenward et al. 1980). Flots were collected on 0.3mm mesh, and heavy residues on nested 2mm and 1mm sieves. All fractions were air-dried.

7.2.2 The dried residue fractions >2mm have been sorted in their entirety for biological remains and cultural material. A proportion (1 petri dish) of each fine residue fraction (>1mm) was briefly scanned using a stereoscopic microscope (x10) to check the efficiency of flotation but this material has not been systematically examined at this stage. A ~25% sample of each flot was briefly scanned (x10) and abundance of remains recorded semi-quantitatively on a five-point scale: trace (minute amount), occasional +, moderately frequent ++, frequent +++, abundant (>50% of the volume) ++++ (see Table 2).

### 7.3 Results

7.3.1 Flint gravel and fine sand made up the bulk of the heavy residues >2mm and flots respectively. Materials noted in these fractions are summarised in Table 2.

Context 105, sample <1>, Fill of linear feature [102]; ?ditch

7.3.2 Single small pieces of burnt flint and slag/clinker (both weighing <1g) were recorded from the heavy residue >2mm. Uncharred seeds are common in the sample flot. These are chiefly of blackberry/raspberry (*Rubus*), elderberry (*Sambucus*) and *Chenopodiaceae* (goosefoot family). The seeds do not appear to be mineralised. Both *Sambucus* and *Rubus* seeds are relatively resistant to decay in sediments that are generally unsuitable for waterlogged preservation and these could potentially represent vegetation growing alongside the feature during a period of infilling, but at least some seeds are equally likely to be of relatively recent origin, having moved down the soil profile as a result of bioturbation. The excellent condition of an *Acalles elytron* (wing case) suggests that it may also be relatively recent; *Acalles* species are small weevils (*Curculionidae*) typically associated with dead twigs, often of hedgerow shrubs and trees. Earthworm egg capsules are moderately frequent.

Context 110, sample <2>, Fill of ?pit [109]

7.3.3 A fragment of clear vessel glass, traces of hammerscale, and marine mollusc shell fragments were recorded from the heavy residue >2mm. Molluscs represented were chiefly periwinkle (*Littorina littorea*) and cockle (*Cerastoderma*), with traces of mussel (*Mytilus cf edulis*) shell.

7.3.4 The sample flot contains moderately frequent fragments of what appears to be very poorly preserved charred cereal remains which might perhaps represent waste disposal during

ancient occupation of the site. This material is highly fragmented, vacuolated and ‘tarry’ in appearance, and few traces of the outer coat of the grains are intact. None of the material seen during scanning was identifiable and there is therefore no potential for further work. A few uncharred seeds, including *Rubus*, are also present.

Context 115, sample <3>, Fill of deep linear feature [114]; ?drain

7.3.5 The heavy residue contained clearly modern material including very thin opaque glass fragments (similar to the type of glass used in fluorescent light tubes) and several fragments of china, one of which has a blue and white pattern. A small disc-shaped object (?glass), two iron nails, a small quantity of slag, and small coal and mortar fragments were also recovered. Several fragments of fish bone are indeterminate. Marine mollusc shell fragments were moderately frequent and included cockle, periwinkle, oyster, mussel and ?chequered carpet shell (*Tapes decussatus*). Many of the shell fragments were worn and in a condition typically seen in beach shingle.

7.3.6 Coal and clinker fragments are frequent in the sample flot. Most other materials are present in small or trace amounts including occasional blackberry/raspberry and elderberry seeds.

Context	Sample	Description	Sample volume (litres)	Weight >2mm residue (kg)	Contents >2mm heavy residue	Flot (ml)	Contents flot >0.3mm
105	<1>	Fill of ?ditch [102]	10	2.85	Flint gravel ++++; other stone +; trace burnt flint (1 pc) <1g; trace slag/clinker (1 pc) <1g	200	25% scanned; fine sand ++++; trace clinker; trace charcoal; uncharred seeds ( <i>Rubus</i> +, <i>Sambucus</i> ++; other +++); earthworm egg capsules ++; probably recent beetle elytron ( <i>Acalles</i> )
110	<2>	Fill of ?pit [109]	10	1.3	Flint gravel ++++; other stone +; clear glass fragments <1g; trace hammerstone; periwinkle shell fragments (of 3 individuals) 3g; cockle fragments 1g; trace mussel	80	25% scanned; fine sand ++++; woody modern roots ++; charcoal +; very poorly preserved charred ?cereal remains ++; uncharred seeds ( <i>Rubus</i> +, other+); trace cockle shell; trace terrestrial snail shell; tiny trace mammal bone; earthworm egg capsules +; coal and clinker ++; tiny trace mortar
115	<3>	Fill of deep linear feature, ?drain	30	12.8	Flint gravel ++++; other stone ++; burnt flint fragments (<20mm) 8g; coal fragments (<10mm) 3g; burnt shale (?from coal) <1g; CBM fragments (<10mm) 1g; mortar fragments (2 - 25mm) 15g; glazed pot sherds (1 x blue and white, 3 x white) 2g; small disc-shaped object (?glass) 0.3g; glass fragments (most are very thin and opaque, rest clear) 4g; Fe nails (x2) and fragments 6g; slag 17g; indeterminate fish bones (x3); highly fragmentary marine mollusc shell (cockle 24g; periwinkle 12g; tiny winkle sp. <1g; oyster 7g; mussel 3g, ?carpet shell fragments <1g); barnacle plates (several)	475	25% scanned; fine sand ++++; coal and clinker +++; trace burnt shale; tiny trace CBM; trace mortar; tiny trace spheroidal hammerstone; trace indeterminate large mammal bone; micromammal (shrew) tooth fragment; indeterminate fish +; fine marine mollusc shell fragments (cockle +, mussel +); <i>Caecilioides acicula</i> +; uncharred seeds (including <i>Rubus</i> + and <i>Sambucus</i> +)

Table 2. Materials recovered from the bulk samples

Items not weighed have been recorded on a five point scale: trace, occasional +; moderately frequent ++; frequent +++; abundant (>50% of the fraction) ++++

## 7.4 Conclusions

- 7.4.1 Charred plant remains recovered from pit fill 110 are potentially ancient but are so poorly preserved that they have a very poor potential for further work. Their presence does however demonstrate that potentially ancient charred plant remains are probably preserved in some features on the site and this should be considered during any future groundworks.
- 7.4.2 Without other evidence, uncharred seeds seen in all three samples are of doubtful antiquity. Sample <3> from context 115 clearly contains a significant proportion of very recent remains.

## 8 Conclusion

### 8.1 Interpretation

- 8.1.1 The evaluation trench revealed that the PDA has been heavily impacted by modern activity with three live services present, including the current sewer run for the property.
- 8.1.2 Natural geological deposits were only encountered in the south-west half of the evaluation trench and here they were restricted to the north-west side of the trench. The natural comprised sand and gravel (100), lying at a height of between 0.83m and 0.85m BGL (8.09m to 8.11m OD). This deposit represents the superficial River Terrace Deposits, as mapped by the BGS for the vicinity of the PDA; the underlying solid bedrock geology of London Clay was not exposed.
- 8.1.3 Deposit (100) appears to have been truncated, as deposit (101), which is interpreted as the disturbed/eroded upper horizon to the natural geology, only survived for a short stretch in section at a minimum depth of 0.67m BGL (8.35m OD).
- 8.1.4 The natural deposits were cut by two undated features: a potential ditch (containing trace amounts of slag/clinker and burnt flint) and a possible post-hole or pit (containing a sherd of clear vessel glass, trace amounts of hammerscale and moderately frequent amounts of very poorly preserved charred cereal remains).
- 8.1.5 Two nineteenth or twentieth century cut features were also investigated: a large feature which was exposed in section and truncated the possible post-hole/pit, and a deep linear feature which cut the potential ditch. Both features are unidentifiable, although the profile and depth of the linear feature may suggest that it was a service trench, perhaps later replaced by the current sewer run. Both features may relate to the original construction of the garrison or its later modifications.
- 8.1.6 No known archaeological evidence was recovered relating to Iron Age or Roman occupation, or indeed any archaeological period predating the Post-medieval period.
- 8.1.7 The findings of this evaluation are comparable to those of the test pit evaluation and watching brief that Essex County Field Archaeology Unit undertook in 2010 for the conversion work along the north-west side of the Officers Mess building, directly south-west of the site (Brooks 2012). This established that the immediate proximity of the building had been disturbed by the nineteenth and twentieth century activity associated with it. The only feature encountered was a possible ditch, apparently undated and buried c. 1.1m BGL, which was identified running along the same alignment as, and c. 50m south-west of, the potential ditch found in the evaluation trench. Both may relate to a former field system. The watching brief included monitoring of the excavation work for a substantial service trench, which is a continuation of that seen within the evaluation trench.

### 8.2 Development impact

- 8.2.1 The proposed scheme is for an outdoor swimming pool in the courtyard on the south-west side of the main building (Planning applications refs. 22/01086/FULH and 22/01087/LBC). The pool is to measure 11m long with access steps from the north-east.

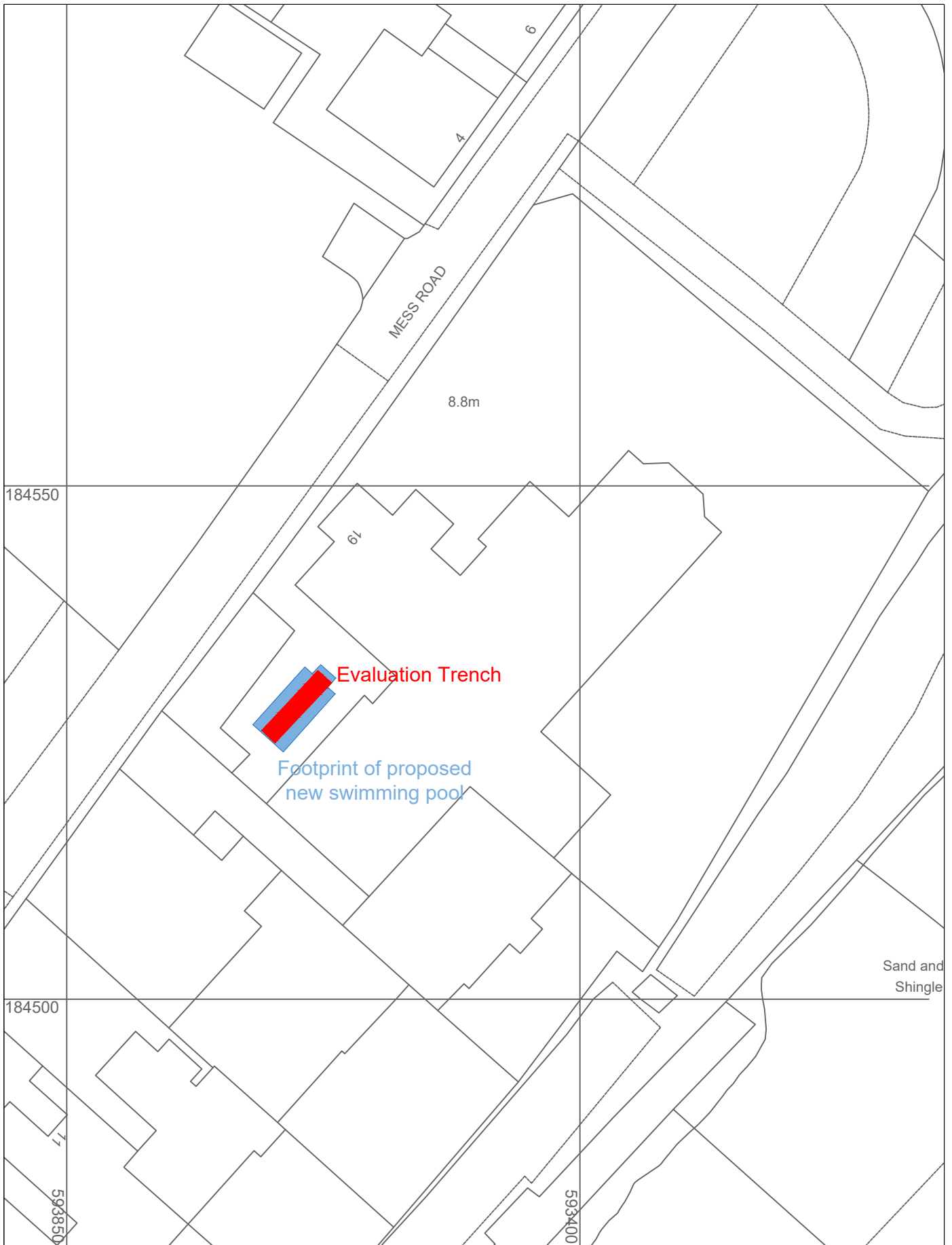
- 8.2.2 The heavily truncated remains of the disturbed/eroded upper horizon (101) to the natural superficial Head deposits (100) lies at a minimum depth of 0.67m BGL (8.35m OD), whilst (100) lies at between 0.83m and 0.85m BGL (8.09m to 8.11m OD).
- 8.1.3 Excavation of the swimming pool will fully destroy any features present within its footprint, including the two undated and truncated archaeological features that appear to be of greater archaeological significance than the two nineteenth or twentieth century features.


### 8.3 Confidence rating


- 8.3.1 The evaluation was sufficiently resourced and conducted predominantly under good weather conditions.
- 8.3.2 The evaluation is considered to have satisfactorily determined the presence/absence of the archaeological resource within the investigated area of the PDA.

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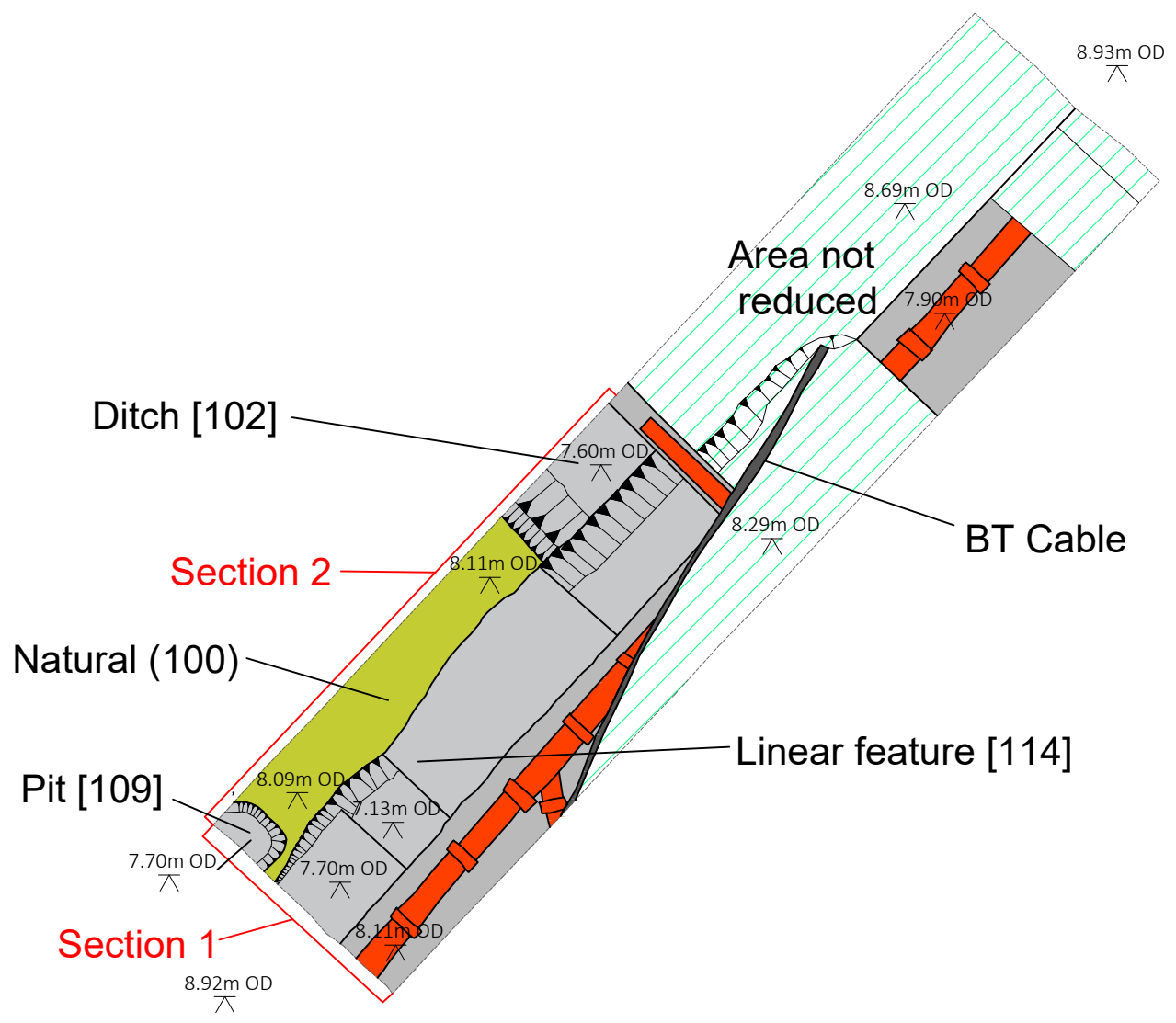
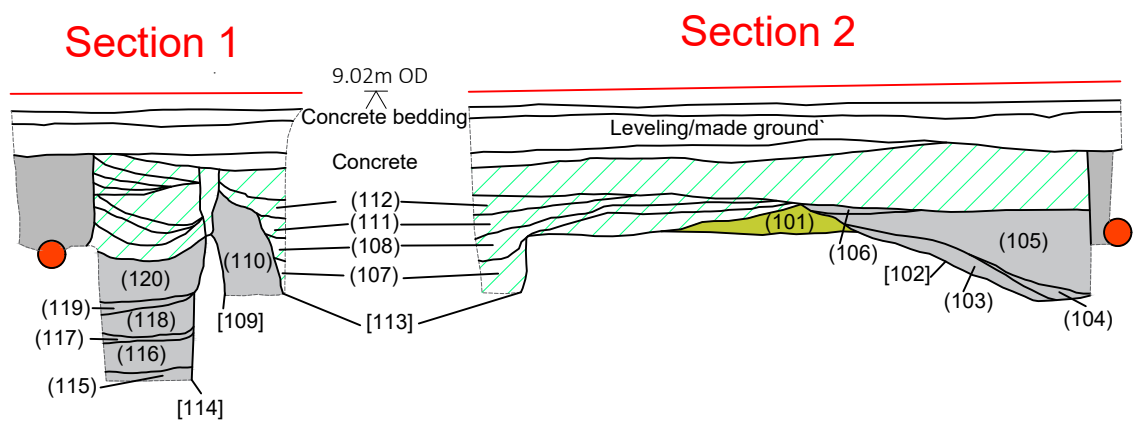


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		<p>DATE 10/02/2023</p>	<p>LAST REVISION -/-/-</p>
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10m

Figure 1. Proposed development area and evaluation trench location plan



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Figure 2. Evaluation trench plan and sections





**Plate 1:** General view of the proposed development area, as seen from its northern corner.



**Plate 2:** General view of the evaluation trench, prior to machine reduction, as seen from its north-east end.



**Plate 3:** General view of the evaluation trench as seen from its south-west end, after machine reduction and initial hand cleaning. Scales 1 and 0.5m.



**Plate 4:** General view of the evaluation trench as seen from its north-east end, after machine reduction and initial hand cleaning. Scales 1 and 0.5m.



**Plate 5:** South-west half of the evaluation trench as seen from the south-west, after further hand sample excavation. Scales 1 and 0.5m.



**Plate 6:** South-west half of the evaluation trench as seen from the north-east, after further hand sample excavation. Scales 1 and 0.5m.



**Plate 7:** Detail of north-east facing stepped section through unidentified linear feature [114] and showing pit [109] to the right at the south-west end of the evaluation trench. Scales 1 and 0.5m.



**Plates 8 and 9:** Detail of south-east facing section at south-west end of trench. Shows potential ditch [102] (right) and pit [109] (left); with layer (101) sealing the natural sands and gravels (100) between. Scales 1m.