

**Archaeological Watching Brief
89 Rayleigh Avenue,
Leigh-on Sea**

NGR: TQ 8300 8989

Planning Ref: 16/01071/OUT & 17/01049/REM

ASE Project No: 180724

**ASE Report No: 2019127
OASIS id: 349724**



April 2019

Archaeological Watching Brief

**89 Rayleigh Avenue,
Leigh-on Sea, Essex
SS9 5DL**

NGR: TQ 8300 8989

Planning Ref: 16/01071/OUT & 17/01049/REM

**ASE Project No: 180724
Site Code: RARA18**

**ASE Report No: 2019127
OASIS id: 349724**

By Mark Germany

**With illustrations by
Andrew Lewsey and Sara Munoz**

Prepared by:	Mark Germany	Archaeologist
Reviewed and approved by:	Mark Atkinson	PX Project Manager
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**Archaeology South-East
27 Eastways
Witham
Essex
CM83YQ**

**Tel: 01376 331470
Email: fau@ucl.ac.uk
Web: www.ucl.ac.uk/archaeology-south-east**

Abstract

This report presents the results of an archaeological watching brief at 89 Rayleigh Avenue, Leigh-on-Sea, Essex. Essex County Council Place Services recommended and monitored the archaeological work, and Archaeology South-East carried it out on behalf of Frost Homes.

The archaeological work consisted of the monitoring of construction groundworks for four separate dwellings within the east of the 0.44ha site. Both ground reduction of the footprints for each building and cutting of wall foundation trenches was observed.

The watching brief did not identify any archaeological remains.

The construction of the four houses will have no impact on the below-ground archaeological resource of this vicinity of Leigh-on-Sea.

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1.0 INTRODUCTION

1.1 Site Background

- 1.1.1 This report presents the results of an archaeological watching brief, carried out by Archaeology South-East on behalf of Frost Homes, at 89 Rayleigh Avenue, Eastwood, Leigh-on-Sea, Essex SS9 5DL, during construction of a residential development.
- 1.1.2 The archaeological work was undertaken in fulfilment of an archaeological condition attached to planning consent for the development.

1.2 Location, Geology and Topography

- 1.2.1 The site is located on the north side of Leigh-on-Sea, in Rochford District (NGR TQ 8300 8989; Fig. 1). It is bounded to the north by Disraeli Road, to the east by Rayleigh Avenue and by residential properties to the south and west.
- 1.2.2 The solid geology of the site is a sedimentary deposit of clay, silt and sand, formed 48 to 56 million years ago during the Palaeogene Period. The site has no overlying superficial deposits.
- 1.2.3 The broadly rectangular 0.44ha site was previously occupied by the house and garden of No. 89 and part of the garden of No. 91 Rayleigh Avenue; the house had been demolished prior to the commencement of the archaeological work. The general ground surface sloped down from east to west, from c.50m to c.46m AOD.

1.3 Planning Background

- 1.3.1 Outline planning permission was granted by Rochford District Council for the demolition of the former dwellings and outbuildings and the construction of 4 new dwellings (Ref. 16/01071/OUT and 17/01049/REM).
- 1.3.2 The archaeological condition attached to consent (Condition 8) 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.'

The archaeological work will comprise monitoring. A professional archaeological contracting team should undertake any archaeological work. An archaeological brief outlining the methods of investigation can be issued from this office (on request) and there would be a cost implication for the developer.

REASON: To enable the Local Planning Authority to retain adequate control over the site in the interests of preserving the historical environment.

Prior to commencement justification: Given the location of the development and the potential for archaeological deposits such a condition is fundamental

to the acceptability of the development and must be considered prior to works occurring.

- 1.3.3 A brief specifying the required archaeological Watching Brief works was issued by the Essex County Council (ECC) Place Services Historic Environment team, in their capacity as advisor to Rochford District Council on archaeological matters (ECC Place Services 2018).
- 1.3.4 ASE was commissioned by the developer to undertake the required archaeological work and subsequently produced a Written Scheme of Investigation (ASE 2018) that was submitted to, and approved by, ECC Place Services prior to the commencement of fieldwork.

1.4 Aims and Objectives

- 1.4.1 The general aim of the archaeological watching brief was to determine as far as reasonably practical the location, extent, date, character, condition significance and quality of any archaeological remains within the bounds of the development site.

1.5 Scope of Work

- 1.5.1 Archaeological monitoring of the site took place during construction works on the following dates: 15/10/18, 22/10/18, 23/10/18, 30/11/18, 31/11/18, 03/12/18, 06/12/18, 10/12/18, 12/12/18, 1/4/19, 2/4/19, 4/4/19 and 8/4/19.
- 1.5.2 This report presents the results of the archaeological watching brief and assesses their significance.

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Overview

- 2.1.1 The wider vicinity of the site includes archaeological remains of at least three different periods. The majority of the following archaeological background information derives from the Essex Sites and Monuments Record (EHER).

2.2 Period Summaries

Prehistoric

- 2.2.1 Pieces of struck flint from the site's wider vicinity include undated flint scrapers from 61 Gravel Road, 352m south-east of the site (EHER 419022), and a Mesolithic tranchet flint axe head from topsoil at 3 Connaught Road (EHER 9676).
- 2.2.2 Archaeological excavation at 87 Rayleigh Avenue, in 2010, immediately south of the site, revealed a probable Late Bronze Age/Early Iron Age ditch and pit (EHER 7641; PCA 2010)

Roman

- 2.2.3 Remains of a Roman villa exist 1.5km south-west of the site, close to Pound Wood, Thundersley. Cropmarks reveal its floor plan, and its associated surface finds suggests it to have been in use for most of the Roman period.

Saxon and early medieval

- 2.2.4 No Saxon or early medieval remains have been found within the vicinity of the site.

Late medieval to modern

- 2.2.5 The site is within the bounds of a former deer park of medieval origin (EHER 46858). A curved bank and ditch, c. 370m north-east, is probably one of its boundaries (EHER 13408).
- 2.2.6 Two historic 16th century timber framed buildings exist within the wider vicinity of the site; these comprise Eastward Lodge, c.275m to the south-west, and Barnaby's Hotel, 1km to the west.
- 2.2.7 The 1st edition OS map (c.1874) shows the site as being located within a field northeast Eastwood Lodge, in a wider agricultural landscape. Earlier 20th century maps show the setting-out of road infrastructure and the increasing residential development of this area, with 89 and 91 Rayleigh Avenue first depicted on the 1938/9 map. The site remains essentially unchanged on later mapping until its current redevelopment.
- 2.2.8 A late post-medieval pit, containing 18th/19th century CBM, was found during the watching brief at the adjacent site of 87 Rayleigh Avenue (PCA 2010).

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

- 3.1.1 The fieldwork consisted of the archaeological monitoring of the building contractor’s ground reduction and excavation of foundation trenches for four separate buildings (House plots 1–4, Fig. 2).
- 3.1.2 Where archaeological remains were encountered, these were investigated by hand and recorded. The results of each site visit were noted on pro-forma sheets. Digital photographs were taken of finished results and of work in progress.
- 3.1.3 Where present, artefacts were retrieved from all investigated deposits and features.
- 3.1.4 No soil samples were taken because no pre-modern deposits other than natural were encountered.

3.2 Fieldwork Constraints

- 3.2.1 The two constraints of the archaeological work were that no archaeological excavation was to take place in trenches or holes more than 1.2m deep, and that no holes were to be dug outside the trenches.

3.3 Site Archive

- 3.3.1 The site archive is currently stored at the Witham office of ASE, but will be deposited with Southend Museum in due course. The contents of the site archive are summarised in Tables 1 and 2, below.

Context sheets	0
Section sheets	0
Plans sheets	0
Colour photographs	0
B&W photos	0
Digital photos	0
Context register	0
Drawing register	0
Watching brief forms	13
Trench Record forms	0

Table 1: Quantification of site paper archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	0
Registered finds (number of)	0
Flots and environmental remains from bulk samples	0
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

4.0 RESULTS

4.1. Introduction

- 4.1.1 By the time of the watching brief, the site had been cleared.
- 4.1.2 The development groundworks proceeded from north to south and west to east across the site. House Plot 4 groundworks were undertaken first, followed by Plot 2, then Plot 3 and finally Plot 1. The footprints of the former No. 89 dwelling and Plots 1 and 2 overlapped slightly. The location and observed extent of each building plot groundworks is indicated on Figure 2.
- 4.1.3 The ground levels of Plots 2-4 were all reduced to create level sites for construction. These groundworks were all inspected prior to the excavation of wall foundation trenches within them. A mechanical excavator equipped with a 0.6m-wide toothed bucket was used to excavate the foundation trenches in all four plots. All had vertical sides and flat bases and were cut to a depth of between c.1.0–2.0m below the required construction site level. All but the shallowest trenches were filled with concrete at the end of each day.

4.2 House plots

Plot 4

- 4.2.1 Plot 4 was located in the north of the development site (Fig 2). Its northern part coincided with the position of a former outbuilding shown on historic mapping.
- 4.2.2 Ground reduction was undertaken by machine, across a roughly L-shaped footprint with maximum measurements of 20m NE/SW by 15m NW/SE, down to the required construction level. Although as little as 0.1m of deposits were removed at the northern corner, elsewhere this ranged from 0.95m to 1.54m, being greatest at the southern corner. As exposed in the deepest section face, along the southeast side of the plot, the observed deposit sequence comprised (from top to bottom):
- [4/001]: brick and concrete rubble in gravel and grey sand, up to 0.15m thick. Demolition debris?
 - [4/002]: Orange sand and concrete rubble with fragmentary tarmac surface on top, c.0.30m thick. Driveway or yard between No. 89 and outbuilding?
 - [4/003]: Mid grey-brown sandy silt, with common roots, 0.22-0.63m thick. Former garden soil?
 - [4/0004]: Compact orange clay with blue-grey lenses and patches, exposed to a maximum depth of 1.0m. Undisturbed natural deposit.
- A former drain was observed in section directly below demolition rubble spread [4/001] that appeared to cut former hard surfacing [4/002]. A larger service trench containing a cable and a plastic pipe was identified below [4/0002].
- 4.2.3 Across the reduced footprint, the orange natural deposit [4/004] was exposed across much of its southern half. This was intruded into by a land drain and a circular soakaway pit of modern date. No archaeological deposits, features or

artefacts were identified in the machine-reduced surface of the natural deposit.

- 4.2.4 Due to the nature of the sloping ground, at the required construction level the northern half of the Plot 4 footprint was covered by a mottled mid and dark brown clayey sandy silt [4/006] that overlay the natural deposit, but also a localised patch of light blue-grey silty clay [4/007]. Both contained CBM, charcoal, wood fragments, ironwork and roots and were clearly modern reworked deposits. It is likely that they were both lower/interface portions of the garden soil [4/003] seen elsewhere in section. A service trench was observed to cross remnant garden soil [4/006] at the northeast corner of Plot 4. This was probably a further part of the service trench seen in the section.
- 4.2.5 As the surface of the natural deposit had not been reached in the northern part of the house plot, the excavation of the wall foundation trenches was observed. These were excavated to a further c.1.2m depth below the reduced ground level and demonstrated that the undisturbed natural deposit directly underlay deposits [4/006] and [4/007], these being generally c.0.3m thick, but seemingly increasing to as much as 0.75m along the northernmost edge of the plot.
- 4.2.6 No archaeological deposits, features or artefacts were identified in the natural deposit where exposed in plan or section in the observed foundation trenches.

Plot 2

- 4.2.7 Plot 2 was located in the east of the development site, along the property boundary with No. 91 and adjacent to the Rayleigh Avenue frontage (Fig. 2). At its western end, the plot overlapped with the footprint of the former No.89 dwelling.
- 4.2.8 Minimal ground reduction was undertaken by machine across a rectangular area measuring c.13m NW/SE by 11m NE/SW, to create the required construction level. Trenches were therefore cut from roughly the ground surface level after general clearance of the site. The recorded deposit sequence as observed in the foundation trenches comprised (from top to bottom):
- [2/001]: light brownish grey gravelly silt-sand, compact, 0.10-0.13m thick. Made-ground.
 - [2/002]: dark greyish brown sandy clayey silt, 0.19-m thick. In SW of plot only. Topsoil.
 - [2/003]: Mid brown silty sand with pebbles at base, 0.24-0.47m thick. Subsoil or less-reworked base of [2/002]?
 - [2/004]: Orangey brown sandy clay with pebbles, exposed to depth of c.09m. Undisturbed natural deposit.
- 4.2.10 The excavation of the majority of Plot 2 wall foundation trenches was observed. This established that made-ground and topsoil deposits directly overlay natural deposit [2/004].
- 4.2.11 No archaeological deposits, features or artefacts were identified in the natural deposit where exposed in plan or section in the observed foundation trenches in Plot 2. However, a NE/SW aligned wall foundation constructed of modern

frogged bricks, together with service runs, were observed in the trench sections across the northwest end of the plot. This corresponded with the external wall of the demolished former dwelling (No. 89).

Plot 3

4.2.12 Plot 3 was located in the southwest of the development site (Fig. 2). Ground reduction was undertaken by machine across a rectangular roughly square area measuring c.16m NW/SE by 14m NE/SW, down to the required construction level. Due to the sloping site, a c.0.7-1.3m thickness of deposits were removed; however, at the northernmost corner, the reduction depth more-or-less coincided with the extant ground surface height. The recorded deposit sequence comprised (from top to bottom):

- [3/001]: Mid/light greyish brown silty sand with occasional CBM, plastic and glass inclusions, and root disturbance, 0.4-0.52m thick.
- [3/002]: Orange silty clayey sand, exposed to a maximum depth of c.0.8m (at southernmost corner). Undisturbed natural deposit.

4.2.13 The orange natural deposit [3/004] was exposed across much of the reduced plot extent, with overburden deposits remaining *in situ* only along the northeast edge. No archaeological deposits, features or artefacts were identified in the machine-reduced surface of the natural deposit.

4.2.14 The excavation of wall foundation trenches across the obscured northern part of the plot was observed. These established that the remaining overburden deposit, presumably a lower portion of [3/001], was 0.26-0.52m thick and directly overlay natural deposit [3/002]. The trenches intruded into the natural deposit up to a depth of 0.9m.

4.2.15 No archaeological deposits, features or artefacts were identified in the natural deposit where exposed in plan or section in the observed foundation trenches in Plot 3.

Plot 1

4.2.16 Plot 1 was located in the southeast of the development site (Fig. 2). No significant ground reduction was undertaken across the footprint, with wall foundation trenches instead cut directly from the existing surface of the previously cleared site. The following deposit sequence was observed:

- [1/001]: firm dark grey brownish sandy silt clay, with infrequent stones, up to 0.35–0.40m thick. Topsoil.
- [1/002]: orange to red/brown sandy silt clay with infrequent to moderate small, pale grey gravels, exposed to a maximum depth of c.1.4m. Undisturbed natural deposit.

4.2.17 Very little topsoil was left *in situ* by general site clearance here. Where remaining, it was observed to directly overlay the variable natural deposit [1/002]. Otherwise, the cleared surface was disturbed by construction works and obscured by debris, and was not able to be archaeologically inspected in plan.

4.2.18 All except the eastern end wall trenches were inspected in Plot 1. No archaeological deposits, features or finds were identified. No significant disturbances or intrusions into the natural deposit were observed.

5.0 FINDS AND ENVIRONMENTAL REMAINS

5.1 Summary

- 5.1.1 The watching brief found no archaeological artefacts of pre-modern date in any of the groundworks observed.
- 5.1.2 The watching brief took no bulk soil samples for retrieval of either environmental remains or small artefacts because no pre-modern deposits other than natural were encountered.

6.0 DISCUSSION AND CONCLUSIONS

6.1 Overview of stratigraphic sequence

- 6.1. The observed stratigraphic sequence of the site consists entirely of topsoil and modern overburden deposits overlying natural deposits. No pre-modern deposits, features or finds were identified within the foundation trenches.

6.2 Deposit survival and existing impacts

- 6.2.1 The site has undergone no apparent disturbance other than that of its earlier 20th century residential development and its recent clearance in preparation for redevelopment.

6.3 Discussion of archaeological remains by period

- 6.3.1 The groundwork for the four new houses exposed no archaeological remains.
- 6.3.2 No further remains of Late Bronze Age/Early Iron Age date, as previously found to the south at 87 Rayleigh Avenue (PCA 2010), were encountered within the observed construction groundworks. It appears that this late prehistoric land use activity did not extend this far north, or else its surviving remains are scattered widely in the landscape.
- 6.3.3 The land north of the site was formerly a medieval deer park, and this may be part of the reason as to why the site contains no archaeological evidence for activity in later, historic, periods.

6.4 Conclusions

- 6.4.1 The watching brief undertaken during the excavation of house foundation trenches at 89 Rayleigh Avenue did not identify any archaeological remains.
- 6.4.2 The construction of the four houses will have no impact on the below-ground archaeological resource of this vicinity of Leigh-on-Sea.

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ACKNOWLEDGEMENTS

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The archaeological watching brief was variously undertaken by ASE archaeologists Paulo Clemente, Angus Forshaw, Craig Carvey and Mark Germany. The project was managed by Andy Leonard and Gemma Stevenson.

Especial thanks are due to ground workers Dan and Mark for their help and assistance.

Appendix 1: HER Summary

Site name/Address: 89 Rayleigh Avenue, Leigh-on-Sea	
Parish: Rayleigh	District: Southend
NGR: TQ 8300 8989	Site Code: RARA18
Type of Work: Watching Brief	Site Director/Group: Mark Germany Archaeology South-East
Dates of Work: 15/10/2018 to 08/04/2019	Size of Area Investigated: 184sq m of 0.44ha site
Location of Finds/Curating Museum: To be ascertained	Funding source: Developer
Further Seasons Anticipated?: No	Related HER No's:
Final Report: Essex Archaeology and History (summary)	OASIS Ref: 349724
Periods Represented: Modern	
SUMMARY OF FIELDWORK RESULTS: Archaeological monitoring of machine excavation of ground reduction and foundation trenches for the construction of four separate new houses revealed no archaeological remains.	
Previous Summaries/Reports: None	
Author of Summary: Mark Germany	Date of Summary: 24/4/19

Appendix 2: OASIS Form

OASIS ID: archaeol6-349724

Project details

Project name	89 Rayleigh Avenue, Leigh-on-Sea, Essex
Short description of the project	Archaeological monitoring of machine excavation of foundations for four houses discovered no archaeological deposits, features or finds.
Project dates	Start: 15-10-2018 End: 08-04-2019
Previous/future work	No / No
Any associated project reference codes	180724 - Contracting Unit No. RARA18 – Site Code
Type of project	Recording project
Site status	None
Current Land use	Other 5 - Garden
Monument type	NONE None
Significant Finds	NONE None
Investigation type	""Watching Brief""

Project location

Country	England
Site location	ESSEX ROCHFORD RAYLEIGH 89 Rayleigh Avenue, Leigh-on-Sea
Postcode	SS9 5DL
Study area	4422 Square metres
Site coordinates	TQ 8300 8989 51.577588887568 0.641361042146 51 34 39 N 000 38 28 E Point
Height OD / Depth	Min: 51m Max: 51m

Project creators

Name of Organisation	Archaeology South East
Project brief originator	Essex County Council Place Services
Project design originator	Archaeology South-East
Project director/manager	Andy Leonard
Project supervisor	Mark Germany
Type of sponsor/funding body	Developer

Project archives

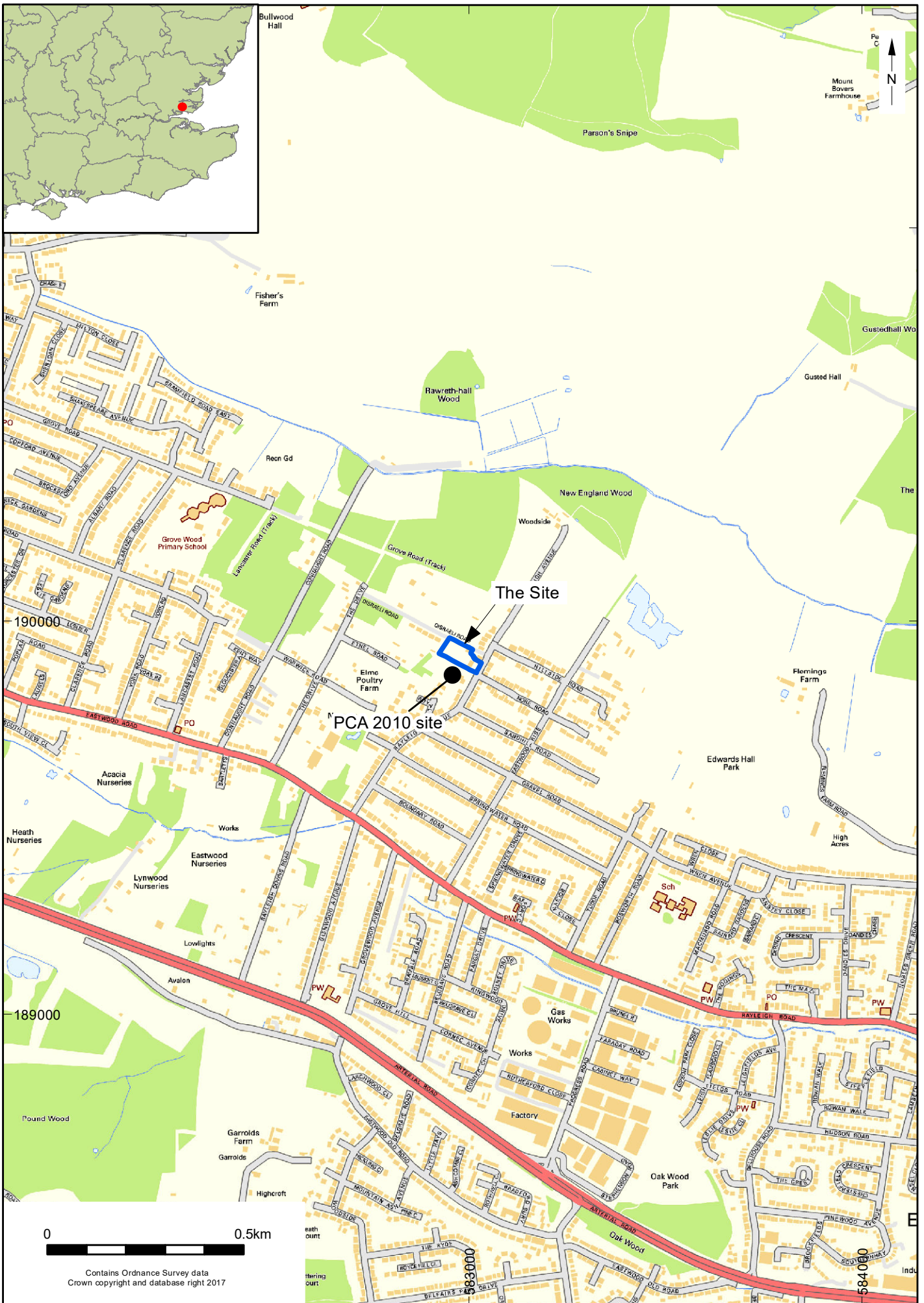
Physical Archive Exists?	No
Physical Archive recipient	n/a

Digital Archive recipient	Southend Museum
Digital Contents	"Stratigraphic"
Digital Media available	"Text","Images raster / digital photography"
Paper Archive recipient	Southend Museum
Paper Contents	"Stratigraphic"
Paper Media available	"Photograph","Plan","Report"

Project bibliography

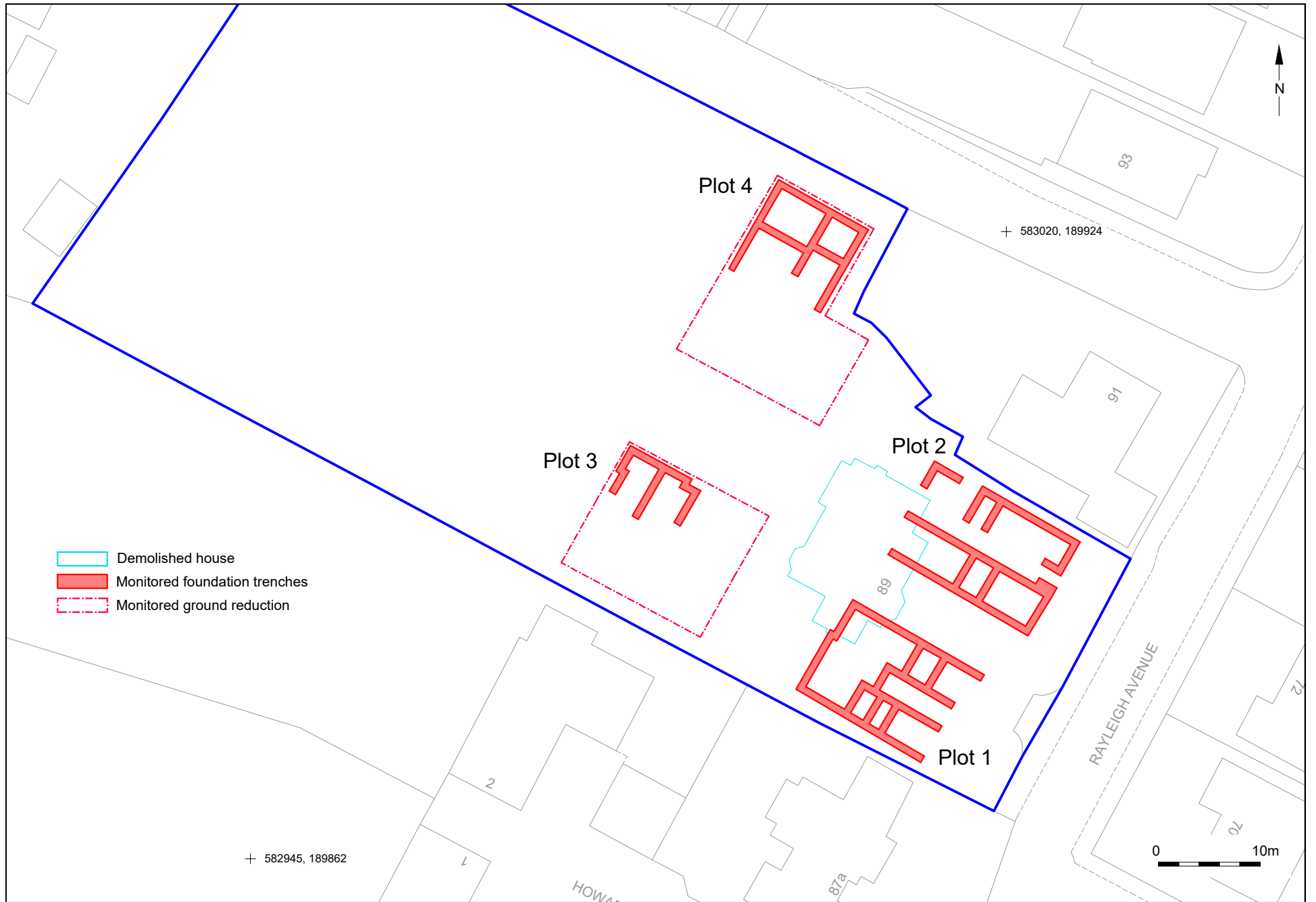
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© Archaeology South-East		89 Rayleigh Avenue, Eastwood, Leigh-on-Sea		Fig. 1
Project Ref: 180724	Apr 2019	Site location		
Report Ref: 2019099	Drawn by: APL			



Plot 1 foundation trenches



Plot 2 foundation trenches



Plot 3 ground reduction, looking north-west



Plot 3 foundation trenches



Plot 4 ground reduction, looking north-west



Plot 4 foundation trenches

© Archaeology South-East		89 Rayleigh Avenue, Eastwood, Leigh-on-Sea	Fig. 2
Project Ref: 180724	April 2019	Plan of archaeological monitoring area and selected photographs	
Report Ref: 2019099	Drawn by: SM/APL		

Sussex Office

Units 1& 2
2 Chapel Place
Portslade
East Sussex BN41 1DR
tel: +44(0)1273 426830
email: fau@ucl.ac.uk
web: www.ucl.ac.uk/archaeologyse

Essex Office

27 Eastways
Witham
Essex
CM8 3YQ
tel: +44(0)1376 331470
email: fau@ucl.ac.uk
web: www.ucl.ac.uk/archaeologyse

London Office

Centre for Applied Archaeology
UCL Institute of Archaeology
31-34 Gordon Square
London WC1H 0PY
tel: +44(0)20 7679 4778
email: fau@ucl.ac.uk
web: www.ucl.ac.uk/caa

