

NORTH WEALD AIRFIELD

**AN ARCHAEOLOGICAL WATCHING
BRIEF**

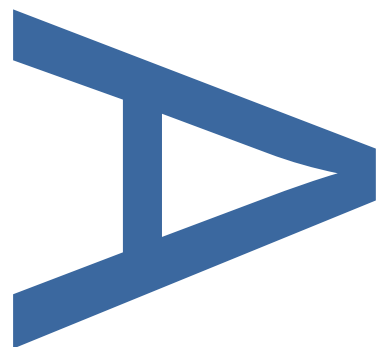
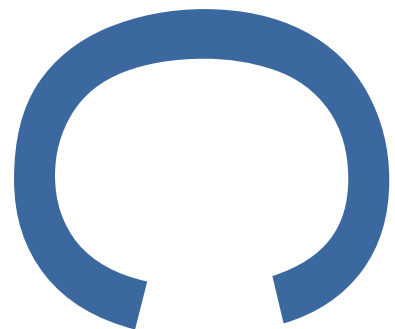
**LOCAL PLANNING AUTHORITY:
EPPING FOREST DISTRICT COUNCIL**

**SPECIAL DEVELOPMENT ORDER
NUMBER: 1228**

PCA REPORT NO: R13909

SITE CODE: NWBA19

NOVEMBER 2019



North Weald Airfield, Essex: An Archaeological Watching Brief

Local Planning Authority: Epping Forest District Council

Central National Grid Reference: TL 49254 05649

Site Code: NWBA19

Report No. 13909

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ABSTRACT

The following report details the results of an archaeological watching brief carried out by Pre-Construct Archaeology at North Weald Airfield, Essex, CM16 6HR (National Grid Reference TL 49254 05649). The archaeological fieldwork was carried out on the 2nd, 4th, 7th, 8th and 9th of October to monitor groundworks for the widening of an egress point, the construction of a new pavement and the placement of two new septic tanks. The aim of the work was to determine the nature, date, complexity and condition of any exposed archaeological deposits and record disturbance to them.

The groundworks around the egress point revealed a thick layer of modern material c.0.5-2m in thickness. The layer was largely made up of bricks and crushed concrete blocks. No noteworthy archaeological deposits were identified in the area.

Groundwork for the septic tanks identified a modern ditch running on a NW-SE alignment.

The level of survival of any archaeological activity was low due to earthworks and modern intrusion.

1 INTRODUCTION

- 1.1 Archaeological monitoring was undertaken by Pre-Construct Archaeology Ltd (PCA) during groundworks for the realignment of the egress to North Weald Airfield, Merlin Way, North Weald Bassett, CM16 6HR (centred on Ordnance Survey National Grid Reference (NGR) TL 49254 05649) during October 2019 (see Figure 1).
- 1.2 The works involved the landscaping of a bund to widen an egress point in the northern area of the airfield. The groundwork also required the excavation of a new pavement through means of machine excavation (see Figure 2). The trench for two new septic tanks required excavation to a depth of c.1m within an area of hardstanding in the southern parcel of the development area.
- 1.3 The archaeological work was commissioned by Mott MacDonald on behalf of the Client - HM Revenue & Customs (HMRC).
- 1.4 The monitoring was carried out in accordance with a Written Scheme of Investigation (WSI) prepared by Mott MacDonald, which outlines the archaeological requirement in response to a Special Development Order (SDO) made on 5th September 2019 (No. 1228). The WSI details the methodology for archaeological monitoring during groundworks for the realignment of the egress and access to North Weald Airfield, off Rayley Way, North Weald Bassett and was carried out in order to satisfy condition 5(d) of the SDO.
- 1.5 The aim of archaeologically monitoring groundworks was to observe excavations that have the potential to damage or destroy archaeological deposits, record disturbance to archaeological deposits and heritage assets and determine the nature, date, complexity and condition of any encountered archaeological deposits or heritage assets.
- 1.6 This report describes the results of the investigations. The site archive will be deposited at the Epping Forest District Museum.

2 GEOLOGY AND TOPOGRAPHY

2.1 Geology

2.2 The development area is situated on Lowestoft Formation Diamicton, a chalky silt deposited during the Quaternary Period up to 2 million years ago, in ice age conditions. This is underlain by London Clay Formation, clay silt and sand.

2.3 Topography

2.4 The proposed development is situated within North Weald Airfield, c. 1.7km north of North Weald Bassett, 1.6km east of the M11 motorway and 350m south of the A414. The airfield slopes gently up to the south with the development area situated at approximately 72m Above Ordnance Datum (AOD). The Cripsey Brook, a tributary of the River Thames, meanders east to west some 250m north of the development area.

3 ARCHAEOLOGICAL BACKGROUND

- 3.1 There are very few heritage assets recorded within the 300m study area. A series of cropmarks pertaining to undated former field boundaries are recorded to the west of the development area (HER 19419). Some of the cropmarks visible on modern aerial photographs appear to overlap others indicating at least two phases of activity in this area. There is no indication that the cropmarks extend into the development area, however this is because there are no easily available aerial photographs of the development area, therefore the field system(s) represented by the cropmarks could well extend into the development area. The historic Ordnance Surveys of the area show that by 1873 the land within and immediately surrounding, the study area had been divided into large enclosures. The cropmarks are suggestive of smaller enclosures, perhaps indicating that they pre-date the “Act of Inclosure”.
- 3.2 There are no prehistoric remains recorded within the study area. Despite this there is some potential for archaeological remains to be present within the development area; the proximity of the site to the Cripsey Brook, and the relatively flat ground, would make this area attractive to prehistoric groups. Bronze Age funerary monuments are often recorded close to water courses, though none are recorded within the study area.
- 3.3 The line of a projected Roman road from Great Dunmow to London is recorded some 2km to the east of the development area (Margary 1973). A large quantity of Roman tile is recorded within the fabric of the Church of St Andrew in North Weald (HER 3788), some 550m south-east of the development area.
- 3.4 There is some doubt concerning the accuracy of the Domesday Survey interpretations with regards to North Weald Bassett, however it is considered probable that the entrants for Weald held by Peter de Valognes relate to the land in question (Powell 1956). The Domesday Survey of 1086 records 41 households within North Weald Bassett making it a large settlement, and a large amount of woodland with a total of 1750 pigs providing an indication of the extent of the medieval woodland in this area (Powell-Smith 2019). Weald means forest land (Powell 1956). Plough teams are recorded indicating that the

area not wooded was largely agricultural in use, with some meadow providing pasture for a small number of cows and sheep. There is no church recorded within the survey. Indeed, the National Heritage List for England database (NHLE) dates the church to c. 1330 (NHLE 1111353).

- 3.5 There are no other medieval finds or features within the study area recorded by the HER. It is probable that the land remained wooded for some time though it was gradually cut back piece by piece throughout this period; assarts¹ were granted in 1260 to improve security along the road (Powell 1956). Other assarts were granted in relation to the development of manors. This assarting must have been quite aggressive during the medieval period, because by the time of Norden's map in 1594 the parish is not shown as densely wooded (Powell 1956) and by the production of Chapman and Andre's Map of Essex in 1777 there was only one patch of woodland left within the parish of North Weald Bassett. It would seem that the former woodland formed either parkland for rural estates or was used for agricultural purposes. The halls and estates closest to the development area are Canes, approximately 1km to the north-west of the development area, and Little Weald Hall, 250m to the north-east. Little Weald Hall is a grade II listed building dating to the 17th century (NHLE 1337223). A further 17th century building (Church Cottage NHLE 1337224) is recorded adjacent to the Church of St Andrew, some 550m south-east of the development area. It is likely that the area within North Weald Bassett followed the Essex pattern of rural countryside interspersed with manors and estates throughout the majority of the post-medieval period, the 19th century Ordnance Survey maps support this interpretation.
- 3.6 North Weald Airfield originated in 1916 as a night landing ground and became one of the most important airfields in the South East during WWII (HER 10119). The main runway was extended twice. None of the works described within Section 1.1 of this WSI will require any disturbance to the WWI or WWII airfield assets. The bund that will be levelled is a more recent addition to the airfield and does not relate to its WWII or earlier use. Two pillboxes and a fighter pen are recorded to the south of the development area, within the airfield. These will also not be disturbed by the proposed development.

4 METHODOLOGY

4.1 General

4.1.1 Monitoring works at North Weald Airfield consisted of the reduction of a bund, the addition of a new pavement, and the excavation of two pits for the installation of two subterranean septic tanks. The new pavement required machine excavation in an area approximately 35m in length, 10m in width and 0.7m in depth. The installation pits for the two septic tanks was also monitored along with the excavation to approximately 1m in depth within an area of hardstanding toward the southern part of the development area. The natural clay was reached at 0.40 - 0.50m in depth.

4.2 Excavation and Sampling

4.2.1 Ground reduction was carried out under archaeological supervision using a 360° mechanical excavator fitted with a toothless bucket (Plate 2). Topsoil and subsoil deposits were removed in spits down to the level of the undisturbed natural geological deposits where potential archaeological features could be observed and recorded if present. Overburden deposits were set aside beside each trench and examined visually and with a metal-detector for finds retrieval.

4.2.2 Metal-detecting was carried out during the topsoil and subsoil stripping. Spoil heaps were also scanned by metal-detector.

4.2.3 Field excavation techniques and recording methods are detailed in the PCA Fieldwork Induction Manual (Operations Manual I; Taylor & Brown 2009).

4.3 Recording Methodology

4.3.1 The excavated area was accurately surveyed using a Global Positioning System (GPS) and was related to the Ordnance Survey Grid and mapped during machine excavation.

4.3.2 A digital record of the full extent in plan of all archaeological deposits as revealed in the investigation was made and related to the OS grid.

4.3.3 A plan of the excavated area was made and is included in this report.

4.3.4 High-resolution digital photographs were taken at all stages of the evaluation process. Digital Photographs were taken of all deposits.

5 QUANTIFICATION OF ARCHIVE

5.1 Paper Archive

Context register sheets	1
Context sheets	6
Plan registers	0
Plans at 1:50	0
Plans at 1:20	0
Plans at 1:10	0
Plans at 1:5	0
Section register sheets	0
Sections at 1:10 & 1:20	0
Trench record sheets	0
Photo register sheets	3
Small finds register sheets	0
Environmental register sheets	0

5.2 Digital Archive

Digital photos	258
GPS survey files	1
Digital plans	1
GIS project	0
Access database	0

5.3 Physical Archive

Struck flint	0
Burnt flint	0
Pottery	0/0g
Ceramic building material (CBM)	0
Glass	0
Briquetage	0
Small Finds	0
Slag	0
Animal bone	0
Shell	0
Environmental bulk samples	0
Environmental bulk samples (10 litre buckets)	0
Monolith samples	0
Other samples (specify)	0
Black and white films	0
Colour slides	0

6 ARCHAEOLOGICAL RESULTS

6.1 General

- 6.1.1 During the monitoring of works at North Weald Airfield a layer of modern made ground and a modern ditch were identified.

6.2 Modern Features

- 6.2.1 A modern machine-dug ditch was uncovered in the southern area of the Airfield site, running in a north-west to south-east alignment. It was identified in the trenches for both the septic tanks and for the new pavement and utilities (Plate 3). The feature measured at 0.9m in width and at least 14.17m in length. No finds were identified within the ditch; however, it is possible it relates to the airfield's usage during the Second World War as it is aligned with the airfield's boundary.
- 6.2.2 A layer of modern made ground was identified below the northern bund during landscaping work (Plate 4). It was revealed at a depth of approximately 0.6m. Large concrete pieces and modern ceramic building material (CBM) dated to the early-mid 20th century were identified but not recovered. The made ground layer overlaid the natural yellowish-brown clay natural.
- 6.2.3 There was no other archaeological activity identified during the monitoring.

7 DISCUSSION

7.1 Overview

- 7.1.1 A machine-cut ditch and a layer of made ground were identified and recorded during the monitoring. Both were of modern date.
- 7.1.2 The modern ditch yielded no finds though the characteristics of the feature denote a possible connection to the military occupation of the site during the Second World War.
- 7.1.3 Furthermore, the layer of made ground beneath the bund to the north of site is also from the same period as the ditch. The material identified in the layer was from the early to mid-twentieth century.
- 7.1.4 No other archaeological features were identified during the monitoring works at North Weald Airfield evaluation. The evidence revealed during the watching brief indicates that any archaeological remains at North Weald Airfield, if previously present on the site, were disturbed or removed by previous landscaping and earthworks in the area.

8 ACKNOWLEDGEMENTS

8.1 Pre-Construct Archaeology Ltd would like to thank Mott MacDonald for commissioning and funding the work on behalf of HMRC. PCA are also grateful to Essex Place Services for monitoring the work on behalf of the Local Planning Authority. The project was managed for PCA by Mark Hinman and was supervised by Ryszard Molenda. Figures accompanying this report were prepared by Rosie Scales in PCA's CAD Department.

9 BIBLIOGRAPHY

Chartered Institute for Archaeologists (CIfA), 2014a. Code of Conduct.

Chartered Institute for Archaeologists (CIfA), 2014b. Standard and guidance for the collection, documentation, conservation, and research of archaeological materials.

Chartered Institute for Archaeologists (CIfA), 2014c. Standard and guidance for the creation, compilation, transfer, and deposition of archaeological archives.

Council for British Archaeology (CBA), 1987. First aid for finds.

Historic England, 2006. Management of Research Projects in the Historic Environment (MORPHE).

Historic England, 2015. Digital image capture and file storage: guidelines for best practice.

Margary, I. 1973 Roman Roads in Britain

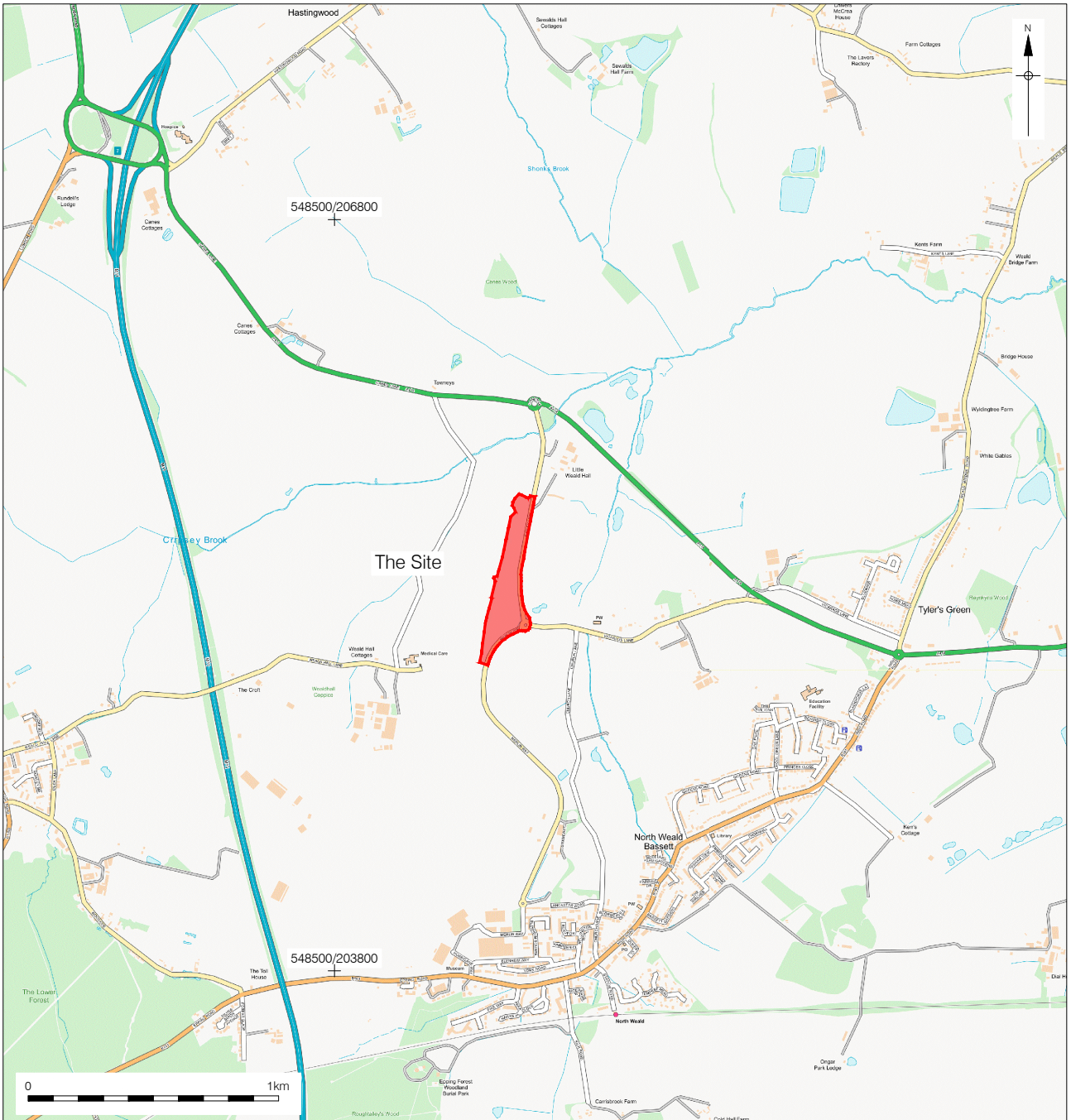
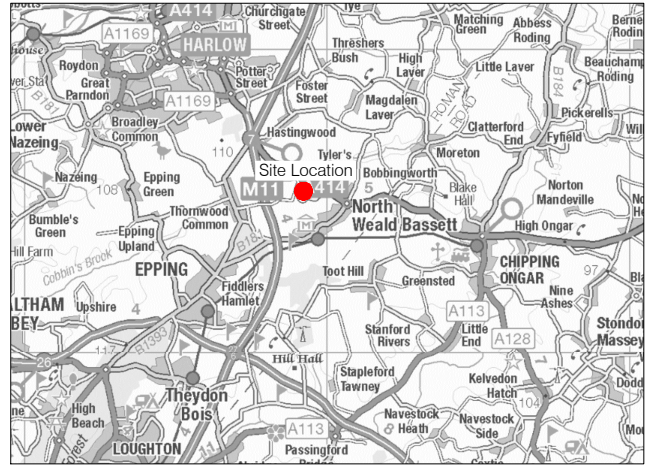
Powell, W. R. 1956 'North Weald Bassett: Manors', in A History of the County of Essex: Volume 4, Ongar Hundred pp. 286-290. British History Online <http://www.britishhistory.ac.uk/vch/essex/vol4/pp286-290> [accessed 18 September 2019].

Powell-Smith, A. 2019 Open Domesday <https://opendomesday.org/place/TL4905/north-wealdbassett/> accessed 18 September 2019).

Mott MacDonald, 19 September 2019, North Weald Airfield, Archaeological Monitoring Written Scheme of Investigation.

9.1 Online Sources

British Geological Survey (BGS), 2018. Geology of Britain Viewer (Accessed on 30/10/19)





11 APPENDIX 1: PLATES



Plate 1: Pre-excitation shot facing east



Plate 2: Working shot facing east



Plate 3: Pavement and utility trench facing east



Plate 4: Egress point facing north-east

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OASIS ID: preconst1-373198

Project details

Project name	North Weald Airfield, Essex: An Archaeological Watching Brief
Short description of the project	The following report details the results of an archaeological watching brief carried out by Pre-Construct Archaeology at North Weald Airfield, Essex, CM16 6HR (National Grid Reference TL 49254 05649). The archaeological fieldwork was carried out on the 2nd, 4th, 7th, 8th and 9th of October to monitor groundworks for the widening of an egress point, the construction of a new pavement and the placement of two new septic tanks. The aim of the work was to determine the nature, date, complexity and condition of any exposed archaeological deposits and record disturbance to them. The groundworks around the egress point revealed a thick layer of modern material c.0.5-2m in thickness. The layer was largely made up of bricks and crushed concrete blocks. No noteworthy archaeological deposits were identified in the area. Groundwork for the septic tanks identified a modern ditch running on a NW-SE alignment. The level of survival of any archaeological activity was low due to earthworks and modern intrusion.
Project dates	Start: 02-10-2019 End: 09-10-2019
Previous/future work	Not known / Not known
Any associated project reference codes	1228 - UKHO Reference Number
Type of project	Recording project
Monument type	DITCH Modern
Monument type	MADE GROUND Modern
Significant Finds	CBM Modern
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	ESSEX EPPING FOREST NORTH WEALD BASSETT North Weald Airfield, Essex: An Archaeological Watching Brief
Postcode	CM16 6AR
Study area	350 Square metres
Site coordinates	TL 49254 05649 51.729177673274 0.161424152308 51 43 45 N 000 09 41 E Point

Project creators

Name of Organisation	PCA
Project brief originator	Mott MacDonald
Project design originator	Mott MacDonald
Project director/manager	Mark Hinman
Project supervisor	Ryszard Molenda
Type of sponsor/funding body	Ministry of Defence

Project archives

Physical Archive Exists?	No
Physical Archive recipient	Epping Forest Museum
Digital Archive recipient	Epping Forest Museum
Digital Contents	"none"
Digital Media available	"Database", "Images raster / digital photography", "Survey", "Text"
Paper Archive recipient	Epping Forest District Museum
Paper Contents	"none"
Paper Media available	"Context sheet", "Diary", "Section", "Unpublished Text"

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