

# Land at Lower Rainham Road Gillingham, Kent

Archaeological Strip, Map and Sample



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# **Summary**

Wessex Archaeology was commissioned by Bellway Homes Limited, to undertake archaeological mitigation works comprising a strip, map and sample excavation centred on NGR 582280 167152, at Lower Rainham Road, Kent, ME8 7UB.

The excavation was undertaken in response to a condition on a planning application (MC/20/1800) of a proposed development comprising 79 dwellings, access, open space, landscaping and infrastructure works.

The archaeological investigation comprised an area measuring 0.43ha, targeted over an area tentatively dated to the Roman period during the previously undertaken archaeological evaluation (Phase 1).

The excavation identified archaeological remains within the area, comprising of four ditches and three pits. The pits were dated to the prehistoric, postmedieval and modern period, while one ditch was dated to the postmedieval period, the remaining three ditches remained undated.

The large quarry pit revealed in the evaluation and tentatively dated to the Romano-British period contained modern material during excavation and is most likely a modern quarry pit.

An area of modern disturbance was identified as footprints of modern buildings exists in the northwest corner of site and a widespread truncation of the site appears to have occurred at some point in time. This is evidenced by the absence of subsoil in much of the site noted in the previous archaeological evaluation (Phase 1) which is most likely due to the site being previously used as an orchid.

The excavation was undertaken from 13/07/2021 to 27/07/2021.

# **Acknowledgements**

Wessex Archaeology would like to thank Bellway Homes Limited, for commissioning the archaeological evaluation, in particular George Hill. Wessex Archaeology is also grateful for the advice of the County Archaeologist for Kent County Council, who monitored the project for Medway Council, and to Rhino Plant for their cooperation and help on site.



# Land at Lower Rainham Road

# Post-excavation Assessment and Updated Project Design

#### 1 INTRODUCTION

# 1.1 Project and planning background

- 1.1.1 Wessex Archaeology was commissioned by Bellway Homes Limited ('the client'), to undertake archaeological mitigation works comprising an excavation covering 0.43 ha centred on NGR 582280 167152, at Lower Rainham Road, Kent, ME8 7UB (**Fig. 1**).
- 1.1.2 The work was carried out as a condition of planning permission, granted by Medway Council (MC/20/1800) for a proposed development comprises 79 dwellings, including affordable housing together with access, open space, landscaping and associated infrastructure works. The overall development area comprises 3.44 ha. The following condition relate to archaeology:
  - Condition 9: No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of:
  - i. archaeological field evaluation works in accordance with a specification and written timetable which has been submitted to and approved by the Local Planning Authority; and
  - ii. following on from the evaluation, any safeguarding measures to ensure preservation in situ of important archaeological remains and/or further archaeological investigation and recording in accordance with a specification and timetable which has been submitted to and approved by the Local Planning Authority.
  - Reason: To ensure appropriate assessment of the archaeological implications of any development proposals and the subsequent mitigation of adverse impacts through preservation in situ or by record.
- 1.1.3 The excavation was the final stage in a programme of archaeological works, which had included a Desk-Based Assessment (Pegasus Group 2018) and a trial trench evaluation (Wessex Archaeology 2021).
- 1.1.4 The evaluation revealed a total of 12 archaeological features, comprising nine ditches, a pit/tree throw and two quarry pits, were recorded across six trenches during the evaluation.
- 1.1.5 The two quarry pits were tentatively dated to the Romano-British period based on limited finds recovered and known neighbouring activity, however the material may be residual in nature, while one of the ditches and the pit/tree throw were dated to the modern period (Wessex Archaeology 2021).
- 1.1.6 The excavation was undertaken in accordance with a written scheme of investigation (WSI), which detailed the aims, methodologies and standards to be employed, for both the fieldwork and the post-excavation work (Wessex Archaeology 2021). The County Archaeologist for Kent County Council (KCC) approved the WSI, on behalf of the Local



Planning Authority (LPA), prior to fieldwork commencing. The excavation was undertaken 13/07/2021 to 27/07/2021.

# 1.2 Scope of the report

1.2.1 The purpose of this report is to provide the provisional results of the excavation, and the preceding evaluation, and to assess the potential of the results to address the research aims outlined in the WSI. Where appropriate, it includes recommendations for a programme of further analysis, outlining the resources needed to achieve the aims (including the revised research aims arising from this assessment), leading to dissemination of the archaeological results via publication and the curation of the archive.

# 1.3 Location, topography and geology

- 1.3.1 The proposed evaluation is located approximately 4.7km southeast of Gillingham and 1.3km to the north of the main settlement of Rainham. The site comprises one agricultural field which has been subdivided into several paddocks.
- 1.3.2 The site is bounded by agricultural land beyond Lower Rainham Road to the north; a mixture of residential development, woodland, and agricultural land to the east; residential development to the south; and Berengrave Nature Reserve and allotment gardens to the west.
- 1.3.3 The topography of the site is relatively flat and lies at approximately 5m aOD, although the northern area of site appears to be slightly lower than the remainder of the site.
- 1.3.4 The solid geology of the site consists of Seaford Chalk Formation which comprises chalk with superficial geology of the northern and south eastern areas of the site consisting of Head deposit comprising clay and silt (British Geological Survey online viewer).

#### 2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

#### 2.1 Introduction

2.1.1 The archaeological and historical background was assessed in a prior desk-based assessment (DBA: Pegasus Group 2018), which considered the recorded historic environment resource within a 0.5 km study area of the proposed development. A summary of the results is presented below, with relevant entry numbers from the Kent Historic Environment Record (HER) and the National Heritage List for England (NHLE) included. Additional sources of information are referenced, as appropriate.

#### 2.2 Previous works related to the development

Trial Trench Evaluation (Wessex Archaeology 2021)

- 2.2.1 A total of 12 archaeological features, comprising nine ditches, a pit/tree throw and two quarry pits, were recorded across six trenches during the evaluation.
- 2.2.2 The two quarry pits were tentatively dated to the Romano-British period based on limited finds recovered and known neighbouring activity, however the material may be residual in nature, while one of the ditches and the pit/tree throw were dated to the modern period.

North Kent Coast Rapid Coastal Zone Assessment (2000)

2.2.3 The Historic Environment of the North Kent Coast Rapid Coastal Zone Assessment was undertaken in 2000 and included the land within the site (HER ref. EKE 10278). The site is just located within the study area due to its proximity with the coast.



# 2.3 Archaeological and historical context

Prehistoric (pre-AD 43) and Romano-British (AD 43 - 410)

- 2.3.1 A trial trench evaluation was undertaken c. 1km east which revealed quarry pits, storage pits and postholes associated with drainage and boundary ditches. The evaluation also revealed two sunken feature buildings with associated hearths and an isolated urned cremation, probably from the Bronze Age period.
- 2.3.2 Following the 2019 evaluation, a strip, map and sample excavation was undertaken and revealed a small number of pits, an enclosure ditch, an urned cremation and a ring ditch from the Bronze Age period. A large sub rectangular medieval enclosure with two phases of activity set out the main period of activity which was evidenced in re-cutting and reorganisation of ditches as well as associated sunken feature buildings. Sparse evidence suggesting some features at the site date to the Late Iron Age and Romano-British periods was also identified.
- 2.3.3 A large quantity of prehistoric flints dating to the Mesolithic, Neolithic and Bronze Age periods was recorded *c.* 550m southwest of the site (HER ref. MKE 15937). The flint artefacts included cores, blades, flakes, scrapers and an awl.
- 2.3.4 A potential Roman kiln was recorded *c.* 115m east of the site (HER ref. MKE 3096). The kiln was first recorded in the 19<sup>th</sup> century, and the precise location of the pottery kiln site is uncertain. There was evidence of pottery manufacture, although no further details have survived.
- 2.3.5 A Romano-British cemetery was recorded *c.* 275m north of the site during the digging for brick earth (HER ref. MKE 3047). The majority of the burials were cremations contained within cinerary urns. Few grave goods were recorded, comprising bronze fibulae, hairpins and beads.
- 2.3.6 Another potential Roman cemetery was recorded *c.* 480m east of the site during the excavation for brickearth in the early 20<sup>th</sup> century (HER ref. MKE 3073). Artefacts recorded at the site include a Samian vessel, dishes and a bead, all of which dated to the 1<sup>st</sup> century AD. The precise location of the cemetery is uncertain.
- 2.3.7 Roman pottery was recorded *c.* 325m northeast of the site on the south western side of the Otterham Creek (HER ref. MKE 3066).
  - Early medieval (AD 410 1066) and Medieval (1066 1539)
- 2.3.8 The site was historically located within the parish of Rainham and is likely to have formed part of the agricultural hinterland to this settlement from at least the medieval period.
- 2.3.9 Saxon weapon and possible finds from a burial were recorded *c*. 485m east of the site (HER ref. MKE 16493, MKE 3061). The finds comprised Anglo-Saxon spearheads, pottery and beads. The precise location of these finds is uncertain.
- 2.3.10 An Anglo-Saxon inhumation cemetery was recorded *c.* 710m northeast of the site in the mid-19<sup>th</sup> century (HER ref. MKE 43032). A rich burial of a skeleton with a silver-gilt brooch, beads and a vessel were recorded in 1852 by grave diggers.
- 2.3.11 Potential medieval remains were recorded c. 275m northwest of the site during the archaeological recording of geotechnical pits (HER ref. MKWX 17312, EWX 6607). The feature was recorded during the recording of seven test pits along a proposed road route.



- Post-medieval (1540 1800) and Modern (1801 present)
- 2.3.12 The approximate location of the site is depicted on the plan of an estate situated in the parishes of Rainham, Upchurch, Halstow, Newington, Hartlip, Brehurst and Debtling in the county of Kent belonging to the Right Honourable Sackville Earl of Thanet 1817. The land within the site was not under the ownership of the Earl of Thanet, although much land in the surrounding area was.
- 2.3.13 The site is depicted on the Rainham Tithe Map of 1838. The site comprises part of two large fields located to the east of East Rainham, and to the north of Upper Rainham, the main settlement.
- 2.3.14 The site is depicted on the plan accompanying the Sales Particulars of Macklands Farm 1860. The northern area of the site was part of Lot 8, which consists of arable land containing brickearth. This area of the site was part of the Mackland Estate.
- 2.3.15 No major changes to the site are depicted on the First Edition Ordnance Survey Map of 1870. The fields to the east and southeast of the site comprise orchards to the north of Macklands, labelled as 'Mackland Cottage' on the map.
- 2.3.16 The Second Edition Ordnance Survey Map of 1897 depicts orchards in the northern area of the site. Development along Lower Rainham Road is depicted to the east of the site, which replaced the northern most area of orchard on the First Edition Ordnance Survey Map.
- 2.3.17 The Third Edition Ordnance Survey Map of 1908 depicts the entire site as covered in orchard. Orchard is also depicted to the south of the site, with a band of orchard to the southwest.
- 2.3.18 No major changes are depicted on the Ordnance Survey Map of 1838. The site still comprises orchard and the north western area is bounded by allotment gardens.
- 2.3.19 The Berengrave Chalk Quarry is recorded to the west of the site (HER ref. MKE 43010). The quarry was in use during the early 20<sup>th</sup> century, before going out of use in the 1930s. The quarry supplied the British Standard Cement Works, located *c.* 320m northwest of the site (HER ref. MKE 40051). The two were connected by a short tramway which went under Lower Rainham Road via a bridge. The chalk quarry became an official Local Nature Reserve in 1984.

#### 3 AIMS AND OBJECTIVES

#### 3.1 Aims

- 3.1.1 The general aims of the excavation, as stated in the WSI (Wessex Archaeology 2021) and in compliance with the ClfA *Standard and guidance for archaeological excavation* (ClfA 2014a), were to:
  - examine the archaeological resource within a given area or site within a framework of defined research objectives;
  - seek a better understanding of the resource;
  - compile a lasting record of the resource; and
  - analyse and interpret the results of the excavation and disseminate them.



#### 3.2 Research objectives

- 3.2.1 Following consideration of the archaeological potential of the site, the research objectives of the excavation defined in the WSI (Wessex Archaeology 2021) were to:
- 3.2.2 Following consideration of the archaeological potential of the site, the research objectives of the excavation defined in the WSI (Wessex Archaeology 2021) were to:
  - determine the date, nature and extent of the tentatively dated Roman quarry pits;
  - determine the date, extent and character of landscape organisation, and its development from the Middle Bronze Age to the Romano-British period;
  - assess the potential for the recovery of artefacts to assist in the development of type series within the region.

#### 4 METHODS

#### 4.1 Introduction

- 4.1.1 All works were undertaken in accordance with the detailed methods set out within the WSI (Wessex Archaeology 2021) and in general compliance with the standards outlined in CIfA guidance (CIfA 2014a). The post-excavation assessment and reporting followed advice issued by the Association of Local Government Archaeological Officers (ALGAO 2015). The methods employed are summarised below.
- 4.1.2 The excavation comprised the excavation, investigation and recording of a single area measuring 0.43ha (**Figure 1**). This was based on the results of the trenches in the evaluation and the archaeological potential within the site.

# 4.2 Service locations and other constraints

4.2.1 The client provided information regarding the presence of any below/above-ground services, and any ecological, environmental or other constraints

#### 4.3 Fieldwork methods

General

- 4.3.1 The excavation area was set out using a Global Navigation Satellite System (GNSS), in the same position as that proposed in the WSI (**Fig.1**). The topsoil/overburden was removed in level spits using a 360° excavator equipped with a toothless bucket, under the constant supervision and instruction of the monitoring archaeologist. Machine excavation proceeded in level spits until the archaeological horizon or the natural geology was exposed.
- 4.3.2 Where necessary, the surfaces of archaeological deposits were cleaned by hand. A sample of archaeological features and deposits was hand-excavated, sufficient to address the aims of the excavation. A sample of natural features, such as tree-throw holes, was also investigated.
- 4.3.3 Spoil derived from machine stripping and hand-excavated archaeological features was visually scanned for the purposes of finds retrieval. Artefacts were collected and bagged by context.

#### Recording

4.3.4 All archaeological features and deposits were recorded using Wessex Archaeology's proforma recording system. A complete record of excavated features and deposits was made,



- including plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid.
- 4.3.5 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.
- 4.3.6 A full photographic record was made using digital cameras equipped with an image sensor of not less than 16 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

Survey

4.3.7 The real time kinematic (RTK) survey of all excavated areas and features was carried out using a Leica GNSS connected to Leica's SmartNet service. All survey data was recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.

# 4.4 Finds and environmental strategies

General

4.4.1 Strategies for the recovery, processing and assessment of finds and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2021). The treatment of artefacts and environmental remains was in general accordance with: Guidance for the collection, documentation, conservation and research of archaeological materials (CIfA 2014b), Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (English Heritage 2011) and CIfA's Toolkit for Specialist Reporting (Type 2: Appraisal).

#### 4.5 Monitoring

4.5.1 The KCC County Archaeologist monitored the works on behalf of the LPA. Any variations to the WSI, if required to better address the project aims, were agreed in advance with the client and the KCC County Archaeologist.

#### 5 ARCHAEOLOGICAL RESULTS

#### 5.1 Introduction

- 5.1.1 The following section provides a summary description of the results of the archaeological mitigation. Details of individually excavated contexts and features are retained in the site archive and a detailed tabulated version of these is provided in **Appendix 1** of this report.
- 5.1.2 **Figure 1** presents the overall location of the site, excavation area overlaid by previous evaluation trenches and **Figure 2** displays the archaeological results. Selected photographs are provided in **Plates 1-7.**
- 5.1.3 The 0.43ha excavated area contained a total of 7 investigated archaeological features, indicating archaeological remains are present within the site.



#### 5.2 Soil sequence and natural deposits

5.2.1 The natural soil sequence of the site comprised of a mid-greyish brown silty clay topsoil and/ or a reddish greyish brown subsoil overlying the natural geology, which comprised a reddish yellow clay.

# Prehistoric period

5.2.2 Isolated pit/rooting **3008** was subcircular in shape with irregular and undulating sides and base, measuring 1.23m in length, 0.98m wide and 0.22m deep. The feature contained a single secondary fill of mid greyish brown sandy clay containing sparse chalk pieces and small subangular flints. The base was somewhat disturbed due to animal burrowing. Possible Late Bronze Age/Early Iron Age flint-tempered pottery body sherds were recovered as well as a flake.

# Post Medieval period

- 5.2.3 Ditch **3010** was oriented in a north-north-west to south-south-east direction, measuring 20m+ in length, 1.85m wide and 0.11m deep. It is distinctly shallower on its east-north-east edge. The feature contained a single secondary fill of mid greyish brown sandy clay with sparse chalk inclusions and small subangular flint pebbles which contained pottery, CBM and peg tiles.
- 5.2.4 Pit **3016** was sub-circular in shape with concave sides and a flat base and measured 2.90m in length, 1.80m in width and 0.60m in depth. There were six deliberate backfills all of mid greyish brown silty sandy clay which contained material dating from the Mediaeval through to the post Medieval period.

#### Modern period

5.2.5 Pit **3014** was sub-circular in shape with concave sides and a flat base measuring 10.40m in length, 9.70m in width and 1.54m in depth. The feature contained one deliberate backfill of mid greyish brown silty sandy clay, with rare chalk subangular flints. The dating material from the fill derived from the Late Bronze Age/Early Iron Age through to the modern period indicating that the feature was most likely excavated in the modern period and backfilled with material from the prehistoric through to the modern period mixed together.

#### Undated

- 5.2.6 Ditch **3004** was aligned in a north-north-west to the south-south-east direction with irregular and undulating sides and base, measuring 16.6m in length, 1.6m in width and 0.17m in depth. The ditch contained a single secondary fill of mid greyish brown sandy clay with common chalk pieces, rare CBM and large sized flint pebbles. The ditch appears to relate to an area of modern disturbance in the northwest corner of the site and may form a trackway alongside a second parallel ditch **3006**.
- 5.2.7 Ditch **3006** was aligned in a north-north-west to south-south-east direction with irregular and undulating sides and base. It measured 16+m in length, 1.10m wide and 0.10m deep. The ditch contained a single secondary fill of mid greyish brown sandy clay with common subangular flint pebbles and chalk inclusions. The ditch was running parallel to ditch **3004** towards an area of modern disturbance in the northwest corner of the site and probably formed a trackway with **3004**.
- 5.2.8 Ditch terminus **3012** was linear in shape and oriented northwest to southeast with irregular sides and a concave base. The feature contained a single secondary fill of mid greyish brown sandy clay, with sparse chalk inclusions and small subangular flint stones. No artefacts were retrieved and may be disturbance caused by rooting.



#### 6 FINDS EVIDENCE

#### 6.1 Introduction

6.1.1 A small quantity of finds was recovered during the excavation. The material has been cleaned (with the exception of the iron objects) and quantified by material type; this information is summarised in Table 1.

**Table 1** Finds by material type (number of pieces/weight in grammes)

	Context									
		3009		3011		3015		3017	Total	
Material	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)	No.	Wt. (g)
Prehistoric pottery	1	4			6	15			7	19
Roman pottery					8	23			8	23
Medieval pottery							1	9	1	9
Modern pottery			1	1			1	6	2	7
СВМ			2	27	4	73	10	158	16	258
Fired clay							16	66	16	66
Clay pipe							3	5	3	5
Flint	1	14			89	304	1	13	91	331
Burnt flint					41	52			41	52
Iron							7	42	7	42
Glass					1	1			1	1
Animal bone					5	1			5	1
Shell							4	69	4	69

CBM: ceramic building material

# 6.2 Pottery

6.2.1 The 18 sherds of pottery include material of later prehistoric to modern date. The assemblage has been quantified by broad ware group (e.g. greyware) in each context. The earliest pottery comprises seven abraded body sherds in flint-tempered fabrics of later prehistoric, possibly Late Bronze Age/Early Iron Age, date. They were recovered from pits 3008 and 3014. The eight sherds of Romano-British pottery include seven of greyware and one in a North Kent fine greyware. All are abraded body sherds, recovered from quarry pit 3014. A single sherd of medieval pottery - a London-type ware (M5 in the Canterbury type series) of 13th to 14th century date – came from pit 3016. The modern pottery comprises two sherds of refined whiteware with blue transfer-printed decoration from pit 3016 and ditch 3010.

# 6.3 Ceramic building material

6.3.1 Four fragments of ceramic building material from quarry pit 3014 are of Romano-British date. They include two from the curved outer edge of a tegula roofing tile flange, one from a brick or tile greater than 31 mm thick and one small, unidentified fragment. The other 12



pieces, from ditch 3010 and pit 3016, are likely to derive from peg tiles of medieval or postmedieval date.

# 6.4 Fired clay

6.4.1 A small group of 16 fragments (66 g) of fired clay was recorded from pit 3016. The amorphous pieces are in a pale orange, sandy fabric with moderate calcareous inclusions, probably chalk, but their original function and date are unknown.

## 6.5 Clay tobacco pipe

6.5.1 Three stem fragments from clay tobacco pipes were recovered from pit 3016. These are undiagnostic but broadly of post-medieval date.

#### 6.6 Flint

- 6.6.1 The worked flint from this project contains a small collection of material, none of which is sufficiently numerous or distinctive technologically to be reliably informative. The largest component, from guarry pit 3014, comprised 99 pieces, of which 75 pieces (76%) were chips with a further eight pieces, contributing 8% of the collection, listed as debitage (unclassifiable fragments broken along thermal fractures). The remaining components comprised flakes, broken flakes and a poorly worked core, produced from a nodule of Bizoned flint, a distinctive flint type, which occurs in Kent. The flakes from the feature show very few traces of post depositional edge damage which suggest that they may be contemporary with the date of the quarry. The condition of this material is in contrast to the flake from pit 3016, which extensive edge damage shows that it had undergone prolonged reworking in plough soil before it was incorporated in the pit. Nothing can be deduced from the flake from pit 3008. The assemblage from quarry pit 3014 therefore forms the principal collection from the site but is of insufficient quantity to make reliable conclusions regarding date of manufacture. There is nothing to indicate that it formed part of a carefully programmed core reduction strategy. This suggests that production was unlikely to have been of Neolithic date when cores were exploited more systematically, leading to a speculative assessment that it was produced in the Bronze Age.
- 6.6.2 A total of 41 small fragments of burnt flint, weighing 52 g, was recorded from a bulk soil sample of quarry pit 3014. This material type is intrinsically undatable but frequently associated with prehistoric activity.

## 6.7 Iron

6.7.1 The iron assemblage comprises six rod or nail shank fragments and one of wire, of uncertain date. These objects have not been x-rayed and their identification is provisional. All were recovered from pit 3016.

#### 6.8 Glass

6.8.1 A single piece of modern clear, colourless glass came from guarry pit 3014.

## 6.9 Animal bone

6.9.1 Five small fragments (1 g) of animal bone were retrieved from the sieved residue of fill 3015 of guarry pit 3014. Three of the fragments are burnt.

## 6.10 Shell

6.10.1 Four left oyster values were recorded from pit 3016.



#### 6.11 Conservation

6.11.1 As potentially unstable material types, the iron objects are all stored with supportive packaging and a desiccant (silica gel) to ensure a dry environment below 35% relative humidity. The iron objects should be X-radiographed to provide a basic record and as an aid to identification.

# 7 ENVIRONMENTAL EVIDENCE

#### 7.1 Introduction

7.1.1 One bulk sediment sample was taken from a pit of uncertain chronology and was processed for the recovery and assessment of the environmental evidence.

# 7.2 Aims and Methods

- 7.2.1 The purpose of this assessment is to determine the potential of the environmental remains preserved at the site to address project aims and to provide data valuable for wider research frameworks. This assessment follows recommendations set out by Historic England (Campbell *et al.* 2011).
- 7.2.2 The sample was 36 litres in volume and was processed by standard flotation methods on a Siraf-type flotation tank; the flot retained on a 0.25 mm mesh, residues fractionated into 4 mm and 1 mm fractions. The coarse fractions (>4 mm) were sorted by eye and discarded, the fine residue fractions were sorted with the use of a magnifying lens. The environmental material extracted from the residues was added to the flot. The flot was scanned and sorted using a stereo incident light microscopy at magnifications of up to x40.
- 7.2.3 Different bioturbation indicators were considered, including the percentage of roots, the abundance of modern seeds and burrowing blind snails (*Cecilioides acicula*), and insects. The preservation and nature of the charred plant and wood charcoal remains, as well as the presence of other environmental remains such as terrestrial molluscs and small animal bones, were recorded. Abundance of remains is qualitatively quantified (A\*\*\* = exceptional, A\*\* = 100+, A\* = 30–99, A = 30–10, B = 9–5, C = <5) as an estimation of the minimum number of individuals (not the number of remains) per taxa.
- 7.2.4 Taxonomical identifications of important taxa were carried out in comparison with relevant literature and modern reference collections, following the nomenclature of Stace (1997) for wild plants, and traditional nomenclature, as provided by Zohary *et al.* (2012), for cereals. Mollusc nomenclature follows Anderson (2005).

#### 7.3 Results

- 7.3.1 The flot from the single bulk sediment sample was small (Appendix 1). There were high numbers of bioturbation proxies including numerous burrowing blind snails and modern seeds which is indicative of some stratigraphic movement and the high possibility of contamination by later intrusive elements.
- 7.3.2 Environmental evidence comprised of plant remains preserved by carbonisation and wood charcoal and was poorly preserved. Wood charcoal was noted in generally small quantities and comprised mature wood charcoal, which was highly fragmented. Fragments of coal, terrestrial molluscs and burrowing blind snails were well-represented in the flot, with small animal bones being a minor inclusion.



7.3.3 The charred plant remains consisted of a very small quantity of wheat (*Triticum* sp.) grains, alongside spelt/emmer wheat (*Triticum spelta/dicoccum*) glume bases, which were highly degraded, and an indeterminate rachis internode. The wild taxa recovered consisted of a probable oat (cf. *Avena* sp.) grain, meadow grass/cat's tail grass (*Poa/Phleum* sp.), bedstraw (*Galium* sp.), and large seeded legumes (*Pisum/Lathyrus/Vicia* spp.).

#### 7.4 Discussion

- 7.4.1 An insignificant assemblage of charred plant remains and charcoal has been retrieved. The assemblage is likely representative of the background 'noise' of the past human occupation of the area, including activities such as crop-processing and the use of wood as fuel.
- 7.4.2 The wheat, hulled wheat glume bases, and wild taxa consistent with arable weed species, are characteristic of late prehistoric to Romano-British crop choices. However, contamination is suggested by the high percentage of modern seeds and modern root material noted in the sample. This suggests that the fill of the pit consists of cultural debris heavily mixed with modern plant material, likely through post-depositional bioturbation processes.

#### 8 STATEMENT OF POTENTIAL

#### 8.1 Finds potential

8.1.1 This small finds assemblage provides limited evidence of activity at the site, of prehistoric, Romano-British, medieval and modern date. The material has been recorded in sufficient detail at this stage and no further work is warranted.

# 8.2 Environmental potential

8.2.1 The assemblage recovered has demonstrated the potential for the preservation of charred plant remains on site, but the single sample itself has little further palaeoenvironmental potential and requires no further analysis. Poor recovery may be a result from depositional conditions (eg, intermittent waterlogging).

#### 9 CONCLUSIONS

#### 9.1 Introduction

- 9.1.1 The excavation has revealed minimal archaeological remains within the strip area, comprising four ditches and three pits. Datable material was very limited though some with only four features reliably dated with the remaining three features undated. Phasing of the features were limited due to the lack of finds and lack of relation to each other. The majority of the features are dating from the post medieval period however one feature was dated to the prehistoric period. One feature was dated to the modern period.
- 9.1.2 A large proportion of the site in the northwest corner has been truncated by associated modern house footprints.
- 9.1.3 The section below discusses the archaeological results in the context of the site specific aims as set out in the WSI (Wessex Archaeology 2021) and a brief discussion of the features.



#### 9.2 Discussion

- 9.2.1 None of the ditches have any clear relationship with known historic uses of the site or neighbouring sites. However, notably, the excavated pit that was identified as rooting disturbance ties in well with the site's previous use as an orchard.
- 9.2.2 Undated ditches 3004 and 3006 were seen to run parallel to each other and into an area of modern disturbance in the north-west corner of the site, suggesting they form a modern trackway. These ditches do not lend themselves to determine anything regarding the landscape organisation of the area.
- 9.2.3 The large quarry pit tentatively dated to the Roman period during the previous evaluation contained a mixture of prehistoric, Roman and modern material within its fill which would suggest that the pit was most likely excavated during the modern period.
- 9.2.4 A large proportion of the site in the north-western area had been truncated in the modern period, which was evident by modern footprints of buildings, removing much of the potential archaeology of the site. The limitation of the archaeology was also evident in the absence of subsoil across much of the site which could be explained by the site's previous use as an orchard.

#### 10 STORAGE AND CURATION

#### 10.1 Museum

10.1.1 The archive resulting from the watching brief is currently held in the offices of Wessex Archaeology in Meopham. The site falls within the collecting area of Guildhall Museum. The museum is not currently accepting archaeological archives. Every effort will be made to identify a suitable repository for the archive resulting from the fieldwork, and if this is not possible, Wessex Archaeology will initiate discussions with the local planning authority in an attempt to resolve the issue. If no suitable repository is identified, Wessex Archaeology will continue to store the archive, but may institute a charge to the client for ongoing storage beyond a set period.

# 10.2 Preparation of the archive

Physical archive

- 10.2.1 The physical archive, which includes paper records, graphics, artefacts and ecofacts, will be prepared following the standard conditions for the acceptance of excavated archaeological material by Guildhall Museum, and in general following nationally recommended guidelines (SMA 1995; CIfA 2014c; Brown 2011).
- 10.2.2 All archive elements will be marked with the site code, and a full index will be prepared. The physical archive currently comprises the following:
  - 1 file/document case of paper records and A3/A4 graphics

Digital archive

10.2.3 The digital archive generated by the project, which comprises born-digital data (eg site records, survey data, databases and spreadsheets, photographs and reports), will be deposited with a Trusted Digital Repository, in this instance the Archaeology Data Service (ADS), to ensure its long-term curation. Digital data will be prepared following ADS guidelines (ADS 2013 and online guidance) and accompanied by metadata. Full details of



the collection, processing and documentation of digital data are given in the project Digital Management Plan (available on request).

# 10.3 Selection strategy

- 10.3.1 It is widely accepted that not all the records and materials (artefacts and ecofacts) collected or created during the course of an archaeological project require preservation in perpetuity. These records and materials will be subject to selection in order to establish what will be retained for long-term curation, with the aim of ensuring that all elements selected to be retained are appropriate to establish the significance of the project and support future research, outreach, engagement, display and learning activities, ie the retained archive should fulfil the requirements of both future researchers and the receiving Museum.
- 10.3.2 The selection strategy, which details the project-specific selection process, is underpinned by national guidelines on selection and retention (Brown 2011, section 4) and generic selection policies (SMA 1993; Wessex Archaeology's internal selection policy: available on request) and follows ClfA's *Toolkit for Selecting Archaeological Archives*. It should be agreed by all stakeholders (Wessex Archaeology's internal specialists, external specialists, local authority, museum) and fully documented in the project archive.
- 10.3.3 Detailed selection proposals for the complete project archive (combining evaluation and excavation), comprising finds, environmental material and site records (analogue and digital), are made in the site-specific Selection Strategy (Appendix 2). The proposals are summarised below.

#### **Finds**

- 10.3.4 Pottery 18 sherds of later prehistoric, Romano-British, medieval and modern date. Most are undiagnostic body sherds and have no potential for further analysis. Retain none.
- 10.3.5 Ceramic building material 16 fragments of Romano-British and later types. No complete dimensions; no potential for further analysis. Retain none.
- 10.3.6 Fired clay 16 fragments, all undiagnostic. No potential for further analysis. Retain none.
- 10.3.7 Clay pipe 3 fragments, all stem pieces. No potential for further analysis. Retain none.
- 10.3.8 Flint 91 pieces. Likely to be of Bronze Age date but no potential for further analysis. Retain none.
- 10.3.9 Burnt flint 41 fragments. No potential for further analysis. Retain none.
- 10.3.10 Iron 6 fragments, rod/shank and wire but will require x-radiography to confirm identification prior to selection decision.
- 10.3.11 Glass 1 fragment, modern. No potential for further analysis. Do not retain.
- 10.3.12 Animal bone 5 fragments. No potential for further analysis. Retain none.
- 10.3.13 Shell 4 oyster shells. No potential for further analysis. Retain none.

#### Environmental material

10.3.14 This is a summary of proposals for a site-specific Selection Strategy (Appendix 2):



10.3.15 All assessed flots with extracted materials with no further research potential should be discarded.

## Documentary records

10.3.16 Paper records comprise site registers (other pro-forma site records are digital), drawings and reports (Written Scheme of Investigation, client report). All will be retained and deposited with the project archive.

#### Digital data

10.3.17 The digital data comprise site records (tablet-recorded on site) in spreadsheet format; finds records in spreadsheet format; survey data; photographs; reports. All will be deposited, although site photographs will be subject to selection to eliminate poor quality and duplicated images, and any others not considered directly relevant to the archaeology of the site.

# 10.4 Security copy

10.4.1 In line with current best practice (eg, Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

## **10.5 OASIS**

10.5.1 An OASIS (online access to the index of archaeological investigations) record (http://oasis.ac.uk) has been initiated, with key fields completed (Appendix 3). A .pdf version of the final report will be submitted following approval by the KCC County Archaeologist on behalf of the LPA. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

#### 11 COPYRIGHT

#### 11.1 Archive and report copyright

- 11.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*.
- 11.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

# 11.2 Third party data copyright

11.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (eg, Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the



conditions of the Copyright, Designs and Patents Act 1988 with regard to multiple copying and electronic dissemination of such material



#### **REFERENCES**

- ADS 2013 Caring for Digital Data in Archaeology: a guide to good practice. Archaeology Data Service and Digital Antiquity Guides to Good Practice
- ALGAO 2015 Advice Note for Post-Excavation Assessment. Association of Local Government Archaeological Officers
- British Geological Survey *Geology of Britain Viewer* http://mapapps.bgs.ac.uk/geologyofbritain/home.html (accessed 2021)
- Brown, D H 2011 Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (revised edition). Archaeological Archives Forum
- ClfA 2014a Standard and Guidance for Archaeological Excavation (revised edition October 2020).

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- ClfA Toolkit for Selecting Archaeological Archives https://www.archaeologists.net/selection-toolkit (accessed 2021)
- CIfA *Toolkit for Specialist Reporting* https://www.archaeologists.net/reporting-toolkit (accessed 2021)
- English Heritage 2011 Environmental Archaeology: a guide to theory and practice of methods, from sampling and recovery to post-excavation. Swindon, Centre for Archaeology Guidelines
- SMA 1993 Selection, Retention and Dispersal of Archaeological Collections. Society of Museum Archaeologists
- SMA 1995 Towards an Accessible Archaeological Archive. Society of Museum Archaeologists
- Wessex Archaeology 2021 Written Scheme of Investigation for Land at Lower Rainham Road. Unpublished report ref. 245141.1



#### **APPENDICES**

# Appendix 1

 Table 2
 Assessment of the environmental evidence/macrofossils/charred plant remains and charcoal

12 FEATU	Feature	Context	Sample Code	Sample vol. (I)	Flot vol. (ml)	Bioturbation proxies	Grain	Chaff	Cereal Notes	Charred Other	Charred Other Notes	Charcoal >2mm (ml)	Charcoal	Other	Preservation
Pit	3014	3015	245141_ 1	36	30	70%, A, I, Cecilioides acicula (A)	С	С	Triticum sp. grains, Triticum spelta/dicoccum glume bases (highly degraded), indet rachis internode	С	cf. Avena sp., Poa/Phleum, Galium sp., Pisum/Lathyrus/Vicia spp.	<5	Highly fragmented. Mature.	Moll-t (A), SAB (C), Coal (A)	Р

Key: Scale of abundance: A\*\*\* = exceptional, A\*\* = 100+, A\* = 30–99, A = 30–10, B = 9–5, C = <5; Bioturbation proxies: Roots (%), Uncharred seeds (scale of abundance), I = insects, MolI-t = terrestrial molluscs, *Cecilioides acicula* = presence of burrowing blind snail.



# **Appendix 2 Selection Strategy**

3 MATERIALS								
Material Type:	rial Type: Environmental material Page 3.2							
Stakeholders	Wessex Archaeology Environmental Manager Wessex Archaeology Archive Manager, Project Manager Guildhall Museum curator County Archaeologist of Kent County Council (KCC)							

# **SELECTION STRATEGY**

#### Processing strategy:

All environmental sampling has been undertaken following a site-specific sampling strategy or Wessex Archaeology's in-house guidance, which adheres to the principles outlined in Historic England's guidance (English Heritage 2011 and Historic England 2015a) and as stated in the relevant WSIs (245141.1). All environmental samples collected and suitable to address project aims and research objectives, as deemed by Wessex Archaeology's Environmental team, have been processed and assessed.

Environmental material type	Selection strategy
Assessed flots with extracted materials	The assessed flot from sample <001> with extracted material, has no further research potential and should be discarded.

#### **DE-SELECTED MATERIAL**

De-selected material and finds from samples will be responsibly disposed of after processing and post-ex recording.

## **AMENDMENTS**

Amendments to the selection strategy for environmental material will be agreed with Stakeholders prior to implementation and recorded in the project archive.



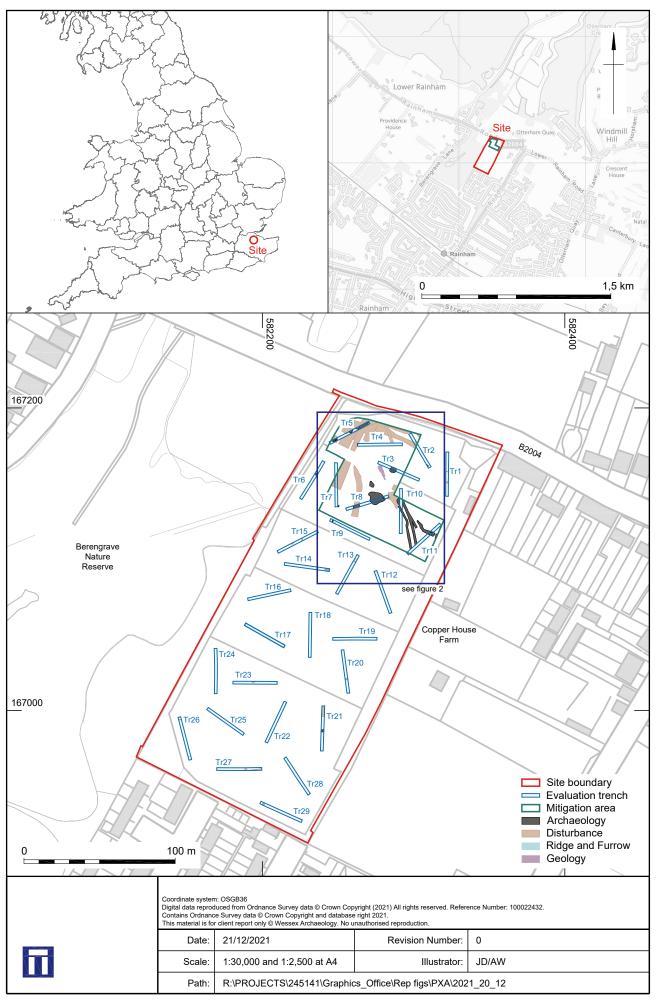
# **Appendix 3 OASIS record**

# Summary for wessexar1-419087

OASIS ID (UID)	wessexar1-419087
Project Name	Land off Lower Rainham Road, Rainham, Kent
Activity type	TRIAL TRENCH
Project Identifier(s)	254140
Planning Id	MC/20/1800
Reason For Investigation	Planning: Post determination
Organisation Responsible for work	Wessex Archaeology
Project Dates	01-Mar-2021 - 05-Mar-2021
Location	Land off Lower Rainham Road, Rainham  NGR: TQ 82280 67152  LL: 51.3741606984887, 0.617560988776376  12 Fig: 582280,167152
Administrative Areas	12 1 ig : 662266, 161 162
	Country: England County: Kent District: Medway Parish: Medway, unparished area
Project Methodology	Wessex Archaeology was commissioned to undertake a 29 trench evaluation on land off Lower Rainham Road. A total of 12 archaeological features comprising 9 ditches, a pit/tree throw and to quarry pits were recorded across six trenches, predominantly in they northeast half of the site. Limited artefactual material was recovered during the evaluation, with one of the ditches and the pit/tree throw dated to the modern period and the two quarry pits tentatively dated to the Romano-British period.
Project Results	This was not collected in OASIS IV when this record was originally created
Keywords	SLAG - ROMAN - FISH Archaeological Objects Thesaurus DITCH - UNCERTAIN - FISH Thesaurus of Monument Types DITCH - 20TH CENTURY - FISH Thesaurus of Monument Types



HER	Kent HER - unRev - STANDARD
HER Identfiers	
Archives	
	Physical Archive, Digital Archive, Documentary Archive - to be deposited with Archives: no repository



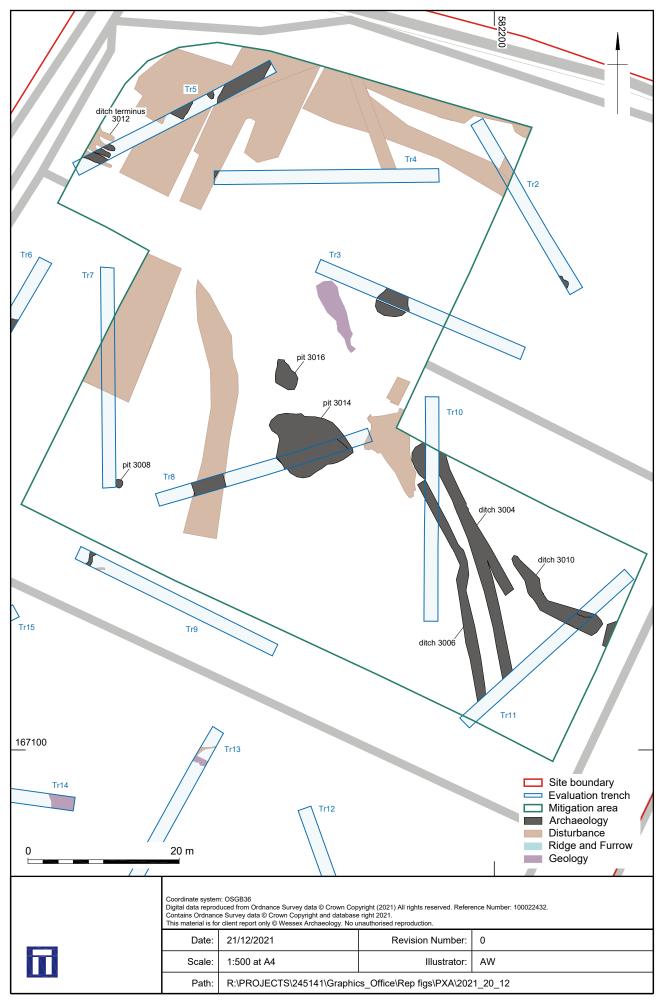




Plate 1: Ditch 3004, viewed from the southeast.



Plate 2: Ditch 3006, viewed from the southeast.

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Plate 3: Pit 3008, viewed from the east.



Plate 4: Ditch 3010, viewed from the southeast.

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Plate 5: Ditch terminus 3012, viewed from the southwest.



Plate 6: Pit 3014, viewed from the northeast.

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Plate 7: Pit 3016, viewed from the west.

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