THE WIXAMS
ELSTOW
BEDFORDSHIRE

ARCHAEOLOGICAL MITIGATION OF AREA 3 (RPS 84)

Project: WX1197

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Contents

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Preface

Every effort has been made in the preparation of this document to provide as complete an assessment as possible, within the terms of the specification. All statements and opinions in this document are offered in good faith. Albion Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party, or for any loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in this document.

This report has been prepared by Alison Bell (Archaeological Supervisor). It was edited by Joe Abrams (Project Manager). The mitigation works were carried out by Alison Bell and Adam Williams (Assistant Archaeological Supervisor). The figures were prepared by Joan Lightning (CAD Technician). All Albion projects are under the overall management of Drew Shotliff (Operations Manager).

Albion Archaeology is grateful to Rob Masefield of RPS for commissioning the project on behalf of Gallagher Estates. We would also like to acknowledge the comments of Martin Oake, County Archaeological Officer who monitored the site on behalf of Bedfordshire County Council.

Version History

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Structure of this Report

Section 1 serves as an introduction to the site, describing its location, archaeological background and the aims of the project. The methodology is described in Section 2 and the results of the mitigation are discussed in Section 3. Section 4 provides a synthesis of the results, and states their significance within the surrounding landscape. Section 5 is a bibliography. Appendix 1 contains context descriptions; Appendix 2 contains an artefact summary.

Key Terms

Throughout this report the following terms or abbreviations are used:

Albion	Albion Archaeology
RPS	RPS Planning
AO	Bedfordshire County Council's Archaeological Officer
Client	Gallagher Estates
IFA	Institute of Field Archaeologists
Procedures Manual	Procedures Manual Volume 1 Fieldwork, 2nd ed., 2001

Non-Technical Summary

RPS, the archaeological project managers for The Wixams development, commissioned Albion Archaeology on behalf of Gallagher Estates to undertake mitigation works on an area (Area 3) adjacent to the existing A6, south of Bedford.

The works required open area excavation, as part of an integrated strategy for the completion of archaeological fieldwork and historic building analysis (RPS 2006). Non-intrusive evaluation work (geophysical survey) had already been completed in the area (National Power and Gallagher 1999). This had identified an area of burnt material that might possibly have represented kiln material.

During October 2006 Albion Archaeology carried out a programme of fieldwork on the site to clarify the presence/absence of three possible kilns identified during the geophysical survey.

Two NE-SW aligned furrows were recorded. These represent the ploughed out remnants of a medieval and/or post-medieval ridge and furrow open field system.

No artefactual or physical remains were identified that could have represented kiln material.

The geophysical survey anomalies identified within Area 3 were not associated with kiln activity. They may have been created by small areas of burnt material within the topsoil, which were noted while the overburden was being removed by mechanical excavator.

1. INTRODUCTION

1.1 Project Background

RPS, acting on behalf of their client, Gallagher Estates, are the archaeological project managers for The Wixams development. They commissioned Albion Archaeology to undertake mitigation works on Area 3 (Figure 1) adjacent to the existing A6, south of Bedford.

The works required open area excavation, as part of an integrated strategy for the completion of archaeological fieldwork and historic building analysis. Non-intrusive evaluation work (geophysical survey) had already been completed (National Power and Gallagher 1999; RPS 2006, figure 7) to the north of the depot. This had identified an area of burnt material that might possibly have represented kiln material. The Stratascan report (National Power and Gallagher 1999, Appendix 8a - Volume 1, sub-appendix 2, para 4.14) stated: "*what may be of interest is a scatter of weak magnetic anomalies towards the south of the site* (i.e. Area 3). *Within this area are two, possibly three, anomalies which may be kiln sites. It is recommended that this area is investigated further to clarify whether these features are modern debris."*

Some archaeological trial trenching evaluation took place adjacent to the possible kilns but due to lack of clarification over the provisional geophysical survey results the trenches did not intersect the area in question. However, the trenches immediately adjacent did not produce any evidence, in the form of associated debris (e.g. 'wasters'), as would be expected from a kiln site (RPS 2006).

A Written Scheme of Investigation (RPS/Albion 2006a) set out how the mitigation works would be completed. This was followed by the open area excavation and the production of a report on its results (this document).

1.2 Site Location

Area 3 (Figure 1) is located south-west of Elstow. It is centred on National Grid Reference (NGR) TL 0513 4508.

1.3 Archaeological Background

The geological, archaeological and historical background to Area 3 is fully discussed in the written scheme of investigation (RPS/Albion 2006a).

1.4 Aims and Objectives

The general aim of the mitigation was to recover sufficient evidence to characterise the nature, date, state of preservation, function and importance of any archaeological features or deposits within Area 3.

The specific aim of the Area 3 mitigation was to clarify the presence/absence of three possible kilns identified during geophysical survey (RPS/Albion 2006a). In the event that kilns were found, the aim would have been to investigate their form and phases of construction in order to establish their state of preservation, complexity, date and to place the features within their local and regional archaeological context.

2. METHODOLOGY

The mitigation works took place between 6th October and 11th October 2006.

The works adhered to the standards and field methods set out in the Written Scheme of Investigation (RPS/Albion 2006a) and Albion's *Procedures Manual (*Albion Archaeology 2000). In summary:

1 Area 3 was marked out using digital GPS survey equipment in order to ensure its accurate location.
2 Area 3 was stripped using a mechanical excavator fitted with a flat bladed ditching bucket.
3 All disturbed soil was scanned for artefacts.
4 All excavated features and deposits were fully recorded in accordance with Albion's *Procedures Manual.*
5 All archaeological observations were recorded at a suitable scale on base plans that were tied in to the Ordnance Survey national grid.
6 A photographic record was kept of all significant features.

Throughout the project the standards set out in the Institute of Field Archaeologists' *Codes of Conduct* and *Standard and Guidance for an Archaeological Excavation* (1999) and in English Heritage's *Management of Archaeological Projects* (1991) were adhered to.

3. RESULTS

3.1 Introduction

Area 3 comprised of a 20m x 20m area situated over geophysical anomalies, believed to potentially represent kiln material. The area was excavated to a maximum depth of 0.64m.

Detailed technical information on all the deposits and archaeological features referred to below can be found in Appendix 1.

3.2 Overburden and Undisturbed Geological Deposits

Undisturbed geological deposits consisted of a glacial clay which varied in colour from red, brown, blue and grey. It was sealed by a mid red/brown clay subsoil.

The topsoil was a dark grey brown clay.

3.3 Medieval and/or Post-Medieval Furrows

Two NE-SW aligned furrows [2003], [2007] were stratigraphically the earliest features (Figure 2). These contemporary features ran parallel to each other.

[2003] was truncated by a modern land drain [2005].

Artefactual material recovered from these furrows (Appendix 2) consists of abraded and fragmented roof tile, brick and oyster shell, which are likely to be post-medieval or modern in date. The late date for these artefacts confirms the furrows still existed, at least as earthworks, into the post-medieval period. It is also possible that some of this material was introduced during the laying of land drains which, in the case of [2003], truncated the in-filled furrows.

3.4 Modern Land Drains

Three land drains were identified (Figure 2). [2005] was aligned NW-SE and ran along the length of furrow [2003] (Section 3.3). Its positioning adds further weight to the idea that the remnant furrows were clearly visible during the post-medieval / modern periods, allowing the drain layers to follow the depression left by furrow [2003].

Two other land drains were recorded on a N-S alignment. It is not clear whether or not they are part of the system represented by land drain [2005].

3.5 Undated Rooting Disturbance

Two small oval, and one elongated, areas of rooting disturbance [2011] were also identified.

4. SYNTHESIS

4.1 Interpretation

Two NE-SW aligned furrows were recorded, these represent the ploughed out remnants of a medieval to post-medieval ridge and furrow field system.

Ridge and furrow field systems were created by repeated ploughing of a furlong of land. A field was made up of several furlongs, each ploughed in the same direction. Each furlong was often owned by one part (family) of a farming community. The field would have been rested intermittently, and the village-based farmers would have ploughed a nearby field as part of what is sometimes described as the 'three field system', as it involved ploughing one of three fields in a rotating use/rest cycle. This system was used throughout the medieval period, and was often retained and extended in the post-medieval period.

Similar remains were identified by Albion during a previous piece of work within The Wixams development area (Albion/RPS 2006b, Areas 5 and 6) a short distance south-east of Area 3. The remains in all three areas were probably part of the same field system.

Other remains comprised modern land drains, two aligned N-S and one aligned NE-SW along one of the earlier furrows.

Artefactual material recovered from one of the medieval furrows confirms that they became in-filled during the post-medieval / modern periods. The land drains were laid in the modern period.

No artefactual, or physical, remains were identified that could have represented kiln material. The geophysical survey anomalies identified within Area 3 may have been created by small areas of burnt material (2013), visible during overburden removal. Several of these areas were recorded they measured *c.*0.50m in diameter.

The absence of any artefacts that pre-date the modern period is striking and adds to the impression provided by the 1999 trial trenching that this area to the north of the former bomb filling factory was marginal to settlement in the prehistoric and Roman, periods.

4.2 Significance

Area 3 lies within the hinterland of known medieval settlement cores at Wilstead and Duck-End. Therefore, it is to be expected that this land would have formed part of the land exploited for agricultural purposes during that period. Such remains of ridge and furrow are considered to be of local significance.

5. BIBLIOGRAPHY

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RPS/Albion 2006b, *The Wixams, Elstow, Bedfordshire: Earthwork Survey of Archaeology Areas 5 and 6*, Albion report 2006/09

6. APPENDIX 1 – CONTEXT SUMMARIES

Area: 3
Extent (ha): 0.04
OS Co-ordinates: TL5051324508
Description: Open area excavation located over geophysical anomalies

Context:	Type:	Description:	Excavated:	Finds Present:
2000	**Topsoil**	**Plastic dark grey brown clay occasional small ceramic building material, occasional small stones.**	☑	☑
2001	**Subsoil**	**Plastic mid red brown clay moderate small-medium stones.**	☑	☑
2002	**Natural**	**Firm clay moderate small-medium stones. Mixture of light red brown sandy clay and light blue grey clay.**	☐	☐
2003	**Furrow**	**Linear NE-SW profile: concave base: concave dimensions: min length 8.m, max breadth 2.5m, max depth 0.33m.**	☑	☐
2004	Fill	Firm mid brown clay moderate small-medium stones.	☑	☑
2005	**Land drain**	**Linear NE-SW profile: vertical dimensions: min length 8.m, max breadth 0.45m, min depth 0.41m.**	☑	☐
2006	Backfill	Firm clay occasional small stones. Mixture of light blue grey clay and mid brown sandy clay.	☑	☑
2007	**Furrow**	**Linear NE-SW profile: concave base: flat dimensions: min length 25.m, max breadth 2.3m, max depth 0.13m.**	☑	☐
2008	Fill	Firm mid brown clay moderate small-medium stones.	☑	☐
2009	**Land drain**	**Linear N-S profile: concave base: flat dimensions: max length 5.1m, max breadth 0.45m, max depth 0.03m.**	☑	☐
2010	Backfill	Firm dark grey brown silty clay moderate small-medium stones.	☑	☑
2011	**Treethrow**	**Sub-oval profile: 45 degrees base: concave dimensions: max length 0.6m, max breadth 0.34m, max depth 0.11m.**	☑	☐
2012	Fill	Plastic dark grey brown silty clay occasional small stones.	☑	☐
2013	**Dump material**	**Plastic dark grey brown clay moderate medium ceramic building material, frequent small-medium charcoal.**	☑	☐

7. APPENDIX 2 – ARTEFACT SUMMARY

Investigation produced a small finds assemblage comprising mainly ceramic roof tile and brick fragments (Table 1). The material was scanned to ascertain its nature, condition and, where possible, date range.

Feature	Type	Context	Spotdate*	Artefact description
2000	Topsoil	2000	Modern	Roof tile (14g); brick fragment (18g)
2001	Subsoil	2001	Modern	Brick fragment (77g); coal (6g); tarmac (9g); ferrous slag (40g)
2003	Furrow	2004	Modern	Roof tile (111g); brick fragment (26g); oyster shell (1g)
2005	Land drain	2006	Modern	Iron nail (9g); clinker (2g); bottle glass (8g)
2009	Land drain	2010	Modern	Iron lump (114g)

* - spot date based on date of latest artefact in context

Table 1: Artefact summary by feature type and context

The assemblage is generally abraded and fragmented. All finds appear to be later post-medieval or modern in origin. Ceramic building material comprises two pieces of sand tempered, flat roof tile (126g) and three modern brick fragments in Gault Clay (68g). Non-ceramic artefacts comprise single pieces of coal, clinker, tarmac, ferrous slag, oyster shell, bottle glass, an iron nail shank and an iron lump. Although the latter is not datable, its recovery from land drain [2009] suggests it is likely to be of recent origin. All modern finds have been discarded.

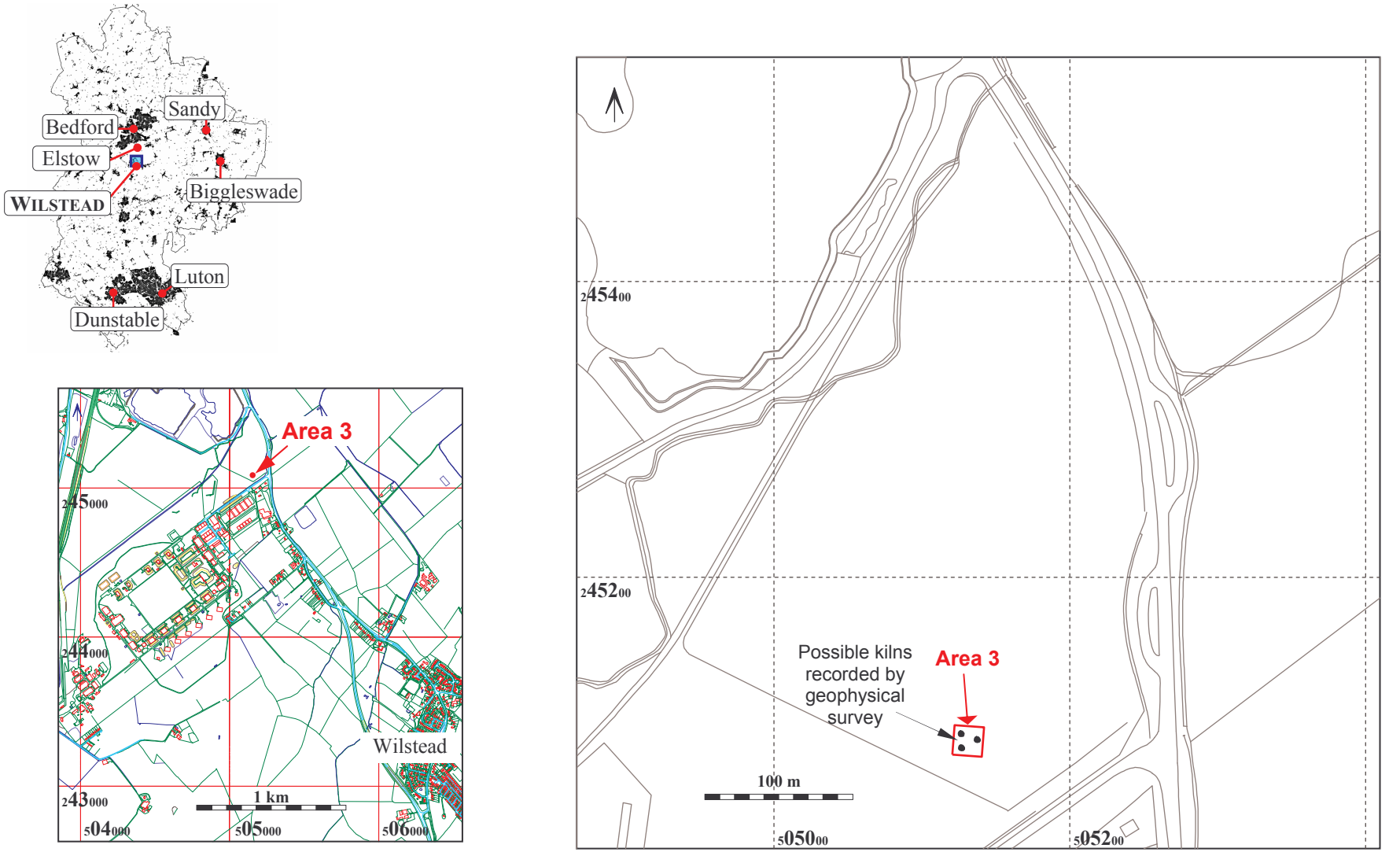
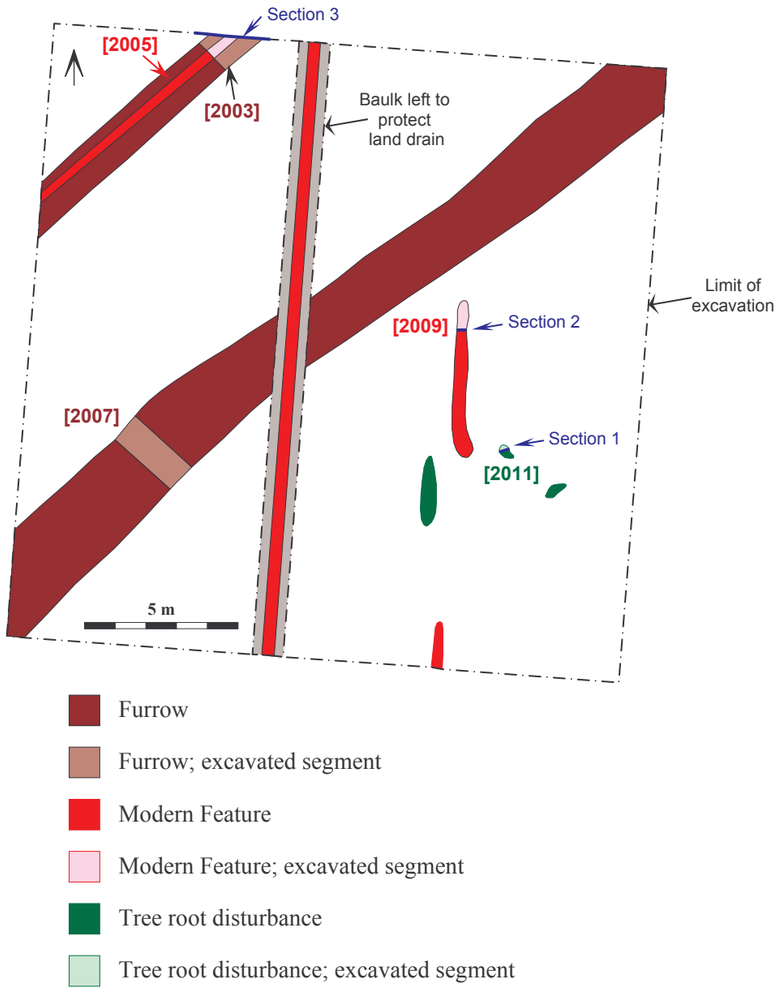


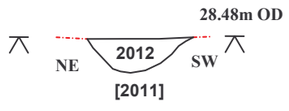
Figure 1: Site location map showing Area 3

Base map reproduced from the Ordnance Survey Land-line Map (2004 PAI), with the permission of the Controller of Her Majesty's Stationery Office, by Bedfordshire County Council, County Hall, Bedford. OS Licence No. 076465(LA). © Crown Copyright.



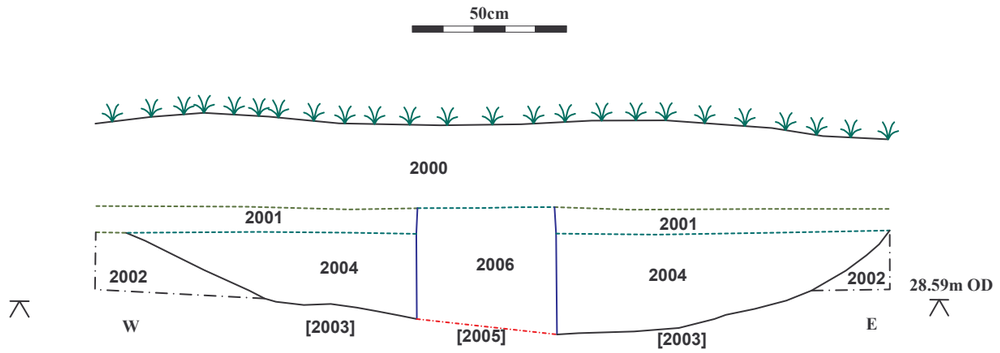
Western half of site looking north. Features have been digitally enhanced for clarity. Scale 1m

Eastern half of site looking north. Features have been digitally enhanced for clarity. Scale 1m



Section 1

Section 2



Section 3

Figure 2: All features