

**HOUGHTON REGIS NORTH 1
HOUGHTON REGIS
BEDFORDSHIRE**

DEVELOPMENT AREAS J1 (PART) AND J2

**ASSESSMENT AND
UPDATED PROJECT DESIGN**

Albion
archaeology



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Contents

List of Tables	5
List of Figures	5
Preface	6
Acknowledgements	6
Version History	6
Key Terms	7
Non-Technical Summary	8
1. INTRODUCTION	9
1.1 Project Background	9
1.2 Status and Purpose of this Report	9
1.3 Site Location and Description	9
1.4 Archaeological Background	10
2. PROJECT METHODOLOGIES AND ORIGINAL OBJECTIVES	12
2.1 Introduction	12
2.2 Methodologies	12
2.3 The National and Regional Research Frameworks	13
2.4 Original Project Objectives	14
3. SITE SEQUENCE: SUMMARY OF THE RESULTS	15
3.1 Introduction	15
3.1 Phase 1: Late Bronze Age/early Iron Age (Fig. 3)	15
3.2 Phase 2: Late Iron Age/early Roman (Fig. 4)	16
3.3 Phase 3: Roman (Fig. 5)	17
3.4 Phase 4: Early Saxon (Fig. 6)	18
3.5 Phase 5: Modern	18
4. QUANTIFICATION AND ASSESSMENT OF THE ARTEFACTS AND ECOFACTS	20
4.1 Introduction	20



4.1	Ceramics	20
4.2	'Other Artefacts'	23
4.3	Animal Bone	25
4.4	Charred Plant Remains	26
4.5	Human Bone	28
4.6	Wood Charcoal.....	30
5.	DISCUSSION OF RESEARCH OBJECTIVES FOR ANALYSIS	34
5.1	Introduction	34
5.2	Research Theme 1: Chronological Framework.....	34
5.3	Research Theme 2: Continuity and Discontinuity in the Landscape.....	35
5.4	Research Theme 3: Character and Economic Basis during the late Iron Age/Roman Period.....	35
5.5	Research Theme 4: Landscape.....	37
5.6	Research Theme 5: Local Environment	37
5.7	Research Theme 6: Ritual and Religion.....	38
6.	UPDATED PROJECT DESIGN.....	39
6.1	Introduction	39
6.2	Analysis	39
6.3	Final Report.....	42
6.4	Archiving.....	42
6.5	The Project Team, Programme and Management	43
7.	BIBLIOGRAPHY	45
8.	APPENDIX 1: ENVIRONMENTAL SAMPLES BY PHASE.....	51
9.	APPENDIX 2: PROFESSIONAL STANDARDS AND GUIDELINES	63



List of Tables

Table 1: Known archaeological remains in the vicinity of the investigation area prior to the open-area excavation	11
Table 2: Summary of the contextual/phasing hierarchy by Phase	15
Table 3: Pottery quantification by Phase	20
Table 4: Pottery type series	21
Table 5: Phase 2 pottery quantification	21
Table 6: Phase 3 pottery quantification	22
Table 7: ‘Other artefacts’ by functional category and material	23
Table 8: Weight of cremated human bone by feature	30
Table 9: Site archive	43
Table 10: The project team	44
Table 11: Summary of project programme	44

List of Figures

Figure 1: Site location

Figure 2: All-features plan

Figure 3: Plan of Phase 1: late Bronze Age/early Iron Age

Figure 4: Plan of Phase 2: late Iron Age/early Roman

Figure 5: Plan of Phase 3: Roman

Figure 6: Plan of Phase 4: early Saxon

The figures are bound at the rear of the document.



Preface

All statements and opinions in this document are offered in good faith. This document has been prepared for the titled project or named part thereof and was prepared solely for the benefit of the client. The material contained in this report does not necessarily stand on its own and should not be relied upon by any third party. This document should not be used for any other purpose without an independent check being carried out as to its suitability and the prior written authority of Albion Archaeology (a trading unit of Central Bedfordshire Council). Any person/party relying on the document for such other purposes agrees and will by such use or reliance be taken to confirm their agreement to indemnify Albion Archaeology for all loss or damage resulting therefrom. Albion Archaeology accepts no responsibility or liability for this document to any party other than the persons/party by whom it was commissioned. This document is limited by the state of knowledge at the time it was written.

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This report has been edited by Jo Barker and Mike Luke. Specific sections have been written by Jo Barker (introduction, project methodologies, site sequence), Dana Challinor (wood charcoal), Corinne Duhig (human bone), Holly Duncan ('other artefacts'), John Giorgi (plant remains), Mark Maltby (animal bone) and Jackie Wells (ceramic artefacts). The discussion of research objectives and the updated project design sections were written by Jo Barker and Mike Luke.

The excavation was supervised by Kathy Pilkinton. Investigation and recording was undertaken by the following staff: Petros Fountaoukidis, Sebastian Moya Garcia, Annie Moore, Anna Orłowska-Synus, Chris Sopp and Adrian Woolmer (Archaeological Technicians). The work was overseen by Wes Keir (Project Officer) under the management of Mike Luke (Project Manager). Metal-detecting was undertaken by Archie Gillespie and Mike Head. All dGPS survey was undertaken by Mercedes Planas (Souterrain Archaeological Services). Finds processing was supervised by Jackie Wells (Finds Officer) and the environmental samples were processed under the supervision of Gary Edmondson. The contextual assessment and creation of a phasing hierarchy were undertaken by Jo Barker. All Albion projects are under the overall management of Drew Shotliff (Operations Manager).

The project was commissioned by WT Partnership, on behalf of Lands Improvement Holdings, and monitored on behalf of the local planning authority by Martin Oake (Central Bedfordshire Council Archaeologist).

Version History

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<i>1.1</i>	<i>25/05/2019</i>	<i>Issued to CBCA</i>
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Key Terms

Throughout this document the following terms or abbreviations are used:

CBCA	Central Bedfordshire Council Archaeologist
Client	WT Partnership on behalf of Lands Improvement Holdings
CIfA	Chartered Institute <i>for</i> Archaeologists
HRDC	Houghton Regis Development Consortium
HRN1	Houghton Regis North 1 development area
LPA	Local Planning Authority
<i>Procedures Manual</i>	<i>Procedures Manual Volume 1 Fieldwork</i> , 3rd edn, 2017 Albion Archaeology
SFB	Sunken-featured building
WSARM	Written Scheme of Archaeological Resource Management



Non-Technical Summary

In 2014, Central Bedfordshire Council granted outline planning consent (CB/12/03613) for a housing-led urban extension to the north of Houghton Regis — a development known as Houghton Regis North 1 (HRN1). HRN1 lies within an area where extensive archaeological remains of early prehistoric to medieval date have been found. Condition 20 on the planning consent required the preparation of a Written Scheme of Archaeological Resource Management (WSARM) for each development area.

The WSARM for development area J1 (part) and J2 specified open-area excavation of c.1.7ha of land adjacent to Pastures Way and centred on TL 0387/2424. The fieldwork was undertaken in July and August 2018.

This document presents an assessment of the results of the archaeological fieldwork as well as an Updated Project Design with proposals for analysis, final reporting and archiving.

The first firm evidence for human activity (Phase 1) comprised a late Bronze Age/early Iron Age ditched boundary with associated pits and postholes. A trackway was created along this boundary in the late Iron Age/early Roman period (Phase 2). Adjacent to it was a cremation cemetery, comprising thirteen burials, both urned and un-urned. The Roman period (Phase 3) saw the continued use of the earlier routeway, which was re-defined by new ditches. Adjacent to it were two crop-processing areas, both of which contained drying ovens. Slightly later activity, but still Roman in date, comprised dispersed pits and an inhumation. Early Saxon (Phase 4) activity was located c.50m to the west of the Phase 3 trackway and comprised a sunken-featured building and isolated postholes.

The investigated remains and the finds recovered from them have the potential to contribute to a number of local and regional research themes. These relate to the evolution of the landscape through time and the nature of activity on the periphery of settlements. In particular, there is potential to contribute to regional themes relating to character and economic basis of the late Iron Age and Roman periods. On this basis and in accordance with the WSARM, a further programme of analysis is proposed, resulting in a final report that will be submitted to the county journal, Bedfordshire Archaeology

Upon completion of the analysis and final report, the project archive will be accessioned with Luton Culture (accession number LUTNM: 2018/18).



1. INTRODUCTION

1.1 **Project Background**

In 2014, Central Bedfordshire Council granted outline planning consent (CB/12/03613) for a housing-led urban extension to the north of Houghton Regis — a development known as Houghton Regis North 1 (HRN1).

HRN1 lies within an area where extensive archaeological remains of early prehistoric to medieval date have been found. For this reason the application was supported by the results of an archaeological field evaluation (Albion Archaeology 2012). The latter had revealed evidence for a series of Iron Age/Roman settlements, field boundaries and trackways along with evidence for dispersed activity and medieval cultivation.

The Central Bedfordshire Council Archaeologist (CBCA) advised that further archaeological work would be required to record and advance understanding of archaeological remains that would be unavoidably destroyed as a consequence of the development. Condition 20 on the planning consent stated that:

No development shall take place within each development area or sub area of that development area ... until a written scheme of archaeological resource management [WSARM] for that development area or sub area has been submitted to and approved in writing by the Local Planning Authority.

Albion Archaeology was commissioned by the client to prepare a WSARM (Albion Archaeology 2017a) for a development area known as J1 (part) and J2 at the southern end of HRN1.

1.2 **Status and Purpose of this Report**

The fieldwork component of the open-area excavation within J1 (part) and J2 was completed and “signed-off” by the CBCA on 21st August 2018.

This report presents an assessment of the results of the fieldwork and an Updated Project Design (UPD). The latter describes the further work required to analyse, produce a final report and archive the results of the fieldwork.

1.3 **Site Location and Description**

Area J1 (part) and J2 is centred on TL 0387/2424, adjacent to Pastures Way, Houghton Regis (Fig. 1).

The topography of the area is relatively flat at c.122m OD and low-lying due to its proximity to the Houghton Brook, a tributary of the River Lea. The underlying geology consists predominantly of Zig Zag Chalk Formation chalk, with smaller areas of sand and gravel confined to the course of the Houghton Brook. These deposits are overlain by mid-Pleistocene Glaciofluvial deposits, comprising sand and gravel¹.

¹ <http://mapapps.bgs.ac.uk/geologyofbritain/home.html?location=houghton+regis&gobBtn=go>



1.4 Archaeological Background

1.4.1 Introduction

HRN1 forms part of a landscape to the north of Houghton Regis that contains a variety of heritage assets dating from the Mesolithic period to the modern day. The adjacent chalk ridgelines of the Chilterns have long been known to contain evidence for early prehistoric settlement and ritual activity (Branigan 1994) but until recently our understanding of past land-use and occupation in the vicinity of HRN1 was based largely on surface artefact collection and small-scale excavations undertaken by The Manshead Society (Hudspith 1995). They identified scatters of Mesolithic, Neolithic and Bronze Age flint tools along the chalk ridge between Chalton and Wingfield and concentrations of Iron Age and Roman artefacts in the vicinity of Chalton Cross Farm and Houghton Park.

In preparation of the planning applications for HRN1 and the associated Woodside Link road, a number of archaeological investigations were carried out in the area:

- *Desk-based assessment (Albion Archaeology 2012)
- Field-walking (Amey 2012)
- *Geophysical survey (Stratascan 2012)
- Trial-trench evaluation (Albion Archaeology 2010 and 2013)
- *Trial-trench evaluation (Albion Archaeology 2012)

Note: those directly associated with HRN1 are indicated by an asterisk.

The evaluation work allowed the identification of twenty-one Archaeological Character Areas (ACA), which were described within Chapter 13 of the Environmental Statement for HRN1 (HRDC 2012, 1–20). J1 (part) and J2 encompass elements of ACA18 and 20 (Fig. 1). Features found during the evaluation within these ACAs included dispersed late Bronze Age/early Iron Age pits and a late Iron Age/Roman enclosed settlement with associated trackways.

Subsequent to the evaluation, open-area archaeological investigations were carried out on the Woodside Link (Albion Archaeology 2018) and the A5–M1 Link Road (Brown 2015) (Fig. 1), which are integral to HRN1. Of most relevance to the J1 (part) and J2 investigations was an area of adjacent Roman activity investigated within the route of the Woodside Link. The majority of the activity appeared to date to the 2nd–3rd centuries and included a drying oven (which had been rebuilt on a number of occasions) a water-pit and an inhumation. In addition, various boundary ditches and trackways were present.

Archaeological investigations further to the north associated with the A5–M1 Link Road (Fig. 1) revealed archaeological activity dating from the late Bronze Age through to medieval periods (MOLA 2015). Archaeological remains found at the eastern end of the link road included pit groups dating to the late Bronze Age/early Iron Age, late Iron Age to Roman enclosures and



trackways, cemeteries dating to the late Iron Age/Roman and Saxon periods, and an area of Saxon–medieval settlement.

Approximately 1.2km to the north of J1 (part) and J2 an archaeological evaluation on land to the rear of Osborne House, Sundon Road revealed several Iron Age/Roman boundary ditches (Heritage Network 2015).

The table below is based on one in the WSARM (Albion Archaeology 2017a) and summarises the known archaeological features within the immediate vicinity of the J1 (part) and J2 investigation area:

Archaeological Character Area	Nature of Archaeological Remains
18 (part of)	Roman boundaries, trackway, a drying oven, a water-pit and inhumation. Much of this activity was revealed during the investigations associated with the Woodside Link (Albion Archaeology 2018).
19 (part of)	Medieval cultivation furrows and undated ditches
20 (part of)	Late Iron Age/Roman enclosed settlement
21 (part of)	Late Bronze Age/early Iron Age pits

Table 1: Known archaeological remains in the vicinity of the investigation area prior to the open-area excavation



2. PROJECT METHODOLOGIES AND ORIGINAL OBJECTIVES

2.1 Introduction

The project methodologies and objectives were detailed in the WSARM (Albion Archaeology 2017a). They are summarised here along with an overview of the national and regional research frameworks relevant to the project.

Throughout the project the requirements and professional standards set out in the following documents were adhered to (see also Appendix 2):

Albion Archaeology	<ul style="list-style-type: none"> • <i>Procedures Manual: Volume 1 Fieldwork</i> (3rd edn, 2017b)
CIfA	<ul style="list-style-type: none"> • <i>Charter and by-law; Code of conduct</i> (2014) • <i>Standard and guidance for archaeological excavation</i> (2014)
East Anglian Archaeology Occasional Paper 14	<ul style="list-style-type: none"> • Gurney, D. <i>Standards for Field Archaeology in the East of England</i> (2003)
Historic England	<ul style="list-style-type: none"> • <i>Management of Research Projects in the Historic Environment</i> (2015) • <i>Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation</i> (2nd edn, 2011)
Luton Culture	<ul style="list-style-type: none"> • <i>Procedures for preparing archaeological archives for deposition with Luton Culture</i> (2013)

2.2 Methodologies

2.2.1 Fieldwork

Fieldwork was undertaken in July and August 2018. All archaeological features and deposits were investigated in accordance with the WSARM (Albion Archaeology 2017a) and Albion Archaeology's *Procedures Manual* (Albion Archaeology 2017b).

The open-area excavation comprised c.1.7ha divided into two parts by the cycleway continuing northwards from the end of Pastures Way (Fig. 2). The overburden was removed by a 360 degree mechanical excavator, fitted with a toothless ditching bucket, operating under archaeological supervision. Archaeological hand-excavation and recording then proceeded once sufficient archaeological features were exposed. The fieldwork was monitored and approved by the CBCA on behalf of the LPA.

2.2.2 Post-fieldwork

Following the fieldwork, checking and consolidation of the site records was completed. In addition, all outstanding artefacts and ecofact samples were processed. The site archive was consolidated and its internal consistency checked in accordance with the requirements outlined in *Management of*



Research Projects in the Historic Environment, section 2 (Historic England 2015).

2.3 The National and Regional Research Frameworks

The project was undertaken in line with national and regional research frameworks.

National heritage strategy is embodied within *Heritage 2020: strategic priorities for England's historic environment 2015-2020*²; it is a cross-sector collaboration initiative being delivered under the auspices of the Historic Environment Forum and builds on the successes of the National Heritage Protection Plan (NHPP) 2011–2015, published by English Heritage in 2010.

The aim of the Heritage 2020 initiative is to put together, on behalf of the whole environment sector, a unifying framework — as requested by the NHPP consultation — which encourages individual organisations to work together using agreed common priorities to add value to all their work. Five key themes regarding the understanding, valuing, caring and enjoying of England's historic environment have been identified:

- discovery, identification and understanding
- constructive conservation and sustainable management
- public engagement
- capacity building
- helping things to happen

Whilst these themes are at a relatively high conceptual level, the work undertaken as part of the investigation, in line with national planning policy, can be seen to fit within this framework.

On a regional level, a number of research frameworks have been devised. The earliest comprises *Research and Archaeology: a Framework for the Eastern Counties 1. resource assessment* (Glazebrook 1997). This was complemented by *Research and Archaeology: a Framework for the Eastern Counties 2. research agenda and strategy* (Brown and Glazebrook 2000), which set out research priorities.

These documents were reviewed and revised in *Revision of the Regional Research Framework for the Eastern Region* (Medlycott and Brown 2008). Finally, the regional research framework was again reviewed and augmented in *Research and Archaeology Revisited: a revised framework for the East of England* (Medlycott 2011a).

In addition to these regionally focussed documents, work has also specifically been done on the county of Bedfordshire: *Bedfordshire Archaeology. Research and Archaeology: Resource Assessment, Research Agenda and Strategy* (Oake *et al.* 2007).

² Available online at <http://www.heritage2020.net/2020-framework/>



2.4 Original Project Objectives

Based on the results of the evaluation, it was anticipated that the excavation area within J1 (part) and J2 might produce evidence for Bronze Age, Iron Age, Roman and medieval/post-medieval activity. The principal feature type was expected to be ditches.

Based on the research agendas and those formulated in the WSARM (Albion Archaeology 2017b), a number of areas of research and investigation were highlighted that could potentially be addressed by the investigations:

- Landscape development in the Bronze and Iron Ages (Oake 2007, 9–10);
- Characterising Roman rural settlement, including settlement layout and economy (Oake 2007, 10–12; Going and Plouviez 2000, 19–22 and Medlycott 2011b, 47);
- Regional variation in settlement in the Roman period (Oake 2007, 17 and Medlycott 2011b, 47);
- The origins and development of field systems and the relationship between field systems and settlements in the Iron Age and Roman periods (Oake 2007, 10–12; Bryant 2000, 15; Going and Plouviez 2000, 19–22 and Medlycott 2011b, 47);
- The origin and development of medieval field systems (Oake 2007, 14).

HRN1 traverses a wide archaeological landscape. The regional research framework (Medlycott 2011a, 84–5) states that: ‘Human interaction with landscape and environment is central to archaeological study [...] in the East of England’ and ‘the establishment of projects at a landscape scale, rather than that of an individual site, would allow for the chronological and spatial development of complex areas of palimpsest cropmarks and finds scatters to be analysed. Targeted fieldwork providing dating evidence for those landscapes should be a primary future research aim for the region’.

Overall, the scale of HRN1 presents an opportunity to understand how the wider landscape was utilised during the Iron Age, Roman and medieval periods, a research theme that is likely to be of regional significance.



3. SITE SEQUENCE: SUMMARY OF THE RESULTS

3.1 Introduction

The recorded contextual data represents the features and deposits investigated during the fieldwork (i.e. pits, ditches, fills, layers etc.). This contextual data has been assessed in order to establish whether it would provide a coherent spatial and chronological framework. The main criteria used were:

- Do the contexts form a coherent spatial or interpretive unit e.g. boundary, enclosure, pit group etc.?
- Do the contexts have stratigraphic relationships with other contexts?
- Do the contexts contain suitable dating material?

It was possible to assign 325 out of 338 contexts to the resultant contextual hierarchy which comprised:

- Groups (G), e.g. structures, ditches, pits etc.
- Land-use Areas (L), e.g. trackway, boundaries, enclosures etc.
- Phases, e.g. episodes of human activity corresponding to broad, chronological periods based largely on their artefactual assemblage.

A summary of the contextual/phasing hierarchy is present in Table 2 below.

Period	Phase	Principal features	No. contexts
Late Bronze Age/early Iron Age	1	Ditched boundary L1	50
		Posthole and two pits L2 to the west of boundary L1	8
		Posthole L3 to the east of boundary L1	2
Late Iron Age/early Roman	2	Cremation cemetery L4	57
		N-S trackway L5	22
		Pit L10	2
Roman	3	N-S trackway L6	46
		Crop-processing area L7	60
		Crop-processing area L8	30
		Later activity comprising an inhumation and two pits L9	8
		Fenceline L11	6
Early Saxon	4	Isolated activity focus L15	17
Modern	5	Ditch L16	15
		Ploughsoil L17	2
Undated	20	Tree-throws, root disturbance and natural geology L18	13
Total			338

Table 2: Summary of the contextual/phasing hierarchy by Phase

The following summary is presented by Phase (P), Land-use Area and, where relevant, Group (G).

3.1 Phase 1: Late Bronze Age/early Iron Age (Fig. 3)

The earliest evidence for activity comprised a ditched boundary L1, with adjacent evidence for activity L2 and L3 in the form of pits and a posthole.



3.1.1 Ditched boundary L1

The boundary comprised two broadly parallel north–south aligned ditches c.3m apart. The western ditch was continuous but the eastern one terminated in the northern part of the excavation area. The ditches were under 0.9m wide and under 0.4m deep. One of the ditches had been redug at least twice on the same alignment.

Assignment to this phase is partly because the ditch was truncated by late Iron Age graves and partly based on the pottery recovered from adjacent pits L2. Other than an intrusive Roman cooper alloy pin no other datable artefacts were recovered from the ditches (see Section 4.2.4).

3.1.2 Unenclosed activity area L2

Two pits (under 0.7m in diameter and under 0.2m deep) and a posthole L2 were identified on the west side of the ditched boundary L1. One pit truncated the earliest ditch of boundary L1, although they are considered to be broadly contemporary.

Assignment of the pits and posthole was based on the recovery of late Bronze Age/early Iron Age pottery from the posthole and one of the pits.

3.1.3 Posthole L3

A posthole was identified on the east side of ditched boundary L2. It was assigned to Phase 1 on the basis of late Bronze Age/early Iron Age pottery recovered from its fill.

3.2 Phase 2: Late Iron Age/early Roman (Fig. 4)

Phase 2 is represented by the establishment of trackway L5 and a cremation cemetery L4. The cremation burials had been placed in the gap between the Phase 2 late Bronze Age/early Iron Age boundary ditches L1. Several of the cremation burials had been dug into these ditches, which had clearly silted up by this stage. The layout of the cemetery, however, suggests that some form of boundary, such as a hedge or bank, still existed.

3.2.1 Cremation cemetery L4

Cremation cemetery L4 comprised thirteen burials; ten unurned and three urned. The graves were generally under 0.6m in diameter and under 0.3m deep. In total they contained c.3kg of cremated human bone. This was mixed with charcoal and a dark brown-grey clay-silt. The urned burials contained a small number of grave goods, including ceramic accessory vessels (two) and fragments of two brooches.

Assignment to this phase was based on the date of the pottery vessels and stratigraphic relationship with the Phase 1 late Bronze Age/early Iron Age activity.

3.2.2 Trackway L5

The trackway followed the course of the Phase 1 late Bronze Age/early Iron Age boundary. It was defined by truncated lengths of two parallel ditches



(under 0.5m wide and under 0.2m deep), c.8m apart. The western ditch was extensively redug and widened (to c.1m) on the same course.

No datable finds were present in the trackway ditches, but it was assigned to Phase 2 based on stratigraphic relationships with Phase 1 and Phase 3 features.

3.3 Phase 3: Roman (Fig. 5)

Phase 3 saw the continued use of the Phase 2 trackway L5 with new ditches assigned to L6 establishing a much wider corridor. Two crop-processing areas L7 and L8, both containing single drying ovens, were situated adjacent to the east side of the trackway, c.65m apart. Later Roman activity comprised an inhumation and dispersed pits L9.

Trackway L6 had been previously identified by geophysical survey (Stratascan 2012) and its northerly continuation was investigated on the Woodside Link (Albion Archaeology 2018).

3.3.1 Trackway L5

The trackway was defined by two parallel ditches, c.12m apart. The ditches were under 1.3m wide and under 0.3m deep. Both were extensively redug up to three times on the same alignment and on broadly the same course.

3.3.2 Crop-processing area L7

A crop-processing area, defined within a circular enclosure, contained a drying oven G21 and a rectangular pit G22.

The enclosure was at least 11m in diameter and had an 8m-wide entrance on the north side. The western boundary of the enclosure was redug at least once on broadly the same alignment but slightly to the west.

Oven G21 had largely been robbed of all its lining except for fragments of quernstones, which appeared to have been used as lining at the junction of the flue and stoking pit. It was NE-SW aligned and, based on the shape of the robbed area, it appeared to be of the T-shaped type.

At some stage a rectangular pit G22 (2.2m x 1.7m and 0.6m deep) was dug adjacent to the oven but into the enclosure ditch. The pit had near vertical sides and a flat base. It had the remains of charred planks on its base and postholes in its corners, which may have supported boarded sides, suggesting the pit was used for storage or possibly as a cistern.

Dating evidence in the form of pottery, as well as an assemblage of quernstones recovered from the drying oven indicated an early Roman date for this activity.

3.3.3 Crop-processing area L8 to the east of trackway L6

This area of unenclosed activity contained a second drying oven G26 and dispersed pits and postholes.



Oven G26 was located close to the eastern side of trackway L6 and aligned parallel with it. It was a square in plan (3m x 3.6m and 0.4m deep) with a flue extending from one corner and had a lining of chalk and flint nodules. A fragment of abraded tegula had also been used in the lining. The oven had been dug into the natural geology, so it had a compacted chalk base.

The majority of a single shell-tempered jar was recovered from the secondary and tertiary fills of the oven. Their stratigraphical position and the absence of scorching suggest that they were deposited when the oven was no longer in use. It is unclear if they represent rubbish or a formal “closure” deposit.

Two dispersed pits G17 and G27, and a posthole G33 lay to the south of the oven. Pit G27, situated 6m to the south-east of the oven, was c.1.3m in diameter. It was not interpreted as a grave on site but samples from its primary fill contained cremated human bone and a nail. During analysis the possibility that this is a deliberate burial of cremated remains within a pit (rather than a purpose-dug grave) will be considered.

3.3.4 Later activity L9

Later activity was represented by an inhumation and two intercutting pits located within trackway L6. They are considered to be broadly contemporary with the rest of the Phase 3 Roman activity.

Unusually, the inhumation was positioned in the centre of trackway L6, with which it was aligned. It comprised a rectangular grave (1.7m long, 0.4m wide and 0.4m deep), containing an articulated skeleton in an extended, supine position, with feet to the south and head to the north. No grave goods or evidence of a coffin were identified. Sherds of late Iron Age/early Roman pottery were recovered from the grave backfill and are considered to be residual.

Two small intercutting pits were located towards the northern end of trackway L6, close to the eastern ditch.

3.4 Phase 4: Early Saxon (Fig. 6)

Evidence for early Saxon activity comprised a sunken-featured building (SFB) and two isolated postholes L15, located c.50m to the west of Roman Phase 3 trackway L6.

The SFB comprised a rectangular pit (4.3m x 2.6m and 0.2m deep) with a pair of opposing postholes located on its long-axis. Two sherds of early Saxon pottery were recovered along with Iron Age and Roman pottery.

No dating evidence was recovered from the postholes; they have been assigned to this phase on the basis of their proximity to the SFB.

3.5 Phase 5: Modern

Modern agricultural deposits, comprising topsoil and subsoil, were assigned to L17. The topsoil consisted of friable mid-grey-brown clay-silt, 0.3m thick.



The underlying subsoil consisted of firm light to mid-yellow-brown clay-silt, with frequent chalk lumps and flecks. It was typically *c.*0.2m thick.

Ditch L18 was on a slightly different alignment to other ditches and noticeably straight. It truncated one of the Phase 3 ditches. For these reasons it was also assigned to the modern phase.



4. QUANTIFICATION AND ASSESSMENT OF THE ARTEFACTS AND ECOFACTS

4.1 Introduction

This section provides a summary of the artefacts and ecofacts recovered during the investigations. At the end of each sub-section the potential of each individual data-set to address the original research objectives is reviewed. Summarised information on quantity, spatial provenance, date and condition is provided.

4.1 Ceramics

4.1.1 Methodology

The assemblage was recorded by fabric type and quantified by minimum sherd/fragment count and weight. Pottery was spot-dated by form and/or fabric type, and was a principal determinant in assigning contexts to chronological periods.

4.1.2 Quantification, date range and fabrics

The pottery assemblage totals 447 sherds (7.1kg), the majority deriving from later prehistoric and early Roman features assigned to Phases 2 and 3 (*Table 3*).

Phase	Sherd No.	Wt. (g)
1	71	373
2	183	3,009
3	187	3,665
4	6	38
Total	447	7,085

Table 3: Pottery quantification by Phase

Pottery spans the late Bronze Age, Iron Age, early Roman and early Saxon periods. A single sherd of post-medieval date also occurs. Fabrics are listed in Table 4 in accordance with the Bedfordshire Ceramic Type Series.

Fabric type	Common name	Sherd No.	Wt. (g)
<i>LBA/EIA</i>			
F01B	Fine flint	5	28
F01C	Flint and quartz	42	265
<i>Iron Age</i>			
F03	Grog and sand	1	14
F06A	Fine grog	62	770
F06B	Medium grog	3	192
F09	Sand and grog	7	158
F22	Grog and organic	1	9
F28	Fine sand	4	46
F32	Sand and flint	24	80
F34	Sand	80	2,128
<i>Roman</i>			
R01	Samian ware	8	76
R03B	Gritty white ware	3	55



Fabric type	Common name	Sherd No.	Wt. (g)
R05A	Oxidised sandy	1	7
R06B	Coarse grey ware	46	457
R06C	Fine grey ware	10	62
R06D	Micaceous grey ware	35	134
R06F	Grog and sand grey ware	10	61
R07B	Sandy black ware	15	139
R10A	Gritty buff ware	5	29
R13	Shelly ware	78	1,865
R14	Sand (red-brown harsh)	4	495
<i>Post-Roman</i>			
A16	Saxon mixed coarse quartz	15	181
P01	Post-medieval glazed red earthenware	1	4

LBA/EIA – late Bronze Age/early Iron Age

Table 4: Pottery type series

4.1.3 Provenance of the pottery

Phase 1 (late Bronze Age/early Iron Age)

Unenclosed activity area L2 yielded seventy-one flint- and flint/sand-tempered sherds (373g), characteristic of the later Bronze Age and early Iron Age in the region. The pottery is abraded and well-fragmented, with a mean sherd weight (MSW) of 5g. Vessel forms are undiagnostic; an upright rim of simple rounded form is the sole feature sherd. The largest single vessel comprises twenty-three plain body sherds (164g).

Phase 2 (late Iron Age/early Roman)

Phase 2 features yielded 183 sherds (3kg: MSW 16g), the majority representing urns or accessory vessels associated with L4 cremation burials (Table 5). A minimum of ten vessels is represented; those associated with the cremations are truncated and comprise only base and lower body sherds. A range of grog- and sand-tempered fabrics typical of the late ‘Belgic’ Iron Age and early Roman period occur. Forms are a beaker, carinated jar / bowl and a samian cup / small bowl.

Land-use Area	Sherd No.	Wt. (g)
L4 Cremation cemetery	176	2,962
L5 Trackway	2	4
L10 Pit	5	43
Total	183	3,009

Table 5: Phase 2 pottery quantification

Phase 3 (Roman)

The Phase 3 assemblage totals 187 sherds (3.6kg: MSW 20g) and derives mainly from crop-processing areas L7 and L8 (Table 6). Sixteen sherds (500g) are datable to the late Iron Age, and the remainder to the early Roman period (c. mid-1st and 2nd century AD).



Land-use Area	Sherd No.	Wt. (g)
L6 Trackway	4	39
L7 Crop-processing area	47	1,126
L8 Crop-processing area	83	1,951
L9 Later activity (inhumation)	3	101
L11 Ditch and fenceline	50	448
Total	187	3,665

Table 6: Phase 3 pottery quantification

The assemblage is dominated by a standard range of local shelly wares and a smaller number of sandy coarse wares. Regional and continental imports are represented respectively by three white ware sherds from the Verulamium region, and a single central Gaulish samian sherd. Forms are jars with lid-seated or simple everted rims, and a flagon. One vessel has a neck cordon, one is finely rilled and one has a post-firing hole drilled through the neck indicating repair. While most individual vessels weight less than 100g, a notable exception is seventy-seven sherds (1.8kg) from one shelly jar, collected from the secondary and tertiary fills of oven G26 (L8), and suggesting the rapid infilling of this feature.

Phase 4 (early Saxon)

Six abraded body sherds (38g) derived from the fill of SFB L15. Two sand-tempered examples (11g) are datable to the Saxon period; the remainder are residual Iron Age wares.

4.1.4 Ceramic building material

Deriving entirely from Phase 3 features in L7, L8, and L11, the assemblage totals twenty-four fired clay fragments (151g) and several amorphous baked clay lumps (1kg) representing collapsed fill/lining of the L8 drying oven. Two pieces of abraded Roman tegula (320g) were collected from trackway L6 and crop-processing area L8, the fragment from the latter being reused in the lining of oven G26.

4.1.5 Assessment of potential

The majority of the pottery assemblage is later prehistoric and early Roman in date, and primarily local in character. The Roman pottery is largely low-status and domestic, indicated by the basic, utilitarian wares present, and the small quantity of regional and continental imports. Most of the assemblage comprises coarse wares, represented by a standard range of well-documented locally manufactured fabrics; thus the assemblage is unlikely to yield new data on Roman ceramic fabrics.

The quantity and nature of the pottery assemblage suggests that the site lies away from any focus of domestic settlement. The wares can be usefully compared with late Iron Age and Roman assemblages recovered from other sites in the Houghton Regis environs.

Beyond assisting with the establishment of chronology, the small post-Roman assemblage and ceramic building material have no potential for analysis.



4.2 ‘Other Artefacts’

4.2.1 Introduction

As part of the assessment, each object was assigned a preliminary identification and functional category, and was quantified by number and/or weight. This data was entered into the project database.

4.2.2 Quantification and range

A total of twenty-three ‘other artefacts’ were recovered (Table 7). The objects were assigned to one of eighteen categories, the majority of categories relating to the function the objects performed (*e.g.* Subsistence, Dress and accessories); quantities by material and functional category are presented in Table 7).

Finds Category	Material	Broad term	Quantity
Fasteners and fittings	Iron	Nail	7
Transportation	Iron	Harness buckle	1
Subsistence	Stone	Quern	7
Dress and accessories	Copper alloy	Brooch	5
	Copper alloy	Hair pin	1
Uncertain/Fragments	Copper alloy	Strip	2
Total			23

Table 7: ‘Other artefacts’ by functional category and material

4.2.3 Date range

The earliest typologically dated ‘other artefact’ is fragments from a Kragenfibel type brooch of Mackreth’s Rossette (ROS) type 1.c., thought to date to the pre-Roman Conquest period.

Likely to be of 1st–2nd-century date is a Roman hair pin of Cool’s Group 1, sub-group D (Cool 1990, 151). Two querns, one an upper stone of ‘bun-shape’ and the second a lower stone, are of Hertfordshire Puddingstone. The use of Hertfordshire Puddingstone to manufacture ‘bun-shaped’ querns is thought to date from early in the Roman occupation, continuing into perhaps the later 2nd century AD (Peacock 2013, 161). Quern fragments of lava and Quartz Conglomerate were also recovered and these can be dated generally to the Roman period.

The only other typologically dated object is a large D-shaped iron harness buckle of the medieval to post-medieval periods.

4.2.4 Provenance

Twenty of the twenty-three ‘other artefacts’ were assigned to one of four phases. Three items, including two nails and the harness buckle, came from unphased deposits.

Phase 1 (late Bronze Age/early Iron Age)

A copper alloy pin with conical head and evenly tapered shank (RA10) was found within the fill of boundary L1. This pin conforms to Cool’s Group 1, sub-group D hair pins, thought to have been in use throughout the Roman period (Cool 1990, 151) and hence RA10 must be intrusive. The length of



RA10 (97mm) suggests an early date in the Roman period; Cool notes that over 90% of hair pins in excess of 80mm length belong to the first two centuries AD (1990, 173). It is therefore likely that this hair pin derived from later, Phase 2 activity; Phase 2 trackway L5 does truncate Phase 1 boundary L1.

Phase 2 (late Iron Age/early Roman)

Seven individual items derived from unurned cremation burials forming part of cemetery L4. These seven items represent up to three objects. Four pieces (RA5-7 and 18) were found within one cremation burial; all appear to derive from one brooch. These comprise part of an external chord for a brooch spring (RA6), a cylindrical spring case, coils and start of a plate set at right angles to the spring case (RA7), a detached fragment of plate (RA5), and part of a catch plate (RA18). These brooch parts are thought to belong to a Kragenfibel type brooch (Mackreth's Rosette (ROS) 1.c type). Dating evidence for the occurrence of Kragenfibel brooches in Britain is poor (Mackreth 2011, 28) but it is considered pre-Conquest, perhaps late 1st century BC into the earlier 1st century AD (Mackreth 2011, 27–28; Hattatt 1985, 38).

A second unurned cremation burial contained a brooch pin with three coils in situ (RA9) along with two short segments of narrow (maximum of 1.5mm wide) copper alloy strip (RA19 and 20). The strips have a groove down their length on both faces and are partially split on the broken ends; there is a high probability that they form part of the same object. What these two strips were part of is, however, unclear. Neither the brooch pin, nor the strip fragments, can be closely dated.

Phase 3 (Roman)

Finds from Phase 3 deposits were confined to parts of querns and nails. Fragments of seven querns were recovered, all from crop-processing area L7. Four fragments, two of lava and two of Hertfordshire Puddingstone, had been incorporated into the structure of oven G21, while the secondary fill of the same oven contained fragmentary remains of another lava quern and part of the skirt of a quern of Quartz Conglomerate. Further lava fragments were found in the secondary fill of a pit next to the oven. The tertiary fills of this pit also contained a single example of a flat-headed nail of Manning's type 1b, a general purpose nail (1985, 134–5); a second flat-headed nail was found in the fills of adjoining oval pit.

Only one object was recovered from L8 — a flat, narrow-rectangular headed nail found within the secondary fills of an oval pit, situated some c.5m to the south of the oven. The nail displayed few signs of corrosion and it is noteworthy that the same fill produced 388g of calcined human bone; nails found accompanying cremations and/or pyre deposits generally display less corrosion due to heat-exposure. The only other find from Phase 3 deposits was a nail from a ditch in L7.

Phase 4 (early Saxon)

A single nail was found in the sole fill of sunken-featured building G36 in L15.



4.2.5 Assessment of potential

Given its small size and range the 'other artefact' assemblage has, on its own, only a moderate potential to address the research aims. However, its potential will rise when looked at as a component of the wider landscape; this will be achieved by comparing assemblages from other sites in the area. Together these assemblages will be able to contribute to the emerging picture of the late Iron Age/Roman landscape of the Houghton Regis area.

4.3 Animal Bone

4.3.1 Methodology

All the bones and teeth were examined and the presence of the following was noted: zones of bone, approximate percentage of bone present, gnawing damage, erosion, weathering, concretions, burning (charring and calcification), fusion data and other comments including observations of pathology.

4.3.2 Overall sample size and bone preservation

Animal bones were collected from thirteen contexts, providing a total number of thirty-two individual specimens (NISP), of which fourteen were identified to species. The assemblages from all contexts suffered from surface erosion and in many cases the erosion was heavy. This would have obliterated any fine butchery marks. Preservation favoured the survival of teeth and the denser bones of all species, particularly those of large mammals. Many of the bones were also very fragmented displaying a lot of modern breaks.

Fragments of bones with modern breaks were recorded as one element. The assemblage is too small and too poorly preserved to provide detailed information about animal exploitation of the various periods of settlement activity involved but will add to the evidence recovered from the adjacent Woodside Link (Maltby 2018).

4.3.3 Results

Phase 1 (late Bronze Age/early Iron Age)

The N-S boundary ditch L1 produced three unidentified mammal fragments, part of the shaft of a cattle radius and a mandible of a mature adult sheep. Resorption of the bone was evident around the fourth premolar socket indicative of periodontal disease. This condition is common in adult sheep and in severe cases leads to tooth loss. Evidence for periodontal disease in sheep has been observed regularly on Iron Age sites and can affect a high percentage of jaws (Hamilton 2000).

An adult cattle upper molar was the only element recovered from L2 (unenclosed activity to the west of boundary L1). Bones of cattle and sheep/goat along with pig were also identified in contemporary deposits from the Woodside Link (Maltby 2018).

Phase 3 (Roman)

Only five animal bone fragments were recovered. The N-S trackway L6 produced a cattle upper molar and a rib fragment of a large mammal. Crop-processing area L7 produced parts of a cattle calcaneus and a horse atlas



vertebra. The fenceline within crop-processing area L8 provided only a single unidentified mammal fragment.

Cattle and horse remains, including associated bone groups were prominent in Roman deposits from the Woodside Link excavations. That assemblage also included small numbers of sheep/goat, pig, dog and roe deer (Maltby 2018).

Phase 4 (early Saxon)

Unenclosed settlement activity L15 produced a total of fifteen animal bone fragments from the fill of the SFB, ten of which were unidentified. Sheep/goat was represented by two metacarpals fragments. A fragment of pelvis and an upper molar were identified as horse, both probably belonging to adult animals. Most of a cattle metacarpal was recovered from the SFB. This was a slender specimen (distal breadth = 51.9mm), which probably belonged to a small adult cow.

Cattle and sheep/goat are the most common species that have been encountered on Saxon sites in Bedfordshire, for example at Meadway, Harrold (Maltby 2012). The presence of horse in SFB assemblages is also attested from there and other Anglo-Saxon assemblages from the county.

Phase 6 (undated)

Six fragments were recovered from L18. Three were from unidentified mammals and one was from an unidentified bird. A cattle femur shaft and a sheep/goat molar were the only identified elements.

4.3.4 Assessment of potential

The animal bone assemblage is too small and too poorly preserved to provide detailed information about animal exploitation related to this site. However, once fully quantified it will provide information for the late Iron Age and Roman environs in this area.

4.4 Charred Plant Remains

4.4.1 Introduction

Environmental bulk soil samples were collected for the recovery of charred plant remains for potential information on the agrarian economy of the site from the Late Bronze Age through to the early Saxon periods. The bulk of the remains were from the late Iron Age and Roman periods.

4.4.2 Methodology

Seventy-five bulk soil samples were taken, mainly from late Iron Age/early Roman (42 samples) and Roman (24 samples) deposits, Phases 2 and 3 respectively. Six samples were collected from late Bronze Age/early Iron Age (Phase 1) features and two samples from early Saxon (Phase 4) deposits. One sample was from an undated feature. The majority of samples were taken from graves (39 samples) followed by smaller numbers from ditches (11), ovens (10) and pits (8) with four samples from the fills of post-holes, two from a sunken-featured building (SFB) and one from the fill of a shallow scoop.



Sample size ranged from 1l to 40l, the grave fill samples only containing small amounts (10l or less) of soil. The samples were partially or completely processed using a Siraf-style flotation tank and meshes of 0.3mm and 1mm for the recovery of the flot and residue respectively. The flots were then dried along with the residues which were sorted for biological and artefactual remains. Identifiable charred plant remains were present in 50 of the 75 samples and sorted from the flots and identified using a binocular microscope (with a magnification of up to x40) together with modern and charred reference material and manuals (Cappers *et al* 2006; Jacomet 2006).

Three samples produced very rich charred plant assemblages with only a fraction (25%) of these flots being sorted and quantified although the remaining fractions (75%) were scanned and item estimates recorded for different species (along with small unquantifiable cereal grain fragments (<2mm), indeterminate items and charcoal from all the flots) using the following rating system: + = 1-10; ++ = 11-50; +++ = 51-150; ++++ = 151-250; +++++ = >250 items.

4.4.3 Results

The results are shown in Appendix 1. The fifty productive samples produced a large charred plant assemblage totalling over 6,000 quantified items and dominated by cereal debris consisting of almost equal amounts of grains (40% of the counted remains) and chaff (55%) with few wild plant/weed seeds (5%).

Preservation of the charred material was variable but the condition of the grains was poor. Almost 70% of them were not identifiable while there were small (<2mm) unquantifiable grain fragments in almost all the productive samples. Virtually all (99%) the charred plant remains were from late Iron Age/early Roman and Roman contexts with only very small quantities in the late Bronze Age/early Iron Age and early Saxon samples.

Particularly rich assemblages were found in two fills of a late Iron Age/early Roman pit in L4, which accounted for 46% of all the quantified charred remains from the site, and in two fills of a Roman oven G26 (L8). There follows a description of the charred plant remains by phase and land-use area.

Phase 1 (late Bronze Age/Early Iron Age)

Six samples were collected from ditches, pits and a post-hole with three producing occasional or very small amounts of identifiable charred plant remains.

Phase 2 (late Iron Age/Roman)

Forty-two samples were collected from this phase; thirty-seven from grave fills associated with cremation cemetery L4, twenty-three of which were from ten unurned cremations and fourteen from four urned cremations. Three samples were also taken from pit fills and single samples from fills of a ditch and post-hole. Twenty-two of the forty-two samples produced charred plant remains



Phase 3 (Roman)

Twenty-four samples were collected from this phase, mainly from the fills of two ovens (ten samples) and ditches (eight samples) with three samples from pit fills, one from a post-hole fill, one from a shallow scoop and one from a grave fill; twenty-two of the twenty-four samples produced charred plant remains.

Phase 4 (early Saxon)

Two samples were taken from the fills of SFB (L15). Both produced only very small amounts of identifiable charred plant remains consisting of cereal debris.

4.4.4 Assessment of potential

Identifiable charred plant remains are present in fifty of the seventy-five samples taken on site. Once fully quantified and analysed they have good potential to contribute to the project's aims and objectives by comparing crop husbandry practices with other sites in the vicinity, such as Woodside Link (Giorgi 2018).

Further analysis of the charred plant remains will provide information on the following:

- The range of plant foods used on the site and possible changes over time;
- Aspects of the arable economy of the settlement/diet of the inhabitants during the Roman period;
- Aspects of crop husbandry (range of crops cultivated, the soils used for growing the crops, possibly sowing and harvesting methods) and any changes between the different phases of the site;
- The nature of the crop-processing activities taking place within the site.

4.5 Human Bone

4.5.1 Introduction

Fourteen definite burials were recorded: thirteen cremation burials and a single inhumation containing human bone. Cremated bone was also found in pit G27.

The burials were all dated to the late Iron Age/early Roman (Phase 2) or Roman (Phase 3) periods. The cremation burials came from a linear cremation cemetery L4 located to the east of a trackway. Ten burials were un-urned G6 and the others G7 were in ceramic urns. The inhumation burial G30 had been buried in the centre of a contemporary trackway (Phase 3). Cremated human bone was also recovered from pit G27, assigned to Phase 3, and was within crop-processing area L7.

4.5.2 Methodology

Hand-collected human bone was scanned by context and quantified by minimum fragment count and weight. Each sample of burnt bone was



recorded in accordance with current guidelines (McKinley 2004). The total weight of the sample was established in grams and the sample was passed through a series of graded sieves to separate the fractions greater than 10mm, 4mm and 2mm. Each resulting fraction was weighed, and proportions were calculated as a percentage of the total bone present. An assessment was made of the state of preservation from 'good' to 'poor'.

4.5.3 Inhumation G30

The individual had been placed in an extended, prone position (face down). The arms were evenly placed with the right hand apparently beneath the pelvis and the left hand behind the left hip (buttock), although post-depositional damage to the right arm, may have resulted in the original position of the hand (also behind the back) no longer being apparent, as the ulna was broken in the distal third. The bone was moderately well-preserved with widespread erosion of the outer cortex, limiting surface observations.

4.5.4 Cremated bone

Cremation cemetery L4, Phase 2

A total of 3,084.8g of cremated bone was recovered from thirteen graves (G6 and G7). Most of the bone was highly fragmentary with a bias towards the survival of cortical fragments, as is reflected by those elements and areas of the body that were readily identifiable. The quantities of burnt bone within each sample were generally small with thirteen samples containing less than 100g of bone.

When the totals by grave are examined two urned burials contained >500g of burnt bone with six graves containing <25g (*Table 8*). However, the cremation of an adult is known to produce 1,600–3,600g of burnt bone (McKinley 1989) and therefore all the graves contained only a proportion of the cremated individual.

The burials are part of a tradition seen across the region in the late Iron Age and early Roman period and attest to the care, variety and sophistication of funerary practices.

Pit G27, Phase 3

A total of 366.4g of cremated bone was recovered from the primary fill of pit G27 in L8. It included fragments of vault, vertebral, humeral shaft and femoral shaft fragments. This conformed closely to the proportions which would be expected from a whole body, suggesting that the remains were carefully and non-selectively collected from the pyre. The off-white colour of the bone suggests efficient cremation over a well-tended pyre.



Group	Burial type	Phase	Total weight (g)
6	Unurned	2	17.9
	Unurned		151.6
	Unurned		2.9
	Unurned		139.2
	Unurned		180.9
	Unurned		29.5
	Unurned		314.2
	Unurned		2.7
	Unurned		448.1
	Unurned		449.0
	7		Urned
Urned		809.7	
Urned		24.0	
27	Pit fill	3	366.47

Table 8: Weight of cremated human bone by feature

4.5.5 Assessment of potential

Once analysed the human bone assemblage has good potential to contribute to the project's aims and objectives by comparing burial practices with other sites in the vicinity, such as the Woodside Link to the north (Duhig 2018), and the M1-A5 Link Road (Brown 2015). It will also provide information on the age, sex and pathological conditions of the Roman inhabitants of the area.

In addition, the prone body position of the inhumation is of particular interest. Prone burial is one of the most common forms of 'deviant' burial seen in the Roman period and has been suggested to indicate that the occupant of the grave died a 'bad death', requiring extra care to prevent their ghosts from walking (Barley 1995, 187–8).

4.6 Wood Charcoal

4.6.1 Introduction

Samples were taken from features ranging in date from the late Bronze Age/early Iron Age (Phase 1) to the early Saxon period (Phase 4). There were two key areas producing charcoal assemblages that would provide evidence for wood fuel use and selection practices: the late Iron Age/early Roman cremation cemetery L4 and the Romano-British crop-processing areas L7 and L8.

4.6.2 Methodology

A number of flots were scanned in the first instance to determine potential for full analysis. Standard identification procedures were followed using identification keys (Hather 2000, Schweingruber 1990) and modern reference material. The charcoal was fractured and examined at low magnification (up to X45), with representative fragments examined in longitudinal sections at high magnification (up to X400). Depending upon diversity and quantity, up to fifty fragments per feature were examined. Observations on maturity and



other features were made where appropriate. Classification and nomenclature follow Stace 1997.

4.6.3 Results

The charcoal was generally well preserved, with clean and clear anatomical structures. However, the quantities and size of material varied; numerous assemblages were too sparse or too comminuted to merit quantification.

Eight taxa were positively identified:

ULMACEAE: *Ulmus* sp., elm

FAGACEAE: *Quercus* sp., oak

BETULACEAE: *Corylus avellana*, hazel

ROSACEAE: *Prunus* sp., blackthorn/cherry/plum

Maloideae incl. *Malus*, apple; *Pyrus*, pear; *Sorbus*, service tree/whitebeam/rowan and *Crataegus*, hawthorn

ACERACEAE: *Acer campestre* L. field maple

ARALIACEAE: cf. *Hedera helix* L., ivy

OLEACEAE: *Fraxinus excelsior*, ash

Phase 1 (late Bronze Age/early Iron Age)

Small assemblages of charcoal from Phase 1 pits (L2) were examined, consisting of oak, hazel, blackthorn, hawthorn group and field maple. In addition to the charcoal, there were small quantities of crop-processing or food preparation debris (Giorgi, this report), indicating that the charcoal derived from domestic fuel use. The fairly diverse nature of the assemblages, along with the roundwood character, is typical for domestic cooking fires. A strong component of hedgerow/scrub type taxa was represented.

Phase 2 (late Iron Age/Romano–British)

Charcoal was examined from three urned cremation burials and nine unurned cremation burials L4. Charcoal was less abundant in the urned burials, indicating that less pyre debris was included in the burial than in the unurned pits. Taxonomic composition, however, was remarkably homogeneous, with oak predominant in all of the assemblages except one (Sample 4). This contained some ash charcoal, but the assemblage was too small to indicate whether this represented the main pyre fuel or an associated artefact. Oak and ash are commonly found in cremation assemblages of late Iron Age and Romano–British date; both provide highly calorific fuel suitable for efficient cremation and good structural support for the bier; *e.g.* Court Drive, Dunstable (Austin 2010), West of Bedford (Challinor 2016), M1 Toddington (Challinor 2013a), and further afield at West Hampnett, Sussex (Gale 1997) and A120, Essex (Challinor 2007).

The presence of elm in samples 17 and 18 is more unusual, since elm tends to smoulder and was not generally used for pyre fuel. There are examples, similar to this one, where elm is present in the charcoal assemblage in small quantities, as in a Roman cremation burial at Aston Clinton (Challinor 2013b), where it may represent the remains of a pyre good. Significant quantities of elm charcoal recovered from an early Roman *bustum* burial at Latton Lands,



Wiltshire, were interpreted as the possible remains of a coffin or platform on the pyre (Challinor 2009).

A single sample from a contemporary pit (sample 52) in L4 was examined for comparison to the cremation burial assemblages. The feature produced a large quantity of crop-processing or food preparation debris (Giorgi, this report) and the charcoal is likely to represent the fuel used. The assemblage was sparse and small and unlikely to be wholly representative. Only small quantities of oak and a trace of hazel were recorded. Hazel was not present in the cremation assemblages, but was not generally prominent in the charcoal record from the site in Phases 2 and 3.

Phase 3 (Roman)

Samples from this phase derived from ovens in crop-processing areas L7 and L8, with additional assemblages from several associated pits and ditches (samples 66, 67 and 33). Copious amounts of charred cereal grains and chaff were recovered from both areas, interpreted as the drying/parching of spelt wheat to facilitate de-husking and the drying of cleaned grains before milling or storage (Giorgi, this report). There was little charcoal in oven G21 (L7) and associated features (samples 66 and 67), producing limited residues of elm, oak, hazel, blackthorn/cherry and ash. The general paucity of charcoal—in both the oven itself, and associated features containing rake-out debris—is largely because of the robbing of this feature but may also suggest that the fire had been allowed to burn out, leaving scant remnants. Notably, the hazel charcoal from oven sample 57 exhibited numerous insect tunnels, indicating that the wood was heavily decayed at the time of burning. This may also influence the survival of charcoal.

In contrast, the charcoal assemblages associated with oven G26 (L8) were rich, with abundant, well preserved, large fragments, comprising mostly oak, with hazel, field maple and ash. Much of the oak charcoal derived from trunkwood, and there was evidence for the use of mature wood; in contrast the ash and hazel mostly derived from roundwood. Generally, a limited range of taxa were used for fuelling the oven, which is consistent with the evidence from the Woodside Link where the crop-parching activities were fuelled by oak and ash.

Sample 54 from a pit near the oven contained probable rake-out. The charcoal assemblage was very sparse, with just a trace of oak. In contrast, a nearby post-hole (sample 30) produced a rich assemblage of oak, mostly from slow-grown heartwood (>20 years' growth). Ivy, of whom a single probable fragment was recorded, is a climber often found adhering to mature trees. The absence of charred plant remains suggests that the assemblage was not associated with the crop-processing activities and the charcoal assemblage is appropriate for the remains of a burnt post.

Two additional Phase 3 samples, from ditches associated with trackway L6 and fenceline L11 were examined. The charcoal assemblages were sparse and comminuted and did not merit quantification. However, oak was recorded in both, with a trace of hawthorn group in sample 47 from trackway L6 and these



results are broadly consistent with the evidence for crop-processing and low-level domestic fuel use in L7 and L8.

Phase 4 (early Saxon)

A single sample from the sunken-featured building in L15 was examined. This comprised a few large fragments and some smaller roundwood fragments of hawthorn group charcoal. Giorgi (this report) suggested that the few charred plant remains may have been residual from the Roman crop-processing activities to the east of the building. The charcoal, therefore, may have derived from the earlier activities or it may have genuinely accumulated during Saxon occupation. However, it is worth noting that hawthorn type charcoal was only recorded in a single sample of Phase 3 date, from the trackway L6, and was not evidently widely utilised for fuel in the ovens.

4.6.4 Assessment of potential

Identifiable wood charcoal was present in thirty-eight samples. Once quantified and analysed, it has good potential to contribute to the project's aims and objectives by comparing wood charcoal with other sites in the vicinity, such as the Woodside Link (Challinor 2018). It will also provide information on the following:

- Wood species used in pyres during the late Iron Age/early Roman period.
- Wood species used for fuel for the two drying ovens.
- Character of the local woodland environment.



5. DISCUSSION OF RESEARCH OBJECTIVES FOR ANALYSIS

5.1 Introduction

The original project objectives for analysis were presented in the WSARM (Albion Archaeology 2017b) and are briefly discussed in Section 2.4. The assessment in Sections 3 and 4 indicates that the results of the fieldwork can contribute to a number of updated research themes. These are based on objectives taken from the local and regional research frameworks (Medlycott 2011a; Oake *et al* 2007) and for the Roman period from the results of the recently published three volumes on new visions of the countryside of Roman Britain (Smith *et al.* 2016; Allen *et al.* 2017; Smith *et al.* 2018).

In summary, the investigations have produced evidence for a landscape utilised from the late Bronze Age to the present day. The types of human activity have varied both chronologically and spatially. This activity will be examined both within single chronological periods and as cross-period themes. The latter will ensure that any continuity and discontinuity in the landscape will be explicitly considered.

The updated research themes are discussed below under the following headings:

1. Establishment of a chronological framework (all phases)
2. Continuity and discontinuity in the landscape (all phases)
3. Character and economic basis of settlements and other activity (late Iron Age/early Roman and Roman phases)
4. The nature of activity away from settlements (all phases)
5. The local environment (all phases)
6. Ritual and religion (late Iron Age/early Roman and Roman phases)

5.2 Research Theme 1: Chronological Framework

The assessment demonstrates that it has been possible to establish a chronological framework for the archaeological remains recorded on the site; all significant features/deposits have been assigned to chronological phases. This was achieved primarily through the examination of artefact typology and stratigraphic sequence.

The earliest evidence of activity dates to the late Bronze Age/early Iron Age (Phase 1), in the form of a ditched boundary and a small number of pits and postholes. The next phase of activity took place in the late Iron Age/early Roman period (Phase 2) with the creation of a trackway and establishment of a cremation cemetery. During the Roman (Phase 3) the trackway was re-defined but continued in use and two crop-processing areas were established, presumably deliberately, adjacent to it. Dispersed pits, postholes and an inhumation have also been assigned to this phase. The only evidence for early Saxon (Phase 4) activity is a sunken featured building.



5.2.1 Statement of potential

There is good potential to refine and finalise the chronological framework particularly with a number of targeted radiocarbon determinations for the cremation cemetery, inhumation and crop-processing areas. The finalised framework will underpin analysis and final reporting. It is fundamental to the successful conclusion of the project.

5.3 **Research Theme 2: Continuity and Discontinuity in the Landscape**

The investigations have produced evidence for five chronological periods. The latter can usefully characterise activity at a particular point in time and, thereby, highlight discontinuity. Conversely, they can also hinder an appreciation of continuity in the landscape. The transition from one chronological period to the next is a common theme in both national (Historic England 2014), regional (Medlycott 2011a) and county research agendas (Oake *et al.* 2007). Continuity, discontinuity and transition from one period to the next are, therefore, a major research theme and are discussed briefly below.

5.3.1 Late Bronze Age/early Iron Age

A boundary and a small number of unenclosed pits and postholes were discovered within the investigation area. They were situated on previously unoccupied land, c.600m to the south-west of contemporary activity identified on the Woodside Link (Albion Archaeology 2018).

5.3.2 Late Iron Age/early Roman

The trackway and adjacent cremation cemetery assigned to this phase were established along the Phase 1 boundary, suggesting that it still existed in some form and had some meaning during this period.

5.3.3 Roman

The trackway established in the late Iron Age/early Roman period (Phase 2) was re-defined but continued in use throughout the Roman period (Phase 3). This fits the trend observed by the rural settlement of Roman Britain project where 'continuity of settlement from the late Iron Age seems to have been the norm' (Smith *et al.* 2016, 408). Two crop-processing areas were established adjacent to the trackway.

5.3.4 Early Saxon

A sunken-featured building was located c.50m from the Iron Age/Roman trackway and as such appears unrelated to the earlier activity.

5.3.5 Statement of potential

There is good potential to elucidate the issues of continuity and discontinuity in the development of the landscape.

5.4 **Research Theme 3: Character and Economic Basis during the late Iron Age/Roman Period**

The most intensive evidence for activity, other than burials, was associated with the two crop-processing areas. Both were located adjacent to a trackway



but were clearly located away from the core area of the nearest contemporary settlement.

Both crop-processing areas contained a single drying oven. These are intrinsically interesting structures not just because of their different designs — are they even contemporary? — but because once the charred remains they contain are fully analysed they will provide detailed information on their function and on the economic basis of the related settlement(s).

The Rural Settlement of Roman Britain project has suggested that ‘analysis of corndryers has confirmed that there is evidence for an increase in the scale of arable cultivation over the course of the first to fourth centuries AD’ (Lodwick 2017, 61). T-shaped drying ovens are the most common type found on Roman sites in England (Lodwick 2017, 56). Morris states that the dating of oven is ‘never precise’ but suggested that T-shaped types appear in the 2nd century, ‘while more complex forms appear in the 3rd or 4th centuries’ (1979, 20).

A third oven, adjacent to the same trackway, was found to the north on the Woodside Link (Albion Archaeology 2018). Having three drying ovens in close proximity enhances their significance and likelihood of understanding of the economic basis of the related settlement(s).

One other significant feature found associated with the crop-processing was a probable storage pit or cistern G22. The identification of storage pits on Roman sites is relatively uncommon (Lodwick 2017, 66–7). One of the few displaying evidence of an internal timber structure was found at Cams Hill School, Fareham, Hampshire (Eddisford 2009, 91–2).

The characterisation of rural agrarian and economic activity in the Roman period is an area of research highlighted by Medlycott as requiring further work: ‘we still need to understand the Roman agricultural ‘norm’, against which assemblages can be compared’ (Medlycott 2011b, 46). The Phase 3 evidence has the potential to contribute to our understanding of how Roman economy was organised.

5.4.1 Statement of potential

Further analysis of the botanical data (charred plant remains and charcoal) will provide information on the following:

- The range of plant foods used on the site and possible changes over time;
- Aspects of the arable economy of the settlement/diet of the inhabitants during the Roman period;
- Aspects of crop husbandry (range of crops cultivated, the soils used for growing the crops, possibly sowing and harvesting methods) and any changes between the different phases of the site;
- The nature of the crop-processing activities taking place within the site;
- Wood species used for fuel for the drying ovens.

The animal bone assemblage was too small and poorly preserved to provide detailed information about animal exploitation. Once quantified, however, it



can be usefully compared with animal bone from nearby sites, adding to an overview of animal husbandry in this part of Bedfordshire.

The assemblage of querns in combination with the charred plant remains may be able to determine if the site was a processing centre for flour or for malting or a combination of both (Smith 2016, 204). Identification of the stone types and sources of the querns will also shed light on trade patterns.

5.5 Research Theme 4: Landscape

For the prehistoric and Roman periods, prior to large-scale, open-area excavations, most archaeological investigations had been concentrated on settlements themselves, so that little information about the wider landscape was available.

The use of the landscape during the late Bronze Age/early Iron Age transition is a key question in the regional research agenda, with evidence for ‘complex’ activities taking place away from settlements — e.g. isolated pits, substantial ditched boundaries and pit alignments (Medlycott 2011, 29–31). Comparable evidence for late Bronze Age/early Iron Age boundaries was found west of Kempston (Luke 2016, 137–42), as were dispersed pits, maybe representing settlement, at Biddenham Loop (Luke 2016, 145–7).

Late Iron Age and Roman rural settlement densities, distribution and associated land-use is better understood, but Medlycott has highlighted that there is still a bias ‘...towards the larger and more affluent rural sites’ and more work is still required to answer key questions about the Roman rural landscape (2011b, 46–7). The trackway, crop-processing areas and burials are all located c.60m from the nearest settlement (assigned to ACA20) and will, therefore, contribute to the understanding of the wider landscape.

While the early Saxon evidence is limited, it is interesting in terms of the wider landscape because it occurs c.50m from the Iron Age/Roman trackway.

5.5.1 Statement of potential

The late Bronze Age/early Iron Age, the late Iron Age/Roman and early Saxon activity identified within the investigations will contribute to our understanding of the wider landscape during these periods.

5.6 Research Theme 5: Local Environment

Human interaction with landscape and environment is central to archaeological study. The extent of woodland and the pace of woodland clearance during the Roman period is of particular interest (Medlycott 2011b, 46; Murphy 2007, 79).

The quantification and analysis of the wood charcoal will provide information on the character of the local woodland environment during the late Iron Age and Roman periods.



5.7 Research Theme 6: Ritual and Religion

The majority of the firm evidence for ritual and religion derives from the fourteen definite formal human burials. They include the cemetery of thirteen late Iron Age/early Roman cremation burials and an isolated Roman inhumation. The latter is undated and will require radiocarbon dating; however, it is likely to reflect the change ‘during the late Roman period, when inhumation had replaced cremation as the commoner burial rite’ (Smith *et al.* 2018, 209).

The regional research agenda (Medlycott 2011a, 31) and the results of the Rural Settlement of Roman Britain project (Smith *et al.* 2018) indicate that further research is needed into the chronology, location and types of burials. The location of the burials fits the observed trend where they ‘are typically located on the periphery of the main occupied area’ and ‘often located adjacent to or visible from one of the routes into ... settlements’ (Smith *et al.* 2018, 243), although the position of the inhumation actually within the routeway is very unusual.



6. UPDATED PROJECT DESIGN

6.1 Introduction

As established in the previous sections, the results of the investigation have the potential to contribute to a number of regional research objectives. On this basis and in accordance with the WSARM (Albion Archaeology 2017b) this sections provides the methodologies and task list for the proposed analysis and for the subsequent final reporting and archiving programmes.

Details of the professional standards and guidelines that will be adhered to during the project are provided in Appendix 2.

6.2 Analysis

6.2.1 Contextual

The underlying framework for the analysis and final reporting of the results will be the contextual hierarchy. The provisional hierarchy, described in this report, will be rigorously checked and compared with quantified artefact and ecofact data. Research will focus on the subtleties of this complex chronology with particular reference to the late Iron Age/Roman transition. It is envisaged that the broad outlines of the structural hierarchy used in this assessment will remain largely intact.

The digitised plan and section data will be interrogated via GIS software linked to relational database tables to produce mock-up final illustrations. Plans will be produced to show all features in each Phase, with Land-use Areas identifiable. Significant Groups referred to will also be annotated.

6.2.2 Radiocarbon determinations

Accelerator mass spectrometry (AMS) dating will be undertaken on suitable material to assist in finalising the phasing hierarchy. The key features to be considered for dating include the drying ovens, un-urned cremation burials and the inhumation. The material available for dating includes human bone, charred seeds and charcoal, but specialist advice will be sought to determine the most suitable material. Dating will be undertaken by Scottish Universities Environmental Research Centre Radiocarbon Laboratory (SUERC).

6.2.3 Pottery

Detailed quantification of the pottery assemblage will be required. The final report will summarise the pottery assemblage within appropriate chronological periods by fabric type, form, decoration and attribute. The text will refer to comparative assemblages (published or unpublished). In addition, where appropriate, the pottery assemblage from individual elements of the structural hierarchy, e.g. Land-use Areas and Groups, will be discussed.

Selection of pottery vessels for publication-standard illustration will be made at this juncture.



6.2.4 Ceramic building material

No further analysis of the tile and fired clay assemblage is required, although the text produced for this assessment will be amended as necessary to reflect any changes to the site's phasing or interpretation identified during analysis.

6.2.5 'Other artefacts'

Ahead of analysis all ironwork and selected non-ferrous objects will be x-rayed by P. Greaves (Drakon Heritage and Conservation) and stone objects will be subject to petrological identification Dr. J. Evers (Chiltern Archaeology).

Each object will be assigned a narrow term, and where applicable, a date range. Narrow term information will be established by an examination of each object, noting:

- form
- method of manufacture
- material and source
- presence of diagnostic features
- condition
- selected parallels from comparable sites
- comparison with ceramic data from the site

A selection of artefacts will be made for inclusion in the final report. Selection of artefacts for publication-standard illustration will be made at this juncture.

A specialist text will summarise the assemblage within appropriate chronological periods by material type and forms. The text will refer to comparative assemblages (published or unpublished).

6.2.6 Animal bone

All bones and teeth from the hand-collected and sieved samples will be examined and recorded onto a relational database (Microsoft Access). Where present, the following information will be recorded on each specimen: species; anatomy (element); parts (zones) of the element present; handedness (on bones in associated groups); percentage of element present; gnawing damage; breakage patterns; erosion; weathering; charring; concretions; fusion data; sexing data; animal bone group number; sieved sample number; other comments (including evidence for pathology).

Separate data tables linked to the main table by an individual identification number will be created for metrical, butchery and tooth-ageing data. Where necessary, identifications will be confirmed by reference to comparative skeleton collections. Tooth eruption and wear descriptions for cattle, sheep/goat and pig will follow the recording method of Grant (1982), to facilitate comparisons with other assemblages. Similarly, for national and international comparative purposes, measurements will follow those recommended by von den Driesch (1976).



Relevant faunal evidence will be incorporated within the site narrative to assist in the general interpretation of settlement usage and deposition. Broader discussion of the animal bone assemblage within the report will be limited by the small size of the assemblage; where possible, it will focus on species abundance with briefer comments on other evidence. However, where available, the data accumulated on body parts represented, ageing and sexing, butchery methods, pathology and stature will also contribute to broader regional surveys of animal husbandry practices, meat diet, carcass processing methods and deposition in the Roman period.

6.2.7 Charred plant remains and charcoal

Once fully quantified the charred grain assemblages will be analysed with reference to the contextual data to recover further information on the agrarian economy of the settlement, the location and extent of crop-processing activities and to provide information about the local environment.

Nomenclature and taxonomic order for the wild plants follows Stace (2005) also used for ecological data together with Brenchley (1911; 1913), Hanf (1983) and Wilson *et al* (2003).

Analysis of the charcoal will concentrate on species identification and quantification where the assessment has proved that this is possible. This will provide information on the range of woods used as fuel for cremation and crop-processing, whilst charcoal from other features may provide an insight into the character of the local woodland environment.

Analysis will include:

- The sorting, identification and quantification of the fifty productive samples;
- Sub-sampling may be required of the particularly rich assemblages;
- Tables of results will then be prepared followed by a discussion of the charred material taking into consideration evidence from other sites of similar periods in the area.

6.2.8 Human bone

All of the human bone recovered will be quantified and analysed. This will include:

- Number of individuals;
- Age and sex;
- Pathology;
- Selection of bone;
- Pyre technology.



6.3 Final Report

6.3.1 Overview

The scale and significance of the results mean that the final report will be suitable for submission to the county journal, *Bedfordshire Archaeology*.

Consistent with the results of this assessment, the final report will concentrate on evidence from the Iron Age and Roman periods.

6.3.2 Introduction and site narrative

The Introduction will provide sufficient information to put the results into context but will not be as detailed as this assessment report. The contextual hierarchy will provide the chronological/spatial structure for the site narrative. It will be organised by Phase, Land-use Area, Group and, where appropriate, Sub-group. Where appropriate, artefactual and ecofactual evidence will be integrated into the site narrative. The level of detail presented will be commensurate to the significance of the results, e.g. burials and the drying ovens will be described in detail whereas features of uncertain function containing few finds will not.

6.3.3 Specialist reports

All the specialist reports will be read and edited to ensure a consistency in approach. Specialist reports will be published in full, either as part of the body of the report or as an appendix.

6.3.4 Discussion

Discussion will focus upon the research themes outlined within Section 5, specifically the Roman settlement/crop-processing activities with remains from other periods described and discussed in less detail. The results will be compared with those from other excavations in the vicinity and further afield, as appropriate.

6.3.5 Illustrations

Illustrations will be produced for the introductory, site narrative and discussion sections of the final report. The selected artefact illustrations will be checked and scanned, and a digital paste-up of the final figures completed.

6.4 Archiving

Subject to the landowner's consent, the written and material archives will be accessioned with Luton Culture (accession number LUTNM: 2018/18), in line with *Procedures for preparing archaeological archives for deposition with Luton Culture* (Luton Culture 2013).

The site archive currently includes the elements listed below in Table 9. It will increase in size once the contextual analysis and specialist reports have been finalised.

Record type	Quantity	Comments
Context records	325 A4 sheets	incl. 223 contexts
Registers	27 A4 sheets	incl. contexts, drawings, registered artefacts, photo, ecofact samples



Record type	Quantity	Comments
Sample record sheets	77 A4 sheets	-
Site drawings	8 permatrace sheets (62cm x 62cm) 1 digital AutoCAD compatible site plan 1 digital GIS-based site plan	incl. 102 section drawings
Photographs	c. 531 digital images	A selection of these will be retained for archiving on completion of analysis
Pottery	1.5 boxes	448 sherds (c.7.1kg) -
Ceramic building material	0.5 box	2 fragments (c.0.3kg) incl. fired clay
Stone objects	2 boxes	Quern fragments
Registered and other bulk non-ceramic artefacts	1 large tub	incl. 20 registered artefacts (which includes a copper-alloy hair pin and brooches)
Animal bone	1 box	93 fragments (c.0.67kg)
Human bone	2 boxes	c.2.9kg (from 14 cremation burials) 733g (from 1 inhumation)
Bulk soil samples	77 samples	Only significant flots and residues will be retained for archive on completion of analysis

Table 9: Site archive

6.5 The Project Team, Programme and Management

6.5.1 The Project Team

To ensure a consistency of approach it is anticipated that the project team will be the same as that used in the assessment stage of the project. This includes specialists who have analysed and published similar data-sets from other contemporary sites in the vicinity.

The majority of the project team (see Table 10) work for Albion Archaeology. MoRPHE stresses the possibilities for personal and professional development (Historic England 2015, 16 and 26) and every opportunity will be taken to facilitate professional development for team members, giving them the opportunity to expand their experience of post-excavation analysis within the scope of this project.

Task	Name, Title/Organisation	Initials
Overall management	Drew Shotliff, Albion Operations Manager	DS
Project management and co author	Mike Luke, Albion Project Manager	ML
Co-author and contextual analysis	Jo Barker, Albion Project Officer	JRB
Animal bone	Mark Maltby, University of Bournemouth	MM
Charred plant remains	John Giorgi, freelance specialist	JG
Human bone	Natasha Powers, Allen Archaeology	NP
Other artefacts	Holly Duncan, Albion, Artefacts Manager	HBD
Pottery and CBM	Jackie Wells, Albion Finds Officer	JW
Radiocarbon determinations	Scottish Universities Environmental Research Centre	SUERC
Stone	Jill Eyres, Chiltern Archaeology	JE

Houghton Regis North 1, Houghton Regis, Bedfordshire
Development Areas J1 (Part) and J2
Assessment of Potential and Updated Project Design



Task	Name, Title/Organisation	Initials
Wood charcoal	Dana Challinor, freelance specialist	DC
Structural illustration	Joan Lightning, Albion CAD technician/illustrator	JL
Artefact illustrations	Mike Trevarthen, freelance illustrator	MT
Archiving	Helen Parslow, Albion Archives Officer	HP

Table 10: The project team

6.5.2 The project programme

The programme is itemised in Table 11, below, within which a number of key stages have been identified; completion of these key stages of the project will each provide a natural review point as recommended by MoRPHE (Historic England 2015). The programme will commence on submission of this Assessment and Updated Project Design.

Task Description	Name *	Time estimate (duration of task)
Radiocarbon determinations	SUERC	
Final phasing and contextual analysis	JRB	
Key stage 1: completion/finalising of the contextual hierarchy		2 months
Pottery and CBM – final quantification, recording and reporting	JW	
‘Other artefacts’ – x-ray and petrological identifications	HBD	
‘Other artefacts’ – final quantification, recording and reporting	HBD	
Animal bone – final quantification, recording and reporting	MM	
Charred plant remains – analysis and reporting	JG	
Human bone – analysis and reporting	NP	
Stone – analysis and reporting	JE	
Wood charcoal – analysis and reporting	DC	
Site narrative	JRB	
Structural illustration	JL/MT	
Key stage 2: completion/finalising of specialist analysis and texts		4 months
Artefact illustrations	MT	
Amendments to structural illustrations	JL/MT/JRB	
Integration of all specialist texts	JRB	
Production of discussion	JRB	
Editing final report	JRB/ML/DS	
Key stage 3: completion of first draft		2 months
Albion’s refereeing process	JRB/ML	
Addressing comments received	JRB/ML	
Key stage 4: issue of final report		
Key stage 5: Archiving		2 months (concurrent with Stage 3)
Archive preparation (contextual)	JRB	
Archive preparation (artefacts/ecofacts)	HP/JW	
Archive preparation and liaison with Luton Culture	HP	
Archive transfer	HP	
Key stage 6: end of project		

Table 11: Summary of project programme

* For initials see Table 10.



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8. APPENDIX 1: ENVIRONMENTAL SAMPLES BY PHASE

P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
1	1	61	Ditch	10	1	2,5	1			1		1	1	One charred <i>Triticum aestivum</i> grain; small nos id'ble charcoal fragments; occ uncharred seeds (<i>Veronica</i>); occ snails; occ beetle fragments; occ worm egg cases; >roots
		62	Ditch	20	<1	1,2				1		1	2	NO CPR & traces id'ble charcoal; occ leaf frags; small nos (10-15) snails (terr) mostly burrowers; occ beetle fragments; sediment crumb; mostly roots
	2	3	Posthole	1	1	2,3						1		NO CPR & small nos id'ble charcoal fragments; occ beetle fragments
		5	Pit	7	12	4,5	1	1						Occ charred grain & chaff fragments (<i>Triticum spelta</i> , <i>Triticum glume</i> base); good nos id'ble charcoal fragments; occ worm eggs; some roots
		6	Pit	6	<1	1,2								NO CPR & traces id'ble charcoal; occ worm eggs & >roots
		21	Pit	10	14	3,5	1	1		1				Traces charred grain (<i>Triticum dicoccum/spelta</i> , <i>Hordeum vulgare</i>) & cereal chaff fragments (<i>Triticum spelta</i> glume base); good nos id'ble charcoal fragments; occ uncharred seeds (<i>Chenopodium</i>); >roots
	2	4	19	Cremation burial	2	3	2,5							1
20			Cremation burial	3	<1	0,5				1				NO CPR & NO id'ble charcoal fragments; occ uncharred seeds (<i>Atriplex/Chenopodium</i>); good amount of roots & fine sediment crumb
4			Cremation burial	5	8	3,5							2	NO CPR & good nos id'ble charcoal fragments; small nos (10-20) snails including burrowers; some roots



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
2	4	28	Cremation burial	1	3	2,5	1	1		1		1	1	Traces charred grain & chaff fragments (<i>Triticum</i> glume base); small/modest nos id'ble charcoal fragments; occ uncharred seeds (<i>Sambucus</i>); occ snails; occ beetle fragments; roots & sediment crumb
		29	Cremation burial	2	46	5,5	1	1		1	1		1	Traces charred grain, chaff fragments (<i>Triticum spelta</i> glume base); >nos id'ble charcoal fragments (including >4mm); occ uncharred seeds (<i>Sambucus</i>); occ snails; occ small burnt bone fragments; occ worm eggs
		9	Cremation burial	1	2	3,5					2			NO CPR; mod nos (c 50) id'ble charcoal fragments; small nos very small burnt bone fragments; occ worm eggs; some roots & fine sediment crumb
		10	Cremation burial	1	<1	1,3							1	NO CPR & traces id'ble charcoal fragments; occ snail fragments; roots
		37	Cremation burial	1	8	4,5							1	NO CPR; good nos id'ble charcoal fragments; occ snails
		39	Cremation burial	1	18	4,5	1						1	Traces charred grain (<i>Triticum</i>); good nos id'ble charcoal fragments; occ snails
		17	Cremation burial	8	43	5,5	1	1	1	1	1		2	Traces charred grain, chaff fragments (<i>Triticum</i> glume bases) & seeds (Poaceae (small); >nos id'ble charcoal fragments (including >4mm); occ uncharred seeds (<i>Sambucus</i>); small nos (20-30) snails (terrestrial including burrowers); occ very small burnt bone fragments; some roots
		18	Cremation burial	9	31	5,5	1			1			2	Traces charred grain; >nos id'ble charcoal fragments (including >4mm); occ uncharred seeds (<i>Sambucus</i>); small nos (20-30) snails; occ worm egg cases



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
2	4	7	Cremation burial	5	163	5,5	1				2		2	Traces charred grain; >nos id'ble charcoal fragments (including >4mm); small nos (10-20) very small burnt bone fragments; small nos (10-20) snails (including burrowers); roots
		8	Cremation burial	5	125	5,5	1				3		2	One charred grain (<i>Triticum cf aestivum</i>); >nos id'ble charcoal fragments (including >4mm); small nos (10-20) snails (including burrowers); good nos very small burnt bone fragments; 50% flot <1mm scanned
		11	Cremation burial	1	10	4,5					2	1		NO CPR; good nos id'ble charcoal fragments; small nos smnall burnt bone fragments; occ beetle fragments; some roots
		44	Cremation burial	10	22	4,5	1						2	Occ charred grain (<i>Triticum</i>); very good nos id'ble charcoal fragments (including >4mm); small nos snails (including burrowers)
		33	Cremation burial	2	2	3,5				1	1			NO CPR; mod nos id'ble charcoal fragments; occ uncharred seeds (<i>Sambucus</i>); occ small nos small burnt bone fragments; some roots
		34	Cremation burial	3	2	3,5	1	1		1	2		1	Traces charred grain & chaff fragments (<i>Triticum</i> glume base); modest nos id'ble charcoal fragments; occ uncharred seeds (<i>Sonchus</i>); occ snails; small nos small burnt bone fragments; occ roots & good amount of sediment crumb
		41	Cremation burial	8	48	5,5		1	1				2	Occ charred chaff fragments (<i>Triticum spelta</i> glume bases) & traces seeds (Poaceae (small)); >nos id'ble charcoal fragments (including >4mm); small nos (10-20) snails (including burrowers); some roots
		45	Cremation burial	9	105	5,5	1	2	1	1			3	Occ charred grains (<i>Triticum</i>); occ chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume bases, rachis fragments) & seeds (<i>Medicago/Trifolium</i> , Poaceae (small)); >nos id'ble charcoal fragments (including >4mm); occ uncharred seeds (<i>Urtica dioica</i>); mod nos (c



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
														50) snails
2	4	46	Cremation burial	7	14	4,5	1	1		1	1		2	Traces charred grain (<i>Triticum</i>) & chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume bases); very good nos id'ble charcoal fragments (including >4mm); occ uncharred seeds (<i>Sambucus</i> , <i>Urtica dioica</i>); small nos snails (including burrowers); occ small burnt bone fragments; occ worm eggs
		48	Cremation burial	9	2	1,3	1	2	1				1	Occ charred grains (<i>Triticum dicoccum/spelta</i>) & small nos charred cereal chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume base, rachis fragments) & occ charred seeds (<i>Eleocharis</i> , Poaceae (small)); very occasional id'ble charcoal fragments; occ snails (terrestrial); sediment crumb
		49	Cremation burial	10	3	2,5	2	3	1	1		1	3	Mod nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i>) & fairly good nos charred chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume bases, rachis fragments) & occ charred seeds (Fabaceae, Poaceae (large, small)); very small nos id'ble charcoal fragments; occ uncharred seeds (<i>Sambucus</i>); mod nos snails (terrestrial including burrowers); occ beetle fragments; >roots
		42	Cremation burial	1	2	3,5			1	1	1	1	2	Occ charred weed seeds (Poaceae (small)); good nos id'ble charcoal fragments; occ uncharred seeds (<i>Urtica dioica</i>); small nos (c 20) snails (mainly burrowers); occ small burnt bone & beetle fragments



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments		
2	4	12	Cremation burial	3	15	3,5	3	1	1		1		2	Mod nos poorly preserved charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> , <i>Hordeum vulgare</i>); occ charred chaff fragments (<i>Triticum</i> glume bases) & weed seeds (<i>Polygonaceae</i>); good nos id'ble charcoal fragments; small nos (15-20) snails (terrestrial including burrowers); occ very small burnt bone fragments; roots		
		13	Cremation burial	4	6	3,5	1	1			1		1	Occ charred grain & chaff fragments (<i>Triticum</i> glume base); mod good nos (c 50) id'ble charcoal fragments; occ very small burnt bone frags; occ snails; occ worm eggs; good amount of roots		
		14	Cremation burial	1	3	2,5								1	NO CPR; small nos id'ble charcoal fragments; occ snails; some roots & sediment crumb	
		15	Cremation burial	2	4	1,3		1				4			Traces charred cereal chaff fragments (<i>Triticum</i> glume base); occ id'ble charcoal fragments; good amount of very small burnt bone fragments; good amount of sediment crumb	
		42	Cremation burial	1	2	3,5				1	1	1	1	2	Occ charred weed seeds (<i>Poaceae</i> (small)); good nos id'ble charcoal fragments; occ uncharred seeds (<i>Urtica dioica</i>); small nos (c 20) snails (mainly burrowers); occ small burnt bone & beetle fragments	
		16	Cremation burial	1	<1	1,2										NO CPR & traces id'ble charcoal; little sediment crumb & roots
		75	Cremation burial	1	<1	1,2					1				1	NO CPR & traces id'ble charcoal; occ uncharred seeds (<i>Sambucus</i>); occ snails (burrowers); occ worm eggs; some roots
		78	Cremation burial	1	<1	0,2					1				2	NO CPR & NO id'ble charcoal; occ uncharred seeds (<i>Sambucus</i>); small nos (c 10) snails (including burrowers); mostly roots; some sediment crumb



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments	
2	4	51	Pit	20	19	2,5	5	5	1	1			2	RICH CP assemblage; >nos poorly preserved charred grain (<i>Triticum dicoccum/spelta</i> , <i>T. aestivum</i> , <i>Triticum</i> , <i>Hordeum</i>) & > nos charred chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume bases, rachis fragments) & small nos charred seeds (<i>Fallopia convulvulus</i> , <i>Lolium/Festuca</i> , Poaceae (large, small); small nos id'ble charcoal fragments; occ uncharred seeds; small nos (15-20) snails (terrestrial including burrowers); roots	
		52	Pit	10	10	2,3	3	3	1				1	RICH CPR (FILL IN); occ id'ble charcoal fragments; occ snails; occ roots	
		53	Pit	10	1	1,3	2	2	1	1				2	Small nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> cf <i>dicoccum</i>) & chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume base, rachis, spikelet bases); occ charred weed seeds (Fabaceae (small round), Poaceae (small)); traces id'ble charcoal; occ uncharred seeds (<i>Urtica dioica</i>); small nos (c 20) snails (terr including burrowers); roots
		35	Cremation burial	1	<1	1,3								1	NO CPR & traces id'ble charcoal; occ snails; occ roots & some sediment crumb
5	60	Ditch	10	<1	1,2	1	1	1	1	1	1	1	2	Traces charred grain, cereal chaff fragments (<i>Triticum</i> glume base) & seeds (Poaceae (large)); traces id'ble charcoal fragments; occ uncharred seeds; occ very small bone fragments; occ beetle fragments; small nos (20-30) snails (terrestrial including burrowers); occ worm eggs; >roots	



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
3	6	38	Ditch	20	3	1,5	1	2	1	1		1	4	Occ charred grain (<i>Triticum</i> , <i>Hordeum</i>) & small nos charred chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume bases, rachis fragments) & occ charred seeds (<i>Urtica</i> , <i>Chenopodium</i> , Poaceae (large, small); traces id'ble charcoal fragments; occ uncharred seeds; good nos snails (terrestrial including burrowers); occ beetle fragments; occ worm eggs; >roots & sediment crumb
3	6	47	Ditch	10	5	3,5	3	2	2			1	3	Mod good nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> , <i>Hordeum</i> , <i>Avena</i>) & mod nos charred chaff fragments (<i>Triticum spelta</i> , <i>T. dicoccum</i> , <i>Triticum</i> glume bases, rachis fragments) & small nos charred seeds (<i>Bromus</i> , Poaceae (large, small); mod nos (c 50) nos id'ble charcoal fragments; mod good nos (c 100) snails (terrestrial including burrowers); occ beetle fragments; >roots; little sediment crumb
		63	Ditch	10	<1	1,3	1	2	1	1			1	Very occ charred grain; small nos charred cereal chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume base, rachis, spikelet bases); occ charred weed seeds (cf <i>Bromus</i>); traces id'ble charcoal; occ uncharred box leaf frags; occ snails including burrowers; occ worm eggs; good amount of roots
		64	Ditch	10	<1	0,2	1						2	Traces charred grain (<i>Triticum</i>); NO id'ble charcoal; small nos (10-20) snails (terr including burrowers); roots
		65	Ditch	20	2	1,5	2	3	1			1	3	Small nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i>) & mod nos charred chaff fragments (<i>Triticum spelta</i> , <i>T. dicoccum</i> , <i>Triticum</i> glume bases, rachis fragments) & occ weed seeds (<i>Bromus</i> , Poaceae (small)); traces id'ble charcoal fragments; mod good nos (60-70) snails (terrestrial including burrowers); occ beetle fragments



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
3	7	66	Ditch	20	42	2,5	5	5	2	1	1	1	2	RICH CPR; >nos charred grains (<i>Triticum dicoccum/spelta</i> , <i>T. aestivum</i> , <i>Triticum</i>); >nos chaff fragments (<i>Triticum spelta</i> , <i>T. dicoccum</i> , <i>Triticum</i> glume bases, rachis fragments, spikelet bases); small nos seeds (<i>Agrostemma githago</i> , <i>Galium aparine</i> , <i>Lolium</i> , <i>Bromus</i> , Poaceae (small, large)); small/mod nos id'ble charcoal fragments; small nos (10-20) snails; occ beetle fragments; occ small mammal bone; occ uncharred seeds (<i>Taraxacum</i>) & <i>Buxus</i> leaf fragments; some roots
	7	67	Pit	20	15	3,5	1	1					1	Traces charred grain & chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> rachis); good nos id'ble charcoal fragments; occ snails (burrowers); good amount of roots & occ straw fragments
		72	Pit	20	2	1,4	3	2	1				2	Mod nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i>) & chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume base, rachis, spikelet bases); occ charred loose coleoptiles; occ charred weed seeds (Poaceae (small)); very occ id'ble charcoal fragments; small nos (c 10) snails; sediment crumb; roots & occ straw fragments
		50	Ditch	20	<1	2,4	2	3	1	1		1	1	Mod nos charred grains (<i>Triticum dicoccum/spelta</i> , <i>T. aestivum</i> , <i>Triticum</i>) & cereal chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume base, rachis fragments) & occ charred seeds (<i>Lolium/Festuca</i> , Poaceae (small)); small nos id'ble charcoal fragments; occ uncharred seeds (<i>Atriplex</i>); occ beetle fragments; occ snails (terrestrial); occ straw fragments; >roots



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
3	7	56	Posthole	6	18	1,4	3	1				1	1	Mod good nos charred grains (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> , <i>Hordeum</i>); occ chaff fragments (<i>Triticum spelta</i> glume bases, rachis fragments); occ id'ble charcoal fragments; occ snails;occ insect fragments; some roots
		57	Drying oven	20	28	2,5	3	3	1				2	Mod good nos charred grains (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> , <i>Hordeum</i>); mod good nos chaff fragments (<i>Triticum spelta</i> , <i>T. dicoccum</i> , <i>Triticum</i> glume bases, rachis fragments); occ charred seeds (Poaceae (small)); mod nos id'ble charcoal fragments; small nos (10-20) snails; some roots
		59	Drying oven	40	2	1,5	3	2	1				3	Mod nos poorly preserved charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i>) & chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume base, rachis, spikelet bases); occ charred weed seeds (Poaceae (small)); occ id'ble charcoal fragments; mod nos (c 100) snails (terr mainly burrowers); roots & occ straw fragments
8	54	Pit	10	17	2,5	3	1	1			1	2	Good nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>T. aestivum</i> , <i>Triticum</i> , <i>Hordeum vulgare</i> (hulled)); occ charred chaff fragments (<i>Triticum</i> glume bases) & occ charred seeds (Poaceae (large); small nos (c 20) id'ble charcoal fragments; mod nos (c 30-40) snails (terrestrial including burrowers); occ small burnt bone fragments; some roots	



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
3	8	24	Drying oven	20	60	3,5	5	4	3	1		1	3	RICH CPR; good nos poorly preserved and fragmented charred grains (<i>Triticum dicoccum/spelta</i> , <i>T. aestivum</i> , <i>Triticum</i> , <i>Hordeum vulgare</i> , <i>Avena</i>); mod good nos chaff fragments (<i>Triticum spelta</i> , <i>T. dicoccum</i> , <i>Triticum</i> glume bases, rachis fragments, spikelet bases); small nos seeds (<i>Bromus</i> , Poaceae (small, large)); mod nos id'ble charcoal fragments; mod nos (50-100) snails including burrowers; occ beetle fragments; occ uncharred seeds (<i>Sonchus</i>); occ worm eggs; some roots; 25% flot sorted & identified; 75% flot scanned
		26	Drying oven	20	70	3,5	5	4	2	1	1	1	3	RICH CPR; good nos charred grains (<i>Triticum dicoccum/spelta</i> , <i>T. aestivum</i> , <i>Triticum</i> , <i>Hordeum vulgare</i> , <i>Avena</i>); mod good nos chaff fragments (<i>Triticum spelta</i> , <i>T. dicoccum</i> , <i>Triticum</i> glume bases, rachis fragments, spikelet bases); small nos seeds (<i>Fumaria</i> , <i>Anthemis cotula</i> , <i>Bromus</i> , Poaceae (small, large)); mod nos id'ble charcoal fragments; mod nos (50-100) snails including burrowers; occ beetle fragments; occ very small burnt bone fragments; occ uncharred seeds; some roots; 25% flot sorted & identified; 75% flot scanned
		27	Drying oven	30	23	2,5	3	1	2	1				3



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
3	8	31	Drying oven	20	91	5,5	2	1	1	1			3	Mod nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> , <i>Hordeum vulgare</i>), traces chaff (<i>Triticum</i> spikelet base) & seeds (<i>Fumaria</i> , Poaceae (small); >nos id'ble charcoal fragments (including >4mm); occ uncharred seeds (<i>Sonchus</i>); good nos (100+) snails (terrestrial including burrowers); occ worm eggs; some roots
		32	Drying oven	20	230	5,5	2	1	1				3	Mod nos charred grains (<i>Triticum dicoccum/spelta</i> , <i>T. aestivum</i> , <i>Triticum</i> , <i>Hordeum</i>); occ chaff fragments (<i>Triticum</i> glume bases) & seeds (<i>Fumaria</i> , Poaceae (small), onion couch tuber); >nos id'ble charcoal fragments (including large fragments >4mm); mod nos (c 50) snails (terrestrial including burrowers)
		23	Drying oven	20	130	5,5	3	1	1	1		1	4	Mod good nos charred grains (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> , <i>Hordeum</i>); occ chaff fragments (<i>Triticum spelta</i> glume bases, rachis fragments) & seeds (<i>Fumaria</i> , Poaceae (small, large)); >nos id'ble charcoal fragments (including fragments >4mm); good nos (several 100) snails (terrestrial including burrowers); occ beetle fragments; occ uncharred seeds & leaf fragments; some roots
		25	Drying oven	1	2	0,3	1	1	1				3	Occ charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i>) & cereal chaff fragments (<i>Triticum</i> glume base) & seeds (<i>Rumex</i>); NO id'ble charcoal fragments; mod nos (50+) snails (terrestrial including burrowers); sediment crumb & roots
		30	Posthole	20	32	3,5							1	NO CPR; good nos id'ble charcoal fragments (including >4mm); occ snails; some roots



P	L	Sample	Feature Type	Sample vol. (l)	Flot vol (ml)	Charcoal (>,<2mm)	Charred Grain	Charred chaff	Charred seeds	Uncharred seeds etc	Bone	Insects	Snails	Comments
4	10	40	Inhumation	20	2	1,2	1	2	1		1		1	Occ charred grain (<i>Hordeum vulgare</i>) & small nos charred chaff fragments (<i>Triticum dicoccum</i> , <i>T. spelta</i> , <i>Triticum</i> glume base, rachis, spikelet bases); occ charred weed seeds (Poaceae (small)); traces id'ble charcoal fragments; small nos (10-20) snails (terr including burrowers); occ bone frags; roots & >sediment crumb
	11	55	Ditch	10	3	2,3	2	2	2				2	Mod nos charred grain (<i>Triticum dicoccum/spelta</i> , <i>Triticum</i> , <i>Hordeum vulgare</i>) & small nos charred chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume base, rachis, spikelet bases); small nos charred weed seeds (cf <i>Bromus</i> , Poaceae (large & small), tuber fragments); occ charred cereal coleoptiles; mod nos id'ble charcoal fragments; mod nos (c 30) snails (terr including burrowers); roots
	15	1	Sunken feature building	30	4	3,5	1	1		1			2	Small nos charred grain (<i>Triticum</i> , <i>Hordeum</i>) & occ charred chaff fragments (<i>Triticum spelta</i> , <i>Triticum</i> glume bases); mod good nos (c 50-100) id'ble charcoal fragments; occ uncharred seeds (<i>Aethusa cynapium</i>); small nos (c 20) snails; occ worm eggs; >roots
	15	2	Sunken feature building	30	<1	1,3	1	1		1		1	2	Traces charred grain (<i>Triticum dicoccum/spelta</i>) & cereal chaff fragments (<i>Triticum</i> glume base); traces id'ble charcoal fragments; occ uncharred seeds (<i>Urtica dioica</i>); occ beetle fragments; small nos (15-20) snails (terrestrial); >roots

Item frequency: 0=0; 1=1-10; 2=11-50; 3=51-150; 4=151-250; 5=250+ items



9. APPENDIX 2: PROFESSIONAL STANDARDS AND GUIDELINES

The project will be undertaken using Historic England's guidelines on *Management of Research Projects in the Historic Environment* (MoRPHE) (Historic England 2015). In addition, the project will follow all relevant guidance issued by Historic England, much of which is available on the Historic Environment Local Management (HELM) website <http://www.helm.org.uk>.

The following are particularly relevant to this project:

- *Heritage 2020 draft strategic priorities* (Heritage Alliance 2014)
- *National Heritage Protection Plan Framework* (HE 2012) and associated guidelines and Action Plans
- *Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2011)

Throughout the project, the following standards and guidance will also be adhered to:

- Archaeology Data Service (ADS) – *Guides to Good Practice* (2011).
- Association of County Archaeological Officers – notably *Standards for Field Archaeology in East Anglia* (East Anglian Archaeology Occasional Paper, 14), by D Gurney (2003).
- Luton Culture guidelines - *Procedures for preparing archaeological archives for deposition with Luton Culture* (Luton Culture 2013).
- The Chartered Institute for Archaeologists' (CIfA) *Codes of Conduct* and standard and guidance documents relevant to the project. These include:
 - *Code of conduct* (2014)
 - *Standard and guidance for archaeological excavation* (2014)
 - *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (2014)

In addition, relevant guidelines published by national or regional societies and specialist interest groups will be consulted, where applicable.

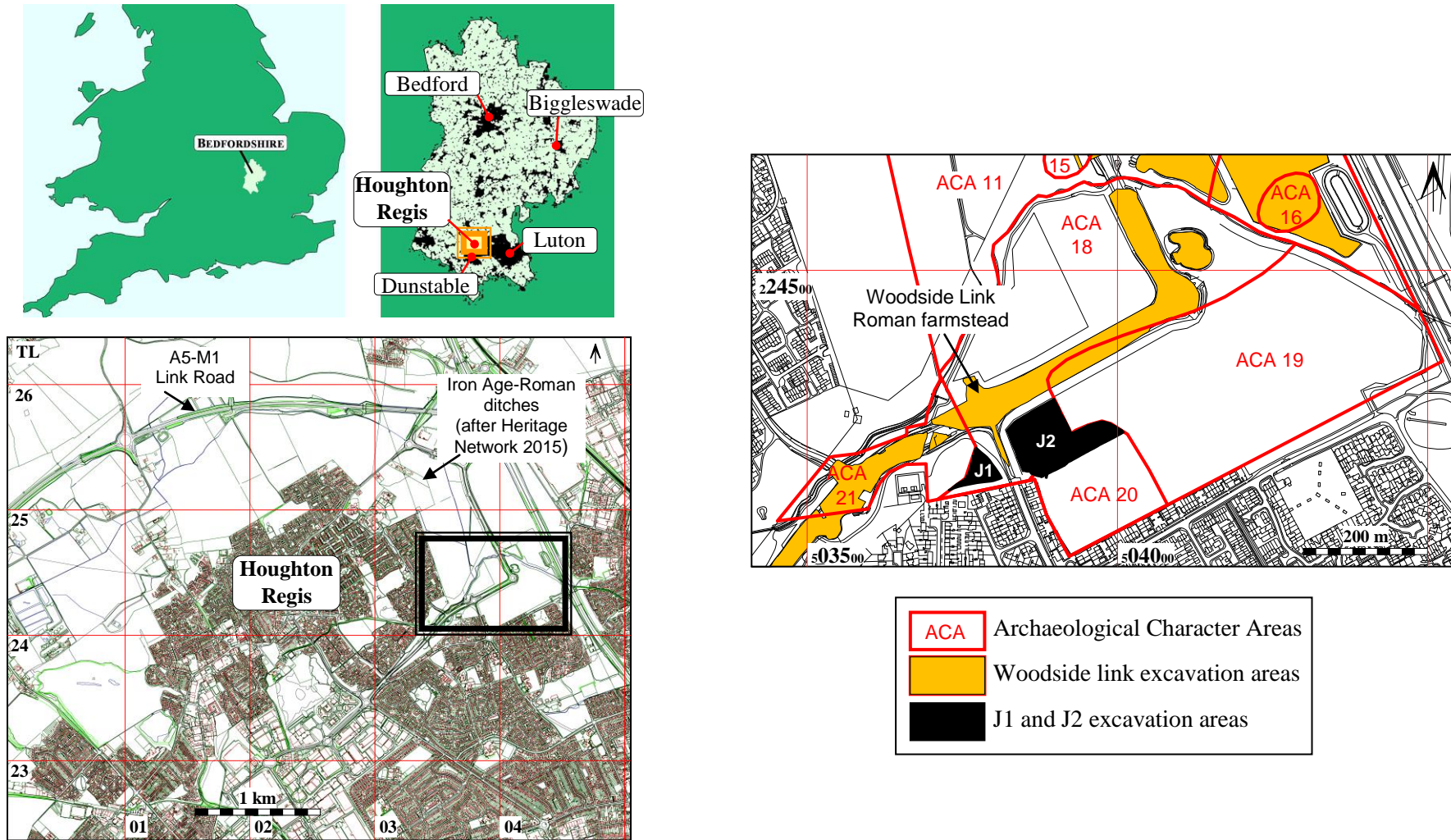


Figure 1: Site location.

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Figure 2: All-features plan

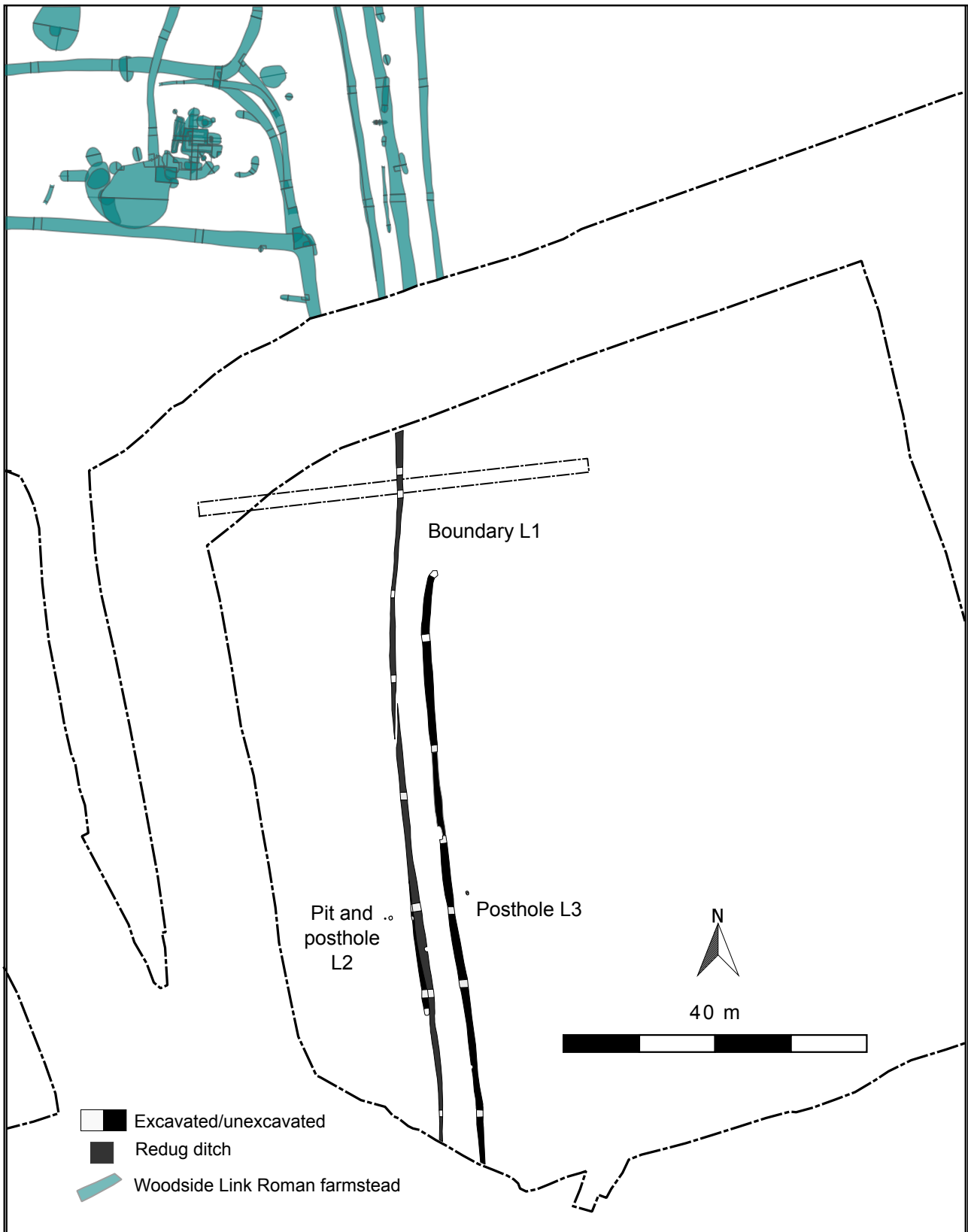


Figure 3: Plan of Phase 1: late Bronze Age/early Iron Age

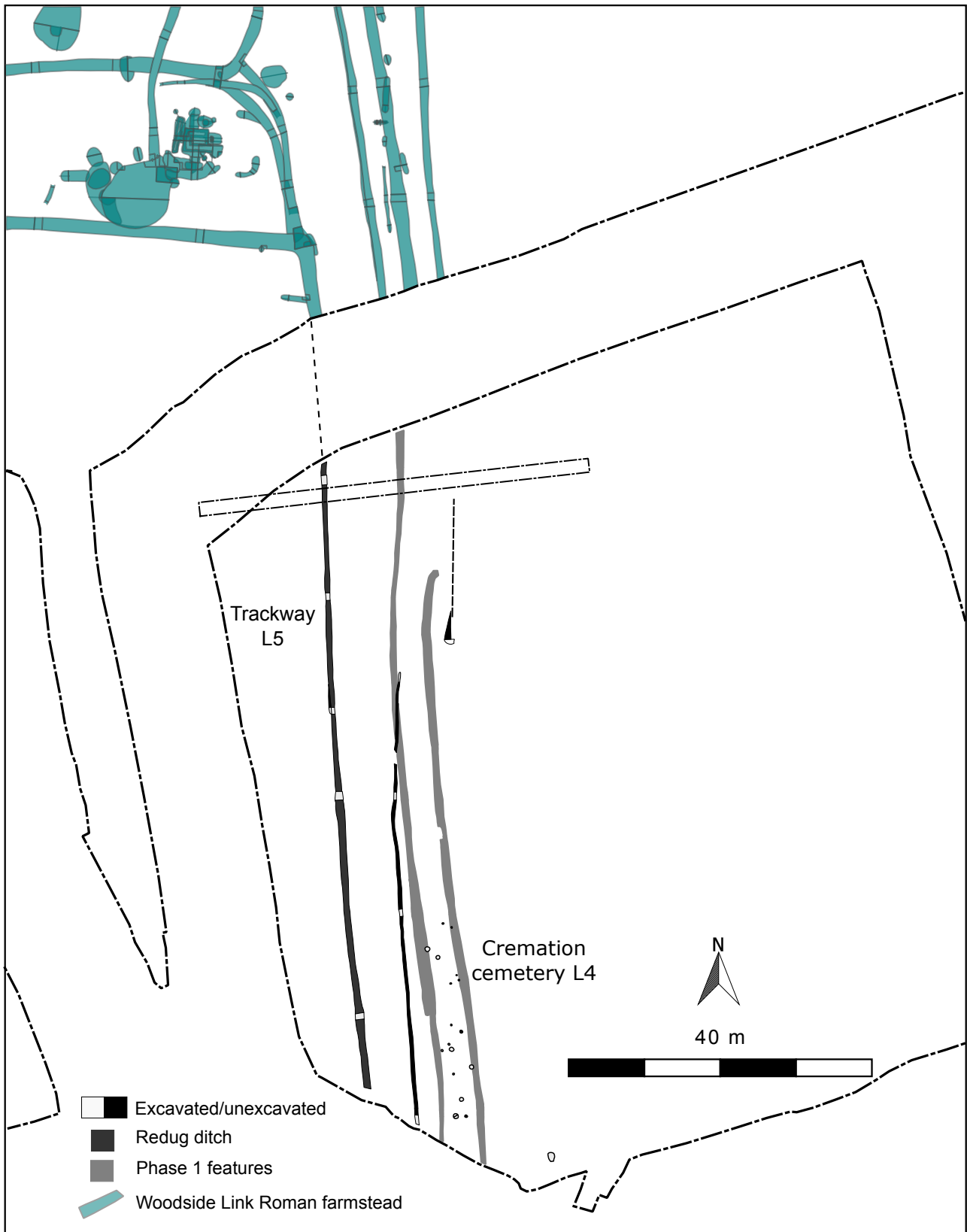


Figure 4: Plan of Phase 2: late Iron Age/early Roman

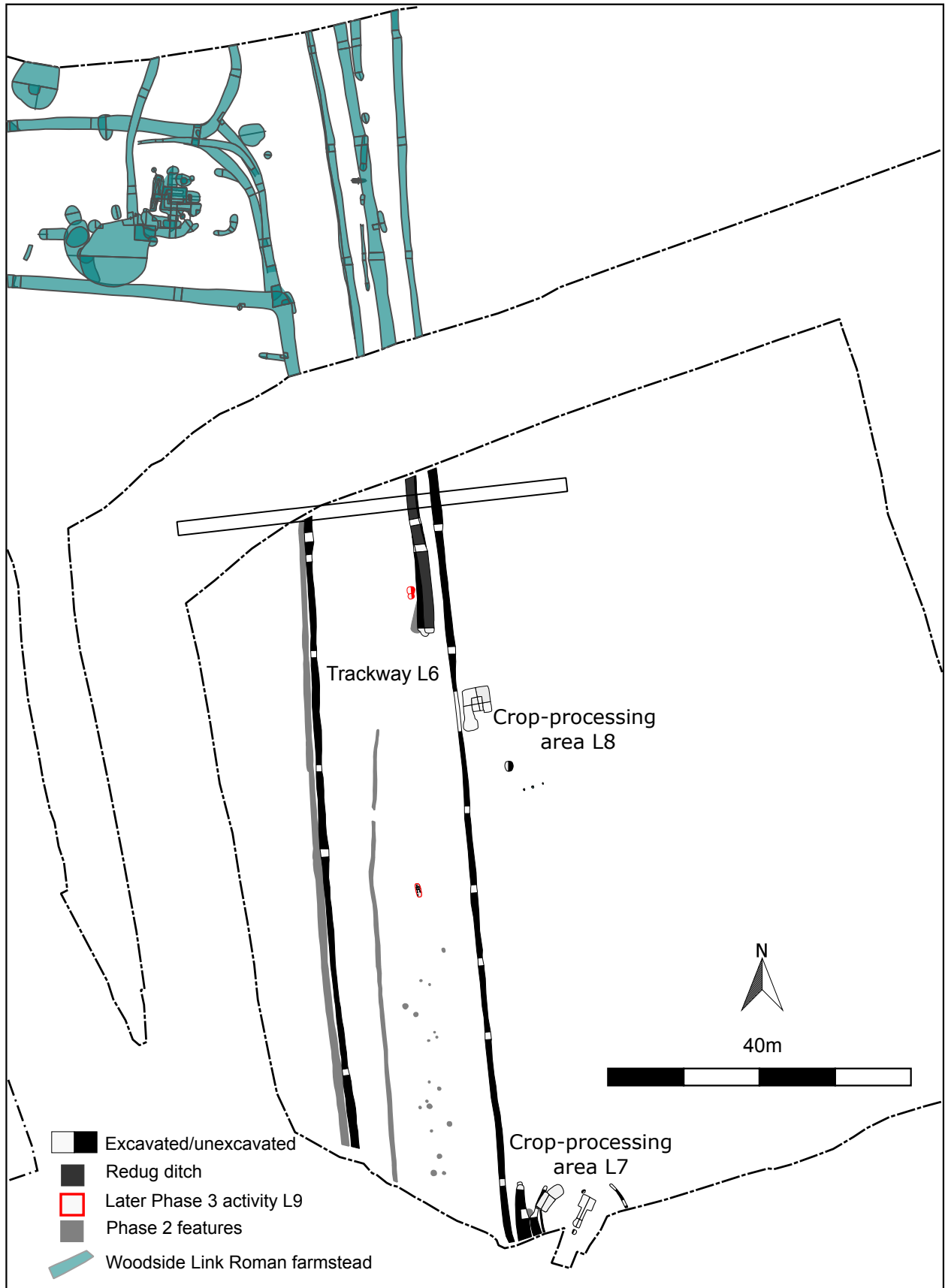


Figure 5 : Plan of Phase 3: Roman

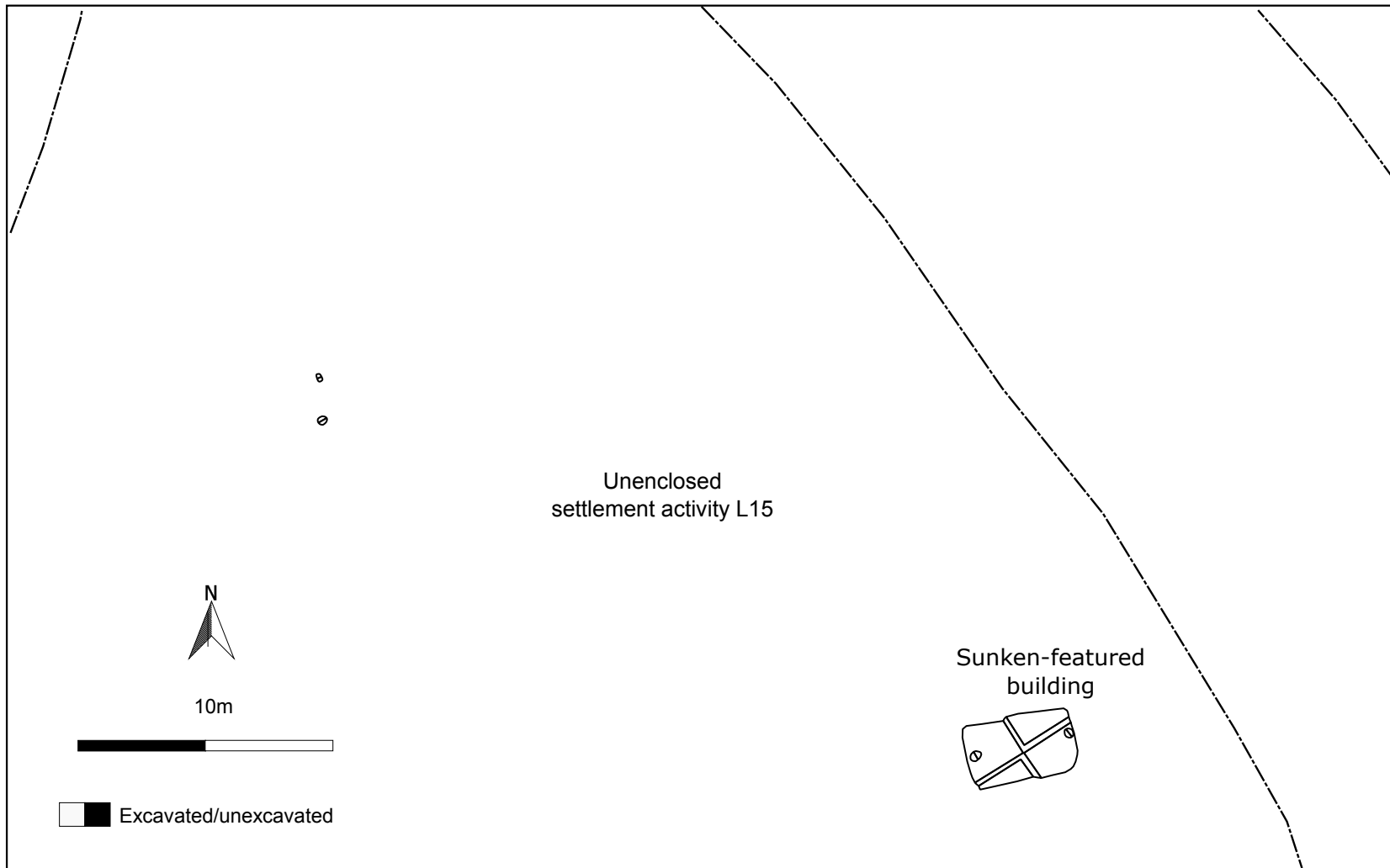


Figure 6: Plan of Phase 4: early Saxon

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