

Archaeological evaluation and earthwork survey at Avanti Fields School Leicester

Worcestershire Archaeology
for Orion Heritage

January 2020



Find out more online:
www.explorethepast.co.uk



AVANTI FIELDS SCHOOL LEICESTER CITY

Archaeological evaluation and earthwork survey report



©Worcestershire County Council

Worcestershire Archaeology
Worcestershire Archive & Archaeology Service
The Hive
Sawmill Walk
The Butts
Worcester
WR1 3PD

Explore
the Past

SITE INFORMATION

Site name: Avanti Fields School
Site code: P5700
Local planning authority: Leicester City Council
Planning reference: 20191832
Central NGR: SK 6260 0648
Commissioning client: Orion Heritage
Client project reference: PN2172
WA project number: P5700
WA report number: 2765
Oasis reference: fieldsec1-374963

DOCUMENT CONTROL PANEL				
Version	Date	Author	Details	Approved by
1	26/11/2019	Andrew Walsh	Draft for client comment	Tom Rogers
2	28/11/2019	Andrew Walsh	Draft for curator comment	Tom Rogers
3	13/01/2020	Andrew Walsh	Final	Tom Rogers
4	27-01-2020	Andrew Walsh	Amended Fig 6	Tom Rogers

This report is confidential to the client. Worcestershire Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

CONTENTS

SUMMARY	1
REPORT	2
1 INTRODUCTION	2
1.1 Background to the project	2
1.2 Site location, topography and geology.....	2
2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	2
3 PROJECT AIMS	2
4 PROJECT METHODOLOGY	3
4.1 Topographic survey.....	3
4.2 Archaeological evaluation.....	3
5 ARCHAEOLOGICAL RESULTS	3
5.1 Introduction	3
5.2 Topographic survey.....	3
5.3 Evaluation trenches	4
5.3.1 Natural deposits/Natural deposits across the site	4
5.3.2 Phase 1: Later prehistoric	4
5.3.3 Phase 2: Medieval to post-medieval furrows	4
5.3.4 Undated	4
5.3.5 Residual finds.....	4
6 ARTEFACTUAL EVIDENCE BY C JANE EVANS	5
6.1 Introduction	5
6.2 Aims.....	5
6.3 Methodology.....	5
6.3.1 Recovery policy.....	5
6.3.2 Method of analysis.....	5
6.3.3 Discard policy.....	5
6.4 Results	5
6.6 Significance	7
6.7 Recommendations	7
6.7.1 Further analysis.....	7
6.7.2 Discard/retention.....	7
7 ENVIRONMENTAL EVIDENCE BY ELIZABETH PEARSON	7
7.1 Aims.....	7
7.2 Methods.....	8
7.2.1 Sampling policy.....	8
7.2.2 Processing and analysis	8
7.2.3 Discard policy.....	8
7.3 Results	8
7.4 Synthesis	9
8 DISCUSSION	9

9	SIGNIFICANCE	10
10	CONCLUSIONS	10
11	PROJECT PERSONNEL	10
12	ACKNOWLEDGEMENTS	10
13	BIBLIOGRAPHY	11

FIGURES

PLATES

APPENDIX 1: TRENCH DESCRIPTIONS

APPENDIX 2: SUMMARY OF PROJECT ARCHIVE

APPENDIX 3: OASIS REPORT FORM

Archaeological evaluation and earthwork survey at Avanti Fields School, Leicester

By Andrew Walsh

With contributions by C Jane Evans, Rob Hedge and Elizabeth Pearson

Illustrations by Carolyn Hunt

Summary

An archaeological evaluation and earthwork survey was undertaken by Worcestershire Archaeology (WA) during September to November 2019 at Avanti Fields School, Leicester. This comprised the excavation of 13 trenches and survey of earthwork features. The project was commissioned by Orion Heritage on behalf of BAM Construct UK, in advance of the construction of a proposed school and associated works. A planning application has been submitted to Leicester City Council (planning reference 20191832). The archaeological advisor to the local planning authority considered that the proposed development has the potential to impact upon heritage assets.

The site is located approximately 4.3km north-east of Leicester city centre (NGR SK 6260 0648). A geophysical survey of the site was undertaken in 2009 and an archaeological desk-based assessment of the site was undertaken by Mott McDonald in 2018. The desk-based assessment identified a moderate potential for Neolithic and Bronze Age remains within the site and a high potential for the survival of remains of Iron Age date. Immediately to the north and north east, previous archaeological investigations had identified and recorded a well-preserved Iron Age settlement and the geophysical survey showed that the settlement extended into the northern part of the site.

Extant ridge and furrow is present across the proposed development area and in the area of the proposed access road.

Thirteen evaluation trenches were excavated. Two features of later prehistoric date and one undated gully were identified. These features were not identified as anomalies by the geophysical survey. They probably relate to the Iron Age settlement to the north but are likely to be peripheral landscape features rather than a direct continuation of the settlement. Given the later prehistoric date of the identified features and their likely relationship with the Iron Age settlement to the north the features identified during the evaluation are of local significance.

The topographic survey recorded the extant ridge and furrow which survives at the site. It is of local significance as a remnant historic landscape feature, although it has been compromised by later activity reducing its significance.

The methods adopted allow a high degree of confidence that the aims of the project have been achieved. Despite a high water table, conditions were suitable in all the trenches to identify the presence or absence of archaeological features. It is considered that the nature, density and distribution of archaeological features provides an accurate characterisation of the development site as a whole.

Report

1 Introduction

1.1 Background to the project

An archaeological evaluation and earthwork survey was undertaken by Worcestershire Archaeology (WA) during September to November 2019 at Avanti Fields School, Leicester. This comprised the excavation of thirteen trenches and a survey of earthwork features. The project was commissioned by Orion Heritage on behalf of BAM Construct UK, in advance of the construction of a proposed school and associated works. A planning application has been submitted to Leicester City Council (planning reference 20191832). The archaeological advisor to the local planning authority considered that the proposed development has the potential to impact upon heritage assets.

The project conforms to a Written Scheme of Investigation (WSI) prepared by Orion Heritage (Orion Heritage 2019) and approved by the archaeological advisor to the local planning authority. The works also conform to the industry guidelines and standards set out by the Chartered Institute for Archaeologists in *Standard and guidance: for archaeological field evaluation* (CIfA 2014).

1.2 Site location, topography and geology

The site is located approximately 4.3km north-east of Leicester city centre (NGR SK 6260 0648). The site measures approximately 3.8 hectares and is bounded to the north by a residential development to the north, a college to the east, agricultural land to the south, Manor Farm to the south-west and Thurmaston Lane to the west. The site is currently agricultural land and is largely comprised of pasture. It is broadly level although the ground slopes slightly southward in the southern part of the site. The underlying geology is mapped as mudstones of the Blue Lias Formation, overlain by superficial diamicton deposits of the Oadby Member (BGS 2019).

2 Archaeological and historical background

A geophysical survey of the site (excluding the proposed access road) was undertaken in 2009 (Butler 2009) and an archaeological desk-based assessment (DBA) of the site was undertaken by Mott McDonald (Cooper and Luker 2018). The desk-based assessment identified a moderate potential for Neolithic and Bronze Age remains within the site and a high potential for the survival of remains of Iron Age date. Immediately to the north and north east, previous archaeological investigations had identified and recorded a well-preserved Iron Age settlement (Harvey 2011, Thomas 2011 and Higgins 2015) and the geophysical survey showed that the settlement extended into the northern part of the site. Extant ridge and furrow is present across the proposed development area and in the area of the proposed access road.

3 Project aims

The principal aims of the archaeological investigation, as outlined in the WSI, were to:

- Determine the presence or absence of archaeological remains;
- Determine the character, extent, date, complexity, integrity, state of preservation and quality of any archaeological remains present, therefore ensuring their preservation by record; and
- To provide robust baseline information to inform the scoping of a mitigation strategy, should this be required beyond that for the north-western part of the site.

The general objectives were to ensure:

- The protection and recording of archaeological assets discovered during the archaeological works;

- That any below-ground archaeological deposits exposed are promptly identified; and
- The recording of archaeological remains, to place this record in its local context and to make this record available.

4 Project methodology

A WSI was prepared by Orion Heritage (Orion Heritage 2019) and approved by the archaeological advisor to the local planning authority. Fieldwork was undertaken between 14th and 21st October and 6th to 7th November 2019.

4.1 Topographic survey

The archaeological topographic survey included the proposed development site and the route of the proposed access road including a 10m buffer to either side. As specified in the WSI the base of furrows and tops of ridges were recorded at 0.30m intervals. The survey was undertaken on 26th and 27th September and 4th November 2019 using a GNSS with RTK-corrected positions and an accuracy limit set at <0.04m. The results of the survey are presented in Figures 2 and 3.

4.2 Archaeological evaluation

Thirteen trenches, amounting to 585m² in area, were excavated over the 3.8ha site. The location of the trenches is indicated in Figure 4.

The trenches were laid out across the proposed site and were targeted to avoid running down the length of ridges and furrows, as well as to avoid buried services and tree cover. Three trenches were targeted on the proposed access road.

Deposits considered not to be significant were removed under constant archaeological supervision using a JCB 3CX wheeled excavator, employing a toothless bucket. Subsequent excavation was undertaken by hand. Clean surfaces were inspected, and selected deposits were excavated to retrieve artefactual material and environmental samples, as well as to determine their nature. Deposits were recorded according to standard Worcestershire Archaeology practice (WA 2012) and trench and feature locations were surveyed using a GNSS with RTK-corrected positions and an accuracy limit set at <0.04m. On completion of excavation, trenches were reinstated by replacing the excavated material.

All fieldwork records were checked and cross-referenced. Analysis was undertaken through a combination of structural, artefactual and environmental evidence, allied to the information derived from other sources.

The project archive is currently held at the offices of Worcestershire Archaeology. Subject to the agreement of the landowner it is anticipated that it will be deposited at Leicester City's Museum and Galleries service.

5 Archaeological results

5.1 Introduction

The results of the topographic survey and evaluation are illustrated in Figures 2-5. The trench and context inventory are presented in Appendix 1, and the archive inventory in Appendix 2. The Oasis report form is presented in Appendix 3.

5.2 Topographic survey

Two systems of furrows were surveyed as part of the works (Figure 2). Across the proposed development site is a system orientated broadly east to west (Plate 1). The system comprises of thirteen ridges and furrows and measures about 150m in length. They are typically spaced 8-9m apart although as low as 5m in the central part of the site. The ridges and furrows typically survive to a

height of 0.15-0.20m in the southern part of the site and 0.30m in the northern part of the site. They have a slight reverse-S shape. Two areas where the furrows had been truncated by later activity were identified.

A second system was partially surveyed across the route of the proposed access road. This system was orientated broadly north to south (Figure 3 and Plate 2). Ten surviving ridges and furrows were surveyed, although it appears likely that the system continues to the west, where truncated furrows were identified in the evaluation trenches (Figure 4; Trenches 11 and 12) and lidar evidence also shows extant furrows on the same orientation (Figure 6). They are spaced 8-9m apart in the central part of the field with narrower spacing (5-6m) to the east and west. The ridges and furrows survive up to a height of 0.45m in the centre of the field although towards the field to the north, east and west boundaries become much more truncated at less than 0.1m.

5.3 Evaluation trenches

5.3.1 Natural deposits/Natural deposits across the site

The natural deposits observed in all trenches was a light yellow brown clay with frequent pebbles and cobbles of limestone, flint and chalk, consistent with the diamicton deposits mapped by the BGS.

5.3.2 Phase 1: Later prehistoric

A ditch (205) was identified in Trench 2 orientated approximately north to south (Plate 3). It was approximately 3.4m wide and 0.55m deep and contained two fills (206 and 207). Three sherds of late Bronze Age to early Iron Age pottery was recovered from the upper fill. The ditch does not appear to correlate with any anomalies identified by the geophysical survey.

A pit (503) was identified in Trench 5 (Plate 4). It was approximately 0.75m in diameter and 0.14m deep and contained two fills (504 and 505). There was some evidence of in-situ burnt clay around the edges of the feature and fire cracked stones and occasional charcoal was noted in both fills, suggesting that the feature was a small fire pit, or temporary hearth. A very small sherd of possible Iron Age pottery was also recovered from the basal fill of the pit (504), and environmental samples from both fills yielded unidentifiable small fragments of charcoal.

5.3.3 Phase 2: Medieval to post-medieval furrows

In addition to the extant ridge and furrow which survives across the site reported in section 5.2, the truncated remains of buried furrows were also identified in Trenches 11 and 12. These furrows were orientated broadly north to south and may have been part of the same system as that surveyed to the east.

Modern field drains were noted in the base of many of the furrows.

5.3.4 Undated

A gully (314) was also identified in Trench 3 (Plate 6). It was not possible to excavate this feature as the natural substrate and potential archaeological deposits were buried under 1.4m of modern overburden, and immediately after mechanical excavation the trench began to fill with water.

However, from initial inspection it appears likely that this was an archaeological feature. It does not appear to correlate with any anomalies identified by the geophysical survey, although this area of the survey was subject to brick or ferrous disturbance which would have masked archaeological features in this part of the site.

5.3.5 Residual finds

A sherd of Roman pottery was recovered from the subsoil (201) in Trench 2, and a sherd of 18th century was recovered from subsoil (1001) in Trench 10.

6 Artefactual evidence by C Jane Evans

6.1 Introduction

The artefact analysis conforms to standards and guidance issued by the Chartered Institute for Archaeologists (CIfA 2014b), as well as further guidance on pottery analysis, archive creation and museum deposition created by the period pottery study groups (PCRG/SGRP/MPRG 2016), the Archaeological Archives Forum (AAF 2011), and the Society of Museum Archaeologists (SMA 1993).

6.2 Aims

Analysis of the finds was undertaken with reference to the project aims defined in Section 3 above.

6.3 Methodology

6.3.1 Recovery policy

Artefacts were recovered according to standard Worcestershire Archaeology practice (WA 2012). The report includes artefacts recovered by hand and from environmental samples.

6.3.2 Method of analysis

All finds were examined. They were identified, quantified and dated to period. A *terminus post quem* date was produced for each stratified context. This date was used for determining the broad date of phases defined for the site. All information was recorded on a Microsoft Access 2007 database, with tables generated using Microsoft Excel.

The pottery was examined under x20 magnification and recorded by fabric class, with reference to the Leicestershire County Museums pottery fabric series (Marsden 2011; Pollard 1994).

6.3.3 Discard policy

Artefacts from topsoil and subsoil and unstratified contexts will normally be noted but not retained, unless they are of intrinsic interest (e.g. worked flint or flint debitage, featured pottery sherds, and other potential 'registered artefacts'). Large assemblages of post-medieval or modern material, unless there is some special reason to retain (such as local production), may be noted and not retained, or, if appropriate, a representative sample will be retained. Discard of finds from post-medieval and earlier deposits will only be instituted with reference to museum collection policy and/or with agreement of the local museum.

6.4 Results

The finds comprised six sherds of pottery, an undiagnostic flint flake, and fragments of fired clay and burnt stone (Tables 1-3). These were retrieved from Trenches 2, 5 and 10 and dated from the late Bronze Age or early Iron Age to the post-medieval period.

The results below provide a summary of the finds and of their associated contexts. Where possible, dates have been allocated, and the importance of individual finds commented upon as necessary.

Period	Material class	Material subtype	Object specific type	Count	Weight (g)	Average weight (g)
prehistoric	stone	flint	flake	1	2	2
LBA/EIA	ceramic	earthenware	pot	3	18	6
Iron Age	ceramic	earthenware	pot	1	2	2
Roman	ceramic	earthenware	pot	1	6	6

Period	Material class	Material subtype	Object specific type	Count	Weight (g)	Average weight (g)
post-medieval	ceramic	earthenware	pot	1	53	53
undated	bone	animal bone	fragment	1	0.1	0
undated	ceramic	fired clay	fragment	24	41	2
undated	stone	burnt stone	fragment	27	49.1	2

Table 1: Quantification of site assemblage

6.5 Summary of artefacts by period

Three undiagnostic body sherds were recovered from Ditch 205 (fill 207) in Trench 2, all from the same vessel. The sherds were in an oxidised fabric, coarsely tempered with inclusions of quartz (<5mm) and, less common, granitic rock (fabric class R). In the absence of diagnostic form or decoration the dating of these sherds cannot be certain, but the coarse fabric suggests a late Bronze Age to early Iron Age fabric, rather than later. The only other sherd of pottery from Trench 2 came from the subsoil (201). This was in a wheel-made, sandy, white fabric (fabric class WW), most likely Roman in date.

Trench 5 produced a sherd of pottery, a flint flake, and fragments of fired clay and burnt stone, all from fills of Pit 503 (fills 504 and 505). The small sherd is in a sandy fabric (fabric class Q), likely to be Iron Age in date. The sherd and some of the fired clay fragments were burnt. This, like the presence of burnt stone, reflects the fact that the finds were recovered from a feature thought to have originally been a hearth.

The only other find was the rim from a large bowl or pancheon in post-medieval earthenware (fabric class EA), found in the subsoil in Trench 10 (1001). This dates broadly to the 18th century.

Period	Fabric code	Object specific type	Count	Weight (g)	Average weight (g)
LBA/EIA	R	pot	3	18	6
Iron Age	Q	pot	1	2	2
Roman	WW	pot	1	6	6
post-medieval	EA	pot	1	53	53
Total			6	79	13

Table 2: Quantification of pottery assemblage by fabric class

Context	Material class	Material subtype	Object specific type	Count	weight (g)	Start date	End date	Context tpq date
201	ceramic	earthenware	pot	1	6	AD 43	410+	Roman
207	ceramic	earthenware	pot	3	18	-1000	-401	late Bronze Age-early Iron Age

Context	Material class	Material subtype	Object specific type	Count	weight (g)	Start date	End date	Context tpq date
504	ceramic	fired clay	fragment	11	18			
504	stone	burnt stone	fragment	24	49			
505	bone	animal bone	fragment	1	0.1			Iron Age
505	ceramic	earthenware	pot	1	2	-800	42	
505	ceramic	fired clay	fragment	13	23			
505	stone	burnt stone	fragment	3	0.1			
505	stone	flint	flake	1	2			
1001	ceramic	earthenware	pot	1	53	1700	1800	1700-1800

Table 3: Summary of context dating based on artefacts

6.6 Significance

The small assemblage of pottery provides some dating evidence for a handful of the features excavated, though there were no significant concentrations of artefacts and the pottery could only be dated broadly to period. The presence of some level of late Bronze Age to Iron Age activity is consistent with the evidence from other sites excavated in the vicinity (Cooper 2011 and 2015). The fragmentary nature of the prehistoric and Roman pottery suggests that it is all redeposited. The single flint flake was not closely datable.

6.7 Recommendations

6.7.1 Further analysis

Should further fieldwork be undertaken on the site, the prehistoric and Roman pottery should be included in any future analysis, with the aim of refining dating of the associated features, if possible.

6.7.2 Discard/retention

The prehistoric and Roman pottery should be retained, at least until decisions have been made about further work on the site. Any decisions regarding discard should be discussed with the receiving museum.

7 Environmental evidence by Elizabeth Pearson

The environmental project conforms to guidance by English Heritage (2011) and Association for Environmental Archaeology (1995).

7.1 Aims

The aims of the assessment were to determine the state of preservation, type, and quantity of environmental remains recovered, from the samples and information provided. This information will be used to assess the importance of the environmental remains.

7.2 Methods

7.2.1 Sampling policy

Samples were taken according to standard Worcestershire Archaeology practice (2012). A total of two samples (each of up to 20 litres) of Iron Age date were taken from the site (Table 4).

Context	Sample	Feature type	Fill of	Position of fill	Period	Sample volume (L)	Volume processed (L)	Residue assessed	Flot assessed
504	2	Pit	503	Primary	Iron Age	20	20	Yes	Yes
505	1	Pit	503	Secondary	Iron Age	10	10	Yes	Yes

Table 4: List of bulk samples

7.2.2 Processing and analysis

The samples were processed by flotation using a Siraf tank. The flots were collected on a 300mm sieve and the residue retained on a 1mm mesh. This allows for the recovery of items such as small animal bones, molluscs and seeds.

The residues were scanned by eye and the abundance of each category of environmental remains estimated. A magnet was also used to test for the presence of hammscale. The flots were scanned using a low power MEIJI stereo light microscope and plant remains identified using modern reference collections maintained by Worcestershire Archaeology, and a seed identification manual (Cappers *et al* 2012). Nomenclature for the plant remains follows the New Flora of the British Isles (Stace 2010).

Only a single fragment of burnt animal bone was hand-collected (Section 6), so no further work was carried out on this material.

7.2.3 Discard policy

Remaining sample material and scanned residues will be discarded after a period of three months following submission of this report unless there is a specific request to retain them.

7.3 Results

The samples are summarised in Tables 5 and 6. The site is located on slowly permeable seasonally wet, slightly acid but base-rich loamy and clayey soils of moderate fertility. The landscape today is mostly suited to grass production for dairying or beef, with some cereal production (Cranfield Soil and AgriFood Institute 2019).

No identifiable environmental remains were recorded from fills 504 and 505 of an Iron Age pit (503). Apart from occasional small fragments of charcoal, only uncharred plant remains were present. These consisted of mainly root fragments and are assumed to be modern and intrusive as they are unlikely to have survived in the soils on site for long without charring or waterlogging.

Occasional fragments of burnt animal bone were found in sample residues, alongside small quantities of pottery and fired clay.

Context	Sample	Large mammal	Charcoal	Unch*	Artefacts	Comments
504	2	occ**	occ	abt	occ burnt stone, flint/chert	
505	1	occ**	occ	abt	occ fired clay, worked chert?	** - burnt

Table 5: Summary of environmental samples; occ = occasional, mod = moderate, abt = abundant, * = probably modern and intrusive, ** = burnt

Context	Sample	Preservation type	Species detail	Category remains	Quantity/diversity
504	2	unch*	<i>Betula pendula</i> , unidentified moss fragments, unidentified root fragments (herbaceous)	misc	+++/low
		ch	unidentified wood fragments	misc	+/low
505	1	unch*	unidentified moss fragments, unidentified seed, unidentified root fragments (herbaceous)	misc	+++/low
		ch	unidentified wood fragments	misc	+/low

Table 6: Plant remains from bulk samples

Key:

Preservation	Quantity
ch = charred	+ = 1 - 10
?wa = waterlogged or uncharred	++ = 11 - 50
	+++ = 51 - 100
	* = probably modern and intrusive

7.4 Synthesis

No evidence of charred cereal crop waste, and only limited animal bone waste was recorded. This may reflect a position on the edge of domestic settlement as Iron Age activity is located to the north of the site. Hence, should further fieldwork take place, only low levels of agricultural processing waste are likely to be recovered.

8 Discussion

The site is located to the south of an extensive Iron Age settlement which has been previously excavated. The features identified in Trenches 2, 3 and 5 are probably all contemporary with this settlement. However, given that the features were small and shallow, and only contained small

quantities of pottery and other undiagnostic finds, it is likely that these were features located in the wider landscape, and are probably associated with peripheral and/or agricultural activity, rather than a continuation of the settlement.

Two systems of ridge and furrow were recorded. Both systems are reverse-S shape indicating they are of probable medieval date, although both have been compromised by later activity. The system located on the proposed development measures around 150m in length. Given that both ends of the reverse-S are visible it does not appear to have been truncated, this system is short of a typical furlong (c 200m). Presumably it was constrained by Thurmaston Lane to the west and a topographic feature or another system to the west.

The ridge and furrow system to the south which is crossed by the proposed access road measures almost exactly 200m in length to the west although, due to topographic variation, becomes shorter in length to the east. The furrows are notably larger in this area, possibly to make up for the lost ground.

9 Significance

Given the later prehistoric date of the identified features and their likely relationship with the Iron Age settlement to the north the features identified during the evaluation are of local significance.

The extant ridge and furrow systems are of local significance as remnant historic landscape features, although they have been compromised by later activity reducing their significance.

10 Conclusions

Thirteen evaluation trenches were excavated. Two features of later prehistoric date and one undated gully were identified. These features were not identified as anomalies by the geophysical survey. They probably relate to the Iron Age settlement to the north but are likely to be peripheral landscape feature rather than a direct continuation of the settlement.

The topographic survey recorded the extant ridge and furrow which survives at the site. It probably dates to the medieval period.

The methods adopted allow a high degree of confidence that the aims of the project have been achieved. Despite a high water table, conditions were suitable in all the trenches to identify the presence or absence of archaeological features. It is considered that the nature, density and distribution of archaeological features provides an accurate characterisation of the development site as a whole.

11 Project personnel

The fieldwork was led by Peter Lovett, Andrew Walsh and Jamie Wilkins, assisted by Jem Brewer and Ed Pearson. The survey was undertaken by Tim Cornah and Andrew Walsh.

The project was managed by Tom Rogers. The report was produced and collated by Andrew Walsh. Specialist contributions and individual sections of the report are attributed to the relevant authors throughout the text.

12 Acknowledgements

Worcestershire Archaeology would like to thank the following: Cathy Patrick of Orion Heritage for commissioning the project, David Hipwell of BAM for his help and support on site, and the landowner for providing access to the site. Grahame Appleby (City Archaeologist) monitored the site on behalf of Leicester City Council.

13 Bibliography

AAF, 2011 *Archaeological archives: a guide to the best practice in the creation, compilation, transfer and curation*. Archaeological Archives Forum

Association for Environmental Archaeology, 1995 Environmental archaeology and archaeological evaluations: recommendations concerning the environmental component of archaeological evaluations in England. Working Papers of the Association for Environmental Archaeology **2**

BGS, 2019 Geology of Britain viewer. Available: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>
Accessed: 13 November 2019

Butler, A, 2009 An Archaeological Geophysical Survey of Land at Manor Farm, Humberstone, Leicester, Northamptonshire Archaeology Unpubl report **09/154**. Northamptonshire County Council

Cappers, T R J, Bekker, R M, and Jans, J E A, 2012 *Digitale Zadenatlas van Nederland: Digital seed atlas of the Netherlands*, Groningen Archaeological Studies, **4**. Barkhuis Publishing and Groningen University Library

CIfA, 2014a *Standard and guidance: for archaeological field evaluation*. Reading: Chartered Institute for Archaeologists

CIfA, 2014b *Standard and guidance: for collection, documentation, conservation and research of archaeological materials*. Reading: Chartered Institute for Archaeologists

Cooper, M & Luker, K, 2018 Manor Farm, Thurmaston Lane, Leicester, Historic Environment Desk-based Assessment, Mott MacDonald Unpubl report **392419/HIS01/A**. Mott MacDonald

Cooper, N, 2011 The prehistoric pottery, in J Harvey,

Cooper, N, 2015 Appendix 2: The Bronze Age and Iron Age pottery, in T Higgins

Cranfield Soil and AgriFood Institute, 2019 LANDIS (Land Information System) Soilscales Soil type viewer. Available: <http://www.landis.org.uk/soilscales/> Accessed: 21 November 2019

English Heritage, 2011 *Environmental archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation*. English Heritage

Harvey, J 2011 Archaeological excavation and topographic survey on land east of Thurmaston Lane, Humberstone, Leicester, University of Leicester Archaeological Services Unpubl report **2011-052**, 27-30. University of Leicester

Higgins, T, 2015 An Archaeological Excavation on land east of Thurmaston Lane, Humberstone, Leicester, University of Leicester Archaeological Services Unpubl report **2015-018**. University of Leicester

Marsden, P, 2011 The prehistoric pottery and briquetage, in Thomas 2011, 61-80

PCRG/SGRP/MPRG, 2016 *A standard for pottery studies in archaeology*. Prehistoric Ceramics Research Group, Study Group for Roman Pottery, Medieval Pottery Research Group

Pollard, R J, 1994 The late Iron Age and Roman pottery, in P Clay and R J Pollard, *Iron Age and Roman occupation in the West Bridge Area, Leicester, excavations 1962-1971*, 51-114

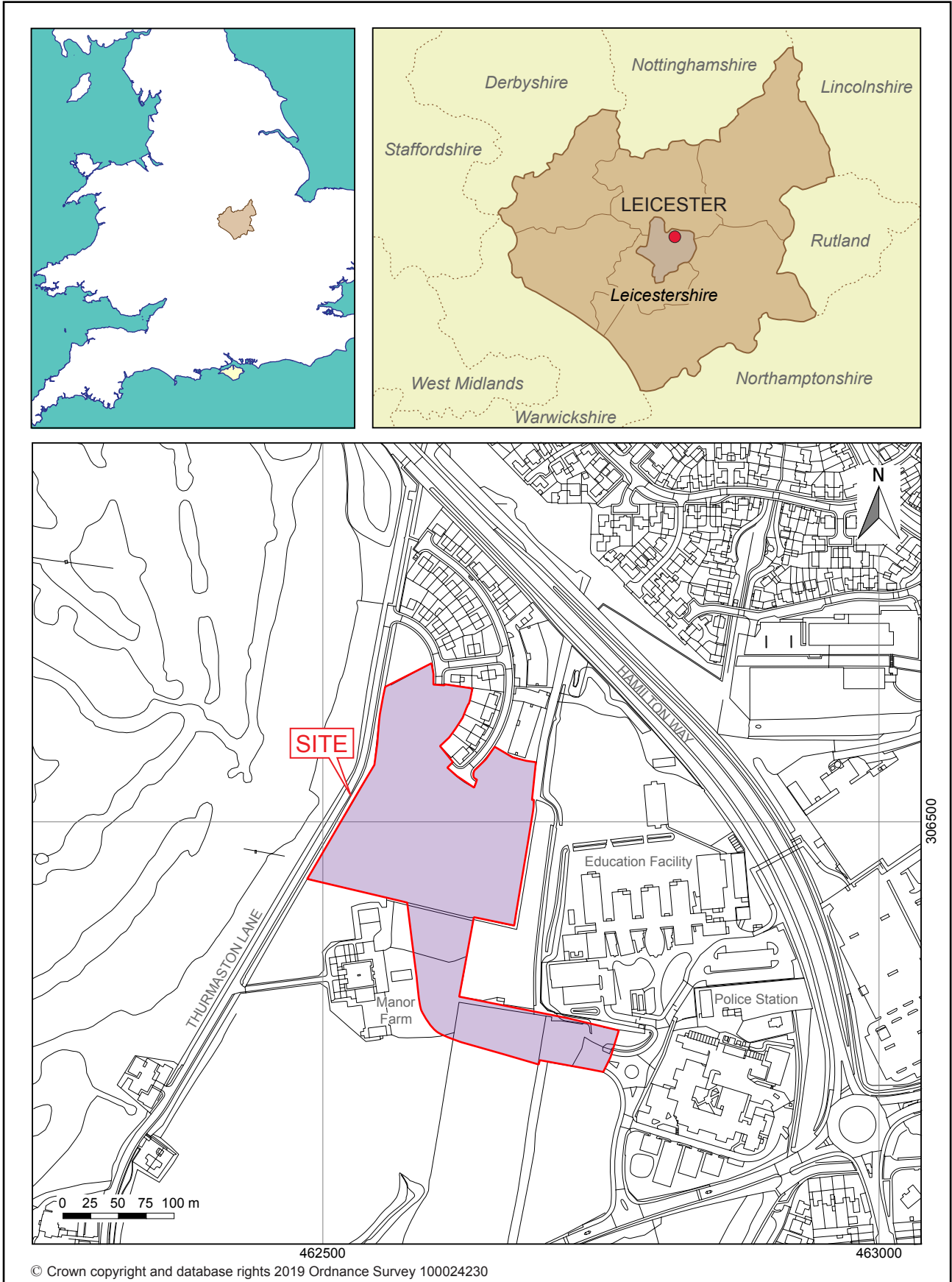
SMA, 1993 *Selection, retention and dispersal of archaeological collections*. Society of Museum Archaeologists

Stace, C, 2010 *New flora of the British Isles* (3rd edition). Cambridge: Cambridge University Press

Thomas, J, 2011 *Two Iron Age aggregated settlements in the environs of Leicester: excavations at Beaumont Leys and Humberstone*, Leicester Archaeology Monograph, **19**. Leicester: University of Leicester Archaeological Service

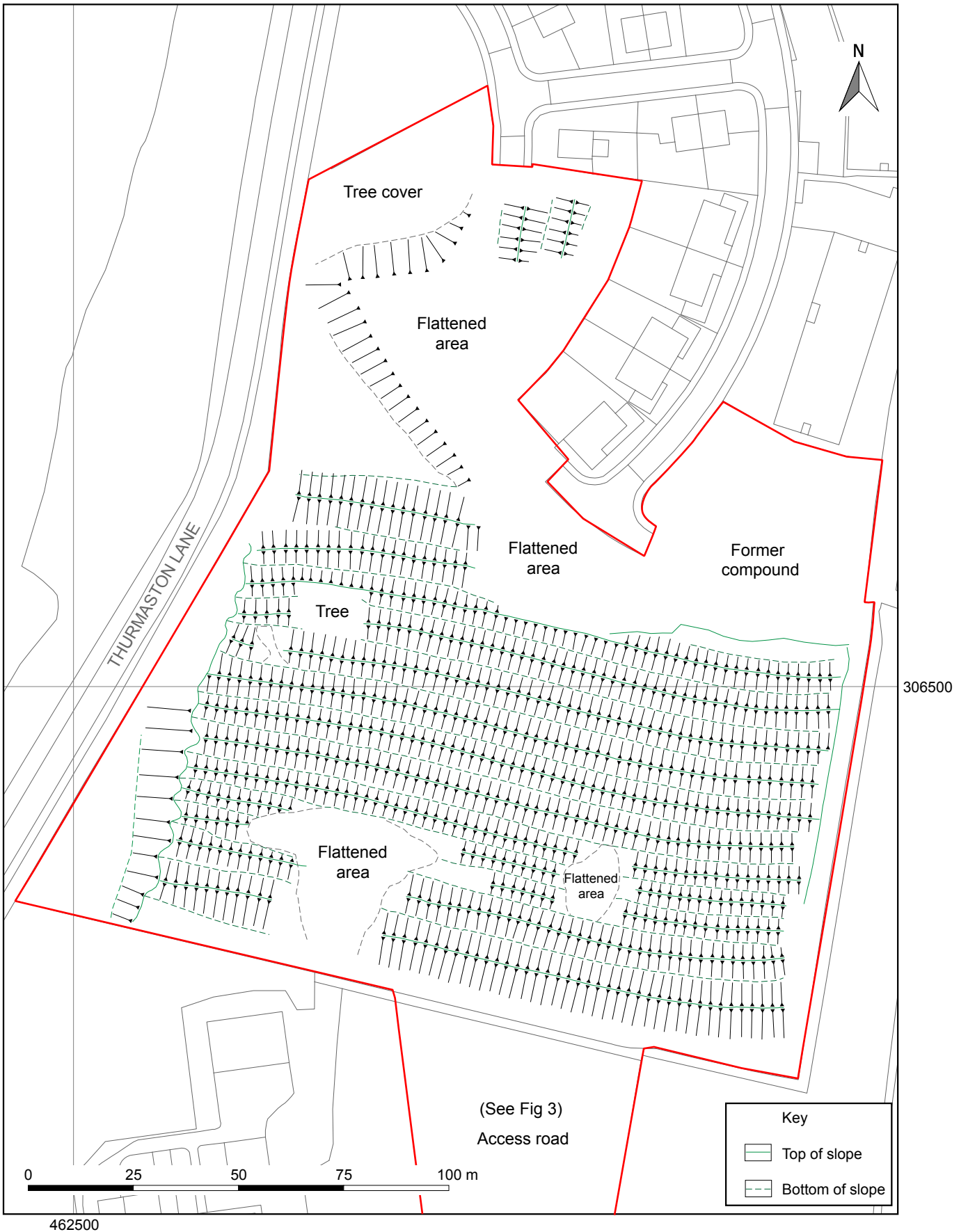
WA, 2012 Manual of service practice, recording manual, Worcestershire Archaeology Unpubl report
1842. Worcestershire County Council

Figures



Location of the site

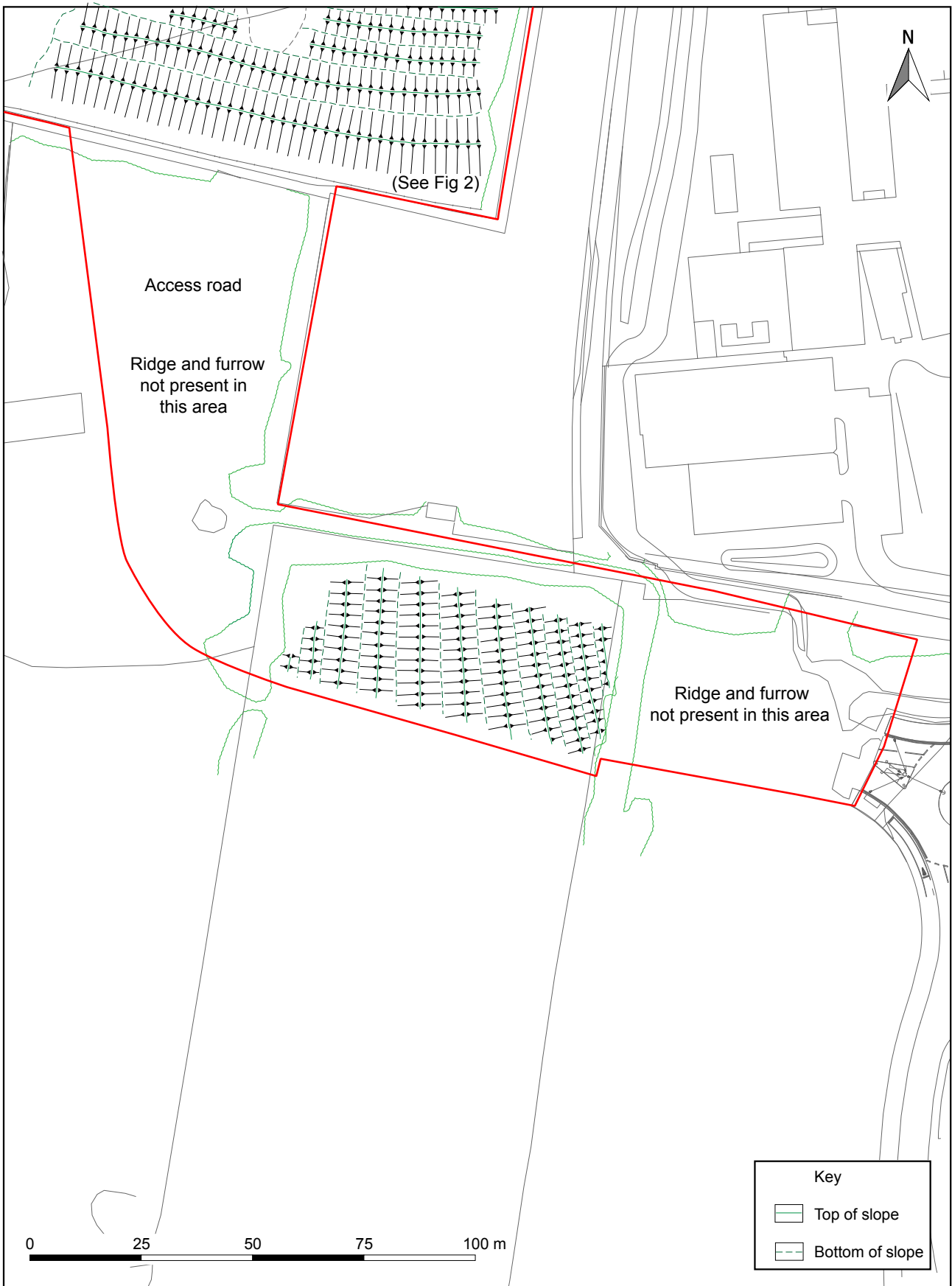
Figure 1

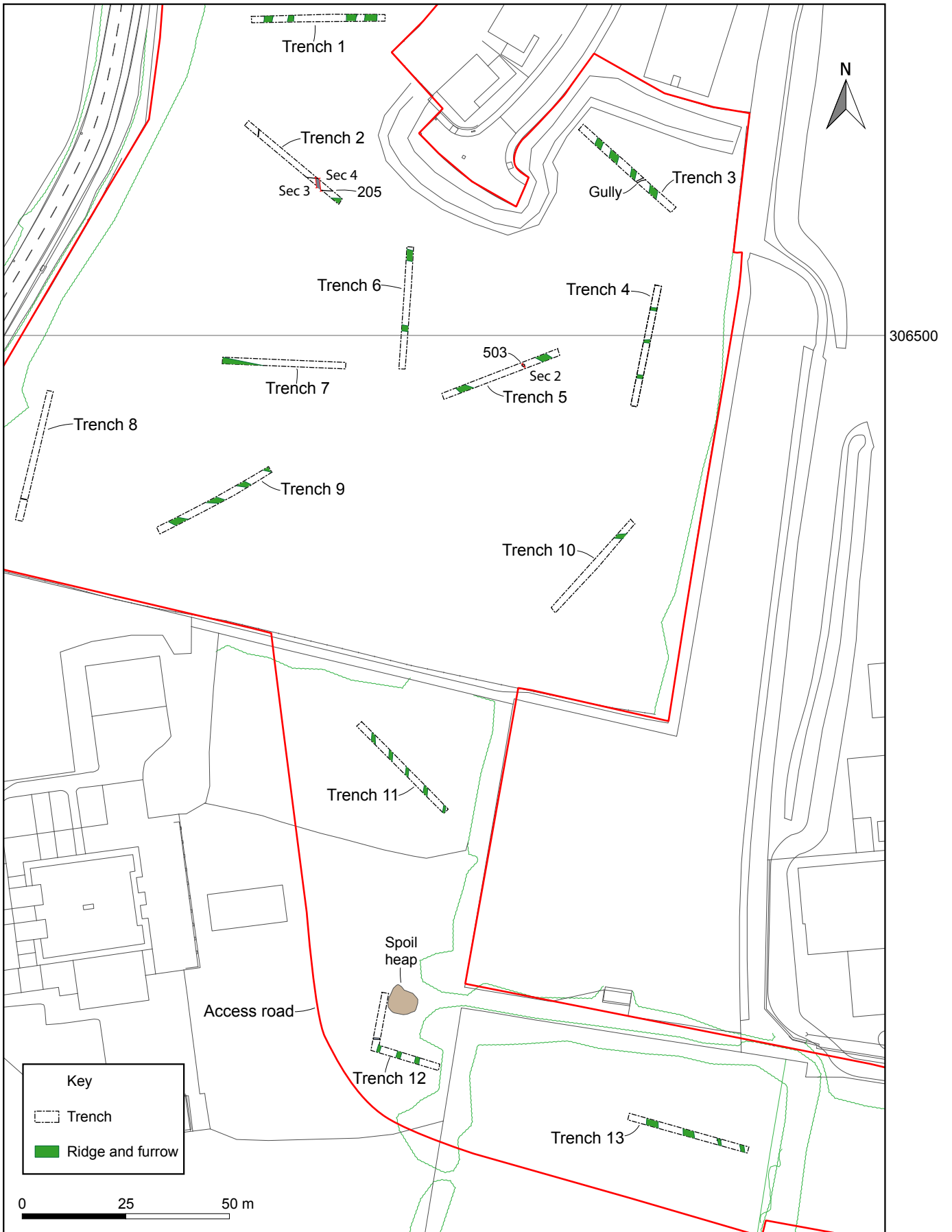


© Crown copyright and database rights 2019 Ordnance Survey 100024230

Survey of Ridge and Furrow: northern area

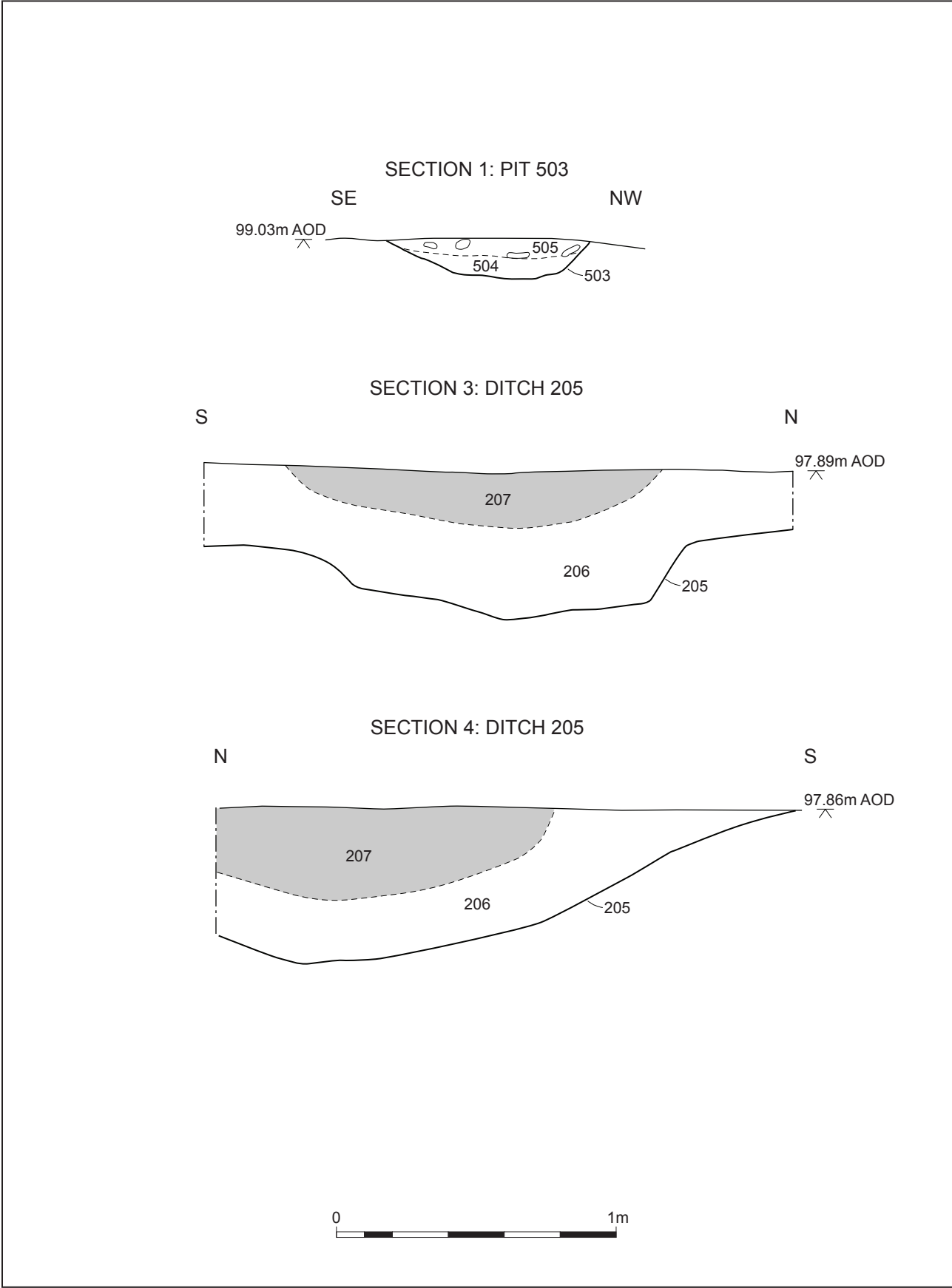
Figure 2





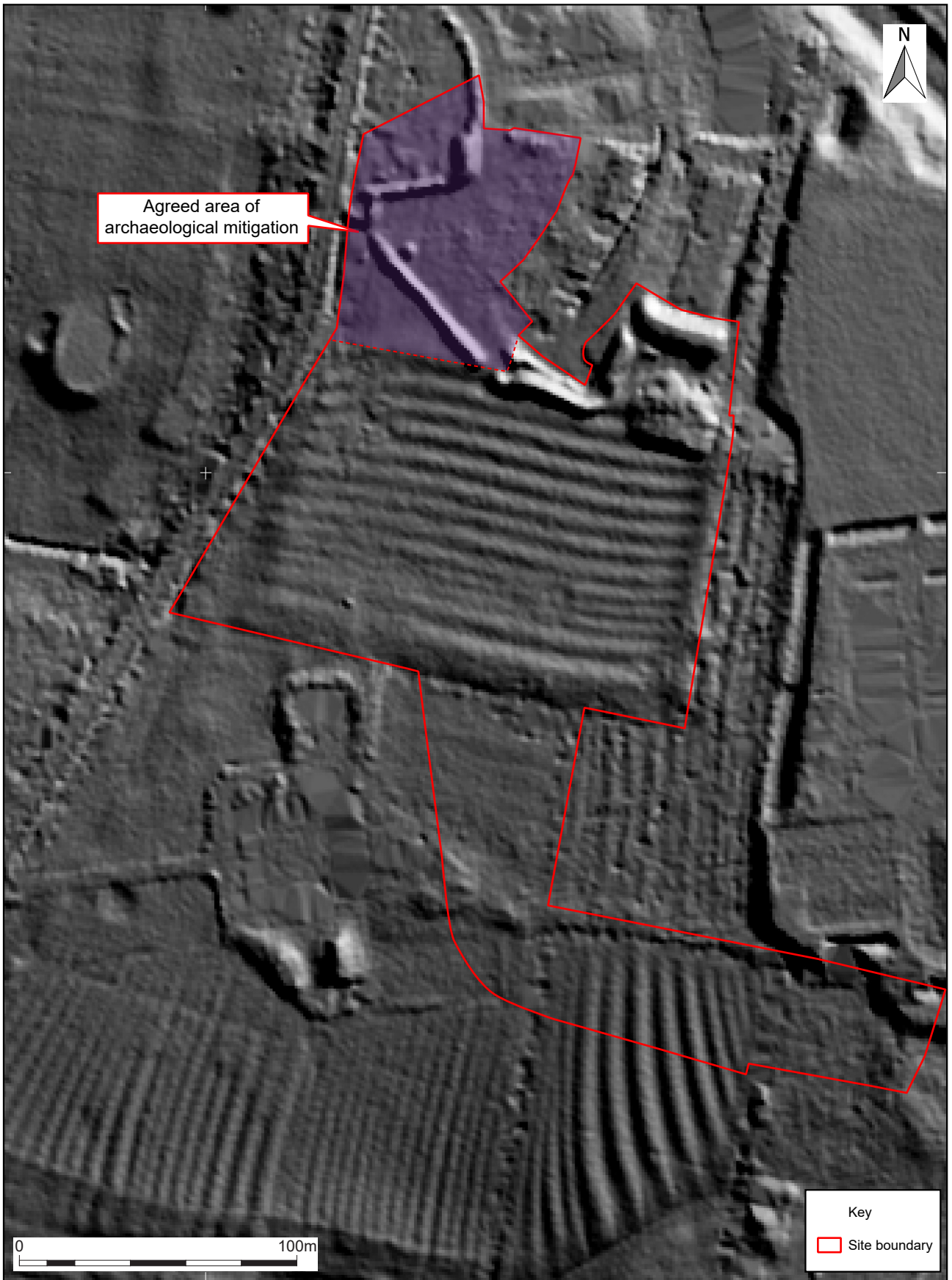
Trench location plan

Figure 4



Sections

Figure 5



Contains EA data © Environment Agency 2020. This data is licenced under The Open Government Licence 3.0

Processed Environment Agency 1m Lidar data showing agreed area of archaeological mitigation Figure 6

Plates



Plate 1: The proposed development site looking south-west. The ridge and furrow system is just visible.



Plate 2: The route of the proposed access road to the south of the crosses another system of ridge and furrow. The survey conditions were ideal in this field. Photo looking north-west



Plate 3: Ditch 205 in Trench 2. Photo looking west



Plate 4: Pit 503 in Trench 5. Photo looking south-west



Plate 5: Feature 314 in Trench 3, immediately after mechanical excavation of the trench. Note the ingress of water. Photo looking south-east

Appendix 1: Trench descriptions

Trench 1

Length: 30

Width: 1.5

Orientation: East to west

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
100	Topsoil	Layer	Frequent pebbles and brick fragments.	0.30m	brownish grey silt
101	Made ground	Layer	Brown/yellow/red gravelly silt. Contains frequent brick, plastic, pebbles. General demolition material. Building waste from housing estate.	0.5- 0.75m	brownish red silt
102	Natural	Layer	Frequent limestone pebbles >20mm		Firm brownish yellow clay
103	Furrow	Fill	Width - 2m, Length >Tr,. Listed on back of trench sheet as (105), but seems to be (103). Soft and cohesive fill. Contains rare sub-angular pebbles/gravels. Resulting from inwash of natural.	0.11m	Soft yellowish brown silty clay
104	Furrow	Cut	Linear. TOS rounded. Sides concave/shallow, BBOS imperceptible, base slightly concave. Furrow.		
105	Field drain	Fill	Soft and cohesive. Occasional limestone flakes and subangular pebbles, rare subrounded flint nodule. Rare charcoal flecks. Silted fill.	0.19m	Soft yellowish brown silty clay
106	Furrow	Cut	Linear. 1.3m wide. Slot exc 0.80m. TBOS rounded, concave shallow sides, BBOS indeterminate, base concave. Furrow. Contains modern land drain.	0.19m	
107	Furrow	Fill	Frequent pebbles <30mm. Width 2.3m.	0.24m	Soft silty clay
108	Furrow	Cut	Cut of furrow. Straight sides at 45 degrees, base undulating, flat		
109	Furrow	Fill	Clay rich silt. Frequent pebbles >30mm. 1 sherd medieval pottery. Represents a former ploughsoil. Width 2.7m.	0.35m	
110	Furrow	Cut	Relatively regular for a furrow. Straight sided at 45 degrees. Undulating base - generally flat.		

Trench 2

Length: 30

Width: 1.5

Orientation: North-west to south-east

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
200	Topsoil	Layer			Friable blackish brown clay silt
201	Subsoil	Layer	Contains moderate limestone fragments and gravels		Moderately Compact orangey brown silty clay
202	Natural	Layer	Patches of limestone fragments and gravels		Compact orangey yellow clay
203	Furrow	Fill			
204	Furrow	Cut			
205	Ditch	Cut	Linear, Gradual - convex TBOS, Straight sides, moderate-steep, Marginally tapering/concave BBOS, Tapered base. Oriented E-W. Width 3.44m, length >3m. Cut of ditch. Possible prehistoric pot in upper fill. Represents an E-W boundary ditch, possibly related to roundhouse (geophysics) activity to the north.	0.57m	
206	Ditch	Fill	Firm to friable. Brown/yellow/grey. Contains occasional to frequent pebbles. Hand exc in wet conditions. Primary fill of ditch [205]. Contains occasional fragmented animal bone (not retained). Represents a collapsed natural geology fill through drainage during the use of the ditch.	0.57m	Firm brownish grey silty clay
207	Ditch	Fill	Occasional pebble >20mm. Hand exc in wet O.C. conditions. Width 1.52m, length >3m. Contains a broken sherd of prehistoric pottery. Represents a natural disuse siltation of the ditch.	0.57m	Loose brownish grey clay silt

Trench 3

Length: 30

Width: 1.5

Orientation: North-west to south-east

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
300	Topsoil	Layer	Frequent modern waste	0.16m	Firm blueish brown clay loam
301	Made ground	Layer	Mixed, contains frequent modern building waste, some bright yellow patches.	0.82m	Moderately Compact yellowish brown clay silt
302	buried topsoil	Layer		0.24m	Friable blackish brown clay

				loam
303	Subsoil	Layer		orangey brown silty clay
304	Natural	Layer	Limestone and clay	yellow clay
305	Furrow	Fill		
306	Furrow	Cut		
307	Furrow	Fill		
308	Furrow	Cut		
309	Furrow	Fill		
310	Furrow	Cut		
311	Furrow	Fill		
312	Furrow	Cut		
313	Gully	Fill		
314	Gully	Cut		

Trench 4

Length: 30 Width: 1.5 Orientation: North to south

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
400	Topsoil	Layer	Brown/yellow/grey, occasional pebble >30mm. Partially under (403 - made ground) for 3m at northern end of trench	0.3-0.5m	Loose brownish grey silt
401	Subsoil	Layer	Mid brown yellow/red clayey silt. Occasional pebble >30mm	0.5- 0.75m	brownish yellow clay silt
403	Made ground	Layer	Made ground. Silt intermixed with clay and pebbles. Greater than 3m. Overlying topsoil at north end of trench.	0.25m	Loose brownish grey silt

Trench 5

Length: 30 Width: 1.5 Orientation: North-east to south-west

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
500	Topsoil	Layer	Same as 400	0.3m	
501	Subsoil	Layer	Same as (401)	0.2m	
502	Natural	Layer	Same as (402)		
503	Pit	Cut	Sub circular in plan, Sharp TBOS, concave sides, steeper to NW, rounded BBOS, concave base. 100% exc. Diameter 0.76m. Cut of sub-circular pit containing two fills which appear to indicate burning in situ (cracked	0.14m	

stone, baked clay etc). Likely to be small hearth or fire pit. Not in immediate vicinity of known roundhouse (c 60m to N) so probably related to peripheral activities rather than domestic? Iron Age pot from lower fill.

504	Pit	Fill	Diameter 0.59m. 100% exc by hand. Lower fill of pit [503]. Appears to contain evidence of burning in situ (heat changed and baked clay) so likely to be a small hearth/fire pit. Some natural mixed in with red/pink clay and charcoal traces at base of layer so possibly this is bioturbation into surrounding natural rather than part of the layer as such. Contains frequent pieces of baked clay, occasional charcoal, 1 piece pot, rare subrounded pebbles.	0.08m	Soft pinky brown silty clay
505	Pit	Fill	Diameter 0.76m. Upper fill of pit [503]. Appears to be small hearth and subsequently infilled (between stones) by natural silting. Not in immediate vicinity of roundhouses in north of site (approx 60m away) so probably some peripheral activity, rather than domestic,	0.08m	Soft brown silty clay
506	Furrow	Cut			
507	Furrow	Fill			
508	Furrow	Cut			
509	Furrow	Fill			

Trench 6

Length: 30 Width: 1.5 Orientation: North to south

Context summary:

Context	Feature	Context	Description	Height/depth	Deposit description
600	Topsoil	Layer	Brown/yellow/grey silt, occasional pebbles >30mm	0.50m	Loose brownish grey silt
601	Subsoil	Layer	brownish/yellow/grey	0.7m	brownish yellow
602	Natural	Layer	Boulder clay containing frequent pebbles of flint/chert. Limestone > 20mm		brownish yellow
603	Furrow	Cut			
604	Furrow	Fill			

Trench 7

Length: 30 Width: 1.5 Orientation: East to west

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
700	Topsoil	Layer		0.34m	Friable greyish brown silty clay
701	Subsoil	Layer	Moderate limestone	0.33m	Moderately Compact brownish orange silty clay
702	Natural	Layer	Frequent limestone fragments	0.33m	Compact yellow clay
703	Furrow	Fill			Moderately Compact greyish brown silty clay
704	Furrow	Cut			

Trench 8

Length: 30 Width: 1.5 Orientation: North to south

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
800	Topsoil	Layer		0.28m	Friable blackish brown silty clay
801	Subsoil	Layer	Subsoil/colluvium	0.72- 0.80m	Moderately Compact brownish orange clay silt
802	Natural	Layer			

Trench 9

Length: 30 Width: 1.5 Orientation: North-east to south-west

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
900	Topsoil	Layer		0.38m	Friable blackish brown clay silt
901	Subsoil	Layer	Moderate limestone	0.42m	Moderately Compact orangey brown silty clay
902	Natural	Layer			Compact yellowish orange clay
903	Furrow	Fill			
904	Furrow	Cut			
905	Furrow	Fill			
907	Furrow	Fill			
908	Furrow	Cut			
909	Furrow	Fill			
910	Furrow	Cut			

Trench 10

Length: 30 Width: 1.5 Orientation:

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
1000	Topsoil	Layer	Same as (100) (700) (800)		
1001	Subsoil	Layer	same as (701) etc		
1002	Natural	Layer	frequent limestone gravels and fragments		Compact yellowish blue clay

Trench 11

Length: 30 Width: 1.5 Orientation: North-west to south-east

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
1100	Topsoil	Layer	Sandy clay silt. Frequent rooting, occasional pebbles and cobbles (chalk and flint)	0.27m	Soft greyish brown sandy
1101	Subsoil	Layer	Moderate rooting, moderate chalk and flint (all sizes up to cobble)	0.17m	Firm yellowish brown clay silt
1102	Natural	Layer	with blue grey and reddish (?) patches and banding. Moderate stone same as (1101), occasional rooting.		Compact yellowish brown clay
1103	Furrow	Cut			
1104	Furrow	Fill			
1105	Furrow	Cut			
1106	Furrow	Fill			
1107	Furrow	Cut			
1108	Furrow	Fill			
1109	Furrow	Cut			
1110	Furrow	Fill			
1111	Furrow	Cut			
1112	Furrow	Fill	Furrows filled by a compacted mid grey brown clayey silt with moderate pebbles and cobbles (chalk, flint and sandstone,		

Trench 12

Length: 30 Width: 1.5 Orientation: L-shaped

Context summary:

Context	Feature	Context	Description	Height/ depth	Deposit description
1200	Topsoil	Layer	Frequent rooting. Rare small subangular stones, rare	0.17- 0.20m	Soft brown clay silt

			modern debris, plastic and bricks		
1201	Subsoil	Layer	Rare rooting, occasional limestone flecks, patches of charcoally material either side of E-W trench to eastern end, so cut by post medieval features, associated with concentration of brick - probably modern subsoil	0.22m	Moderately Compact yellowish brown clay silt
1202	Natural	Layer	Frequent limestone flecks, rare subangular stones		Moderately Compact yellowish brown clay
1203	Furrow	Cut	N-S, W. 0.83m		
1204	Furrow	Fill	Occasional subrounded pebbles and stones <80mm (1206) and (1208) same as (1204)		Moderately Compact grey brown silty clay
1205	Furrow	Cut	N-S, W. 0.88m		
1206	Furrow	Fill			
1207	Furrow	Cut	N-S W. 0.93m		
1208	Furrow	Fill			

Trench 13

Length: 30

Width: 1.5

Orientation: East to west

Context summary:

Context	Feature	Context	Description	Height/depth	Deposit description
1300	Topsoil	Layer	Frequent rooting, rare subangular stones, very rare charcoal flecks	0.26m	Soft brown clay silt
1301	Subsoil	Layer	yellow, greyish brown, silty clay. Rare rooting. Occasional small subangular stones and limestone flecks, rare charcoal flecks.		Soft yellowish brown silty clay
1302	Natural	Layer	Frequent limestone flecks, rare subangular pebbles and stones with patches of more orangey brown sandy clay with abundant small to medium subangular stones <80mm		Soft yellowish brown sandy clay
1303	Furrow	Cut	Linear N-S w 1.14m		
1304	Furrow	Fill	Occasional flecks charcoal occasional small to large 120mm subangular stones rare pieces chert		Soft greenish brown silty clay
1305	Furrow	Cut	Linear, N-S, W 0.85m, Field drain visible in slot		
1306	Furrow	Fill	Same as (1304)		
1307	Furrow	Cut	Linear N-S, W 2.42m In line with extant		

1308	Furrow	Fill	Same as (1304)
1309	Furrow	Cut	Linear N-S. W 2.32m (in line with extant)
1310	Furrow	Fill	

Appendix 2: Summary of project archive

TYPE	DETAILS*
Artefacts and Environmental	Animal bones, Ceramics, Environmental, Worked stone/lithics
Paper	Context sheet, Drawing, Photograph, Plan, Report, Section
Digital	Database, GIS, Images raster/digital photography, Text

*OASIS terminology

Appendix 3: Oasis report form

PROJECT DETAILS	
Project name	Avanti Fields School
Short description of the project	An archaeological evaluation and earthwork survey was undertaken by Worcestershire Archaeology (WA) during September to November 2019 at Avanti Fields School, Leicester.
Project dates	Start: 24-09-2019 End: 07-11-2019
Previous/future work	Yes / Not known
Any associated project reference codes	P5700 - Contracting Unit No.
Type of project	Field evaluation
Site status	None
Monument type	DITCH Late Prehistoric
Monument type	PIT Late Prehistoric
Monument type	RIDGE AND FURROW Uncertain
Significant Finds	CERAMIC Late Prehistoric
Significant Finds	BONE Uncertain
Significant Finds	FLAKE Uncertain
Methods & techniques	Sample Trenches, Topographic Survey
Development type	Public building (e.g. school, church, hospital, medical centre, law courts etc.)
Prompt	National Planning Policy Framework – NPPF
Position in the planning process	Between deposition of an application and determination
PROJECT LOCATION	
Site location	Avanti Fields School, Leicester, Leicestershire
Study area	3.8 Hectares
Site coordinates	NGR - SK 6260 0648
PROJECT CREATORS	
Name of Organisation	Worcestershire Archaeology
Project design originator	Orion Heritage
Project director/manager	Tom Rogers

Project supervisor	Andrew Walsh
PROJECT ARCHIVES	
Physical Archive recipient (other)	Leicester Museums and Galleries
Physical Contents	Animal Bones, Ceramics, Worked stone/lithics
Digital Media available	GIS, Images raster / digital photography
Paper Archive recipient (other)	Leicester Museums and Galleries
Paper Media available	Context sheet, Diary, Drawing, Plan, Report, Section
PROJECT BIBLIOGRAPHY	
Title	Archaeological evaluation and earthwork survey at Avanti Fields School, Leicester
Author(s)/Editor(s)	Walsh, A
Other bibliographic details	2765
Date	2020
Issuer or publisher	Worcestershire County Council
Place of issue or publication	Worcester