



Hallgates to Elms Farm Leicestershire

Overarching Written Scheme of Investigation for Post-consent
Archaeological and Geoarchaeological Evaluation

Document Ref.: 294344.04
December 2025



© Wessex Archaeology Ltd 2025, all rights reserved

Unit R6
Sheaf Bank Business Park
Prospect Road
Sheffield
S2 3EN

www.wessexarch.co.uk

Wessex Archaeology Ltd is a company limited by guarantee registered in England, company number 1712772. It is also a Charity registered in England and Wales number 287786, and in Scotland, Scottish Charity number SC042630. Our registered office is at Portway House, Old Sarum Park, Salisbury, Wiltshire, SP4 6EB

Disclaimer

The material contained in this report was designed as an integral part of a report to an individual client and was prepared solely for the benefit of that client. The material contained in this report does not necessarily stand on its own and is not intended to nor should it be relied upon by any third party. To the fullest extent permitted by law Wessex Archaeology will not be liable by reason of breach of contract negligence or otherwise for any loss or damage (whether direct indirect or consequential) occasioned to any person acting or omitting to act or refraining from acting in reliance upon the material contained in this report arising from or connected with any error or omission in the material contained in the report. Loss or damage as referred to above shall be deemed to include, but is not limited to, any loss of profits or anticipated profits damage to reputation or goodwill loss of business or anticipated business damages costs expenses incurred or payable to any third party (in all cases whether direct indirect or consequential) or any other direct indirect or consequential loss or damage

Document Information

Document title	Hallgates to Elms Farm, Leicestershire OSWF
Document subtitle	Overarching Written Scheme of Investigation for Post-consent Archaeological and Geoarchaeological Evaluation
Document reference	294344.04
On behalf of	Severn Trent Water
Address	Financial Operations PO BOX 5345 Coventry CV3 9FU
NGR	453403 311449 to 452654 305960
Planning authority	Charnwood Borough Council / Hinckley and Bosworth Borough Council
Project management by	Thomas Piggott
Document compiled by	Jon Sanigar

Quality Assurance

Issue	Date	Author	Approved by
1	18/12/2025	JS/TP	TP/DH

Thomas Piggott



Contents

1	INTRODUCTION	1
1.1	Project background	1
1.2	Scope of document	1
1.3	Location, topography and geology	2
2	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	2
2.1	Introduction.....	2
2.2	Previous Investigations	3
2.3	Archaeological and historic background.....	4
3	AIMS AND OBJECTIVES	6
3.1	General aims	6
3.2	General objectives.....	7
4	ARCHAEOLOGICAL EVALUATION	7
4.1	Introduction.....	7
4.2	Setting out of the trenches	8
4.3	Service location and other constraints	8
4.4	Excavation methods	8
4.5	Recording	9
4.6	Survey	9
4.7	Monitoring.....	10
4.8	Reinstatement	10
4.9	Finds.....	10
4.10	Environmental sampling	11
4.11	Post-fieldwork methods	11
5	ARCHAEOLOGICAL MONITORING AND RECORDING	12
5.1	Introduction.....	12
5.2	Service location and other constraints	13
5.3	Watching brief methods.....	13
5.4	Recording	13
5.5	Survey	14
5.6	Monitoring.....	14
5.7	Finds.....	14
5.8	Environmental sampling	15
5.9	Stratigraphic evidence	15
5.10	Finds evidence	15
5.11	Environmental evidence	16
6	GEOARCHAEOLOGICAL EVALUATION	16
6.1	Introduction.....	16
6.4	Excavation methods	17
6.5	Palaeoenvironmental sampling	18
6.6	Recording	19
6.7	Reinstatement	20
6.8	Finds.....	20
7	REPORTING	25
7.1	Reporting.....	25
8	ARCHIVE STORAGE AND CURATION	26
8.1	Museum.....	26
8.2	Transfer of title	26
8.3	Preparation of archive	26



8.4	Selection strategy	27
8.5	Security copy	27
9	PUBLIC ENGAGEMENT AND COMMUNITY OUTREACH	27
9.2	Research Themes	27
9.3	Potential Outreach Opportunities	28
10	COPYRIGHT	29
10.1	Archive and report copyright	29
10.2	Third party data copyright.....	29
11	WESSEX ARCHAEOLOGY PROCEDURES.....	29
11.1	External quality standards	29
11.2	Personnel	29
11.3	Internal quality standards	30
11.4	Health and safety	30
11.5	Insurance.....	31
	REFERENCES	32
	APPENDICES.....	36
	Appendix 1 Finds and environmental specialists	36
	Appendix 2: Geoarchaeological Technical Note	38

List of figures

Figure 1	Site Location Plan
Figure 2	Proposed Interventions for each land parcel
Figure 3.1-3.17	Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Interpretation.



Hallgates to Elms Farm Leicestershire

Overarching Written Scheme of Investigation for Archaeological and Geoarchaeological Evaluation

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology has been commissioned by Severn Trent Water ('the Client') to produce an Overarching Written Scheme of Investigation (OWSI) for the development of a proposed pipeline located between Bradgate Park, Newtown Linford, Leicester and the village of Groby, Leicester (hereafter 'the Scheme, Figure 1), from NGR 453403 311449 to NGR 452654 305960.

1.1.2 Earlier discussions were undertaken with Richard Clarke, archaeological advisor to the local planning authority, regarding the proposed pipeline mitigation strategy. Richard Clarke outlined the need for a geophysical survey followed by an appropriate programme of archaeological evaluation. The geophysical survey was completed in August and November 2025.

1.1.3 This OWSI establishes the approaches and methods for archaeological and geoarchaeological evaluation of the Proposed Scheme as set out in the accompanying Archaeological Management Strategy (AMS; WA 2025c). These comprise:

- Geoarchaeological evaluation
- Archaeological trial trench evaluation; and
- Archaeological Monitoring and Recording.

1.2 Scope of document

1.2.1 The purpose of this document is to establish the overarching methods and approaches for archaeological and geoarchaeological evaluation.

1.2.2 This OWSI sets out the aims and objectives of the evaluation, and the methods and standards that will be employed. It conforms to current best practice, as well as the Chartered Institute for Archaeologists' relevant standards and guidance (CIfA 2014a; 2023a–b) and the guidance in *Management of Research Projects in the Historic Environment* (MoRPHE; Historic England 2015a), *Geoarchaeology: using earth sciences to understand the archaeological record* (Historic England 2015b), *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (Historic England 2011) and *Curating the Palaeolithic* (Historic England 2023).

1.2.3 This document will be submitted to the archaeological advisor at Leicestershire County Council for approval.

1.2.4 Site-specific archaeological method statements (SSAMS) will be prepared to accompany the OWSI, which will be used to define the scope and methods to be followed for specific areas or for a single type of mitigation. For example, a SSAMS may be used to determine



the approach to the archaeological evaluation for the entire Site. The SSAMS will conform to the methodology and techniques defined in this OWSI, and if any variation is required, this will be outlined within the SSAMS. The SSAMS will be approved by the archaeological advisor to the local planning authority prior to the commencement of works.

1.2.5

1.3 Location, topography and geology

1.3.1 The Site comprises the route of a proposed pipeline approximately 10.4 km long (**Figure 1**). It lies just outside of Leicester, and while the immediate surroundings of the northern area of the Scheme are more agricultural, the middle and southern areas are surrounded by more dense areas of occupation.

1.3.2 The northern part of the Site (from Anstey to Bradgate Park) begins north of Bradgate Park, before running through agricultural fields around Cropston Reservoir and crossing southwest through agricultural fields before ending at Bradgate Road to the south of Bradgate Park. The Site gradually travels south but curves around the outskirts of the village of Groby through agricultural fields.

1.3.3 An individual section lies south-east of Ratby within two grass covered fields just north of a vegetation-lined watercourse (connected to Rothley Brook) crossing on a north-east to south-west alignment. The section is approximately 215 m in length and is immediately surrounded by grass covered fields in all directions.

1.3.4 The topography across the Site undulates and is recorded between approximately 70m and 113m OD. Generally, local topography falls towards Rothley Brook.

Geology

1.3.5 Bedrock geology across the Site varies. Section 1 predominantly lies within areas recorded as Gunthorpe Member and Edwalton Member mudstones. However, there are also small pockets of Cotgrave Sandstone Member, and Bradgate Formation comprising thinly bedded and laminated mudstones, siltstones and sandstones. Section 2 predominantly comprises Edwalton Member but also has areas of Gunthorpe Member and Cotgrave Sandstone Member. Section 3 lies entirely within an area of Gunthorpe Member mudstone (BGS 2025).

1.3.6 Similarly, superficial deposits recorded within the Study Area are varied with the largest being Oadby Till Member comprising sand, gravel, clay and silt. There are also areas of Head, Glaciofluvial Deposits, River Terrace Deposits, Alluvium and Colluvium as shown on BGS mapping (2025).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological and historical background was assessed in a prior Archaeological Desk-based Assessment (ADBA) (Wessex Archaeology 2025a), which considered the recorded historic environment resource within a 500m study area of the draft Order Limits. A summary of the results of these investigations is presented below, with relevant entry numbers from the Leicestershire & Rutland Historic Environment Record (L&RHER) and the National Heritage List for England (NHLE) included. Additional sources of information are referenced, as appropriate.

2.2 Previous Investigations

2.2.1 Two non-invasive archaeological investigations were undertaken by Wessex Archaeology within the Site as part of the proposed development, comprising an ADBA and geophysical survey. The results of which are summarised below.

2.2.2 The ADBA (Wessex Archaeology 2025a) noted multiple previous archaeological investigations that fall within the Site, which are summarised below with associated L&RHER references.

Archaeological Desk-Based Assessment (Wessex Archaeology 2025a)

2.2.3 In July 2025, Wessex Archaeology produced an ADBA (Wessex Archaeology 2025a). The report assessed the known and potential archaeological remains present within and surrounding the Site.

2.2.4 The archaeological assessment divided the Site into three sections (Sections 1, 2 and 3). It identified archaeological interest within Sections 1 and 2, characterised by the potential for remains dating from the Anglo-Saxon period to the nineteenth century, as well as a broader potential for Prehistoric and Romano British archaeology inferred from activity recorded in the surrounding landscape. Section 3 was only considered to have limited potential for Romano British remains, due to its proximity to a Roman road. The assessment concluded that, in the absence of previous archaeological investigations within the Study Area, the presence, location and significance of any buried archaeological remains across the Site could not be confirmed on the basis of the information available at the time.

Geophysical Survey (Wessex Archaeology 2025b)

2.2.5 To further inform the proposal a geophysical survey was undertaken on the Scheme in August and November 2025. The survey was undertaken on 78.5 ha of the Site. A number of possible archaeological anomalies were encountered these included:

- U shaped anomaly 4104 within LP_004 (Figure 3.1);
- Positive linear feature 4102 within LP_008 (Figure 3.3);
- L-shaped anomaly 4103 within LP_018 (Figure 3.5);
- Positive linear feature 4201 within LP_027 (Figure 3.8);
- Positive linear feature 4202 within LP_043 (Figure 3.13); and
- A series of anomalies located within LP_058 – LP060 (Figure 3.17)

2.2.6 In addition to the anomalies identified as possibly archaeological, a number of weaker anomalies were also identified across the Scheme, with many potentially relating to former field boundaries. Evidence of ridge and furrow cultivation were noted in various land parcels along with areas of ferrous disturbance.

Section 1

2.2.7 An area just east of Cropston Reservoir was subject to fieldwalking in 2000 (ELE4748). The fieldwalking here recovered seven sherds of Potters Marston and other medieval pottery. Fieldwork near the reservoir (ELE254) recorded a medieval farmyard which the pottery is likely associated with.



- 2.2.8 Two watching briefs undertaken in 1998 and 2017 (ELE12383, ELE11283) were recorded crossing Section 1. The 1998 works observed no archaeological features but finds included medieval spindle whorls and post-medieval and modern metal scraps and buttons. The 2017 watching brief carried out by Wessex Archaeology recorded three areas of ridge and furrow cultivation which were visible in LiDAR survey.

Section 2

- 2.2.9 The Site lies just metres north of a large geophysical survey (ELE11928) conducted in 2023, which identified six clusters of archaeological remains that chiefly comprised enclosures and ring ditches, but also included medieval or post-medieval ridge and furrow cultivation. The survey identified a pair of possible Iron Age or Romano-British rectangular enclosures (MLE19828) near the Site. Archaeological evaluation (ELE7687) conducted immediately adjacent to Section 2 and within the area of the geophysical survey (ELE11928) recorded a single undated linear feature which is probably associated with the enclosures.

- 2.2.10 Just south of these enclosures (MLE19828), fieldwalking (ELE877) recorded a scatter of Roman pottery, roof slate, tile, and several kiln bars (MLE2770) c.260 m west of the present Site. Additional fieldwalking (ELE58) was carried out further south, along the line of the A46, and identified flint scatters and Iron Age to postmedieval pottery sherds.

Section 3

- 2.2.11 A watching brief of pipeline works was undertaken by Wessex Archaeology in 2014 which passed immediately south of Section 3 (ELE9385). The results of that watching brief show that the area to the north of the motorway was extensively disturbed during the construction of the M1, with the area built up with spoil during its construction. Ground disturbance was also recorded due to modern services. Unstratified 19th and 20th century pottery was found during stripping, and a small plough furrow was discovered; however, no other archaeological features or deposits were observed during groundworks.

2.3 Archaeological and historic background

Section 1

- 2.3.1 Outside of the study area, a nationally significant Upper Palaeolithic site is recorded within Bradgate Park, near the remains of Bradgate house. A large group of worked flints was recovered from an eroding footpath in 2001, and a second large collection was recovered between 2002 and 2008. The assemblage comprises over 2,000 pieces and includes tools, tool by-products, larger debitage, and micro-debitage related to the initial re-occupation of the country following the Last Glacial Maximum.
- 2.3.2 One of the earliest known heritage assets within the study area is a flint blade (MLE15734) which was found c. 500 m southeast of the southern end of Section 1. The blade is thought to be late Mesolithic or Early Neolithic in date. A number of other prehistoric finds have been recorded within the vicinity of Section 1. These include further flint findspots (MLE7161, MLE17465) as well as Iron Age pottery (MLE6458) dispersed over 170 m from the Site. An Iron Age or Roman beehive quern (MLE6562) was also found near Bradgate Road north of the reservoir.
- 2.3.3 Evidence of possible Romano-British settlement is found near Section 1 and is well dispersed, with three separate settlement areas recorded between 85 m and 270 m from Section 1. These Roman sites are located near Bybrook Lodge Farm (MLE1037), west of Cropston (MLE1045) and northwest of Anstey (MLE735). Further Romano-British evidence within the vicinity of Section 1 includes a possible Roman road (MLE10657) as well as scattered Roman pottery finds. The possible road is recorded c. 500 m from the Site to the



east, however if it were to continue on its north-west to south-east alignment, it may cross through the Site.

- 2.3.4 Anglo-Saxon evidence around Section 1 is limited to a brooch (MLE6120) found near Bybrook Lodge Farm and a Viking coin hoard (MLE1042) west of Cropston. However, whilst the historic medieval core of Cropston is recorded by the L&RHER (MLE1044) c. 20 m south-east of the Site, Cropston may have earlier origins as its name means 'Kroppr's farm' in Old English.
- 2.3.5 Medieval settlement is better known within the study area and comprised Cropston as well as small farmsteads such as the one recorded 60 m north-west of the Site (MLE744). Furthermore, there are many areas of ridge and furrow recorded within the study area and this section crosses through two of these. They are recorded south of Horseshoe Cottage (MLE21938) and near Anstey (MLE29450). Bradgate Park, which originated in the medieval manor estate, was extended during the 16th and 17th centuries, and formal gardens were laid out. The park was extended at the turn of the sixteenth century when Bradgate House (NHLE 1008831) was constructed. The house was reputedly completed c.1520 and was the childhood home of Lady Jane Grey (1537–54). In the 1740s and 1790s the park was enclosed by a two-metre-high stone wall and contained walled plantations.
- 2.3.6 Section 1 passes north of Cropston Reservoir (MLE16810) which was built in the late 1860s by the Leicester Water Works Company and some of the pumping station (MLE28999) assets are Listed Buildings (NHLE 1074630, 1074631, 1074632, 117808, 11178122). The section loops around the outside of the pumping station before passing south of the reservoir towards Bradgate Road.
- 2.3.7 Ordnance Survey (OS) mapping from 1904 is similar to that of the late 19th century and OS mapping to 1966, in addition to modern satellite imagery, shows that the Site has not undergone any significant, noticeable changes, with only a few minor field boundary changes evident.

Section 2

- 2.3.8 Five areas of possible Iron Age occupation are recorded within the study area north of Groby. The Site crosses through one of these (MLE411) where evaluation outside of the Site has recorded probable Iron Age features and artefacts including shallow circular gullies - evidence of round houses - in addition to Iron Age pottery and a struck flint. A second settlement area (MLE19828) is 70 m southwest of Section 2, while a third (MLE6554) is 260 m southwest of the Site.
- 2.3.9 The Iron Age settlements recorded in and near Section 2 continued into the Romano-British period. Romano-British finds were recorded during evaluation work at the possible Iron Age site (MLE411) which Section 2 lies within. To the west of the Site, the presumed settlement sites (MLE2770, MLE24279) comprise possible enclosures, pits and kilns, with finds including pottery, tile, and part of a human skull. It is thought that this may be the location of a Roman villa site. The site to the east of Section 2 (MLE413) is interpreted as a low status Romano-British occupation site with possibly earlier origins.
- 2.3.10 Other Romano-British assets within the surrounding area include Roman roads (MLE10657, MLE4345) near the northern and southern ends of the route, and findspots for a Roman coin (MLE7700) and pottery (MLE7731).
- 2.3.11 Medieval settlement within the study area is largely recorded near Glenfield Conservation Area where the 'Moated site and garden enclosure at Glenfield' Scheduled Monument

(NHLE 1017680), among other assets, is located. The Scheduled Monument possibly dates to the 13th or 14th centuries. Areas of ridge and furrow are also recorded in some fields west and south-west of Anstey and Section 2 crosses through one of these areas near Bradgate Road.

- 2.3.12 The Site also crosses through a possible medieval park boundary (MLE29075) north of Groby which was identified through the Charnwood Roots Project. The unusual pattern of curving field boundaries was interpreted as a potential deer park and in four locations the boundary survived as a bank.
- 2.3.13 As with Section 1, there are many post-medieval and 19th century heritage assets within the study area recorded near Glenfield Conservation Area where settlement was concentrated. OS mapping from 1884 and 1885 shows the Site lies predominantly within agricultural fields. The Site also crosses Groby Road where a turnpike road (MLE20653) is recorded along the route of the A50.
- 2.3.14 Modern heritage assets near Section 2 are mostly related to industrial and commercial activity and include a former shoe factory (MLE28722), a disused sand pit (MLE29445), and the site of a demolished engine house (MLE29427). These are all over 270 m from Section 2 near Glenfield.
- 2.3.15 As with Section 1, OS mapping from 1885 to 1966 shows that Section 2 has undergone few significant noticeable changes despite wider expansion of settlements within the surrounding area. Field boundaries remain largely the same, with only a few minor changes.

Section 3

- 2.3.16 no evidence of prehistoric activity has been identified within proximity to Section 3.
- 2.3.17 Romano-British remains near Section 3 are generally found to the north near Ratby and include pottery, coins, and brooches (MLE15778, MLE3116). The closest to the Site was found approximately 45 m north of Section 3 in the 1980s and comprised 10 sherds of Roman greyware pottery (MLE3116). A watching brief was undertaken c. 400 m north-west of the Site on Ferndale Drive during the development of a housing estate between 2001 and 2003. The watching brief revealed many finds from the Romano-British period, including two brooches (MLE15778).
- 2.3.18 Medieval remains are limited surrounding Section 3. However, findspots of medieval pottery (MLE15779) was recorded at the watching brief c. 400 m north of the Site, and medieval coins dated to the late 15th century (MLE6798) have been recorded approximately 100 m south-west of the Site.
- 2.3.19 OS mapping from the late 19th century shows Section 3 lies across a field boundary and north of a water course on a north-east to south-west alignment.
- 2.3.20 OS mapping from 1885 to 1966, as well as mid-20th century aerial photographs and 21st century satellite imagery shows that Section 3 has not experienced any significant changes.

3 AIMS AND OBJECTIVES

3.1 General aims

- 3.1.1 The general aims (or purpose) of the field evaluation, in compliance with the *ClfA Standard and guidance for archaeological field evaluation* (ClfA 2023a), are to:



- provide further information about the archaeological and geoarchaeological potential of the Site;
- to inform decision-making on appropriate responses to the archaeological and geoarchaeological resource, by establishing the likely significance of remains and deposits encountered; and
- Based upon the results of the evaluation, develop a research agenda to support the developing scope, aims, and objectives for a proportionate mitigation strategy.

3.2 General objectives

3.2.1 In order to achieve the above aims, the general objectives are to:

- undertake a programme of archaeological trial trenching to determine the presence or absence of archaeological features, deposits, structures, artefacts or ecofacts within the Site;
- establish, within the constraints of the archaeological trial trenching evaluation, the extent, character, date, condition, quality and significance of any surviving archaeological remains;
- undertake a program of targeted geoarchaeological works to establish the potential of any Quaternary geological deposits present to preserve archaeological (artefacts, archaeological layers etc) and/or palaeoenvironmental remains;
- establish, within the constraints of the geoarchaeological evaluation, the extent, character and date of geoarchaeological deposits, and significance of any contained geoarchaeological remains;
- make available information about the archaeological and geoarchaeological resource within the Site by reporting on the results of the evaluation; and
- make recommendations for further mitigative archaeological and geoarchaeological works, where appropriate,

4 ARCHAEOLOGICAL EVALUATION

4.1 Introduction

- 4.1.1 Compliance with health and safety regulations and requirements will take priority over archaeological considerations in all works.
- 4.1.2 The density, quantity and location of the trenches/test pits proposed for field evaluation have been set out within this OWSI and the accompanying AMS and agreed upon with the archaeological advisor to the local planning authority, as required.
- 4.1.3 The trench locations have been selected in order to sample probable and possible archaeological features identified through the geophysical survey and also apparent 'blank' areas.
- 4.1.4 The results of the archaeological trial trench evaluation will inform the location and scope of any further mitigation works that may be required.
- 4.1.5 **Appendix 2** includes the total number of archaeological trial trenches that have been split up into land parcels as laid out in the AMS. These are based on a 2% sample of each land parcel where archaeological evaluation has been recommended.



4.2 Setting out of the trenches

- 4.2.1 All archaeological trial trenches will be set out using a Global Navigation Satellite System (GNSS) or similar in the positions shown in **Figures 3**, . Minor adjustments to the layout may be required to take account of constraints such as vegetation or located services, and to allow for machine manoeuvring. The trench locations will be tied into the Ordnance Survey (OS) National Grid and Ordnance Datum (OD) (Newlyn), as defined by OSTN15 and OSGM15.

4.3 Service location and other constraints

- 4.3.1 The Client has provided information regarding the presence of any below/above-ground services, and any ecological, environmental or other constraints. These have been used in determining locations of archaeological trial trenches.
- 4.3.2 Before excavation begins, the archaeological trial trench evaluation area will be walked over and visually inspected to identify, where possible, the location of any below/above-ground services. All archaeological trial trench locations will be scanned before and during excavation with a Cable Avoidance Tool (CAT) to verify the absence of any live underground services.

4.4 Excavation methods

Archaeological trial trenches

- 4.4.1 The archaeological trial trenches will be 50m x 2m in extent. They will be excavated using a 360° tracked excavator equipped with a toothless bucket. Machine excavation will be under the constant supervision and instruction of the monitoring archaeologist. Machine excavation will proceed in level spits of approximately 50–200 mm until the upper-most archaeological horizon or geological substrate is exposed. Where necessary, the base of the trench/surface of archaeological deposits will be cleaned by hand. The bases of trenches will be metal-detected by trained archaeologists, where appropriate.
- 4.4.2 All archaeological features and deposits identified will be hand-excavated, unless by agreement with the archaeological advisor for the local planning authority. Spoil (derived from machine stripping and hand-excavation) and any archaeological features will be visually scanned, and metal detected for the purpose of finds retrieval. Artefacts and other finds will be collected and bagged by context.
- 4.4.3 The following sampling strategy shall be followed:
- Linear features will be hand excavated to achieve a 10% sample along their length, with a minimum section width of 1.00 m;
 - The termini of any linear features will be 100% excavated;
 - Discrete features will be hand excavated to achieve a 50% sample;
 - Significant bonded or structural remains building slots or postholes will be preserved intact for excavation in more appropriate circumstances, even if fills are sampled; and
 - Complex features such as hearths, will be 100% hand excavated, unless part of a larger structure where cleaning and preservation for excavation in appropriate circumstances would be required or where archaeomagnetic dating is being considered.



- 4.4.4 If an exceptional number and/or complexity of archaeological deposits are identified, sample excavation will aim to be minimally intrusive, but sufficient to resolve the principal aims of the evaluation, to a level agreed by the relevant planning authority under requirement.
- 4.4.5 Intersections between features will be avoided when excavating sample sections to maximise uncontaminated material and avoid removing evidence of relationships in confined circumstances. The surface of the features will be cleaned to establish the relationship as far as possible. More substantial features that extend beyond the limit of the excavation will be recorded in plan only, particularly where partial excavation has the potential to impede later characterisation, chronological assumptions or preservation of fragile artefacts such as waterlogged deposits. Where required, trenches and features deeper than 1.2m will be stepped once.
- 4.4.6 If human remains are uncovered, the specific methods outlined below (section 4.9) will be followed.
- 4.4.7 Where complex archaeological stratification is encountered, deposits will be left *in situ* and alternative measures taken to assess their depth, as agreed with the archaeological advisor at the local planning authority. Where modern features are seen to truncate the archaeological stratification, these may be removed, where practicable, in a manner that does not damage the surrounding deposits, to enable the depth of stratification to be assessed.

Hand-dug test pits

- 4.4.8 Following machine excavation of the archaeological trial trenches, up to 3 hand-dug test pits will be excavated within selected archaeological trial trenches. These will be positioned at the end of trenches and/or within the centre as required. Approximate locations are highlighted in **Figures 3.1-3.17**.
- 4.4.9 The hand-dug test pits will be approximately 1 x 1 m and will be excavated in 5 cm spits to a maximum depth of 0.3m. The purpose of the test pits is to assess the potential presence of lithic artefacts within the upper horizons of the natural geology encountered. Any artefacts or ecofacts recovered will be recorded to test pit and spit.

4.5 Recording

- 4.5.1 All exposed archaeological deposits and features will be recorded using Wessex Archaeology's pro forma recording system.
- 4.5.2 A complete record of excavated archaeological features and deposits will be made. This will include plans and sections, drawn to appropriate scales (generally 1:20 or 1:50 for plans, 1:10 for sections) and tied to the OS National Grid.
- 4.5.3 A full photographic record will be made using digital cameras equipped with an image sensor of not less than 16 megapixels. This will record the detail and general context of the principal features and the site. Digital images will be subject to managed quality control and curation processes, which will embed appropriate metadata within the image and ensure long term accessibility of the image set. Photographs will also be taken of all areas, including access routes, to provide a record of conditions prior to and on completion of the evaluation.

4.6 Survey

- 4.6.1 The real time kinematic (RTK) survey of all archaeological trial trenches and features will be carried out using a Leica GNSS connected to Leica's SmartNet service. All survey data



will be recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.

4.7 Monitoring

- 4.7.1 The archaeological advisor to the local planning authority will be made aware of the start of the archaeological trial trench evaluation and its progress. Access will be arranged for the archaeological advisor at the local planning authority to make site visits to inspect and monitor the progress of the archaeological trial trench evaluation.

4.8 Reinstatement

- 4.8.1 The archaeological trial trenches will only be backfilled following inspection by or with the agreement of the archaeological advisor to the local planning authority. Archaeological trial trenches completed to the satisfaction of the client and the archaeological advisor at the local planning authority will be backfilled using excavated materials in the order in which they were excavated, and left level on completion. No other reinstatement or surface treatment will be undertaken.

4.9 Finds

General

- 4.9.1 All archaeological finds will be retained, although those of clearly very recent origin with negligible potential to provide information relevant to the project aims and objectives may be recorded on site and not retained.
- 4.9.2 Where appropriate, soil samples may be taken and sieved to aid in finds recovery. Any finds requiring conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998).

Human remains

- 4.9.3 In the event of discovery of any human remains (articulated or disarticulated, cremated or unburnt), all excavation of the deposit(s) will cease pending Wessex Archaeology obtaining a Ministry of Justice (MoJ) licence (this includes cases where remains are to be left *in situ*).
- 4.9.4 Initially the remains will be left *in situ*, covered and protected, pending discussions regarding the need for excavation/removal or sampling. Where this is deemed appropriate, the human remains will be fully recorded, excavated and removed from site in compliance with the MoJ license. If human remains are discovered, a subsample of the assemblage will be investigated so that an appropriate mitigation strategy can be developed.
- 4.9.5 Excavation and post-excavation processing of human remains will be in accordance with Wessex Archaeology protocols and in-line with current guidance documents (e.g., McKinley 2013) and the standards set out in ClfA Technical Paper 13 (McKinley and Roberts 1993). Appropriate specialist guidance/site visits will be undertaken if required.

Treasure

- 4.9.6 Wessex Archaeology will immediately notify The Client and the archaeological advisor at the local planning authority on discovery of any material covered, or potentially covered, by the *Treasure Act 1996* (as amended by *The Coroners and Justice Act 2009*). All information required by the Act (i.e., finder, location, material, date, associated items etc.) will be reported to the Coroner within 14 days.

4.10 Environmental sampling

- 4.10.1 All sampling will be undertaken following Wessex Archaeology's in-house guidance, which adheres to the principles outlined in Historic England's guidance (English Heritage 2011; Historic England 2015b).
- 4.10.2 Bulk environmental soil samples, for the recovery of plant macrofossils, wood charcoal, small animal bones and other small artefacts, will be taken as appropriate from well-sealed and dateable contexts. In general, features directly associated with particular activities (e.g., pits, latrines, cesspits, hearths, ovens, kilns and crop driers) should be prioritised for sampling over features, such as ditches or postholes, that are likely to contain reworked and residual material. However, this will be considered on a case-by-case basis to identify deposits of interest worthy of sampling.
- 4.10.3 Should deposits such as fired clay be discovered an archaeomagnetic dating specialist would be contacted to assess the suitability for archaeomagnetic dating. This contact would be made remotely and would include photographs of the deposit(s).
- 4.10.4 Features such as cesspits and latrines would also be sampled to assess the presence of remains such as parasites. Further details on the types and methods of samples will be provided in the SSAMS as required.
- 4.10.5 If waterlogged or mineralised deposits are encountered, an appropriate environmental sampling strategy will be agreed with the Archaeological Advisor at Leicestershire County Council. Specialist guidance will be provided by Wessex Archaeology's geoarchaeological and environmental team, with site visits undertaken if required.
- 4.10.6 Any samples will be of an appropriate size – typically 40 litres for the recovery of environmental evidence from dry contexts, and 10 litres from waterlogged deposits. Historic England guidance on the recording sampling and conservation of waterlogged wood shall be consulted as appropriate (Historic England 2010).
- 4.10.7 Following specialist advice, other sampling methods such as monolith, Kubiena or contiguous small bulk (column) samples may be employed to enable investigation of deposits with regard to microfossils (e.g., pollen, diatoms) and macrofossils (e.g., molluscs, insects), soil micromorphological or soil chemical analyses.

4.11 Post-fieldwork methods

Stratigraphic evidence

- 4.11.1 All written and drawn records, and surveyed data from the evaluation will be collated and checked for consistency. Key data will be transcribed into a database, which can be updated during any future analyses. The preliminary phasing of archaeological features and deposits will be undertaken using stratigraphic relationships and the spot dating from finds, particularly pottery, and any other relevant information.
- 4.11.2 A written description will be made of all archaeologically significant features and deposits that were exposed and excavated, ordered either by trench or by period as appropriate. Detail of all contexts will be provided in trench tables in an appendix to the report.

Finds evidence

- 4.11.3 All retained finds will, as a minimum, be washed (as appropriate), weighed, counted and identified. An initial assessment will be made of artefacts to retain organic residues prior to cleaning to determine their potential for organic residue analysis (Historic England 2017).

- 4.11.4 They will then be recorded to a level appropriate to the aims and objectives of the project. Recording and reporting will conform to the Type 2 (Appraisal) level according to the ClfA (n.d. a) *Toolkit for Specialist Reporting*, to include appropriate quantification, characterisation and assessment of significance and potential. The report will include a table of finds by feature/context or trench.
- 4.11.5 Metalwork from stratified contexts will be X-rayed and, along with other fragile and delicate materials, stored in a stable environment. The X-raying of objects and other conservation needs will be undertaken by Wessex Archaeology's conservation staff or another approved conservation centre.
- 4.11.6 Finds will be suitably bagged and boxed in accordance with the guidance given by the relevant museum and ClfA (2014b).

Environmental evidence

- 4.11.7 Bulk environmental soil samples will be processed by standard flotation methods. The residues will be fractionated into 5.6/4 mm and 1/0.5 mm and dried if necessary. The coarse residue fraction (>5.6/4 mm), and the fine fraction when appropriate, will be sorted and discarded, with any finds recovered given to the appropriate specialist. The flot will be retained on a 0.25 mm mesh and scanned to assess the range of environmental remains present and their preservation. Unsorted fine residues will be retained until after any analyses and discarded following final reporting (in accordance with the Selection policy in section 8.4 below).
- 4.11.8 In the case of samples from cremation-related deposits the flots will be retained on a 0.25 mm mesh, with residues fractionated into 4 mm, 2 mm and 1 mm. In the case of samples from inhumation burial deposits, the sample will be wet-sieved through 9.5 mm and 1 mm mesh sizes. The coarse fractions (9.5 mm) will be sorted with any finds recovered given to the appropriate specialist together with the finer residues.
- 4.11.9 Any waterlogged samples will be processed by standard waterlogged flotation methods.
- 4.11.10 Recording and reporting will conform to the Type 2 (Appraisal) level according to the ClfA (n.d. a) *Toolkit for Specialist Reporting*, to include appropriate quantification, characterisation and assessment of significance and potential.

5 ARCHAEOLOGICAL MONITORING AND RECORDING

5.1 Introduction

- 5.1.1 Compliance with health and safety regulations and requirements will take priority over archaeological considerations in all works.
- 5.1.2 All monitoring works across all sections will be undertaken in accordance with the methods set out within this OWSI. Any significant variations to these methods will be agreed in writing with the Archaeological Advisor at Leicestershire County Council and the client prior to being implemented.
- 5.1.3 A number of land parcels have been identified that will be subject to archaeological monitoring and recording during groundworks. These are presented in **Figure 2** and **Appendix 2**. Further areas of archaeological monitoring and recording may be identified following the results of the archaeological evaluation. Where this is necessary, SSAMS will be prepared.



5.2 Service location and other constraints

- 5.2.1 The client and/or their principal contactor will be responsible for the identification and protection of any above- and below-ground services within the watching brief areas. The client and/or their principal contactor will also be responsible for informing Wessex Archaeology of, and delimiting, any other areas of environmental, ecological or other constraints.

5.3 Watching brief methods

- 5.3.1 The watching brief will be undertaken by at least one archaeologist, subject to the number of site operations being carried out at any one time. All mechanical excavation will, where possible, be undertaken using a toothless ditching bucket and will be constantly monitored by the attending archaeologist.
- 5.3.2 Without causing unnecessary delay to the groundwork programme, the archaeologist may ask for the groundwork to be temporarily halted whilst investigations are carried out. If appropriate, areas of archaeological interest will be defined and suitably protected in advance of their investigation and recording.
- 5.3.3 Where necessary, the surface of archaeological deposits will be cleaned by hand. A sample of the archaeological features and deposits identified will be hand-excavated and recorded, sufficient to address the project aims. Spoil from both machine stripping and hand-excavation will be visually scanned for the purposes of finds retrieval and, where appropriate, will also be metal-detected by trained archaeologists. Finds will be collected and bagged by context.
- 5.3.4 If extensive, complex or well-preserved archaeological remains are identified, for which the scope of the approved strategy is insufficient, the monitoring archaeologist will halt the groundwork, delimit the area of archaeological interest, and report immediately to the Wessex Archaeology project manager. Wessex Archaeology will then inform the groundwork contractor, the client, and the Archaeological Advisor at Leicestershire County Council, as a contingent excavation or revised strategy may be required. The programme, and additional resources required for any contingent excavation will be agreed with the client. Accordingly, a SSAMS will need producing and approving by the Archaeological Advisor at Leicestershire County Council before any further fieldwork proceeds.
- 5.3.5 If human remains are uncovered, the specific methods outlined below (section 5.7) will be followed.

5.4 Recording

- 5.4.1 All exposed archaeological deposits and features will be recorded using Wessex Archaeology's pro forma recording system.
- 5.4.2 A complete record of excavated archaeological features and deposits will be made. This will include plans and sections, drawn to appropriate scales (generally 1:20 or 1:50 for plans, 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid.
- 5.4.3 A full photographic record will be made using digital cameras equipped with an image sensor of not less than 16 megapixels. This will record the detail and general context of the principal features and the site. Digital images will be subject to managed quality control and curation processes, which will embed appropriate metadata within the image and ensure long term accessibility of the image set.



5.5 Survey

- 5.5.1 The real time kinematic (RTK) survey of all archaeological features will be carried out using a Leica Global Navigation Satellite System (GNSS) connected to Leica's SmartNet service. All survey data will be recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.
- 5.5.2 If, due to unforeseen circumstances, it is not possible to survey using GNSS equipment prior to the destruction of the material, archaeological features will be located to client plans that are securely tied to OS mapping or structures/features that appear on OS mapping. This will be achieved using hand-held measuring tapes and the basic principles of triangulation.

5.6 Monitoring

- 5.6.1 The client will inform the Archaeological Advisor at Leicestershire County Council of the start of the watching brief and its progress. Reasonable access will be arranged for the Archaeological Advisor at Leicestershire County Council to make site visits to inspect and monitor progress. Any variations to the WSI, if required to better address the project aims, will be agreed in advance with the client and the Archaeological Advisor at Leicestershire County Council.

5.7 Finds

General

- 5.7.1 All archaeological finds will be retained, although those of clearly very recent origin with negligible potential to provide information relevant to the project aims and objectives may be recorded on site and not retained. Where appropriate, soil samples may be taken and sieved to aid in finds recovery. Any finds requiring conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998).

Human remains

- 5.7.2 In the event of discovery of any human remains (articulated or disarticulated, cremated or unburnt), all excavation of the deposit(s) will cease pending Wessex Archaeology obtaining a Ministry of Justice licence (this includes cases where remains are to be left *in situ*).
- 5.7.3 Initially the remains will be left *in situ*, covered and protected, pending discussions between the client, Wessex Archaeology's osteoarchaeologist and the Archaeological Advisor at Leicestershire County Council regarding the need for excavation/removal or sampling. Where this is deemed appropriate, the human remains will be fully recorded, excavated and removed from site in compliance with the MoJ licence.
- 5.7.4 Excavation and post-excavation processing of human remains will be in accordance with Wessex Archaeology protocols and in-line with current guidance documents (e.g., McKinley 2013) and the standards set out in ClfA Technical Paper 13 (McKinley and Roberts 1993). Appropriate specialist guidance/site visits will be undertaken if required.
- 5.7.5 The final deposition of human remains subsequent to the appropriate level of osteological analysis and other specialist sampling/examinations will follow the requirements set out in the MoJ licence.



Treasure

- 5.7.6 Wessex Archaeology will immediately notify the client and the Archaeological Advisor at Leicestershire County Council on discovery of any material covered, or potentially covered, by the *Treasure Act 1996* (as amended by *The Coroners and Justice Act 2009*). All information required by the Act (i.e., finder, location, material, date, associated items etc.) will be reported to the Coroner within 14 days.

5.8 Environmental sampling

- 5.8.1 All sampling will be undertaken following Wessex Archaeology's in-house guidance, which adheres to the principles outlined in Historic England's guidance (English Heritage 2011; Historic England 2015b).
- 5.8.2 Bulk environmental soil samples, for the recovery of plant macrofossils, wood charcoal, small animal bones and other small artefacts, will be taken as appropriate from well-sealed and dateable contexts. In general, features directly associated with particular activities (e.g., pits, latrines, cesspits, hearths, ovens, kilns and crop driers) should be prioritised for sampling over features, such as ditches or postholes, that are likely to contain reworked and residual material.
- 5.8.3 If waterlogged or mineralised deposits are encountered, an appropriate environmental sampling strategy will be agreed with the Archaeological Advisor at Leicestershire County Council. Specialist guidance will be provided by Wessex Archaeology's geoarchaeological and environmental team, with site visits undertaken if required.
- 5.8.4 Any samples will be of an appropriate size – typically 40 litres for the recovery of environmental evidence from dry contexts, and 10 litres from waterlogged deposits.
- 5.8.5 Following specialist advice, other sampling methods such as monolith, Kubiena or contiguous small bulk (column) samples may be employed to enable investigation of deposits with regard to microfossils (e.g., pollen, diatoms) and macrofossils (e.g., molluscs, insects), soil micromorphological or soil chemical analyses.

5.9 Stratigraphic evidence

- 5.9.1 All written and drawn records, and surveyed data from the watching brief will be collated and checked. Key data will usually be transcribed into a database, which can be updated during any further analysis. The preliminary phasing of archaeological features and deposits will be undertaken using stratigraphic relationships and the spot dating from finds, particularly pottery, and any other relevant information.
- 5.9.2 A written description will be made of all archaeologically significant features and deposits that were exposed and excavated, ordered by period/phase and/or feature group as appropriate.

5.10 Finds evidence

- 5.10.1 All retained finds will, as a minimum, be cleaned, weighed, counted and identified. They will then be recorded to a level appropriate to the aims and objectives of the project. Recording and reporting will conform to the Type 1 (Description) level according to the ClfA (n.d. a) *Toolkit for Specialist Reporting*, to include appropriate quantification and characterisation. The report will include a table of finds by feature/context.
- 5.10.2 Metalwork from stratified contexts will be X-rayed and, along with other fragile and delicate materials, stored in a stable environment. The X-raying of objects and other conservation

needs will be undertaken by Wessex Archaeology's conservation staff or another approved conservation centre.

- 5.10.3 Finds will be suitably bagged and boxed in accordance with the guidance given by the relevant museum and ClfA (2014b).

5.11 Environmental evidence

- 5.11.1 Bulk environmental soil samples will be processed by standard flotation methods. The residues will be fractionated into 5.6/4 mm and 1 mm and dried if necessary. The coarse residue fraction (>5.6/4 mm), and the fine fraction when appropriate, will be sorted and discarded, with any finds recovered given to the appropriate specialist. The flot will be retained on a 0.25 mm mesh and scanned to assess the range of environmental remains present and their preservation. Unsorted fine residues will be retained until after any analyses and discarded following final reporting (in accordance with the Selection policy, section 8.4 below).
- 5.11.2 In the case of samples from cremation-related deposits the flots will be retained on a 0.25 mm mesh, with residues fractionated into 4 mm, 2 mm and 1 mm. In the case of samples from inhumation burial deposits, the sample will be wet-sieved through 9.5 mm and 1 mm mesh sizes. The coarse fractions (9.5 mm) will be sorted with any finds recovered given to the appropriate specialist together with the finer residues.
- 5.11.3 Any waterlogged samples will be processed by standard waterlogged flotation methods.
- 5.11.4 Recording and reporting will conform to the Type 1 (Description) level according to the ClfA (n.d. a) *Toolkit for Specialist Reporting*, to include appropriate quantification and characterisation.

6 GEOARCHAEOLOGICAL EVALUATION

6.1 Introduction

- 6.1.1 All works will be undertaken in accordance with the detailed methods set out within this OWSI. Any significant variations to these methods will be agreed in writing with the County Archaeologists for Leicestershire and Staffordshire, as archaeological advisors to the county planning authority, for approval, prior to the start of the evaluation.
- 6.1.2 The evaluation will comprise the excavation, investigation and recording of 41 machine-dug test pits (Figure 3).
- 6.1.3 The fieldwork will be carried out under the supervision of a geoarchaeological specialist experienced in interpreting Pleistocene sediments and identifying Palaeolithic artefacts.

6.2 Fieldwork methods

Setting out of interventions

- 6.2.1 All interventions will be set out using GNSS in the approximate positions shown in **Figures 3.1-3.17**. Minor adjustments to the layout may be required to take account of any on-site constraints such as vegetation or located services, and to allow for machine manoeuvring. Locations will be tied into the Ordnance Survey (OS) National Grid and Ordnance Datum (OD) (Newlyn), as defined by OSGM15 and OSTN15.



Service location and other constraints

- 6.2.2 The client has provided information regarding the presence of any below/above-ground services, and any ecological, environmental or other constraints. Test pits and boreholes have been located to avoid any known constraints.
- 6.2.3 Before works begin, the evaluation area will be walked over and visually inspected to identify, where possible, the location of any below/above-ground services. All intervention locations will be scanned before and during excavation with a Cable Avoidance Tool (CAT) to verify the absence of any live underground services.

6.3 Excavation methods

- 6.3.1 The test pits will be excavated using a 14-tonne 360° mechanical excavator with a toothless bucket. Machine excavation will be under the constant supervision and instruction of the geoarchaeological specialist, who will record and number the sequence of sedimentary units as excavation progresses, following standard descriptive practices. The textural characteristics (grain-size, consolidation, colour, material and sedimentary structures) of sedimentary units will be recorded, along with the shape and nature of their lithostratigraphic contacts (dip, conformity and overall geometry).
- 6.3.2 Machine excavation will proceed in level spits of approximately 50–100 mm, respecting the interface between sedimentary units, until either the bedrock geology is exposed, or further excavation becomes impractical.
- 6.3.3 Test pits will be entered up to the maximum safe depth (usually c. 1.20 m, but less if loose sands/gravel are present) to record the upper stratigraphy. After excavation has progressed beyond this depth, recording will typically take place without entering the test pit. It may be occasionally necessary to widen and step out the upper part of a test pit to allow direct access to its lower part, for instance; for controlled artefact recovery, to investigate the potential for an undisturbed land surface, or for controlled palaeoenvironmental and/or sediment sampling.
- 6.3.4 Sediment samples of at least 100 litres will be taken at regular intervals in stratigraphic succession through the Pleistocene stratigraphy in each test pit and sieved on-site through a 10 mm mesh to investigate whether artefacts and/or macro vertebrate faunal remains are present. These will be disposed of during backfilling following analysis and retention of any artefacts/deposits of value. If the sediment encountered is not suitable for dry-sieving (i.e., too clayey), excavation will proceed in shallower spits of c. 50 mm, looking carefully for the presence of any geoarchaeological evidence, with the spit samples carefully investigated by hand (using archaeological trowels) for any geoarchaeological evidence.
- 6.3.5 If exceptionally complex/significant geoarchaeological deposits are identified, test pitting will aim to be minimally intrusive, but sufficient to resolve the aims of the evaluation
- 6.3.6 If any archaeological features are identified in deposits overlying or cut into or buried by the Quaternary geology, they may be either excavated and recorded (in agreement with the Advisor to the local County Council) or recorded in plan and the location of the test pit moved to avoid disturbance.
- 6.3.7 Where modern features are seen to truncate the geoarchaeological deposits, these may be removed, where practicable.
- 6.3.8 If human remains are uncovered, the specific methods outlined in **Section 6.8.3** will be followed.

6.4 Palaeoenvironmental sampling

- 6.4.1 The potential for Quaternary deposits to preserve palaeoenvironmental evidence will be assessed during excavation of test pits by the geoarchaeological specialist. If deposits with potential are encountered, appropriate samples will be taken following the methodology outlined below.
- 6.4.2 Palaeoenvironmental sampling will be undertaken in accordance with Historic England guidance documents (English Heritage 2011).
- 6.4.3 Generally, samples will be recovered as bulk column samples taken at appropriate stratigraphic intervals, respecting boundaries between sedimentary contexts. However, other sampling methods, such as monoliths, may be employed, as appropriate
- 6.4.4 If safely accessible within test pits, samples will be taken in appropriate stratigraphic intervals from test pit sections cleaned by hand using archaeological tools. If not accessible, samples will be taken from the excavator bucket.
- 6.4.5 The size of the samples to be taken are summarised in **Table 1**.

Table 1 Palaeoenvironmental sampling from geoarchaeological test pits

Indicator	Deposits	Sample size
Ostracods and foraminifera	Waterlain clays, silts and fine sands	150ml
Diatoms	Clays and silts	5ml
Pollen and Non-Pollen Palynomorphs (NPPs)	Clays, silts and peats	5ml
Molluscs	Clays, silts and fine sands and clayey/silty gravels	2l
Small vertebrates	Clays, silts and fine sands and clayey/silty gravels	30l
Large vertebrates	Clays, silts and fine sands and clayey/silty gravels	80l
Plant macrofossils and insects	Organic clays, silts and peat	10l

Sedimentological sampling

- 6.4.6 Samples may be taken for sedimentological assessment.
- 6.4.7 To assist in assessing mode of deposition (e.g., aeolian, alluvial, colluvial etc.) of key sediments, samples of 0.20 litres may be taken from fine grained sediments for particle size analysis.
- 6.4.8 Bulk samples of 30 litres may be taken from clastic sediments for clast lithological analysis to assist in determining the mode of deposition and, for fluvial contexts, reconstruct palaeo-drainage history (including fluvial diversions and catchment changes).

Scientific Dating

- 6.4.9 Consideration will be given to the suitability of any sediments exposed in test pits for luminescence dating. These will be sampled, if safely accessible. Any luminescence

sampling will be targeted on dating deposits with identified archaeological potential, and deposits sampled for palaeoenvironmental evidence.

- 6.4.10 If mollusc shells are identified, their potential for dating by Amino Acid Racemisation (AAR) will be considered.
- 6.4.11 If organic sediments are identified, their potential to contain short lived plant remains suitable for AMS radiocarbon dating will be considered.
- 6.4.12 Sampling for scientific dating will be undertaken in adherence to the principles outlined in Historic England guidance (Historic England 2025).

6.5 Recording

- 6.5.1 Where accessible and safe to do so (generally to a depth of 1.20 m, unless stepped), test pits will be entered and at least one representative section through the deposits will be cleaned by hand using archaeological tools and recorded. Unless stepped and made safe, test pits will not be entered after excavation has progressed beyond this depth, and recording will take place without entering the test pit.
- 6.5.2 The test pits will be recorded using a pro-forma digital recording system, along with a drawn measured sketch section of at least one face.
- 6.5.3 For each sedimentary stratigraphic context descriptions and interpretations of the deposits will be recorded.
- 6.5.4 Descriptions of deposits will include information such as:
 - Depth
 - Texture
 - Composition
 - Colour
 - Inclusions
 - Structure
 - Shape and nature of contacts between deposits
- 6.5.5 Interpretations will include, where possible, probable depositional environments and formation processes.
- 6.5.6 Sketch sections will include labelled sedimentary stratigraphic contexts, boundaries between sedimentary stratigraphic contexts, and the position of all samples (both for artefact sampling, and for palaeoenvironmental assessment, sedimentological analysis or dating).
- 6.5.7 All samples taken from test pits will be individually numbered and recorded. The location, size, stratigraphic context, purpose and whether retained or processed on site for artefacts sampling, or retained for palaeoenvironmental assessment, sedimentological assessment or dating will be recorded.
- 6.5.8 A full photographic record will be made using digital cameras equipped with an image sensor of not less than 16 megapixels. This will record both each test pit as whole, and the detail of the sedimentary contexts identified in test pit sections. Photographs will also be

taken of all test pit locations, including access routes, to provide a record of conditions prior to and on completion of the investigations.

- 6.5.9 Digital images will be subject to managed quality control and curation processes which will embed appropriate metadata within the image and ensure long term accessibility of the image set.

6.6 Reinstatement

- 6.6.1 Test pits will be immediately backfilled on completion using excavated materials in the order in which they were excavated. No further reinstatement will be carried out.

6.7 Finds

General

- 6.7.1 All archaeological finds will be retained, although those of clearly very recent origin with negligible potential to provide information relevant to the project aims and objectives may be recorded on site but not retained. Where appropriate, sediment samples will be taken and sieved to aid in finds recovery. Any finds requiring conservation or specific storage conditions will be dealt with immediately in line with *First Aid for Finds* (Watkinson and Neal 1998).
- 6.7.2 In the event of organic finds being encountered, the monitoring archaeologist will halt the excavation and contact the project manager, who will in turn contact the client and the Archaeological Advisor to the County Council to agree a strategy for further investigation, where appropriate and feasible to do so.

Human remains

- 6.7.3 Any human remains (articulated or disarticulated, cremated or unburnt) discovered, will be left *in situ*, covered and protected. A Ministry of Justice licence will be obtained by Wessex Archaeology before any further excavation (including where remains are to be left *in situ*). Following discussions with the client and the County Archaeologists, and with advice from Wessex Archaeology's osteoarchaeologist, the need for and appropriateness of their excavation/removal or sampling as part of the investigations will be determined. Where deemed appropriate, the human remains will be fully recorded, excavated, and removed from the site in compliance with the terms of the MoJ licence.
- 6.7.4 Any excavation and post-excavation processing of human remains will be undertaken in accordance with Wessex Archaeology protocols, and in line with current guidance documents (e.g., McKinley 2013) and ClfA standards (McKinley and Roberts 1993). Appropriate specialist guidance will be provided by Wessex Archaeology's osteoarchaeologist, with site visits undertaken if required. The final deposition of human remains, following analysis, will be in accordance with the terms of the MoJ licence.

Treasure

- 6.7.5 Wessex Archaeology will immediately notify the client and the County Archaeologists for Leicestershire and Staffordshire, on discovery of any material covered, or potentially covered, by the *Treasure Act 1996* (as amended by *The Coroners and Justice Act 2009*). All information required by the *Treasure Act* (i.e., finder, location, material, date, associated items etc.) will be reported to the Coroner within 14 days.

Waterlogged organic artefacts

- 6.7.6 Any recording, excavation of organic artefacts will be undertaken in line with Historic England guidance on waterlogged organic artefacts (Historic England 2018).

Worked wood

- 6.7.7 Where worked wood is revealed it should be recorded, sampled (including radiocarbon and dendrochronological dating) and conserved following Historic England guidance (English Heritage 2010). At assessment stage this should involve minimum exposure to characterise and record the wood, with sampling and lifting for dating and assessment of condition.

6.8 Post-Fieldwork methods

Stratigraphic evidence and deposit modelling

- 6.8.1 All written and drawn records from the evaluation will be collated and checked for consistency.
- 6.8.2 Where possible, probable depositional environments, formation processes and chronostratigraphic context will be considered.
- 6.8.3 Deposits will be preliminary phased using stratigraphic relationships, augmented with additional chronological information, if available.
- 6.8.4 Data will be utilised to provide an updated deposit model. Deposit modelling identifies the range of Quaternary deposits that may be present in a defined area and maps their lateral extent and depth.
- 6.8.5 The deposit modelling will be carried out in accordance with Deposit modelling and archaeology: guidance for mapping buried deposits (Historic England 2020).
- 6.8.6 The results of the borehole survey will be combined with a review of any available GI logs and relevant BGS archive borehole logs.
- 6.8.7 Only lithostratigraphic records with sufficiently detailed descriptive terminology and location data (including surface elevation) will be included in the model.
- 6.8.8 All available data points will be entered into industry standard geological utilities software (Rockworks™ 23). Each stratigraphic unit will be given a colour and pattern allowing cross correlation and grouping of the different sedimentary units. The grouping of these deposits will be based on lithological descriptions, which define distinct depositional environments referred to as 'stratigraphic units' (e.g., Bedrock, Alluvium and Made Ground)
- 6.8.9 Outputs generated using RockWorks 23™ may include two-dimensional stratigraphic profiles ('transects') of selected interventions and/or models of surface height and/or thickness were generated using an inverse-distance weighted (IDW) algorithm for the stratigraphic units present.
- 6.8.10 The modelling algorithms employed in the creation of the outputs will be described in the methods section of the report. The results of the deposit modelling will be reviewed and utilised within the final report with a comment on data coverage and the limitations and practical use of the deposit model.



Finds assessment

- 6.8.11 All retained finds will, as a minimum, be washed (as appropriate), weighed, counted and identified. They will then be recorded to a level appropriate to the aims and objectives of the evaluation. The report will include a table of finds by lithostratigraphic context and/or intervention.
- 6.8.12 Should Pleistocene large vertebrates remains be encountered, a Pleistocene faunal specialist will be consulted.
- 6.8.13 Metalwork from stratified contexts will be X-rayed and, along with other fragile and delicate materials, stored in a stable environment. The X-raying of objects and other conservation needs will be undertaken by Wessex Archaeology in-house conservation staff, or by another approved conservation centre.
- 6.8.14 Finds will be suitably bagged and boxed in accordance with the guidance given by the relevant museum and generally in accordance with the standards of the ClfA (2014b).

Palaeoenvironmental, sedimentological and scientific dating samples

- 6.8.15 Palaeoenvironmental, sedimentological and dating samples may be obtained during the evaluation, both as bulk samples and as retained cores and monoliths.
- 6.8.16 Where appropriate samples are identified, which have the potential to contribute to the overarching aims and objectives of the evaluation, sample assessment and/or dating may be recommended.
- 6.8.17 Methods and standards to be employed are summarised below.

Ostracods and foraminifera

- 6.8.18 [Sub-]samples are weighed, then broken into small pieces by hand, placed into ceramic bowls, and dried in an oven. Boiling-hot water is poured over them and a small amount of sodium carbonate added to help disaggregate the clay fraction. Each [sub-]sample is left to soak overnight. [Sub-]samples are then washed with hand-hot water through a 75-micron sieve, with the remaining residue being returned to the ceramic bowl for final drying in the oven. The residues are stored in labelled plastic bags.
- 6.8.19 For examination, each [sub-]sample is placed in a nest of sieves (>50, >250, >150µm, and base pan) and thoroughly shaken. Each grade is then sprinkled onto a picking tray, a little at a time, and viewed under a binocular microscope. "Contained material" is logged on a presence(x)/absence basis as shown in accompanying tables.
- 6.8.20 The abundance of each foraminiferal and ostracod species is estimated. Species identification is based on Murray (2006) for the foraminifera, Athersuch *et al.* (1989) for the brackish and marine ostracods, and Meisch (2000) for the freshwater ostracods.

Diatoms

- 6.8.21 Diatom preparation follows techniques outlined in Battarbee *et al.* (2001). Two coverslips are made from each sample and fixed in Naphrax for diatom microscopy. A large area of the coverslips on each slide is scanned for diatoms at magnifications of x400 and x1000 under phase contrast illumination.
- 6.8.22 Diatom floras and taxonomic identification is based on Hendey (1964), Van der Werff and Huls (1957-1974), Hartley *et al.* (1996), Krammer and Lange-Bertalot (1986-1991) and

Witkowski *et al.* (2000). Diatom species' salinity preferences are indicated using the halobian groups of Hustedt (1953, 1957).

Pollen and non-pollen palynomorphs

- 6.8.23 [Sub-]samples are processed using standard pollen extraction methods (see Branch *et al.* 2005).
- 6.8.24 Pollen and non-pollen palynomorphs are extracted as follows: (1) sampling a recorded volume of sediment; (2) deflocculation of the sample in 1% Sodium pyrophosphate; (3) sieving of the sample to remove coarse mineral and organic fractions ($>125\mu$); (4) removal of finer minerogenic fraction using Sodium polytungstate (specific gravity of 2.0g/cm³); (5) acetolysis; (6) staining with safranin and mounting of the sample in glycerol jelly. Each stage of the procedure is preceded and followed by thorough sample cleaning in filtered distilled water. Quality control is maintained by periodic checking of residues and assembling sample batches from various depths to test for systematic laboratory effects.
- 6.8.25 Slides are logged in traverses, using a 'Leitz laborlux' binocular transmitted light microscope with a mechanical stage. Assessment aims to identify >100 terrestrial pollen grains and notes non-pollen palynomorphs (including dinoflagellate cysts and reworked palynomorphs) of potential palaeoenvironmental or biostratigraphic significance. For each slide, a summary is recorded, including description of concentration and preservation, gross assemblage compositions, and provisional interpretation (where appropriate). Results are presented in tabular form as raw data.

Molluscs

- 6.8.26 The sediment is disaggregated in water, and a 250 μ m mesh is used to catch the floating material. This process is repeated until no further shells float, and the sediment is clear. Hydrogen peroxide (H₂O₂) may be used to help disaggregate the sediment. The residue is gently washed through a nested stack of 0.4 mm and 250 μ m sieves. Once processed, the residues are dried in a low temperature oven, and the flots are air-dried at room temperature. Flots are stored individually in labelled glass vials or rigid plastic containers, and residues are stored individually in labelled plastic bags.
- 6.8.27 The fine residue fractions and flots are scanned using a stereomicroscope at magnifications of up to x40. The numbers of shells and the presence of taxonomic groups are quantified and tabulated. Mollusc species are recorded following the nomenclature of Anderson (2005). Details of the ecological preferences of the species follow Evans (1972), Kerney (1999) and Davies (2008).

Small vertebrates

- 6.8.28 Samples are wet sieved on a 0.5 mm mesh, residues fractioned into 4 mm and 0.5 mm fractions. The coarse fractions (> 4 mm) are sorted by eye and discarded. The fine residue fractions are scanned using a stereo incident light microscopy (Leica MS5 microscope) at magnifications of up to x40 for the identification of vertebrate remains. Species identifications are provided, where possible, through comparison with modern reference material and relevant literature.

Plant macrofossils

- 6.8.29 Small subsamples (up to 0.25 litres) will be gently wet-sieved over a 125 μ m sieve (or 250 μ m), whilst larger samples (up to 2 litres) will be processed using the 'wash-over' method (Kenward *et al.* 1980) using a 125 μ m flot mesh (or 250 μ m) and a 250 μ m residue mesh. The remaining portions of larger samples will be wet-sieved on a 4 mm mesh to recover

wood fragments and larger plant macrofossils (e.g., nutshells). Highly compacted samples (e.g., clay-rich) may be frozen and thawed prior to processing (Vandorpe and Jacomet 2007). Once processed, the sieved material will be kept wet and stored in a labelled glass vial or rigid plastic container, and then placed into cold storage in the dark, or a refrigerator.

- 6.8.30 The processed samples are examined using a stereomicroscope at up to x40 magnification for uncharred and charred botanical remains, including organic/vegetative material, herbaceous epidermal tissues, wood remains, mosses, and plant macro remains ('seeds'), as well as other material (e.g., beetles, molluscs etc.). Remains are recorded on an abundance scale.
- 6.8.31 Plant macrofossils are identified through comparison with modern reference material and relevant literature (Cappers *et al.* 2006). Nomenclature follows Stace (1997) for wild taxa and Zohary *et al.* (2012) for cultivated species (using traditional names). Habitat information is taken from Stroh *et al.* (2023) and Hill *et al.* (2004).

Wood

- 6.8.32 Individual wood fragments (>4 mm) will be identified through examination of the transverse, tangential longitudinal, and radial longitudinal sections. Where there are large quantities of wood fragments, a representative sample will be examined. A double-edged razor blade will be used to obtain the sections, and these will be temporarily mounted in water, and examined at up to 400x magnification. Comparison will be made to Wessex Archaeology's reference collection and relevant literature (Gale and Cutler 2000; Hather 2000; Schweingruber 1990). Nomenclature will follow Stace (1997).

Insects

- 6.8.33 Samples for the recovery of insect remains (mainly beetles) will be processed using the paraffin flotation method following Kenward *et al.* (1980). A 0.25 mm mesh is used to catch the floating material. Processed flots are stored wet in a glass jar with the addition of ethanol or IMS and they are placed in appropriate cold storage in dark conditions, or a refrigerator prior to examination. Sample volumes will normally be around 2 litres.
- 6.8.34 Subsamples processed for the recovery of plant macrofossils will also be rapidly scanned for insect remains (particularly beetles) using a stereomicroscope at up to 40x magnification. If present, and the context is deemed suitable, an assessment of the insect remains will be undertaken.
- 6.8.35 Insect identifications will be aided by modern insect reference material and relevant literature where appropriate (e.g., Harde *et al.* 2021). Coleopteran nomenclature will follow Duff (2018).

Radiocarbon dating

- 6.8.36 Single-entity, short-life samples of waterlogged plant material (e.g., seeds, twigs) are selected as the first choice for radiocarbon dating following Historic England's guidelines for Radiocarbon Dating and Chronological Modelling (Bayliss and Marshall 2022). Extracted remains are stored in a small quantity of de-ionised water in glassware and refrigerated prior to submission. Samples are pre-treated and measured following standard procedures at an internationally recognized radiocarbon dating laboratory (Elliott 2025).
- 6.8.37 Results are presented as conventional radiocarbon ages (Stuiver and Polach 1977) together with calibrated date ranges which are calculated in OxCal 4.4 (Bronk-Ramsey 2009) with the atmospheric calibration curve for the northern hemisphere, IntCal 2020 (Reimer *et al.* 2020). Calibrated dates are reported at the 95% probability level, with end

points rounded outwards to the nearest 10 years. When multiple dates are obtained from material at different depths of a single borehole core or trench, these are modelled as a depositional sequence (Bronk Ramsey 2008, Bronk Ramsey and Lee 2013) and an age-depth plot produced. Date estimates for particular events (i.e., end of peat formation) are calculated based on their depth in the sequence.

Luminescence dating

- 6.8.38 Luminescence dating is applied to samples taken from Quaternary sediments. Samples can be analysed either using optically stimulated luminescence (OSL) dating of quartz (Huntley *et al.* 1985), K-feldspar post-infrared infrared (pIRIR; Thomsen *et al.* 2008) or combined paired dating applying both techniques to the same sample. The applied technique is dependent on the likely age range.
- 6.8.39 Feldspar has benefits over quartz for deposits that pre-date c. 200 Ka BP as the feldspar luminescence signal saturates at a much higher level, thus potentially extending the age range. Feldspars also have higher sensitivity than quartz which may make them more suitable for dating heterogeneously bleached deposits (e.g. those deposited by water) (Colarossi *et al.* 2015). Historically, quartz was the preferred mineral for optical dating as the feldspar signal was considered less stable as it decreased over time (anomalous fading). However, methodological developments now allow a more stable component of the feldspar signal to be targeted for dating (Thomsen *et al.* 2008).

7 REPORTING

General

7.1 Reporting

- 7.1.1 Following completion of the fieldwork and the assessment of the stratigraphic, finds and environmental evidence, a draft report will be prepared in general accordance with relevant guidance (ClfA 2023b). The draft report will be submitted for approval to the client and the Archaeological Advisor at Leicestershire County Council for comment. Once approved, a final version will be submitted.
- 7.1.2 The report will include the following elements:
- Non-technical summary;
 - Project background;
 - Archaeological and historical context;
 - Aims and objectives;
 - Methods;
 - Results – stratigraphic, finds and environmental;
 - Conclusions in relation to the project aims and objectives, and discussion in relation to the wider local, regional or other archaeological contexts and research frameworks etc;
 - Archive preparation and deposition arrangements;
 - Appendices;
 - Illustrations; and
 - References.

- 7.1.3 A copy of the final report will be deposited with the HER, along with surveyed spatial digital data (.dxf or shapefile format).

Publication

- 7.1.4 If no further excavation works are undertaken, a short report on the results will be prepared for publication in a suitable journal, if considered appropriate and agreed with the client and the Archaeological Advisor at Leicestershire County Council.

OASIS

- 7.1.5 An OASIS (online access to the index of archaeological investigations) record (<http://oasis.ac.uk>) will be created, with key fields completed, and a .pdf version of the final report submitted. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

8 ARCHIVE STORAGE AND CURATION

8.1 Museum

- 8.1.1 It is recommended that the project archive be deposited with Colchester Museum. Provision has been made for long-term storage in the post-fieldwork costs. The museum will receive notification of the project prior to fieldwork commencing, and an accession number will be obtained.

8.2 Transfer of title

- 8.2.1 The legal owner of any finds recovered (i.e., the landowner), with the exception of human remains and any objects covered by the *Treasure Act 1996*, will be contacted to request transfer of their ownership to the museum via a written agreement.
- 8.2.2 It is, however, acknowledged that a landowner may want the finds (or particular finds) returned to them following completion of the assessment and analysis work. In this instance, with the exception of those finds highlighted above (human remains and objects covered by the *Treasure Act 1996*), the finds will be returned following full and appropriate recording as set out in Museums Essex guidelines (2022), and conservation (if required), and approved by the Archaeological Advisor at Leicestershire County Council. Advice will also be provided on the appropriate care and suitable conditions for storage.

8.3 Preparation of archive

Physical archive

- 8.3.1 The physical archive will be prepared following the standard conditions for the acceptance of excavated archaeological material by Colchester Museum, and in general following nationally recommended guidelines (Brown 2011; ClfA 2014b; SMA 1995). The archive will usually be deposited within one year of completion of the project, with the agreement of the Client.

Digital archive

- 8.3.2 The digital archive will be deposited with a Trusted Digital Repository, in this instance the Archaeology Data Service (ADS), to ensure its long-term curation. Digital data will be prepared following ADS guidelines (ADS 2013 and online guidance) and accompanied by metadata.

8.4 Selection strategy

Records and materials

- 8.4.1 It is widely accepted that not all records and materials (artefacts and ecofacts) collected or created during an archaeological project require preservation in perpetuity. These records and materials will be subject to selection in order to establish what will be retained for long-term curation, with the aim of ensuring that all elements selected to be retained are appropriate to establish the significance of the project and support future research, outreach, engagement, display and learning activities, i.e., the retained archive should fulfil the requirements of future researchers and the receiving museum.
- 8.4.2 The selection strategy, which details the project-specific selection process, is underpinned by national guidelines on selection and retention (Brown 2011, section 4) and generic selection policies (SMA 1993; Wessex Archaeology's internal selection policy) and follows ClfA's (n.d. b) *Toolkit for Selecting Archaeological Archives*. It should be agreed by all stakeholders (Wessex Archaeology's specialists, external specialists, local authority, museum) and fully documented in the project archive.
- 8.4.3 In this instance, given that the level of finds recovery is expected to be relatively low, decisions on selection will be deferred until after the fieldwork, and no detailed strategy is presented here. Any material not selected for retention may be used for teaching or reference collections by the museum, or by Wessex Archaeology.

Geoarchaeological samples and palaeoenvironmental residues

- 8.4.4 The investigations may result in geoarchaeological samples (cores, monoliths, bulk samples, luminescence samples) and palaeoenvironmental residue/slides (from assessment), which may have utility for mitigation works.
- 8.4.5 Requirements and costs for the retention and storage of geoarchaeological samples will be agreed between Wessex Archaeology and the Client.
- 8.4.6 All samples, and any residues/slides with potential for palaeoenvironmental analysis, should be retained and stored under temperature controlled conditions, either for the duration of the project, or discarded with consent of the Client.

8.5 Security copy

- 8.5.1 In line with current best practice (e.g., Brown 2011), on completion of the project a security copy of the written records will be prepared in the form of a digital PDF/A file.

9 PUBLIC ENGAGEMENT AND COMMUNITY OUTREACH

- 9.1.1 It is recognised that archaeological works can generate significant public interest. Therefore, a public outreach programme will be implemented. The overall strategy will be set out in an overarching engagement strategy, which will be subject to consultation and approval by the Archaeological Advisor at Leicestershire County Council.

9.2 Research Themes

- 9.2.1 Following the completion of Phase 2 evaluation, a series of research themes/questions which the Phase 3 mitigation work will seek to address will be prepared. These research

themes/questions will align with the East of England Research Framework.¹ At this stage, the following broad research themes are suggested:

- Understand periodisation within the Site;
- Understand landscape division and use within the Site; and
- Understand the connectivity between Site and its wider environs.

9.2.2 Consideration will also be given to the results of the offshore evaluation works, with regards to potential linkages to the offshore and intertidal historic environment.

9.3 Potential Outreach Opportunities

9.3.1 Public benefit and engagement with the community could help to offset some of the physical effects of the development proposals. This would enhance the public value and engagement with the historic environment, contribute to place-making and provide information to the public on the special archaeological and historic interest of the area. The form of the community engagement will be dependent upon the findings of the investigations, but some options could include:

- Regular updates through a social media presence, highlighting significant discoveries and promoting engagement events such as talks and open days at appropriate stages.
- Issuing press releases to local media when noteworthy archaeological finds are identified or when specific events warrant promotion. Coordination and distribution of these releases will be managed through the broader communication efforts of the Project.
- A dedicated archaeology Project web page.
- Conducting publicly accessible talks to local interest groups, including schools and Parish groups/councils, to discuss ongoing excavations.
- Extending invitations to specialist broadcast media productions to cover key findings or major excavations, ensuring national exposure.
- Organising a publicly accessible conference at a suitable local venue after the completion of fieldwork and post-excavation assessment, presenting the most significant results of the archaeological project to a general audience.
- Hosting open days, where feasible and safe, particularly relevant to larger set-piece excavations.
- School workshops, activities and loan boxes;
- Workshops for local groups including finds handling and Q&A sessions;
- Displays and exhibitions in the local area either permanent or temporary;
- Volunteer or student placements;
- Provision of information/interpretation boards around key assets; and
- Developing popular publications, in addition to formal result publications, that describe significant discoveries for a general audience. These publications will be linked to the school curriculum at Key Stages 2, 3, and 4

¹ Available at: <https://researchframeworks.org/eoe/>



- 9.3.2 The public engagement and outreach programme will be available to all that have an interest in the archaeology uncovered within the Site.

10 COPYRIGHT

10.1 Archive and report copyright

- 10.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*.
- 10.1.2 Digital copies of the final report will be made available to the Historic Environment Record (HER) through OASIS (online access to the index of archaeological investigations). Geospatial/survey data forming part of the digital archive will be supplied, on request, to the HER.

10.2 Third party data copyright

- 10.2.1 This document, the report and the project archive may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material.

11 WESSEX ARCHAEOLOGY PROCEDURES

11.1 External quality standards

- 11.1.1 Wessex Archaeology is registered as an archaeological organisation with the Chartered Institute for Archaeologists (CIfA) and fully endorses its *Code of Conduct* (CIfA 2014c) and *Regulations for Professional Conduct* (CIfA 2019). All staff directly employed or subcontracted by Wessex Archaeology will be of a standard approved by Wessex Archaeology, and archaeological staff will be employed in line with the CIfA codes of practice and will normally be members of the CIfA.

11.2 Personnel

- 11.2.1 The fieldwork will be directed and supervised by an experienced archaeologist from Wessex Archaeology's core staff. The overall responsibility for the conduct and management of the project will be held by one of Wessex Archaeology's project managers, who will visit the fieldwork as appropriate to monitor progress and to ensure that the scope of works is adhered to. Where required, monitoring visits may also be undertaken by Wessex Archaeology's Health and Safety manager.
- 11.2.2 The assessment of any finds and environmental data will be undertaken by Wessex Archaeology core staff or external specialists, using Wessex Archaeology's standard methods, under the supervision of the departmental managers and the overall direction of the project manager. A complete list of specialists is provided in Appendix 1.



11.2.3 The following key staff are proposed:

- Overarching Project Manager – John Winfer
- Geoarchaeological Project Manager – Dr Alex Brown
- Lead geoarchaeological Specialist – Dr Andrew Shaw
- Archaeological Trial Trench Evaluation Fieldwork Director – TBC
- Geoarchaeological Evaluation Fieldwork Director – TBC

11.2.4 Wessex Archaeology reserves the right, where necessary due to unforeseen circumstances, to replace nominated personnel with alternative members of staff of comparable expertise and experience.

11.3 Internal quality standards

11.3.1 Wessex Archaeology is an ISO 9001 accredited organisation (certificate number FS 606559), confirming the operation of a Quality Management System which complies with the requirements of ISO 9001:2015 – covering professional archaeological and heritage advice and services. The award of the ISO 9001 certificate, independently audited by the British Standards Institution (BSI), demonstrates Wessex Archaeology's commitment to providing quality heritage services to our clients.

11.3.2 Wessex Archaeology assigns responsibility to individual managers for the successful completion of all aspects of a project, including reporting. This includes monitoring progress and quality; controlling the budget from inception to completion; and all aspects of health and safety for the project. At all stages, the project manager will carefully assess and monitor performance of staff and adherence to objectives, timetables and budgets, while the manager's own performance is monitored by the team leader or departmental heads. The technical managers in the Graphics, Research, GeoServices and IT sections provide additional assistance and advice.

11.3.3 All staff are responsible for following Wessex Archaeology's quality standards but the overall adherence to and setting of these standards is the responsibility of the senior management team who, in consultation with the team leaders/departmental heads, also ensure projects are adequately programmed and resourced within Wessex Archaeology's portfolio of project commitments.

11.4 Health and safety

11.4.1 All works will be undertaken in accordance with the *Health and Safety at Work Act 1974*; the *Management of Health and Safety at Work Regulations 1999* and all other applicable health and safety legislation.

11.4.2 Wessex Archaeology is an ISO 45001 accredited organisation (certificate number OHS 744383), confirming the operation of an Occupational Health and Safety Management System that complies with the requirements of ISO 45001:2018. The award of the ISO 45001 certificate, independently audited by the British Standards Institution (BSI), demonstrates Wessex Archaeology's commitment to delivering effective risk management across all its activities.

11.4.3 Wessex Archaeology will, for all projects, produce one or more task and site-specific risk assessments and method statements (RAMS), which will ensure our staff can work safely on the site. A copy of the RAMS and our Health and Safety Policy can be provided to the



client. All staff on our sites will be made fully familiar with the RAMS before work commences.

- 11.4.4 We aim to work collaboratively on health and safety with clients and, where separately appointed, with principal contractors. We expect clients to provide in good time all the necessary risk information about a site that may affect the archaeological work, such as locations of utilities or any known ground contamination. We will comply with the project specific Personal Protective Equipment (PPE) requirements, and any other specific additional requirements of the Principal Contractor.
- 11.4.5 All fieldwork staff are provided with relevant health and safety training to ensure they are able to work safely in a construction industry environment. This includes training accredited by the Construction Industry Training Board (CITB), Institution of Occupational Safety & Health (IOSH) and the National Plant Operators Recognitions Scheme (NPORS). However, since May 2024 the Construction Skills Certification Scheme (CSCS) has ceased issuing cards to archaeologists.

11.5 Insurance

- 11.5.1 Wessex Archaeology holds Employers Liability (£15,000,000), Public Liability (£15,000,000) and Professional Indemnity (£10,000,000) policies.

REFERENCES

- ADS 2013. *Caring for Digital Data in Archaeology: a guide to good practice*. Archaeology Data Service & Digital Antiquity Guides to Good Practice.
- Anderson, R. 2005. An annotated list of the non-marine Mollusca of Britain and Ireland, *Journal of Conchology* 38, 607–37.
- Athersuch, J., Horne D. J. and Whittaker J E. 1989. Marine and brackish water ostracods, in Kermack, D M and Barnes, R S K (eds) *Synopsis of the British Fauna (New Series)* no. 43. E J Brill, Leiden (for the Linnean Society of London and The Estuarine and Brackish-water Sciences Association).
- Battarbee, R. W., Jones, V. J., Flower, R. J., Cameron, N. G., Bennion, H. B., Carvalho, L. and Juggins, S. 2001. Diatoms, in J. P. Smol and H. J. B. Birks (eds.). *Tracking Environmental Change Using Lake Sediments Volume 3: Terrestrial, Algal, and Siliceous Indicators*. Dordrecht: Kluwer Academic Publishers, 155–202.
- Bayliss, A. and Marshall, P. 2022. *Radiocarbon Dating and Chronological Modelling: Guidelines and Best Practice*. London: Historic England.
- Branch, N. P., Canti, M. G., Clark, P. and Turney, C. S. M. 2005. *Environmental Archaeology, Theoretical and Practical Approaches*. Arnold, London.
- Bronk Ramsey, C. 2008. Deposition models for chronological records, *Quaternary Science Reviews*, 27 (1-2), 42–60.
- Bronk Ramsey, C. 2009. Bayesian analysis of radiocarbon dates, *Radiocarbon* 51, 337–360.
- Bronk Ramsey, C. and Lee, S. 2013. Recent and planned development of the Program OxCal, *Radiocarbon* 55 (2-3), 720–730.
- Brown, D. H. 2011. *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (revised edition). Archaeological Archives Forum.
- Cappers, R. T. J., Bekker, R. M. and Jans, J. E. A. 2006. *Digital Seed Atlas of the Netherlands*. Groningen: Barkhuis Publishing.
- Chartered Institute for Archaeologists [ClfA] 2014a (revised October 2020). *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. Reading: ClfA.
- ClfA 2014b (revised October 2020). *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*. Reading: ClfA.
- ClfA 2014c (revised October 2022). *Code of Conduct*. Reading: ClfA.
- ClfA 2019 (revised July 2021). *Regulations for Professional Conduct*. Reading: ClfA.
- ClfA 2023a. *Standard for Archaeological Field Evaluation*. Reading: ClfA.
- ClfA 2023b. *Universal Guidance for Archaeological Field Evaluation*. Reading: ClfA.
- ClfA n.d. a. *Toolkit for Specialist Reporting* <https://www.archaeologists.net/reporting-toolkit> (accessed 10/12/2023).

- ClfA n.d. b. *Toolkit for Selecting Archaeological Archives* <https://www.archaeologists.net/selection-toolkit> (accessed 10/12/2023).
- Colarossi, D., Duller, G. A. T., Roberts, H. M., Tooth, S. and Lyones, R. 2015. Comparison of paired quartz OSL and feldspar post-IR IRSL dose distributions in poorly bleached fluvial sediments from South Africa, *Quaternary Geochronology* 30, 233–238.
- Davies, P. 2008. *Snails: Archaeology and Landscape Change*. Oxford: Oxbow Books.
- Elliott, K. 2025. *Radiocarbon Laboratories*, https://radiocarbon.arizona.edu/sites/default/files/2025-04/Labs-2025_04_24.pdf
- English Heritage 2010. *Waterlogged Wood: guidelines on the recording, sampling, conservation and curation of waterlogged wood*. Swindon: English Heritage.
- English Heritage 2011. *Environmental Archaeology. A Guide to the Theory, Practice of Methods, from Sampling and Recovery to Post-excavation* (2nd edition). Portsmouth: English Heritage.
- Evans, J. G. 1972. *Land Snails in Archaeology*. London: Seminar Press.
- Gale, R. and Cutler, D. 2000. *Plants in Archaeology: identification manual of vegetative plant materials used in Europe and the southern Mediterranean to c. 1500*. Otley: Westbury and Royal Botanic Gardens, Kew.
- Harde, K. W., Helb, M. and Elzner, K. 2021. *Der Kosmos Käferführer*. Stuttgart: Kosmos.
- Hartley, B., Barber, H. G., Carter, J. R. and Sims, P. A. 1996. *An Atlas of British Diatoms*. Biopress Limited, Bristol.
- Hather, J. G. 2000. *The Identification of the Northern European Woods: a guide for archaeologists and conservators*. London: Archetype Publications Ltd.
- Hendey, N. I. 1964. *An Introductory Account of the Smaller Algae of British Coastal Waters. Part V. Bacillariophyceae (Diatoms)*. Ministry of Agriculture Fisheries and Food, Series IV.
- Hill, M. O., Preston, C. D. and Roy, D. B. 2004. *PLANTATT-attributes of British and Irish plants: status, size, life history, geography and habitats*. Huntingdon: Centre for Ecology and Hydrology.
- Historic England 2010. *Guidelines on the recording, sampling, conservation and curation of waterlogged wood*. Swindon: Historic England.
- Historic England 2011. *Environment Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*. Swindon: Historic England.
- Historic England 2015a. *Management of Research Projects in the Historic Environment: the MoRPHE project managers' guide*. Swindon: Historic England.
- Historic England 2015b. *Geoarchaeology. Using Earth Sciences to Understand the Archaeological Record*. Swindon: Historic England.
- Historic England 2017. *Organic Residue Analysis and Archaeology: Guidance for Good Practice*. Swindon: Historic England.

- Historic England 2018. *Waterlogged Organic Artefacts: guidelines on their recovery, analysis and conservation*. Swindon: Historic England.
- Historic England 2020. *Geoarchaeology. Using earth sciences to understand the archaeological record*. Swindon: Historic England.
- Historic England 2023. *Curating the Palaeolithic*. Swindon: Historic England.
- Historic England 2025. *Scientific Dating of Pleistocene Sites: Guidelines for Best Practice*. Historic England Advice and Guidance HEAG0325. London: Historic England.
- Huntley, D.J., Godfrey-Smith, D. I. and Thewalt, M. L. 1985. Optical dating of sediments, *Nature* 313 (5998), 105–107.
- Hustedt, F. 1953. Die Systematik der Diatomeen in ihren Beziehungen zur Geologie und Ökologienebst einer Revision des Halobien-systems, *Sv. Bot. Tidskr.*, 47, 509–519.
- Hustedt, F. 1957. Die Diatomeenflora des Fluss-systems der Weser im Gebiet der Hansestadt Bremen, *Ab. naturw. Ver. Bremen* 34, 181–440.
- Kenward, H. K., Hall, A. R. and Jones, A. K. G. 1980. A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits, *Science and Archaeology* 22, 3–15
- Kerney, M. 1999. *Atlas of the Land and Freshwater Molluscs of Britain and Ireland*. Colchester: Harley Books.
- Krammer, K. and Lange-Bertalot, H. 1986-1991. *Bacillariophyceae*. Gustav Fisher Verlag, Stuttgart.
- Meisch, C. 2000. Freshwater Ostracoda of Western and Central Europe, in J. Schwoerbel, J. and P. Zwick (eds.). *Süßwasserfauna von Mitteleuropa, Band 8/3*. Spektrum Akademischer Verlag, Heidelberg and Berlin.
- McKinley, J. I. 2013. Cremation: excavation, analysis and interpretation of material from cremation-related contexts, in S. Tarlow, and L. Nilsson Stutz (eds.). *The Oxford Handbook of the Archaeology of Death and Burial*, 147–71. Oxford: Oxford University Press.
- McKinley, J. I. and Roberts, C. 1993. *Excavation and Post-excavation Treatment of Cremated and Inhumed Human Remains*. Reading: ClfA Technical Paper 13.
- Reimer, P. J., Austin, W. E. N., Bard, E., Bayliss, A., Blackwell, P. G., Bronk Ramsey, C., Butzin, M., Cheng, H., Edwards, R. L., Friedrich, M., Grootes, P. M., Guilderson, T. P., Hajdas, I., Heaton, T. J., Hogg, A. G., Hughen, K. A., Kromer, B., Manning, S. W., Muscheler, R., Palmer, J. G., Pearson, C., van der Plicht, J., Reimer, R. W., Richards, D. A., Scott, E. M., Southon, J. R., Turney, C. S. M., Wacker, L., Adolphi, F., Büntgen, U., Capano, M., Fahrni, S. M., Fogtmann-Schulz, A., Friedrich, R., Köhler, P., Kudsk, S., Miyake, F., Olsen, J., Reinig, F., Sakamoto, M., Sookdeo, A. and Talamo, S. 2020. The IntCal20 Northern Hemisphere Radiocarbon Age Calibration Curve (0–55 cal kBP), *Radiocarbon* 62 (4), 725–57.
- Schweingruber, F. H. 1990. *Microscopic Wood Anatomy* (3rd edition). Birmensdorf: Swiss Federal Institute for Forest, Snow and Landscape Research.
- SMA 1993. *Selection, Retention and Dispersal of Archaeological Collections*. London: Society of Museum Archaeologists.



- SMA 1995. *Towards an Accessible Archaeological Archive*. London: Society of Museum Archaeologists.
- Stace, C. 1997. *New Flora of the British Isles* (2nd edition). Cambridge: Cambridge University Press.
- Stroh, P. A., Walker, K. J., Humphrey, T. A., Pescott, O. L. and Burkmar, R. J. 2023. *Plant Atlas 2020: mapping changes in the distribution of the British and Irish Flora*. Princeton: Princeton University Press.
- Stuiver, M. and Polach, H. A. 1977. Discussion reporting of ¹⁴C data, *Radiocarbon*, 19 (3), 355–363.
- Thomsen, K. J., Murray, A. S., Jain, M. and Botter-Jensen, L. 2008. Laboratory fading rates of various luminescence signals from feldspar-rich sediment extracts, *Rad Meas* 43, 1474–1486.
- Van der Werff, A. and Huls, H. 1957-1974. *Diatomeeenflora Van Nederland*. Koeltz.
- Vandorpe, P. and Jacomet, S. 2007. Comparing different pre-treatment methods for strongly compacted organic sediments prior to wet-sieving: a case study on Roman waterlogged deposits, *Environmental Archaeology* 12, 207–214.
- Watkinson, D. and Neal, V. 1998. *First Aid for Finds: practical guide for archaeologists*. United Kingdom Institute for Conservation of Historic & Artistic Works.
- Wessex Archaeology 2025a. *Hallgates to Elms Farm, Leicestershire. Archaeological Desk-Based Assessment and Statement of Heritage Significance for Bradgate Park Registered Park and Garden*. Unpublished report ref: 294341.02
- Wessex Archaeology 2025b. *Hallgates to Elms Farm, Leicestershire. Detailed Gradiometer Survey Report*. Unpublished report ref: 294343.03
- Wessex Archaeology 2025c. *Hallgates to Elms Farm, Leicestershire. Archaeological Management Strategy*
- Witkowski, A., Lange-Bertalot, H. and Metzeltin, D. 2000. Diatom Flora of Marine Coasts I, *Iconographia Diatomologica* 7, 1–925
- Zohary, D., Hopf, M. and Weiss, E. 2012. *Domestication of Plants in the Old World: the origin and spread of cultivated plants in West Asia, Europe, and the Nile Valley* (4th edition). Oxford: Oxford University Press.

Online sources

British Geological Survey viewer (accessed 9/12/25)

APPENDICES

Appendix 1 Finds and environmental specialists

Name	Qualifications	Specialism
Sander Aerts	BA; MSc	Archaeoentomological remains, animal bone, marine shell
Phil Andrews	BSc; FSA; MCIfA	Slag and metal working debris
Richard Bradley	BA; MA; MCIfA	Battlefield artefacts, particularly Civil War period lead shot
Ceridwen Boston	BSocSc; MA; MSc; DPhil	Osteoarchaeology; funerary archaeology
Elina Brook	BA; MA; PCIfA	Later prehistoric and Romano-British pottery, and small finds
Alex Brown	BA; MSc; PhD	Geoarchaeology, palynology
Dan Carter	BSc; PhD	Pottery with particular emphasis on post-Roman ceramics. Small and bulk finds including ceramic building material, fired clay, metalwork, clay tobacco pipe, stone, shale and glass
Liz Chambers	BA; MSc	Geoarchaeology
Fiona Eaglesham	BSc; MSc	Archaeobotanical remains
Robert Francis	BSc, MSc, PhD	Anthracological remains, archaeobotanical remains
Erica Gittins	BA; MA; PhD	Prehistoric flint
Phil Harding	PhD	Prehistoric flint, particularly Palaeolithic flint
Hayley Hawkins	BSc; MSc	Geoarchaeology, marine geoarchaeology
Lorrain Higbee	BSc; MSc; MCIfA	Animal bone
Matt Leivers	BA; PhD; ACIfA	Prehistoric pottery and flint
Inés López-Dóriga	BA; MA; PhD	Archaeobotanical remains
Erica Macey-Bracken	BA; ACIfA	Post-medieval finds, ceramic building material and worked wood
Katie Marsden	BSc	Pottery from prehistoric to post-medieval/modern. Metalwork of all periods, including coins. Small and bulk finds including fired clay, ceramic building material, worked bone
Cai Mason	BSc; MCIfA	Post-medieval finds, particularly glass
Jacqueline McKinley	BTech; FSA	Human remains (inhumations and cremations)
Nicki Mulhall		Geoarchaeology and archaeobotanical remains
David Mullin	BA; M.Phil; PhD	Earlier prehistoric pottery (Neolithic–Late Bronze Age)
Marek Lewcun		Clay tobacco pipe
Virva Lompolo	HuK; FM*; MSc	Pottery trainee (*HuK equiv. = BA; FM equiv.= MA; qualifications acquired in Finland)
Jack Oughton	MSci; PhD	Geoarchaeology, palynology, geology
Kate Roberts	BA; MSc	Archaeobotanical remains
Charlie Robertson	BA; MSc	Human remains (inhumations)
Megan Scantlebury	BA; MSc	Archaeobotanical remains



Name	Qualifications	Specialism
Rachael Seager Smith	BA; MCIfA	Pottery with particular emphasis on Roman ceramics; and metalwork, fired clay, ceramic building material, stone, worked bone, shale, glass, and wall plaster
Andrew Shaw	BA; MA; PhD	Palaeolithic lithic artefacts and Pleistocene geoarchaeology
Mark Stewart	BA; MPhil	Prehistoric flint, worked stone, ceramic building material, glass, fired clay
Amy Thorp	BA; MA	Pottery with emphasis on Roman ceramics, small finds
Ed Treasure	BSc; MRes; PhD	Archaeobotanical remains, including plant remains and charcoal/wood
Kevin Trott	BA	Pottery from the Iron Age to early modern period, with emphasis on later Iron Age/Romano-British and medieval to post-medieval periods. Ceramic building material, fired clay/briquetage, metalwork/small finds, clay tobacco pipes, worked bone, stone artefacts, shale, glass, wall plaster, leather, marine shell
Ashley Tuck	BSc; MCIfA	Post-medieval CBM, crucibles, industrial residues and metal
Jessica Waterworth	BA; MSc	Animal bone
Thomas Wicks	BA; MA	Conservation of objects



Appendix 2: proposed archaeological interventions within each land parcel

Land Parcel	Fieldwork Methodology	Proposed Intervention	Rationale
LP_001			No proposed archaeological mitigation as area has been de-scoped from this Scheme.
LP_002	Evaluation	3 trial trenches Up to 9 hand-dug test pits 3 machine dug test pits	Targeting an anomaly and blank areas on the geophysical survey, and in an area of known superficial Head Deposits
LP_003	Evaluation	1 trial trench Up to 3 hand-dug test pits 1 machine dug test pit	Targeting blank area on the geophysical survey, and in an area of known superficial Head Deposits
LP_004	No further work		Extensive known services are present within this land parcel, and the geophysical survey identified a significant area of ferrous.
LP_004b	Evaluation	1 trial trench Up to 3 hand-dug test pits 1 machine dug test pit	Targeting geophysical anomalies, and ridge and furrow that could mask earlier features.
LP_005	Evaluation	2 trial trenches Up to 6 hand-dug test pits 1 machine dug test pit	Targeting geophysical anomalies, and ridge and furrow that could mask earlier features. Within the northern part of the area are known superficial Alluvial deposits.
LP_006	Evaluation	4 trial trenches Up to 4 hand-dug test pits 2 machine dug test pits	Targeting blank areas and ridge and furrow that could mask earlier features. Within the northern part are superficial deposits of geoarchaeological interest.
LP_006b	Archaeological Monitoring and Recording		Geophysical survey identified no anomalies suspected to be archaeological in nature; however, results were impacted by the presence of modern paddock fences and metal objects, which may have affected the results.
LP_006c	Archaeological Monitoring and Recording		Geophysical survey identified no anomalies suspected to be archaeological in nature; however, results were impacted by the presence of modern paddock fences and metal objects, which may have affected the results.
LP_007	Evaluation	9 trial trenches Up to 18 hand dug test pits 6 machine dug test pits	Targeting geophysical anomalies and blank areas. Trenches within area of known superficial Head deposits of Palaeolithic potential
LP_007b	No further work		No proposed archaeological mitigation
LP_008	Evaluation	2 trial trenches 2 machine dug test pits	Targeting geophysical anomalies, geological



Land Parcel	Fieldwork Methodology	Proposed Intervention	Rationale
			anomalies, and ridge and furrow that could mask earlier features. Area contains superficial deposits of geoarchaeological interest
LP_009	Evaluation	1 trial trench 1 machine dug test pit	Testing area with ridge and furrow that could mask earlier features. Area contains superficial deposits of geoarchaeological interest.
LP_010	Evaluation	5 trial trenches 1 machine dug test pits	Targeting geophysical anomalies, geological anomaly, and ridge and furrow that could mask earlier features. In an area of known superficial River Terrace Deposits.
LP_011	No further work		Land parcel containing trees
LP_012	Evaluation	1 trial trench Up to 3 hand dug test pits 1 machine dug test pit	Although no geophysical anomalies suspected of being archaeological in nature were identified, the land parcel is located in an area with known evidence of past human activity. The parcel also contains superficial deposits of geoarchaeological interest.
LP_013	Evaluation	1 trial trench Up to 3 hand dug test pits 1 machine dug test pit	Although no geophysical anomalies suspected of being archaeological in nature were identified, the land parcel is located in an area with known evidence of past human activity. The parcel also contains superficial deposits of geoarchaeological interest.
LP_014	No further work		Major service runs through the small land parcel.
LP_015	Evaluation	1 trial trench Up to 3 hand dug test pits 4 machine dug test pits	Although no geophysical anomalies suspected of being archaeological in nature were identified, the land parcel is located in an area with known evidence of past human activity. The parcel also contains superficial deposits of significant geoarchaeological interest.
LP_016	No further work		Major service runs through the small land parcel.
LP_017	Evaluation	3 trial trenches	Trenches targeting archaeological anomalies and blank areas on the geophysics, and area's proximity to a known Romano-British occupation/kiln site.
LP_018	Evaluation	5 trial trenches	Trenches targeting archaeological anomalies and blank areas on the geophysics, and area's proximity to a known Romano-British occupation/kiln site.



Land Parcel	Fieldwork Methodology	Proposed Intervention	Rationale
LP_019	Evaluation	2 trial trenches	Trenches targeting archaeological anomalies and blank areas on the geophysics, and area's proximity to a known Romano-British occupation/kiln site.
LP_020	Evaluation	9 trial trenches	Targeting geophysical anomalies, and ridge and furrow that could mask earlier features.
LP_021	Evaluation	6 trial trenches	Targeting geophysical anomalies, and ridge and furrow that could mask earlier features.
LP_022	Archaeological Monitoring and Recording		The results of the geophysical survey were good in this location, which highlighted no archaeological anomalies. The land parcel is also outside the known extent of past human activity related to the Romano-British occupation site. However, limited potential for isolated features/finds.
LP_023	Archaeological Monitoring and Recording		The results of the geophysical survey were good in this location, which highlighted no archaeological anomalies. The land parcel is also outside the known extent of past human activity related to the Romano-British occupation site. However, limited potential for isolated features/finds.
LP_024	No further work		Small land parcel completely occupied by services
LP_025	Archaeological Monitoring and Recording		The results of the geophysical survey were good in this location, which highlighted no archaeological anomalies. The land parcel is also outside the known extent of past human activity related to the Romano-British occupation site. However, limited potential for isolated features/finds.
LP_026	No further work		Small land parcel completely occupied by services
LP_027	No further work		The results of the geophysical survey were good in this location, which highlighted no archaeological anomalies.
LP_028	No further work		Small land parcel completely occupied by services
LP_029	Evaluation	4 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_030	Evaluation	2 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.



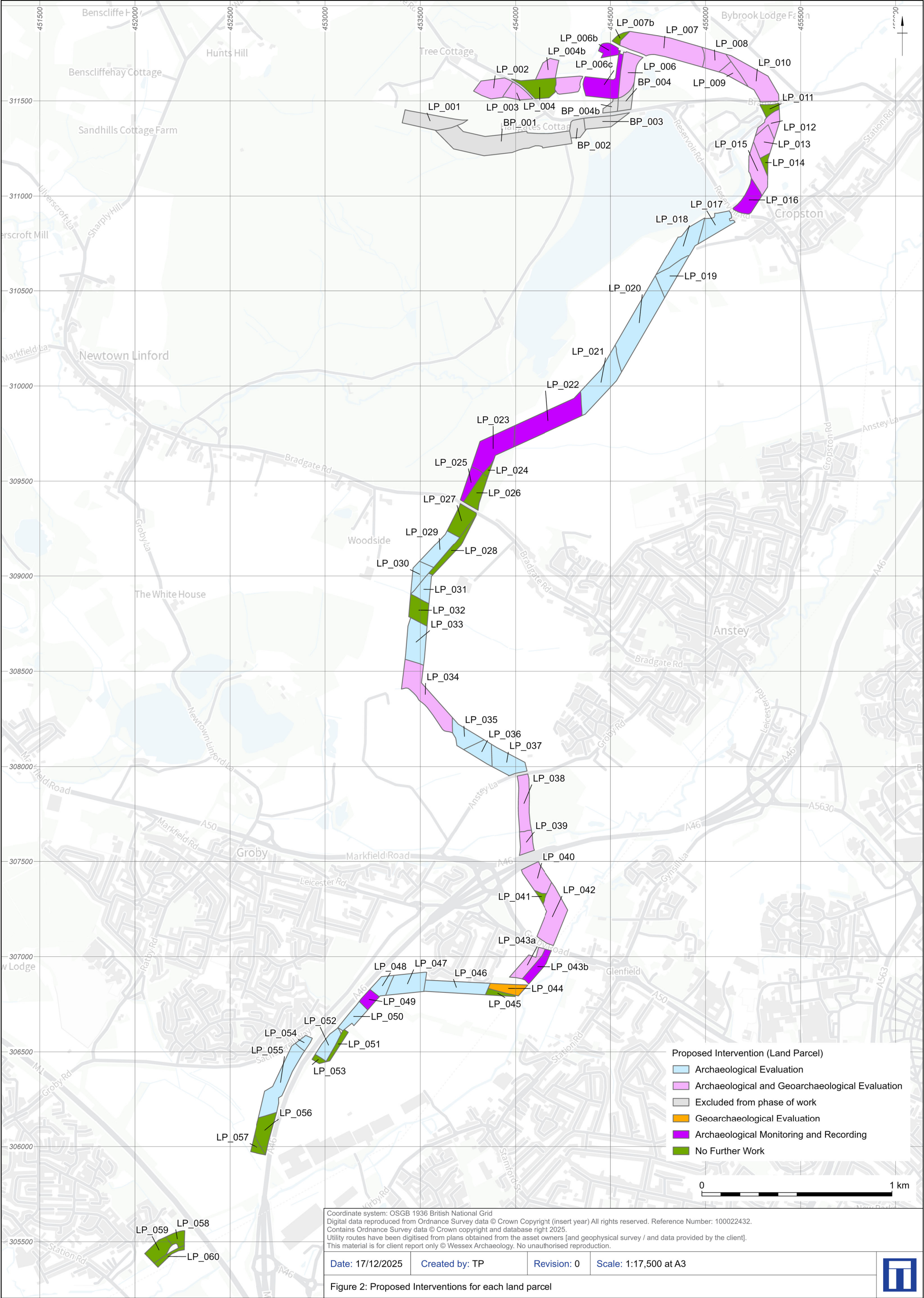
Land Parcel	Fieldwork Methodology	Proposed Intervention	Rationale
LP_031	Evaluation	2 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_032	No further work		The results of the geophysical survey were good in this location, which highlighted no archaeological anomalies.
LP_033	Evaluation	4 trial trenches	The area contains recorded ridge and furrow, which could mask earlier features. Area in proximity to known recorded possible Iron Age/Roman enclosures noted on the HER.
LP_034	Evaluation	7 trial trenches 2 machine dug test pits	The geophysical survey recorded no potential archaeological anomalies; however, the area is located in proximity to a known Iron Age/Roman enclosures noted on the HER. Also contains superficial deposits of geoarchaeological interest
LP_035	Evaluation	2 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_036	Evaluation	2 trial trenches	Targeting geophysical anomalies, blank areas, and ridge and furrow that could mask earlier features.
LP_037	Evaluation	3 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_038	Evaluation	4 trial trenches 5 machine dug test pits	A geophysical survey has not been undertaken within this area, but the HER records an Iron Age and Romano-British site within proximity, and undated cropmark linear features within the area. In an area of known superficial Alluvium, River Terrace Deposits and Head deposits.
LP_039	Evaluation	1 trial trench 2 machine dug test pits	
LP_040	Evaluation	3 trial trenches Up to 3 hand dug test pits 3 machine dug test pits	Targeting geophysical anomalies, blank areas, and ridge and furrow that could mask earlier features.
LP_041	No further work		Small land parcel occupied by trees
LP_042	Evaluation	5 trial trenches Up to 3 hand dug test pits 4 machine dug test pits	No geophysical survey undertaken within this area. The area is located within a wider area of potential Iron Age and Romano-British activity. Area within known superficial Head deposits and Alluvium.
LP_043a	Evaluation	2 trial trenches 2 machine dug test pits	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology. Area

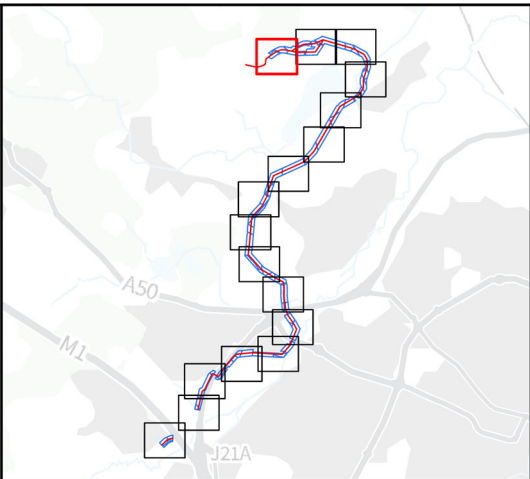
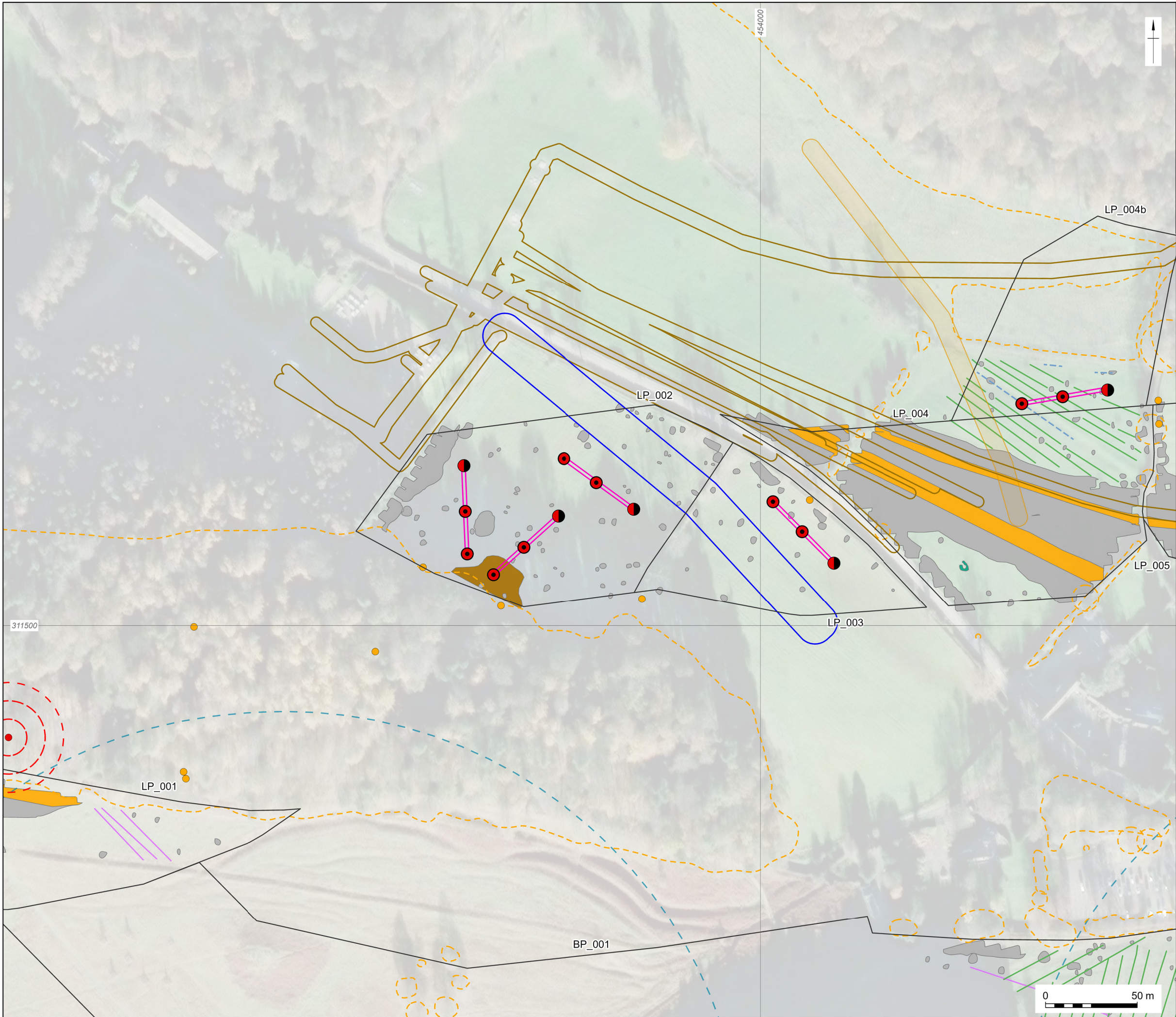


Land Parcel	Fieldwork Methodology	Proposed Intervention	Rationale
			within known superficial River Terrace and Head Deposits.
LP_043b	Archaeological Monitoring and Recording		The area contains an overhead which prevents archaeological evaluation, but a possible archaeological anomaly has been identified.
LP_044	Evaluation	2 machine dug test pits	Area within known superficial River Terrace and Head Deposits.
LP_045	No further work		Presence of known services
LP_046	Evaluation	4 trial trenches	Targeting geophysical anomalies, blank areas, and ridge and furrow that could mask earlier features.
LP_047	Evaluation	4 trial trenches	Targeting geophysical anomalies, blank areas, and ridge and furrow that could mask earlier features.
LP_048	Evaluation	1 trial trench	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_049	No further work		No suspected geophysical anomalies of archaeological origin were detected.
LP_050	Evaluation	2 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_051	No further work		No proposed archaeological mitigation
LP_052	Evaluation	3 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_053	No further work		The root protection zone of the tree prevents archaeological investigation. The zone will also need to be avoided during construction.
LP_054	Evaluation	1 trial trench	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_055	Evaluation	5 trial trenches	Targeting geophysical anomalies and blank areas to confirm the absence or presence of archaeology.
LP_056	No further work		Presence of services and other constraints.
LP_057	No further work		Presence of services and other constraints.
LP_058	No further work		Presence of services and other constraints.
LP_059	No further work		Presence of services and other constraints.
LP_060	No further work		Presence of services and other constraints.







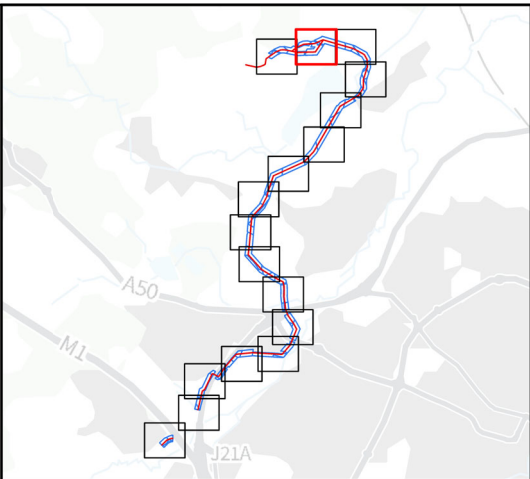
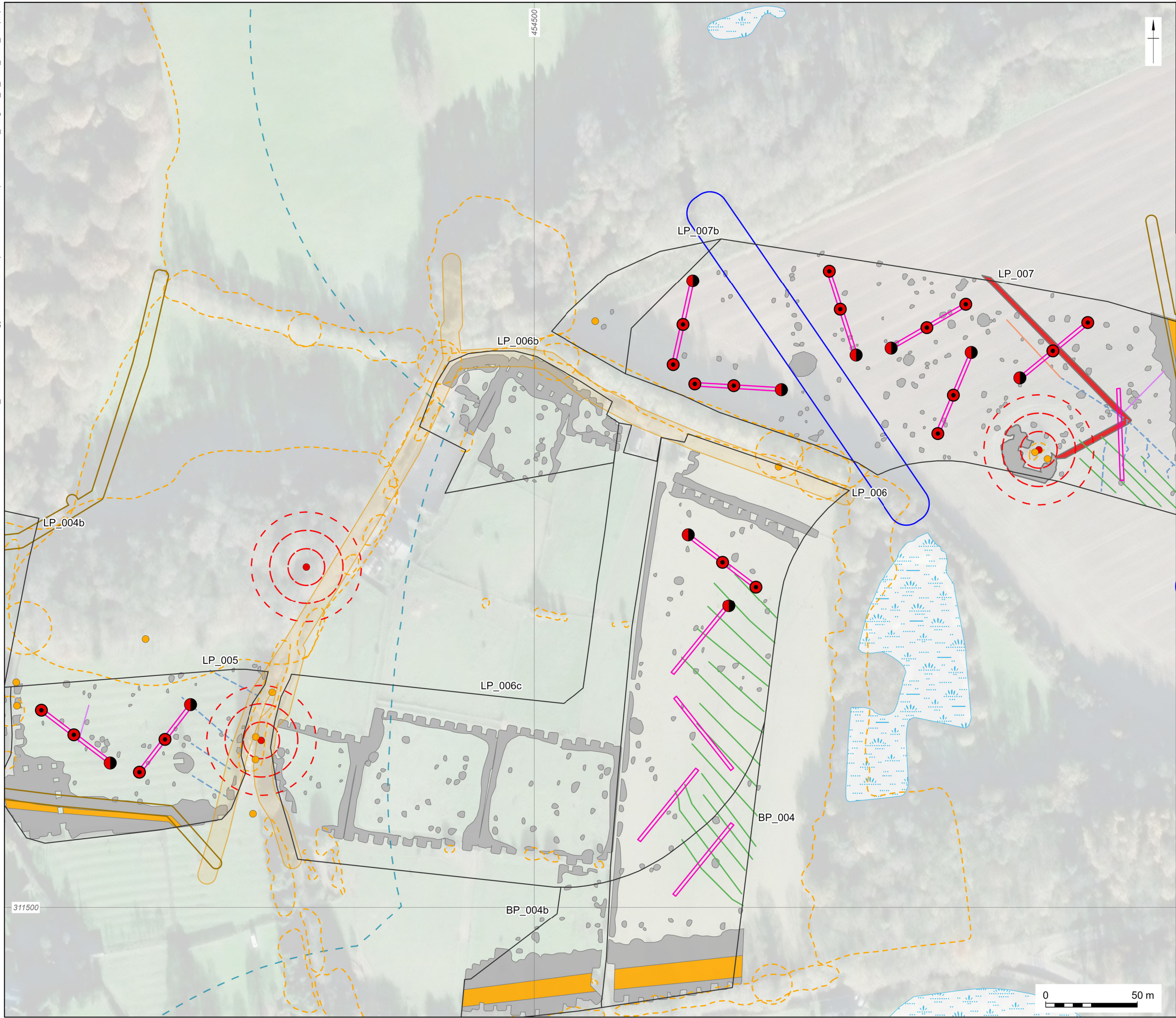


- Land Parcels
- Proposed Evaluation Trench
- Geophysical Interpretations
 - Hand-dug Test Pit
 - Hand-dug Test Pit/ Machine Dug Test pit
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Active Sett Exclusion Zone
- Badger Setts
- Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Trend
 - Drain
 - Possible archaeology
 - Geology
 - Modern service
 - Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.1: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation



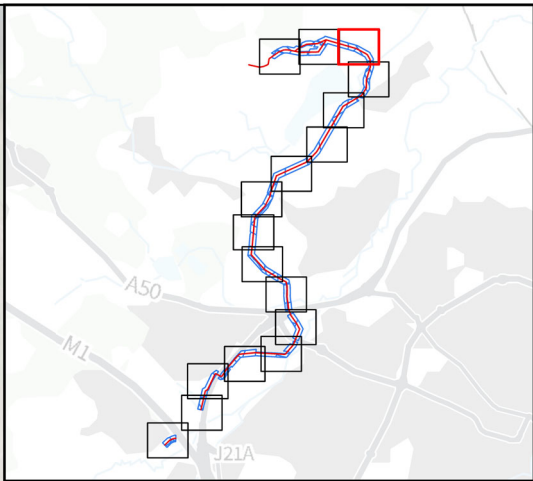
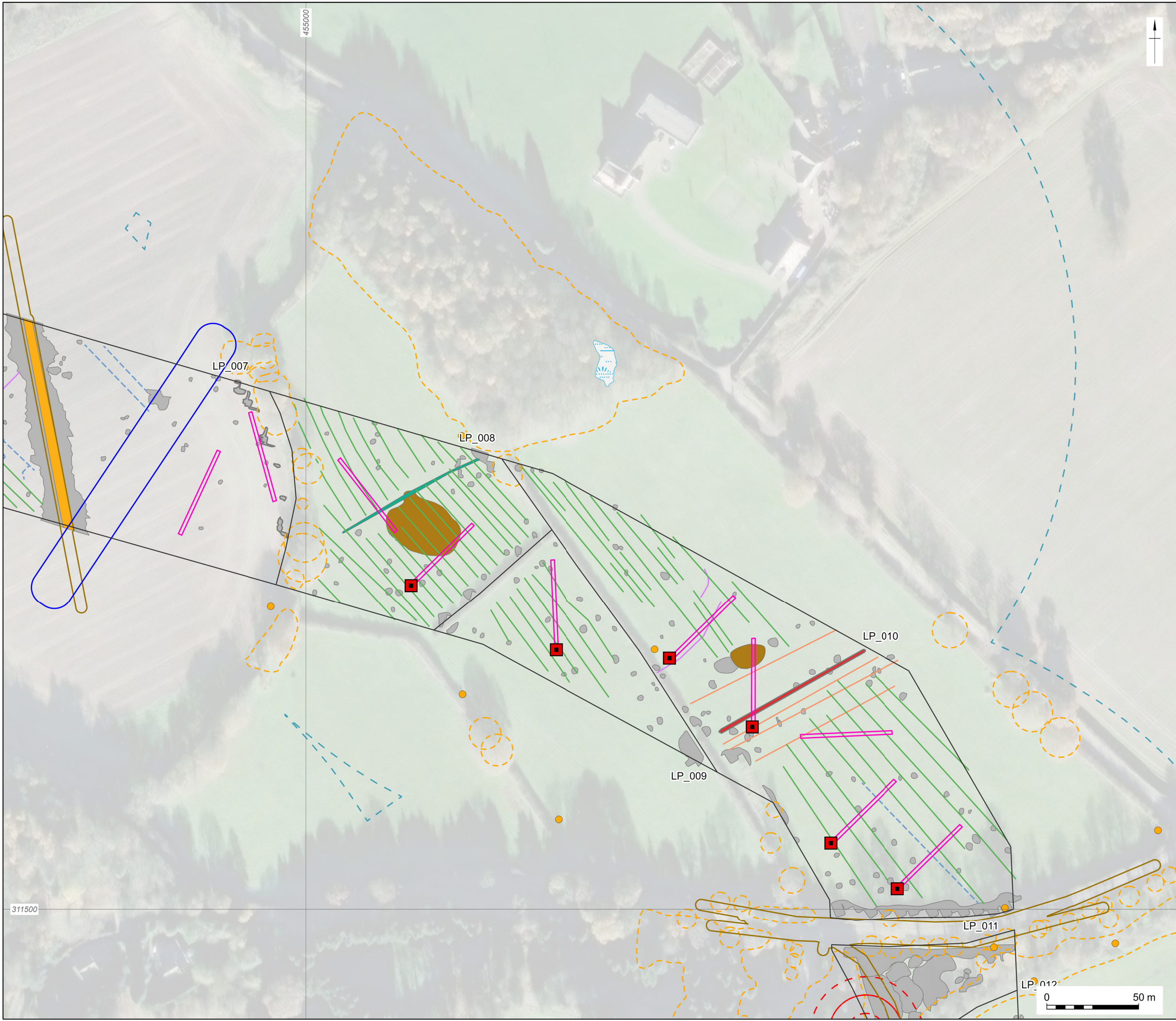
- Land Parcels
- Proposed Evaluation Trench
- Geoarchaeological Interventions
 - Hand-dug Test Pit
 - Hand-dug Test Pit/ Machine Dug Test pit
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Active Sett Exclusion Zone
 - Badger Sett
 - Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Trend
 - Drain
 - Agricultural_feature
 - Former field boundary
 - Modern service
 - Ferrous
 - Increased response

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.2: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

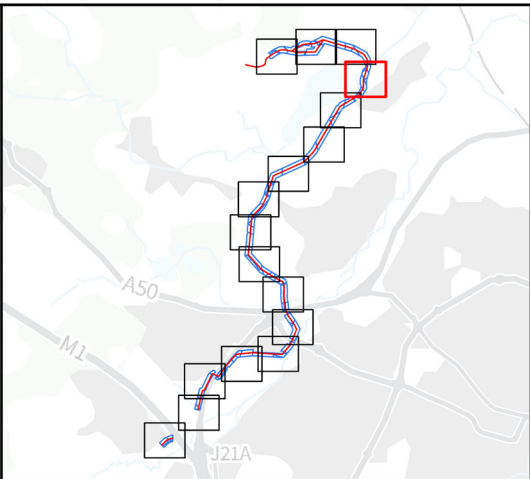
C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\APRX294344_Hallgates_to_Elms_Farm_setup.aprx



- Land Parcels
- Proposed Evaluation Trench
- Geoarchaeological Interventions
 - Machine Dug Test Pit
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Active Sett Exclusion Zone
- Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Trend
 - Drain
 - Agricultural_feature
 - Possible archaeology
 - Geology
 - Former field boundary
 - Modern service
 - Ferrous
 - Increased response

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\APRX\294344_Hallgates_to_Elms_Farm_setup.aprx



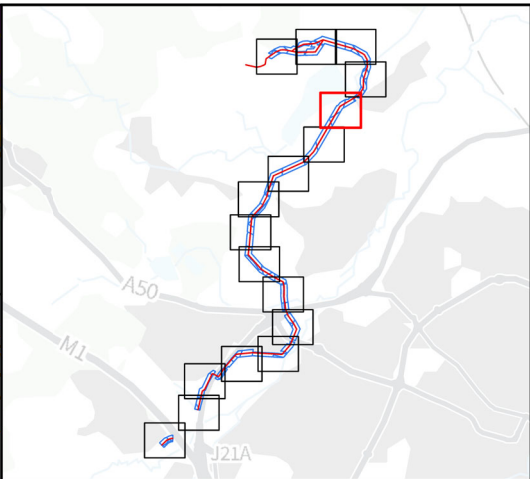
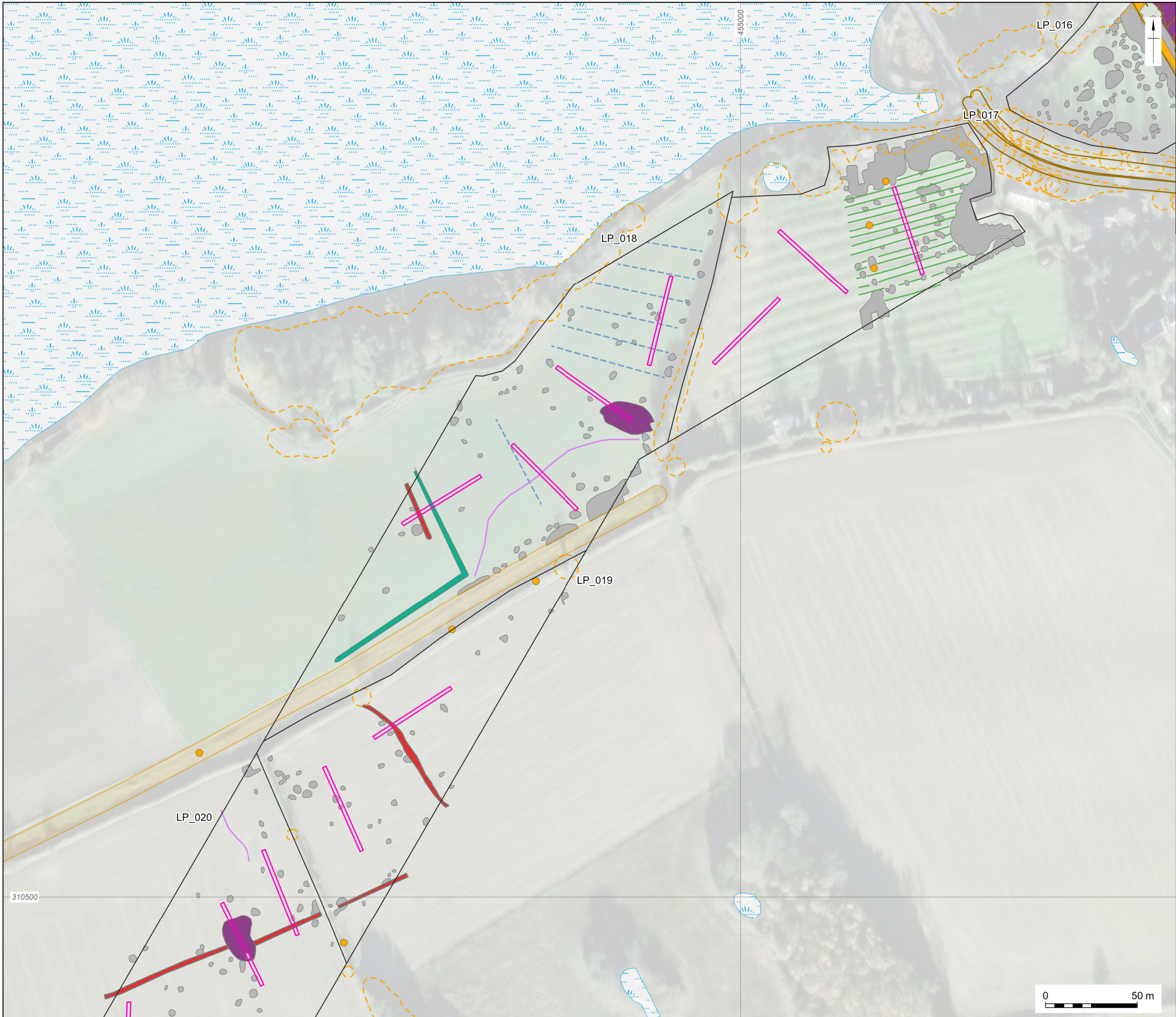
- Land Parcels
- Proposed Evaluation Trench
- Geoarchaeological Interventions
 - Hand-dug Test Pit
 - Hand-dug Test Pit/ Machine Dug Test pit
 - Machine Dug Test Pit
- Utility and constraints
 - Underground Utility Buffer
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Active Sett Exclusion Zone
 - Badger Sett
 - Badger Evidence
 - Trend
 - Drain
 - Historic landscape feature
 - Modern service
 - Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.4: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\PRX\294344_Hallgates_to_Elms_Farm_setup.aprx



- Land Parcels
- Proposed Evaluation Trench
- Utility and constraints
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Trend
 - Drain
 - Possible archaeology
 - Historic landscape feature
 - Former field boundary
 - Modern service
 - Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025 Created by: JS

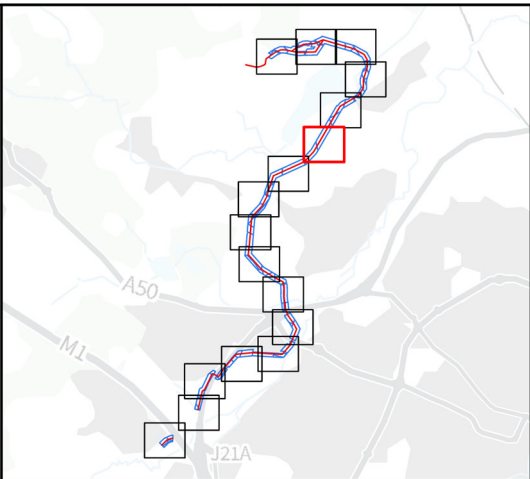
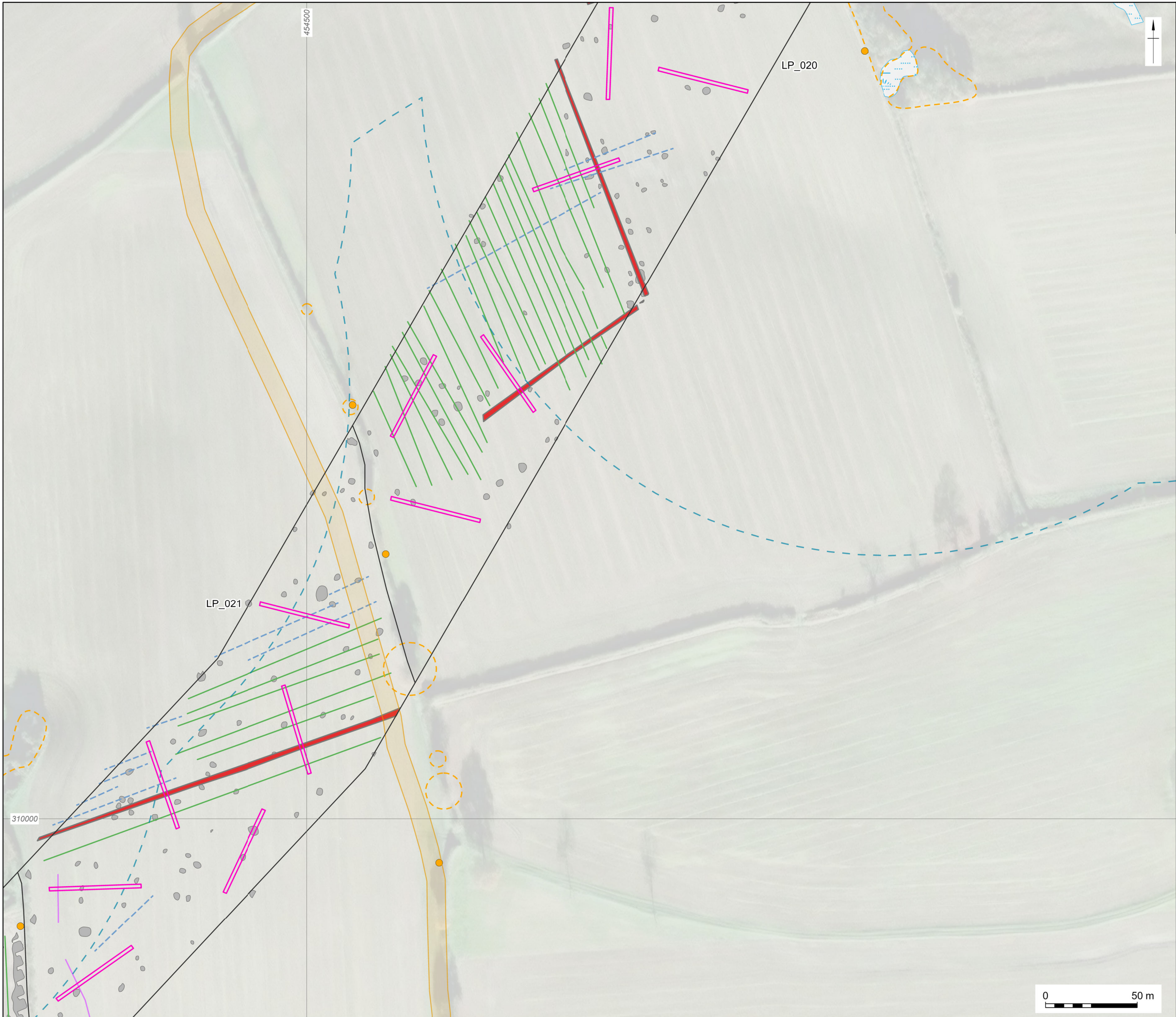
Scale: 1:2,000 at A3 Revision: 0



Figure 3.5: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

0 50 m

C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\APRX\294344_Hallgates_to_Elms_Farm_setup.aprx



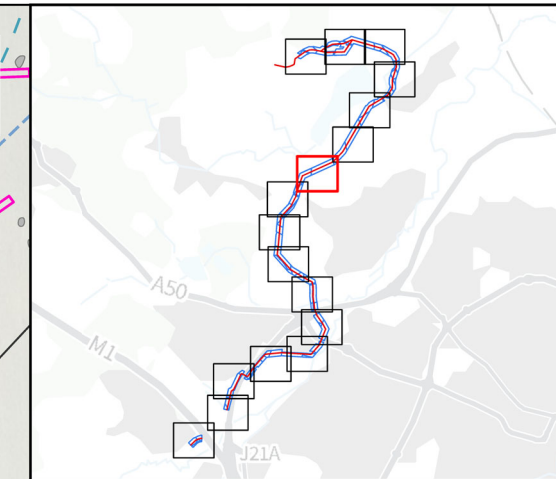
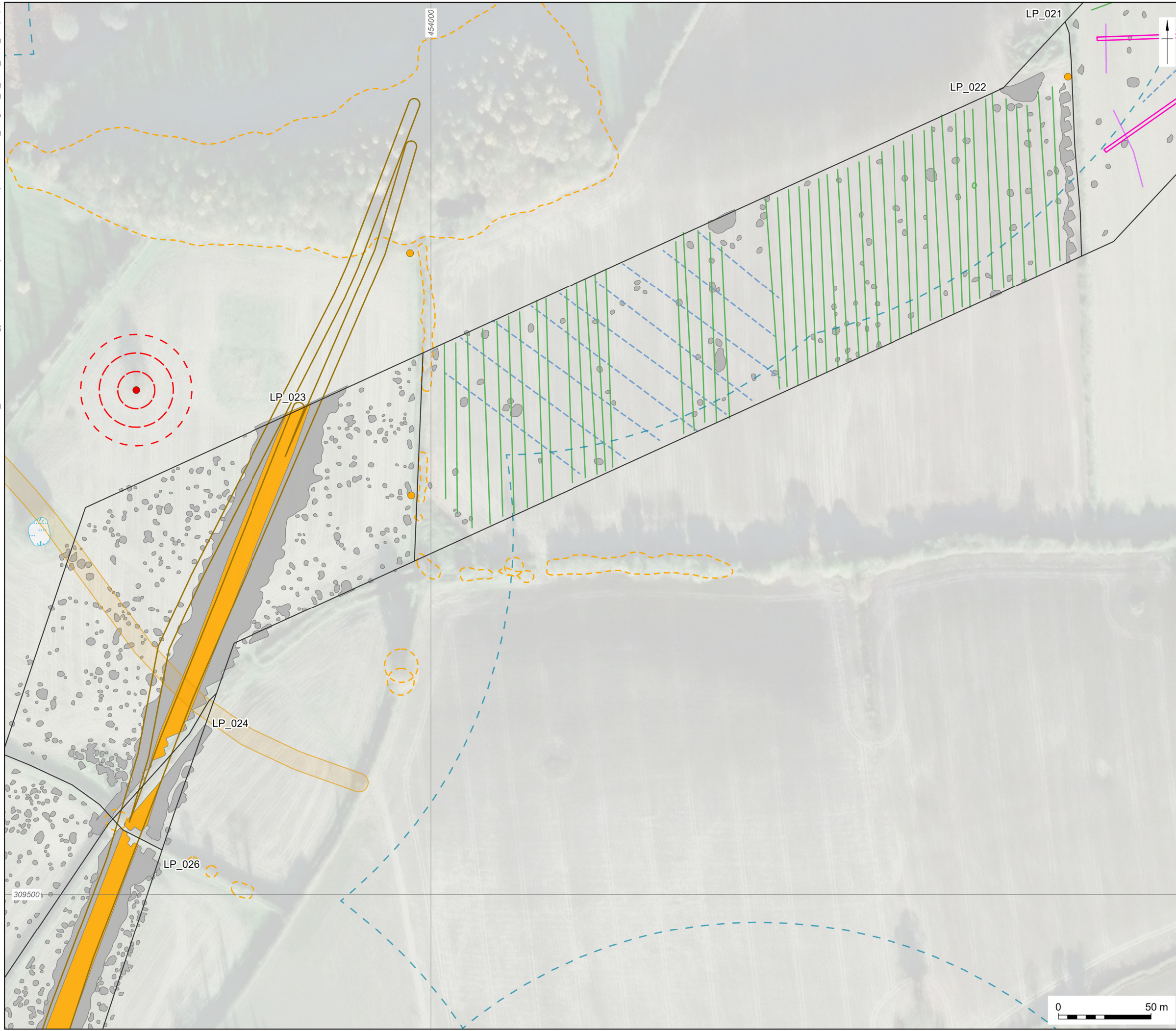
- Land Parcels
- Proposed Evaluation Trench
- Public Right of Way
- RootProtectionZones
- GCN Ponds Buffer (250m)
- Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Trend
 - Drain
 - Former field boundary
 - Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.6: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\APRX294344_Hallgates_to_Elms_Farm_setup.aprx



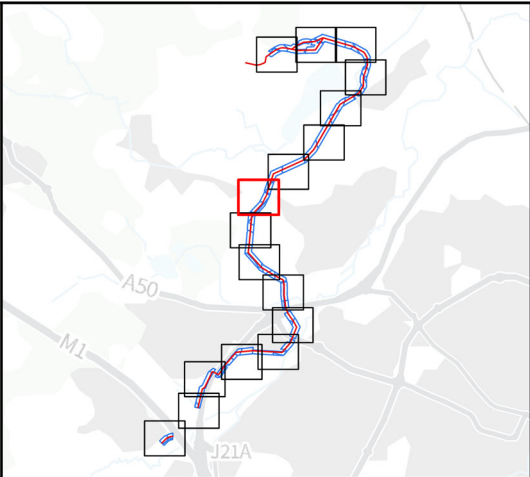
Legend

- Land Parcels
- Proposed Evaluation Trench
- Utility and constraints
 - Underground Utility Buffer
 - Public Right of Way
 - Root Protection Zones
 - GCN Ponds Buffer (250m)
 - Active Sett Exclusion Zone
- Geophysical Interpretation
 - Badger Sett
 - Badger Evidence
 - Historic cultivation
 - Trend
 - Drain
 - Modern service
 - Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.7: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

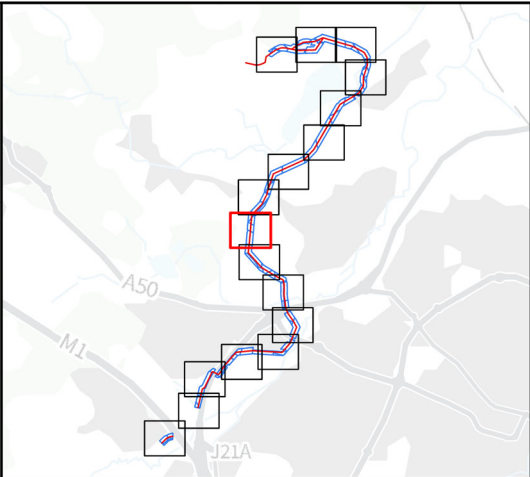
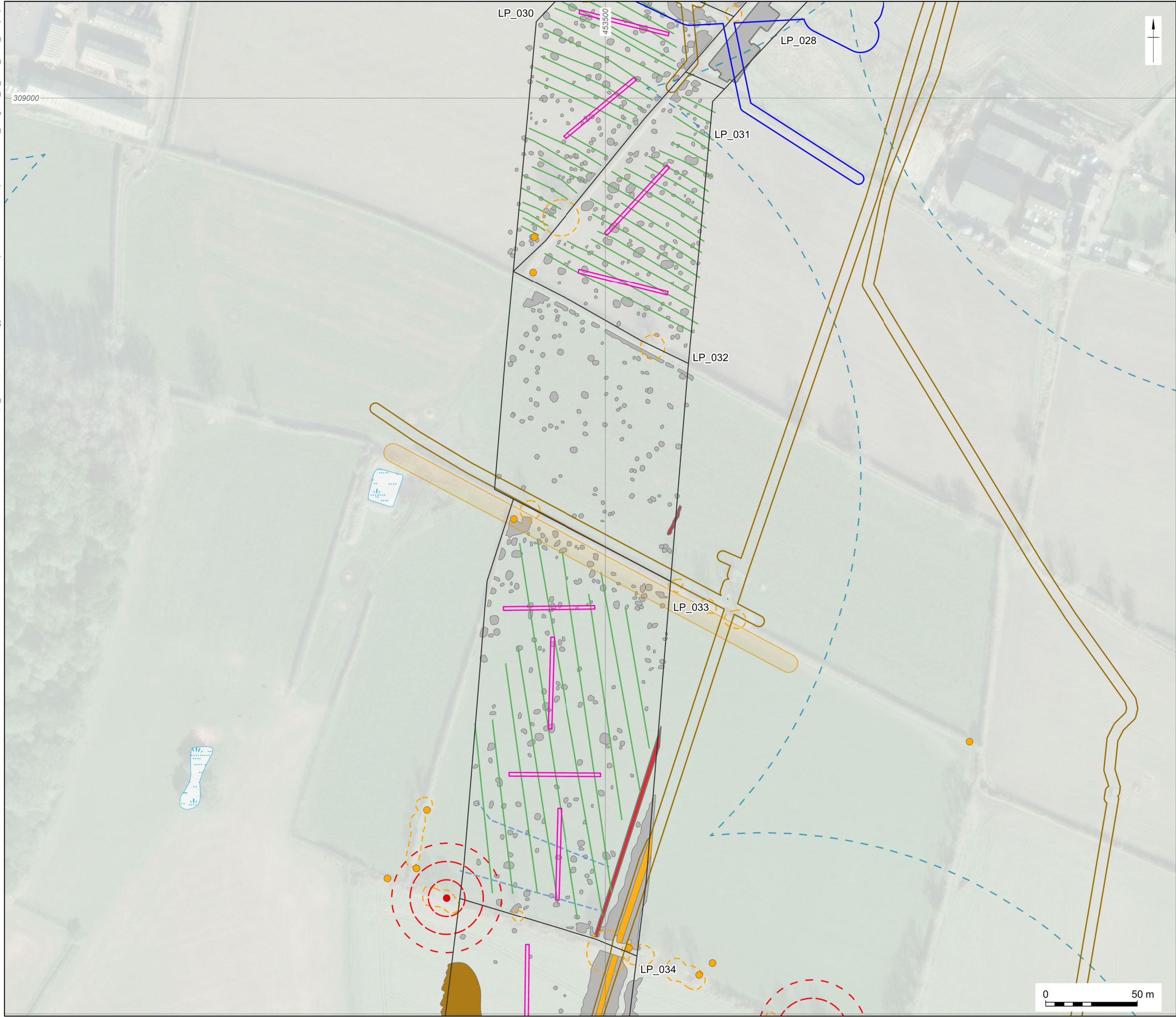


- Land Parcels
- Proposed Evaluation Trench
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Disused Sett Exclusion Zone
- Badger Sett
- Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Drain
 - Possible archaeology
 - Former field boundary
 - Modern service
 - Ferrous
 - Increased response

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.8: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation



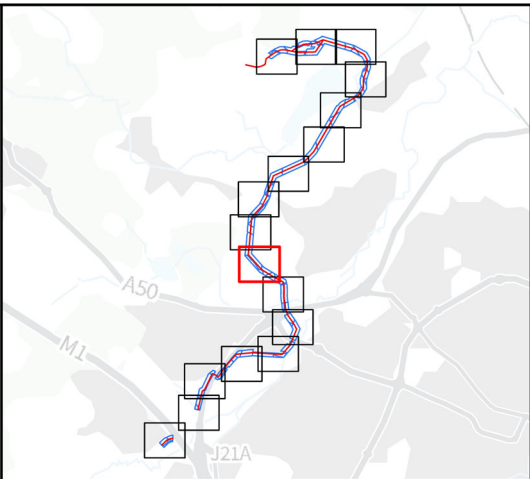
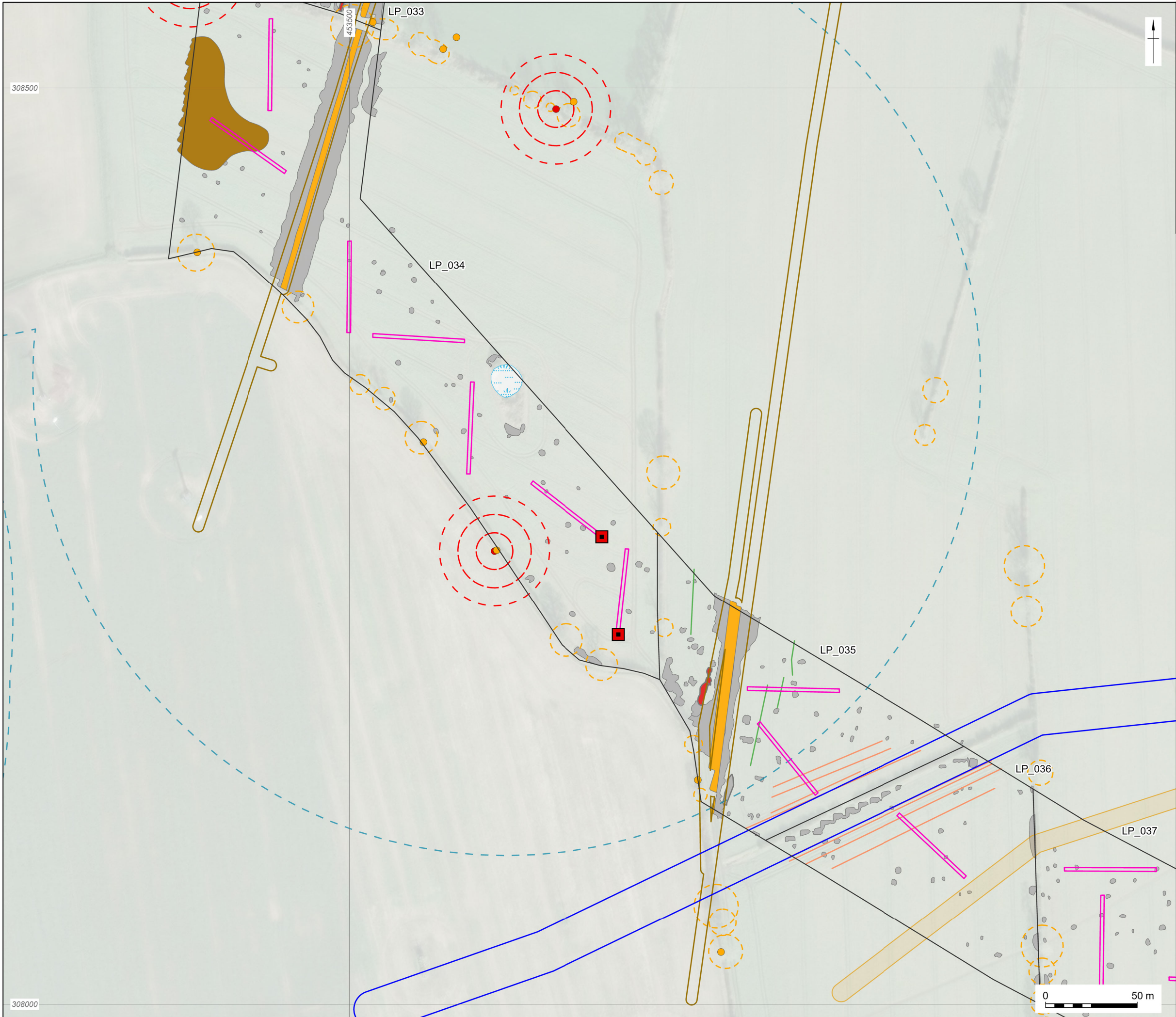
- Land Parcels
- Proposed Evaluation Trench
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Disused Sett Exclusion Zone
 - Active Sett Exclusion Zone
 - Badger Sett
 - Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Drain
 - Geology
 - Former field boundary
 - Modern service
 - Ferrous
 - Increased response

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.9: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\APRX\294344_Hallgates_to_Elms_Farm_setup.aprx



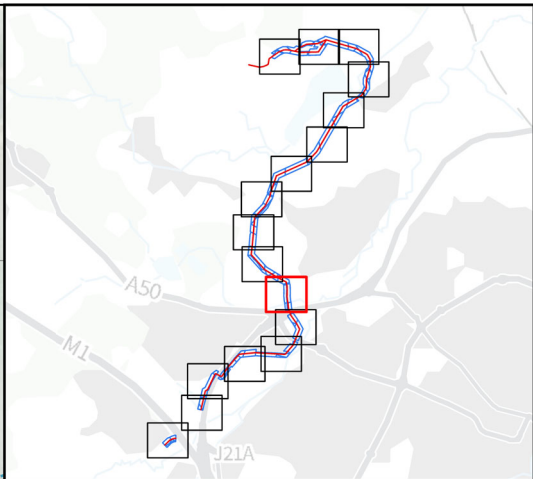
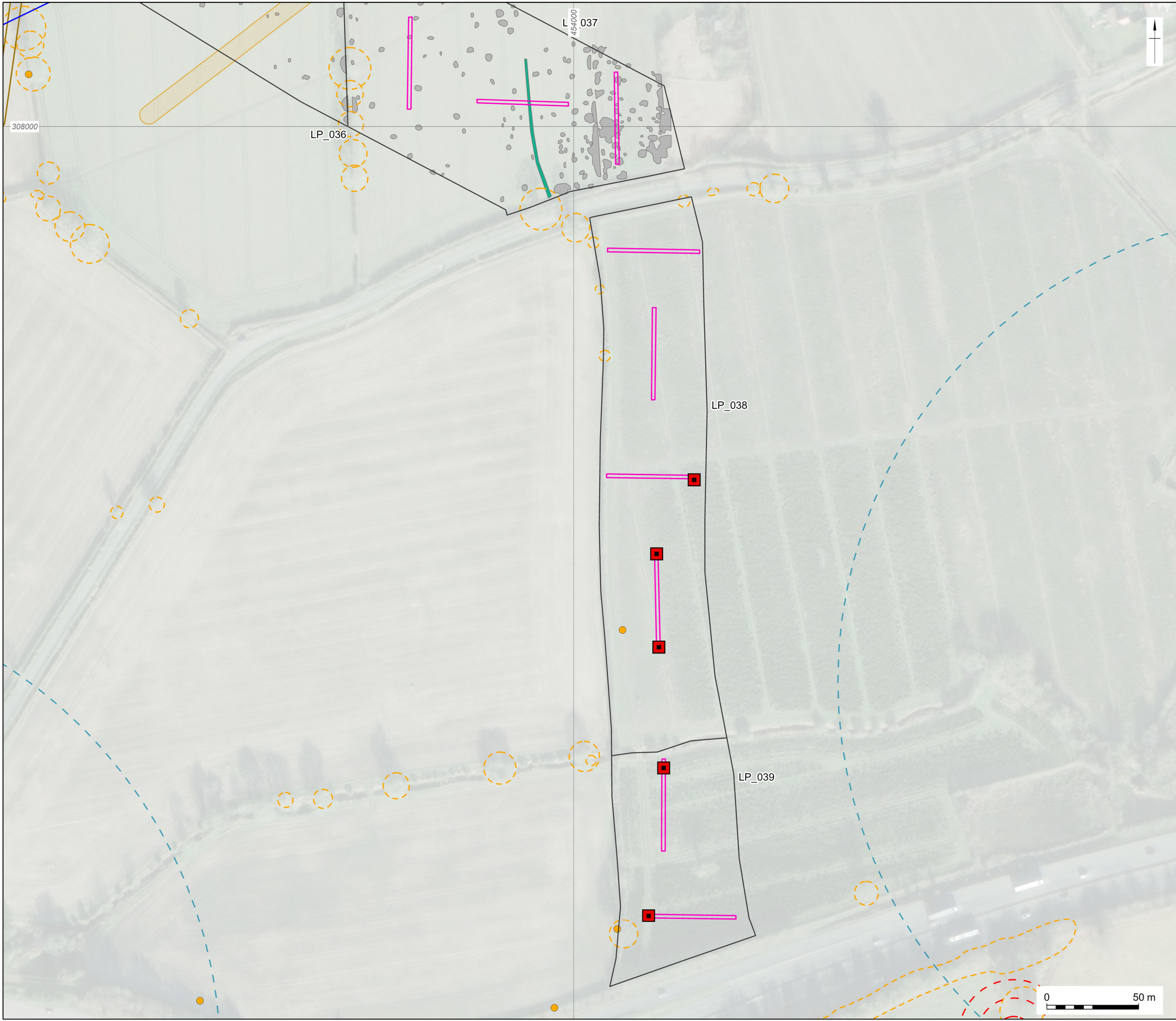
- Land Parcels
- Proposed Evaluation Trench
- Geoarchaeological Interventions
 - Machine Dug Test Pit
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Active Sett Exclusion Zone
 - Badger Sett
 - Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Agricultural_feature
 - Geology
 - Former field boundary
 - Modern service
 - Ferrous
 - Increased response

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.10: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\APRX294344_Hallgates_to_Elms_Farm_setup.aprx



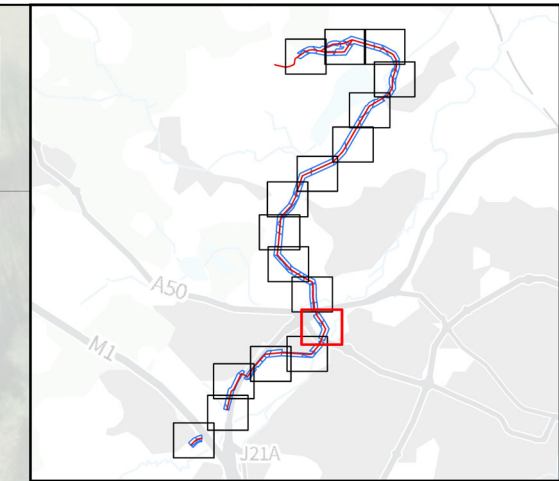
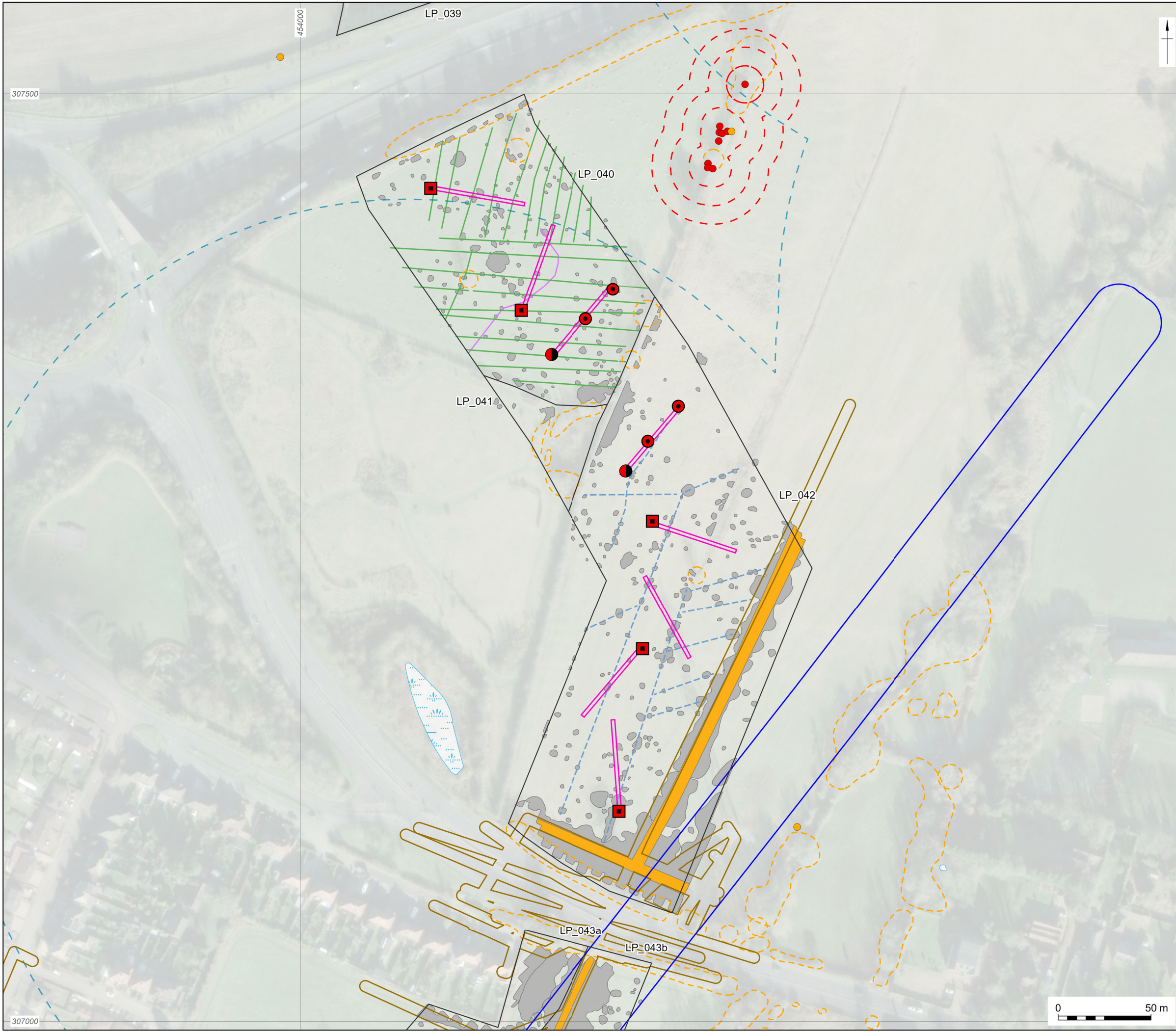
- Land Parcels
- Proposed Evaluation Trench
- Geoarchaeological Interventions
 - Machine Dug Test Pit
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Active Sett Exclusion Zone
- Badger Evidence
- Possible archaeology
- Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.11: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

C:\Users\Thomas_P\Wessex Archaeology\GIS Shore To Ship - 294344\GIS\Setup\APRX\294344_Hallgates_to_Elms_Farm_setup.aprx



□ Land Parcels

▬ Proposed Evaluation Trench

Geoarchaeological Interventions

- Hand-dug Test Pit
- Hand-dug Test Pit/ Machine Dug Test pit
- Machine Dug Test Pit

Utility and constraints

- ▬ Overhead Utility Buffer
- ▬ Underground Utility Buffer
- - - RootProtectionZones
- - - GCN Ponds Buffer (250m)
- - - Active Sett Exclusion Zone
- Badger Sett
- Badger Evidence

Geophysical Interpretation

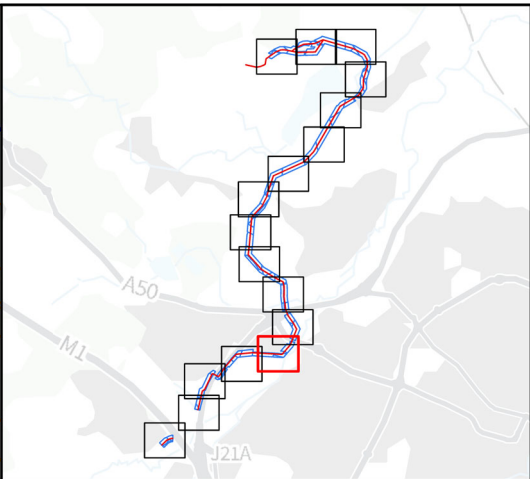
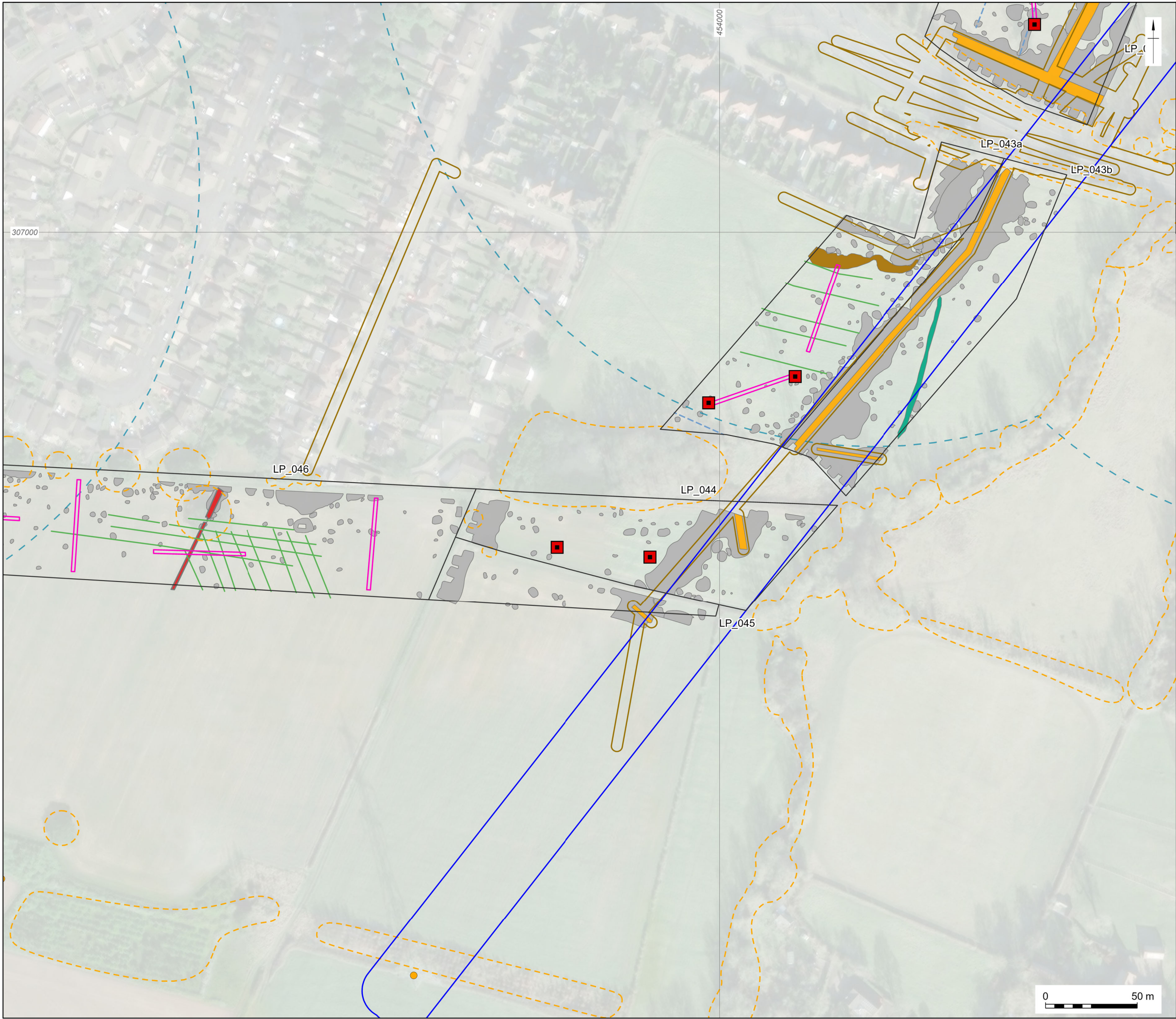
- ▬ Historic_cultivation
- ▬ Trend
- - - Drain
- ▬ Modern service
- Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.12: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

C:\Users\Thomas_P\Wessex Archaeology\GIS Shore To Ship - 294344\GIS\Setup\APRX\294344_Hallgates_to_Elms_Farm_setup.aprx



- Land Parcels
- Proposed Evaluation Trench
- Geoarchaeological Interventions
- Machine Dug Test Pit
- Utility and constraints
- Overhead Utility Buffer
- Underground Utility Buffer
- RootProtectionZones
- GCN Ponds Buffer (250m)
- Badger Evidence
- Geophysical Interpretation
- Historic_cultivation
- Drain
- Possible archaeology
- Geology
- Former field boundary
- Modern service
- Ferrous

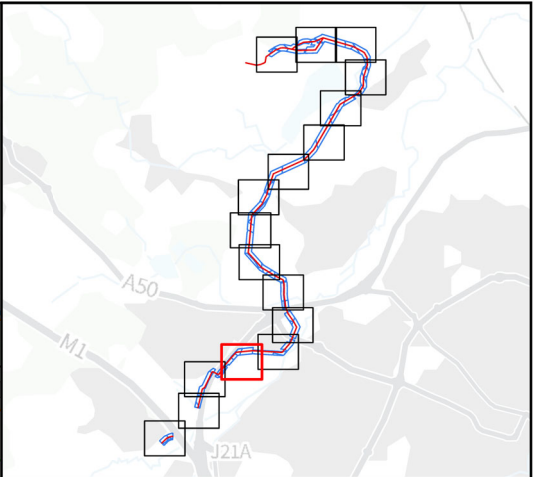
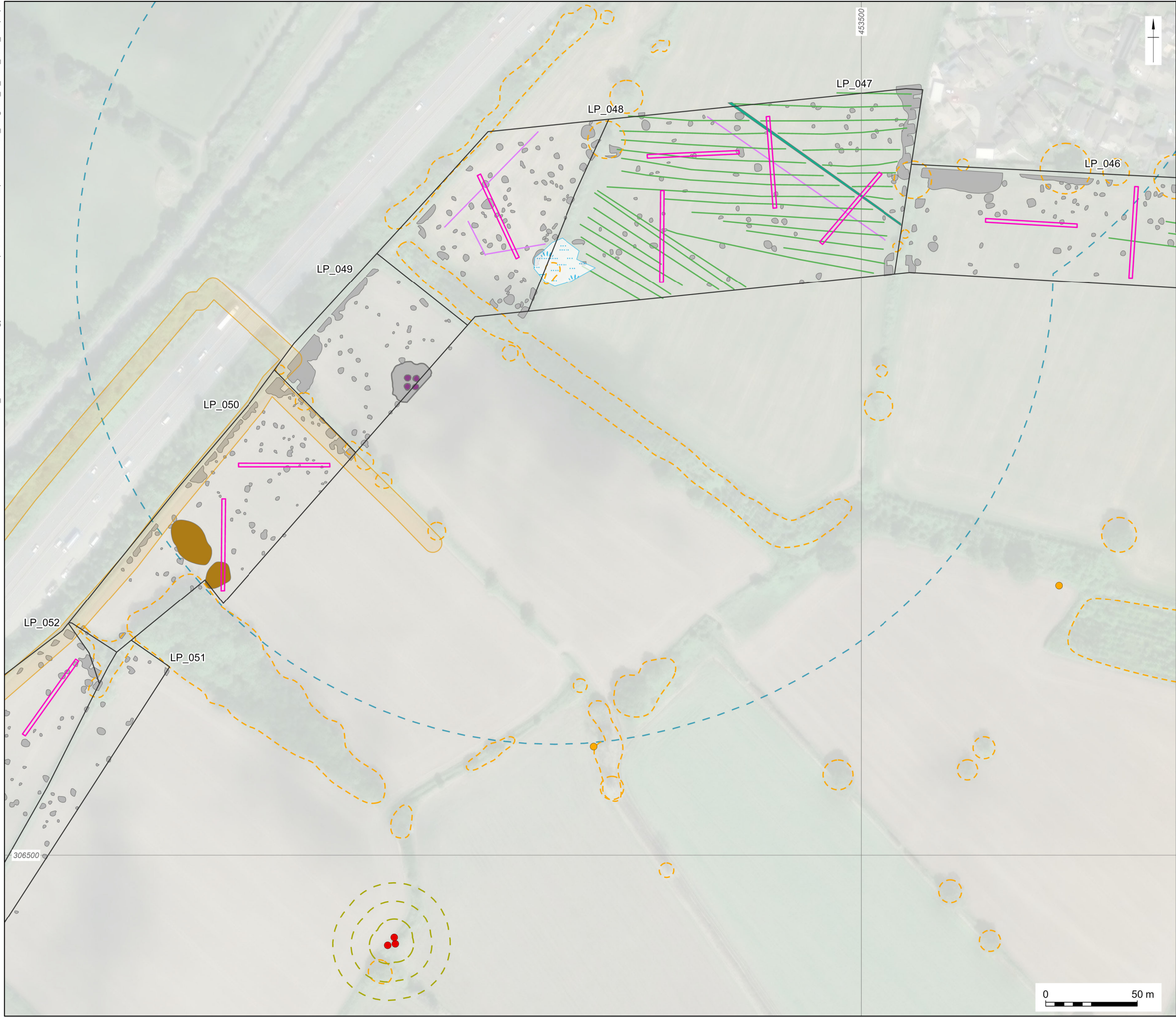
Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025 Created by: JS

Scale: 1:2,000 at A3 Revision: 0



Figure 3.13: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

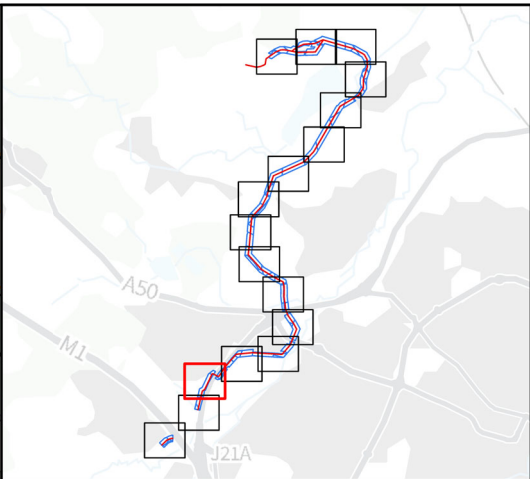
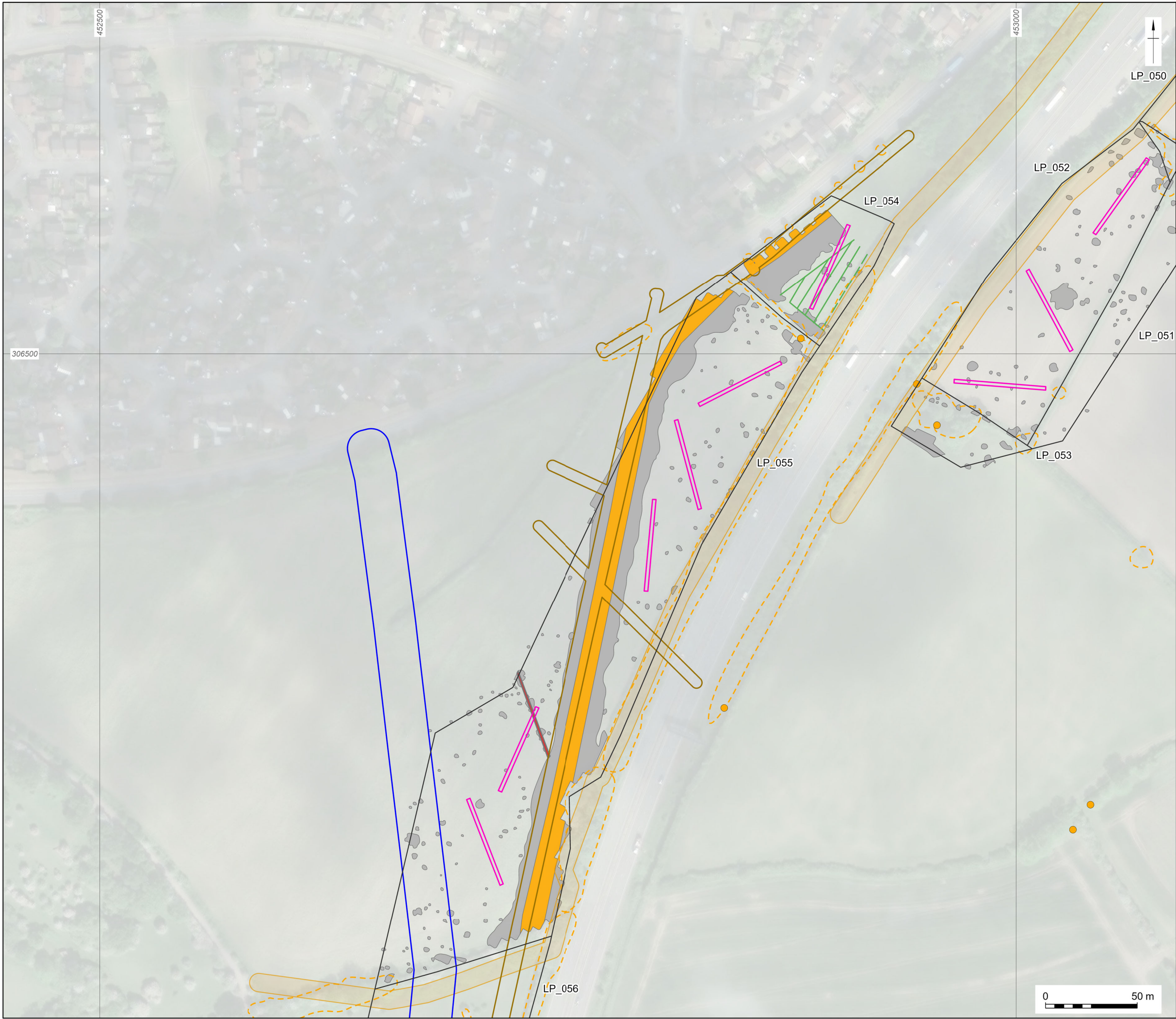


- Land Parcels
- Proposed Evaluation Trench
- Public Right of Way
- Root Protection Zones
- GCN Ponds Buffer (250m)
- Disused Sett Exclusion Zone
- Badger Sett
- Badger Evidence
- Geophysical Interpretation
 - Historic cultivation
 - Trend
 - Possible archaeology
- Geology
- Historic landscape feature
- Ferrous
- Increased response

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.14: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

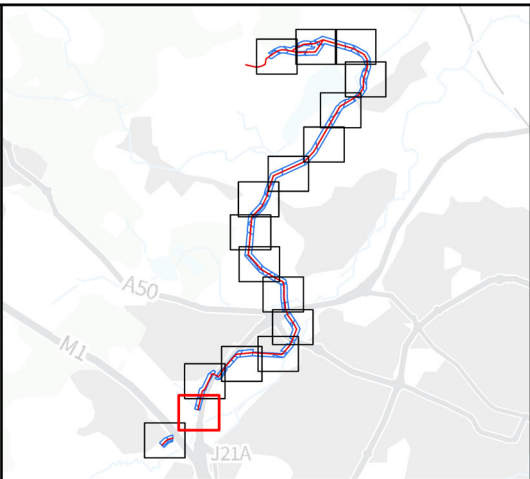
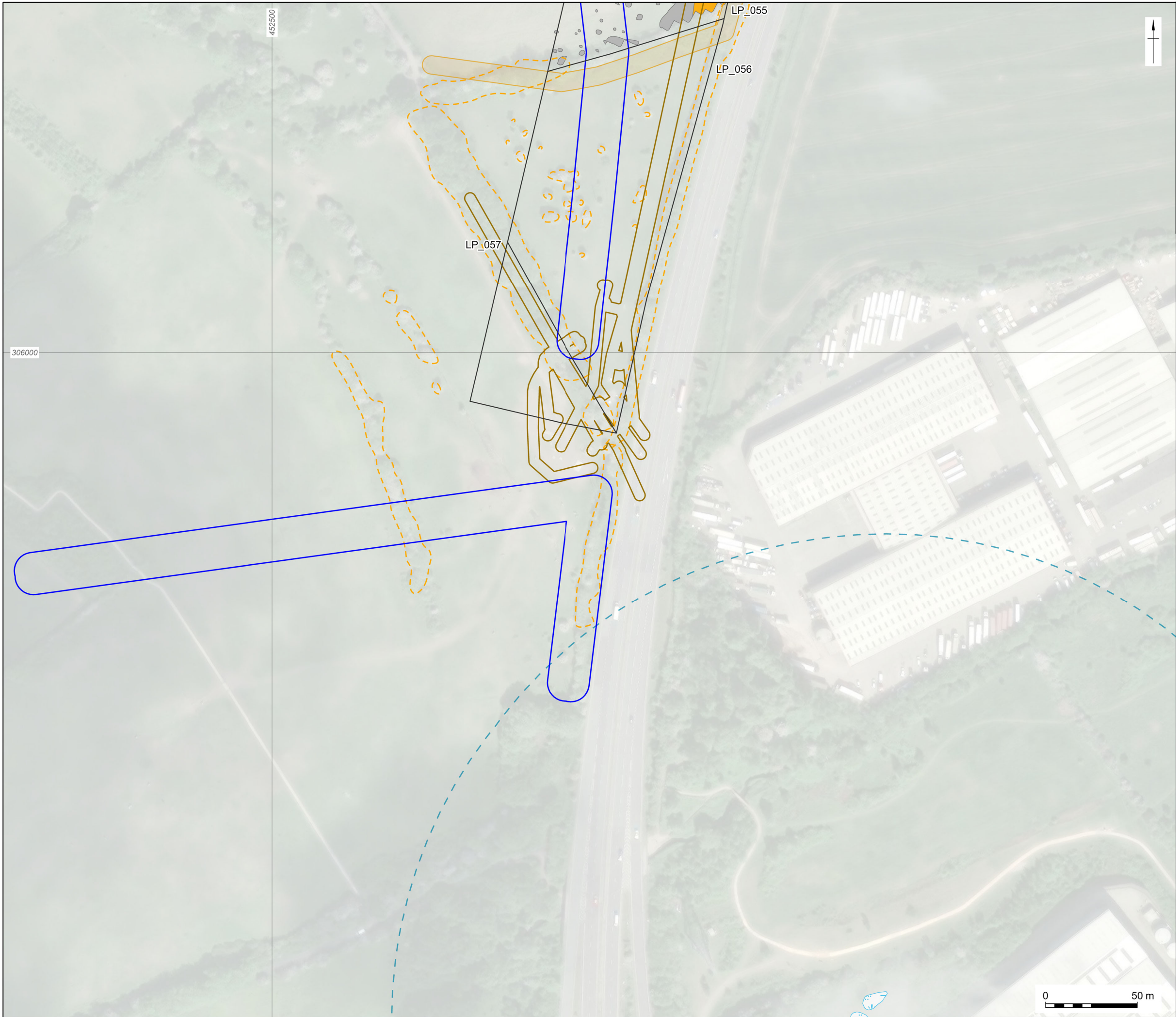


- Land Parcels
- Proposed Evaluation Trench
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - Public Right of Way
 - RootProtectionZones
 - Badger Evidence
- Geophysical Interpretation
 - Historic_cultivation
 - Former field boundary
 - Modern service
 - Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.15: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation



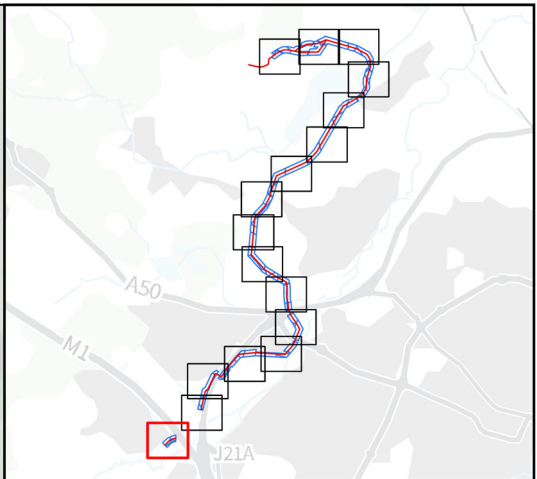
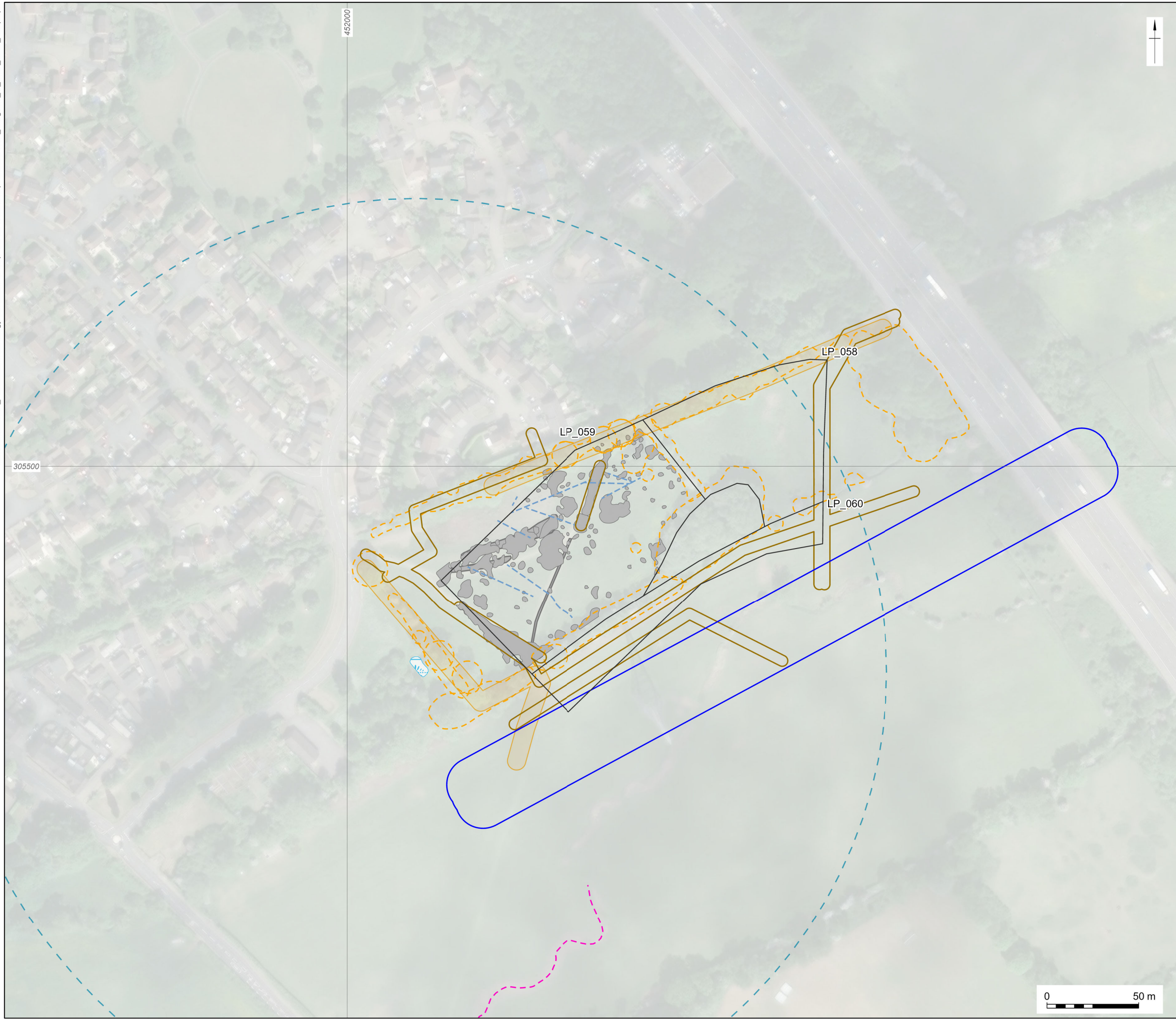
- Land Parcels
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Modern service
 - Ferrous

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.16: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation

C:\Users\Thomas_P\Wessex Archaeology\GIS\Shore To Ship - 294344\GIS\Setup\APRX294344_Hallgates_to_Elms_Farm_setup.aprx



- Land Parcels
- Utility and constraints
 - Overhead Utility Buffer
 - Underground Utility Buffer
 - Public Right of Way
 - RootProtectionZones
 - GCN Ponds Buffer (250m)
 - Drain
 - Ferrous
 - Increased response

Coordinate system: OSGB 1936 British National Grid
Digital data reproduced from Ordnance Survey data © Crown Copyright (insert year) All rights reserved. Reference Number: 100022432.
Contains Ordnance Survey data © Crown copyright and database right 2025.
This material is for client report only © Wessex Archaeology. No unauthorised reproduction.

Date: 17/12/2025	Created by: JS	
Scale: 1:2,000 at A3	Revision: 0	

Figure 3.17: Utilities and Constraints, Proposed Archaeological Interventions and Geophysical Survey Interpretation



Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk

