

**WRITTEN SCHEME OF INVESTIGATION FOR  
ARCHAEOLOGICAL MITIGATION**

**LAND AT HALL FARM  
NORTHWOLD, NORFOLK**

**PREPARED BY LANPRO SERVICES  
ON BEHALF OF  
INFRLAND**

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Figure 1. Site location with location of HER monuments and proposed trenches

Figure 2. Proposed archaeological trenches overlaying geophysical survey greyscale plot

Figure 3. Proposed archaeological trenches overlaying geophysical survey interpretation

## 1 INTRODUCTION

- 1.1 This Written Scheme of Investigation (WSI) has been prepared by Lanpro Services Ltd on behalf of Infraland (the client) and details the methodology for undertaking a programme of archaeological mitigation at Hall Farm in the Northwold Parish of Norfolk.
- 1.2 This WSI has been informed by the results of an archaeological desk-based assessment (DBA) of the proposed development area (PDA) (Lanpro 2021), which was supported by a geophysical survey (Magnitude Surveys 2022).
- 1.3 Consultation with Norfolk County Council Historic Environment Service (NCCHEs) (consultation ref. CNF49456) has confirmed the programme of mitigation works should commence with informative trial trenching to assess the need for and scope of any further works. The proposed archaeological trial trenching will comprise the excavation of 103 no. trenches measuring 2m by 30m. These have been targeted on potential archaeological anomalies identified as part of the geophysical survey (Magnitude Surveys 2022; see Figures 2 and 3), as well as to provide a wider sample, totalling 3.5% of the area of the proposed development area. The programme of trenching will be followed by a post-excavation assessment of the results of the informative trial trenching.
- 1.4 The following WSI includes a project design for informative trial trenching. The results of the trial trench assessment will inform decisions on the need for any further archaeological mitigation investigation. Should this be required, the scope of any additional archaeological excavation or monitoring will be detailed in an approved project design and attached as an addendum to this overarching WSI.

## 2 SITE LOCATION AND DESCRIPTION

- 2.1 The proposed development area (PDA) comprises two arable fields of approximately 17.7ha, which are located in rural land directly to the south-west of the River Wissey, approximately 0.82km to the north-west of the town of Northwold, Norfolk (centred at TL 74459 98078; Figure 1).
- 2.2 The PDA is bounded on all sides by agricultural land; a pond is located on the west side of the northern perimeter.
- 2.3 There is a gentle upward slope to the south. The highest recorded points are in the south of the site and are recorded at c. 10m above Ordnance Datum (aOD); the lowest points are in the north of the PDA, recorded at c. 9m aOD.
- 2.4 The recorded bedrock geology across the PDA consists of Holywell Nodular Chalk Formation and New Pit Chalk Formation (undifferentiated). No superficial deposits are recorded across the majority of the PDA. Superficial deposits of alluvium comprising clay, silt, sand and gravel are present adjacent to the River Wissey and extend into the eastern edge of the PDA (BGS

2022). The soils are mapped as shallow lime-rich soils over chalk or limestone (Cranfield University 2022).

### 3 PLANNING BACKGROUND

3.1 An archaeological DBA was undertaken in October 2021 to assess the archaeological potential of the PDA (Lanpro 2021). Following which, planning permission was granted for the proposed scheme in March 2022 on the condition that:

*3. No development shall take place until an archaeological written scheme of investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions; and 1) The programme and methodology of site investigation and recording, 2) The programme for post investigation assessment, 3) Provision to be made for analysis of the site investigation and recording, 4) Provision to be made for publication and dissemination of the analysis and records of the site investigation, 5) Provision to be made for archive deposition of the analysis and records of the site investigation, 6) Nomination of a competent person or persons/organization to undertake the works set out within the written scheme of investigation and 7) any further project designs as addenda to the approved WSI covering subsequent phases of mitigation as required.*

*4. No development shall take place other than in accordance with the written scheme of investigation approved under condition 3 and any addenda to that WSI covering subsequent phases of mitigation.*

3.2 An archaeological geophysical survey was undertaken in May 2022 to establish the potential for buried archaeological deposits and inform the requirement and extent of a trial trench assessment. The geophysical survey primarily detected anomalies considered to be of an agricultural origin, including former field boundaries and ridge and furrow, modern origin, or caused by geological changes in the substrata. Several rectilinear anomalies were identified in the centre and east of the survey area that lacked the necessary increases in magnetic value and patterning for conclusive interpretation and so are of an unknown origin (Magnitude Surveys 2022).

3.3 Steve Hickling, Principal Archaeologist at NCCHEs was consulted on the requirement and extent of intrusive archaeological works based on the results of the DBA and geophysical survey in July 2022. It was agreed that a programme of archaeological trial trenching was required that covered 3.5% of the area of the PDA. The trial trench assessment is aimed at testing the results of the geophysical survey; verifying the archaeological potential of anomalies of an unknown origin, as well as investigating identified ridge and furrow.

3.4 This WSI provides a detailed methodology for undertaking a programme of archaeological trial trenching aimed at identifying, recording and sampling any archaeological features that

may be present, and assessing the need for further mitigation investigations if required. If significant or complex archaeological remains are identified during the trenching, a project design detailing the extent and scope of subsequent mitigation works will be required to establish the methodology for any further stages of work, if necessary, and fulfil the archaeological condition of the planning application. If required, an approved project design for subsequent mitigation will be attached as an addendum to this overarching WSI.

## **4 ARCHAEOLOGICAL BACKGROUND**

- 4.1 The archaeological background below is derived from the DBA produced by Lanpro in October 2021.
- 4.2 The PDA contains no designated heritage assets.
- 4.3 There are two records held on the HER within the PDA; find spots of medieval and post-medieval artefacts (MNF68754) and an area of ridge and furrow (MNF70756).
- 4.4 In a 1km search area of the site there are 55 locally listed heritage assets, including the Village cross 270 north west of St. Andrew's Church Scheduled Monument and Grade II\* Listed Building, and four Grade II Listed Buildings that form historic residential properties in the north-west of Northwold.
- 4.5 Three HER 'events' records detail archaeological watching briefs undertaken in advance of ground works for varying developments. The nearest watching brief was undertaken c.555m to the north-west of the PDA and identified two pits containing flints dated to between the Late Neolithic to Late Bronze Ages (MNF66907).

### **Prehistoric and Roman Periods (c. 9500 BC – c. AD 410)**

- 4.6 There is no recorded evidence for prehistoric or Roman activity within the PDA.
- 4.7 The earliest evidence of human activity is recorded c.555m to the north-west of the PDA and comprises two pits containing flints dated to between the Late Neolithic to Late Bronze Ages (MNF66907) that were identified during an archaeological watching brief.
- 4.8 Evidence of Bronze Age activity comprises cropmarks recorded from aerial photographs of ring ditches (e.g. MNF22960, MNF22995, MNF29471, MNF39711) and trackways (MNF70822 and MNF70823), as well as a series of find spots including: a rapier (MNF29773), a human lower jawbone (MNF4735), spearheads (MNF4795 & MNF70498) and a razor (MNF17292).
- 4.9 Evidence of Iron Age and Roman activity is limited to finds largely found through metal detecting. These include an Iron Age torc (MNF21198), late Iron Age and Roman coins and Roman brooches (MNF60338 and MNF71264), Roman pottery sherds (MNF20921), as well

as various Roman metal objects, including coins and brooches (MNF21751, MNF22067, MNF32350, MNF68900 and MNF71648).

- 4.10 A possible enclosure of potential prehistoric date was identified as a cropmark from aerial photography (MNF70819) which includes an irregular ditch and possible entranceway.

#### **Medieval Period (c. AD 410– c. 1540)**

- 4.11 There are two records of a medieval date that are located within the PDA: an area of former ridge and furrow (MNF70756) and find spots of medieval and post-medieval artefacts (MNF68754).
- 4.12 Evidence of early medieval activity is limited to find spots identified through metal detecting of a 6<sup>th</sup> century long brooch (MNF21751), three Middle Saxon pins (MNF22067), a Late Saxon penny (MNF21752), and a group of unidentifiable Middle to Late Saxon objects (MNF33710).
- 4.13 The etymology of Northwold suggests it is of Old English origin meaning ‘North Forest’ (Mills 2011, 349, University of Nottingham 2022), indicating its origins as a settlement at the northern part of Thetford Forest. Northwold is recorded in Domesday Book as a large settlement of 64 households, under two different landowners. Resources included ploughland and meadow (Open Domesday 2021).
- 4.14 The PDA is likely to have formed agricultural land to the north-west of the Northwold during the medieval period as evidenced by ridge and furrow recorded both within the PDA (MNF70756) and its immediate hinterland (MNF70816).
- 4.15 Within a 1km search area, probable medieval earthworks, potentially relating to settlement (MNF32253), are visible on aerial photography c.505m to the south-east of the PDA. Features included enclosures, a trackway, banks and ditches and are thought to be associated with a manor house or farm shown on historic mapping. Further ditches (MNF70820 and MNF70821) of possible medieval date have been identified c.825m to the south-east and c. 525m to the south of the PDA.
- 4.16 The Church of St. Edmund (MNF4829) was located c.638m to the north-east of the PDA until its probable abandonment in the mid-16th century as a result of its distance from Northwold.
- 4.17 Metal detecting in 2015 identified several coins and jettons (MNF68754) dated to the medieval and post-medieval periods within the PDA, which were presumably accidentally misplaced by their owner(s). Within 1km of the PDA the HER records numerous find spots of medieval pottery (MNF20921 and MNF22837) and metal objects (MNF21751, MNF22067, MNF32350, MNF60338, MNF71264 and MNF17292), many of which were also discovered through metal detecting.

#### **Post-medieval and Modern Periods (c.1540 – Present)**

- 4.18 Coins and jettons of a medieval to post-medieval date (MNF68754) are recorded by the HER as being found within the PDA.
- 4.19 Northwold continued to thrive as an agricultural centre during the post-medieval period as demonstrated by the numerous mid-19<sup>th</sup> century buildings still present within the modern villagescape associated with former blacksmiths, general stores, tailor and other trades and professions being located within the village (BCKLWN 1992, 3). The assets include houses (MNF56884, as well as the Listed Buildings recorded within the search area), a chapel (MNF46483), windmills (MNF14495) and a milestone (MNF61349). A place name sign (MNF63329) is also located within the surrounding area, which is one of 28 surviving 1921 Ministry of Transport style signs.
- 4.20 Historic mapping indicates that the PDA continued to be in agricultural use during the 19<sup>th</sup> and 20<sup>th</sup> centuries. The 1839 Northwold tithe map shows the PDA as forming parts of six parcels of land, with the proposed development's access route following field boundaries, and the cable route crossing another two parcels of land. The accompanying apportionment indicates that the parcels of land which form the main PDA are in use as a mixture of arable fields and pasture with the cable route crossing two arable fields.
- 4.21 The 1884 Ordnance Survey (OS) map shows the loss of some field boundaries within the PDA; the majority of field boundaries are marked with hedgerows. A pond is also depicted in central portion of the PDA. This map also shows the addition of a boundary within the fields which the proposed cable route crosses. There is little change shown on the 1905 and 1953 OS maps, with the exception of the field boundaries no longer being marked with hedgerows.

## 5 RESEARCH DESIGN

### AIMS AND OBJECTIVES

- 5.1 The overall aim will be to obtain sufficient information to establish the presence/absence, character, extent, state of preservation and date of any archaeological deposits within the area of the proposed development. This will allow reasoned and informed recommendations to be made for further archaeological mitigation works, the scope of which would be detailed in a project design in agreement with the NCCHEs Principal Archaeologist.
- 5.2 This will be achieved through the following objectives:
- To determine the location, extent, date, character, condition and significance of any archaeological remains within the PDA
  - To excavate and record identified archaeological features and deposits to a level appropriate to their extent and significance
  - To assess vulnerability/sensitivity of any exposed remains
  - To assess the impact of previous land use on the site

- To assess the potential for survival of environmental evidence
- To inform a strategy to avoid or mitigate impacts of the proposed development on surviving archaeological remains
- To undertake sufficient post-excavation assessment to confidently interpret identified archaeological features
- To report the results of the archaeological assessment and place them in their local and regional context
- To compile and deposit a site archive for deposition with the Norfolk Museum Service and to provide information for accession to the NCCHEs HER.

### Research Framework

- 5.3 The programme of archaeological investigation has the potential to contribute to research priorities identified in *Research and Archaeology Revisited: a revised framework for the East of England* (Medleycott 2011) and the *East of England Regional Research Framework* (EERRF 2022) however, until the results of the informative trenching are known specific research objectives cannot be identified.
- 5.4 The investigation will also take account of the national research programmes outlined in the English Heritage (now Historic England) *Strategic Framework for historic Environment Activities and Programmes in Historic England* (SHAPE), first published in 2008.
- 5.5 Non-intrusive investigations work undertaken to date suggest the following research questions may be pertinent to the assessment works (EERRF 2022):
- Med (Rural) 03: How can we improve our understanding of medieval agricultural practices?
- Med (Rural) 09: How can we characterise medieval rural settlement morphology and relationships?
- P-Med 06: How can we increase our understanding of post-medieval farms and farmsteads?
- Multi 09: What should we keep and why?

## 6 STANDARDS AND GUIDANCE

- 6.1 All work will be undertaken to fully meet the requirements of all nationally recognised guidance for such work, including standards laid down by the former English Heritage (now Historic England) and the Chartered Institute for Archaeologists (CIfA).
- 6.2 The programme of archaeological works will be managed in line with the standards laid down in the Historic England guideline publication *Management of Research Projects in the Historic Environment (MoRPHE): Project Managers Guide* (2015a) and the *MoRPHE Project Planning Note 3: Archaeological Excavation (PPN3)* (2008a), as well as to meet the requirements of the National Planning Policy Framework (NPPF; Chapter 16: 'Conserving and

enhancing the historic environment'; revised 2021). All excavation will be undertaken using recording standards detailed in the Archaeological Field Manual (MOLAS 1994).

6.3 All works will be undertaken in adherence to the Standards for Development Led Archaeological Projects in Norfolk (Robertson et al 2018).

6.4 Guidance of particular relevance to the programme of works are:

- *Standard and guidance for archaeological field evaluation* (CIfA 2020a)
- *Standard and guidance for archaeological excavation* (CIfA 2020b)
- *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA 2020c)
- *Code of Conduct* (CIfA 2019)
- *Management of Research Projects in the Historic Environment: PPN3: Archaeological Excavation* (English Heritage 2008)
- *Standards for Development Led Archaeological Projects in Norfolk* (Robertson et al 2018)

## 7 INFORMATIVE TRIAL TRENCHING METHODOLOGY

### Project Initialisation

7.1 Lanpro will inform the NCCHEs Principal Archaeologist at least one week in advance of the commencement of fieldwork.

7.2 The Archaeological Contractor will contact the HER Officer of the Historic Environment Service in advance of work starting to obtain a HER Event number for the site.

7.3 The Archive Accession number for the scheme is NWHCM : 2022.126. The archaeological contractor will be responsible for liaison with the Norfolk Museum Service to ensure the creation and deposition of the project archive in accordance with their deposition and archiving standards. As required, they will obtain any additional accession numbers and complete the required archive deposition forms.

7.4 Before fieldwork commences, the contractor will initiate an OASIS online record and complete key fields on Details, Location and Creator forms.

7.5 All members of the archaeological project team will have read this WSI in advance of commencement of the fieldwork, as well as the NCCHEs guidance *Standards for Development-led Archaeological Projects in Norfolk* (Robert et Al 2018).

### Fieldwork

7.6 The archaeological trial trenching will comprise the excavation of 103no. 30 by 2m trenches totalling a 3.5% sample of the site (See Figures 2 and 3). These will be located to

target potential archaeological anomalies identified by the geophysical survey, while also providing a representative sample of the overall site.

- 7.7 Topsoil across the trenches will be stripped using a mechanical excavator fitted with a toothless, flat bladed, grading bucket, down to the first archaeological horizon or natural subsoil. Spoil from mechanical excavation will be scanned by eye and by metal detector to aid the recovery of topsoil artefacts, and topsoil and subsoil will be stored separately. Metal detecting will also be conducted over the surface of all exposed features before the end of each working day as a countermeasure to 'nighthawking'.
- 7.8 All excavation by mechanical excavator will be undertaken under direct archaeological supervision, by a suitably experienced and qualified archaeologist, with one archaeologist responsible for monitoring each excavator.
- 7.9 All spoil will be stored and managed in line with the standards of the *Construction Code of Practice for Sustainable Use of Soils on Construction Sites* (DEFRA 2009).
- 7.10 Any excavation, by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features or deposits which appear to be demonstrably worthy of preservation in situ. No machine excavation of archaeological deposits or features will be undertaken without agreement from the NCCHEs Principal Archaeologist.
- 7.11 Should the excavation of the trenches reach the limit of safe working depth without natural geology being encountered, a machine dug sondage will be excavated in order to establish the depth of natural geology, provided this will have no detrimental effects upon archaeological deposits. Where depth of excavation is required to be greater than 1m, suitable stepping will be employed.
- 7.12 At least one end of each trench will be ramped to provide safe access and egress for staff and to enable any wildlife that may accidentally fall in to the trenches to escape.
- 7.13 There will be sufficient excavation to give clear evidence for the period, depth and nature of any archaeological deposit. The depth and nature of colluvial or other masking deposits will be established across the site.
- 7.14 Metal detector searches will take place at all stages of the trial trenching. Metal detecting of trench locations should be carried out before trenches are excavated, with trench bases and spoil scanned once trenches have been opened. Any metal finds will be located using survey-grade GPS and metal detectors will not be set to discriminate against iron.
- 7.15 There will be a presumption of the need to cause the minimum disturbance to the site consistent with adequate assessment. Significant archaeological features (e.g. solid or bonded structural remains, building slots or postholes), should be preserved intact even if fills are sampled.

- 7.16 All archaeological features and deposits revealed will be cleaned and excavated in an archaeologically controlled and stratigraphic manner, in order to establish their extent, form, date, function and relationship to other features. All features will be investigated to understand the full stratigraphic sequence down to naturally occurring deposits. A sufficient sample of every archaeological and suspected archaeological feature or deposit will be excavated. This will include:
- Slots through each linear feature. Relationships with other features and deposits will be investigated. Slots will also be excavated away from relationships to retrieve dating evidence.
  - Unless falling into the category below, discrete/non-linear features (pits and postholes for example) will be 50% excavated (half-sectioned). All relationships with other features and deposits will be investigated.
  - Discrete features of high potential (palaeoenvironmental and artefactual potential, for example) may need to be fully excavated.
- 7.17 A full written, drawn and photographic record will be made of all features revealed during the course of the archaeological assessment works. All archaeological features or deposits encountered will be described fully on pro-forma individual context recording sheets, using standard methods of the archaeological contractor appointed. A stratigraphic matrix will be compiled to record the relationships of any archaeological features or deposits encountered.
- 7.18 All identified finds and artefacts will be collected and retained, bagged and labelled according to their context. Finds of significant interest will be given a 'small finds' number, and information on their location in three dimensions will be entered on a separate pro-forma sheet. No finds will be discarded without assessment by an appropriate finds specialist, and/or the approval of the NCCHEs Principal Archaeologist.
- 7.19 Plans will be completed at a scale of 1:20 with a site plan at 1:100 (as appropriate), with section drawings at a scale of 1:10. All plans will be tied in with the Ordnance Survey National Grid with levels given to above OD using cm accurate survey grade GPS equipment.
- 7.20 A photographic record will be made of all of the archaeological features and deposits investigated or exposed during fieldwork, and a detailed register will be maintained of the location, subject and direction of view of all photographs taken. General site shots will also be taken to provide a wider context to the excavations.
- 7.21 The photographic record will be maintained throughout the course of the fieldwork and will include as a minimum:
- the site prior to commencement of fieldwork
  - the site during work, showing specific stages of fieldwork
  - the layout of archaeological features within each trench
  - individual features and, where appropriate, their sections

- groups of features where their relationship is important
- 7.22 Where digital photography is employed this will follow the requirements of the NCCHEs (2018) and Historic England guidance for digital image capture (Historic England 2015b).
- The camera used has a minimum sensor size (APS-C) of 22mm by 15mm
  - The camera used has a sensor that exceeds 10 Mega Pixels
  - All photographs are taken in a raw format (.raw or .nef, for example). Photographs must not be taken in .jpg format
  - All photographs are converted from raw format to uncompressed .tiff at 8 bit. Raw format and .jpg photographs are not suitable for archiving
  - Digital photographs will not be manipulated or altered prior to inclusion in a project archive
  - File names will meet NCCHEs requirements
- 7.23 All photography will follow the archaeological contractor's guidance which conforms to industry best practice (Historic England 2015b). Images will be converted to uncompressed baseline v.6 TIFF for archiving. All images will have accompanying metadata specifying; photo ID, capture device, converting software, colour space, bit depth, resolution, date of capture, photographer, caption, and any alterations made to the image.
- 7.24 Following excavation and recording of any archaeological remains, and with the agreement of the NCCHEs Principal Archaeologist, the trenches will be back-filled with the previously excavated spoil.

### **Palaeoenvironmental Sampling Strategy**

- 7.25 Soil samples will be taken from all suitable features or deposits for palaeoenvironmental sampling. This will comprise the removal of a bulk sample from every securely sealed and hand-excavated context, excepting those with excessive levels of residuality or those with minimal 'soil' content (such as building rubble).
- 7.26 Bulk samples will comprise representative 40 litre samples. Where a context does not yield 40 litres of material, smaller samples will be taken (generally the maximum amount of material that it is practicable to collect). Bulk samples will be used to recover a sub-sample of charred macroplant material, faunal remains and artefacts where necessary, as well as any significant industrial residues.
- 7.27 If buried soils or other deposits are encountered, column samples may be taken for micromorphological and pollen analysis. Environmental material will be stored in a controlled environment and specialists consulted during the course of the work if necessary.
- 7.28 The post-excavation processing of all palaeoenvironmental samples will be undertaken in line with the requirements of the former English Heritage's (now Historic England) publications *Archaeological Science at PPG16 Interventions: Best Practice Guidance for*

*Curators and Commissioning Archaeologists* (2006) and *Environmental Archaeology: A guide to the theory and practice of methods from sampling and recovery to post-excavation* (2011).

### **Human Remains**

- 7.29 The client, the Ministry of Justice and the NCCHEs Principal Archaeologist will be informed if human remains are found. Disturbance of human skeletal remains will be kept to a minimum. Any human remains encountered will be accurately recorded in plan to identify the date and character of the remains, including in situ examination by a palaeopathologist, but no further investigation will occur and the remains will be covered and protected. Human remains will only be removed where damage or desecration are to be expected, or in the event that analysis of the remains is shown to be a requirement of satisfactory assessment.
- 7.30 Removal of human remains will only take place only if necessary, and under appropriate government and environmental health regulations, in compliance with the Burial Act 1857 and after obtaining a Section 25 exhumation licence obtained from the Ministry of Justice, following agreement with the
- 7.31 If required a qualified and experienced osteoarchaeologist will undertake site visits to discuss the recording and assist in the removal of any human skeletal remains.
- 7.32 Human remains will be processed as part of the post-excavation assessment following national standards and guidance, including English Heritage (2004), Brickley and McKinley (2004) and the Church of England/English Heritage (2017).

### **Scientific Dating**

- 7.33 The recovery of material suitable for radiocarbon, archaeomagnetic and/or dendrochronological dating will be sought, if appropriate.
- 7.34 Where material suitable for dating is recovered, sufficient dating will be undertaken to meet the aims of the assessment. Specialist dating will be undertaken following discussion with NCCHEs and the Historic England Regional Science Advisor.

### **Other Finds**

- 7.35 All finds and samples will be treated in a proper manner during the excavation and post-excavation stage and to standards agreed in advance with the Norfolk Museums Service.
- 7.36 Finds will be exposed, lifted, cleaned, conserved, marked, bagged and stored in accordance with the guidelines set out in United Kingdom Institute for Conservation's Conservation Guidelines No. 2 (1990) and the ClfA guidelines *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (2014c).
- 7.37 If required, conservation will be undertaken by approved conservators in line with the *First Aid for Finds* guidelines (Watkinson and Neal 1998). In accordance with the procedures

outlined in English Heritage's MoRPHE PPN3 (2008), significant iron objects, a selection of non-ferrous artefacts (including all coins), and a sample of any industrial debris relating to metallurgy should be X-radiographed before assessment.

- 7.38 For ceramic assemblages, recording will be carried out in a manner compatible with existing typological series in local pottery reference collections and the guidelines for handling post-Roman ceramics produced by the *Medieval Pottery Research Group* will also be followed (MPRG 2001).
- 7.39 All finds of gold and silver will be moved to a safe place. Where removal cannot be effected immediately, suitable security measures will be taken to protect the artefacts from theft or damage. All finds of gold and silver, and associated objects, will be reported to the will be immediately reported to the local Finds Liaison Officer (FLO) who will inform the coroner according to the procedures relating to the Treasure Act 1996 (and the act's amendment of 2003 to include prehistoric objects such as Bronze Age metalworking hoards and other non-precious metal items), after discussion with the client and NCCHEs Principal Archaeologist.
- 7.40 Ownership of any finds recovered during archaeological works rests with the landowner except where other law overrides this (e.g. Treasure Act 1996, Burial Act 1857). However, the client will seek to obtain 'in principle' agreement from the landowner to donate the recovered artefacts to the Norfolk Museums Service.

### **Unexpectedly significant or complex discoveries**

- 7.41 Should unexpectedly extensive, complex or significant remains be uncovered that warrant, in the professional judgment of the archaeologist on site, more detailed recording than is appropriate within the terms of the WSI, the scope of the WSI will be reviewed and an appropriate strategy agreed with the NCCHEs Principal Archaeologist.
- 7.42 In the event of a review of the WSI being required, Lanpro will contact the client and the NCCHEs Principal Archaeologist with the relevant information to enable them to resolve the matter. Any variations to this WSI will be put in writing and agreed by the relevant stakeholders including the NCCHEs Principal Archaeologist and the client.

### **Plant and equipment**

- 7.43 The archaeological contractor on site will be responsible for the provision of all required welfare, plant and health and safety equipment.

### **Strategy Review**

- 7.44 The strategy for the archaeological fieldwork will be held under continuous review. Should the strategy be considered unsuitable at any time by Lanpro or the appointed archaeological contractor, an alternative strategy will be proposed for agreement with NCCHEs.

## 8 POST-EXCAVATION ASSESSMENT AND REPORTING

8.1 The post-excavation assessment work will comprise the following:

- checking of drawn and written records during and on completion of fieldwork
- production of a stratigraphic matrix of the archaeological deposits and features present on the site, if appropriate
- cataloguing of photographic material
- cleaning, marking, bagging and labelling of finds according to the individual deposits from which they were recovered.
- Processing and assessment of environmental samples
- Finds requiring specialist conservation will be sent to appropriate specialists for assessment, including identification and initial dating

8.2 The assessment report will consist of:

- A title page or cover sheet giving key project details
- Non-technical summary of the findings of the work
- Site details, including location, NHER event number (ENF) and NCCHEs consultation number (CNF), OASIS reference, grid reference, geology and soils, place of deposition of the archive, museum accession number, full dates of work and any relevant details of the project's history
- Description of the topography and geology of the site
- Description of the archaeological background to the site
- Description of the methodologies used during the works
- Description of the findings of the site works
- Factual assessment of stratigraphic evidence
- Factual assessment of the artefactual evidence, where applicable
- Factual assessment of the environmental evidence
- Interpretation of the archaeological features exposed and their context within the surrounding landscape, and in their local and regional context
- An assessment of the archaeological potential of the stratigraphic, artefactual and environmental records
- Recommendations for further archaeological work, as required
- Conclusions
- Site and trench location plans and plans of each of the trenches
- Section drawings of the excavated archaeological features
- Specialist reports on the artefactual / ecofactual remains from the site
- Appropriate photographs of specific archaeological features
- A full context list
- Details of archive location and destination, together with a catalogue of what is contained in that archive

- Copy of the OASIS entry form and any entry updates
  - Appendices, illustrations and figures, as appropriate
  - References and bibliography of all sources used
- 8.3 Depending on the results of the trenching, recommendations for further archaeological investigation and/or post-excavation analysis will be made in the report, following discussion with the NCCHEs Principal Archaeologist. If further work is required, the methodology for this will be detailed in a project design that will be appended to this WSI.
- 8.4 The results of the work will be related to the relevant known archaeological information held in the Norfolk HER. It will include, where relevant, examination of all readily available cartographic sources to record evidence for historic or archaeological sites and history of previous land uses. Where relevant and permitted, photographs, photocopies or traced copies will be presented in the report. This will also incorporate an assessment of the potential for documentary research that would contribute to the archaeological investigation of the site.
- 8.5 An interim report on the fieldwork will be provided to the NCCHEs Principal Archaeologist six weeks of the completion of fieldwork, with a full assessment report provided for approval within two months, subject to the complexity of any identified archaeological remains.
- 8.6 A draft copy of the report will be supplied to the NCCHEs for comment. Following approval of the draft report, a hard copy and a digital copy in a PDF/a format will be supplied to the Norfolk HER. A digital vector trench plan can be included with the report, compatible with industry standard GIS software for integration in the Norfolk HER.
- 8.7 A single paragraph summary will be produced for inclusion in the annual round-up of archaeological work published in Norfolk Archaeology. Additional publication and dissemination will be proportionate to the significance of project results and its importance to the public.

## 9 ARCHIVING AND DATA MANAGEMENT

### Archive Content

- 9.1 The appointed archaeological contractor will contact the Norfolk Museum Service in advance of commencing any fieldwork to determine the preparation, and deposition of the archive and finds, and obtain an accession number for all archaeological works.
- 9.2 The archive will be prepared in accordance with the ClfA guidelines detailed in *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (ClfA 2020c).
- 9.3 The preparation of the archive will also be informed by the *Guidelines for the preparation of Excavation Archives for long-term storage* (United Kingdom Institute for Conservation,

1990), *Standards in the museum care of archaeological collections* (Museums and Galleries Commission 1994), and in accordance with any Norfolk Museum Service deposition guidelines. Provision will be made for the stable storage of paper records and their long-term storage.

- 9.4 The appointed archaeological contractor will contact the Norfolk Museum Service in advance of commencing any fieldwork to determine the preparation, and deposition of the archive and finds, and obtain an accession number for all archaeological works. The landowner will be encouraged to transfer ownership of the finds to the Norfolk Museum Service. The archive will be presented to the Norfolk Museum Service within six months of completion of all fieldwork, unless alternative arrangements have been agreed in writing with the NCCHEs Principal Archaeologist.
- 9.5 Adequate resources will be provided during fieldwork to ensure that all records are checked and internally consistent. Archive consolidation will be undertaken immediately following the conclusion of fieldwork and will include the following work:
- the site record will be checked, cross-referenced and indexed as necessary
  - all retained finds will be cleaned, conserved, marked and packaged in accordance with the requirements of the Norfolk Museum Service.
  - all retained finds will be assessed and recorded using pro forma recording sheets, by suitably qualified and experienced staff. Initial artefact dating will be integrated within the site matrix
  - all retained environmental samples will be processed by suitably experienced and qualified staff
- 9.6 The archive will consist of paper records and digital data, as well as finds and samples as selected. Not all material collected or created during the course of the works will require preservation in perpetuity, and the final contents of the archive will be subject to selection prior to the accession of the archive to the Norfolk Museum Service, in line with a Selection Strategy agreed with the client and the NCCHEs Principal Archaeologist.
- 9.7 The selected contents of the archive will be appropriate to establish the significance of the results of the project and support future research, outreach, engagement, display and learning activities. Selection will be focused on selecting what is to be retained to support these future needs. Methods for disposing of de-selected material will be agreed with the landowner and other relevant stakeholders.
- 9.8 A copy of the digital archive will be submitted to the NCCHEs Principal Archaeologist on completion of all work, for integration into the Norfolk HER.
- 9.9 An OASIS form will be completed for the project and an electronic copy of the final report and the digital archive deposited with the ADS.

## Data Management

- 9.10 A Data Management Plan will be created and managed by the appointed archaeological contractor on commencement of the project, which will outline the strategy for the sharing and preservation of the project's digital data.
- 9.11 The Data Management Plan will be produced in line with ClfA standards (2020c) and guidance produced by the ADS (2014), and will include;
- Details of data that will be generated during the work
  - Type of file formats to be used (e.g. .doc, .pdf., .dwg., .shp, etc.)
  - Methods of data collection or capture (e.g. GPS/Total Station/digitising from hard copies)
  - File naming conventions (e.g. ADS naming conventions)
  - Metadata, standards and quality assurance measures
  - Plans for sharing data
  - Ethical and legal issues or restrictions on data sharing (e.g client confidentiality etc.)
  - Copyright and intellectual property rights of data
  - Data storage and back-up measures
  - Data management roles and responsibilities
  - Costing or resources needed (ADS archiving costs etc.)
- 9.12 The digital archive will be produced using industry standard file formats, with a clear file structure that allows these to be easily shared with all stakeholders, and allows the data to continue to be preserved and shared with the public through, for example, the HER.
- 9.13 The data comprising the digital archive will comply with the English Heritage (now Historic England) guidance on historic environment data standards, *MIDAS Heritage; the UK Historic Environment Data Standard* (English Heritage 2012).
- 9.14 It is anticipated that the repositories to which the digital archive are submitted (i.e. HER/local museum/archive) will have in-house Data Management Plans to allow for the long-term preservation of the digital archive data, including plans for data back-up and migration to new digital formats as these emerge.

## 10 TIMETABLE

- 10.1 The appointed archaeological contractor will be confirmed with NCCHEs prior to fieldwork. The NCCHEs Principal Archaeologist will be given at least one week's notice of the commencement of the fieldwork.
- 10.2 Fieldwork is anticipated to be carried out over a period of up to five weeks, depending on the nature of any archaeological remains encountered. An interim report will be produced within six weeks of completion of fieldwork, to be followed by a full assessment report

within two months, subject to the complexity of any archaeological features or finds encountered.

## **11 STAFFING**

- 11.1 Alice James (MCIfA; Associate Archaeologist, Lanpro) will oversee management of the project and will monitor the work on behalf of the client.
- 11.2 The archaeological trial trenching and post-excavation works will be undertaken by a suitably qualified and experienced professional archaeological contractor, that will adhere to the CfA Code of Conduct and all appropriate standards and guidance.
- 11.3 Details of the CVs of key personnel and specialists will be provided to the NCCHEs Principal Archaeologist in advance of the commencement of fieldwork, following appointment of the archaeological contractor. The appointed archaeological contractor's Project Manager for the project will be able to demonstrate competence and experience of managing archaeological projects of a similar size, nature and complexity.
- 11.4 Assessment and analysis of finds, environmental samples and human remains will be undertaken by suitably qualified and experienced specialists, if required. The archaeological contractor will be responsible for the organisation and management of all plant, welfare and health and safety on site in line with national professional guidance.

## **12 MONITORING**

- 12.1 The NCCHEs Principal Archaeologist will monitor the implementation of archaeological works on behalf of the Local Planning Authority and review the scope and progress of the work against the methodology detailed in the WSI. The NCCHEs Principal Archaeologist will be responsible for considering any changes to the agreed scope of works. Any such changes will be agreed in writing with relevant stakeholders prior to commencement of on-site works, or at the earliest opportunity. The NCCHEs Principal Archaeologist will be free to visit the PDA at any time by prior arrangement with Lanpro.
- 12.2 Alice James MCIfA, of Lanpro will monitor implementation of the programme of works on behalf of the developer.

## **13 COMMUNICATION**

- 13.1 The appointed archaeological contractor will provide at least weekly updates to Lanpro. Any issues that arise on site or during the post-excavation stages should first be addressed by the archaeological contractor directly to Lanpro, who will then liaise with the client, the NCCHEs Principal Archaeologist and other stakeholders in order to resolve the matter.

- 13.2 In the event of issues arising regarding the implementation of this WSI, or the scope or methodology of the excavation, these will be resolved in the first instance by contacting Lanpro who will liaise with the client and the NCCCHES Principal Archaeologist to determine a solution. Should the issue not be resolved remotely a meeting will be held between key stakeholders to facilitate discussion of the issues and identification of a suitable strategy for progress to be agreed by all parties.

## 14 COPYRIGHT AND PUBLICITY

- 14.1 Copyright of the documentation prepared by the archaeological contractor and specialist sub-contractors should be the subject of additional licences in favour of the client, Lanpro, and the NCCCHES to use such documentation for their commercial, statutory or educational functions, and to provide copies to third parties.
- 14.2 Under the *Environmental Information Regulations* (EIR 2005), information submitted to the HER becomes publicly accessible, except where disclosure might lead to environmental damage, and reports cannot be embargoed as 'confidential' or 'commercially sensitive'.
- 14.3 It is recognised that the project may identify remains which are of interest to the public and these may be publicised through appropriate media. Any publicity for the project proposed by the archaeological contractor should be approved by Lanpro and the client. The appointed contractor will not issue any information on the work through media, internet or social media without prior agreement with Lanpro and the client.
- 14.4 Care will be taken to ensure that any publicity does not compromise the security of archaeological remains that may have been identified or recovered. Any approaches by the press to the archaeological contractor should be referred to Lanpro in the first instance.

## 15 INSURANCE

- 15.1 The appointed archaeological contractor will hold Employers Liability Insurance, Public Liability Insurance and Professional Indemnity Insurance to at least the following amounts;
- Public Liability £5,000,000
  - Employer's Liability £5,000,000
  - Professional indemnity (for any single claim) £5,000,000

## 16 HEALTH AND SAFETY

- 16.1 The management of all health and safety on site during the fieldwork phase will be the responsibility of the appointed archaeological contractor. All works will be undertaken by the contractor in compliance with the Health and Safety at Work Act (1974) and all applicable

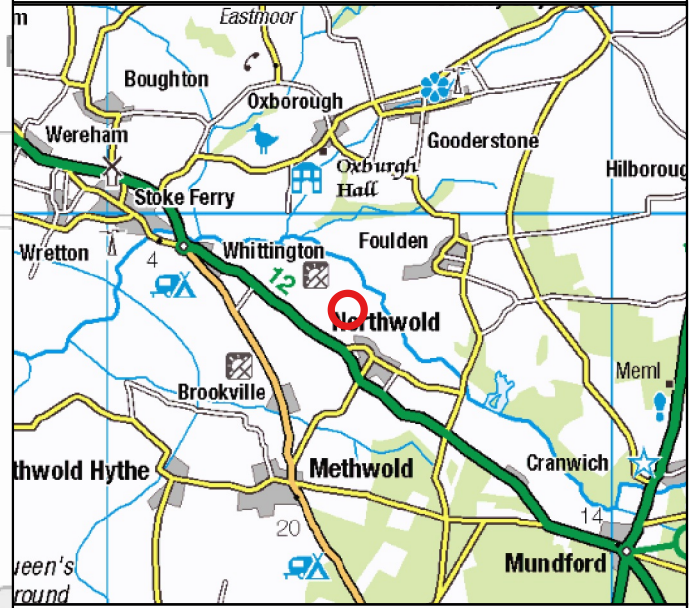
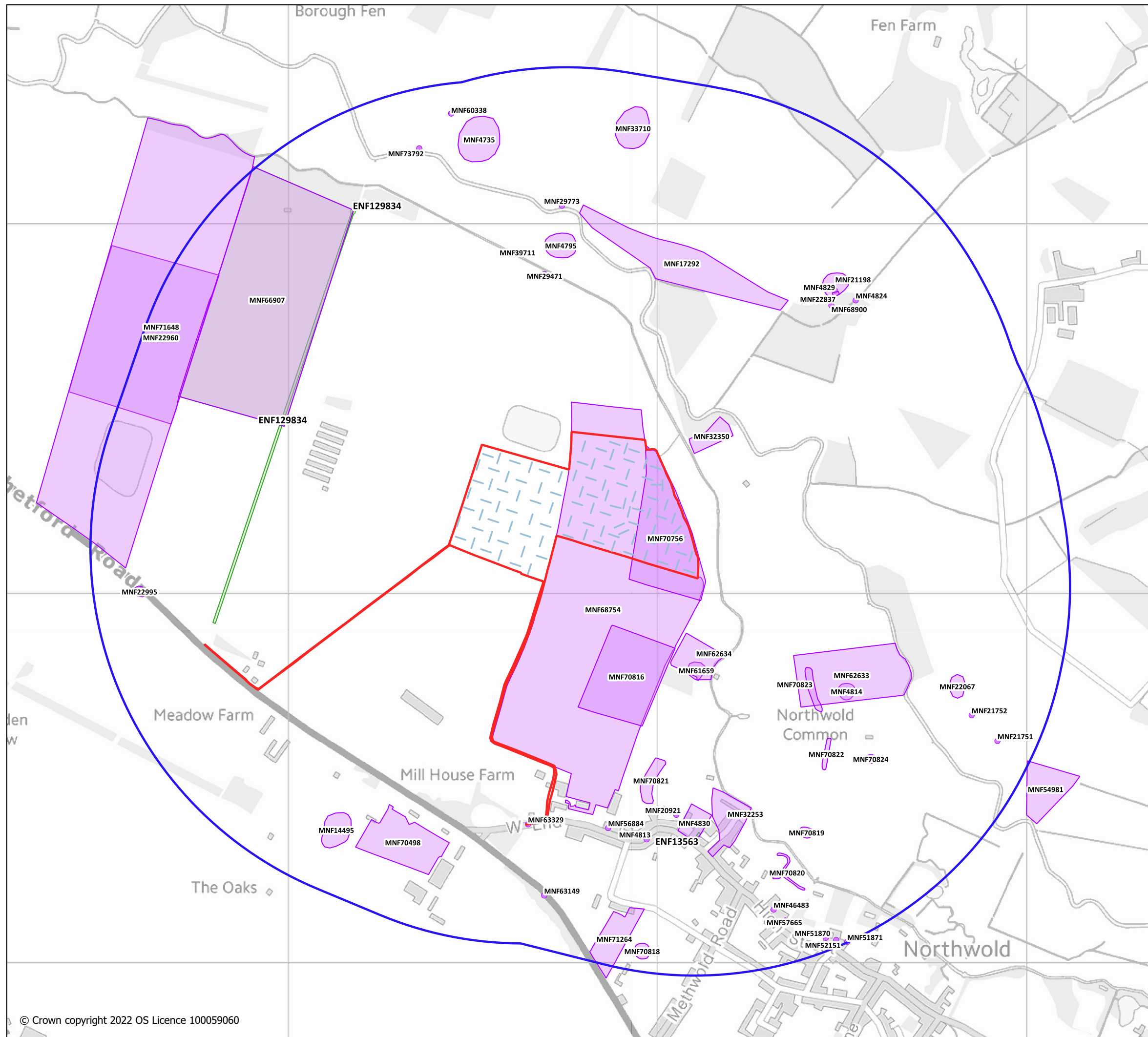
- regulations and Codes of Practice. All archaeological staff will undertake their operations in accordance with safe working practices and will be CSCS certified. At least one First Aider will be present on site at all times.
- 16.2 A site-specific risk assessment and method statement (RAMS) will be produced by the appointed archaeological contractor, prior to the commencement of work on site, which will be subject to regular review.
- 16.3 Suitable Personal Protective Equipment (PPE) and welfare facilities will be provided by the archaeological contractor, including hi-visibility coats/vests, hard hats, safety boots and gloves, as well as safety glasses if required.
- 16.4 All staff will receive a health and safety induction prior to starting work on site to be provided by the archaeological contractor. Toolbox talks on health and safety issues will be conducted at minimum weekly intervals and/or after changes in working practices or identification of new threats/risks. The risk assessment will be reviewed and updated as necessary. Control measures will be implemented as required in response to specific hazards.
- 16.5 Regular audits of health and safety practices will be carried out during the course of the project by Lanpro and the archaeological contractor in consultation with the site workforce.
- 16.6 Safe working will take priority over the desire to record archaeological features or remains, and where it is considered that recording is dangerous, any such features will be recorded by photography at a safe distance.
- 16.7 All trench locations will be scanned with a Cable Avoidance Tool (CAT) prior to ground works commencing. Necessary measures will be taken to avoid disturbing any services.
- 16.8 Provision will be made, through grading of trench ends or provision of planks, to allow wildlife egress from trenches left open overnight.
- 16.9 Plant operators will be required to produce evidence of qualification within an industry accepted registration scheme. Sub-Contractors health and safety performance will be kept under review and action taken if necessary. All spoil will be stored and managed safely in line with the standards of the *Construction Code of Practice for Sustainable Use of Soils on Construction Sites* (DEFRA 2009).

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## **Figures**



- Study Site
- Search Area
- HER 'Monument' Polygon
- HER 'Monument' Point
- HER 'Event' Polygon
- HER 'Event' point
- Evaluation Trench

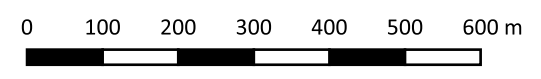


Figure 1. Site location with location of HER monuments and proposed trenches



Figure 2. Proposed archaeological trenches overlaying geophysical survey greyscale plot



Study Site
  Evaluation Trench

0 100m



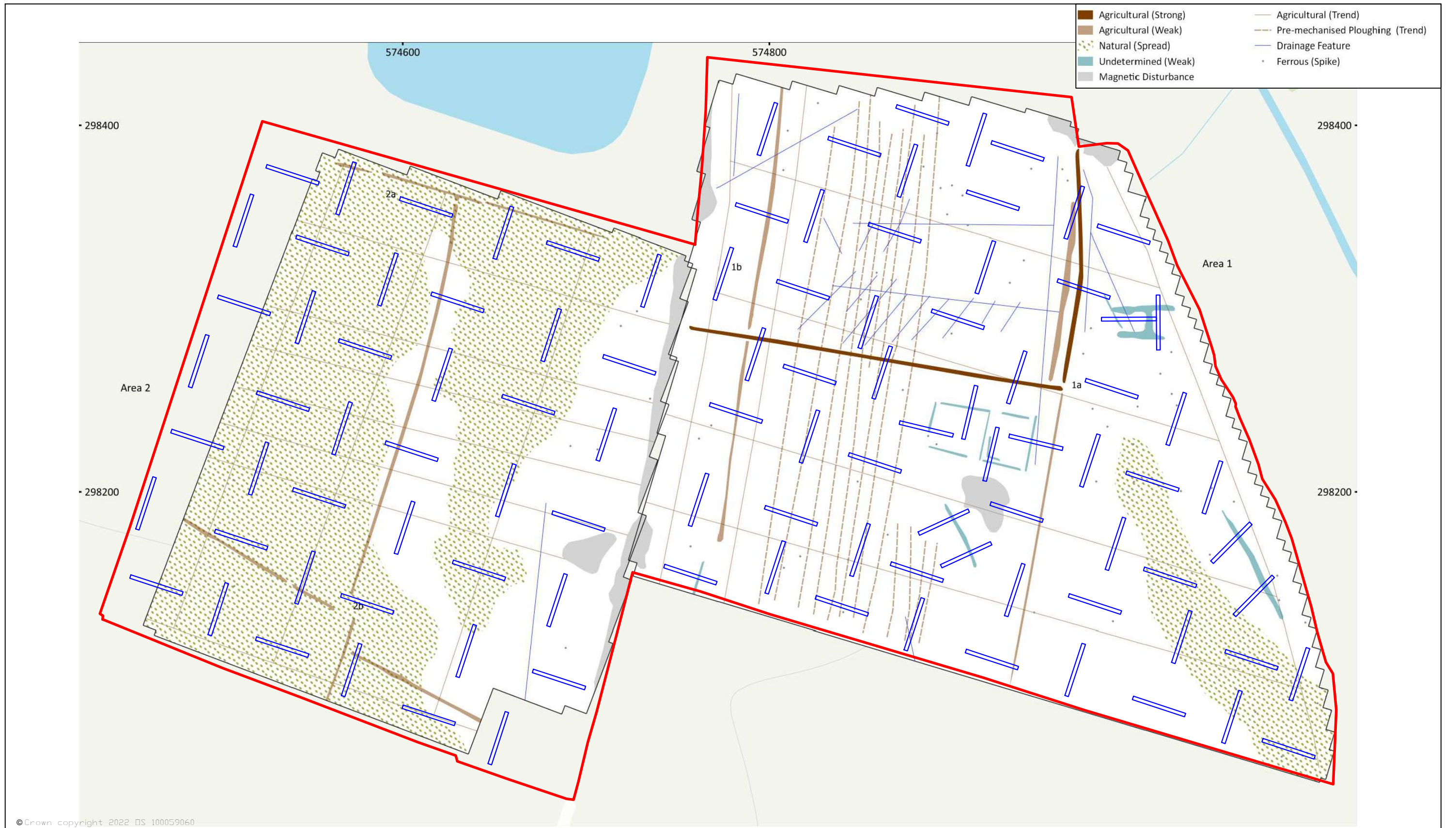


Figure 3. Proposed archaeological trenches overlaying geophysical survey interpretation