

**LAND SOUTH OF THE A271 AND EAST OF THE A22, LOWER
HORSEBRIDGE**

DESK-BASED HERITAGE ASSESSMENT
HERTFORDSHIRE HOLDINGS LTD
NOVEMBER 2022



TERENCE
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1 Introduction

- 1.1 This report has been produced by Terence O'Rourke on behalf of Hertfordshire Holdings Ltd in order to provide a desk-based heritage assessment for proposals for up to 124 dwellings and associated infrastructure on the heritage value of the site and study area, principally on the archaeological potential of the site itself and on the closest designated assets.
- 1.2 This report provides an assessment of the potential effects of the proposed development Hailsham on the known and suspected archaeological value of the site and study area, principally on the land that falls within the planning application boundary. The report considers the known archaeological records within a defined study area and gives an assessment of likely potential for similar finds to arise on the site as a result of the proposals. The assessment also identifies the potential for effects on built heritage, and the evidence of timedePTH as shown in the historic landscape character across the site and in the surrounding area.
- 1.3 This desk-based assessment examines the potential for the discovery of as yet unknown features of archaeological interest and considers the implications of the proposed development. The conclusions of this assessment will form the starting point for any further survey work required, including intrusive investigations if necessary. The report sets out the baseline, potential and significance of the known and recorded non-designated archaeological assets for the site and 1km study area.

Site location and description

- 1.4 The proposed development area (see figure 1) is located approximately 100m from Lower Horsebridge, to the south of the A271 on the outskirts of the village. The site comprises of a field parcel to the west of Lower Horsebridge and is bounded on its eastern side by housing and Hellingly bowls club and on its western boundary by the Hailsham Bypass. Beyond the field to the south of the site, the Cuckmere River runs in east to west orientation. The site is relatively flat and is currently open grassland.

The application

- 1.5 The Planning, Design & Access Statement outlines the relevant planning policy background, the pre-application discussions and evolution of the scheme and describes the proposed development in detail.
- 1.6 The description of the development applied for is as follows:

Outline planning application for up to 124 dwellings and associated infrastructure, including structural landscaping, biodiversity enhancements and new vehicular access from the A271 Horsebridge road (development principle and details of access for approval, with all other matters reserved for future consideration)

- 1.7 This report is one of a number accompanying the application. It should therefore be read alongside the full set of application drawings and documents.

2 Legislation, policy and planning background

- 2.1 The National and international policy recognises the value and significance of cultural heritage, the public interest in the preservation of particular assets and sets out mechanisms to ensure that it is taken into account in planning decision-making. Sites and features of identified interest are protected under the Ancient Monuments and Archaeological Areas Act 1979 as amended, and the Town and Country Planning (Listed Buildings and Conservation Areas) Act 1990.
- 2.2 National planning policy and guidance on conserving and enhancing the historic environment is contained within the National Planning Policy Framework (NPPF, 2021), the online National Planning Practice Guidance, the National Design Guide and the Good Practice Advice published by Historic England (GPA1 Local plan making, GPA2 Managing significance in decision-taking in the historic environment and GPA3 The setting of heritage assets). Heritage assets are an irreplaceable resource, and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations (NPPF, paragraph 189).
- 2.3 Paragraph 197 of the NPPF states that in determining planning applications,
“Local planning authorities should take account of:
a) The desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
b) The positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
c) The desirability of new development making a positive contribution to local character and distinctiveness.”
- 2.4 Local planning authorities are required to take the significance of an asset into account when considering proposals, in order to avoid or minimise conflict between any aspects of the proposals and the conservation of the asset (paragraph 195), and *“great weight”* should be given to the objective of conserving designated heritage assets (paragraph 199). As heritage assets are irreplaceable, all harm, from demolition to harm through development within the setting, requires *“clear and convincing justification”* (paragraph 200).
- 2.5 The principal objective is to avoid harm to designated heritage assets, but detailed policies define the justification required in cases of harm, based on public benefits that may outweigh the harm, taking account of the weight to be given to conservation, and consideration of whether the conflict between the provision of such public benefits and heritage conservation is necessary (paragraphs 201 and 202).
- 2.6 The National Design Guide: Planning practice guidance for beautiful, enduring and successful places, states at C2 in relation to context:
“Value heritage, local history and culture

45 *When determining how a site may be developed, it is important to understand the history of how the place has evolved. The local sense of place and identity are shaped by local history, culture and heritage, and how these have influenced the built environment and wider landscape.*

46 *Sensitive re-use or adaptation adds to the richness and variety of a scheme and to its diversity of activities and users. It helps to integrate heritage into proposals in an environmentally sustainable way.*

Well-designed places and buildings are influenced positively by:

the history and heritage of the site, its surroundings and the wider area, including cultural influences;

the significance and setting of heritage assets and any other specific features that merit conserving and enhancing;

the local vernacular, including historical building typologies such as the terrace, town house, mews, villa or mansion block, the treatment of façades, characteristic materials and details – see Identity.”

- 2.7 The Planning Supporting Statement provides a detailed analysis of the development plan. The relevant local plan policy from the Wealden District Council Core Strategy Local Plan (2013) is policy SPO2:

“We will ensure that the intrinsic quality of the historic environment is protected and that Wealden’s environmental, heritage and cultural assets are used appropriately to encourage suitable tourism development and support inward investment.”

- 2.8 The Hellingly Neighbourhood Plan 2018-2028 was adopted July 2021. It lists a number of buildings as non-designated heritage assets and makes recommendations for additions to the Wealden district local list. In relation to new development, policy LHB1 requires proposals where appropriate to clearly demonstrate how they support the preservation and enhancement of designated heritage assets and their settings and protect the historic development pattern and identified key views and vistas.

- 2.9 In the council’s Planning and Validation Guide (2020), proposals which will affect heritage assets with archaeological interest, require an archaeological assessment to be carried out and the submission of a supporting document. Local policy states that planning permission will not be granted for development that would adversely affect important areas and features of the historic landscape, including archaeological sites, historic buildings, and conservation areas.

Assessment guidance

- 2.10 The approach to identifying those heritage assets likely to be affected by a development proposal is given in the setting guidance published by Historic England, which states that, *“The setting of a heritage asset is ‘the surroundings in which a heritage asset is experienced’ (NPPF, Annex 2: Glossary). Where that experience is capable of being affected by a proposed development (in any way) then the proposed development can be said to affect the setting of that asset.”*

(GPA3, paragraph 20). The guidance notes the differing capacity of the setting of assets to accommodate change without harm to the significance of the heritage asset or the ability to appreciate it, (paragraph 17).

- 2.11 Setting is not a heritage asset or a designation in itself, and its importance lies in what it contributes to the significance of the heritage asset. The guidance aims for a consistent approach to the assessment of setting and the range of historic, visual and functional relationships that can define the contribution of adjoining land to the significance of any single asset or group of assets. These include physical attributes and perceptual values, depending on the nature of an asset and its past and present surroundings. Potentially significant views can be deliberately designed or incidental, or the result of later changes.
- 2.12 Based on the approach given in the Historic England guidance, the assessment of effects on the setting of heritage assets in this report first considers whether the proposed development site currently forms part of the setting of any of the relevant heritage assets, and whether it is localised (e.g. for a large conservation area consisting of a number of different character areas). A judgement is made of whether the site makes a positive contribution to the significance of the asset because of its historic, functional, visual or aesthetic value; a negative contribution because of detracting characteristics and qualities, or neither enhances nor detracts, so is neutral. A similar judgement is made of any contribution to the ability to appreciate significance (e.g. through particular views, patterns of use or access). This is a qualitative assessment, based on professional judgement, which is expressed in terms such as essential, high, moderate, limited, low or negligible.
- 2.13 The guidance published jointly by IEMA, IHBC and ClfA in July 2021, Principles of Cultural Heritage Impact Assessment in the UK, is intended to provide an authoritative set of principles to promote good practice in understanding and assessing the consequences of change to cultural significance. The guidance supports the use of scales of importance, magnitude of change and the overall degree of effect, as in the established methodologies used for the cultural heritage assessments in EIA. It is divided into two sections; one on understanding the assets, which distinguishes between the stages of describing the asset, ascribing cultural significance and attributing importance, and one on evaluating the consequences of change, which includes the stages of understanding the proposed change, assessing the impact on the asset and weighting the effect.
- 2.14 Case law has confirmed that the categories of harm recognised in the NPPF are no harm, less than substantial harm and substantial harm¹. However, applying the advice in the NPPG that within these categories “*the extent of the harm may vary and should be clearly articulated.*” (Paragraph: 018 Reference ID: 18a-018-20190723) in addition to a narrative description the effects on the significance of an asset are expressed in terms of a spectrum, such as a moderate level of less than substantial harm, or at the lowest end of less than substantial harm. In determining whether there is harm as a result of a proposed development it is the effect of the proposal as a whole, both positive and negative effects, that is considered.

¹ (R (oao James Hall and Company Ltd) v City of Bradford Metropolitan District Council [2019] EWHC 2899 (Admin))

3 Methodology

Context

- 3.1 For the purposes of this report, documentary and cartographic sources including results from any/all known archaeological and geotechnical investigations on the site and within the study area were examined in order to determine the likely nature, extent, preservation, and significance of any buried archaeological sites/features that may be present within/below the site or its immediate vicinity.
- 3.2 The East Sussex Historic Environment Record (HER) was consulted² for information on known archaeological features and designated assets within the site, and a 1 km radius. The data also included the historic landscape characterisation (HLC) information. A full list of the data sources consulted is provided at the end of this document.
- 3.3 The HER data is given on figure 1, which shows the non-designated archaeological sites and findspots and information on past archaeological assessments and evaluations. The non-designated archaeological assets in the 1km study area are illustrated on figure 1, the built heritage assets are at figure 2 and the historic landscape characterisation (HLC) data is shown on figure 3. A series of Ordnance Survey maps from the late 19th to the mid 20th century are shown on figures 4a-c to illustrate change through time and the LiDAR data for the site is figure 5. A recent aerial photograph is figure 6 and a number of photographs of the site taken in June 2021 are at figure 7. The gazetteer giving the relevant entries from the East Sussex Historic Environment Record and the National Heritage List for England is in appendix 1. A desk-based heritage assessment checklist is included as appendix 2 and a glossary of specific technical terms as appendix 3. A geophysical survey report is included as appendix 4.

Scope of the study

- 3.4 The study was undertaken with reference to the Chartered Institute for Archaeologists code of conduct and appropriate standards (2008, updated 2014, revised 2019).

Limitations of the study

- 3.5 The report's conclusions are limited by the extent and quality of existing information and therefore its usefulness in predicting the extent and definitive location of the archaeological resource must be qualified.

Assessment of effects

- 3.6 This report aims to give an overall assessment of the components, qualities and level of importance or value of the heritage assets within the study area, including above and below ground archaeology and structures and their settings. It also covers historic landscape character and the legibility of time-depth. A judgement is made of the value of known archaeological features or deposits and the probability of discovering currently unknown remains, and their likely importance.

² Data received by email 20 August 2021.

4 Baseline

Geology

- 4.1 Geology and topography can provide an indication of suitability for early human settlement and of former ground levels which might have implications on the potential for archaeological survival. There are no known BGS boreholes recorded anywhere on the site, but the following does give a general indication of background geology.
- 4.2 The British Geological Survey map (BGS 2022) indicates that the bedrock geology at Lower Horsebridge is Weald Clay Formation: Mudstone and is closely bordered by the Tunbridge Wells sand bedrock geology. The river terrace represents a higher and drier ground characterised by a well-drained drift geology of gravel and sand.
- 4.3 The site is generally flat and the average ordnance datum level across the site is approximately 17m OD.

The known archaeological resource

- 4.4 The archaeological evidence is presented in chronological order in broadly accepted chronological periods such as Palaeolithic–Neolithic. The HER data provided by East Sussex County Council lists 52 sites or features within the study area, none within the site itself. In addition, the HER provides information of 16 past archaeological events within the study area. The closest designated assets are the grade II mid 19th century Brook House (LB3) on the opposing side of the A271 and the mid 18th century turnpike trust milestone by the road bridge on the Cuckmere River (LB14).

Prehistoric

- 4.5 The study area contains eight Prehistoric findspots, which range in date from the Mesolithic period around 10,000 BC to the transition from late Iron Age to Roman, around 43AD.
- 4.6 It is believed that during the Mesolithic Age (10,000BC-4,000BC), nomadic hunters arrived in Sussex from Europe. At this time, Britain was still connected to the continent, however melting ice sheets and rising sea levels caused separation, cutting off the Mesolithic people from the continent. Evidence of activity from hunter-gatherer communities is characterised by flint tools. To the east of the study area in Upper Horsebridge, eight pieces of humanly struck flint were recovered during an archaeological evaluation by Archaeology South-East (ASE). The technological attributes are characteristic as Mesolithic / early Bronze Age. An assemblage of 38 residual flint artefacts were also recovered in Upper Horsebridge, a proportion of these were Mesolithic or Early Neolithic in date.
- 4.7 During the Neolithic period (4000- 2000BC) and the Bronze Age (2000- 600BC) further technological change took place and the periods are seen as the time of the first permanently settled communities and the construction of communal monuments. There are no remains of this date within the study area however, two large pits and a linear feature were identified during excavations in Upper Horsebridge along with associated lithic material of early Bronze Age date.
- 4.8 Iron Age features in the form of pits, post holes, ditches and field systems were recovered during an excavation by Wessex Archaeology at Woodholm Farm,

directly to the south of the site location (TOR 47, EV 10). A relatively small pottery assemblage also recovered from the site were nearly all fine grog tempered ware suggesting a Late Iron Age/ Early Romano-British date. The archaeological features and remains are indicative of activity in the area from the early Iron Age, and possibly continuing throughout Roman occupation.

Roman period (43 - 410 AD)

- 4.9 After the invasion of Britain by Emperor Claudius in 43 AD, the Roman administration initiated the rapid implementation of centralised administration based on the larger settlements in the south and southeast, such as London, Chichester, Winchester and Silchester. However, there are no Roman roads within the study area and the HER data presents limited evidence of Roman occupation.

Anglo-Saxon period

- 4.10 After the Roman period, the Kingdom of Sussex is believed to have been founded, recorded in the Anglo-Saxon Chronicle of 477AD. Throughout the early medieval period, the kingdom was engaged in various conflicts, later defining the boundaries of the county of Sussex. There is no evidence for Saxon activity in the vicinity of the study area from the ESHER records and historical records for this period are few.

Historic development

- 4.11 The study area was characterised by a sparse and dispersed settlement pattern, focused on areas of higher ground above the floodplains of the Cuckmere River. None of the present settlements in the study area are recorded in the Domesday survey, only Hailsham (*Hamelesham*) which at that date consisted of four households. It was established as a small town in the later 13th century, based on the grant of a market. St Peter and St Paul's church at Hellingly north of the study area may be of Norman origin and is set within a raised circular churchyard that may indicate the presence of an earlier Saxon church or burial ground. The fabric of the church is predominantly 13th century, with 15th century additions and the low tower was rebuilt in 1836.
- 4.12 The colonisation of the Lower Weald extended into the later medieval period, based on a process of asserting of woodland to create the irregular field patterns of small fields, some divided by remnant strips of woodland (shaws).
- 4.13 The closest extant domestic building of medieval date is approximately 1.1km to the northeast of the site which is the grade I Horselunges Manor, constructed at the end of the 15th century by John Devenish, and described as one of the finest timber-framed buildings in the county. The present building is the east range of what may originally have been a courtyard house and is set within large a sub-rectangular moat.
- 4.14 The HER data identifies a number of features dated to the medieval period in the study area. A possible homestead moat is identified at Boship Farm (TOR 19), which is believed to have been located in or associated with a nearby village (TOR 9). The moat is yet to be fully investigated and is heavily overgrown and in poor condition. Another probable moated enclosure has also been identified at Welbury Farm (TOR 1). An evaluation at Woodholm Farm by Oxford Archaeology revealed a series of linear ditches that probably represent boundaries to medieval field systems. Finds recovered from the site were domestic in nature and suggest nearby settlement activity (TOR 2, EV 2).

- 4.15 Archaeological Notification Areas are defined at the moated site at Horselunges Manor, at Boship Farm moated site and post-medieval pottery kilns and at Welbury Farm moated site.
- 4.16 The existing timber-framed farmhouse at Boship Farm (LB 12) was built in 1652, marked by a datestone and the initials M F. It was encased in red brick in the early 19th century. Other buildings of 16th or 17th century date in the study area are Little Horselunges (LB 12), which has been refronted in red brick and tilehanging.
- 4.17 The majority of the listed buildings in the study area are cottages and small houses of 18th and early 19th century date, constructed of red or grey brick, with some tilehanging, and clay tiled roofs. These are the predominant form in the historic core of the linear settlement area at Lower Horsebridge (LB4-6), and the isolated larger houses at Lobdens (LB 1) and Brook House built c.1830 (LB3). The ribbon development on the road at Lower Horsebridge may have been encouraged by the turnpiking of the road between Hailsham and East Grinstead across the Cuckmere valley by the Union Point to Hailsham Turnpike Trust. Next to the bridge over the river is a milepost erected c.1754 marking 54 miles from St Mary-le-Bow Church in London, symbolised by the relief of a bow with a string of bells below, (LB 14).
- 4.18 The operation of a flour mill at site on the Cuckmere River is documented from 1724 to the late 1960s (TOR 24) and the 18th century mill house and adjacent cottage survive (LB 7, 11). The evidence in the HER for industry across the study area also includes a large number of sites for manufacture of brick and tiles (TOR 41-43, 45) and a number of quarries (TOR 34-38).
- 4.19 The tithe map of Hellingly parish, produced in 1842³ shows the site as an area of open fields, of irregular size and form, close to the core of the linear post-medieval hamlet of Lower Horsebridge (TOR 26). An evaluation to the south of the Kings Head PH by TVAS (EV 4), found evidence of early post-medieval activity in the hamlet. A small number of features were found including two post holes and two pits (TOR 46). Pottery sherds, brick and clay tobacco pipe found in the pits have helped date the site.
- 4.20 The detailed Ordnance Survey first series county map of 1875 (figure 4a), shows the field boundaries unchanged from those depicted on the tithe map, and little in the way of additional development in the village. To the east of the site, the Polegate - Eridge Railway to Hailsham was extended north to Hellingly in 1880. The line closed in 1965, and the station building survives converted to a dwelling.
- 4.21 It was not until the early 20th century that Lower Horsebridge began to expand, and the village was extended south. The OS map of 1910 (figure 4b) shows additional buildings occupying the area immediately to west of the site. From the inter-war years even more development occurred in Lower Horsebridge and the area surrounding the site. The OS map of 1932 (figure 4c) shows a nursery building to the right of the site in the adjoining field and the further extension southwest of Lower Horsebridge.

³ The maps and apportionments can be found at <https://apps.eastsussex.gov.uk/leisureandtourism/localandfamilyhistory/tithemaps>

- 4.22 Approximately 30m south of the site boundary, to the south of the Cuckmere River, is located a WW2 machine gun emplacement (TOR 39) which has partly sunken, only the upper part is now visible above ground. There is also a rectangular pillbox with a guarded entrance and open section to the east.

Historic landscape characterisation

- 4.23 The historic landscape characterisation (HLC) data shows the time depth of the present landscape (figure 3). The site is categorised as an area of informal fieldscapes of predominately medieval date. To the east of the site there are areas of sports fields and scattered areas of the post-medieval historic core of Lower Horsebridge, extended by the ribbon development from the early 20th century onwards. In the wider study area, the southern part of the map is dominated by the areas of suburban expansion of Hailsham, which have more recently spread across former areas of formal enclosures. In comparison the northern part of the study area largely remains informal fieldscapes.
- 4.24 A LiDAR survey using four different methods to analyse the potential for archaeological remains was carried out. These include analytical hillshading, hillshading from multiple directions, the slope gradient and PCA of hillshading presented on figure 5. Across the northwest corner of the site the former field boundaries appear on the LiDAR. They join from the north, west and east boundary towards the centre of the site. This is consistent as seen on early historic mapping (figure 4a) which shows the former field boundaries. The LiDAR survey showed no other evidence of identifiable or significant archaeological features on site.

Geophysical survey

- 4.25 A geophysical survey was undertaken by Cranfield University in February 2022 on the site. The survey technique used was magnetometry, a non-intrusive scientific tool to determine the presence/absence of sub-surface archaeological features.

“The survey results have produced no significant anomalies relating any underlying archaeological remains within the area of investigation. Most of the magnetic features detected in Area 1 represent former field boundaries or modern ferrous disturbances from existing above ground features such gates, and a mobile phone mast. Area 2 produced linear anomalies that may have once been part of a field system of unknown date or could indicate underlying services or drains.”

- 4.26 Based on the survey results, it can be concluded that no significance anomalies of archaeological interest were revealed. The geophysics results are consistent with the results of the LiDAR and historic mapping which shows the former field boundaries across the northwest corner of the site.

Results of archaeological investigations in the study area

- 4.27 The HER contains the information on 16 past events in the study area, all related to archaeological investigations including desk-based/environmental impact assessments and geotechnical surveys. A summary of the most relevant to the site is provided below.

- 4.28 Immediately south of the site a development project involving the construction of 450 homes, required archaeological investigations to be carried out at Welbury and Woodholm Farms (EV 2, EV 7, EV 10, EV 13). The initial evaluations at the sites in 2010 revealed medieval and possible Late Iron Age or Roman ditches that probably represent boundaries to field systems and suggest nearby settlement activity for both periods. An excavation that followed in 2012 confirmed the results of the trench evaluation and geophysical survey. A series of ditches, pits and post holes containing Late Iron Age to Early Romano British pottery were identified across the excavation area which is indicative of agricultural activity on the site with the possibility of settlement close by.
- 4.29 An evaluation was carried out at The Kings Head Public House (EV 4), northeast of the site, ahead of a propped developed. Whilst the western part of the site had clearly been affected by previous activity, including the laying down of a hardstanding and the excavation of various service runs, the eastern part of the site showed relatively little evidence of disturbance in the past. However, no artefacts or deposits of archaeological significance were revealed despite the recording of three small late post-medieval features. The site is considered to have no archaeological potential.
- 4.30 Between the 29th of September and the 3rd of October 2008, Oxford Archaeology carried out a field evaluation at Woodholm and Welham Farms, southeast of the site (EV1). The evaluation revealed a ditch, which was shown to be of a recent date, and a small pit containing burnt material of uncertain date. No other archaeological features were revealed in the trenches: natural gravel was overlain in places by an undated ploughsoil. A phase II evaluation was carried out in 2010 which revealed medieval and possible late Iron Age or early Roman ditches that probably represent boundaries to field systems. The limited number of finds recovered were domestic in nature and suggest nearby settlement activity for both periods. The archaeological features were located on the most elevated ground in the central and eastern part of the site.

5 Heritage value and significance

- 5.1 The categories of heritage values that may be attached to a place were outlined in the English Heritage document Conservation principles: policies and guidance for the sustainable management of the historic environment, 2008, and the revised draft published by Historic England in 2017. These definitions have been included in the NPPG, July 2019:

“The National Planning Policy Framework definition further states that in the planning context heritage interest may be archaeological, architectural, artistic or historic. This can be interpreted as follows:

- *archaeological interest: As defined in the Glossary to the National Planning Policy Framework, there will be archaeological interest in a heritage asset if it holds, or potentially holds, evidence of past human activity worthy of expert investigation at some point.*
- *architectural and artistic interest: These are interests in the design and general aesthetics of a place. They can arise from conscious design or fortuitously from the way the heritage asset has evolved. More specifically, architectural interest is an interest in the art or science of the design,*

construction, craftsmanship and decoration of buildings and structures of all types. Artistic interest is an interest in other human creative skill, like sculpture.

- *historic interest: An interest in past lives and events (including pre-historic). Heritage assets can illustrate or be associated with them. Heritage assets with historic interest not only provide a material record of our nation's history, but can also provide meaning for communities derived from their collective experience of a place and can symbolise wider values such as faith and cultural identity."* Paragraph: 006 Reference ID: 18a-006-20190723.

- 5.2 Some or all of these values can be attributed to the known and recorded heritage resource present within the development site boundary and in the study area.

Archaeology

- 5.3 The archaeological potential of the site is assumed to be low as it lies in an area that has seen a focus of human activity from at least the Mesolithic period onwards. The site contains no archaeological finds; however this reflects the fact that it has been subject to no past archaeological investigation. Works to the south of the site at Welbury and Woodbury Farms Works revealed evidence of archaeological remains indicative of agricultural activity at the site with the possibility of settlement nearby. The area is also identified as an Archaeological Notification Area defining a medieval moated enclosure and pottery kilns.
- 5.4 In the wider study area there have been several archaeological investigations, mainly concentrated in areas which have undergone development. Concentrations of archaeological finds seem to correlate within and surrounding areas of historic settlement.
- 5.5 Where archaeological deposits are still present across the site, it is considered based on evidence presented here, that the remains are likely to be of low/negligible value and of a significance in relation to other local sites recorded in the HER database and are most likely to be of post-medieval date if present.
- 5.6 An assessment of the HER data in the study area for remains dating to the prehistoric period suggests that there is a negligible to low potential for archaeological survival of such remains in the area of the proposed development. The data presents concentrations of findspots in areas to the east of the study area at Upper Horsebridge, and to the south of the site at Woodholm Farm. The evidence dates from the Mesolithic to the Late Iron Age and clearly indicates prehistoric activity and possible settlement in those areas, however these have so far been localised to these areas. Any isolated, residual artefacts would have a low significance, providing evidential value for nearby activity in the area.
- 5.7 The potential for remains dating to the Roman period is also considered to be low-negligible. There is limited evidence for the presence of a Roman road in the study area. Roman material has been found in the form of fragmentary pieces of pottery which are dated Late Iron Age/ Early Roman. The potential of any Roman period features or material, if found on site during any ground impact work would depend on their nature and state of preservation. Any isolated, residual artefacts would have a low significance, providing evidential value for human activity in the area.

- 5.8 The site has negligible potential to contain archaeological remains dating to the early medieval (Anglo-Saxon) period with little or no recorded evidence and nothing in archaeological events to suggest the site was the location of any settlement focus.
- 5.9 Archaeological excavations in the vicinity of the site suggest a low to medium potential for remains dating to the medieval period. In the wider study area to the north of the site is the medieval market village of Hellingly which is a designated conservation area. Features of the medieval village can still be seen today, such as the grade I listed Church of St Peter and St Paul. 100m south of the site is an archaeological notification area which is believed to be a medieval moated site. Given the proximity to the site there is the potential for residual finds to extend into the site however any archaeological remains would be of low significance.
- 5.10 The site itself is located close to the post-medieval hamlet of Lower Horsebridge, identifiable by several listed buildings in the village. This would suggest a medium potential for remains dating to the post-medieval period. However, two previous excavations to the east of the site produced no archaeological evidence to suggest that activity extended further, and the site was in its current form as an open field from the earliest maps. Any remains would be of low significance but would add to our understanding of post-medieval activity in Lower Horsebridge.
- 5.11 Based on the assessment of the recorded archaeological resource in the study area, it is unlikely that the archaeological resource would represent a primary risk or constraint to the proposed development in terms of a requirement for preservation in situ of significant archaeological remains.

Built heritage and historic landscape

- 5.12 The principal significance of the nationally listed buildings in the study area both individually and as a group lies in the historic and architectural interest of the fabric and their obvious time depth, as examples of the prevalent local vernacular, and the insight they give into the historic settlement pattern and the agricultural history of the area. None are of a status that would imply a particular visual priority or any designed or intentional views, though the church at Hellingly, outside of the study area, has some local landmark value.
- 5.13 For majority of the designated assets in the study area, because of the absence of any direct functional or historic relationship to the site, the effects of distance and the topography, and the intervening landscape features and built development restricting visual connections, the site does not currently form part of their setting. These are the buildings along the linear roadside settlement of Lower Horsebridge (LB4-11). To the west of the site, Boship Farm Hotel (LB12) is physically and visually separated from the site by the Boship Roundabout, A22 road and vegetation. There is no potential for effects on their significance as a result of the proposed development, and these assets are not considered further in this assessment.
- 5.14 The closest designated asset to the site, is the grade II Brook House (LB 3), built in c.1830, which is directly adjacent to the northern site boundary (see the photographs, figure 7). The house is of red and grey brick, laid in a chequered pattern, with tile hanging to the first storey, and the scale, symmetry and set back from the road give an impression of formality. The house is at the location of an

earlier building group, which appeared on the county map produced by Yeakell and Gardner in 1778-83⁴ and on the Ordnance Survey old series map published in 1813⁵. The tithe apportionment lists the building group as consisting of the house and garden and the separate barn and yard to the east; these had separate occupiers and the barn group was related to the use of the fields to the north, indicating that at that date the house did not function as a farmhouse or serve a large landholding. The occupant of the site area to the south of the road was different again, and it was farmed as part of the large holding of Boaship Place to the south (now Boship Farm Hotel (LB12)).

- 5.15 The building is identified in the HLC (figure 3) as forming part of the 18th and 19th century historic core of Lower Horsebridge, despite its location on the periphery of the main village. It is separated by the A271 road and is south facing overlooking the PDA, which is currently devoid of any development, allowing greater appreciation of its architectural form and setting within the rural landscape (see photographs, figure 7). The immediate setting to the listed building is the large garden to the front which is enclosed by a mid-rise brick wall and wooden fencing on its western side in front of the modern double garage building, and vegetation surrounding the rest of the building. The boundaries of the plot have changed from the historic boundaries on the north side and incorporate the adjacent woodland. The building itself is isolated along the A217, but there is built development to either side of the building along the A217 road which has interrupted the countryside setting that surrounds the PDA.
- 5.16 The neighbourhood plan identifies several key views or vistas from the A271 in close proximity to the house (map 4, pg 65). A vista is noted on the road outside the house, looking east to the village edge, and a further view at the corner when the line of houses comes into view. A long view is identified looking south across the east part of the site to the brook connecting to the River Cuckmore. There are similar direct views from the house and immediate domestic curtilage looking across the open land to the south and along the edge of Lower Horsebridge, and views looking back towards the house from the west side of the site. The views of the house along the road are restricted by the set back and the strong vegetation either side on the road edge to a short section in close proximity.
- 5.17 Brook House was constructed at the location of an earlier holding, and the replacement house appears to have lost any direct agricultural function by the mid 19th century. Historic and functional connections to a wider landholding are therefore not an aspect of its significance. Beyond the extended gardens the key spatial relationship is to the road frontage and to the extensive views beyond the well maintained hedges on the site boundaries. The house is a landmark on the northern edge of the site, separate from both the edge of Lower Horsebridge and the group of modern houses close to the Boship roundabout. The house faces south directly across the site, which makes a positive contribution of moderate importance as part of the setting of the listed building because of its proximity and the direct spatial and visual relationship.

⁴ This can be viewed at http://www.envf.port.ac.uk/geo/research/historical/webmap/sussexmap/Yeakell_36.htm

⁵ See https://www.visionofbritain.org.uk/maps/sheet/first_edition/lm_5

6 Brief description of the potential sources of impacts

- 6.1 The physical impacts of the proposed development on buried archaeological sites/features/artefacts within the PDA would arise from any activity associated with ground disturbance, for example site works, remediation, landscaping, balancing/attenuation ponds and the construction of the new access and internal roads and the preparatory foundations for the proposed residential units.
- 6.2 While the change from a field to residential could be defined as a large change, the likely archaeological resource is no more than of low value and local interest and could be wholly mitigated, if deemed necessary, by future evaluation and subsequent recording prior to the commencement of development. This approach is proportionate to the likely significance of the archaeological resource and in line with best practice.
- 6.3 Given the proximity and spatial relationship to Brook House, the development will directly impact the visual appreciation of the house and partially remove the open rural south aspect that contributes to its significance.
- 6.4 Effects on the listed building have been avoided or minimised as far as practicable while making efficient use of the land: the eastern part of the site will remain open and undeveloped, largely because of the risk of fluvial and surface water flooding, and the existing vegetation along the boundaries will be retained and reinforced by infill and new planting, creating a new landscape corridor along the A271 boundary and additional strategic planting is proposed across the site, including new hedgerows and areas of scrub and woodland. The key views and vistas identified in the neighbourhood plan will remain open and unimpeded. The location of the access road was determined by the set back from the Boship roundabout and the required visibility spays, but is as far away from the listed building as feasible. The scale and form of the residential development has responded to the adjacent development at Lower Horsebridge and the tallest built elements are at the north western edge, facing the Boship roundabout, with lower building heights used for the small group on the east side of the access, opposite Brook House.
- 6.5 Although the eastern part of the site will remain open and undeveloped, the built development to the west, the new access road and the changed appearance of the land immediately opposite the house will erode the current contribution of moderate importance that the site makes as part of the setting of the listed building. The proposed development is predicted to result in a medium level of less than substantial harm to Brooks House as a result of the changed character of the site as part of the setting of the listed building.

7 Conclusions and recommendations

- 7.1 The report's conclusions are limited by the extent and quantity of existing information and therefore its usefulness in predicting the actual full extent and definitive location of the archaeological resource must be qualified. It is important to stress that the areas currently showing an absence of archaeological sites ('blank areas') should not be seen as definitively proving lack of archaeological potential.

- 7.2 Information presented in this assessment and based on current knowledge of heritage assets in the East Sussex HER database, indicates that the site has a low/negligible potential to contain archaeological remains of no more than local interest.
- 7.3 This assessment has identified through a thorough review and analysis of all available historic records and previous archaeological investigations on and in the immediate vicinity, that there is overall a low potential for archaeology sites between the prehistoric and Roman periods. Given the two results from two previous excavations behind the site and the results from the LiDAR survey, no archaeological features would be expected at the site.
- 7.4 The risk of impacts from the development would come from the possible damage to any unanticipated below ground archaeological features caused by the various elements of the construction process. Such features have thus far not been identified and are not recorded in the ESHER database. However, should the archaeological advisor to the local planning authority deem it necessary, a watching brief exercise could be carried out during the excavation of the initial stages of the development, with all artefacts and any archaeological features uncovered subject to appropriate recording and investigating in line with an agreed and appropriately worded condition to a planning consent.
- 7.5 The proposed development is predicted to result in harm to the grade II listed Brook House as a result of the changes to the setting through the loss of part of the open land to the south and its visual prominence in close proximity to the asset. This will be a medium level of less than substantial harm in terms of NPPF paragraph 202.
- 7.6 The effects on designated and non-designated heritage assets as a result of the proposed development are considered in the planning, design and access statement as part of the overall planning balance.

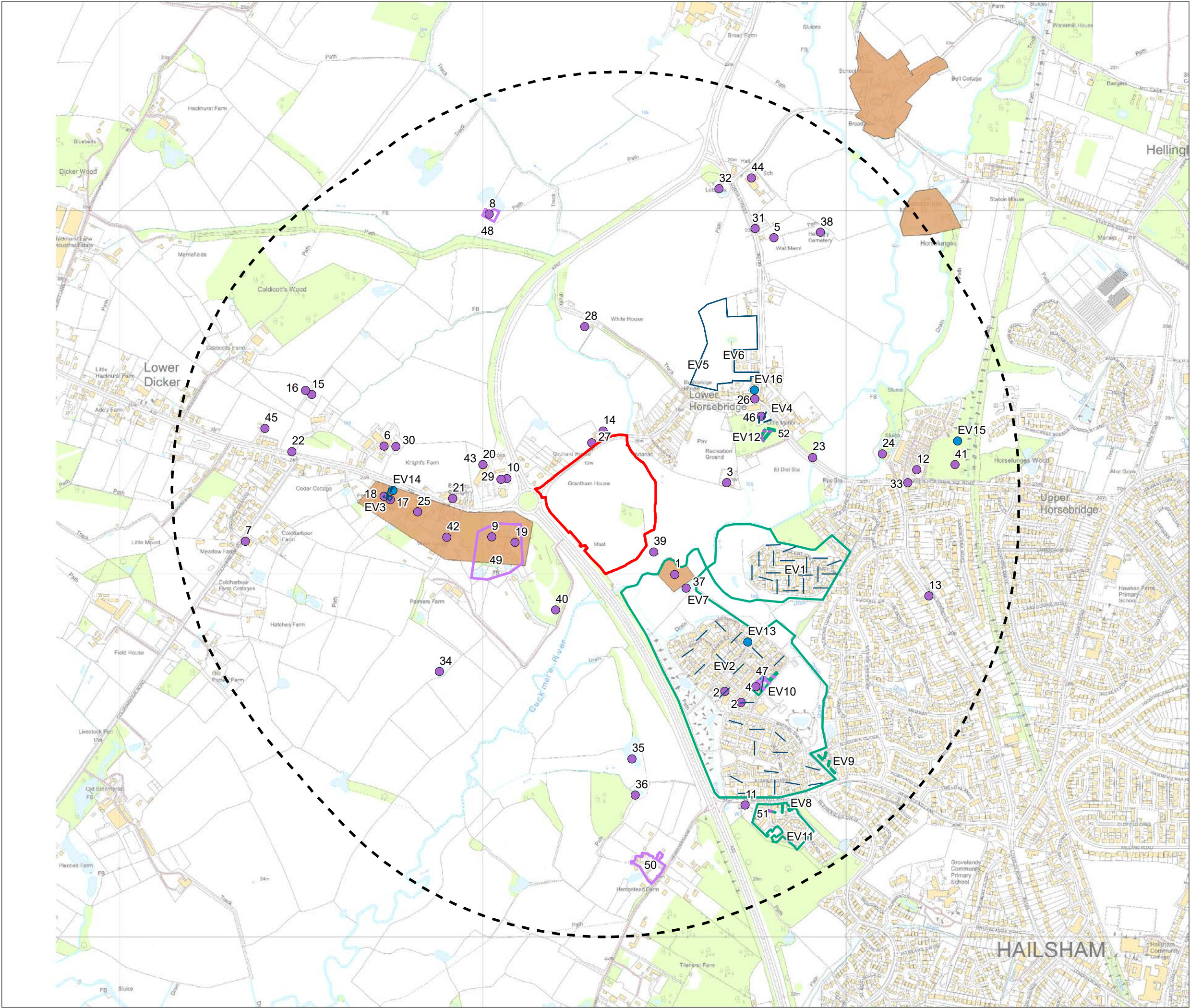
Sources

Chartered Institute for Archaeologists, 2014, Standards and guidance for historic environment desk based assessments
Cook, J., 2017, Archaeological Evaluation Report, Land South of Kings Head Public House Lower Horsebridge
English Heritage, 2008, Conservation principles – policies and guidance for the sustainable management of the historic environment
Hellingly Parish Council, 2021, Hellingly Neighbourhood Plan 2018 to 2028
Historic England, 2015, Good Practice Advice notes GPA1 Local plan making; GPA2 Managing significance in decision-taking in the historic environment
Historic England, 2017, GPA3 The setting of heritage assets
Historic England, 2017, Conservation principles for the sustainable management of the historic environment, consultation draft
Ministry of Housing, Communities and Local Government, 2021, National Planning Policy Framework
Ministry of Housing, Communities and Local Government, 2018, Planning Practice Guidance (online)
Wallis, 2019 Land South of Kings Head Public House Lower Horsebridge, TVAS Archaeological Evaluation Report
Wealden District Council, 2020, Hellingly draft conservation area character appraisal
Wealden District Council, 2020, Planning Validation Guide (online)

Websites:

www.archaeologydataservice.ac.uk
www.british-history.ac.uk for historic background and documentary sources including Victoria County History
<https://historicengland.org.uk/listing/the-list/advanced-search/> for the National Heritage List for England
www.pastscape.org.uk/ for records in the Historic England Archives database
<https://mapapps.bgs.ac.uk/geologyofbritain/home.html> for BGS map
https://www.wealden.gov.uk/UploadedFiles/Adopted_Core_Strategy_2013_for_web.pdf
<https://www.bgs.ac.uk/map-viewers/geoindex-onshore/>

Figures



- Site boundary
- 1km study area
- HER point
- HER line
- HER area
- Event points
- Event lines
- Event areas
- Archaeological Notification Area

Land south of the A271 and east of the A22, Lower Horsebridge
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0 250 m

N

Figure 1: Non-designated archaeology in the study area

Dwg no/231703C/H001	Revision
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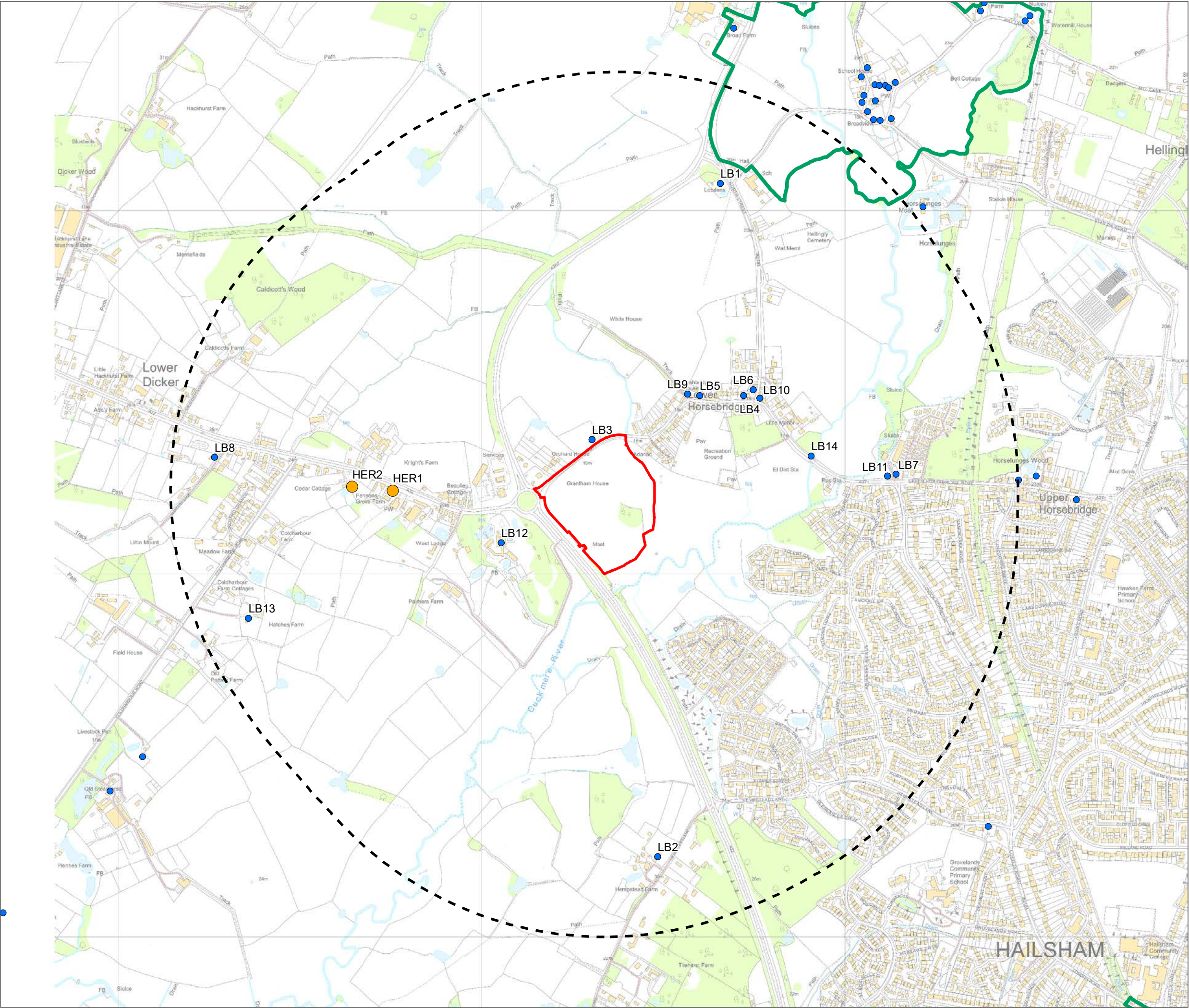
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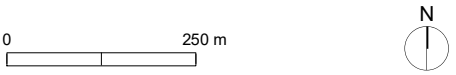
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- Site boundary
- 1km study area
- Listed_buildings
- Building in the HER
- Conservation areas



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Figure 2: Built heritage in the study area

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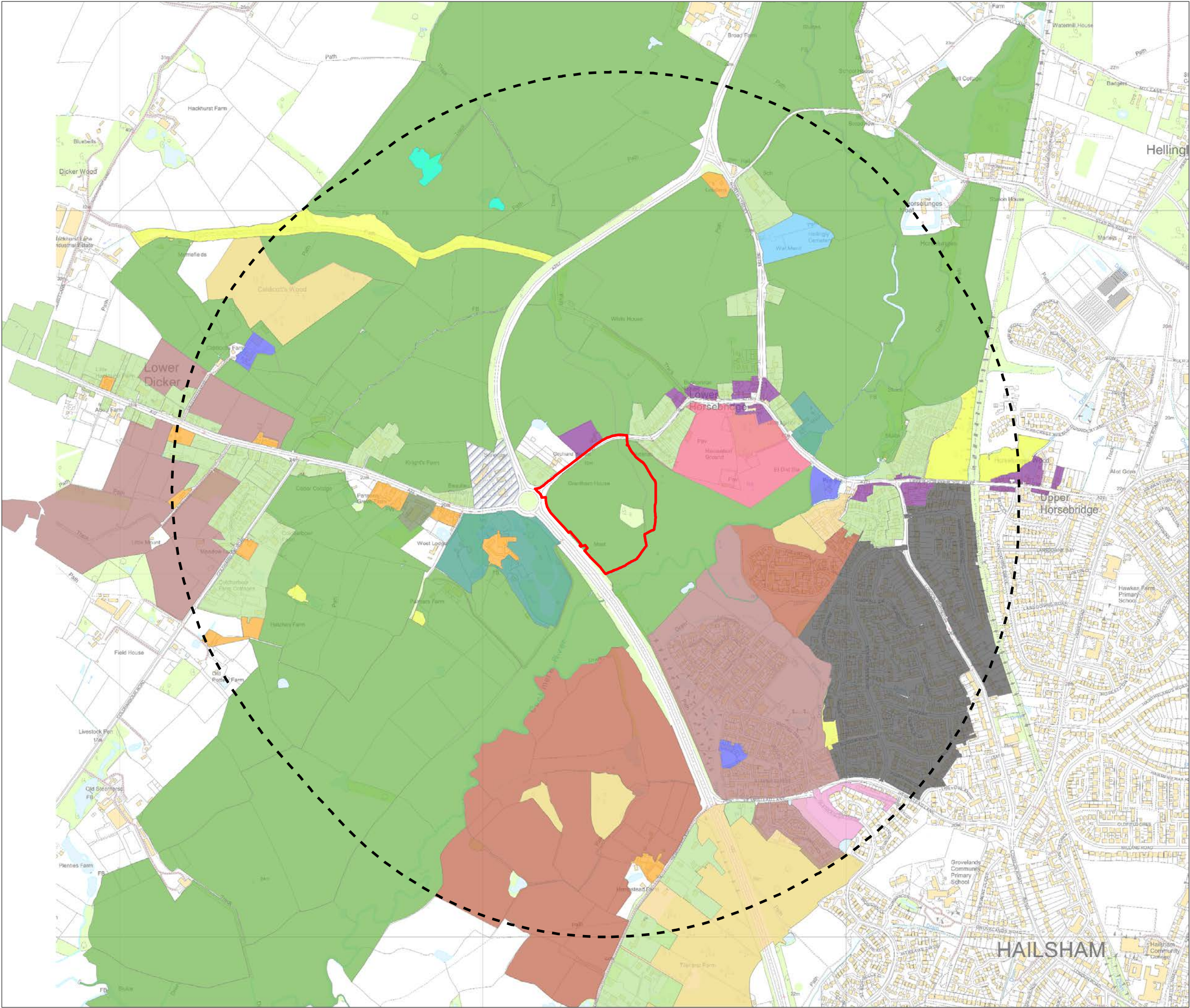
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- Site boundary
- 1km study area
- Ancient Semi-natural
- Assarts
- Expansion - other
- Expansion - suburbs
- Formal Enclosure (planned/private)
- Formal parkland
- Green
- Historic Core
- Historic dispersed
- Informal Fields
- Informal parkland
- Motorway Services (large areas of)
- Non-historic isolated
- Ponds
- Processing
- Regenerated
- Sports fields

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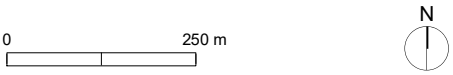


Figure 3: Historic Landscape
Charaterisation

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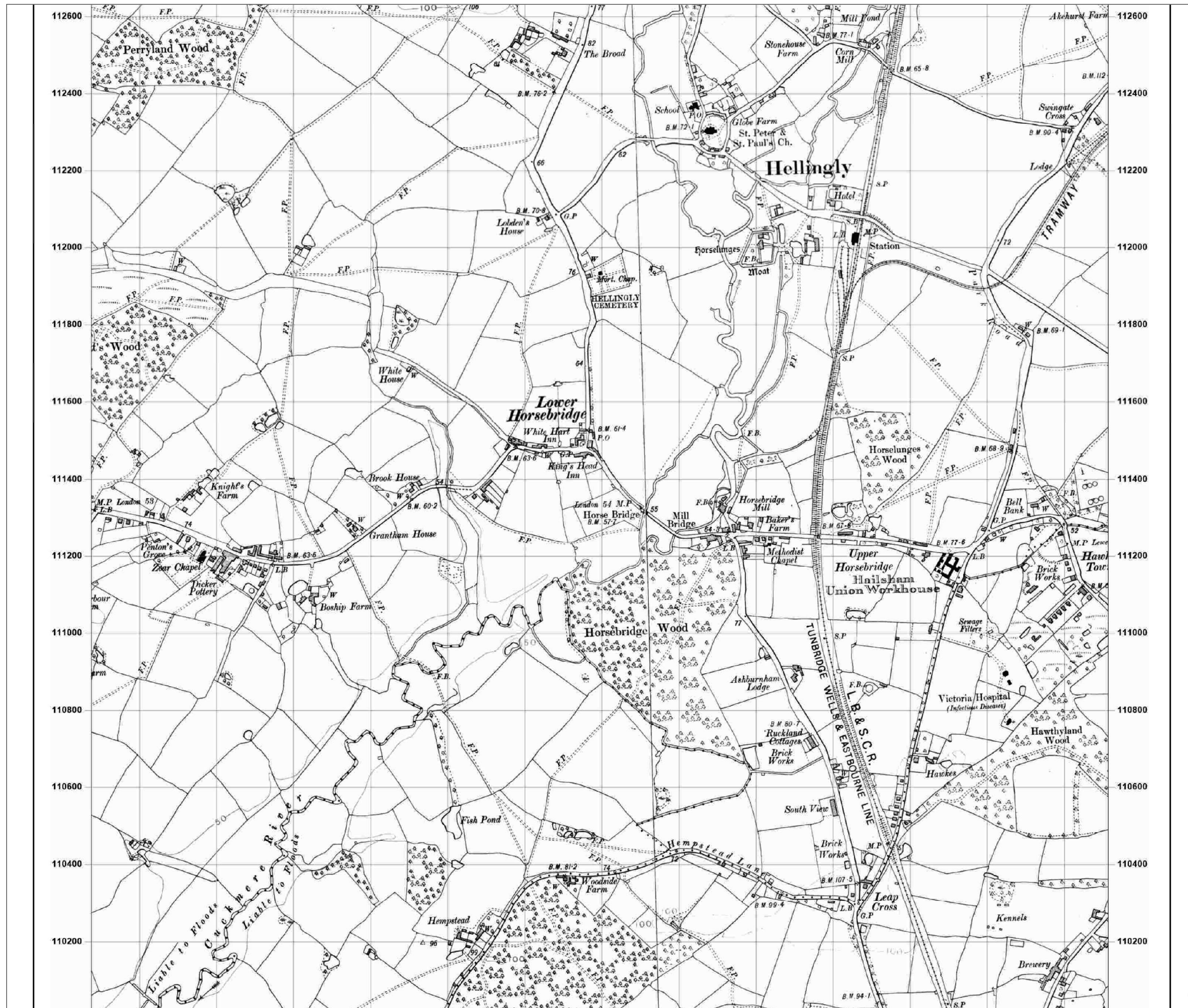
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Figure 4b: Ordnance Survey map
6" to a mile scale, dated 1908

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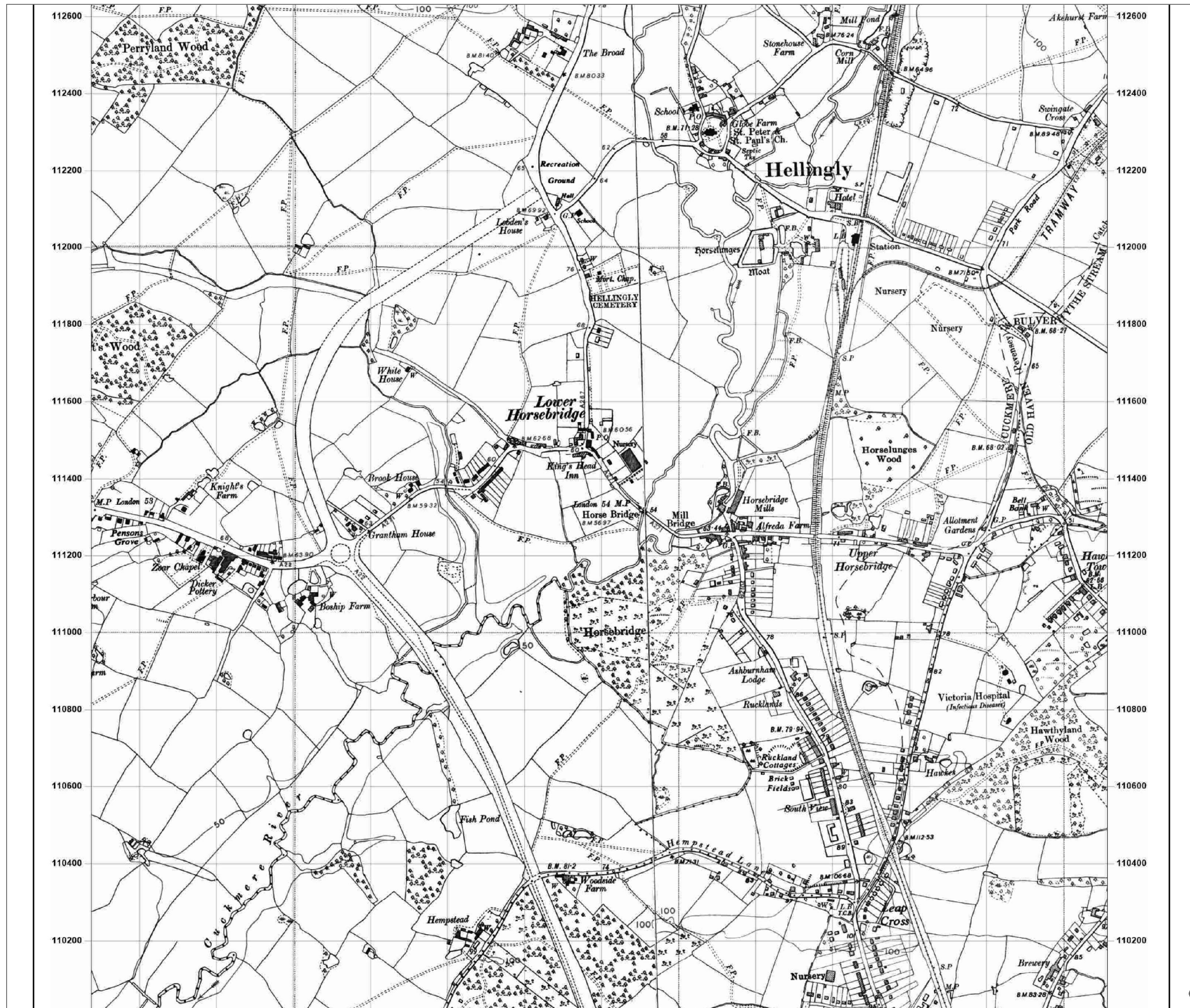
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Figure 4c: Ordnance Survey map
6" to a mile scale, dated 1948-1950

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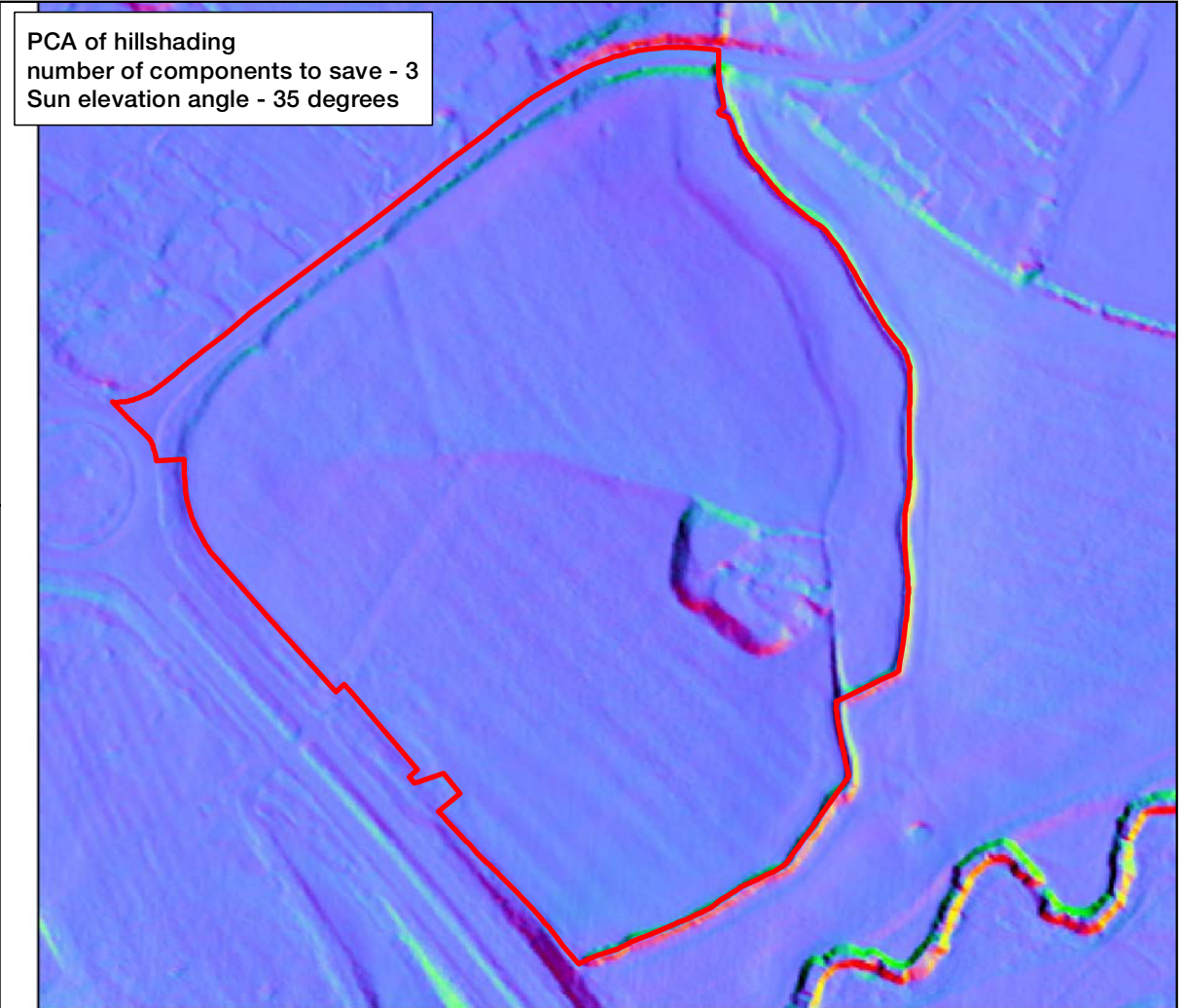
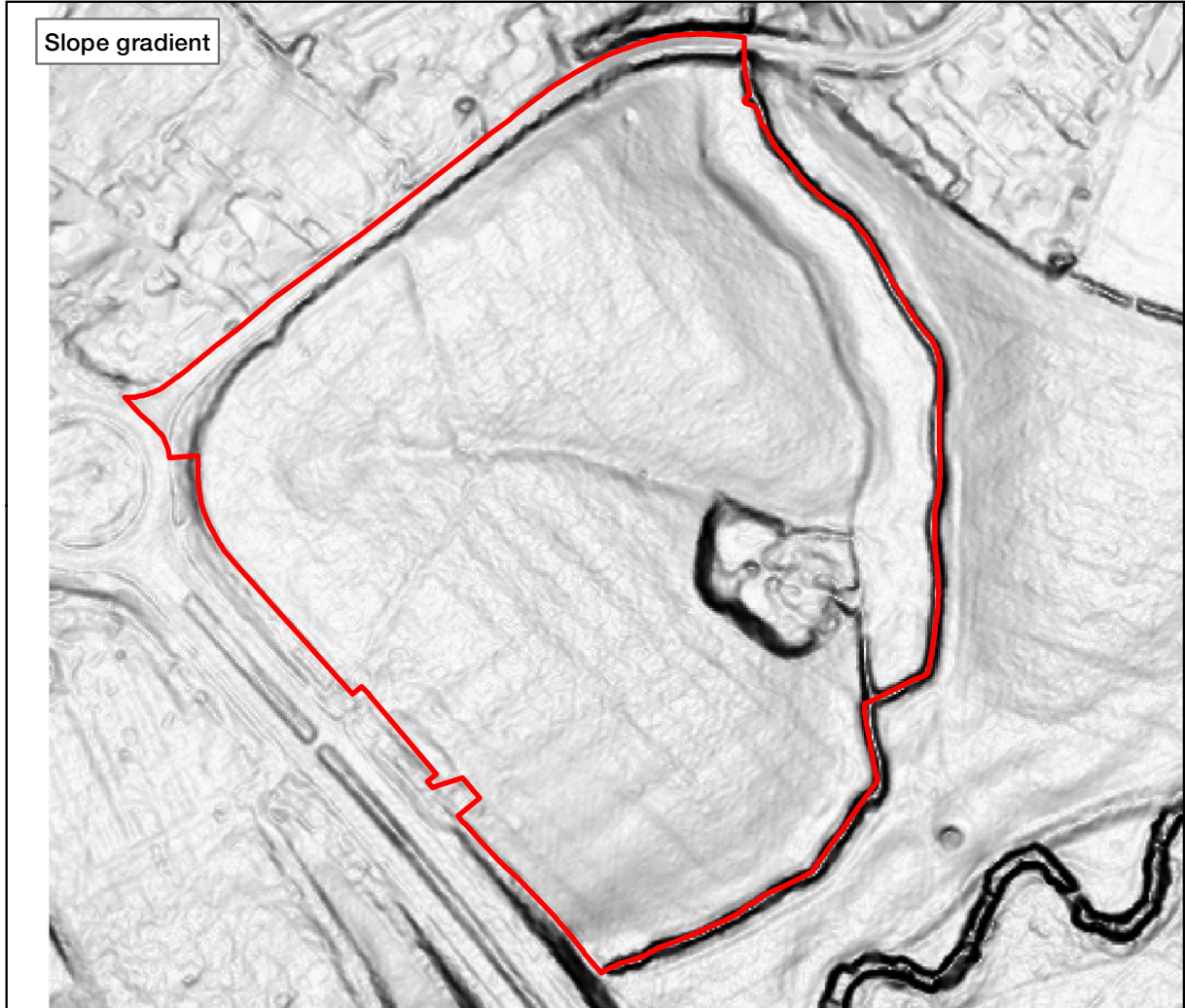
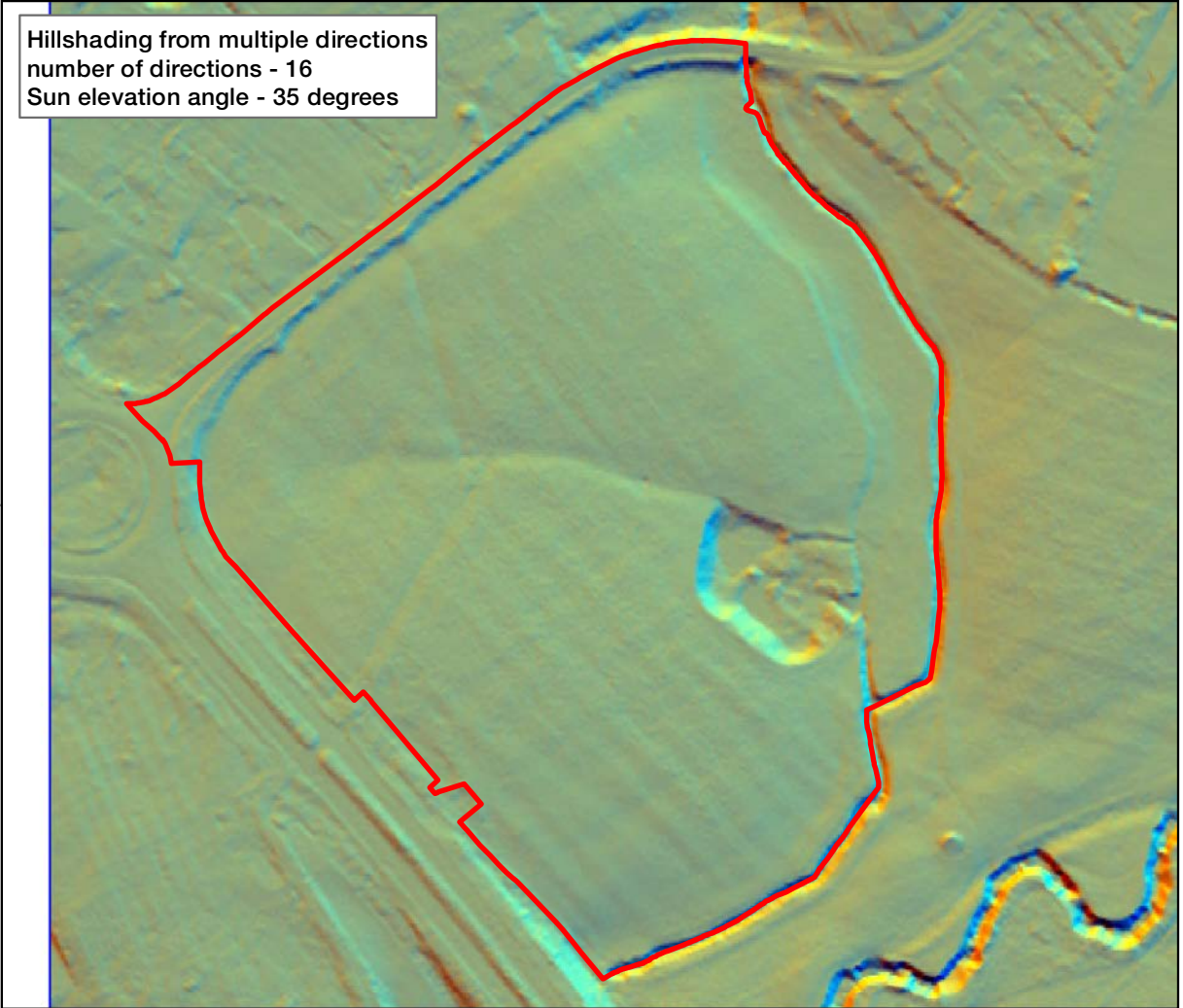
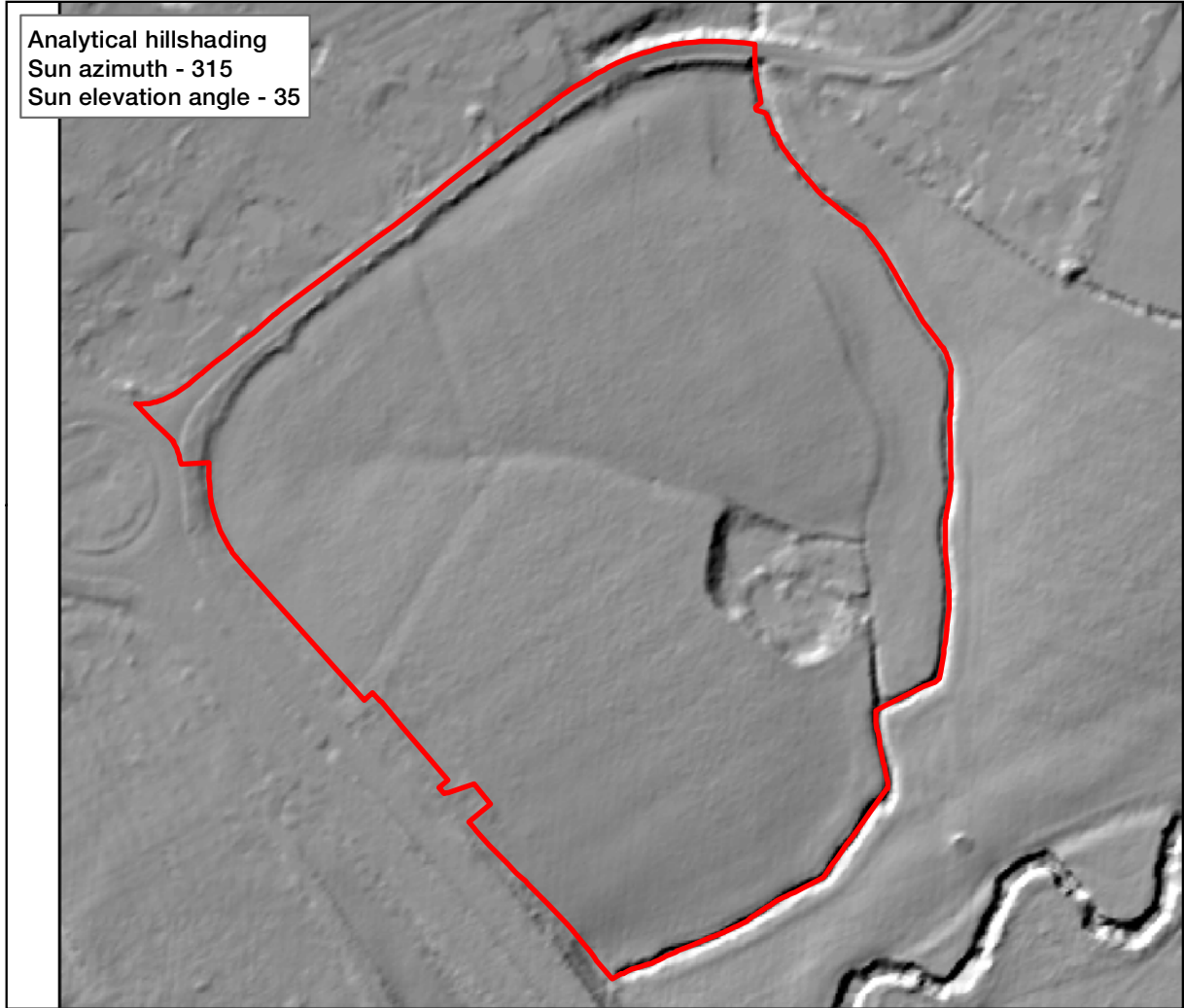
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Site boundary

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Figure 5: LiDAR 1m DTM

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-  Site boundary
-  1km study area

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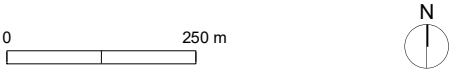


Figure 6: Aerial photograph of the site and surrounding area

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A. View from the site looking north towards the A271 and the edge of Lower Horsebridge



B. Brook House



C. View from the east site boundary



D. View towards the site from the south east by the River Cuckmore



E. View from the west site boundary

Appendix 1: Gazetteers of heritage assets in the 1km study area

Undesignated and non-designated archaeological assets

TORID	HES ID	Description
1	MES15543	Welbury Farm : Med moated Enclosure?
2	MES15544	Woodholme Farm, Hailsham : Med Ditches
3	MES24509	Sports & Social Centre, Hellingly : WW2 Memorial Pavilion
4	MES25614	Woodholm Farm, Hailsham : Neo/B.A Flints
5	MES25775	Hellingly Cemetery, Hellingly : F/O Peter A Hay-Neave Headstone Memorial
6	MES32566	Knight's Farm, Hellingly : C19 Farmstead
7	MES32567	Coldharbour Farm, Hellingly : C19 Farmstead
8	MES32592	Outfarm southwest of Lobden's House, Hellingly : C19 Outfarm (site of)
9	MES32593	Boship Farm, Hellingly : C17 Farmstead
10	MES32594	Outfarm west of Grantham House, Hellingly : C19 Outfarm
11	MES32596	Woodside Farm, Hailsham : C19 Farmstead
12	MES32626	Baker's Farm, Hailsham : C19 Farmstead
13	MES32628	Outfarm to northwest of Gorman's Farm, Hailsham : C19 Outfarm (site of)
14	MES33053	Brook House, Hellingly : C19 Farmstead
15	MES33218	The Dicker, Hellingly : C18 Pound (site of)
16	MES33219	The Dicker, Hellingly : C18 ?Barn (site of)
17	MES33839	Potters Pantry, Lower Dicker, Hellingly : PM Features
18	MES33839	Potters Pantry, Lower Dicker, Hellingly : PM Features
19	MES4307	Boship Hotel: moat
20	MES4383	Boship Pottery Works: C19 tile works
21	MES4384	Dicker Pottery: Brickworks
22	MES6956	A22 The Dicker, Lower Dicker : C18 mile post
23	MES6957	A22 Horsebridge, Lower Horsebridge : C18 Mile post
24	MES6958	Watermill
25	MES6967	Pottery works
26	MES7797	Lower Horsebridge: PM hamlet
27	MES7798	Brook House: PM buildings
28	MES7799	White House: PM buildings
29	MES7800	Lower Dicker: PM buildings
30	MES7801	Knights Farm: PM farm
31	MES7802	Broad Cottages: PM building
32	MES7803	Lobdens: PM building
33	MES7809	Upper Horsebridge: PM hamlet
34	MES7818	Quarry?
35	MES7819	Chicheley Farm: Quarry
36	MES7820	Chicheley Farm: Quarry
37	MES7821	West Of Horsebridge Wood: Quarry?
38	MES7824	Hellingly Cemetery: Quarry?
39	MES7872	Welbury Farm, Lower Horsebridge : WW11 pill box and gun emplacement
40	MES7873	Gun emplacement
41	MES8261	Limekiln Farm, Upper Horsebridge : ?C19 Brickyard
42	MES8274	Boship: Brickyard
43	MES8275	Boship: Tile yard
44	MES8280	North St, Hellingly: School
45	MES8282	Perryland Farm, Lower Dicker: Brickyard
46	MES36852	Land south of King's Head Public House, Lower Horsebridge, Hailsham : PM Features

TORID	HES ID	Description
47	MES25613	Woodholm Farm, Hailsham : I.A/Rom Field System
48	MES26376	Hellingly: C19 Building (site of)
49	MES4386	Boship Farm: C17 farm
50	MES7811	Hempstead Farm: Medieval Farmstead (Large)
51	MES20224	Hempstead Lane Hailsham : PM ditches
52	MES34600	Land South of Kings Head Public House, Lower Horsebridge : pm ditches

Buildings recorded in the HER

TOR ref	Description
HER1	Horsebridge Tollhouse: tollhouse
HER2	Coldharbour Lane, Arlington : C18 Cottage

Events

TORID	ESHER ID	Description
EV1	EES14724	Woodholm and Welbury Farm, Hailsham: Evaluation
EV2	EES14725	Welbury & Woodholm Farms, Hailsham : Evaluation
EV3	EES17776	Potters Pantry, Lower Dicker, Hellingly : Watching Brief
EV4	EES19157	Kings Head Public House, Lower Horsebridge : Evaluation
EV5	EES20076	Land west of North Street, Lower Horsebridge : Desk Based Assessment
EV6	EES20077	Land west of North Street, Lower Horsebridge : Heritage Statement
EV7	EES14527	Land at Woodholm and Welham Farms, Hailsham : Magnetometry Survey
EV8	EES15103	Hempstead Lane, Hailsham: Evaluation
EV9	EES15184	Land Adjacent to the rear of Goodwin Close: Evaluation
EV10	EES16987	Woodholm Farm, Hailsham : Excavation
EV11	EES17466	Hempstead Lane, Hailsham : Geophysical Survey
EV12	EES18143	Land South of Kings Head Public House, Lower Horsebridge : Evaluation
EV13	EES15102	Welbury Farm, Hailsham: Desk Based Assessment
EV14	EES17509	Potters Pantry, Hellingly : Desk Based Assessment
EV15	EES19630	Land at Upper Horsebridge Road, Hailsham : Desk Based Assessment
EV16	EES19759	1, 1A North Street, Lower Horsebridge, Hellingly : Historic Building Recording

Listed buildings

TOR ref	Description
LB1	Nos 1 and 2 Lobdens II C18 house. Two storeys and attic. Three windows. Three dormers. Ground floor red brick and grey headers, above tile-hung. Tiled roof. Casement windows. Two doorways with modern canopy over.
LB2	Hempstead II C18 or earlier. Two storeys. Four windows. Red brick and grey headers alternately. First floor partly tile-hung. Hipped tiled roof with pentice on north east side. Vertical glazing bars intact.
LB3	Brook House II 1830 circa. Half-H-shaped. Two storeys. Three windows. Ground floor red brick and grey headers, above tile-hung. Tiled roof. Casement windows. The wings have gables with scalloped bargeboards. The ground floor of the centre portion has been filled in later to form a porch.
LB4	Olive House II GV

TOR ref	Description
	Early C19. Two storeys. Three windows. Red brick and grey headers alternately. Modillion eaves cornice. Tiled roof. Sash windows on ground floor with vertical glazing bars intact, casement windows above. Round-headed wooden trellised porch.
LB5	Croft Cottage II C18. Two storeys. Two windows. Stuccoed. Tiled roof. Glazing bars missing.
LB6	The Spa Stores II GV C17 or earlier timber-framed building with plaster infilling. Ground floor of the east front and the whole of the south front refaced in brick, now painted. Tiled roof. Glazing bars intact on first floor only. Modern shop windows below.
LB7	Mill Cottage, Horsebridge Mills II This was the original mill building. C18. Two storeys and attic. Two windows facing south, 3 windows facing west. Painted brick. Tile-hung gable with attic window to south. Tiled roof. Glazing bars intact.
LB8	The Fair Place II C18. Two storeys. Two windows. Painted brick. Eaves cornice of brick cogging. Tiled roof. Glazing bars intact
LB9	Busbridge House II C18. Two storeys. Three windows. Stuccoed. Tiled roof, Glazing bars missing. Trellised wooden porch.
LB10	The Cottage (Antiques) II GV Early C19. Probably built as a toll-house at the Horsebridge cross-roads. Small single-storeyed building, now a shop. Two windows. Stuccoed. Hipped slate roof. Windows altered.
LB11	The Mill House, Horsebridge Mills, II C18. Two storeys and attic. Four windows. Three dormers. Ground floor red brick and grey headers alternately, above tile-hung. Mansarded tiled roof. Glazing bars intact.
LB12	Boship Farm Hotel II Originally known as Horeship Farm. Built by M Fuller in 1652. Timber-framed building encased in red brick and altered in the early C19. Two storeys and attic. Four windows. Three gables containing attic windows. Centre gable has a pendant with the date 1653 and the initials "M.F.". Pentice on west side of west gable. Cemented stringcourse. Tiled roof. Early C19 windows with rusticated painted surrounds and 2 or triple narrow sashes. Four-centred doorway flanked by narrow lights. Brick chimney breast with offsets on east wall.
LB13	Hatches Farmhouse II C18. Two storeys. Three windows. Painted brick, partly tile-hung. Hipped tiled roof. Casement windows.
LB14	Milepost at Horse Bridge on the north side of the A271 II This is one of a series of mileposts erected by the Union Point to Hailsham Turnpike Trust circa 1754 between Hailsham and East Grinstead which shows the distance to St Mary-le-Bow Church in London. It is shown on the 1875 Ordnance Survey map in the same position. Gabled wooden post 100 cm high, 30 cm wide and 15 cm deep with attached gabled cast iron plate depicting the buckle of the Pelham family at the top, the figure 54 below it, representing the number of miles between the mile post and St Mary-le-Bow Church, London followed sequentially by a stylised bow and five stylised bells. The background is painted white and all relief elements are painted black.

Appendix 2: Desk- based heritage assessment checklist

Cultural heritage information checklist		Yes/ no
Information from client	Site boundary	Yes
	Development description	Yes
Site/study area walkover /visit	Accompanying photographs & description	Yes
Mapping	Modern OS (ideally 1:10k raster) map data (larger sites with have 1:25/1:50k base mapping)	Yes
	*Historic OS map pack (see possible overlap with acquisition of Envirocheck report below)	Yes
	Estate maps; tithe maps; other where available and produced – area dependent if available online	Yes
Geological site data	BGS website research (bgs.ac.uk)	Yes
	Previous geotechnical site information, if such exists	Yes
	*Envirocheck/Landmark reports – if purchased for engineering purposes within project team	No
Consultation	Request for HER data for an agreed study area: LPA historic environment dept. & date received	Yes
Basic review of available information that informed the assessment		
Online research	National designation information	Yes
	Search of national and local records of England's historic sites and buildings (heritagegateway.org.uk; pastscape.org.uk)	Yes
	Literature review Archaeology data service (ads.ahds.ac.uk) to review 'grey literature' of previous archaeological site reports	Yes
	Medieval and modern history of British Isles: British history online (british-history.ac.uk) provides Victoria County History series	Yes
Detailed review of primary and secondary source material		
Baseline research - not all elements are required for all sites	Public libraries: local archival research; local relevant publications	No
	National libraries: NMR, Swindon	No
	Local societies – journal review	Yes
	Review of aerial photographs: LPA HER archive; NMR, Swindon & LiDAR/Google Earth	No

Cultural heritage constraints checklist		Yes /no
Scheduled monument	Within the development site boundary	No
	Within 250m of the site	No
	Within the study area and/or zone of visual influence	No
Listed building	Within the development site boundary	No
	Within 500m of the site	Yes
	Within the study area and/or zone of visual influence	Yes
World heritage site	Development lies within a world heritage site	No
	Development lies within the defined management plan area/buffer zone	No
Historic England Register of parks and gardens of special historic interest	Development lies within a nationally designated park and garden	No
	Development lies within 500m of a nationally designated park and garden	No

	Development lies within zone of visual influence	No
Historic England Register of Historic Battlefields	Development lies within a registered battlefield	No
	Development lies within 500m of a battlefield	No
Conservation area	Development lies within a conservation area	No
	Development lies within 250m of a conservation area	No
	Within the study area and/or zone of visual influence	No
Identified non-designated heritage assets		
Local list (where present)	Within the development site boundary	No
	Within 50m of the development site	No
	Within the study area	Yes
Inventory of local gardens (where present)	Development lies within a locally significant park and garden	No
	Development lies within 500m of a locally significant park and garden (on the HER)	No
Area of high archaeological potential (defined in LPA local plan)	Within the development site boundary	No
	Within 250m of the development site	No
	Within the study area	No
HER sites	Within the development site boundary	No
	Within 250m of the development site	Yes
	Within 500m of the development site	Yes
	Within the study area	Yes
Other	Known aerial photograph anomalies present on site (includes Google Earth & LiDAR)	No
	Study area has been subject of recent archaeological site evaluation/excavation	Yes
	Study area contains non-designated feature listed on Historic England at Risk register	No
	Study area has significant archaeological artefact(s) discovered through the Portable Antiquities Scheme	No

Appendix 3: Glossary of specific technical terms

Alluvium	Sediment laid down by a river. Can range from sands and gravels deposited by fast flowing water and clays that settle out of suspension during overbank flooding. Other deposits found on a valley floor are usually included in the term alluvium (e.g. peat).
Archaeological Priority Area (APA)	Area of archaeological priority, significance, potential or other title, designated by the local authority.
Bronze Age	2,000 – 600 BC
Early medieval	AD 410 – 1066. Also referred to as the Saxon period.
Evaluation (archaeological)	A limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area.
Excavation (archaeological)	A programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological remains, retrieves artefacts, ecofacts and other remains within a specified area. The records made and objects gathered are studied and the results published in detail appropriate to the project design.
Findspot	Chance find/antiquarian discovery of artefact. The artefact has no known context, is either residual or indicates an area of archaeological activity.
Heritage asset	A building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment. They include designated heritage assets and assets identified by the local planning authority (including local listing).
Historic England Archive	National database of archaeological sites, finds and events. Generally not as comprehensive as the county HER.
Historic Environment Record (HER)	Archaeological and built heritage database held and maintained by the local planning authority. Previously known as the Sites and Monuments Record
Iron Age	600 BC – AD 43
Later medieval	AD 1066 – 1500
Made Ground	Artificial deposit. An archaeologist would differentiate between modern made ground, containing identifiably modern inclusion such as concrete (but not brick or tile), and undated made ground, which may potentially contain deposits of archaeological interest.
Mesolithic	12,000 – 4,000 BC
Neolithic	4,000 – 2,000 BC
Ordnance Datum (OD)	A vertical datum used by Ordnance Survey as the basis for deriving altitudes on maps.
Palaeolithic	700,000–12,000 BC
Post-medieval	AD 1500 – present
Preservation by record	Archaeological mitigation strategy where archaeological remains are fully excavated and recorded archaeologically and the results published. For remains of lesser significance, preservation by record might comprise an archaeological watching brief.
Roman	AD 43 – 410
Scheduled monument	An ancient monument or archaeological deposits designated by the Secretary of State as a ‘Scheduled Ancient Monument’ and protected under the Ancient Monuments Act.
Study area	Area surrounding a proposed development within which data is collected and analysed in order to set the site into its archaeological and historical context.

Appendix 4: Geophysical survey report, Cranfield University, 2022



**GEOPHYSICAL SURVEY OF LAND AT LOWER
HORSEBRIDGE, HAILSHAM,
EAST SUSSEX**

Cranfield Forensic Institute Report No. 173



Peter Masters

March 2022

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Front cover: View of Areas 1 and 2 looking east

ILLUSTRATIONS

FIG. 1: Location plan, scale – 1: 5,000

FIG. 2: Gradiometer survey results, 1:2,000

FIG. 3: Area 1 – Grey scale plot of raw data, scale – 1:1250

FIG. 4: Areas 1 – Trace plot of raw data, scale – 1:1250

FIG. 5: Area 1 – Grey scale plot of enhanced data, scale – 1:1250

FIG. 6: Area 2 – Greyscale plot of raw data, scale – 1:1000

FIG. 7: Area 2 – Trace plot of raw data, scale – 1:1000

FIG. 8: Area 2– Greyscale plot of raw data, scale – 1:1000

FIG. 9: Interpretation of results, scale – 1:2000

ABSTRACT

A geophysical survey was carried out on land at Lower Horsebridge, Hailsham, East Sussex on behalf of Terence O'Rourke Ltd in February 2022.

Two separate areas were investigated within the area of investigation, which is subject to residential development.

Area 1 is bounded by the A22 to the west, and A271 road to its north, which revealed former field boundaries and modern disturbances caused by a telegraph pole and its cable supports and the enclosed mobile phone mast.

Area 2 located immediately to the south of the recreation ground and to the north-east of Area 1 revealed modern services and disturbances.

No magnetic anomalies of archaeological significance were detected in both areas surveyed.

1.0 INTRODUCTION

A geophysical survey was undertaken on land at Lower Horsebridge, Hailsham, East Sussex on behalf of Terence O'Rourke Ltd. The work was carried out in February 2022.

The survey methodology described in this report was based upon guidelines set out in the Historic England (formerly English Heritage) document '*Geophysical Survey in Archaeological Field Evaluation*' (HE 2008).

2.0 LOCATION AND DESCRIPTION

The site is located is located approximately 100m from the village of Lower Horsebridge, to the south of the A271 on the outskirts of the village and the A22 to the west. The site comprises part of a field parcel to the south of the Kings Head PH and is bounded by open fields to the south, the playing fields at Hellingly Sports Club to the west and an electricity substation and its access road to the north. The site covers an area of approximately 9 hectares in extent and is characterised by open grassland (Fig 1: SJ 91324 47214). Areas 1 and 2 are bisected by a brook that runs into the River Cuckmere to the south of the A22.

The underlying geology of the site is comprised of Weald Clay Formation across both areas whilst the southern half of Area 1 and Area 2 is overlain by superficial deposits of River Terrace deposits of sand and gravel (Geological Map Data BGS©UKRI 2022). The magnetic susceptibility of these types of geologies is generally good.

3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

This information in this section is based on the desk-based assessment produced by Terrence O'Rourke (2021).

Prehistoric period is represented by eight findspots dating from the Mesolithic to the pre Roman Iron Age. To the west of the site in Upper Horsebridge, 8 struck flints were recovered from an archaeological evaluation undertaken by Archaeology South East (ASE).

Additional work undertaken by ASE in the area from an excavation in 2015 produced 38 residual artefacts dating to the Mesolithic and Early neolithic periods. Two flintwork concentrations were collected in the fields to the north and south of Cuckoo Walk, the assemblages consisting of Mesolithic and late Neolithic material.

Two large pits and a linear feature were identified during excavations in Upper Horsebridge along with associated lithic material of early Bronze Age date.

The Iron Age is represented by pits, postholes, ditches, and field systems that were recovered from an excavation undertaken by Wessex Archaeology at Woodholm Farm located to south-east of the current survey area.

No evidence has been found of Roman and Anglo Saxon remains in the immediate vicinity of the site.

None of the existing settlements were recorded in the Domesday except for Hailsham m (Hamelesham), which at that time consisted of four households. It was not established a small town until the later 13th century. The village of Lower Horsebridge was first documented in 1329.

The only building of medieval date in the study area is Horselunges Manor (Grade I), which was constructed at the end of the 15th century by John Devenish.

Most of the listed buildings in the study area are in the form of cottages and small houses of the 18th and early 19th century date. These are the predominantly found in the historic core of the linear settlement area at Lower Horsebridge, the older buildings within the modern growth of Hailsham at Upper Horsebridge.

At the southern end of Area 2 is a pillbox listed as part of the Defence of Britain project.

The tithe map of Hellingly parish of 1842 depicts the site as an area of open fields, of irregular size and form, close to the core of the linear post-medieval hamlet of Lower Horsebridge.

The Ordnance Survey map of 1875, 1:2,500 County Series map depicts the field boundaries unchanged from those shown on the tithe map, and little in the way of additional development in the village. The 1899 OS map 1st revision depicts the Polegate - Eridge Railway to Hailsham extension to Hellingly to the east of the site

with a spur leading to Hellingly Hospital. The line closed in 1965, and the station building survives converted to a dwelling.

The OS map of 1910 illustrates additional buildings occupying the area immediately to west of the site. During the inter-war years (1918-1939) further development had taken place in Lower Horsebridge and the area surrounding the site. The OS map dated 1974 depicts the western field (Area 1) as one large field with a wooded copse as seen today.

4.0 METHODOLOGY

Gradiometry

Magnetometry is a non-intrusive scientific prospecting tool that is used to determine the presence/absence of some classes of sub-surface archaeological features (e.g., pits, ditches, kilns, and occasionally stone walls). The use of magnetometry should help to establish the presence/absence of buried magnetic anomalies, which may reflect sub-surface archaeological features, and therefore form a basis for a subsequent scheme of archaeological trenching (Clark 1990; Gaffney and Gater 2003).

The use of magnetic surveys to locate sub-surface ceramic materials and areas of burning, as well as magnetically weaker features is well established, particularly on large green field sites. The detection of magnetic anomalies requires the use of highly sensitive instruments; in this instance, 4 fluxgate magnetometers set 0.5m apart.

A multi-sensor Bartington Grad 601 system was used which allowed the geophysical surveyor to gather high quality data at a faster rate than is possible with other magnetic techniques. These were mounted on to a cart, which was pushed across the field by hand. GPS is completely integrated into the system, eliminating the need to mark up a set of survey lines. All instrument outputs can be seen in real time allowing instant quality control and analysis.

The survey was undertaken with data collected at a sampling frequency of 6Hz (c.0.20m sample interval). The zigzag traverse method of survey was used, with 0.5m wide separation between magnetometers covering a 2m wide swath at a time. The sensitivity of the fluxgate magnetometers is set to record magnetic variation in the order of 0.1 nanoTesla.

Geomar MLgrad601 data logging system was used to record data in the field using a Panasonic Toughbook. The main function of this program is to position each Grad601 sensor based on the recorded GPS position and the configuration of the system. All GPS coordinates have been recorded as WGS 1984 UTM Zone 31N. Following the post-processing of the data in this software all data is exported to an ASCII file format. The data was then imported into TerraSurveyor V.3 where the data was analysed and processed to produce meaningful images for interpretation.

The results have been plotted as greyscale and trace plot images (Figs. 3-8).

Data processing:

The data captured is in form of an irregular X & Y grid and when the data is imported into TerraSurveyor, the processing is limited to the following:

GPS tracks are subjected to a process called Track Radius where this determines the number of interpolated data points that are kept around the interpolated point closest to each source point.

On Jump -The distance between the current and previous X & Y position can be monitored and a new Traverse triggered if the distance is greater than the specified threshold distance. Contiguous 'jumps' will be marked as single 'End' – 'Start' pair. This removes a continuation from the previous line otherwise, a linear artefact would be present in the data.

DeStripe - Determines the mean/mode/median of each grid or traverse and then subtracts that value from each data point in the current layer. Used to remove the striping effect within a grid or patchwork effect between grids caused by directional effects, operator habits, instrument setup, drift, etc.

Clip – Replace all values in the current layer outside a specified minimum and maximum with those values. Min and Max can be specified in absolute values or +/- SDs.

5.0 INTERPRETATION AND ANALYSIS OF RESULTS (Figs. 2- 9)

A gradiometer survey was undertaken in two separate areas to investigate the possible locations of archaeological remains (Fig 2). A total area of c.9ha was surveyed and produced very few significant anomalies as discussed below.

Generally, a series of isolated individual anomalies and strong magnetic responses were detected (Figs 2, 3-8 and 9, examples **circled/outlined in pink**). These reflect areas of modern ferrous responses, which lie just below or on the present ground surface.

Area 1

An area covering c.6ha was surveyed in this field immediately to the east of the A22 Eastbourne Road and to the south of the A271 road. The area contains a small, wooded copse with a pond at its centre.

Traces of the former field boundaries are shown as curvilinear/linear anomalies (Figs 3-5 and 9, **green lines**). Two of these boundaries are weakly magnetic and are depicted as a series of positive dots.

At the centre of the survey area, three circular dipolar anomalies (Figs 3-5 and 9, **pink circles**) were recorded denoting a telegraph pole and two outer supporting steel struts. Modern disturbances are clearly seen along the edges of the survey area representing a steel barred gate, a mobile phone mast and along the northern boundary buried modern deposits.

Other magnetic responses (Figs 3-5 and 9, **yellow lines**) denote variations in the underlying soils and geology as well as tracks caused by farm vehicles especially along the edge of the western boundary. No further anomalies of archaeological significance were recorded.

Area 2

This area was surveyed immediately to the south of the playing fields at Hellingly Sports Club. Close to the hedge boundary with the recreation ground, a linear strong interrupted magnetic anomaly (Figs 6-8 and 9, **blue line**) denotes the presence of a service that is running in an easterly direction. This likely to represent a feeder from the electricity substation. To the south of the service is a strong positive and negative magnetic anomaly (Figs 6-8 and 9, **pink circle**) was recorded denoting a telegraph pole.

A linear positive anomaly (Figs 6-8 and 9, **green line**) running in a south-easterly direction from the telegraph pole possibly denotes a buried cable or could be a former field boundary. Although no field boundaries are known in this area since the production of the tithe map. Alternatively, this could represent a ditch of unknown date and relate to a former field system. Two shorter linear positive anomalies (Figs 6-8 and 9, **green lines**) to the west of the telegraph pole appear to be equidistant from each other may also indicate ditches.

A sub-circular zone of highly magnetic response (Figs 6-8 and 9, **outlined pink**) was recorded towards the southern end of the survey area. It is likely to represent modern ferrous or disturbances of this nature rather than an archaeological feature.

No further anomalies of significance were recorded in area 2.

6.0 CONCLUSIONS

The gradiometer survey results have produced no significant anomalies relating any underlying archaeological remains within the area of investigation. Most of the magnetic features detected in Area 1 represent former field boundaries or modern ferrous disturbances from existing above ground features such gates, and a mobile phone mast. Area 2 produced linear anomalies that may have once been part of a field system of unknown date or could indicate underlying services or drains.

Based on the survey results, it can be concluded that the survey revealed no significant anomalies of interest.

7.0 ACKNOWLEDGEMENTS

Cranfield Forensic Institute would like to thank Dervla Rooney of Terence O'Rourke Ltd for this commission.

8.0 BIBLIOGRAPHY

- Clark, A. J. 1990 *Seeing Beneath the Soil* London, Batsford
- H.E. 2008 *Geophysical Survey in Archaeological Field Evaluation*. London, Historic England: Research & Professional Guidelines No.1.
- O'Rourke, T 2021 *Land to the West of The Bridge of Lower Horsebridge, Hailsham*, Desk-Based Heritage Assessment. Reference 231703C. November 2021.

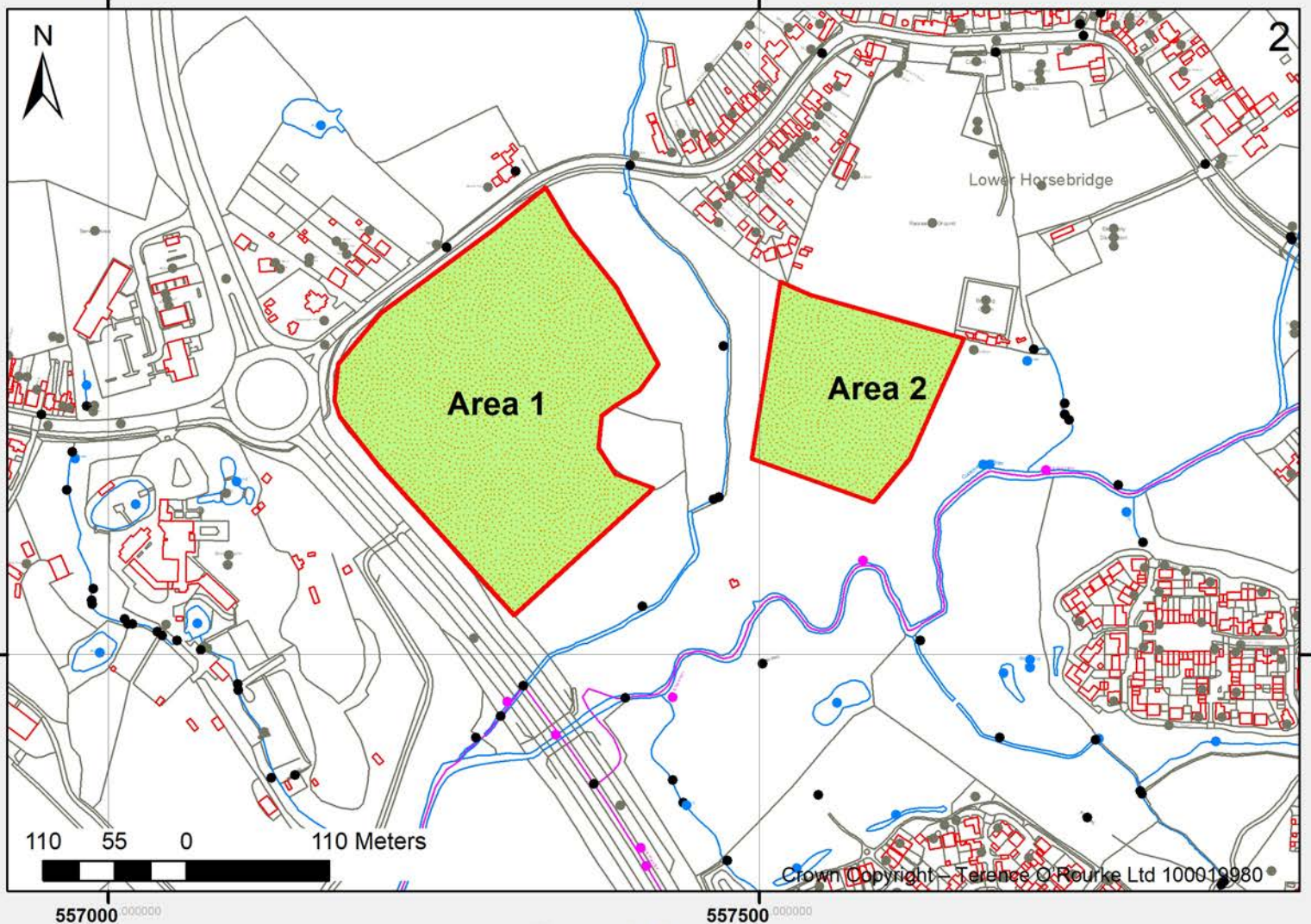
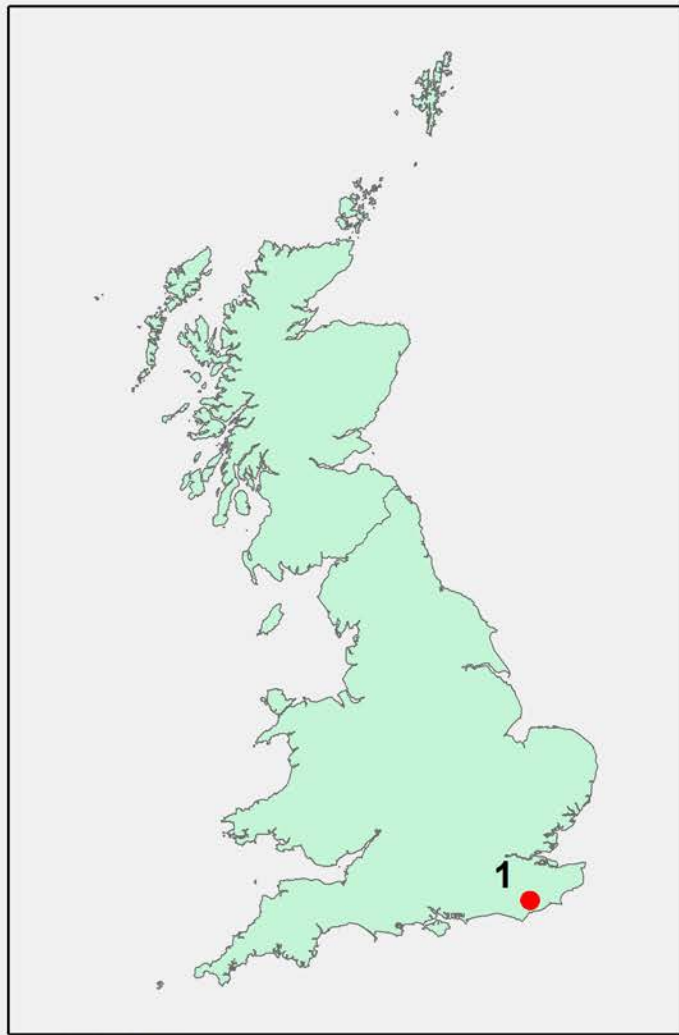


Figure 1 - Location map

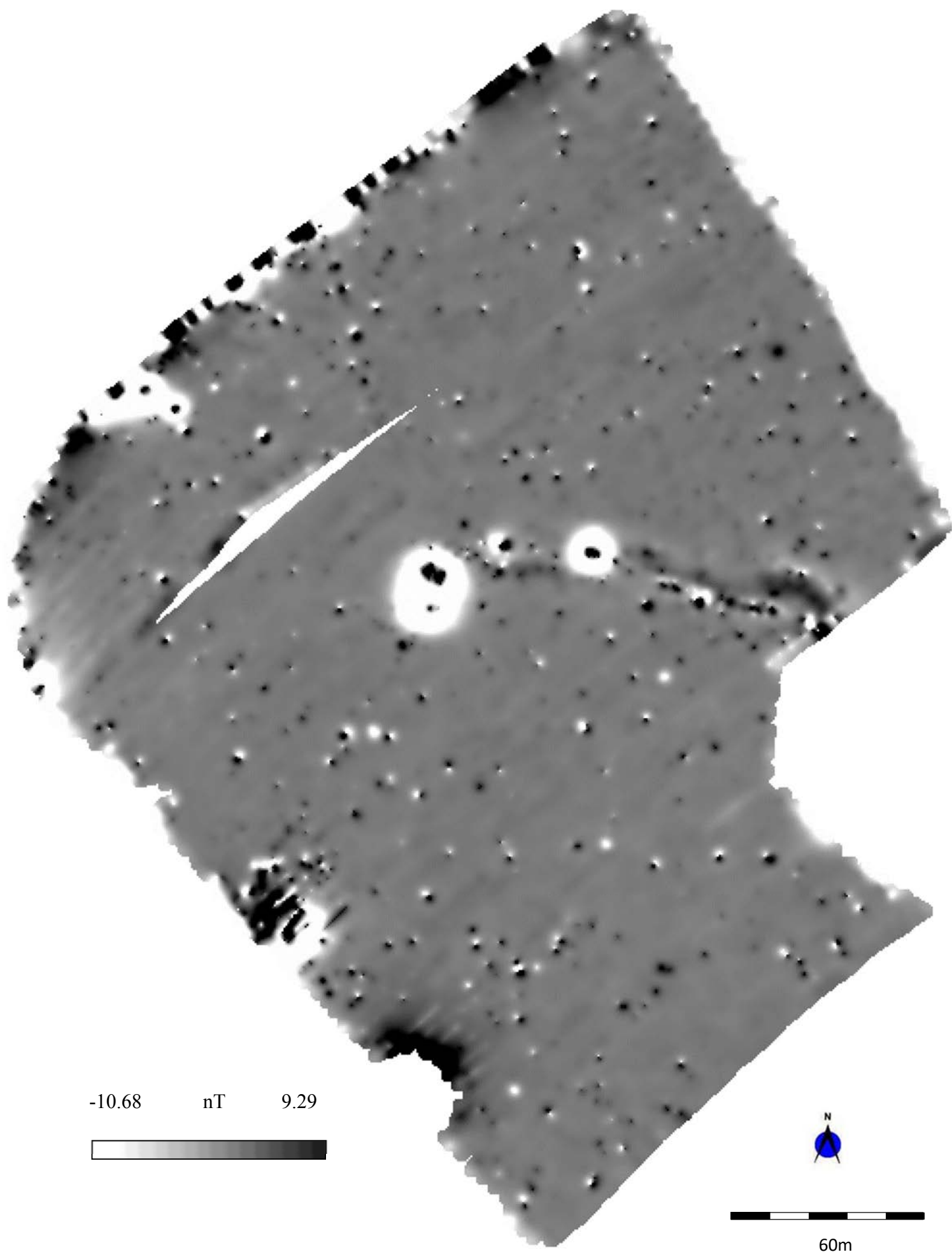


FIG. 3: Area 1: – Grey scale plot of raw data, scale – 1:1250

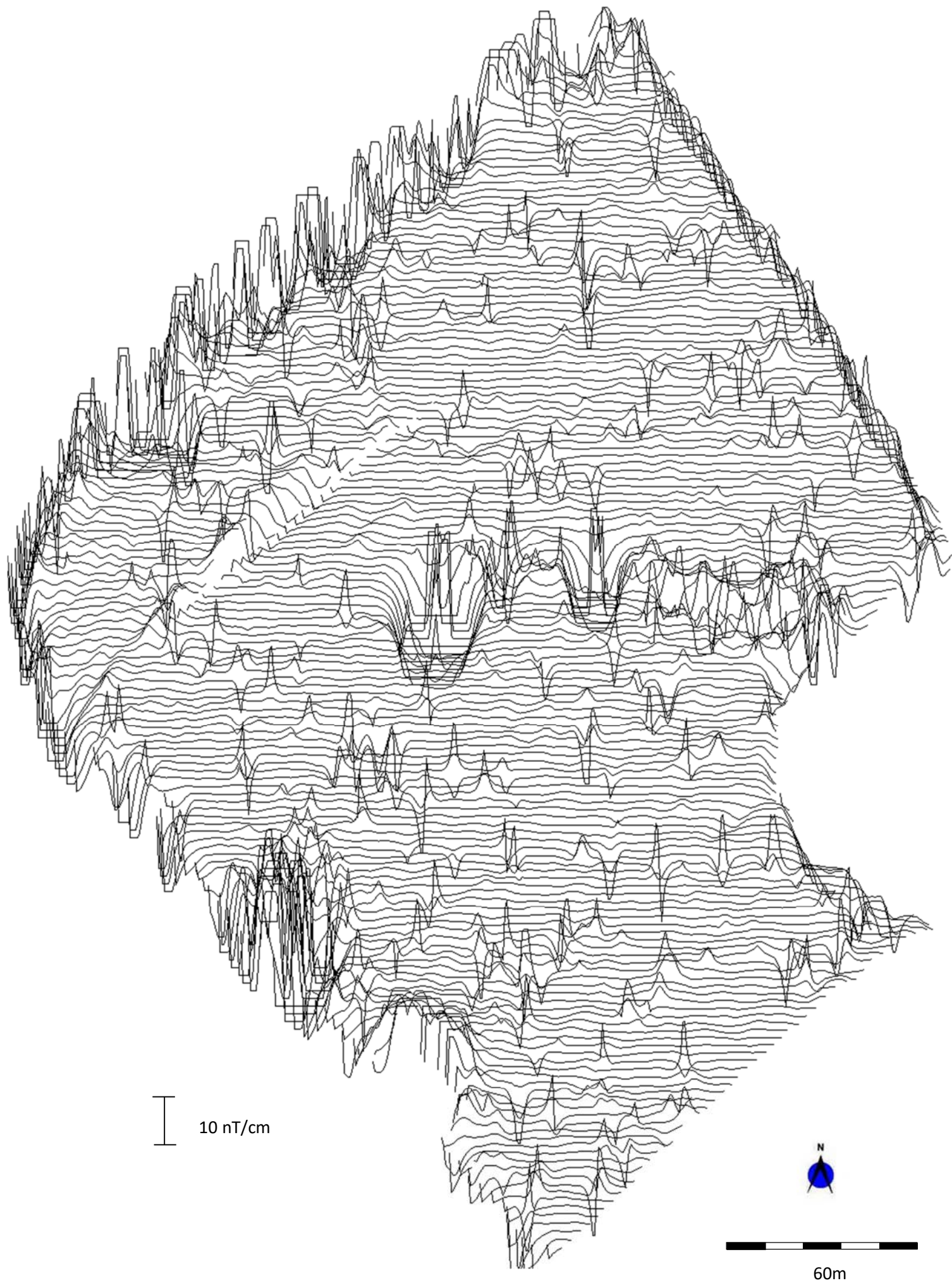


FIG. 4: Area 1: – Trace plot of raw data, scale – 1:1250

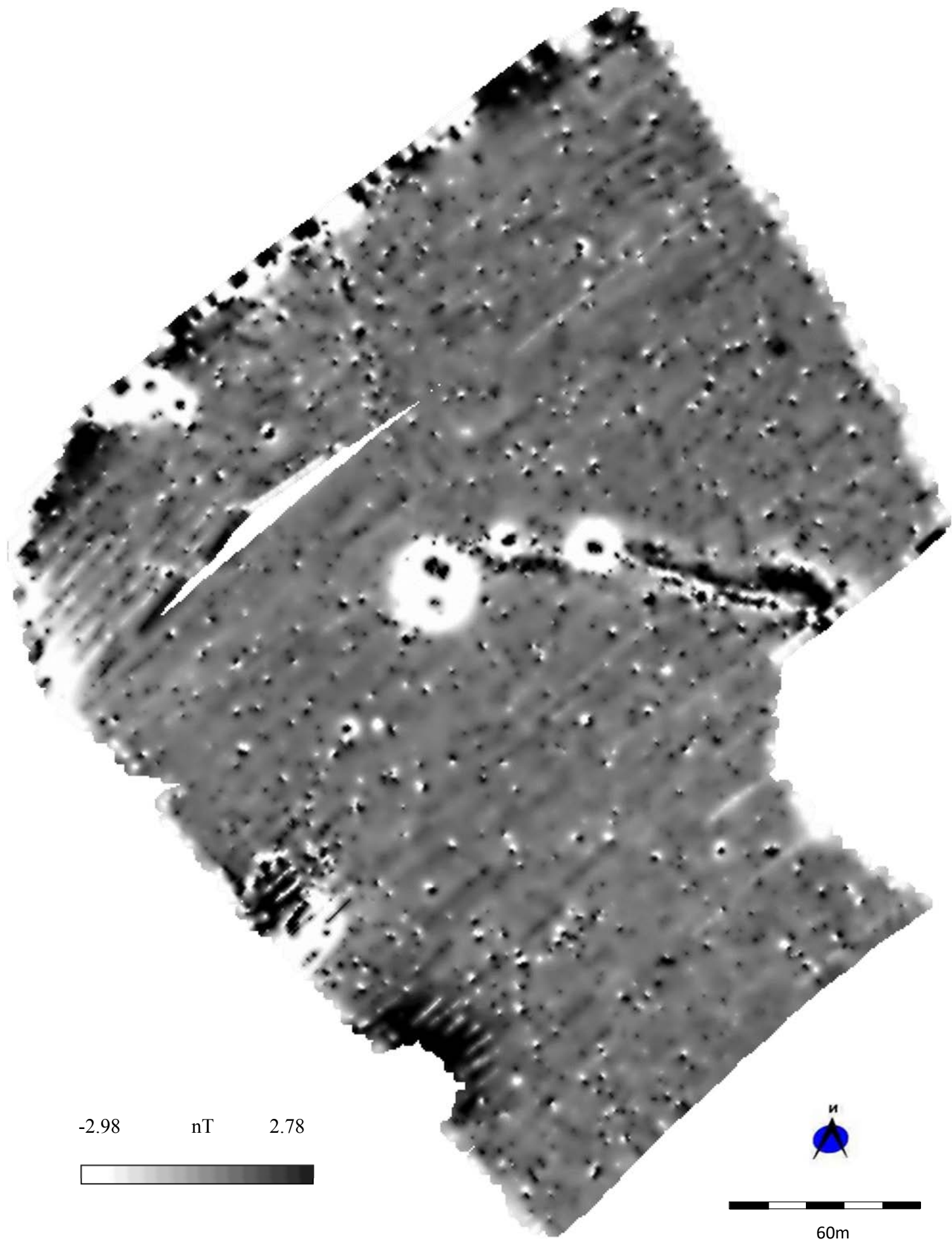
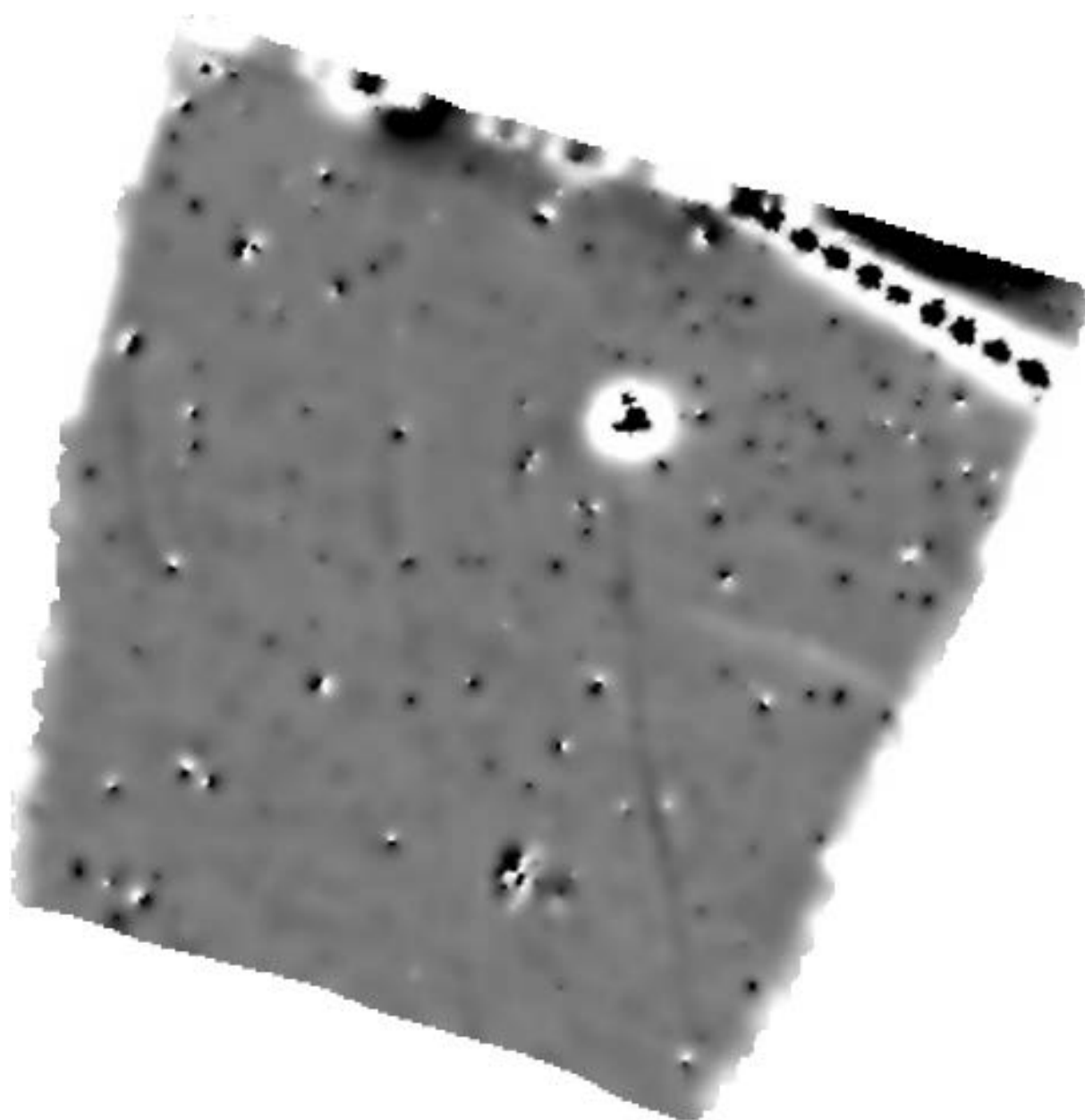


FIG. 5: Area 1: – Grey scale plot of enhanced data, scale – 1:1250



-46.12 nT 42.41



40m

FIG. 6: Area2: – Grey scale plot of raw data, scale – 1:100

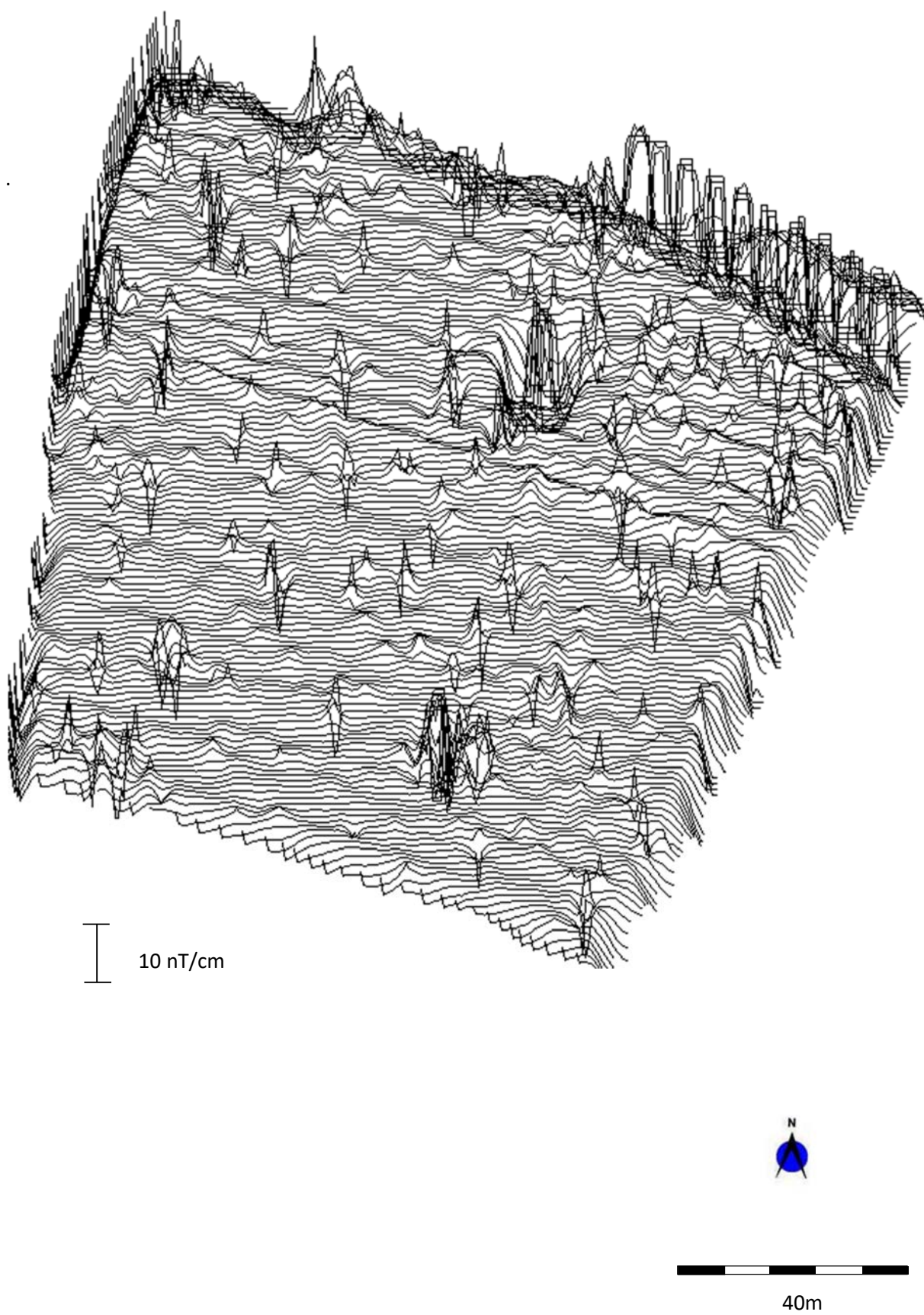
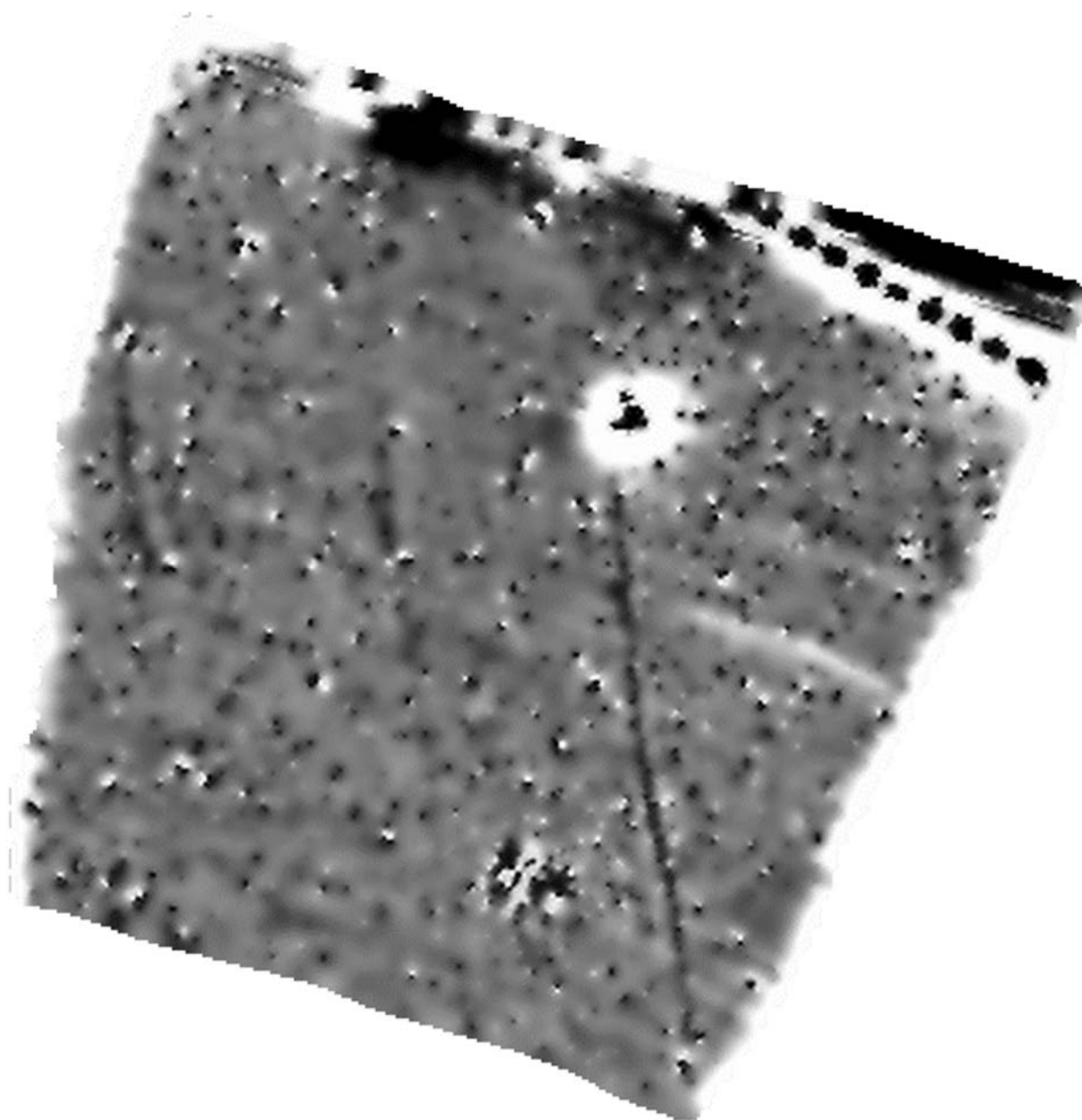


FIG. 7: Area 1: – Trace plot of raw data, scale – 1:1000



-2.82 nT 2.42



40m

FIG. 8: Area 2: – Grey scale plot of enhanced data, scale – 1:1000

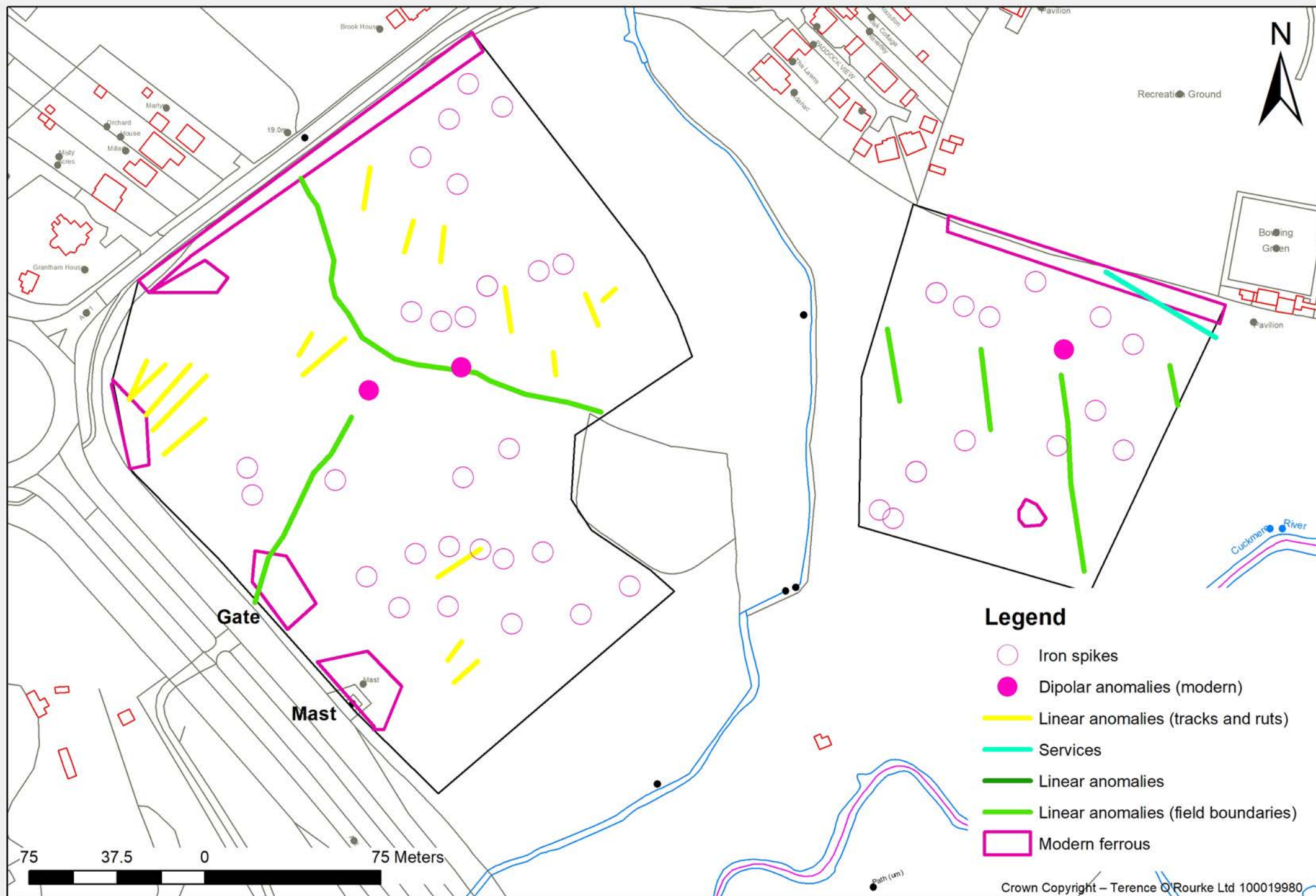


Figure 9 - Interpretation of results, scale - 1:2,000