

**Land at Gate Farm, High Street,
Sutton Benger**
Desk-based Archaeology Assessment

Gleeson Land Limited
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Assumptions and limitations

This report is compiled using primary and secondary information derived from a variety of sources. The assumption is made that this data, and that derived from other secondary sources, is reasonably accurate.

Executive summary

This desk-based archaeology assessment (DBA) provides an outline of the archaeological potential of the site at Land at Gate Farm, Sutton Benger and study area and examines the effects of any historic or existing impacts upon that potential. The archaeological assessment presented here satisfies national guidelines as specified in the NPPF to ensure developers adequately assess a site's heritage potential. Our assessment includes an appraisal of the recorded archaeological sites and site-specific evaluations (geophysical survey).

The Wiltshire HER lists 31 assets within the 1km study area (figure 1) and 12 archaeological events (figure 2), none of which are recorded within the red line boundary. The historic boundary of Draycot Park aligns with the west, north and eastern boundary of the site (TOR 10). The earliest remains in the study area date to the Neolithic period and Iron Age / Romano British settlements have been recorded in the vicinity (TOR 3, TOR 6). The site lies 400m west of the historic Anglo-Saxon core of Sutton Benger (TOR 7). Medieval earthworks are recorded 450m to the west (TOR 1), while ridge-and-furrow cultivation is noted 270m to the south-east (TOR 15). Additionally, two groups of undated features are documented 250m north-west and 700m north-east of the survey area (TOR 13 & 14).

A geophysical survey undertaken within the site by SUMO services on the 4th August 2025 did not record any magnetic responses that could be interpreted as being of definite archaeological interest, except for ridge and furrow cultivation which is visible in Area 1. Uncertain responses throughout the survey are likely to be due to a combination of natural and agricultural processes or buried ferrous objects.

This DBA has identified that, overall, there is a low to medium potential for archaeological remains to be present within the site. The HER indicates a possible Roman enclosure c.400m north of the site (TOR 3) and medieval remains, associated with Draycot Farm have been recorded to the c.500m west of the site (TOR 1 & 8). If there is the presence of archaeological material within the site it is likely to be residual, isolated finds of low and local significance and increase our understanding of the Romano-British and early medieval occupation within the wider area.

The requirements of NPPF paragraph 207 have been addressed through this DBA, supported by a geophysical survey undertaken within the site, both of which will be submitted with the forthcoming application. Initial correspondence with the Wiltshire County Archaeologist has advised that an initial phase of trial trenching is required pre-determination of the application to ground truth the results of the geophysical survey. The results will inform whether any further archaeology mitigation is necessary. If required, such mitigation can be appropriately secured by condition following the granting of planning permission.

1 Introduction

- 1.1 This report provides a desk-based archaeological assessment (DBA) of Land at Gate Farm, High Street, Sutton Benger (centred at NGR ST940784), hereafter 'the site', which has been prepared by tor&co on behalf of Gleeson.
- 1.2 This DBA examines the known features of archaeological interest within the site and wider landscape and considers the implications of the proposed development. As part of the assessment the Wiltshire Historic Environment Record (HER) was consulted for information on the known and recorded archaeological features, findspots and past investigations within the site and study area. The conclusions of this assessment have been informed by the results of a geophysical survey that was undertaken within the site (SUMO, August 2025).
- 1.3 The baseline and significance of all known and recorded heritage assets, both designated (such as scheduled monuments, listed buildings, conservation areas, and registered parks and gardens) and non-designated (including locally listed buildings or landscapes), are detailed within a separate Heritage Statement prepared by tor&co (2025). This report will be submitted alongside the forthcoming application and is therefore these assets are not considered within this assessment.
- 1.4 The accompanying design and access statement produced by Stantec outlines the relevant planning policy background and describes the proposed development. The description of the development is as follows:
- "Outline planning application (with all matters reserved except means of access, from the B4069) for up to 90 no. (class C3) residential dwellings (including 40% affordable dwellings) including the creation of new vehicular access (from the B4069), pedestrian and cycle paths, parking spaces, public open space, biodiversity enhancement, landscape planting, surface water attenuation, associated infrastructure and other associated works."*
- 1.5 The report is one of a series accompanying the outline planning application. It should therefore be read alongside the full set of submitted documents and drawings.

Site location and description

- 1.6 The site is approximately 4.95ha in size and is situated on the western edge of the village of Sutton Benger in Wiltshire, as illustrated on figure 4. It comprises a single grass-covered field enclosed by hedgerows and fencing, which separate it from narrow strips of land to the north and east. To the north of the site lies a retained strip of pasture land, beyond which is an area of woodland known as The Shrubby. The Sutton Benger Brook flows through this woodland, parts of which are ancient woodland. The land to the east of the site includes a further strip of pasture and the edge of the Sutton Benger settlement. This eastern settlement edge is characterised by low-density housing arranged within generous plots, contrasting with the denser built form located further into the village.
- 1.7 The High Street forms the southern boundary of the site and represents the principal route through Sutton Benger. Historically, the High Street has shaped

the village's linear settlement pattern. To the south of the road, development becomes increasingly sporadic as it extends westwards, giving way to the agricultural landscape that surrounds the village. To the west, the grass-covered field character continues seamlessly into the wider agricultural field network.

- 1.8 Sutton Beneger conservation area lies adjacent to the south east boundary of the site and extends east down the linear settlement. Approximately 325m north west of the site stands the grade-II* listed Church of St James, located within the historic Draycot Estate. The wider landscape in this area features scattered rural development and a network of local roads interspersed among the fields.
- 1.9 Topographically, the site is relatively flat with a gentle sloping character from the higher ground within the south west at 69m AoD towards the lower ground in the north east corner of the site at 60m AoD. It occupies a position close to the River Avon floodplain but sits above the immediate valley floor on well-drained soils.

2 Legislation, policy and planning background

- 2.1 National policy recognises the value and significance of cultural heritage, and 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.
- 2.2 National planning policy guidance on conserving and enhancing the historic environment is contained within the National Planning Policy Framework (NPPF), the online National Planning Practice Guidance, and the Good Practice Advice published by Historic England: GPA1- Local plan making, GPA2 - Managing significance in decision-taking in the historic environment (2015), and GPA3 - The setting of heritage assets (2017). 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 202).
- 2.3 Paragraph 210 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, to avoid or mitigate conflict between any aspects of the proposals and the conservation of the asset (paragraph 208), and “*great weight*” should be given to the objective of conserving designated heritage assets (paragraph 212). As heritage assets are irreplaceable, all harm, from demolition to harm through development within the setting, requires “*clear and convincing justification*” (paragraph 213).
- 2.5 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 approach to identifying those heritage assets likely to be affected by a development proposal is given in the guidance 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 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.
- 2.6 The principal objective is to avoid harm to designated heritage assets, but detailed policies define the justification required in cases of harm. These are

based on whether public benefits can outweigh the harm, taking account of the great 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 214 and 215). The corresponding test for non-designated heritage assets is in paragraph 216 which requires a “*balanced judgement*” to be made of the effects of development having regard to the scale of harm and the significance of the asset.

- 2.7 The site is located within the Wiltshire Council area. The Wiltshire Core Strategy was adopted in January 2015. The Core Strategy includes the following policies which are relevant in this case:
- 2.8 Core Policy 58 Ensuring the conservation of the historic environment: Development should protect, conserve and where possible enhance the historic environment.

Designated heritage assets and their settings will be conserved, and where appropriate enhanced in a manner appropriate to their significance, including:

- i. nationally significant archaeological remains*
- ii. World Heritage Sites within and adjacent to Wiltshire*
- iii. buildings and structures of special architectural or historic interest*
- iv. the special character or appearance of conservation areas*
- v. historic parks and gardens*
- vi. important landscapes, including registered battlefields and townscapes.*

Distinctive elements of Wiltshire’s historic environment, including non-designated heritage assets, which contribute to a sense of local character and identity will be conserved, and where possible enhanced. The potential contribution of these heritage assets towards wider social, cultural, economic and environmental benefits will also be utilised where this can be delivered in a sensitive and appropriate manner in accordance with Core Policy 57 (Ensuring High Quality Design and Place Shaping).

Heritage assets at risk will be monitored and development proposals that improve their condition will be encouraged. The advice of statutory and local consultees will be sought in consideration of such applications.

- 2.9 There are no world heritage sites, scheduled monuments or registered parks and gardens within the 1km study area of the site. The Sutton Benger conservation area boundary is adjacent to the south east boundary of the site, however no conservation area appraisal has been produced (see Heritage Statement produced by tor&co 2025).

3 Methodology

Context

- 3.1 The study area lies within the boundary of the Wiltshire Historic Environment Record (WHER).¹ The Wiltshire Historic Environment Team (HET) were consulted for information on known archaeological features and designated assets within the site, and a 1km radius. A full list of the data sources consulted is provided at the end of this document.
- 3.2 Figures and appendices are arranged as follows:
- The HER data is annotated on figure 1, which shows the Wiltshire HER monuments and findspots.
 - Figure 2 shows the past archaeological events within the study area.
 - Figures 3a-d reproduce a series of historic Ordnance Survey maps of the study area.
 - Figure 4 is a current aerial photograph of the site to provide context.
 - Figure 5 LiDAR²
 - The gazetteers in appendix 1 lists the sites and archaeological events and provides extracts from the HER.
 - A glossary of specific technical terms is included as appendix 2 and the geophysical survey report is included as appendix 3.

Scope of the study

- 3.3 The archaeological elements of the study were undertaken with reference to the Chartered Institute for Archaeologists code of conduct and appropriate standards (2008, updated 2014; revised 2021).

Limitations of the study

- 3.4 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. The conclusions of this assessment are informed by a site visit undertaken on the 21st May 2025 and the results of a geophysical survey undertaken by SUMO Services on 4th August 2025 (appendix 3).

Assessment of significance

- 3.5 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 any contribution made by their settings. A judgement is made of the value of known

¹ HER data received via email 30th April 2025

² LiDAR is a method for determining ranges by targeting an object or a surface with a laser and measuring the time for the reflected light to return to the receiver.

archaeological features or deposits and the probability of discovering currently unknown remains, and their likely importance.

4 Historic background

- 4.1 The Wiltshire HER (Historic Environment Record) records 31 HER assets and 12 past archaeological events within the study area (figures 1 and 2). There are no recorded assets within the site, however the historic boundary of Draycot Park aligns the west, north and east boundary of the site (TOR 10). The site has not been subject to any previous archaeological site investigations.
- 4.2 The history and significance of the built heritage assets within the study area, in addition to any impacts upon their setting from the proposed development, is covered within the separate Heritage Statement produced by tor&co (2025) and are therefore not considered within this assessment.

Geology

- 4.3 According to the British Geological Survey (BGS), the site is underlain by Kellaways Formation bedrock of the Upper Jurassic period, comprising interbedded sandstones and grey silty mudstones deposited in shallow marine environments around 160 million years ago. These deposits are typically moderately permeable and capable of supporting both arable and pasture farming. No superficial deposits are recorded across the site itself, although low-lying areas nearby contain alluvial silts and clays associated with the River Avon floodplain.

Archaeological resources and historic development

Prehistoric

- 4.4 The Palaeolithic period (800,000-10,000 BC) saw alternating warm and cold phases and intermittent occupation in Britain. It is largely characterised in the archaeological record by lithic artefacts though information can also be gained from fossil and environmental evidence. There are no remains dating to the Palaeolithic period within the site.
- 4.5 The Mesolithic period (10,000-4000 BC) saw hunter gatherer communities of the post-glacial period inhabiting a still largely wooded environment. There are no remains recorded in the HER which date to the Mesolithic period.
- 4.6 During the Neolithic period (4000-2000 BC) hunter gathering gave way to farming and settled communities, and forest clearance occurred for the cultivation of crops and the construction of communal monuments. Monumental 'ritual' architecture developed during this period including long barrows and causeway enclosures. To the south east of the site, around 1 km, a Neolithic flint (TOR 16) was found, suggesting human presence and tool use from the early prehistoric period.
- 4.7 The Bronze Age (2,000 BC-600BC) was a period characterised by technological change, which saw the transition from the use of flint and stone to bronze and copper materials in everyday use. The nearest features are prehistoric ring ditches (TOR 2) recorded approximately 700m east of the site, likely representing ploughed-out Bronze Age burial mounds. These indicate the area was part of a ceremonial or funerary landscape. No other remains of Bronze Age date have been uncovered within the study area.

- 4.8 The Iron Age in Britain, beginning around 800 BC, was a period of increasing social organisation, technological advancement, and territorial control. Communities shifted from small, scattered farmsteads to more structured settlements, often enclosed for defence or to mark status. Across Wiltshire, the period is marked by the construction of hillforts such as Old Sarum and Barbury Castle, which acted as tribal centres within a wider patchwork of smaller agricultural sites. Sutton Benger lay within the territory of the *Dobunni* or possibly the *Atrebates*, tribes whose influence extended into the Avon valley.
- 4.9 Evidence of Iron Age settlement has been recorded east of Church Farm (TOR 6), approximately 1km east of the site, where traces of domestic structures and associated features have been identified. The location, close to the river and fertile alluvial soils, would have supported mixed farming and seasonal grazing.

Roman (AD 43-410)

- 4.10 Roman influence in Britain began with Julius Caesar's expeditions of 55 and 54 BC, which, while brief and politically motivated, paved the way for the full-scale Roman invasion under Emperor Claudius in AD 43. Wiltshire became part of the Roman province of Britannia, with the region integrated into a network of roads, villas, and agricultural estates supplying both military and civilian markets. Sutton Benger lay between two major Roman routes, the Fosse Way to the west and Ermin Street to the east, placing it within reach of important commercial and administrative centres.
- 4.11 Possible Romano-British activity is represented by a rectilinear enclosure (TOR 3) approximately 270m north west of the site. This may have been a farmstead or livestock enclosure. While no direct evidence is recorded within the site itself, the close proximity indicates the potential for associated Roman-period remains.

Early medieval period (AD 410 -1065)

- 4.12 The placename "Sutton" derives from Old English *sūth tūn*, meaning "south farm or enclosure," with "Benger" possibly referring to a later manorial holding. Its riverside location and fertile surrounding land would have supported mixed farming, forming the basis for the nucleated medieval village recorded in later centuries.
- 4.13 A Saxon dagger (TOR 17) was recovered from Tytherton Lucas, approximately 1km north of the site. Although an isolated find, it suggests the presence of high-status individuals or martial activity in the area during the early medieval period.

Medieval (AD 1066–1485)

- 4.14 The medieval period saw Sutton Benger develop into a nucleated village with associated open-field agriculture. Medieval settlement remains (TOR 9) are located 450 m east of the site, with ridge and furrow earthworks recorded both in the village (TOR 12, c. 550 m south east of the site) and to the north (TOR 15, c. 800 m east). These reflect the agricultural regime that may have extended across the current site.
- 4.15 To the west, medieval earthworks at Draycot Cerne (TOR 1 & 8) are situated approximately 300m west, likely part of a manorial complex. Draycot Park (TOR

10), which excludes the site, formed part of a high-status medieval estate landscape. The historic boundary of the park bounds the site to the west, east and north. Artefacts including a medieval finger ring (TOR 19) and medieval tile (TOR 18) found c. 300 m west of the site, reinforce the area's material culture richness.

Post-medieval Period

- 4.16 A number of historic maps were assessed for the site. The first edition OS map dated 1885 (figure 3a), depicts the site as an enclosed field, distinctively not included within the Draycot Park boundary (TOR 10). The map shows the extent of the Draycot House estate and holding which extended towards the core settlement of Sutton Benger. The linear settlement at Sutton Benger is shown established, with farms such as Gate Farm and Manor Farm noted.
- 4.17 A 17th- 18th century midden (TOR 20) is recorded 420 m north west of the site, while Draycot Park Farm (TOR 21) lies 630 m north west. These features show the persistence of estate-based farming during this period.
- 4.18 The Draycot House Gas Works (TOR 4 & 3) lie 370 m north west of the site, serving the estate in the 19th century. Several outfarms dating to the 18th and 19th centuries are recorded within 500m of the site (TOR 23–29), reflecting continued agricultural exploitation.
- 4.19 The 1956-60 OS map (figure 3b) shows little change from the later 19th century and post-war periods. Field systems (TOR 14) recorded 550 m east of the site represent the last remnants of pre-modern agricultural organisation. The site itself has remained as undeveloped pasture. Again, there has been little in the way of notable development or expansion of Sutton Benger, as seen on the OS map dated 1974 (figure 3c). Perhaps the most significant development is the construction of the M4 motorway to the north of the site.

LiDAR

- 4.20 A LiDAR survey was undertaken using four different methods to analyse the potential for archaeological remains (figure 5). These include Sky-view factor hillshading, slope gradient, hillshading from multiple directions and analytical hill shading. Analysis of the proposed development site reveals a series of faint, parallel linear features running broadly north to south across much of the interior. These are consistent with the remains of ridge-and-furrow cultivation, likely of medieval or post-medieval date.

Site investigations within the site

Geophysical survey (SUMO Services, August 2025)

- 4.21 A detailed magnetometer survey was undertaken across 6 hectares of land at Gate Farm, Sutton Benger (appendix 3). The survey has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest, except for ridge and furrow cultivation which is visible in Area 1. Uncertain responses throughout the survey are likely to be due to a combination of natural and agricultural processes or buried ferrous objects. The routes of land drains and service pipes have also been marked and amorphous bands of increased responses in Area 2 are due to variations in the underlying geology or alluvial deposits.

- 4.22 The conclusions of the geophysical survey (SUMO Services, August 2025) are as follows:

The magnetometer survey has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest, except for ridge and furrow cultivation which is visible in Area 1. Numerous responses of uncertain origin have been marked which are likely to be due to a combination of natural and agricultural processes or buried ferrous objects. The routes of land drains and service pipes have also been marked. Amorphous bands of increased responses in Area 1 are due to variations in the underlying geology or alluvial deposits. Strong ferrous anomalies in Area 1 have been caused by a pylon and other modern features.

- 4.23 The geophysical survey report along with an archaeology and heritage note was submitted with the pre-application for review. However, at the time of writing this report, no response has been issued. It should be noted that the Kellaways Formation bedrock and the potential masking effect of the ridge and furrow may obscure underlying archaeological features.

Site investigations within the study area

- 4.24 There have been 12 past archaeological events within the study area, comprising of archaeological watching briefs, desk-based assessments, geophysical survey and archaeological evaluations.
- 4.25 In November 2023, Cotswold Archaeology carried out an archaeological evaluation of land at High Street (EV4). Eleven trenches were excavated. The evaluation identified a curved ditch and adjacent pits and postholes, potentially representing part of an Iron Age roundhouse. A potential trackway was recorded in the southern half of the site; it is possible that this is also Iron Age in date. Remains of medieval/early post-medieval furrows were recorded in seven trenches along with a number of undated ditches.
- 4.26 A geophysical survey, comprising detailed magnetometry, was carried out by Archaeological Surveys Ltd on land to the east of Sutton Benger (EV5). The results indicate the presence of a number of linear, ditch-like features of possible archaeological potential. Other linear and discrete anomalies are fragmented and poorly defined, and it is not possible to provide a confident interpretation.
- 4.27 An evaluation on land to rear of 58 High Street (EV6) revealed evidence of gravel quarrying, in one area backfilled by a 19th-20th century bottle dump. The quarrying truncates much of the area, but a few possibly medieval features survive such as the base of a linear ditch and some small pits or postholes. Some residual medieval pottery was recovered from one of the backfilled areas of quarrying. While no archaeological material survived in the area adjoining the High Street, the proposed house plots were adjusted to avoid some of the surviving features.
- 4.28 An archaeological watching brief undertaken at All Saints Church during groundworks associated with the installation of new drainage and other services within the tower base and across the churchyard to the west (EV1). No features or deposits of archaeological interest were observed during groundworks, and no artefactual material pre-dating the modern period was recovered.

- 4.29 Ahead of the Chippenham Gateway sewer pipeline scheme, a magnetometer survey was carried out along the route corridor of a new sewer development approximately 3.5 km in length in the area of Sutton Benger (EV11). Many anomalies of archaeological interest were mapped along the corridor and within a detached western field, some related to former enclosures but also three discrete monuments, including two ring ditches. The relatively narrow width of the survey corridor precluded much comment upon the wider landscape but it appeared that there were at least three complexes of prehistoric features along the survey area. Based on these results it was recommended that a design solution should be considered to avoid or minimise the impact of the new scheme on the archaeological remains identified, especially in the three areas where the highest concentrations of potentially significant archaeology were identified.
- 4.30 Following the geophysical survey, a programme of archaeological mitigation was undertaken across sections of the pipeline route (EV2). A crouched burial excavated in the main compound area consisted of the poorly preserved remains of an adult male. Although no further information from the remains can be ascertained, it is interesting to note that the burial was located approximately 5m north east of the penannular enclosure or ring ditch that was found during the geophysical survey. It was not possible to investigate this enclosure as it was agreed that it would be preserved in situ and not damaged by the groundworks. It is therefore currently unclear if the enclosure dates to the Iron Age with a contemporaneous middle to late Iron Age burial laying adjacent to it, as confirmed by the radiocarbon date, or alternatively, whether it is an earlier ring ditch with a later burial inserted to the north of a Bronze Age funerary monument.
- 4.31 The remaining archaeological features recorded consisted primarily of field boundaries of late post-medieval / modern date. A small assemblage of archaeological artefacts were recovered and retained for further analysis. The date range of the pottery recovered spanning the middle Anglo-Saxon period to the early modern. One small flint thumb scraper of probable late Neolithic/early Bronze Age date was recovered, the item is heavily worn and of residual nature.

5 Assessment of significance

Standards and guidance

- 5.1 The range of heritage values that may be attached to a place were outlined in the NPPG (Paragraph: 006 Reference ID: 18a-006-20190723, revised July 2019). The revised guidance identifies three main categories of heritage values:

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.

- 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 nature and potential of possible archaeological survival in the area of development is summarised here, considering the levels of natural geology and the level and nature of land disturbance.
- 5.4 The archaeological potential of the site is considered to be low to medium. The site lies within an area that has seen human activity from the Neolithic period, and the evidence suggests that area has experienced continuous occupation from the late prehistoric through to the post-medieval periods. The study area saw greater levels of occupation during the Romano-British, early medieval and medieval periods.
- 5.5 There are however no findspots or non-designated assets recorded within the site boundary itself. Furthermore, the geophysical survey undertaken within the site did not record any anomalies of archaeological interest. Multiple weak linear trends and discrete responses were detected in the survey however they were deemed to likely be from agricultural or natural processes (SUMO Services, August 2025).
- 5.6 The potential for remains dating to the early prehistoric period is considered to be low. The earliest evidence for human activity in the Sutton Benger area

dates to the prehistoric period, with Neolithic flint finds (TOR 16 c. 1.3 km south east) and Bronze Age ring ditches (TOR 2 c. 620 m east) indicating early settlement and ceremonial use of the Avon valley. Given the proximity of these features, there is a low potential for prehistoric remains within the site, such as pits, post holes, or residual artefacts in the plough soil; any such remains would be of low local significance for understanding the prehistoric land use around the Avon valley.

- 5.7 By the Iron Age, the area was part of a more structured agricultural zone, evidenced by a settlement east of Church Farm (TOR 6 c. 920 m east). This proximity suggests a low to moderate potential for Iron Age features, including enclosure ditches and domestic remains, which would also be of low local significance, contributing to the settlement history of the lower Avon valley.
- 5.8 The potential for remains dating to the Roman period is considered to be low to medium. During the Roman period, the site lay between two major Roman roads and in close proximity to a rectilinear enclosure (TOR 3, c. 270 m north west), interpreted as a possible farmstead. The potential therefore comes from possible dispersed features or remains which may extend within the site boundary. Any such discoveries would be of local significance and increase our understanding of Roman roadside settlement activity.
- 5.9 Early medieval activity is not directly recorded within the site, but the Saxon dagger from Tytherton Lucas (TOR 17, c. 1.5 km north) and placename evidence suggest origins as an early agricultural settlement. The potential for remains dating to the early medieval period is therefore considered to be negligible to low, any remains would be of local significance, contributing to the understanding of the continued occupation activity in the Sutton Benger area.
- 5.10 By the medieval period, Sutton Benger had developed into a nucleated village, with settlement remains (TOR 9 c. 450 m east) and extensive ridge and furrow systems (TOR 12 & TOR 15) in the surrounding fields. Ridge and furrow has also been identified across the site from the geophysical results. The site has a low to medium potential to contain medieval agricultural features or plot boundaries, and these would be of local significance depending on preservation.
- 5.11 Post-medieval development, including the Draycot Park estate (TOR 10) and associated farm buildings (TOR 21), reflects continued agricultural use of the landscape. OS mapping of the site indicates that it remained unchanged throughout the post-medieval period. The potential for encountering post-medieval remains within the site is low to medium, most likely in the form of agricultural activity, drainage features or artefact scatters, which would be of local significance. Modern activity in the surrounding area has altered the agricultural landscape, but the site itself remains undeveloped pasture, meaning low potential for modern archaeological deposits, with any remains likely to be of low local significance.
- 5.12 In summary, the site's archaeological potential is considered to be low to medium. The potential comes for possible Roman remains associated with the enclosure, identified to the north west of the site (TOR 3), which may extend within the site. There also remains the potential for medieval agricultural remains to be present which could provide important evidence for the continuity and development of settlement in Sutton Benger from prehistory to the present.

6 The proposals and conclusions

- 6.1 The proposed development for the site is as follows:

"Outline planning application (with all matters reserved except means of access, from the B4069) for up to 90 no. (class C3) residential dwellings (including 40% affordable dwellings) including the creation of new vehicular access (from the B4069), pedestrian and cycle paths, parking spaces, public open space, biodiversity enhancement, landscape planting, surface water attenuation, associated infrastructure and other associated works."

Archaeology

- 6.2 This assessment has outlined the known archaeological features within the site and potential for discovery of further archaeological remains. 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.
- 6.3 This DBA has identified that, overall, there is a low to medium potential for archaeological remains to be present within the site. The HER indicates a possible Roman enclosure c.400m north of the site (TOR 3) and medieval remains, associated with Draycot Farm have been recorded to the c.500m west (TOR 1 & 8). If archaeological material is present within the site it is likely to be residual, isolated finds of low and local significance and to increase our understanding of the Romano-British and early medieval occupation within the wider area.
- 6.4 The geophysical survey undertaken within the site recorded no anomalies that could be interpreted as features of definite archaeological interest. The absence of features likely to be of archaeological origin suggests that substantial archaeological remains are unlikely to be present within the site. However, the results of the geophysical survey should be ground-truthed, as the Kellaways Formation bedrock and the potential masking effect of the ridge and furrow may obscure underlying archaeological features.
- 6.5 The requirements of NPPF paragraph 207 have been addressed through this desk-based assessment, supported by a geophysical survey undertaken within the site, both of which will be submitted with the forthcoming application. Initial correspondence with the Wiltshire County Archaeologist has advised that an initial phase of trial trenching is required pre-determination of the application to ground truth the results of the geophysical survey. The results will inform whether any further archaeology mitigation is necessary. If required, such mitigation can be appropriately secured by condition following the granting of planning permission.

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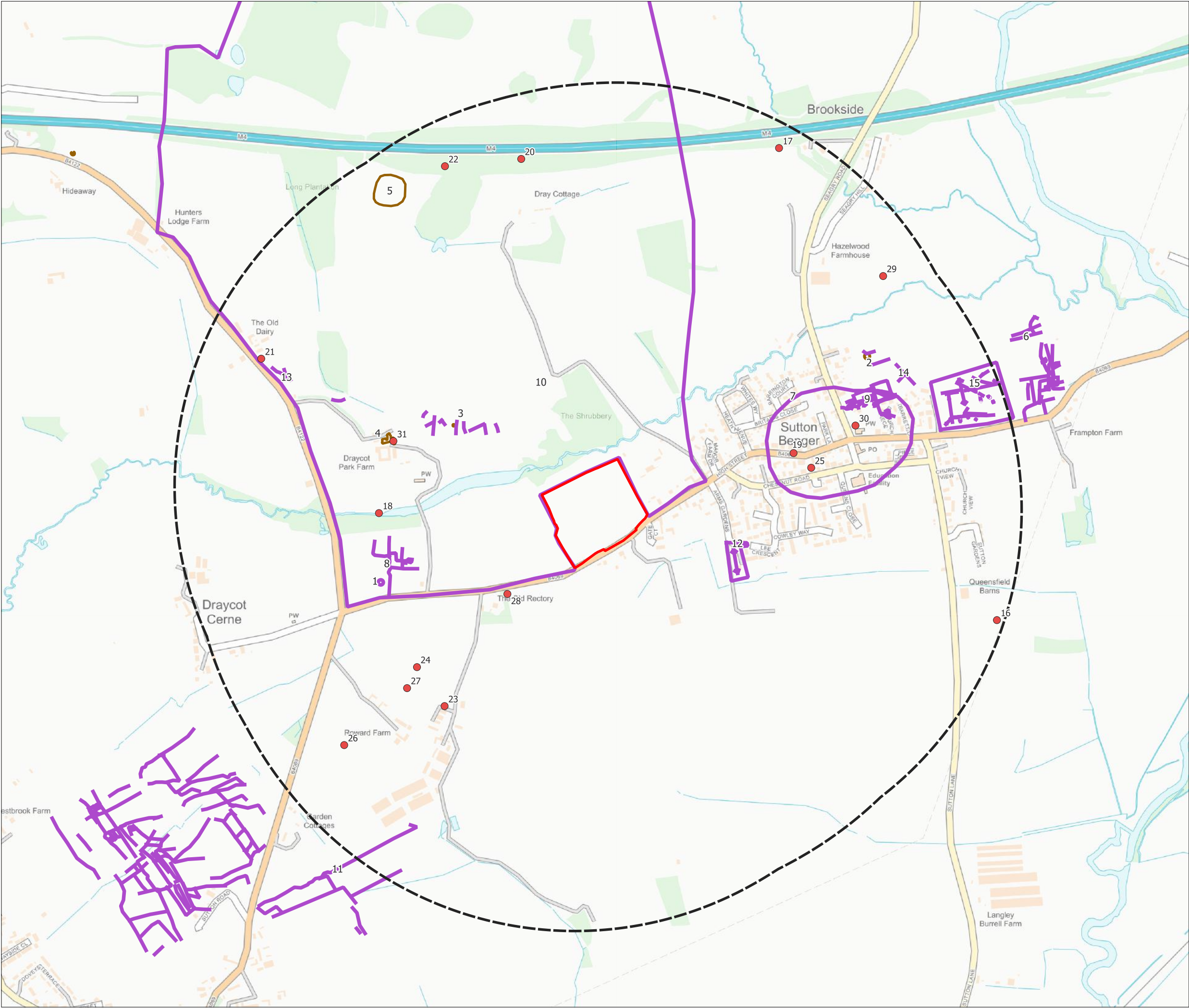
British History Online – <https://www.british-history.ac.uk>

National Heritage List for England – <https://historicengland.org.uk/listing/the-list/>

The Genealogist (for Tithe records) – <https://www.thegenealogist.co.uk>

National Planning Practice Guidance – <https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>

Figures



- Site extent
- 1km study area
- Monument points
- Monument line
- Monument areas

Notes/Revision

Land at Gate Farm, High Street, Sutton
Benger
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Figure 1: Non-designated assets within
the site and 1 km study area

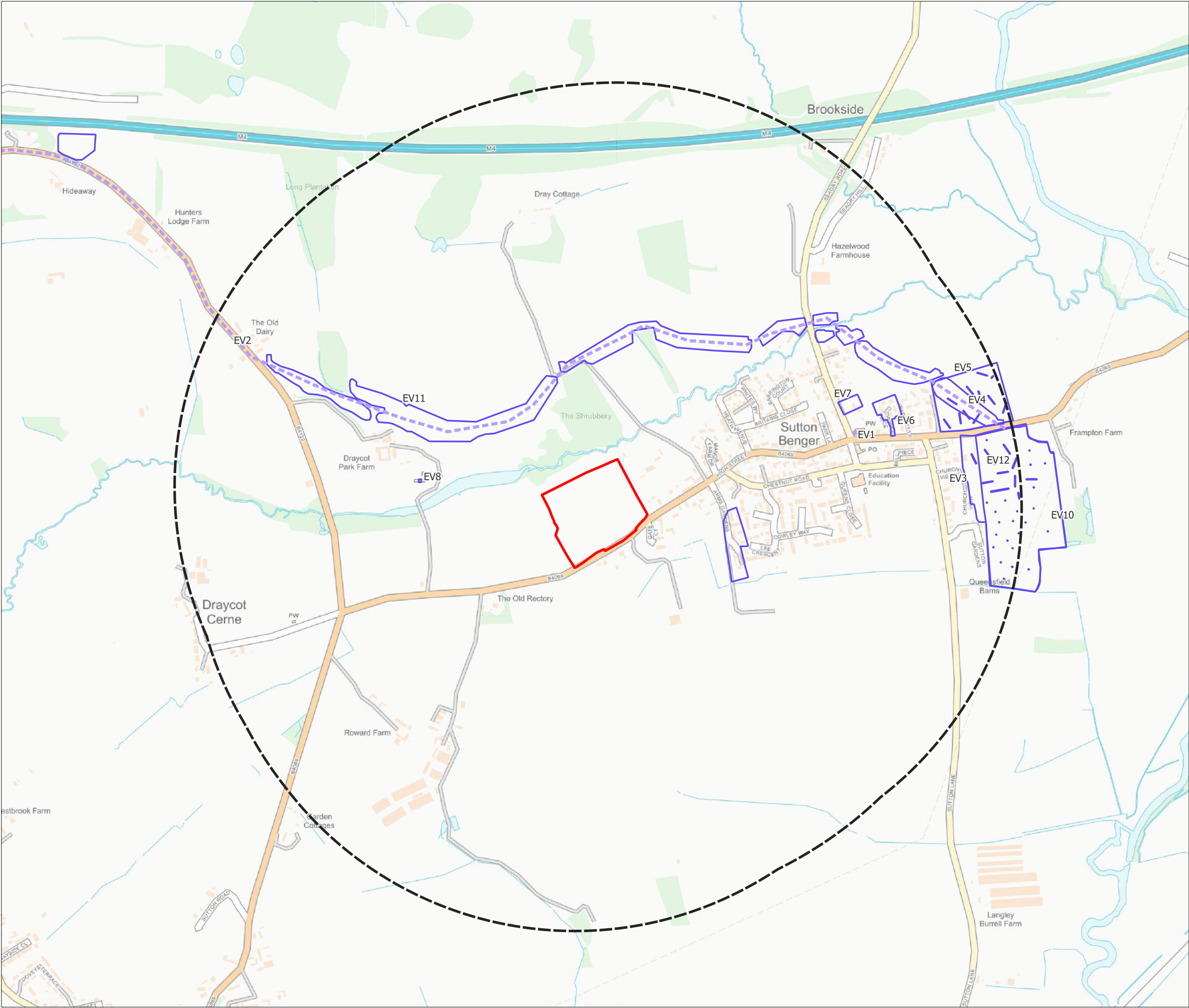
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- Site extent
- 1km study area
- Events line
- Events area

Notes/Revision

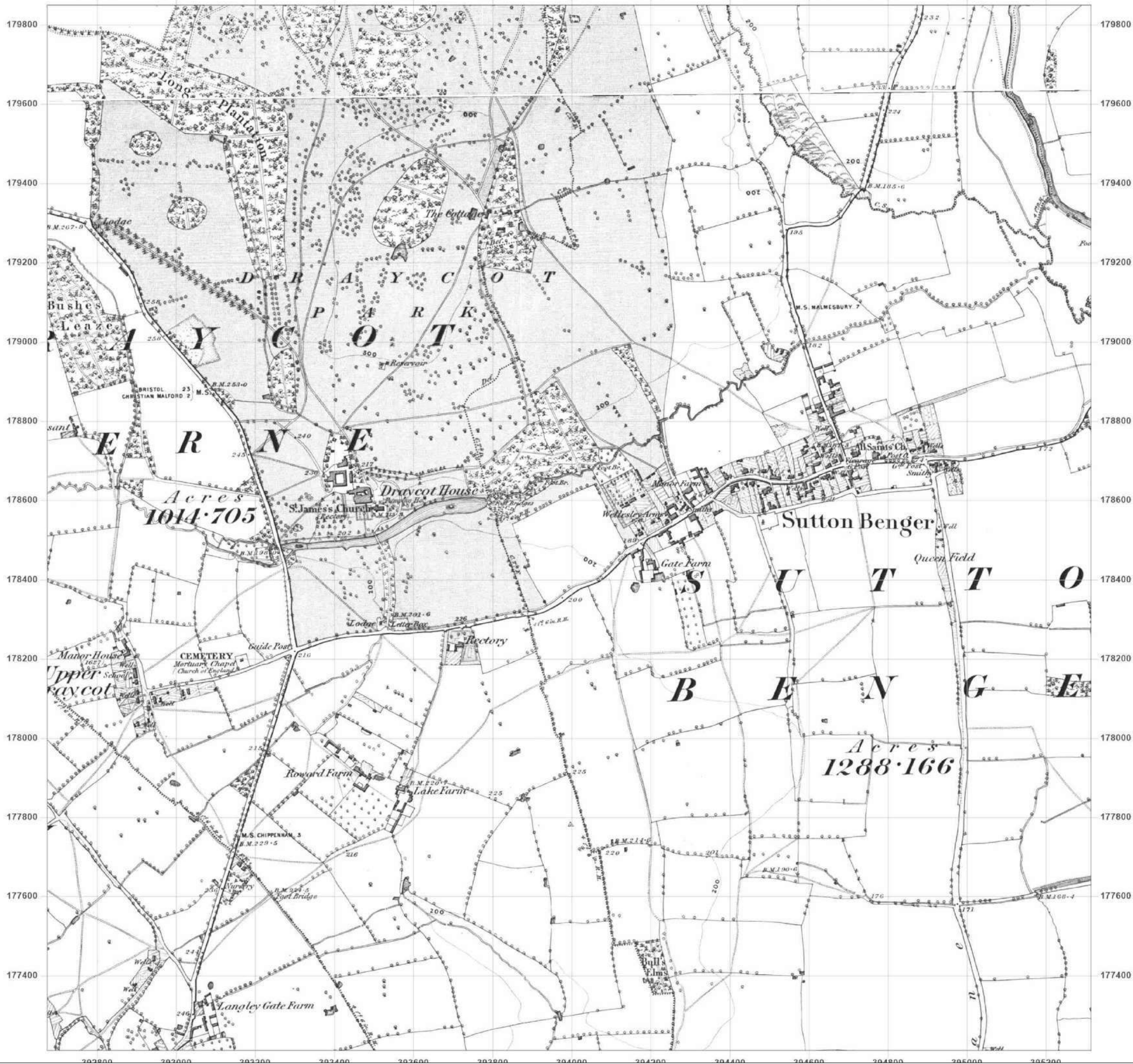
Land at Gate Farm, High Street, Sutton
Benger
Gleeson Land Limited



Figure 2: Past archaeological events
within the site and 1 km study area

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Drawing number: TOR-H002	Revision: -	

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Figure 3a: Ordnance Survey map 6"
to a mile, dated 1885

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Drawing number: TOR-03a	Revision: -	

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Figure 3b: Ordnance Survey map
1:10,560, dated 1956-60

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 Site extent
 1km study area

Notes/Revision

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Figure 4: Aerial photograph of site and surrounding area

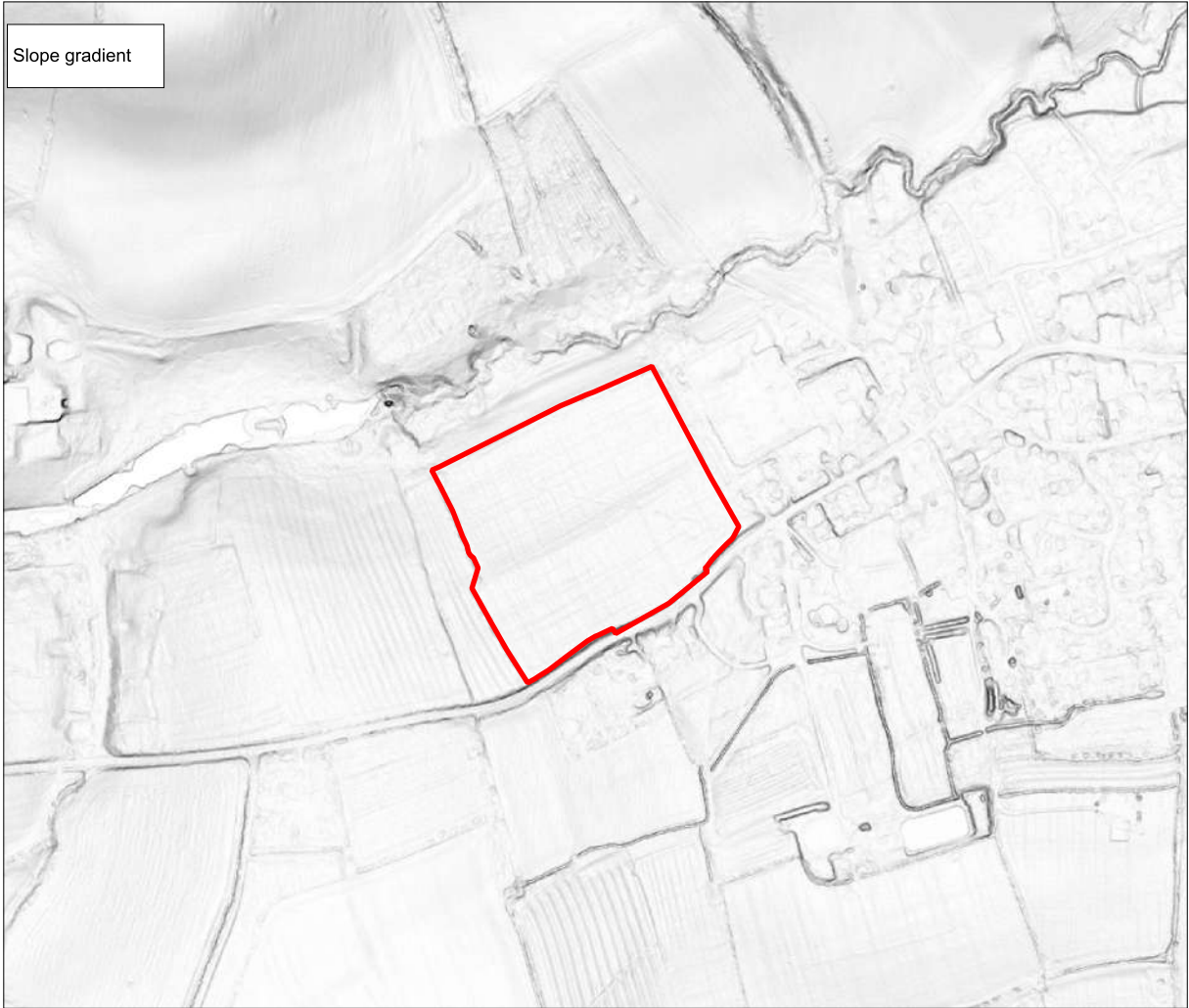
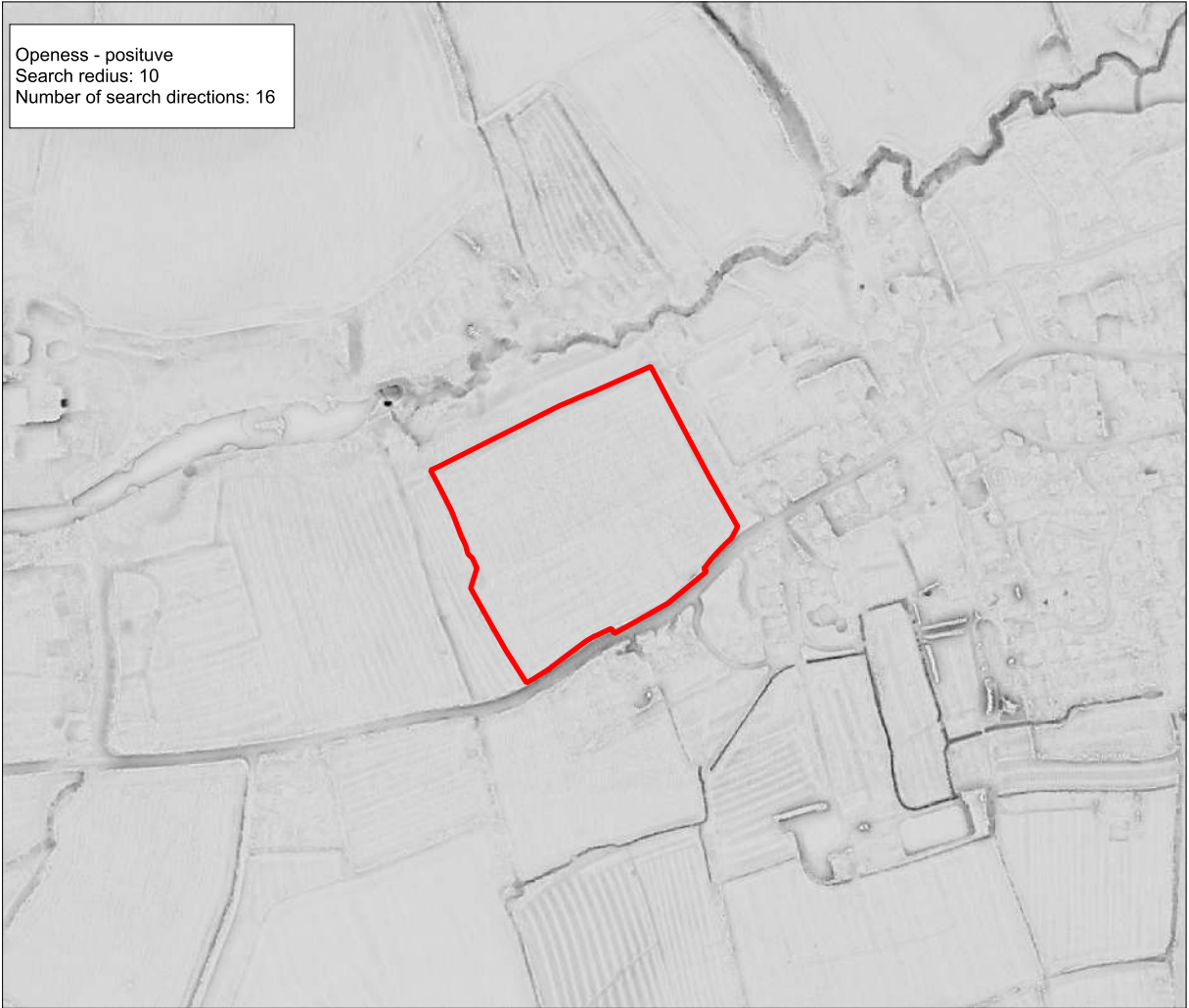
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Site extent

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Figure 5: LiDAR

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Appendix 1: Gazetteer of all heritage assets in the study area

Wiltshire HER non-designated assets in the 1km study area

TOR ID	MON ID	Description
1	MWI5099	Medieval Earthworks, Draycot Cerne
2	MWI77347	Prehistoric Ring Ditches
3	MWI77350	Possible Romano-British Enclosure
4	MWI78230	Draycot House Gas Works
5	MWI78462	Undated Circular Earthwork, West of Dray Cottage
6	MWI5041	Iron Age Settlement, East of Church Farm
7	MWI5093	Sutton Benger
8	MWI5099	Medieval Earthworks, Draycot Cerne
9	MWI5114	Medieval Settlement, Land to rear of 58 High Street
10	MWI5132	Draycot Park
11	MWI5144	Undated Field System, South of Upper Draycot
12	MWI77349	Medieval Ridge and Furrow, Sutton Benger
13	MWI77349	Undated Linear Features
14	MWI77352	Undated Field System
15	MWI78979	Medieval/Post Medieval Ridge and Furrow, North of High Street
16	MWI4997	Neolithic Flint, South of Queen Field
17	MWI5096	Saxon Dagger, Tytherton Lucas
18	MWI5113	Medieval Tile, Draycot House Grounds
19	MWI5126	Medieval Finger Ring, Stonewell Cottage, 38 High Street
20	MWI5137	17th-18th Century Midden, Draycot Park
21	MWI5138	Draycot Park Farm
22	MWI5158	Undated Earthwork, Draycot Park
23	MWI66194	Site of Outfarm, North of Lake Farm
24	MWI66195	Site of Outfarm, North of Roward Farm
25	MWI66300	Site of Farmstead in Sutton Benger
26	MWI71333	Site of Outfarm, South West of Roward Farm
27	MWI71334	Site of Outfarm, North of Roward Farm
28	MWI71337	Site of Outfarm adjacent to the Rectory
29	MWI71344	Site of Outfarm, North North East of Church Farm
30	MWI75275	Memorial to Judith Pearce
31	MWI78230	Draycot House Gas Works

Archaeological events

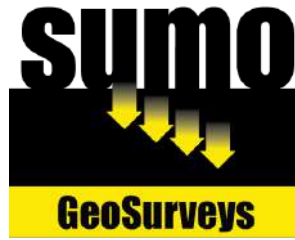
Event ID	HER ID	Description
EV1	EWI6898	Archaeological Watching Brief at All Saints Church, Sutton Benger
EV2	EWI9971	Archaeological Mitigation at Chippenham Gateway, Sewer Pipeline
EV3	EWI10138	Desk Based Assessments for Land East of Church View
EV4	EWI10645	Evaluation of land at High Street, Sutton Benger
EV5	EWI10655	Geophysical Survey of Land at High Street
EV6	EWI5700	Evaluation on Land to rear of 58 High Street
EV7	EWI6141	Evaluation at the New Rectory, Sutton Benger
EV8	EWI7305	Watching Brief at St James Church, Draycot Cerne

EV9	EWI9108	Geophysical Survey at Arms Farm
EV10	EWI9631	Geophysical Survey on Land to the East of Church View
EV11	EWI9751	Geophysical Survey for Chippenham Gateway Scheme
EV12	EWI9783	Evaluation on Land East of Church View

Appendix 2: 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 to set the site into its archaeological and historical context.

Appendix 3: Geophysical Survey report, SUMO Services August 2025



GEOPHYSICAL SURVEY REPORT

Gate Farm, Sutton Benger

Client

tor&co

For

Gleeson Strategic Land

Survey Report

SUMO-23042

OASIS Ref. No.

Sumogeop1-534395

Date

15 August 2025



Survey Report SUMO-23042: Gate Farm, Sutton Benger

Survey dates	4 August 2025
Field co-ordinator	Robert Knight BA MA
Field Team	Liam Brice-Bateman BA
Report Date	15 August 2025
CAD Illustrations	Thomas Cockcroft MSc MCIfA
Report Author	Thomas Cockcroft MSc MCIfA
Project Manager	Thomas Cockcroft MSc MCIfA
Report approved	Dr John Gater BSc DSc(Hon) MCIfA FSA

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SUMO GeoSurveys is a trading name of SUMO Geophysics Ltd.

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2 LIST OF APPENDICES

Appendix A	Technical Information: Magnetometer Survey Methods, Processing and Presentation
Appendix B	Technical Information: Magnetic Theory
Appendix C	OASIS Data Collection Sheet
Appendix D	Data Management Plan & Archive Selection Strategy

3 SURVEY TECHNIQUE

- 3.1 Detailed magnetic survey (magnetometry) was chosen as the most efficient and effective method of locating the type of archaeological anomalies which might be expected at this site. All survey techniques followed the guidance set out by ClfA (2020) and the European Archaeology Council (EAC) (2016).

Bartington Cart System Traverse Interval 1.0m Sample Interval 0.125m

The only processes performed on data are the following unless specifically stated otherwise:

Zero Mean Traverse	This process sets the background mean of each traverse to zero. The operation removes instrument striping effects and edge discontinuities over the whole of the data set.
--------------------	--

4 EXECUTIVE SUMMARY OF RESULTS

- 4.1 A magnetometer survey of 6 hectares of land at Gate Farm, Sutton Benger has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest, except for ridge and furrow cultivation which is visible in Area 1. Uncertain responses throughout the survey are likely to be due to a combination of natural and agricultural processes or buried ferrous objects. The routes of land drains and service pipes have also been marked and amorphous bands of increased responses in Area 2 are due to variations in the underlying geology or alluvial deposits.

5 INTRODUCTION

- 5.1 **SUMO GeoSurveys** was commissioned to undertake a geophysical survey of an area outlined for development. This survey forms part of an archaeological investigation being carried out by **tor&co** on behalf of **Gleeson Strategic Land**.

5.2 Site Details

NGR / Postcode	ST 93974 78470 / SN15 4NW	
Location	The site is located 5km north-east of Chippenham and is situated on the western outskirts of Sutton Benger. The site is bounded to the south by High Street (B4069) and to the north by the Shrubby Wood.	
HER	Wiltshire and Swindon HER	
OASIS Ref. No.	Sumogeop1-534395	
District	n/a	
Parish	Sutton Benger CP	
Topography	Generally flat	
Land Use	Pasture	
Geology (BGS 2025)	Bedrock:	Kellaways Sand Member – Sandstone
	Superficial:	River Terrace Deposits, 1 - Sand and gravel. Alluvium - Clay, silt, sand and gravel.
Soils (CU 2025)	Soilscape 5: Freely draining lime-rich loamy soils	
Survey Methods	Magnetometer survey (fluxgate gradiometer)	
Study Area	6 ha	

5.3 *Archaeological Background*

- 5.3.1 A search of the HER has revealed that no designated or non-designated heritage assets are recorded within the site, but a few non-designated assets are located within the vicinity. The site is located 400m west of the historic Anglo-Saxon core of Sutton Benger (MWI5093). Earthworks of Medieval date are located 450m west of the survey area (MWI5099) along with ridge and furrow cultivation which is noted 270m to the south-east (MWI76325). Two groups of undated features are recorded 250m north-west and 700m north-east of the survey area (MWI77349 & MWI77352).

5.4 *Aims and Objectives*

- 5.4.1 To locate and characterise any anomalies of possible archaeological interest within the study area.

6 RESULTS

6.1 *The survey has been divided into three survey areas (Areas 1-3) and specific anomalies have been given numerical labels [1] [2] which appear in the text below, as well as on the Interpretation Figure(s).*

6.2 ***Probable / Possible Archaeology***

6.2.1 No magnetic responses have been recorded that could be interpreted as being of clear archaeological interest, except for ridge and furrow cultivation (see 6.3).

6.3 ***Ridge and Furrow***

6.3.1 Broad and parallel linear responses have been detected in the survey which have been caused by historic ridge and furrow cultivation.

6.4 ***Uncertain***

6.4.1 Discrete anomalies, trends and a zone of increased responses are visible in the survey which have been assigned to the category of *Uncertain*. They generally lack the defined morphology of anomalies that would normally warrant an archaeological interpretation. They are likely to have been caused by variations in the underlying geology, agricultural processes or buried ferrous objects.

6.5 ***Agricultural – Land Drains***

6.5.1 Widely spaced and parallel linear anomalies in Area 1 mark the routes of land drains.

6.6 ***Natural / Geological / Pedological***

6.6.1 Amorphous bands of increased responses have been detected in Area 1 which are due to variations in the underlying geology or alluvial deposits associated with the adjacent brook to the north of the site.

6.7 ***Service***

6.7.1 Two linear dipolar ferrous responses in Area 1 mark the routes of buried pipes. A negative response crossing Area 1 likely marks the route of service trench which probably contains a non-ferrous pipe.

6.8 ***Ferrous / Magnetic Disturbance***

6.8.1 A zone of magnetic disturbance in Area 3 is likely to have been caused by spreads of modern debris. A strong ferrous response [1] in Area 1 is due to a pylon. A few other magnetically strong ferrous anomalies [2] are also visible, but nothing was visible on the ground at the time of the survey and nothing is visible on historic mapping or aerial imagery which may indicate their origins. Given their magnetic strength they are likely to be modern.

6.8.2 Other ferrous responses close to boundaries are due to adjacent buildings, roads, fences and gates. Smaller scale ferrous anomalies ("iron spikes") are present throughout the data and are characteristic of small pieces of ferrous debris (or brick / tile) in the topsoil; they are commonly assigned a modern origin. Only the most prominent of these are highlighted on the interpretation diagram.

7 DATA APPRAISAL & CONFIDENCE ASSESSMENT

- 7.1 Historic England Table 4 (EH 2008) states that the typical magnetic response on the local soils / geology is variable. The results from this survey indicate the presence of ridge and furrow cultivation; consequently, there is no *a priori* reason why archaeological features would not have been detected, if present.

8 CONCLUSION

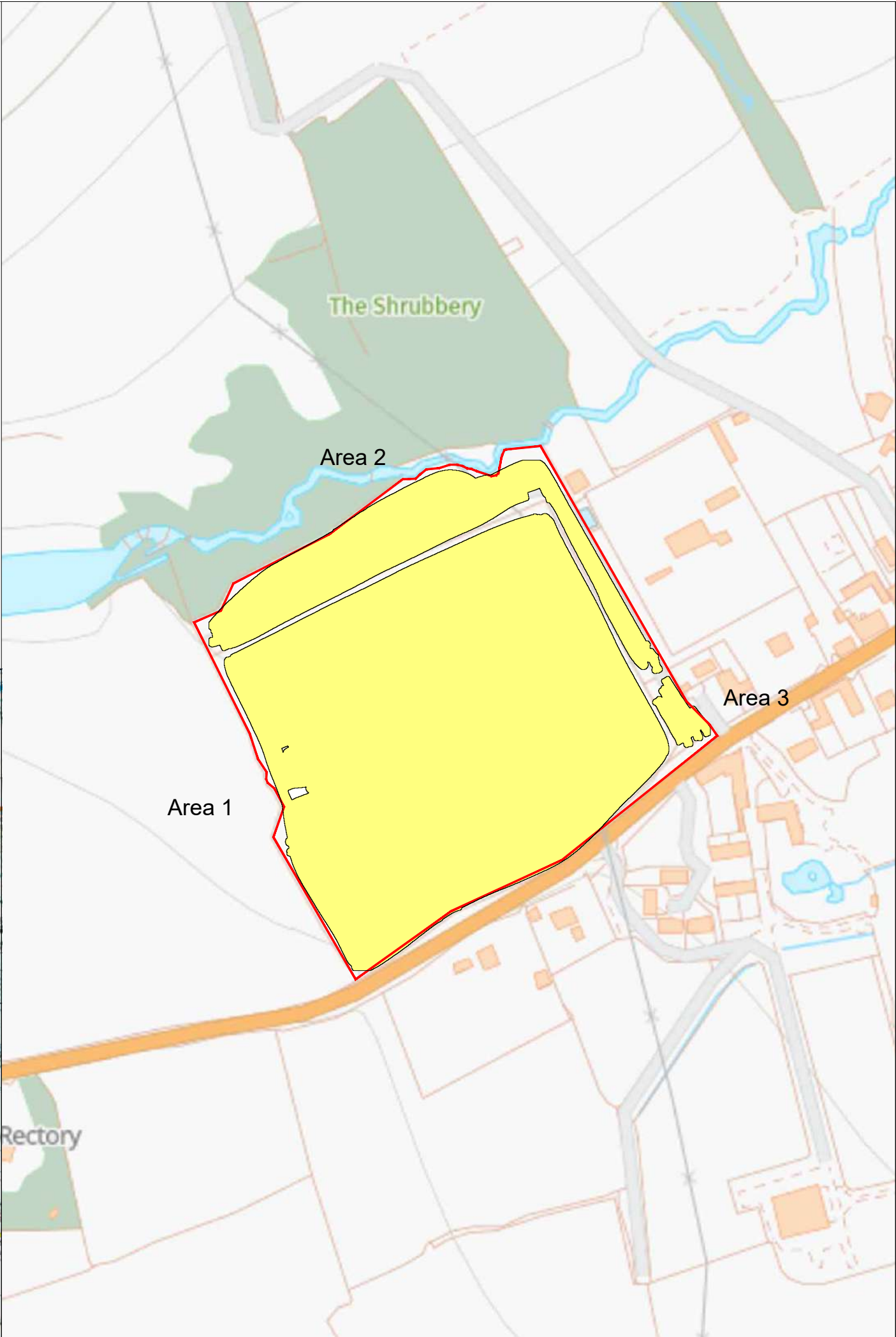
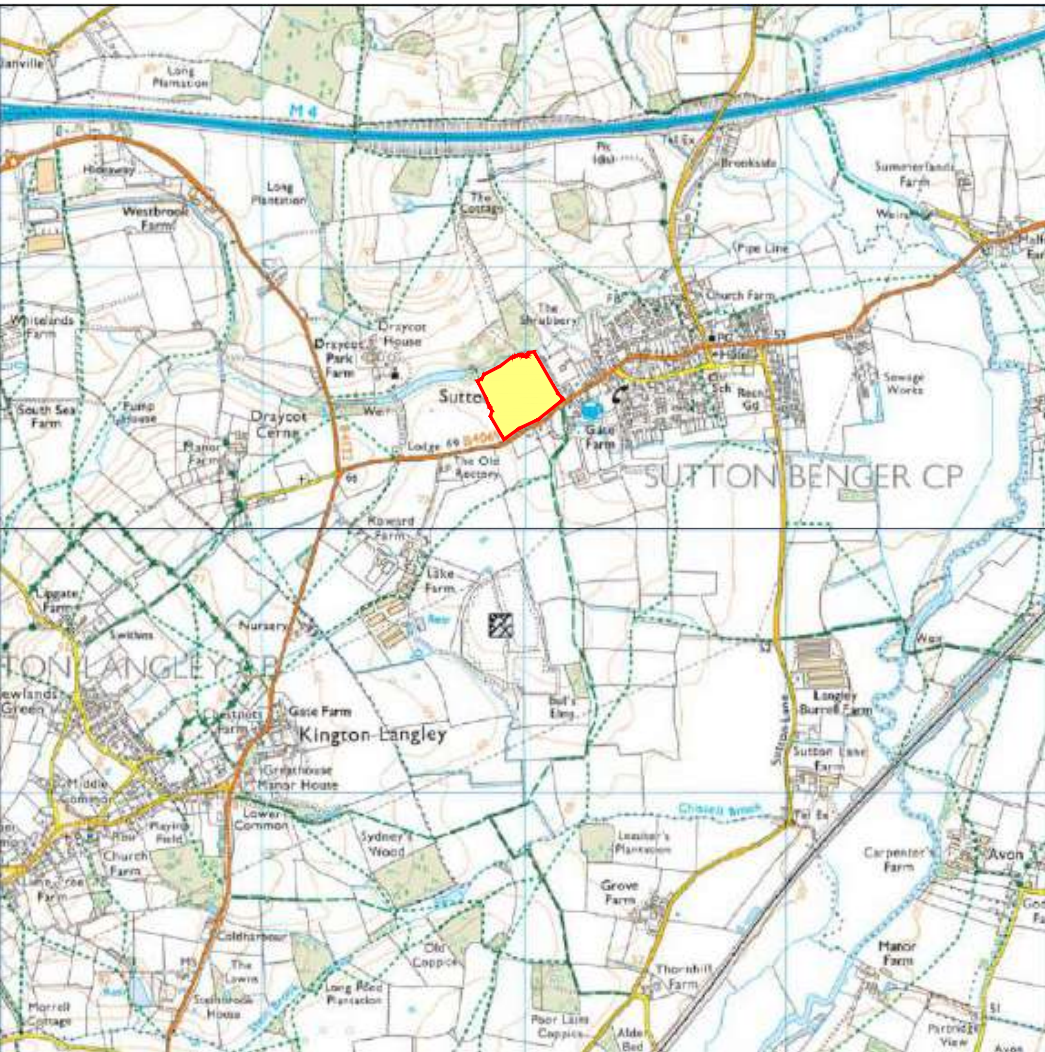
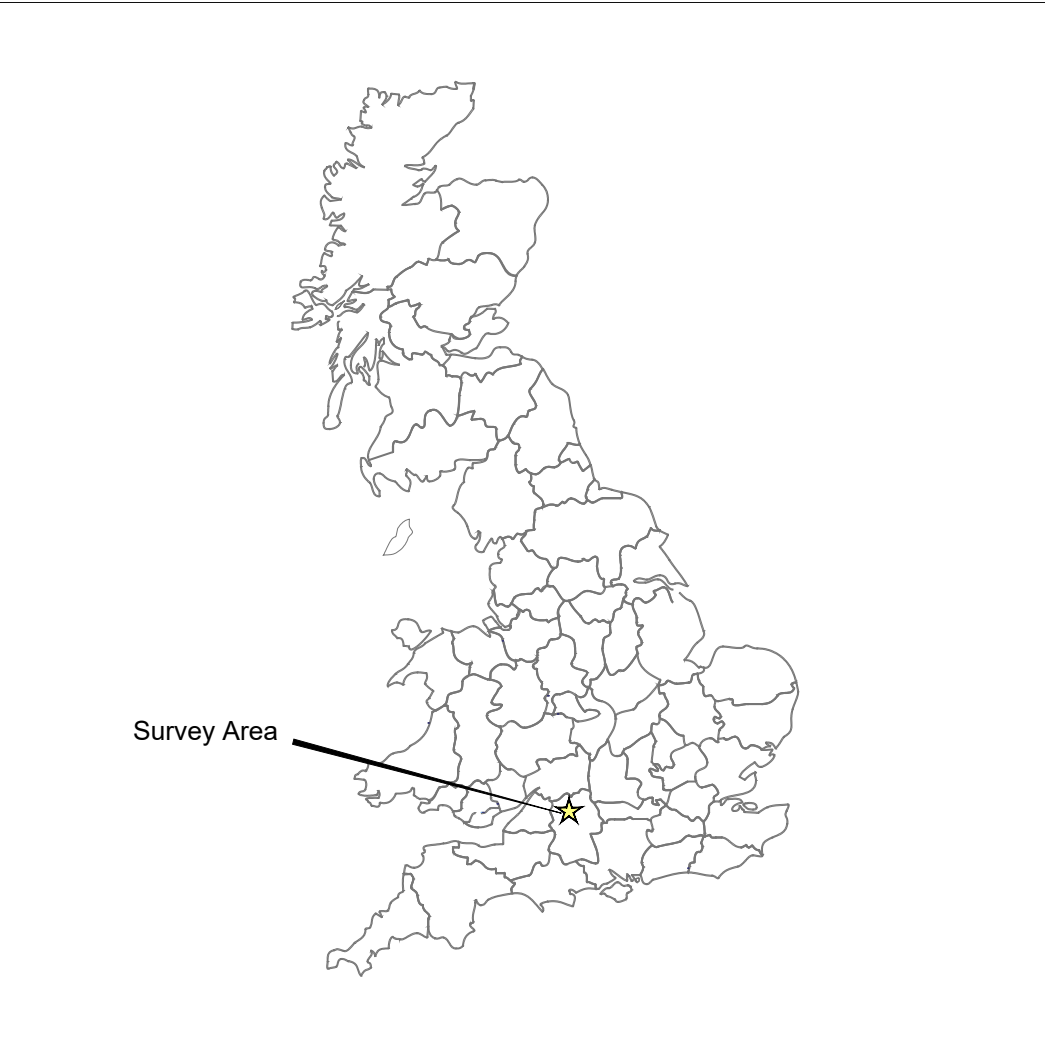
- 8.1 The magnetometer survey has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest, except for ridge and furrow cultivation which is visible in Area 1. Numerous responses of uncertain origin have been marked which are likely to be due to a combination of natural and agricultural processes or buried ferrous objects. The routes of land drains and service pipes have also been marked. Amorphous bands of increased responses in Area 1 are due to variations in the underlying geology or alluvial deposits. Strong ferrous anomalies in Area 1 have been caused by a pylon and other modern features.

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10 ARCHIVE

- 10.1 The minimally processed data, data images, XY traces and a copy of this report are stored in **SUMO GeoSurveys'** digital archive, on an internal RAID configured NAS drive in the Midlands Office. These data are also backed up to the Cloud for off-site storage.
- 10.2 The Grey Literature will be archived with OASIS and the relevant HER within a period of 12 months.



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Survey Areas



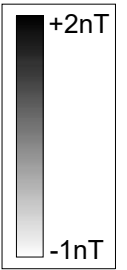
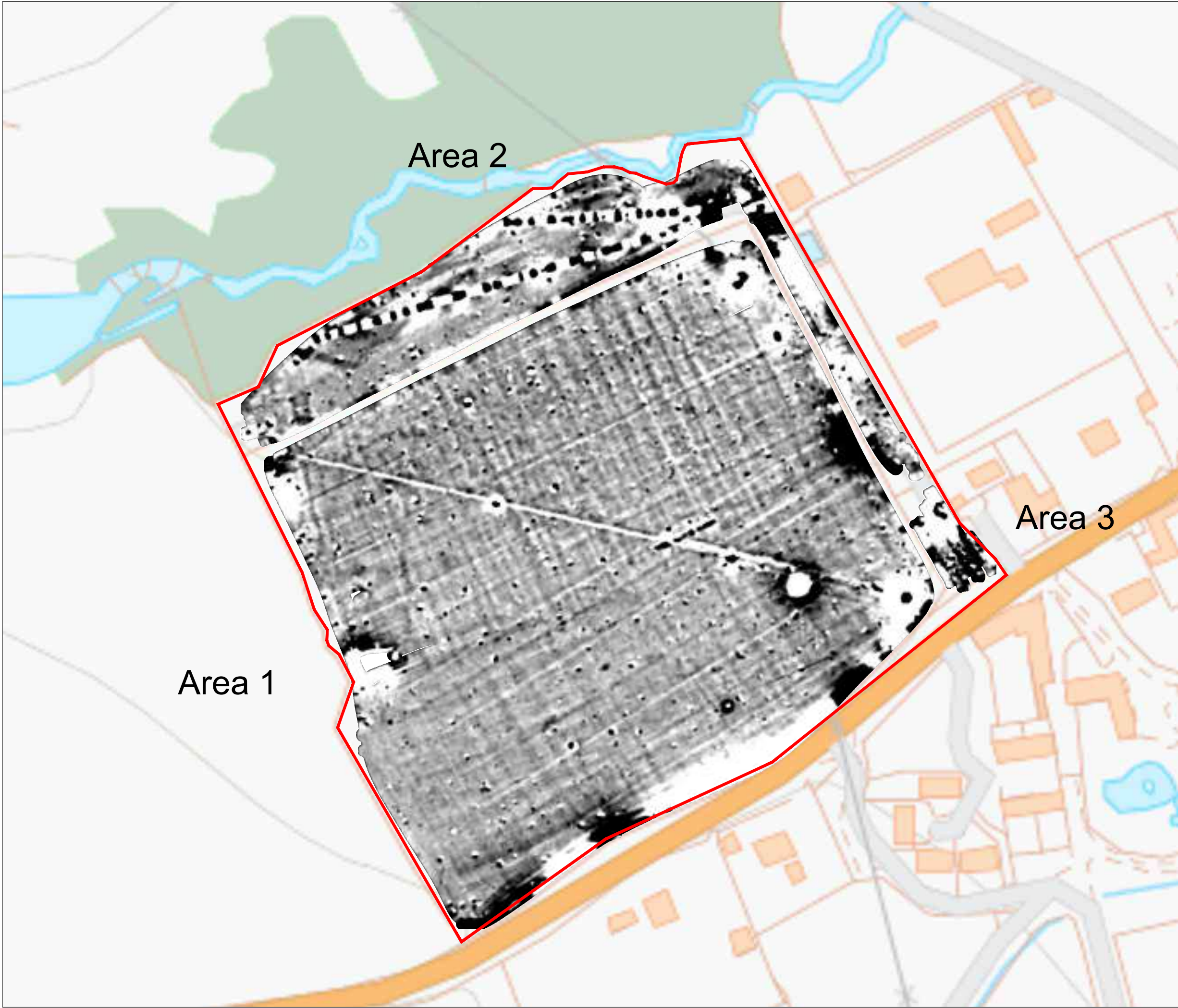
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tor&co

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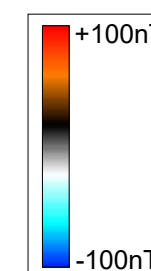
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tor&co

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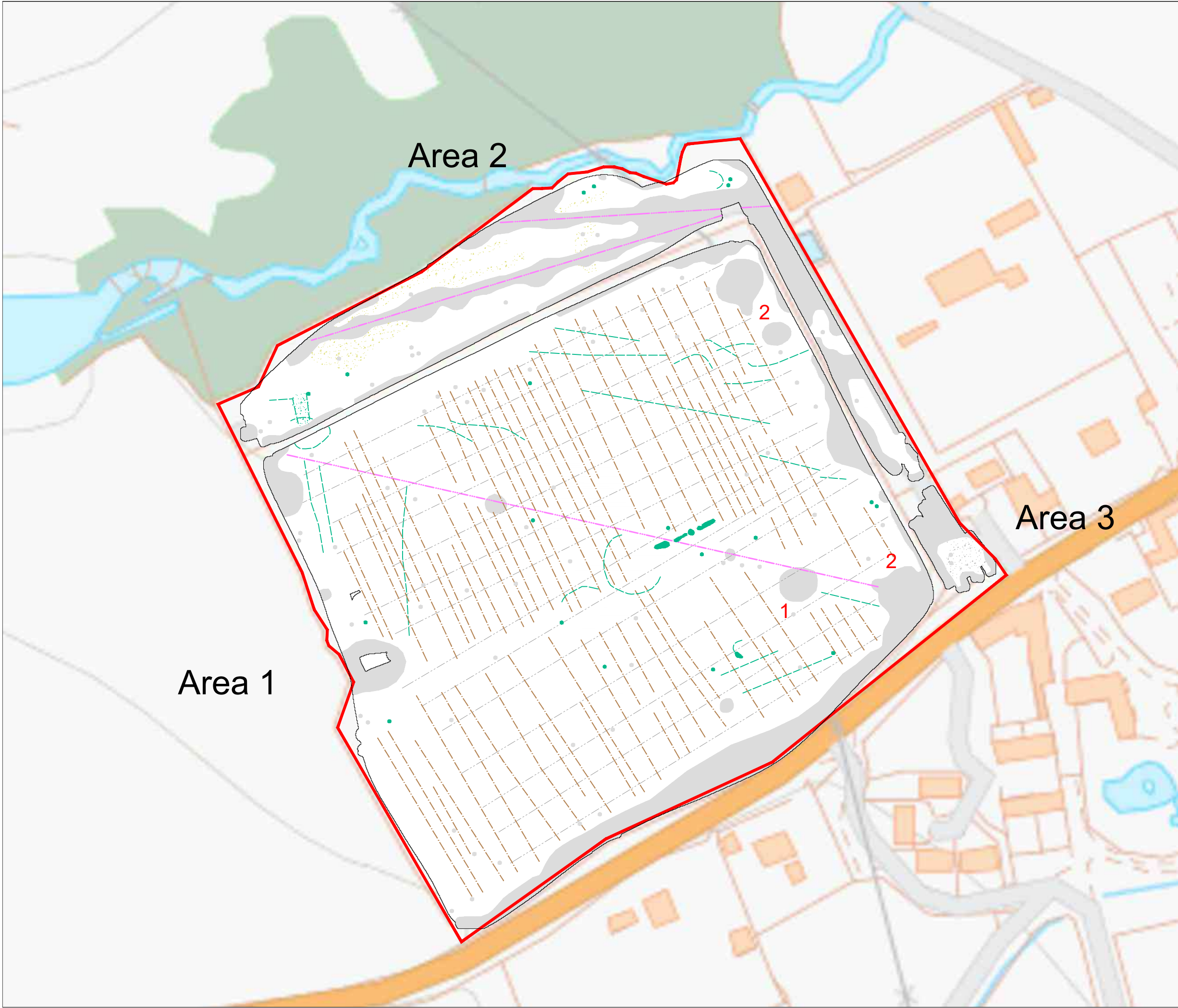
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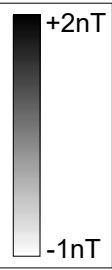
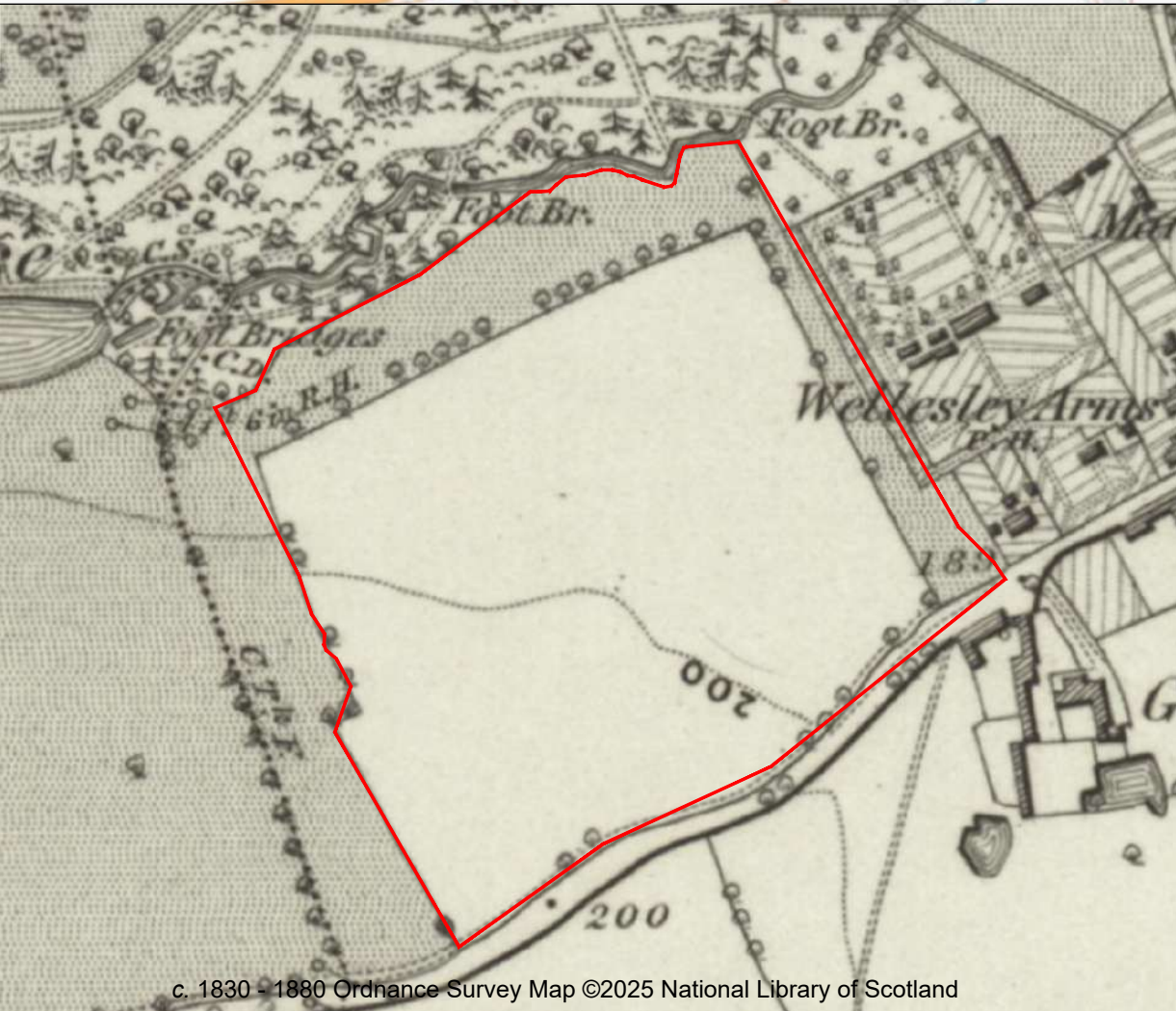
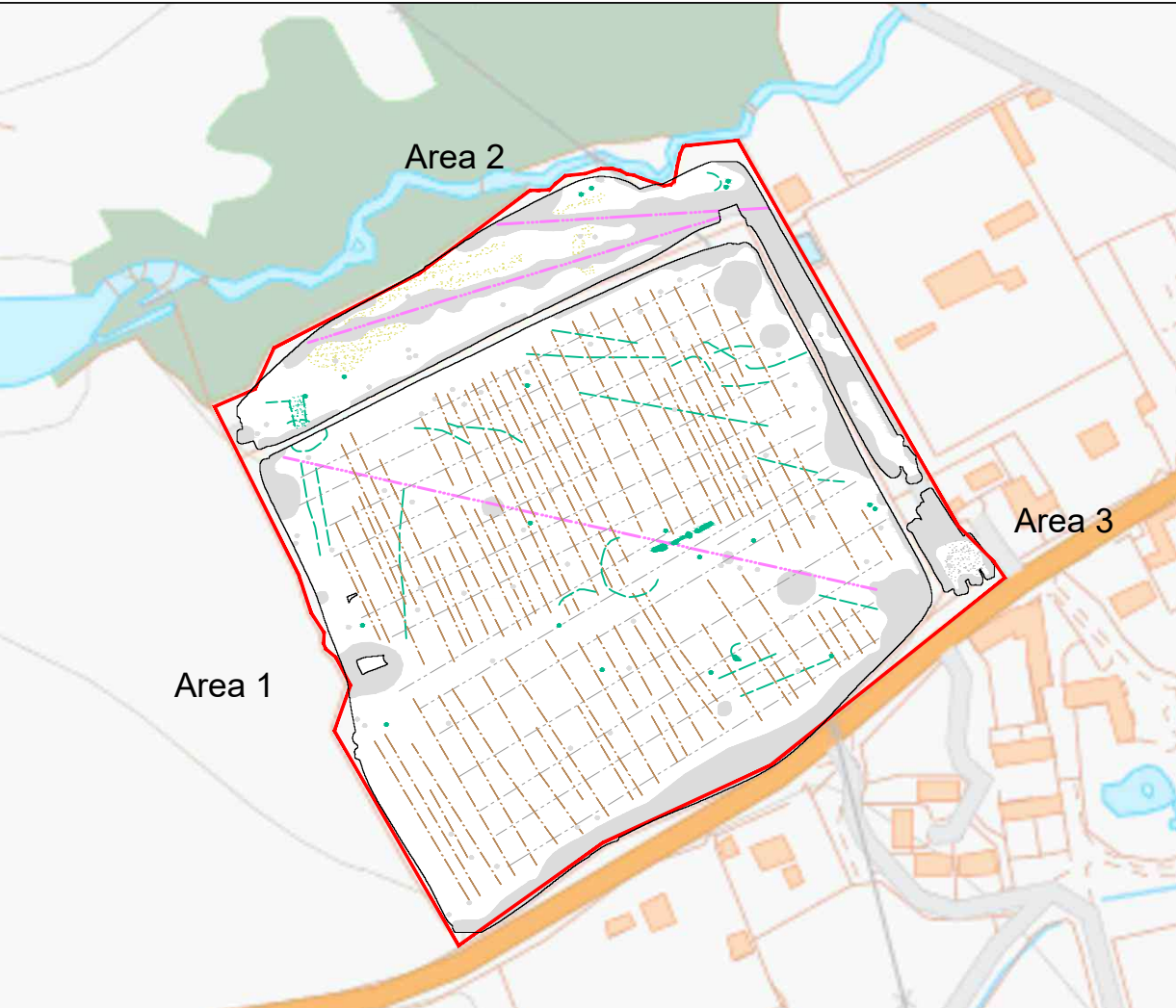


KEY

	Ridge and furrow
	Uncertain Origin (discrete anomaly / trend / increased response)
	Agriculture (land drain)
	Natural (e.g. geological / pedological)
	Magnetic disturbance
	Service
	Ferrous



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Client: tor&co	
Project: SUMO-23042: Gate Farm, Sutton Benger	
Scale: 0 75 metres 1:1500 @ A3	Fig No: 04



KEY

	Ridge and furrow
	Uncertain Origin (discrete anomaly / trend / increased response)
	Agriculture (land drain)
	Natural (e.g. geological / pedological)
	Magnetic disturbance
	Service
	Ferrous



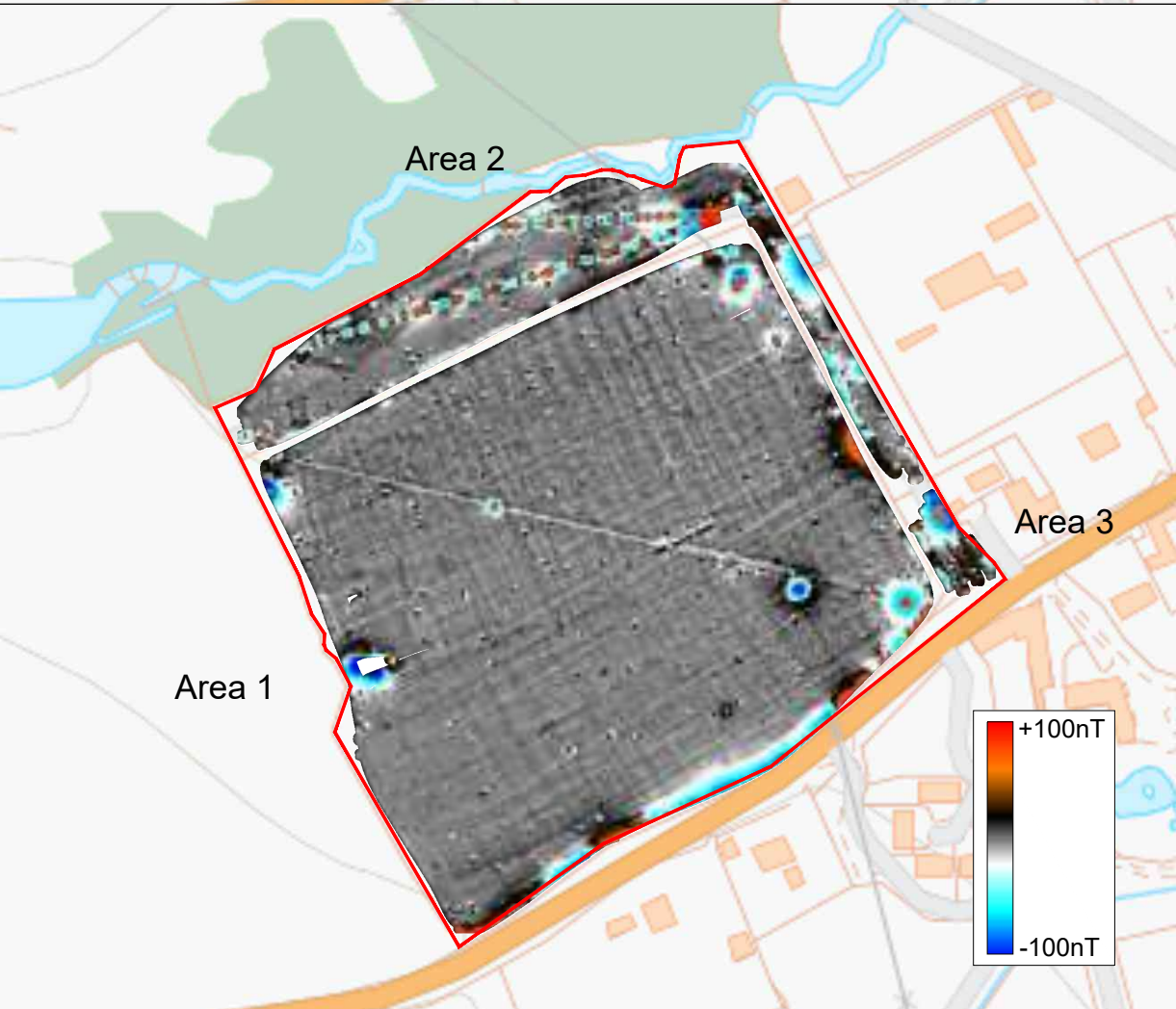
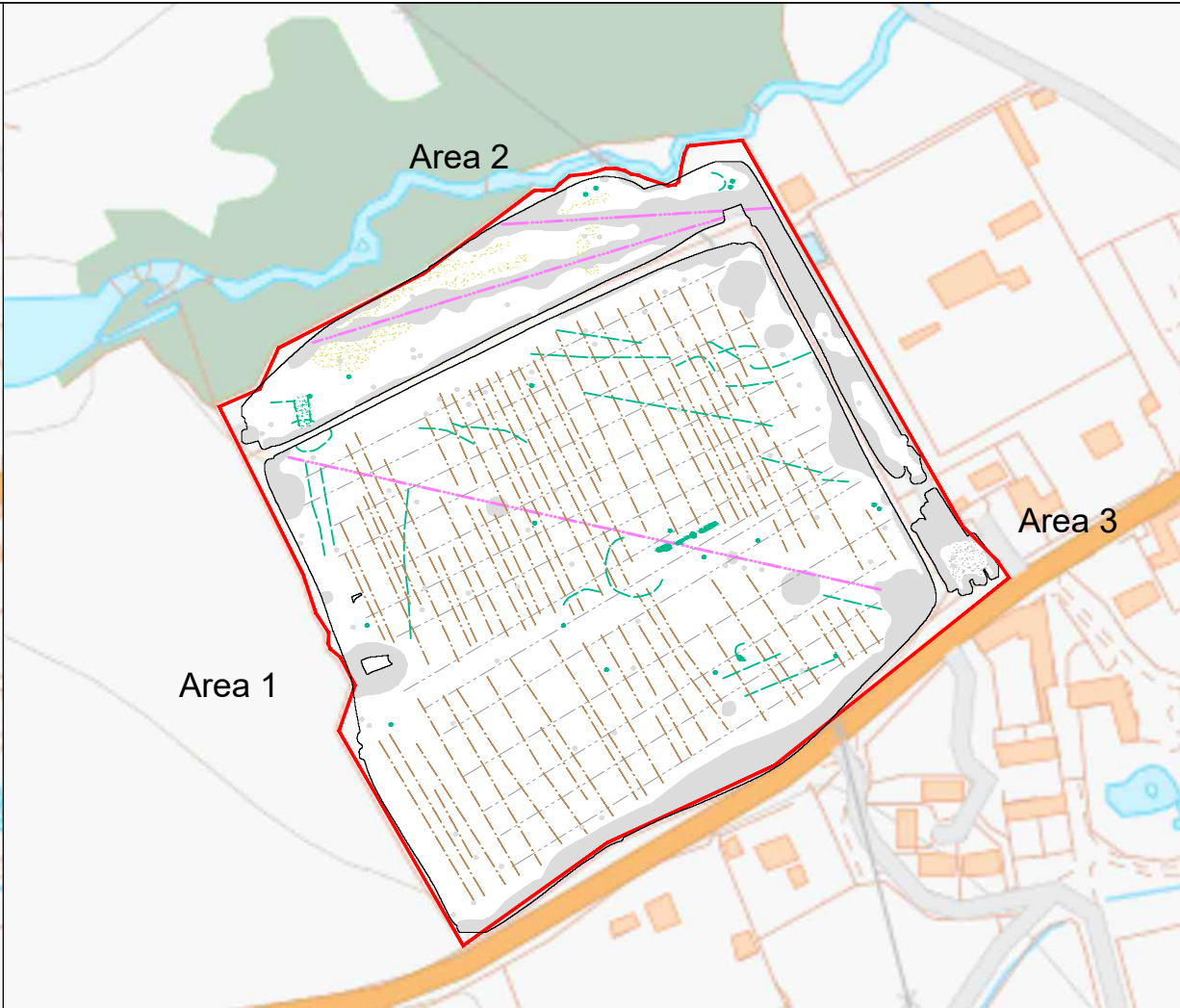
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tor&co

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Fig No:
05

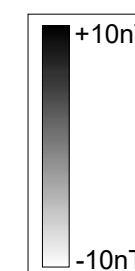
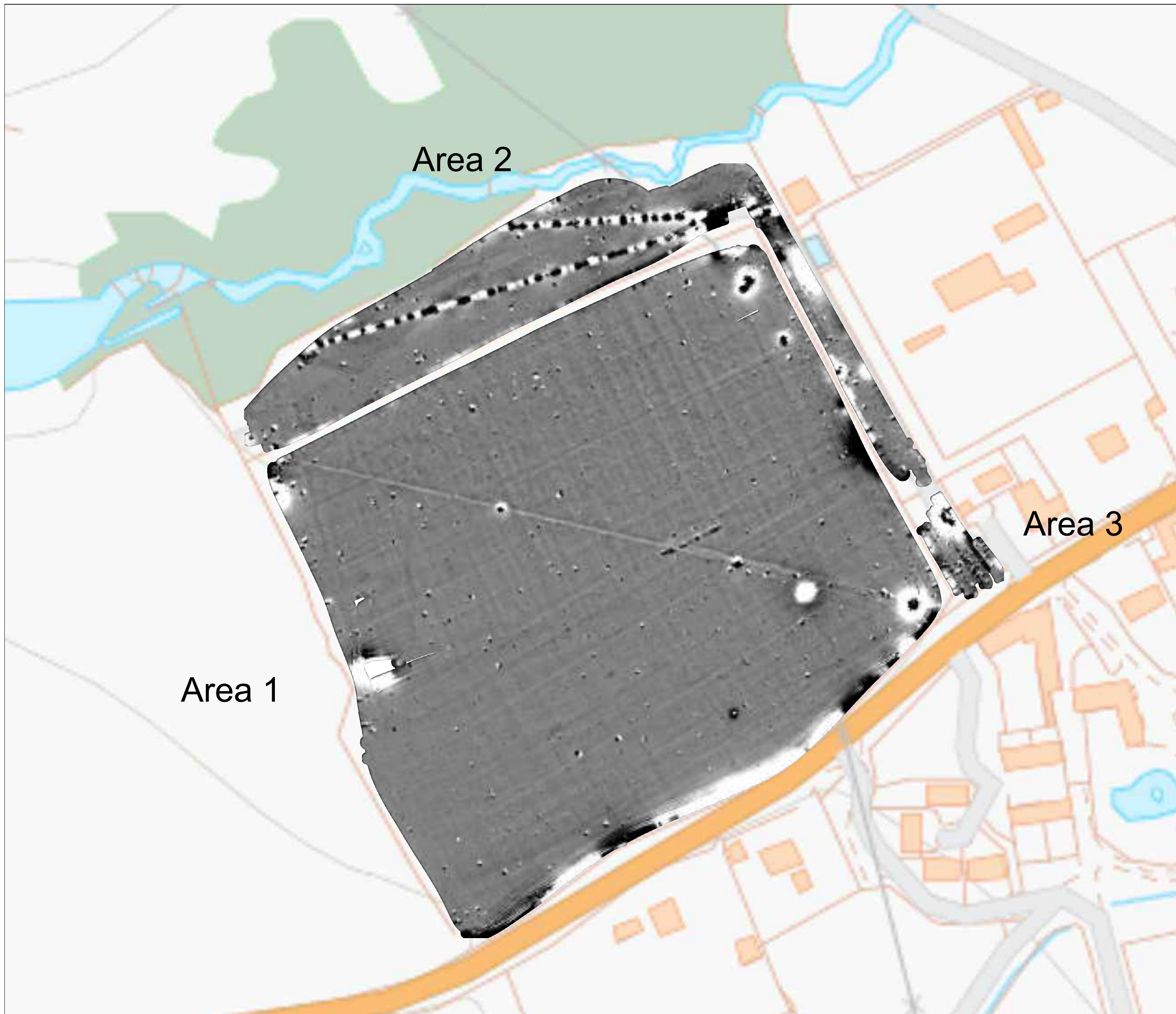


KEY

	Ridge and furrow
	Uncertain Origin (discrete anomaly / trend / increased response)
	Agriculture (land drain)
	Natural (e.g. geological / pedological)
	Magnetic disturbance
	Service
	Ferrous



Title: Greyscale and Colour Plots / Interpretation / LiDAR Data Plot	
Client: tor&co	
Project: SUMO-23042: Gate Farm, Sutton Benger	
Scale: NOT TO SCALE	Fig No: 06



Title:
Minimally Processed Data - Greyscale Plots

Client:
tor&co

Project:
SUMO-23042: Gate Farm, Sutton Benger

Scale:
0 metres 75
1:1500 @ A3

Fig No:
07



Title: XY Trace Plots (clipped at +/-15nT)	
Client: tor&co	
Project: SUMO-23042: Gate Farm, Sutton Benger	
Scale: 0 metres 75 1:1500 @ A3	Fig No: 08

Appendix A - Technical Information: Magnetometer Survey Method

Grid Positioning

For hand held gradiometers the location of the survey grids has been plotted together with the referencing information. Grids were set out using a Trimble R8 Real Time Kinematic (RTK) VRS Now GNSS GPS system.

An RTK GPS (Real-time Kinematic Global Positioning System) can locate a point on the ground to a far greater accuracy than a standard GPS unit. A standard GPS suffers from errors created by satellite orbit errors, clock errors and atmospheric interference, resulting in an accuracy of 5m-10m. An RTK system uses a single base station receiver and a number of mobile units. The base station re-broadcasts the phase of the carrier it measured, and the mobile units compare their own phase measurements with those they received from the base station. This results in an accuracy of around 0.01m.

Technique	Instrument	Traverse Interval	Sample Interval
Magnetometer	Bartington Grad 601-2	1.0m	0.25m
Magnetometer	Bartington Cart System	1.0m	0.125m
Magnetometer	MACS Cart System (Foerster)	1.0m	0.125m

Instrumentation:

Bartington instruments operate in a gradiometer configuration which comprises fluxgate sensors mounted horizontally, set 1.0m apart. The fluxgate gradiometer suppresses any diurnal or regional effects. The instruments are carried, or cart mounted, with the bottom sensor approximately 0.1-0.3m from the ground surface. At each survey station, the difference in the magnetic field between the two fluxgates is measured in nanoTesla (nT). The sensitivity of the instrument can be adjusted; for most archaeological surveys the most sensitive range (0.1nT) is used. Generally, features up to 1m deep may be detected by this method, though strongly magnetic objects may be visible at greater depths.

Bartington Grad 601-2

Hand-Held: Data will be collected using a Bartington Grad 601-2. The instrument consists of two paired sensors and readings are logged at 0.25m centres along traverses 1.0m apart across 30m grids. The collection of data at 0.25m centres provides an appropriate methodology balancing cost and time with resolution as per Historic England guidelines

Bartington Cart System

Data will be collected using a cart carrying four paired Bartington magnetic sensors. Each data point is geographically referenced using an on-board Trimble RTK survey grade GPS system. Readings will be taken at 0.125m centres along traverses 1.0m apart.

MACS Cart System (Foerster)

A multi-sensor array cart system (MACS) utilising 4 Foerster 4.032 Ferex CON 650 gradiometers, spaced at 1m intervals, with a control unit and data logger was used for the magnetic survey. Each data point is geographically referenced using an on-board RTK GNSS system. Readings will be taken at 0.125m centres along traverses 1.0m apart.

Data Processing

Zero Mean	This process sets the background mean of each traverse within each grid to zero.
Traverse	The operation removes striping effects and edge discontinuities over the whole of the data set.
Step Correction (De-stagger)	When gradiometer data are collected in 'zig-zag' fashion, stepping errors can sometimes arise. These occur because of a slight difference in the speed of walking on the forward and reverse traverses. The result is a staggered effect in the data, which is particularly noticeable on linear anomalies. This process corrects these errors.

Display

Greyscale/
Colourscale Plot

This format divides a given range of readings into a set number of classes. Each class is represented by a specific shade of grey, the intensity increasing with value. All values above the given range are allocated the same shade (maximum intensity); similarly, all values below the given range are represented by the minimum intensity shade. Similar plots can be produced in colour, either using a wide range of colours or by selecting two or three colours to represent positive and negative values. The assigned range (plotting levels) can be adjusted to emphasise different anomalies in the data-set.

Interpretation Categories

In certain circumstances (usually when there is corroborative evidence from desk-based or excavation data) very specific interpretations can be assigned to magnetic anomalies (for example, *Roman Road, Wall*, etc.) and where appropriate, such interpretations will be applied. The list below outlines the generic categories commonly used in the interpretation of the results.

<i>Archaeology / Probable Archaeology</i>	This term is used when the form, nature and pattern of the responses are clearly or very probably archaeological and /or if corroborative evidence is available. These anomalies, whilst considered anthropogenic, could be of any age.
<i>Possible Archaeology</i>	These anomalies exhibit either weak signal strength and / or poor definition, or form incomplete archaeological patterns, thereby reducing the level of confidence in the interpretation. Although the archaeological interpretation is favoured, they may be the result of variable soil depth, plough damage or even aliasing as a result of data collection orientation.
<i>Industrial / Burnt-Fired</i>	Strong magnetic anomalies that, due to their shape and form or the context in which they are found, suggest the presence of kilns, ovens, corn dryers, metal-working areas or hearths. It should be noted that in many instances modern ferrous material can produce similar magnetic anomalies.
<i>Former Field Boundary (probable & possible)</i>	Anomalies that correspond to former boundaries indicated on historic mapping, or which are clearly a continuation of existing land divisions. Possible denotes less confidence where the anomaly may not be shown on historic mapping but nevertheless the anomaly displays all the characteristics of a field boundary.
<i>Ridge & Furrow</i>	Parallel linear anomalies whose broad spacing suggests ridge and furrow cultivation. In some cases, the response may be the result of more recent agricultural activity.
<i>Agriculture (ploughing)</i>	Parallel linear anomalies or trends with a narrower spacing, sometimes aligned with existing boundaries, indicating more recent cultivation regimes.
<i>Land Drain</i>	Weakly magnetic linear anomalies, quite often appearing in series forming parallel and herringbone patterns. Smaller drains may lead and empty into larger diameter pipes, which in turn usually lead to local streams and ponds. These are indicative of clay fired land drains.
<i>Natural</i>	These responses form clear patterns in geographical zones where natural variations are known to produce significant magnetic distortions.
<i>Magnetic Disturbance</i>	Broad zones of strong dipolar anomalies, commonly found in places where modern ferrous or fired materials (e.g. brick rubble) are present.
<i>Service</i>	Magnetically strong anomalies, usually forming linear features are indicative of ferrous pipes/cables. Sometimes other materials (e.g. pvc) or the fill of the trench can cause weaker magnetic responses which can be identified from their uniform linearity.
<i>Ferrous</i>	This type of response is associated with ferrous material and may result from small items in the topsoil, larger buried objects such as pipes, or above ground features such as fence lines or pylons. Ferrous responses are usually regarded as modern.

Individual burnt stones, fired bricks or igneous rocks can produce responses similar to ferrous material.

Uncertain Origin

Anomalies which stand out from the background magnetic variation, yet whose form and lack of patterning gives little clue as to their origin. Often the characteristics and distribution of the responses straddle the categories of *Possible Archaeology / Natural* or (in the case of linear responses) *Possible Archaeology / Agriculture*; occasionally they are simply of an unusual form.

Where appropriate some anomalies will be further classified according to their form (positive or negative) and relative strength and coherence (trend: weak and poorly defined).

Appendix B - Technical Information: Magnetic Theory

Detailed magnetic survey can be used to effectively define areas of past human activity by mapping spatial variation and contrast in the magnetic properties of soil, subsoil and bedrock. Although the changes in the magnetic field resulting from differing features in the soil are usually weak, changes as small as 0.1 nanoTeslas (nT) in an overall field strength of 48,000 (nT), can be accurately detected.

Weakly magnetic iron minerals are always present within the soil and areas of enhancement relate to increases in *magnetic susceptibility* and permanently magnetised *thermoremanent* material.

Magnetic susceptibility relates to the induced magnetism of a material when in the presence of a magnetic field. This magnetism can be considered as effectively permanent as it exists within the Earth's magnetic field. Magnetic susceptibility can become enhanced due to burning and complex biological or fermentation processes.

Thermoremanence is a permanent magnetism acquired by iron minerals that, after heating to a specific temperature known as the Curie Point, are effectively demagnetised followed by re-magnetisation by the Earth's magnetic field on cooling. Thermoremanent archaeological features can include hearths and kilns; material such as brick and tile may be magnetised through the same process.

Silting and deliberate infilling of ditches and pits with magnetically enhanced soil creates a relative contrast against the much lower levels of magnetism within the subsoil into which the feature is cut. Systematic mapping of magnetic anomalies will produce linear and discrete areas of enhancement allowing assessment and characterisation of subsurface features. Material such as subsoil and non-magnetic bedrock used to create former earthworks and walls may be mapped as areas of lower enhancement compared to surrounding soils.

Magnetic survey is carried out using a fluxgate gradiometer which is a passive instrument consisting of two sensors mounted vertically 1m apart. The instrument is carried about 30cm above the ground surface and the top sensor measures the Earth's magnetic field whilst the lower sensor measures the same field but is also more affected by any localised buried feature. The difference between the two sensors will relate to the strength of a magnetic field created by this feature, if no field is present the difference will be close to zero as the magnetic field measured by both sensors will be the same.

Factors affecting the magnetic survey may include soil type, local geology, previous human activity and disturbance from modern services.

Appendix C - OASIS Summary

OASIS ID (UID)	sumogeop1-534395
Project Name	Gate Farm, Sutton Benger
Sitename	Gate Farm, Sutton Benger
Sitecode	SUMO-23042
Project Identifier(s)	SUMO-23042
Activity type	Geophysical Survey, MAGNETOMETRY SURVEY
Planning Id	
Reason For Investigation	Planning requirement
Organisation Responsible for work	SUMO Geophysics Ltd.
Project Dates	04-Aug-2025 - 04-Aug-2025
Location	Gate Farm, Sutton Benger NGR: ST 93994 78520 LL: 51.505579362055784, -2.087922457102896 12 Fig: 393994,178520
Administrative Areas	Country: England County/Local Authority: Wiltshire Local Authority District: Wiltshire Parish: Sutton Benger
Project Methodology	Data was collected using a cart carrying four paired Bartington magnetic sensors. Four sensors mounted 1m horizontally apart and very accurately aligned to nullify the effects of the earth's magnetic field. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background. Each data point is geographically referenced using an on-board Trimble RTK survey grade GPS system. Readings were taken at 0.125m centres along traverses 1.0m apart. Readings relate to the difference in localised magnetic anomalies compared with the general magnetic background.
Project Results	The magnetometer survey has not recorded any magnetic responses that could be interpreted as being of definite archaeological interest, except for ridge and furrow cultivation which is visible in Area 1. Numerous responses of uncertain origin have been marked which are likely to be due to a combination of natural and agricultural processes or buried ferrous objects. The routes of land drains and service pipes have also been marked. Amorphous bands of increased responses in Area 1 are due to variations in the underlying geology or alluvial deposits. Strong ferrous anomalies in Area 1 have been caused by a pylon and other modern features.

Keywords	Ridge And Furrow - MEDIEVAL - FISH Thesaurus of Monument Types Drain - 20TH CENTURY - FISH Thesaurus of Monument Types Pipeline - 20TH CENTURY - FISH Thesaurus of Monument Types
Funder	Private or public corporation tor&co
HER	Wiltshire and Swindon HER - unRev - STANDARD
Person Responsible for work	Thomas Cockcroft
HER Identifiers	
Archives	

Report generated on: 15-08-2025:1239

Appendix D – Data Management Plan & Archive Selection Strategy

Data Management Plan

Project ID / OASIS ID

SUMO-23042 / sumogeop1-534395

Project Name

Gate Farm, Sutton Benger

Project Description

Detailed magnetic survey over approx. 6ha

Client

Tor & Co on behalf of Gleeson Land Ltd

Project Manager

Thomas Cockcroft

Field Leader

Robert Knight

Date DMP created

04.08.2025

Date DMP last updated

15.08.2025

Version

2

Technique - data

Detailed magnetic survey.

Manual – cart - other

ATV/Cart mounted magnetometers

Documentation and metadata

All documentation and data produced are stored on SUMO servers in a specific job file.

Data storage, access and back-up

- SUMO Secure server during the project life set up in a RAID configuration (a RAID configuration incorporates a level of data redundancy meaning if a single hard drive in fails data can still be restored).

- Snap shots of the data will be made at several intervals during the day to allow data to be restored for up to 30 days if changed / deleted.
- Once the final report has been completed data will be moved onto NAS drive set up in a RAID configuration.
- All data is backed up to an off-site location (Cloud storage).

Archive Selection Strategy

Digital Data

Selection

It is proposed that only the final version of all born digital documents (reports, images and CAD files) will be selected for inclusion in the Preserved Archive. All raw and processed survey data will be included in the preserved archive. Below is what will constitute the selected archive:

- Raw data in XYZ format .csv and .png plus .pgw world file
- Processed data as .png plus .pgw world file
- Final survey report .pdf
- CAD and Vector graphics (interpretations) in .dwg format

De-selected digital data

The de-selected material will be retained on the SUMO Secure server and Cloud storage.

Documents

Not applicable – no archive

Materials

Not applicable – no archive



- Archaeological Geophysics
- Engineering Geophysics
- Measured Building Services
- Utility and Topographic Services
- Aerial Surveys
- Rail Surveys

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