

CAMBRIDGE GATEWAY, BOXWORTH, CAMBRIDGESHIRE

Archaeological Desk-Based Assessment

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Boxworth, Cambridgeshire
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Quality Management

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EXECUTIVE SUMMARY

The site at Cambridge Gateway, Boxworth, Cambridgeshire has been reviewed for its archaeological potential.

Due to the extensive distance and lack of intervisibility between the study site and the Scheduled Monuments of Overhall Moated Site and Castle Hill Earthworks, and the absence of known historical associations between them, it is considered that the proposed development does not lie within the setting of either asset, and that the proposed development will not impact on the significance of these designated heritage assets.

In terms of other relevant designated archaeological assets, no World Heritage Sites, Historic Battlefields, or Historic Wreck Sites, lie within the immediate proximity of the site.

The study site is not located in an area of designated archaeological priority.

The study site is considered likely to have a moderate to high potential for below-ground remains associated with the Bronze Age period, and a moderate potential for below-ground remains associated with the Iron Age and Roman periods. There is a low archaeological potential for all remaining periods.

Any poorly surviving upstanding agricultural earthworks dating to the Medieval or Post-Medieval periods within the study site would be considered of limited archaeological interest.

The proposed development comprises the clearance of the existing construction compound followed by the construction of multiple commercial units with associated landscaping, access, and car parking.

Agricultural activity from the Medieval period onwards is considered likely to have had a moderate, but widespread, negative impact on below-ground archaeological deposits.

The instillation of the construction compound in the northeast corner of the study site is considered likely to have had a severe, localised, negative impact on below ground archaeological deposits.

Several existing hedgerows located within the study site have been identified as potential historic hedgerows of local significance. If the masterplan is unable to retain these features, then mitigation to off-set the loss of the hedgerows could be required.

Due to the archaeological potential of the study site, the archaeological advisor to South Cambridgeshire District Council is anticipated to require further archaeological mitigation measures prior to development. In the first instance, such mitigation is likely to consist of a programme of geophysical survey, supported by evaluation trial trenching, located in areas not subject to previous development.

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1 INTRODUCTION AND SCOPE OF STUDY

- 1.1 This archaeological desk-based assessment has been prepared by Chris Clarke of RPS on behalf of Newlands Developments.
- 1.2 The subject of this Assessment comprises land associated with Cambridge Gateway, Boxworth, Cambridgeshire (hereafter, 'the study site'). The study site is centred at TL 3496 6561 within the District of South Cambridgeshire (see Figs. 1-2), and is formed of four distinct field parcels (Eastern Parcel, Central Eastern Parcel, Central Western Parcel, and Western Parcel) while the northeast corner of the study site is occupied by a modern construction compound. The study site is bounded by the A14 road junction to the northeast, construction compound to the southeast, and agricultural land to the northwest and southwest. Overall the site measures approximately 85ha in size.
- 1.3 The closest Scheduled Monuments to the study site comprise Overhall Moated Site approximately 2km to the south of the study site, and Castle Hill Earthworks approximately 3km to the north of the study site.
- 1.4 In terms of other designated archaeological assets, no World Heritage Sites, Historic Battlefields or Historic Wreck Sites lie within the vicinity of the study site. The site does not lie within an area of designated archaeological priority.
- 1.5 Newlands Developments have commissioned RPS to establish the archaeological potential of the study site, and to provide guidance on ways to accommodate any archaeological constraints identified.
- 1.6 An assessment of potential development impacts to Built Heritage assets in proximity to the study site is the subject of a separate report.
- 1.7 In accordance with relevant policy and guidance on archaeology and planning, and in accordance with the 'Standard and Guidance for Historic Environment Desk-Based Assessments' (Chartered Institute for Archaeologists October 2020), this assessment draws together the available archaeological, topographic and land-use information in order to clarify the archaeological potential of the study site.
- 1.8 This desk-based assessment comprises an examination of evidence deriving from multiple sources, including the Cambridgeshire Historic Environment Record. The report also includes the results of a map regression exercise, and site walkover undertaken in April 2021. Due to the current restrictions in place in relation to COVID-19 an archives visit was not possible, although a robust search of online sources was undertaken.
- 1.9 The Assessment thus enables relevant parties to assess the heritage potential of various parts of the study site and to consider the need for design, civil engineering, and archaeological solutions to the archaeological potential identified.

2 PLANNING BACKGROUND AND DEVELOPMENT PLAN FRAMEWORK

- 2.1 National legislation regarding archaeology, including scheduled monuments, is contained in the Ancient Monuments and Archaeological Areas Act 1979, amended by the National Heritage Act 1983 and 2002, and updated in April 2014.
- 2.2 In March 2012, the government published the National Planning Policy Framework (NPPF), and it was last updated in July 2019. The NPPF is supported by the National Planning Practice Guidance (NPPG), which was published online 6th March 2014, with the guidance on Conserving and Enhancing the Historic Environment last updated October 2019.
(<https://www.gov.uk/guidance/conserving-and-enhancing-the-historic-environment>).
- 2.3 The NPPF and NPPG are additionally supported by three Good Practice Advice (GPA) documents published by Historic England: GPA 1: The Historic Environment in Local Plans; GPA 2: Managing Significance in Decision-Taking in the Historic Environment (both published March 2015). The second edition of GPA3: The Setting of Heritage Assets was published in December 2017.

National Planning Policy

- 2.4 Section 16 of the NPPF, entitled Conserving and enhancing the historic environment provides guidance for planning authorities, property owners, developers and others on the conservation and investigation of heritage assets. Overall, the objectives of Section 16 of the NPPF can be summarised as seeking the:
- Delivery of sustainable development;
 - Understanding the wider social, cultural, economic and environmental benefits brought by the conservation of the historic environment;
 - Conservation of England's heritage assets in a manner appropriate to their significance; and
 - Recognition that heritage makes to our knowledge and understanding of the past.
- 2.5 Section 16 of the NPPF recognises that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. Paragraph 189 states that planning decisions should be based on the significance of the heritage asset and that level of detail supplied by an applicant should be proportionate to the importance of the asset and should be no more than sufficient to review the potential impact of the proposal upon the significance of that asset.
- 2.6 *Heritage Assets* are defined in Annex 2 of the NPPF as: a building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. They include designated heritage assets (as defined in the NPPF) and assets identified by the local planning authority during the process of decision-making or through the plan-making process.
- 2.7 Annex 2 also defines *Archaeological Interest* as a heritage asset which holds or potentially could hold evidence of past human activity worthy of expert investigation at some point.
- 2.8 A *Nationally Important Designated Heritage Asset* comprises a: World Heritage Site, Scheduled Monument, Listed Building, Protected Wreck Site, Registered Park and Garden, Registered Battlefield or Conservation Area.
- 2.9 *Significance* is defined as: The value of a heritage asset to this and future generations because of its heritage interest. This interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting.

- 2.10 *Setting* is defined as: The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral.
- 2.11 In short, government policy provides a framework which:
- Protects nationally important designated Heritage Assets;
 - Protects the settings of such designations;
 - In appropriate circumstances seeks adequate information (from desk based assessment and field evaluation where necessary) to enable informed decisions;
 - Provides for the excavation and investigation of sites not significant enough to merit *in-situ* preservation.
- 2.12 The NPPG reiterates that the conservation of heritage assets in a manner appropriate to their significance is a core planning principle, requiring a flexible and thoughtful approach. Furthermore, it highlights that neglect and decay of heritage assets is best addressed through ensuring they remain in active use that is consistent with their conservation. Importantly, the guidance states that if complete, or partial loss of a heritage asset is justified, the aim should then be to capture and record the evidence of the asset's significance and make the interpretation publicly available. Key elements of the guidance relate to assessing harm. An important consideration should be whether the proposed works adversely affect a key element of the heritage asset's special architectural or historic interest. Additionally, it is the degree of harm, rather than the scale of development, that is to be assessed. The level of 'substantial harm' is considered to be a high bar that may not arise in many cases. Essentially, whether a proposal causes substantial harm will be a judgment for the decision taker, having regard to the circumstances of the case and the NPPF. Importantly, harm may arise from works to the asset or from development within its setting. Setting is defined as the surroundings in which an asset is experienced and may be more extensive than the curtilage. A thorough assessment of the impact of proposals upon setting needs to take into account, and be proportionate to, the significance of the heritage asset and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it.
- 2.13 In considering any planning application for development, the planning authority will be mindful of the framework set by government policy, in this instance the NPPF, by current Development Plan Policy and by other material considerations.

Local Planning Policy

- 2.14 The relevant Development Plan framework is provided by the South Cambridgeshire Local Plan adopted in September 2018. It contains the following policy relating to heritage assets:

POLICY NH/14: HERITAGE ASSETS

1. DEVELOPMENT PROPOSALS WILL BE SUPPORTED WHEN:

A. THEY SUSTAIN AND ENHANCE THE SPECIAL CHARACTER AND DISTINCTIVENESS OF THE DISTRICT'S HISTORIC ENVIRONMENT INCLUDING ITS VILLAGES AND COUNTRYSIDE AND ITS BUILDING TRADITIONS AND DETAILS;

B. THEY CREATE NEW HIGH QUALITY ENVIRONMENTS WITH A STRONG SENSE OF PLACE BY RESPONDING TO LOCAL HERITAGE CHARACTER INCLUDING IN INNOVATORY WAYS.

2. DEVELOPMENT PROPOSALS WILL BE SUPPORTED WHEN THEY SUSTAIN AND ENHANCE THE SIGNIFICANCE OF HERITAGE ASSETS, INCLUDING THEIR SETTINGS, PARTICULARLY:

C. DESIGNATED HERITAGE ASSETS, I.E. LISTED BUILDINGS, CONSERVATION AREAS, SCHEDULED MONUMENTS, REGISTERED PARKS AND GARDENS;

D. UNDESIGNATED HERITAGE ASSETS WHICH ARE IDENTIFIED IN CONSERVATION AREA APPRAISALS, THROUGH THE DEVELOPMENT PROCESS AND THROUGH FURTHER SUPPLEMENTARY PLANNING DOCUMENTS;

E. THE WIDER HISTORIC LANDSCAPE OF SOUTH CAMBRIDGESHIRE INCLUDING LANDSCAPE AND SETTLEMENT PATTERNS;

F. DESIGNED AND OTHER LANDSCAPES INCLUDING HISTORIC PARKS AND GARDENS, CHURCHYARDS, VILLAGE GREENS AND PUBLIC PARKS;

G. HISTORIC PLACES;

H. ARCHAEOLOGICAL REMAINS OF ALL PERIODS FROM THE EARLIEST HUMAN HABITATION TO MODERN TIMES.

- 2.15 The closest Scheduled Monuments to the study site comprise Overhall Moated Site (1006890, TL 33673 631520) approximately 2km to the south of the study site, and Castle Hill Earthworks (1006913, TL 35910 68893) approximately 3km to the north of the study site.
- 2.16 In terms of relevant designated archaeological assets, as defined above and as shown on Figure 2a, no nationally designated World Heritage sites, Historic Battlefield sites or Historic Wreck sites lie within the vicinity of the study site. The site does not lie in a designated area of archaeological priority.
- 2.17 In line with relevant planning policy and guidance, this desk-based assessment seeks to clarify the site's archaeological potential and the likely significance of that potential and the need or otherwise for additional mitigation measures.

3 GEOLOGY AND TOPOGRAPHY

Geology

- 3.1 The solid geology of the study site is shown by the British Geological Society (BGS 2021) as West Walton Formation and Ampthill Clay Formation – Mudstone. No superficial deposits are recorded.
- 3.2 Historic borehole data held by the British Geological Society for geotechnical investigations undertaken within the study site recorded the presence of a horizon of topsoil between 0.3m and 0.6m thick, overlying undisturbed clay deposits (BGS 2021).

Topography

- 3.3 The study site is located on the northeast facing slope of a low ridge of high ground crowning at approximately 40m Above Ordnance Datum (AOD) which extends northwest from the village of Boxworth. The gradient within the study site descends gently to the northeast from approximately 30m AOD adjacent to the southwest study site boundary, to approximately 15m AOD adjacent to the northeast study site boundary.
- 3.4 Several un-named drains are located approximately 750m to the southeast of the study site, while the course of the River Great Ouse is located c4km to the north of the study site.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND WITH ASSESSMENT OF SIGNIFICANCE

Timescales used in this report

Prehistoric

Palaeolithic	900,000 -	12,000 BC
Mesolithic	12,000 -	4,000 BC
Neolithic	4,000 -	1,800 BC
Bronze Age	1,800 -	600 BC
Iron Age	600 -	AD 43

Historic

Roman	AD 43 -	410
Saxon/Early Medieval	AD 410 -	1066
Medieval	AD 1066 -	1485
Post Medieval	AD 1486 -	1799
Modern	AD 1800 -	Present

Introduction

- 4.1 This chapter reviews the available archaeological evidence for the study site and the archaeological/historical background of the general area, and, in accordance with NPPF, considers the potential for any as yet to be discovered archaeological evidence on the study site.
- 4.2 What follows comprises a review of known heritage assets within a 1km radius of the study site (Figs. 2a & 2b), also referred to as the study area, held on the Cambridgeshire Historic Environment Record (HER), together with a historic map regression exercise charting the development of the study area from the nineteenth century onwards until the present day.
- 4.3 The closest Scheduled Monuments to the study site comprising of Overhall Moated Site (1006890, TL 33673 631520) approximately 2km to the south of the study site, and Castle Hill Earthworks (1006913, TL 35910 68893) approximately 3km to the north of the study site.
- 4.4 In terms of designated archaeological assets, as defined above and as shown on Figure 2a, no designated World Heritage sites, Historic Wrecks or Historic Battlefields lie within the study area. The study site does not lie within an area of designated archaeological priority.
- 4.5 A review of the HER data located within the study area indicates that a scatter of activity associated with the Later Prehistoric and Roman periods has been recorded throughout the study area, while a concentration of archaeological remains have been recorded at Boxworth in the southern part of the study area.
- 4.6 A number of previous programmes of archaeological evaluation have taken place in close proximity to the study site, or partially within the redline boundary. The results of such investigations have included the identification of a small number of ditches/gullies and finds associated with the Bronze Age and Roman periods.

- 4.7 The map regression exercise and a review of documentary evidence and secondary sources demonstrates that, with the exception of the construction compound in the northeast part of the study site, the study site has remained as agricultural land up to the present.
- 4.8 Chapter 5 subsequently considers the site conditions and whether the proposed development will impact the theoretical archaeological potential identified below.

Previous Archaeological Work

- 4.9 A number of previous archaeological investigations have taken place within the study site and immediately adjacent to it.
- 4.10 In 2004, in advanced of the construction of a proposed windfarm, a programme of archaeological trial trenching was undertaken partially within the study site, and partially to the south and west of the study site (Fig. 3). Two trenches were excavated within the southern part of the study site (Trench 9 and Sub-Station Trench). The Sub-Station Trench recovered eight worked flints dating from the Bronze Age, as well as a deposit of 19th century bricks. No finds or features of archaeological interest were found in Trench 9. Three trenches (Trenches 7, 8 & 10) were excavated a short distance beyond the study site boundary. Two east-west aligned ditches containing Bronze Age pottery were recorded in Trench 7, while Trenches 8 and 10 were negative of archaeological remains (Cambrian Archaeological Projects 2004; ECB1615, TL 34324 66070).
- 4.11 As part of the A14 improvement scheme and extensive programme of trial trenching was undertaken along the course of the proposed road improvements in 2014. within the immediate vicinity of the site, 68 trenches (Parcel 1068) were excavated immediately to the north of the study site (Fig. 4). The findings of the trenching results from Parcel 1068 were limited to the identification of several tree-throws and a modern ditch (Wessex Archaeology 2014; ECB4267, TL 2718 6833).
- 4.12 A second phase of evaluation associated with the A14 improvement programme was undertaken in 2016. This initially took the form of a geophysical survey (Stratascan 2016; ECB5514, TL 2962 6795) followed by trial trenching (COPA 2016; ECB4732, TL 2895 6912). As part of this additional phase of work 12 trial trenches were excavated in the northeast corner of the study site (Fig. 5). The only archaeological features encountered in this area were several Post-Medieval or Modern ditches.
- 4.13 Further extensive trial trenching was undertaken approximately 200m to the south of the study site in Autumn/Winter 2016. Several shallow gullies were encountered within these trial trenches, two of which contained material attributed to the Roman period (MOLA Headland 2016; ECB4800, TL 2961 6795).

Prehistoric (Palaeolithic – Bronze Age)

- 4.14 The earliest evidence for human activity recorded within the study area derives from a series of small-scale archaeological investigations within the village of Boxworth c. 800m to the south of the study site, where a number of residual artefacts dating to between the Mesolithic and Bronze Age period were recovered (CB15635, TL 3497 6446).
- 4.15 A programme of trial trenching undertaken within the study site in 2004 (see paragraph 4.10) identified a subsoil deposit containing eight worked flints dating to the Bronze Age (MCB15934, TL 34679 65282), while a second trench c. 50m to the northwest of the study site boundary recorded two ditches of the same period (MCB15933, TL 34015 65993).
- 4.16 Surface finds comprising a flint arrowhead (CB14743, TL 33697 65615) and flint blade (CB14744, TL 33711 66542), dated generally to the Prehistoric period, have been found c. 600m to the west, and c. 850m to the northwest of the study site, respectively.

- 4.17 With the exception of the Bronze Age ditches and worked flints found during investigations in 2004, the numerous archaeological investigations undertaken, both within and exterior to the study site (see paragraphs 4.9 – 4.13), have not recorded any further archaeological remains dating to the Palaeolithic and Bronze Age periods.
- 4.18 Based on a review of previous archaeological interventions in the immediate area, there is considered to be a moderate to high potential for archaeological remains dating to the Bronze Age within the study site. Such remains are likely to represent low-scale peripheral occupation activity associated with this period focused in the southern part of the study site.

Iron Age & Roman

- 4.19 Investigations undertaken in 2017 approximately 100m to the north of the study site associated with widening of the A14 found an enclosure dating to the Middle Iron Age period which contained two pits and a contemporary ditch extending to the south (MCB18447, TL 3481 6631).
- 4.20 Aerial photographic analysis has identified a series of cropmarks c. 450m to the west of the study site that may represent several rectilinear enclosures possibly dating to the Iron Age or Roman period (MCB23137, TL 3364 6603). An isolated cropmark related to a single rectangular enclosure, potentially contemporary to those enclosures identified further to the west, is recorded as being located c. 200m to the south of the study site (MCB23136, TL 3445 6505).
- 4.21 Further evidence relating to probable Iron Age and Roman activity was recorded during the archaeological investigations undertaken at Boxworth, approximately 800m to the south of the study site, where features of this date included several ditches and possible field system (CB15635, TL 3497 6446), a possible Roman pottery kiln (MCB18143, TL 35022 64537) and an enclosure containing evidence of contemporary occupation evidence (MCB17880, TL 3504 6445).
- 4.22 The Roman road linking the Roman settlements at Godmanchester and Cambridge is believed to follow the current alignment of the existing A14 approximately 100m to the northeast of the study site. The presence of this Roman road alignment is supported by the presence of an extensive spread of cropmarks c. 1km to the northwest of the study site indicative of a concentration of Roman occupation activity (09666, TL 338 673).
- 4.23 Trial trenching undertaken approximately 200m to the south of the study site recorded several shallow gullies, two of which contained material attributed to the Roman period (MOLA Headland 2016; ECB4800, TL 2961 6795). The HER records the recovery of a Roman coin in a similar location in the mid-19th century (MCB28645, TL 3500 6500).
- 4.24 Due to the known presence of several possible Iron Age or Roman enclosures recorded on the HER within the vicinity of the study site, plus the identification of features dating to the Roman period to the south of the study site, there is considered to be a moderate potential for features dating to these periods within the study site. Such remains are likely to represent evidence for rural agricultural activity.

Anglo-Saxon & Medieval

- 4.25 Evidence for Anglo-Saxon activity within the study area is limited, with the only archaeological activity associated with the period recorded on the HER relates to excavated features at Boxworth, c.800m to the south of the study site, that may related to field systems established during the Roman period, in use until the Early Anglo-Saxon period (CB15635, TL 3497 6446).
- 4.26 The settlement at Boxworth is recorded in the Domesday Survey of 1086 as containing 27 households and listed under five different Lords (Open Domesday 2021).
- 4.27 The Overhall Moated Site (1006890, TL 33673 631520) Scheduled Monument and Castle Hill Earthworks (1006913, TL 35910 68893) Scheduled Monument are located approximately 2km to

the south of the study site, and approximately 3km to the north of the study site, respectively. Both designated heritage assets are Medieval in date. Due to the extensive distance between these assets and the study site, and the presence of intervening vegetation and other obstacles, there is no intervisibility between either asset and the site, nor are there any known historical associations between either asset and the site.

- 4.28 Records relating to Medieval activity held by the HER within the study area are primarily associated with the settlement at Boxworth, strongly indicating a continuity of activity from the Anglo-Saxon into the Medieval period. Within the modern village there is evidence for a possible Medieval moat, as well as contemporary settlement features (03528, TL 348 644; 10826, TL 3497 6452; MCB23144, TL 3497 6462). Saint Peter's Church, located on the south side of the village, is presumed to have originated in the 12th century (00247, TL 3481 6448), close to which there is evidence for a second moated enclosure (03528, TL 348 644; TL 3486 6417). Evidence for Medieval agricultural activity in the form of field boundaries and ridge and furrow earthworks are recorded immediately outside of the village (12029, TL 347 646; MCB19346, TL 3521 6475; MCB25512, TL 3508 6438; MCB25515, TL 3551 6424).
- 4.29 Within the study site, previous landscape analysis has identified low earthworks in the form of several furlong boundaries (MCB27322, TL 3373 6491) and banks, primarily orientated northwest-southeast, which could be Medieval in date, or later. Those features recorded in the northeast part of the study site would have been removed by subsequent development.
- 4.30 Possible Medieval, or later, field boundaries have been identified c. 100m to the southeast of the study site (MCB23127, TL 3549 6531), and c. 700m to the west of the study site (MCB28685, TL 3375 6581).
- 4.31 Evidence for former ridge and furrow earthworks has been recorded on the northern side of the A14, approximately 400m to the north and northeast of the study site (MCB20972, TL 3454 6674; MCB20971, TL 3530 6632).
- 4.32 No evidence for Anglo-Saxon or Late Medieval activity has been identified during recent archaeological investigations both within and exterior to the study site (see paragraphs 4.9 – 4.13).
- 4.33 It is likely that during the Anglo-Saxon and Late Medieval periods the study site was located in the agricultural hinterland of the nearby settlement at Boxworth, on which basis the potential for activity associated with this period to be present within the study site is considered to be low. The presence of Late Medieval field boundaries of limited significance within the site cannot be precluded.

Post Medieval & Modern (including map regression exercise)

- 4.34 During the majority of the Post-Medieval period the study site is likely to have remained within the agricultural hinterland of nearby settlements.
- 4.35 The 1841 Boxworth Tithe Map (Fig. 6) provides one of the earliest detailed depictions of the study site, with the study site comprises elements of five different field plots. The large central field parcels form the majority of the study site, while three smaller parcels are present in the northeast corner of the study site. The associate Apportionment records the field parcels as in use as arable or grass land, with the exception of Plot 17 which is recorded as woodland.
- 4.36 The 1886-87 Ordnance Survey map (Fig. 7) depicts the study site as having been subdivided into multiple regular agricultural field parcels by the late 19th century, part of which is recorded on the HER (MCB28638, TL 3493 6562). The layout of the three smaller field parcels shown in the northeast corner of the study site on the earlier Tithe Map (Fig. 6) has now been obscured. A *Brick Works* is shown immediately to the south of the study site (MCB25510, TL 3479 6529). The layout of the study site remains unaltered up to 1952 (Figs. 8-11).

- 4.37 By 1983 (Fig. 12) the majority of the northwest-southeast orientated field boundaries have been removed in order to create several larger field parcels. The layout of the study site remains unaltered in 1999 (Fig. 13).
- 4.38 By 2020 (Fig. 14) a construction compound has been built in the northeast corner of the study site.
- 4.39 The potential for below-ground remains of significance associated with the Post-Medieval and Modern periods within the study site is considered to be low.

Historic Landscape Characterisation

- 4.40 Based on the historic map regression above, the current layout of field boundaries within the study site can be characterised as part of a modern enlarged field pattern.

Historic Hedgerows

- 4.41 A review of the Historic Hedgerow Regulations 1997 (amended 2003-4) in regards to Part II criteria 'Archaeology and history', indicates that the test of 'importance' for existing hedges is likely to apply to the northwest study site boundary, the southeast study site boundary, and the northeast-southwest orientated boundary separating the central eastern and central western fields. This is based on the presence of these boundaries on the mid-19th century mapping (see paragraph 4.35), and observations made during the site visit.

LiDAR Data

- 4.42 A review of the available LiDAR data for the study site (Fig. 15) demonstrates that many of the landscape features mapped on the HER are still evident as low earthworks (Fig. 2b). There also appears to be low positive feature aligned north-south in the western part of the study site, although may be natural in origin.

Assessment of Significance (Designated Assets)

- 4.43 Existing national policy guidance for archaeology (the NPPF as referenced in section 2) enshrines the concept of the 'significance' of heritage assets. Significance as defined in the NPPF centres on the value of an archaeological or historic asset for its 'heritage interest' to this or future generations.
- 4.44 The Scheduled Monuments of Overhall Moated Site and Castle Hill Earthworks are considered of national importance due to their archaeological significance.
- 4.45 As identified by desk based work, archaeological potential by period and the likely significance of any archaeological remains which may be present is summarised in table form below:

Period:	Identified Archaeological Potential	Identified Archaeological Significance
Palaeolithic to Bronze Age	Moderate-High	Low (Local)
Iron Age & Roman	Moderate	Low (Local)
Anglo-Saxon & Medieval	Low	Low (Local)
Post Medieval & Modern	Low	Low (Local)

- 4.46 Any surviving agricultural earthworks within the study site dating to the Medieval or Post-Medieval periods of limited quality can be considered of local significance, at best.
- 4.47 Any historic hedgerows present can be considered of local significance.

5 SITE CONDITIONS, THE PROPOSED DEVELOPMENT & REVIEW OF POTENTIAL DEVELOPMENT IMPACTS ON ARCHAEOLOGICAL ASSETS

Site Conditions

- 5.1 The majority of the study site is currently arable fields, with all existing northeast-southwest orientated field boundaries incorporating varying lengths of hedgerows (Plates 1-4; Fig. 14), whilst a modern construction compound is located in the northeast corner of the study site. No features of archaeological interest were observed during the site visit.
- 5.2 Agricultural activity from the Medieval period onwards is likely to have had a moderate, but widespread, negative impact on below ground archaeological deposits.
- 5.3 The instillation of the construction compound in the northeast corner of the study site is likely to have had a severe, localised, negative impact on below ground archaeological deposits.

Proposed Development

- 5.4 The proposed development comprises the clearance of the existing construction compound followed by the construction of multiple commercial units with associated landscaping, access, and car parking.

Review of Potential Development Impacts on Archaeological Assets

- 5.5 Due to the extensive distance and lack of intervisibility between the study site and the Scheduled Monuments of Overhall Moated Site and Castle Hill Earthworks, and the absence of any known historical associations between either asset and the site, it is considered that the proposed development does not lie within the setting of either monument, and that it would not impact upon the significance of either of these designated heritage assets.
- 5.6 Within the study site there is considered to be a moderate to high potential for below-ground remains associated with the Bronze Age period, and a moderate potential for below-ground remains dating to the Iron Age and Roman periods. Such remains are likely to consist of low density peripheral occupation or agricultural activity of local significance. There is considered to be a low potential for all other periods.
- 5.7 There is potential for low quality surviving agricultural earthworks dating to the Medieval or Post-Medieval periods of local significance within the study site. Such above ground remains are likely to be removed by the proposed development.
- 5.8 The existing hedgerows located to the northwest study site boundary, the southeast study site boundary, and the northeast-southwest orientated boundary separating the central eastern and central western fields have been identified as potential historic hedgerows of local significance. If the masterplan is unable to retain these features, then mitigation to off-set the loss of the hedgerows could be required.
- 5.9 Due to the archaeological potential of the study site, the archaeological advisor to South Cambridgeshire District Council is anticipated to require further archaeological investigation measures prior to development. In the first instance, such investigation is likely to consist of a

programme of geophysical survey, supported by evaluation trial trenching, located in areas not subject to previous development.

6 SUMMARY AND CONCLUSIONS

- 6.1 The site at Cambridge Gateway, Boxworth, Cambridgeshire has been reviewed for its archaeological potential.
- 6.2 In accordance with central and local government planning policy and guidance, a desk based assessment has been undertaken to clarify the archaeological potential of the study area.
- 6.3 Due to the extensive distance and lack of intervisibility between the study site and the Scheduled Monuments of Overhall Moated Site and Castle Hill Earthworks, and the absence of known historical associations between them, it is considered that the proposed development does not lie within the setting of either asset, and that the proposed development will not impact on the significance of these designated heritage assets.
- 6.4 In terms of other relevant designated archaeological assets, no World Heritage Sites, Historic Battlefields, or Historic Wreck Sites, lie within the immediate proximity of the site.
- 6.5 The study site is not located in an area of designated archaeological priority.
- 6.6 The study site is considered likely to have a moderate to high potential for below-ground remains associated with the Bronze Age period, and a moderate potential for below-ground remains associated with the Iron Age and Roman periods. There is a low archaeological potential for all remaining periods.
- 6.7 Any poorly surviving upstanding agricultural earthworks dating to the Medieval or Post-Medieval periods within the study site would be considered of limited archaeological interest.
- 6.8 The proposed development comprises the clearance of the existing construction compound followed by the construction of multiple commercial units with associated with landscaping, access, and car parking.
- 6.9 Agricultural activity from the Medieval period onwards is considered likely to have had a moderate, but widespread, negative impact on below-ground archaeological deposits.
- 6.10 The instillation of the construction compound in the northeast corner of the study site is considered likely to have had a severe, localised, negative impact on below ground archaeological deposits.
- 6.11 The existing hedgerows located to the northwest study site boundary, the southeast study site boundary, and the northeast-southwest orientated boundary separating the central eastern and central western fields have been identified as potential historic hedgerows of local significance. If the masterplan is unable to retain these features, then mitigation to off-set the loss of the hedgerows could be required.
- 6.12 Due to the archaeological potential of the study site, the archaeological advisor to South Cambridgeshire District Council is anticipated to require further archaeological investigation measures prior to development. In the first instance, this is likely to consist of a programme of geophysical survey, supported by evaluation trial trenching, located in areas not subject to previous development.

Sources Consulted

General

Cambridgeshire Historic Environment Record

Internet

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

Domesday Online – <http://www.domesdaybook.co.uk/>

Historic England: The National Heritage List for England – <http://www.historicengland.org.uk/listing/the-list/>

Bibliographic

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Stratascan *Geophysical Survey Report. A14 Cambridge to Huntingdon* 2016

Wessex Archaeology *A14 Cambridgeshire to Huntingdon Improvement Scheme. Geophysical Survey and Archaeological Trial Trenching. Archaeological Evaluation Report Volume 1: Site Narrative* 2014

Cartographic

1841 Boxworth Tithe Map

1886-87 Ordnance Survey

1903 Ordnance Survey

1927 Ordnance Survey

1945 Aerial View

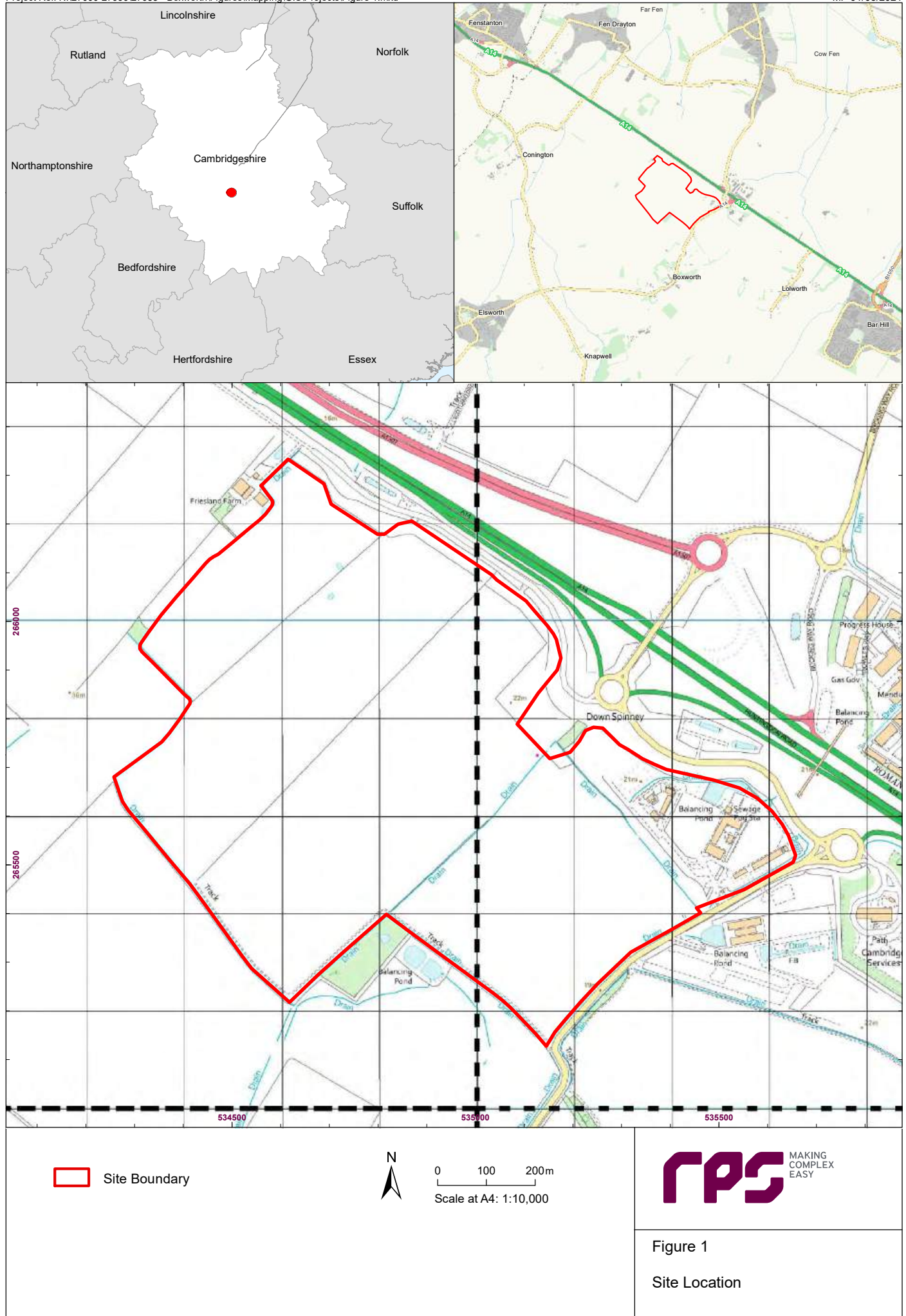
1951-52 Ordnance Survey

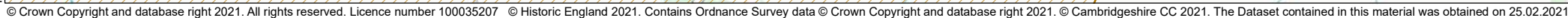
1982-83 Ordnance Survey

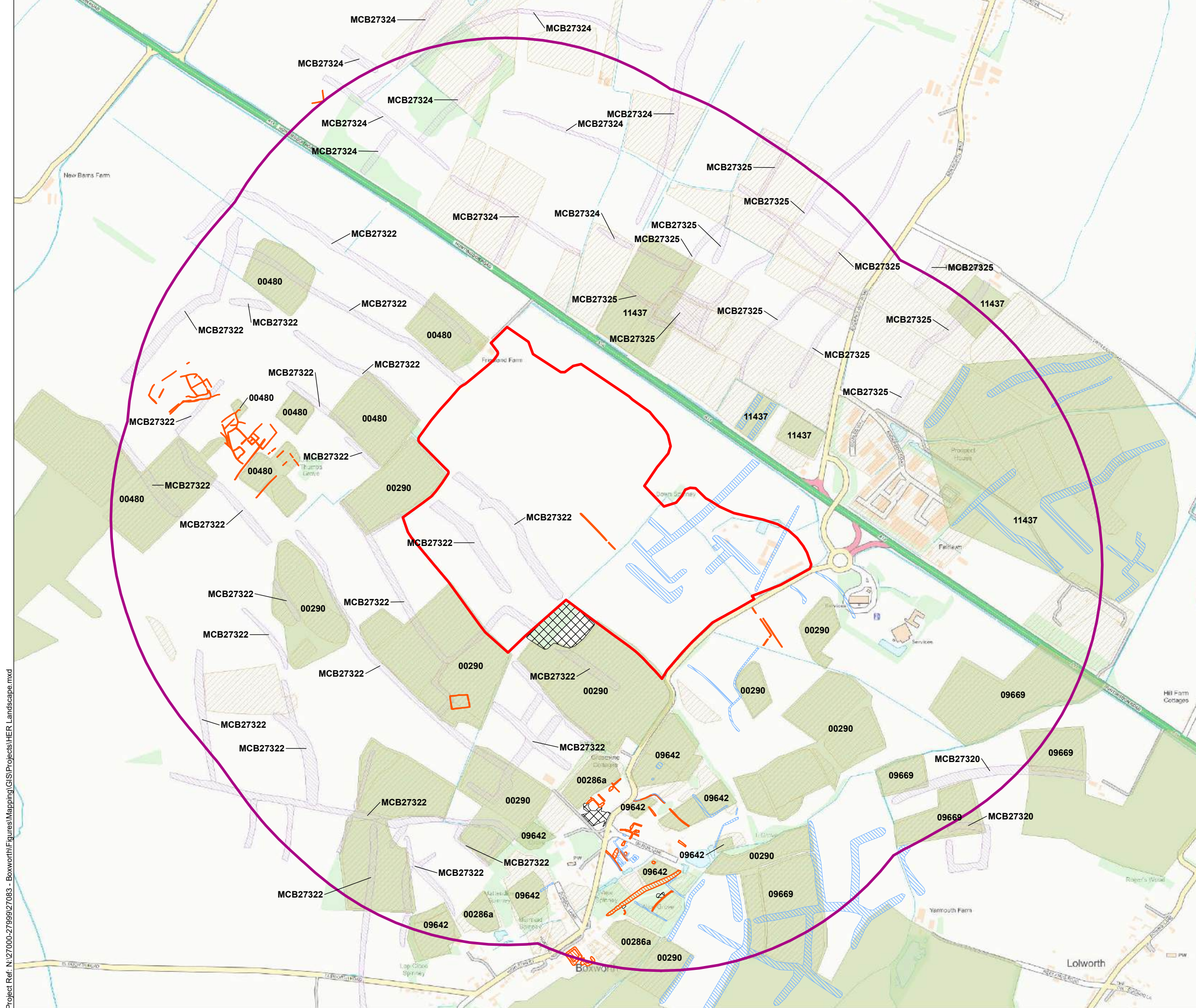
1999 Google Earth View

2020 Google Earth View

FIGURES







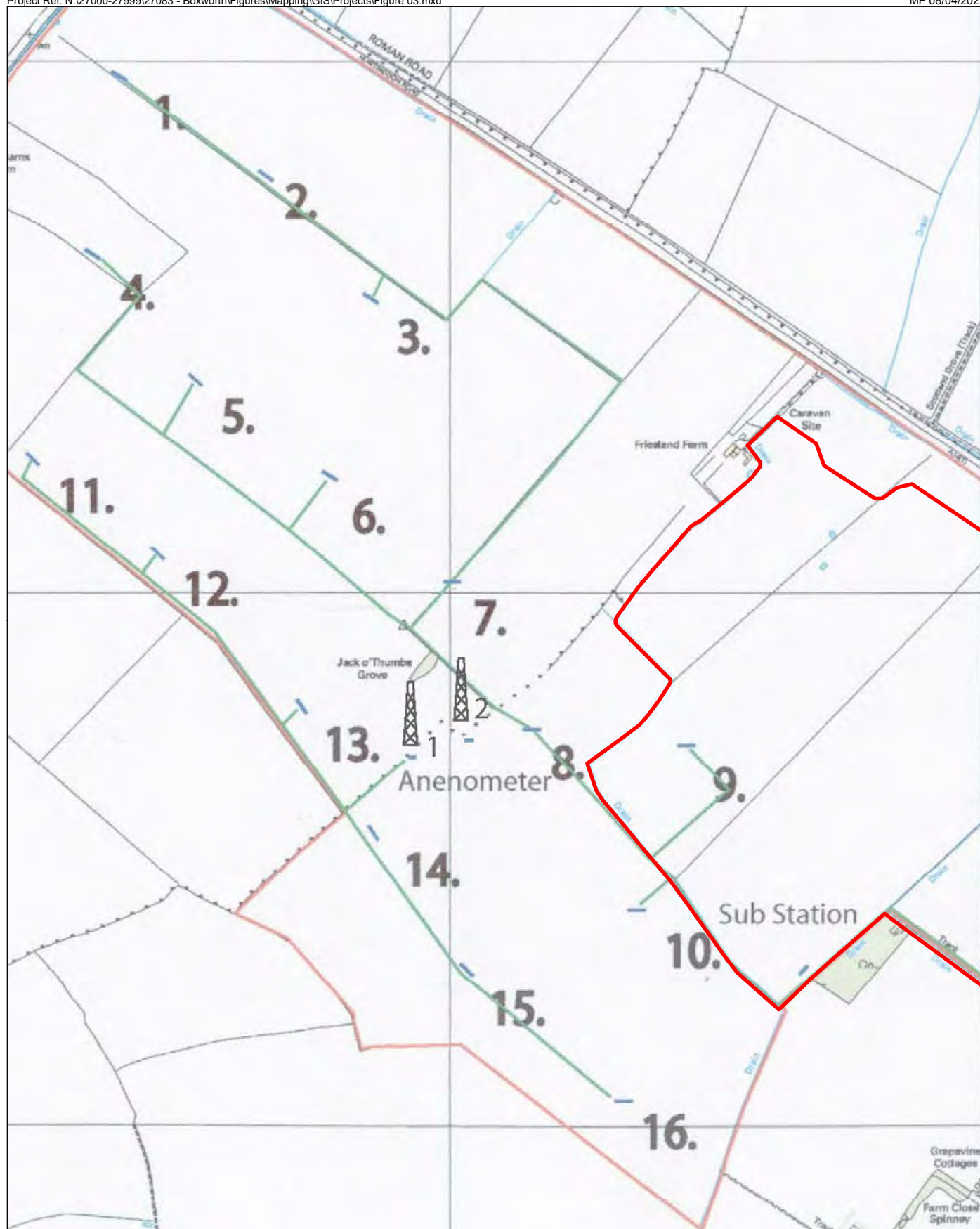
- Legend**
- Site Boundary
 - Search Radius 1km
 - Non-designated Heritage Assets:**
 - HER Record (Polygon)**
 - FURLONG BOUNDARY
 - RIDGE AND FURROW
 - Previous Archaeological Work:**
 - NAIS Survey**
 - Bank
 - Ditch
 - Extractive Feature
 - Ridge & Furrow

N
0 100 200m
Scale at A3: 1:12,500



Figure 2b
Summary of cultural heritage assets
- Landscape Features (Data from
the Cambridgeshire HER)

Project Ref: N:\27000-27999\27083 - Boxworth\Figures\Mapping\GIS\Projects\HER Landscape.mxd



 Site Boundary

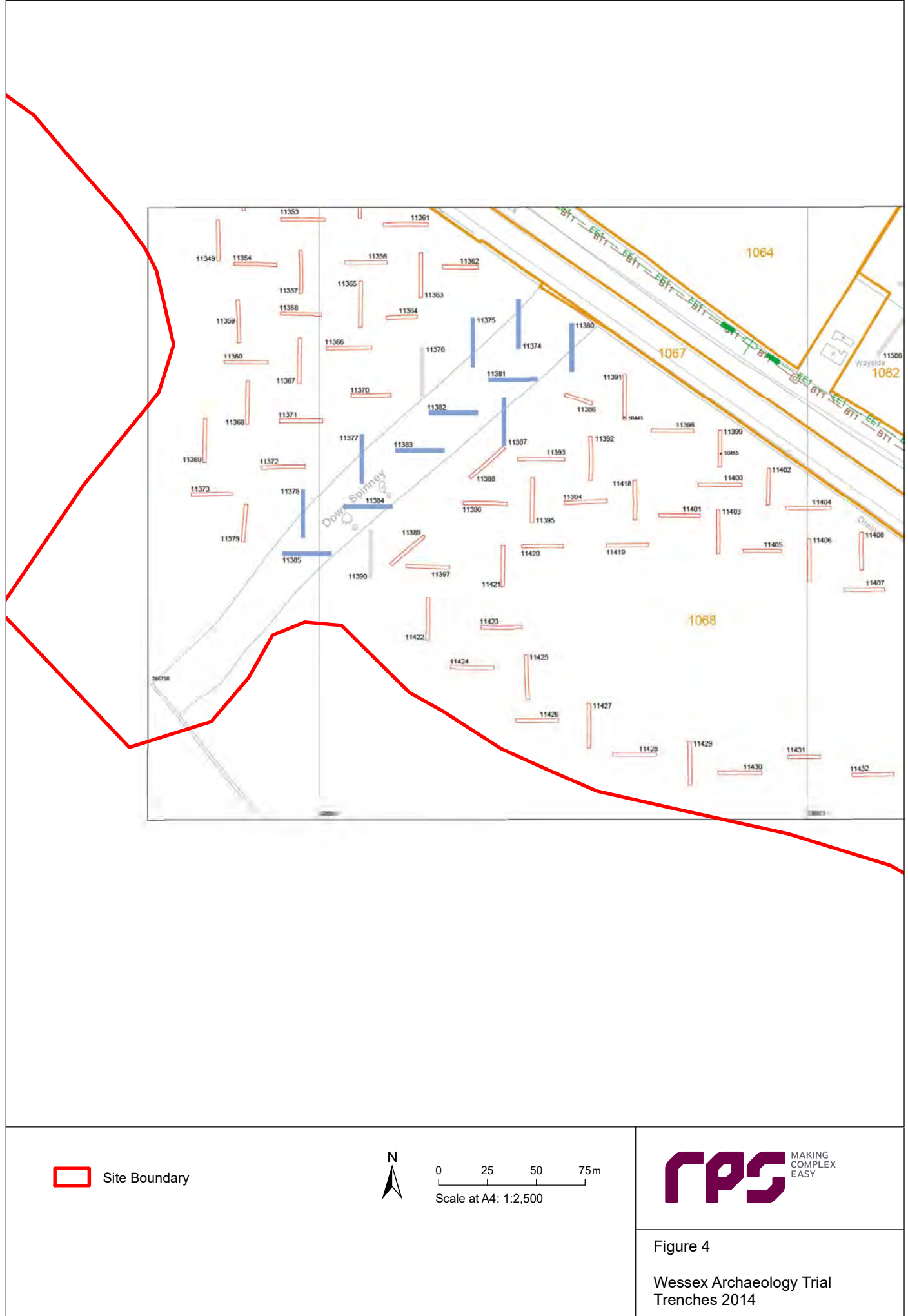


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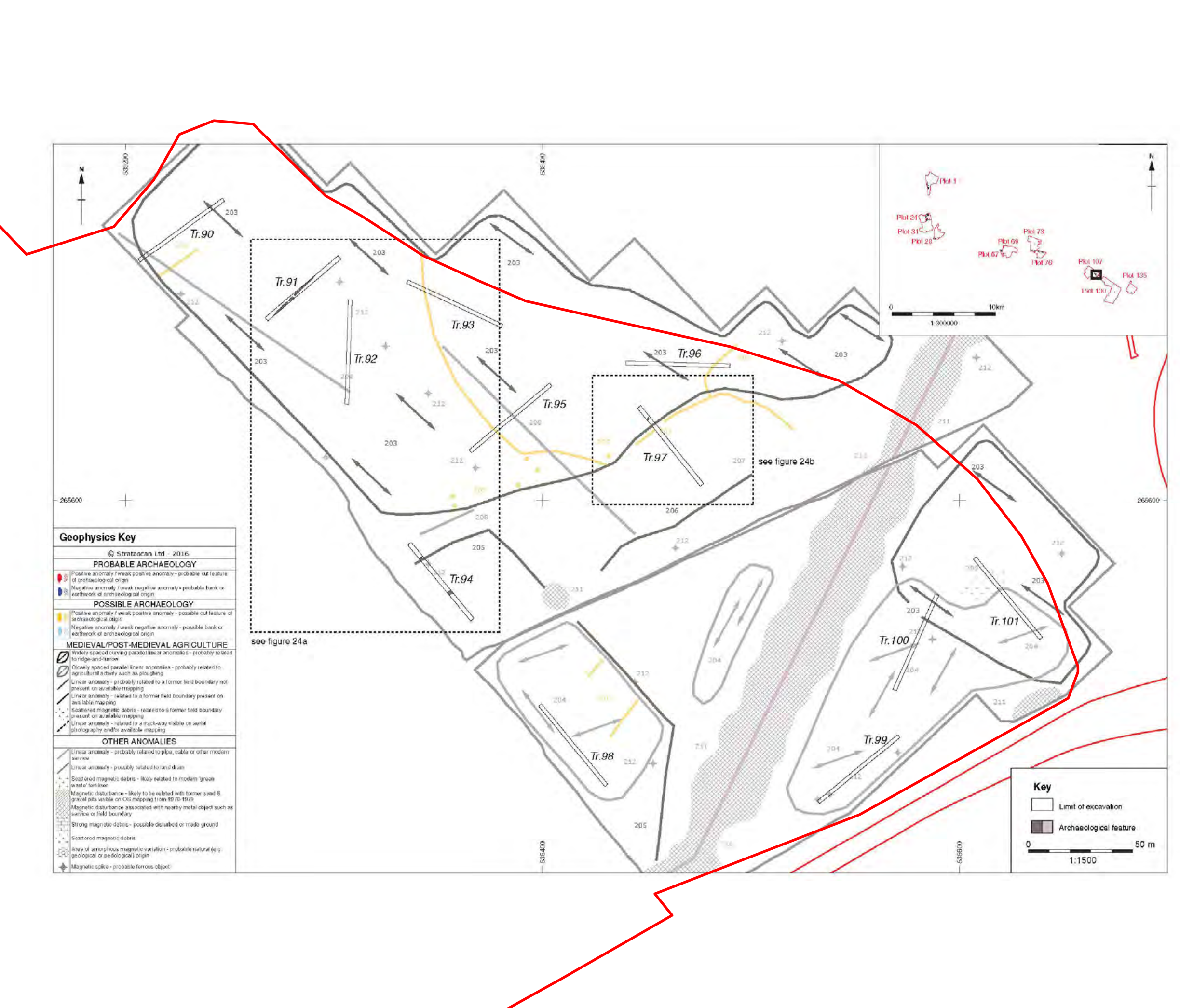
rps MAKING
COMPLEX
EASY

Figure 3

Cambrian Archaeological Projects
Trial Trenches 2004



Project Ref: N:\27000-27999\27083 - Boxworth\Figures\Mapping\GIS\Projects\Figure 05.mxd



Legend

Site Boundary

Scale at A3: 1:1,750



Figure 5
COPA Trial Trenches 2016



 Site Boundary

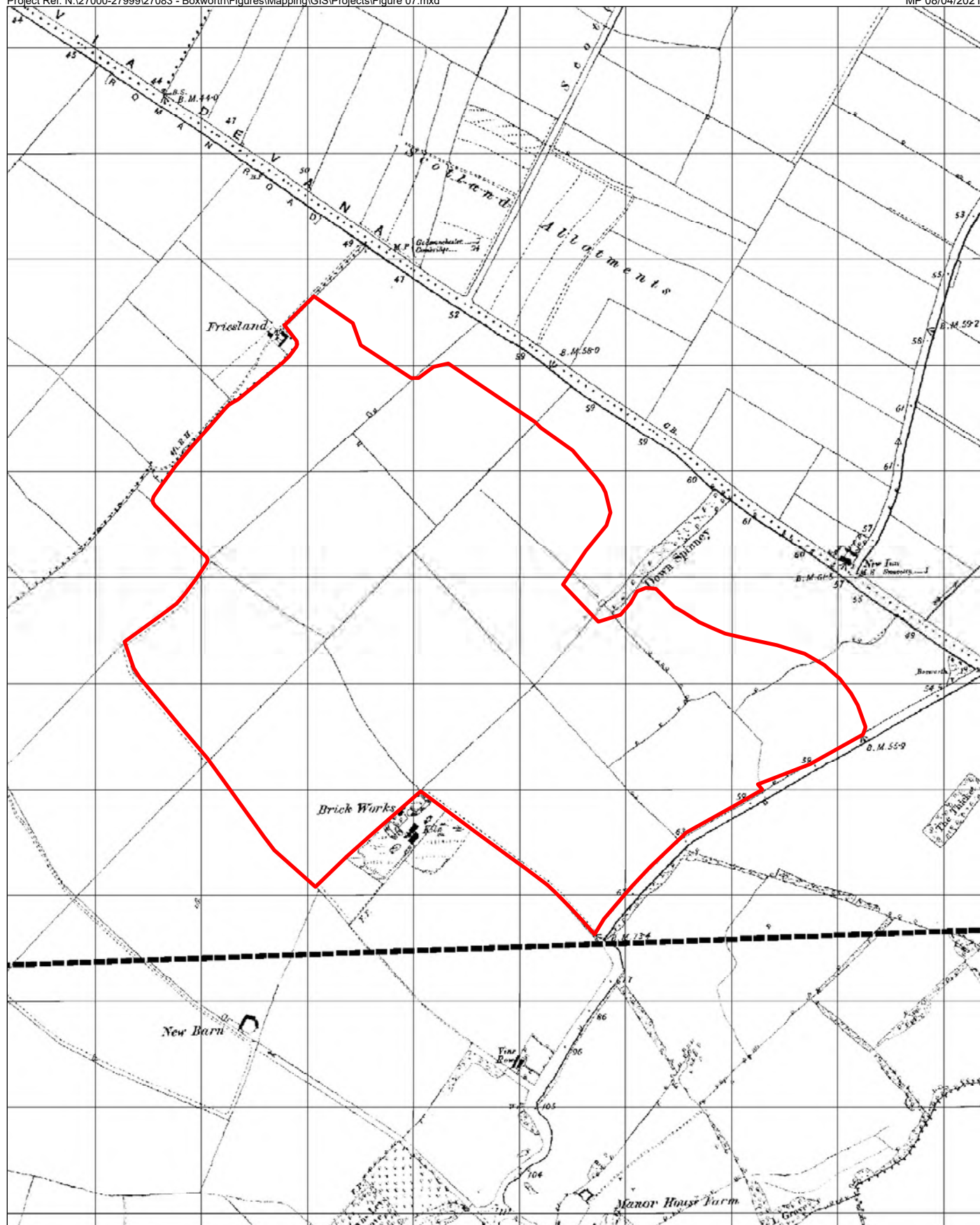


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rps MAKING
COMPLEX
EASY

Figure 6

1841 Boxworth Tithe Map



 Site Boundary

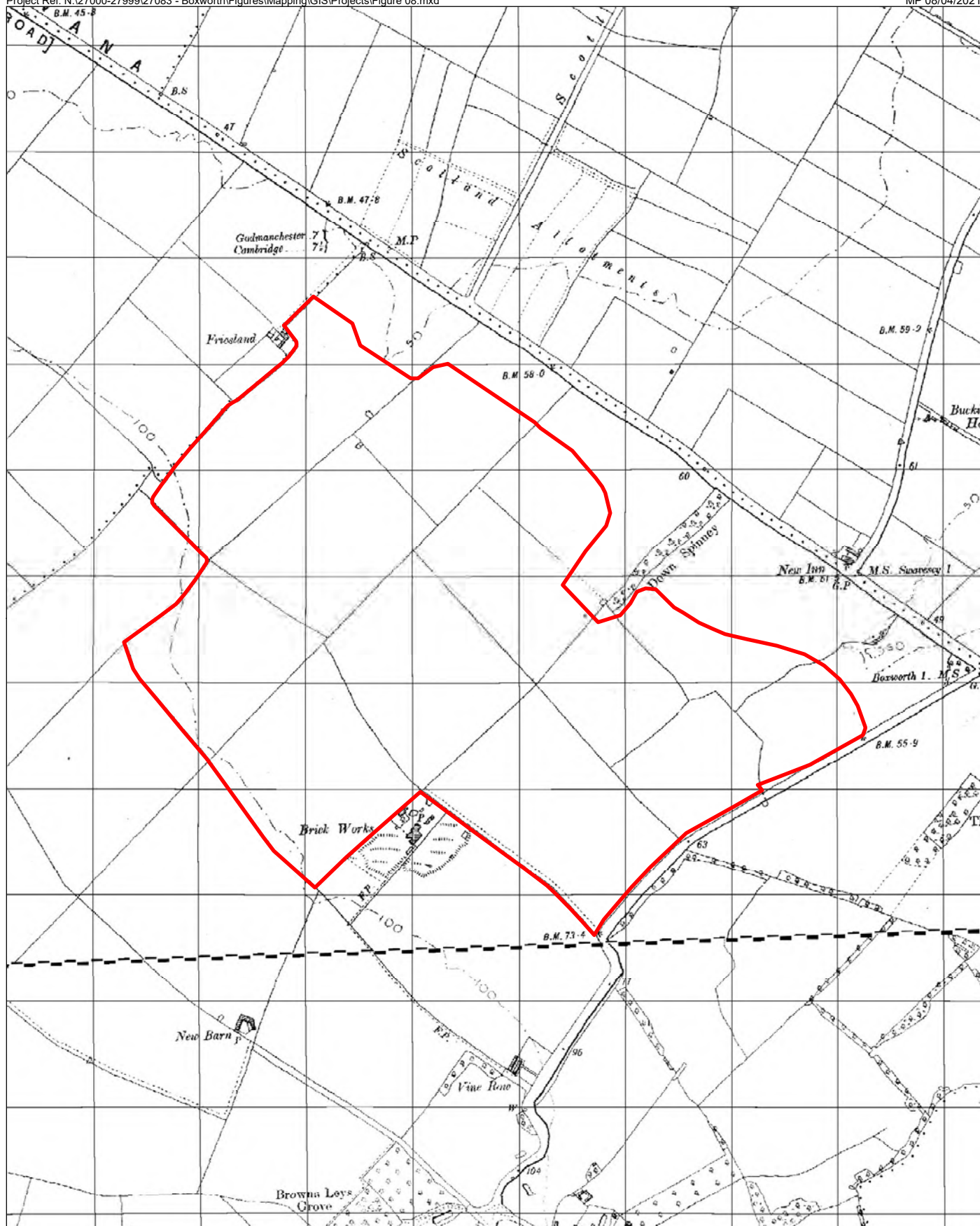


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rps MAKING
COMPLEX
EASY

Figure 7

1886-87 Ordnance Survey



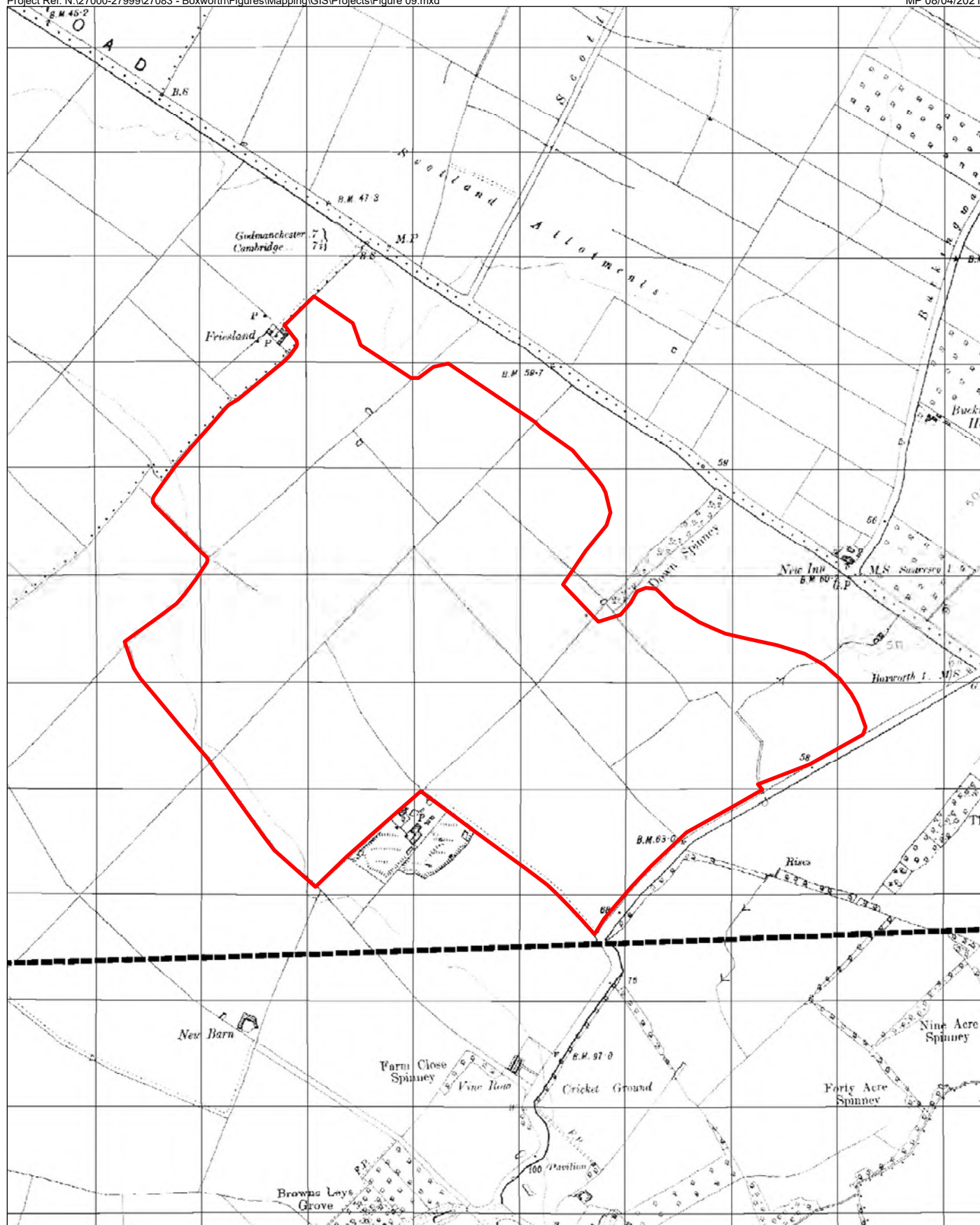
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rps MAKING
COMPLEX
EASY

Figure 8
1903 Ordnance Survey



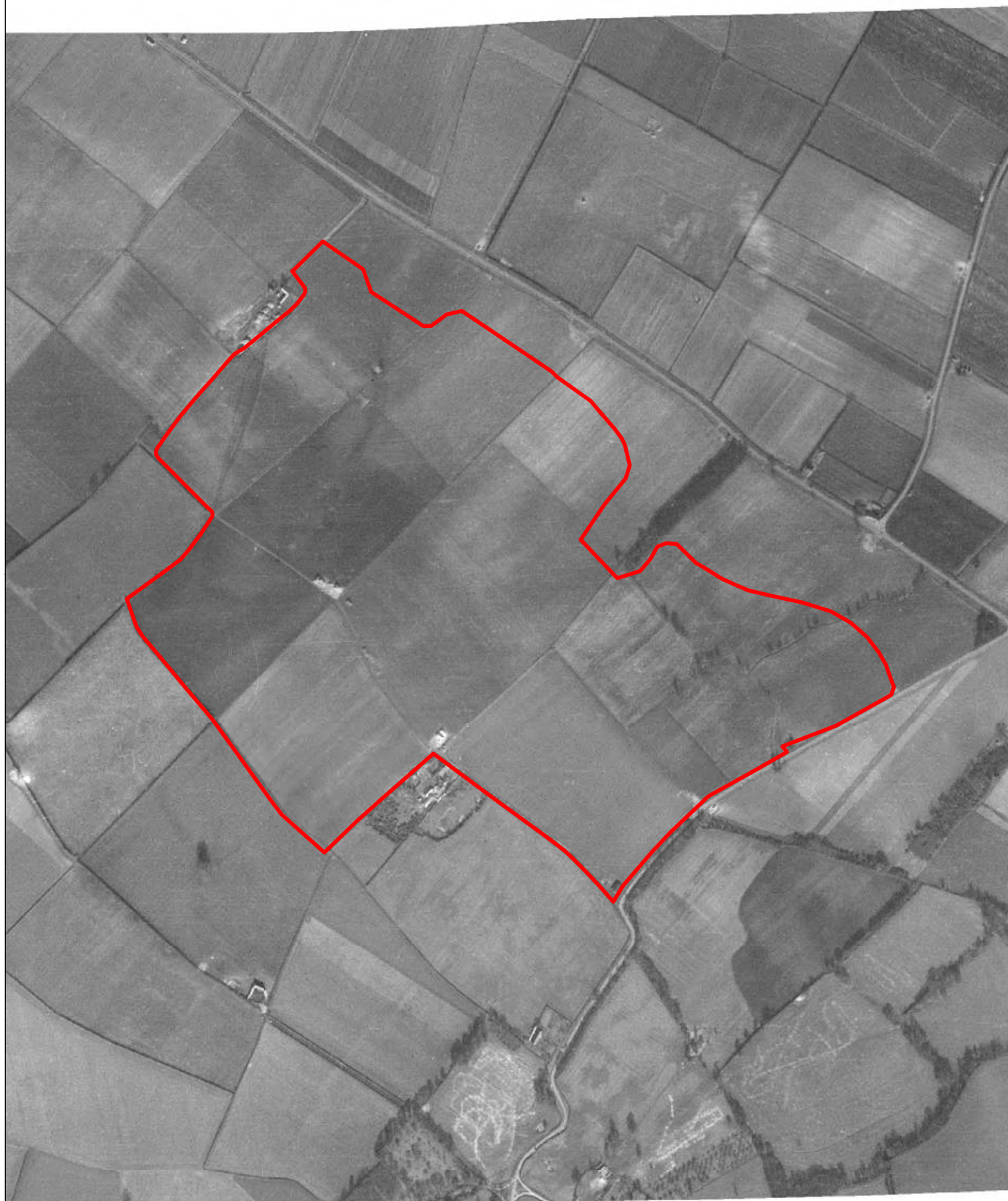
 Site Boundary



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Scale at A4: 1:10,000

rps MAKING
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EASY

Figure 9
1927 Ordnance Survey



 Site Boundary

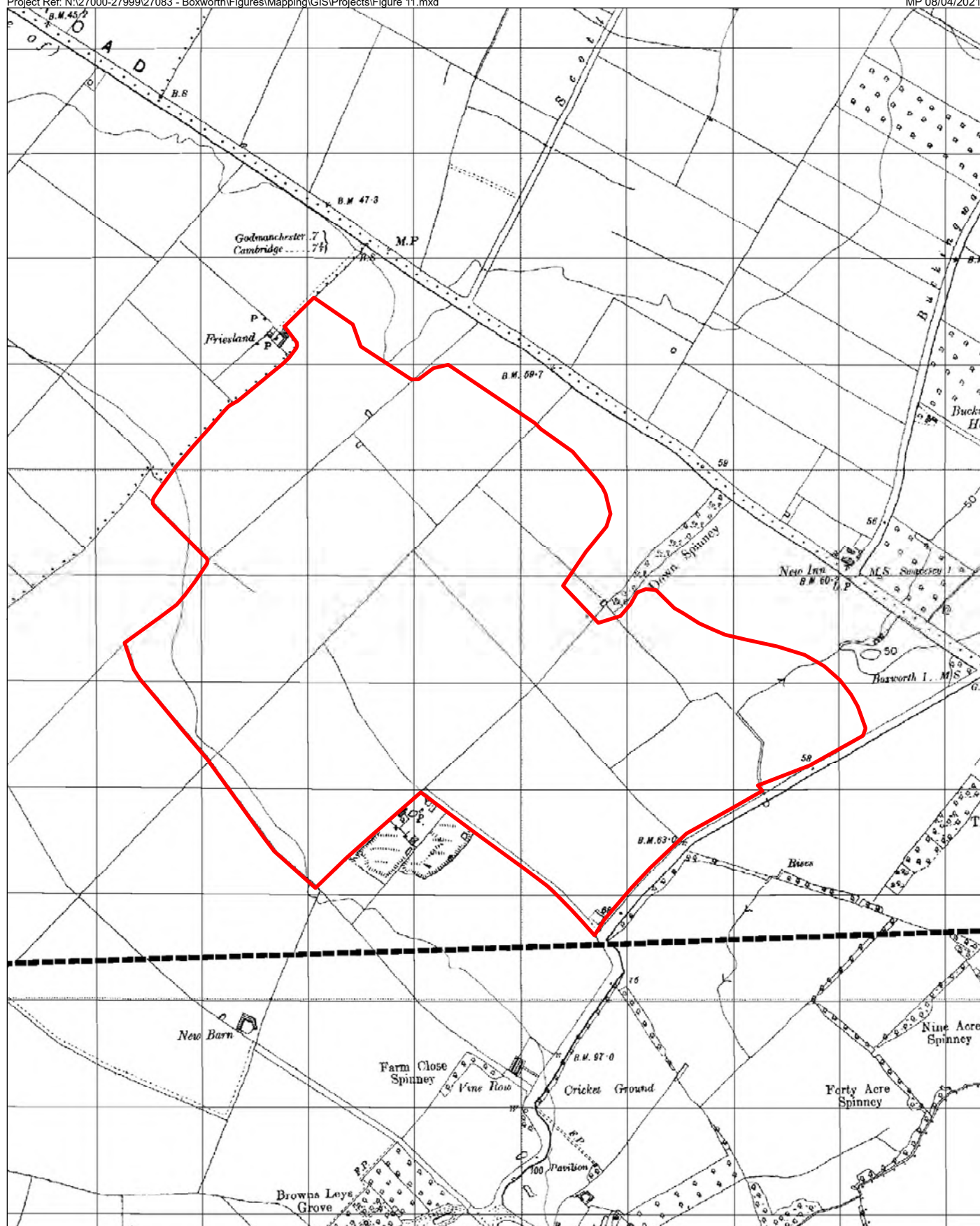


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Scale at A4: 1:10,000

rps MAKING
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Figure 10

1945 Aerial View (Google Earth)



 Site Boundary



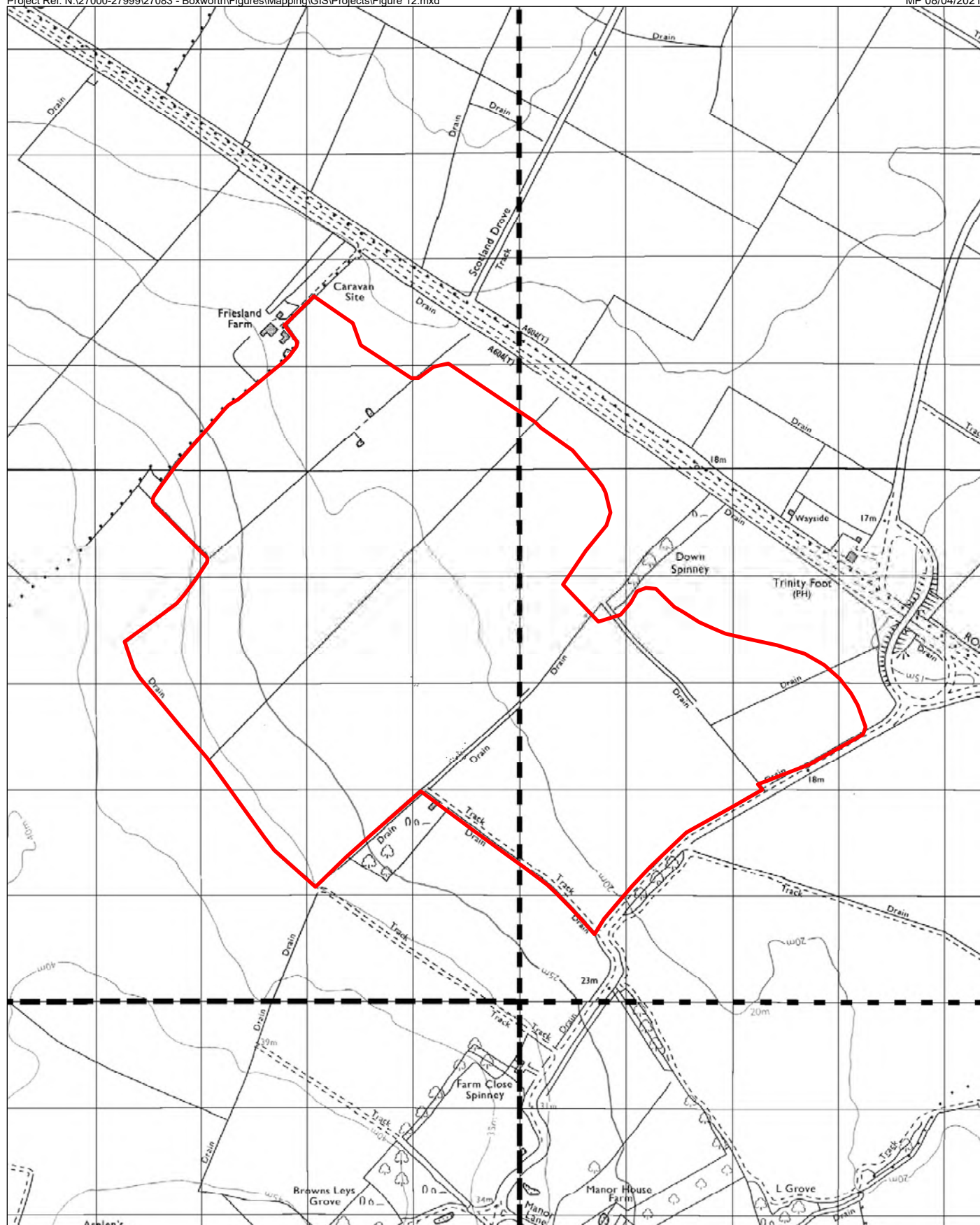
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Scale at A4: 1:10,000



Figure 11

1951-52 Ordnance Survey



 Site Boundary



0 100 200 300m
Scale at A4: 1:10,000

rps MAKING
COMPLEX
EASY

Figure 12

1982-83 Ordnance Survey



 Site Boundary



0 100 200 300m
Scale at A4: 1:10,000



Figure 13

1999 Google Earth View



 Site Boundary



0 100 200 300m
Scale at A4: 1:10,000



Figure 14

2020 Google Earth View

Project Ref: N\27000-27999\27083 - Boxworth\Figures\Mapping\GIS\Projects\Figure 15 LiDAR slRM.mxd



Legend

 Site Boundary

LiDAR DATA

Source:
Environment Agency NLP

Data Type: DTM

Resolution: 1m

Date Captured:
Dec 2019

Processing:
Multi-direction Hillshade overlaid on
simple Local Relief Model



0 100 200m
Scale at A3: 1:7,500



Figure 15

LiDAR Plot

PLATES



Plate 1: View of Western Field Looking North



Plate 2: View of Central Western Field Looking Northeast



Plate 3: View of Central Eastern Field Looking West



Plate 4: View of Eastern Field Looking East

APPENDICES

Appendix 1

Gazetteer of Historic Environment Record Data

27083 Gazetteer

Listed Buildings

List Entry	Name	Grade
1127245	MILE POST TO WEST OF SCOTLAND DROVE	II
1331352	PARISH CHURCH OF ST PETER	II*
1127250	CHURCH FARMHOUSE	II
1226268	6, SCHOOL LANE	II

HER Features

MonUID	Name	RecordType	Period
00247	Saint Peter's Church, Boxworth	BLD	Medieval to Modern
00287	Ridge and furrow N of Manor House Farm, Boxworth	LND	Medieval
00290	Former evidence for ridge and furrow Boxworth	LND	Medieval
00480	Former ridge and furrow, Conington	LND	Medieval to 19th century
01089	Moated sites at Boxworth Experimental Farm	MON	Medieval
01298	Church Farm, Boxworth	BLD	Post Medieval
03474	Gravestone at Saint Peter's Church, Boxworth	MON	Medieval
03509	Manor House Farm	BLD	Post Medieval
03528	Boxworth shrunken village	MON	Medieval
09642	Earthwork remains of ridge and furrow, Boxworth	LND	Medieval
09666	Enclosures, St John's College Farm, Fen Drayton	MON	Roman
09669	Former Ridge and furrow, Lolworth	LND	Medieval
10826	Saxo-Norman and medieval remains at Spring Close, Boxworth	MON	11th century to Medieval
11437	Former ridge and furrow, Swavesey	LND	Medieval
12029	Gardens of Boxworth House, formerly the Rectory, Boxworth	PG	Medieval to Modern
00286a	Cropmark remains of Ridge and furrow, Boxworth	LND	Medieval
CB14743	Arrowhead find, Conington	FS	Unknown
CB14744	Blade find, Conington	FS	Unknown
CB15635	Late Roman/Saxon site off High Street, Boxworth	MON	Early Mesolithic to Early Saxon
MCB15933	Bronze Age ditches, Boxworth wind farm site	MON	Bronze Age
MCB15934	Bronze Age flints, Boxworth wind farm site	MON	Early Bronze Age to 19th century
MCB17691	Experimental pottery kiln, Boxworth	MON	21th century
MCB17880	Ladder enclosures, Spring Close, Boxworth	MON	Roman to Early Saxon
MCB18143	Pottery kiln, Spring Close, Boxworth	MON	1st century AD to 2nd century AD
MCB18414	Milepost, A14, Swavesey	MON	Post Medieval
MCB18447	Middle Iron Age pits and ditches, A14 Improvement Scheme, Boxworth	MON	Middle Iron Age
MCB19346	Gardens of the Manor House, Boxworth	PG	Medieval to Modern
MCB20971	Ridge and furrow, north of A14	MON	Unknown
MCB20972	Ridge and furrow, north of A14	MON	Unknown
MCB23127	Field boundary, Boxworth	MON	Medieval to 19th century
MCB23136	Rectangular enclosure, Boxworth	MON	Early Iron Age to 5th century Roman
MCB23137	Rectilinear enclosures, Conington	MON	Early Iron Age to 5th century Roman
MCB23144	Earthworks, Boxworth	MON	Medieval to 19th century
MCB25510	Brickworks, Boxworth	MON	Post Medieval
MCB25512	Medieval and post-medieval earthworks at Alice Grove, Boxworth	MON	Medieval to 19th century
MCB25515	Earthworks of Medieval field boundaries west of Yarmouth Farm, Lolworth and Boxworth	MON	Medieval to 19th century
MCB27320	Furlong boundaries in the parishes of Dry Drayton, Childerley & Lolworth	LND	Unknown
MCB27322	Furlong boundaries in the parishes of Conington & Boxworth	LND	Unknown
MCB27324	Furlong boundaries in the parish of Fen Drayton	LND	Unknown
MCB27325	Furlong boundaries in the parish of Swavesey	LND	Unknown
MCB28638	Post medieval field boundary, Boxworth	MON	Post Medieval
MCB28645	Roman coin, Boxworth	FS	Roman
MCB28648	The Rectory, Boxworth	BLD	19th century
MCB28685	Medieval to post medieval field boundaries, Conington	MON	Medieval to 19th century
MCB28686	Former searchlight battery, DXO 713 Friesland Farm, Conington	MON	World War II

HER Events

EvUID	Name	RecordType
ECB1324	Big dig at Boxworth, 2003	EVT
ECB1615	Evaluation at Wind Farm site, Boxworth, 2004	EVT
ECB1746	Fieldwalking along the gas pipe between Bar Hill and Fenstanton	EVS
ECB2882	Excavation at Spring Close, Boxworth, 2004	EVT
ECB2883	Geophysical survey at Boxworth, 2004	EVS
ECB3053	Watching brief A14 Ellington to Fen Ditton Improvements scheme, 2008	EVT
ECB3079	A14 Fieldwalking survey and evaluation, Ellington to Fen Ditton, 2009	EVT
ECB3194	A14 Ellington to Fen Ditton Improvements scheme, 2008	EVS
ECB3606	Evaluation at Mermaid Spinney, Boxworth, 2011	EVT
ECB3817	Evaluation at Trinity Foot Swavesey 2012	EVS
ECB4082	AP assessment along proposed A14 improvement route (Ellington to Fen Ditton), 2003	EVP
ECB4267	Evaluation of A14 Huntingdon to Cambridge Improvement Scheme, 2014	EVT
ECB4428	Aerial photographic assesement for A14 Cambridge to Huntingdon Improvement Scheme, 2014	EVS
ECB4450	Fieldwalking on the Childerley Estate, 2009-2014	EVS
ECB4732	Evaluation of A14 Improvement Scheme, Cambridgeshire, 2016	EVT
ECB4800	Evaluation of A14 Improvement Scheme, Cambridgeshire, 2016	EVT
ECB5060	Excavation at TEA 34, A14 Improvement Scheme, Cambridgeshire, 2017	EVT
ECB5158	Excavation at TEA 35, A14 Improvement Scheme, Cambridgeshire, 2017	EVT
ECB545	Monitoring along Cambourn Gas Main Pipeline, 1998	EVT
ECB5514	Geophysical survey along A14 Cambridge to Huntingdon in 2016 (A14 Road Improvement Scheme)	EVS



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