Land South of Radwinter Road (East of Griffin Place), Saffron Walden, Essex

Archaeology and Heritage Statement



Land South of Radwinter Road (East of Griffin Place), Saffron Walden, Essex

Archaeology and Heritage Statement

Client: Rosconn Strategic Land

Report no.: BSA 2053_1b

Author: Ben Stephenson

Date: July 2021

Version: Final



E: info@bsaheritage.co.uk T: 01235 536754 Web: www.bsaheritage.co.uk 7 Spring Gardens, Abingdon, Oxon OX14 1AZ.

This report, all illustrations and other associated material remains the property of BSA Heritage until paid for in full. Copyright and intellectual property rights remain with BSA Heritage.

Contents

Section 1: Introduction and Methodology	1
Section 2: Policy Context	
Section 3: Existing Baseline	4
Section 4: Walkover & Geophysics Results	7
Section 5: Impact Assessment and Conclusions	8
Section 6: References and Sources	9

Appendices

Appendix 1: Essex HER Information

Appendix 2: Headland Archaeology Report

Figure

Figure 1: Site and Identified Heritage and Archaeology

Plates

Plate 1: Pounce Hall, looking east

Plate 2: Northern site field, looking east

Plate 3: Main site field, looking west

Plate 4: Hedgerow and ditch within site

Plate 5: Modern agricultural building

Plate 6: Fuel depot infrastructure, north of site

Section 1: Introduction and Methodology

- 1.1. This archaeology and heritage statement has been prepared by BSA Heritage Limited on behalf of Rosconn Strategic Land, to support the proposed development of land lying south of Radwinter Road and east of Griffin Place, Saffron Walden, Essex.
- 1.2. The assessment considers land lying well to the east of Saffron Walden's historic core and as shown on Figure 1. The overall area considered totals approximately 18 hectares. The site consists of a narrow pasture field in the north west and a much larger arable field extending across the rest of the site.
- 1.3. The site is defined by Radwinter Road (B1053) to the north and open agricultural land to the east and south, all beyond vegetated boundaries. To the west lies recently constructed new housing and buildings at Turnip Hall Farm, beyond a further field boundary.
- 1.4. The site rises up from the north west to the south east and from circa 80 metres AOD to circa 105 metres. The site's centre point is located at NGR TL 5620 3875. The land continues to rise to the east, towards settlement at Sewards End and to a ridge of higher ground to the south west.
- 1.5. The British Geological Survey records the whole of the site and a wider area as having Lewes Nodular Chalk and Seaford Chalk Formation (undifferentiated) Chalk geology. Superficial deposits are detailed for the east of the site only and as Lowestoft Formation Diamicton. The report on trial trenching immediately west of the site records that the soils were a mix of loamy and clayey soils over chalk rubble (Reid & Markus 2015).
- 1.6. A number of existing sources of information have been consulted to inform this desk based assessment. These include the Essex Historic Environment Record (HER) which holds records relating to known or suspected archaeological and heritage sites, findspots¹ and the results of past archaeological investigations.
- 1.7. Essex Record Office in Chelmsford and Historic England's Archive in Swindon are currently closed, but considerable information was available online. Both the HER and Historic England's online National Heritage List for England, which was also consulted, hold details of designated heritage assets including listed buildings, scheduled monuments and registered landscapes. Uttlesford District Council was also consulted as to further information relating to planning policy, Saffron Walden Conservation Area and locally designated heritage.
- 1.8. The above sources have been complemented by a site walkover in December 2020. Subsequent discussion with the Essex County Council archaeological advisor led to geophysical survey being completed by Headland Archaeology in January 2021 (Appendix 2).
- 1.9. Section 2 sets out the current policy context, Section 3 summarises previously recorded heritage for the site and a wider study area surrounding it, whilst Section 4 confirms observations during a site visit and summarises the results of the geophysical survey. Section 5 confirms the archaeology and heritage implications for the proposed development of the site, including any further archaeological investigation which might be required.

 $^{^{}m 1}$ Findspots are the location of the recovery of archaeological material only, without associated features.

Section 2: Policy Context

Legislation

- 2.1. The 1990 Planning (Listed Buildings and Conservation Areas) Act, as amended, confirms that in reaching planning decisions, the local planning authority should have special regard to preserving listed buildings and their settings and preserving or enhancing the character and appearance in conservation areas (HMSO 1990).
- 2.2. A 2014 Court of Appeal ruling in Barnwell Manor Wind Energy Ltd v East Northants District Council, English Heritage and the National Trust made clear that to discharge this responsibility, decision makers must give considerable importance and weight to the desirability of preserving the setting of listed buildings when carrying out the balancing exercise of judging harm against other planning considerations, as required under the National Planning Policy Framework. By implication, and subsequent legal decision, preserving the character and appearance within conservation areas also has to be given considerable weight.

National Policy

- 2.3. The National Planning Policy Framework (NPPF) has been revised twice in recent years, the first updates since it was originally published in 2012 (DCLG 2012, MHCLG 2019). The policy wording for Historic Environment remains very similar, albeit that the order of certain paragraphs and numbering has changed.
- 2.4. Heritage assets are still defined in the NPPF glossary as any designated or undesignated element of the historic environment which is identified as being of such significance that it is a material consideration in the planning process. In determining applications which cause harm to heritage assets directly, or indirectly, through affecting a complementary setting, the NPPF now recommends that 'great weight' should be given to their conservation when reaching a planning decision (Paragraph 193).
- 2.5. The more important the asset, the greater the weight that should be ascribed. As heritage assets are irreplaceable, it is noted that any harm or loss should require clear and convincing justification. It notes that 'substantial harm' to or loss of designated heritage assets of the highest significance should be wholly exceptional and exceptional for Grade II listed buildings and conservation areas (Paragraph 194).
- 2.6. Paragraph 196 clarifies that, where a development proposal will lead to 'less than substantial harm' to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing an optimal viable use.
- 2.7. Paragraph 197 notes that effects on the significance of non-designated heritage assets, which confusingly includes 'locally listed buildings', require a balanced judgement weighing the scale of impact on the significance of the heritage asset against the benefits of the proposed development. Where heritage assets are to be lost, Paragraph 199 confirms that an appropriate record of the elements to be lost should be provided and both disseminated and archived by the developer.

Local Policy

- 2.8. The current local policy includes relevant saved policies of the 2005 *Uttlesford Local Plan*, as the 2019 Local Plan has been withdrawn (UDC 2005). Policy ENV2 of the 2005 Local Plan relates to listed buildings and notes that development which affects a listed building should be in keeping with its '...scale, character and surroundings'.
- 2.9. Policy ENV4 Ancient Monuments and Sites of Archaeological Importance notes a 'presumption in favour of preservation in situ' for nationally important remains, echoing PPG16: Archaeology and Planning, which preceded the NPPF. If less important remains would be affected, the policy notes that development might be permitted, if its benefits outweigh the harm to archaeology. The policy also confirms that fieldwork might be required pre-determination to confirm the archaeological interest of a site and that further investigation to mitigate harm might be required where development is permitted.

Guidance

- 2.11. The Department for Communities and Local Government has produced Planning Practice Guidance which supports the NPPF (DCLG 2019). This includes a section titled Conserving and Enhancing the Historic Environment. More recently, Historic England has produced more detailed guidance on decision making: Managing Significance in Decision-Taking in the Historic Environment (Historic England 2015). Where relevant, this guidance has informed the assessment.
- 2.12. Historic England's *The Setting of Heritage Assets* is designed to guide determining what forms a setting and how it adds to or detracts from the significance of a heritage asset or assets (Historic England 2017). It also advises on assessing the effect of development proposals and how to avoid or minimise loss of or enhance significance. The guidance confirms that the consideration of setting is a matter of 'informed judgement' and sets out five stages involved in robust assessment of setting.
- 2.13. The heritage assets which have a setting, whether designated or undesignated, have to be defined through a suitable level of research. However, the guidance confirms that setting is not a heritage asset or designation in itself. The guidance highlights the fundamental basis of current policy; that although setting can cover a large area, not all of it is positive or anything other than neutral in relation to the significance of the heritage assets concerned. It sets out in detail the aspects of setting which may have a bearing on a heritage asset's significance.
- 2.14. In light of several Appeal decisions in relation to the effect of development on highly visible assets such as churches, the second edition Guidance includes specific reference to these and states:

'Being tall structures, church towers and spires are often widely visible across land- and townscapes, but where development does not impact on the significance of heritage assets visible in a wider setting or where not allowing significance to be appreciated, they are unlikely to be affected by small-scale development, unless that development competes with them, as tower blocks and wind turbines may. Even then, such an impact is more likely to be on the landscape values of the tower or spire rather than the heritage values, unless the development impacts on its significance, for instance by impacting on a designed or associative view.'

Section 3: Existing Baseline

3.1. This section details key sites and finds recorded by Essex Historic Environment Record (HER) for the site and its environs. These records were complemented by online sources including Uttlesford District Council's website, Historic England's National Heritage List for England and others given the closure of Historic England and Essex's archives due to pandemic safeguarding. Figure 1 marks the location of key assets and records mentioned below, whilst Appendix 1 provides a gazetteer of HER sites mentioned below.

Designated Heritage Assets

- 3.2. No designated heritage assets lie within or close to the site and there are no scheduled monuments or registered landscapes within the kilometre radius HER study area. The closest scheduled structures include a moat at Tiptoft Farm, more than a kilometre south east of the site. The remains of Saffron Walden's medieval castle and town defences and a post-medieval maze are also scheduled, but lie more than a kilometre to the west and are all encircled by later development.
- 3.3. The unusual maze and also Bridge End Gardens and the parkland surrounding Audley End, west of the town, are the closest Registered landscapes. The closest part of Saffron Walden's extensive conservation area to the site covers a Victorian cemetery and lies three quarters of kilometre to the west, again with intervening townscape preventing any inter-visibility.
- 3.4. The closest designated assets to the site are all Grade II listed buildings. HER 27190 records the 17th century and later 'Pounce Hall' in Sewards End, which is principally timber framed and located 300 metres east of the site (Figure 1, Plate 1). Half a kilometre east of the site, the 16th century and later Hopwood Farm farmhouse is the next closest listed building (HER 27191). Others lie further east, but are not detailed as they would certainly not be affected by the proposed change within the site.
- 3.5. West of the site, the closest, Grade II listed building, 500 metres from the site, was built in the early 19th century as the town workhouse, was subsequently a cottage hospital, but has more recently been adapted to residential use (HER 15384).
- 3.6. The site visit also confirmed that the spire of the parish church, St Mary's, is visible from parts of the site. This large medieval church is Grade I listed, although the citation notes that the spire was only added in the early 19th century.
- 3.7. Although the Council maintains a list of locally designated structures, none of these lie anywhere near the site (UDC 2020).

Other Records

3.8. The HER details a limited number of records for the kilometre radius study area centred on the site. The most useful of these suggest that the area has been settled from at least the Bronze Age. A small number of duplicate records and records relating to later sites and features which would not be directly affected, nor inform an understanding of the site's archaeological potential, are not detailed further.

- 3.9. A minimum of a half kilometre south west of the site, recent archaeological investigations ahead of new housing revealed the site of two ploughed out Bronze Age round barrows (HER 48520). The work included desk based research, geophysical survey and fieldwalking as well as trial trenching and subsequent archaeological excavation. Other significant features found were limited to a small number of Bronze Age and Iron Age pits.
- 3.10. Approximately 300 metres south of the site, HERs 261 to 263 record the finds of both Iron Age and Roman pottery sherds in the 1930s, as well as a likely related millstone. No further detail as to how this material came to light is provided by the HER entries.
- 3.11. HER 264 records the find of a Roman silver coin more than half a kilometre north west of the site, whilst HER 6745, a similar distance to the north, confirms the find of Roman pottery sherds and rubble at Pounce Wood. inferred to reflect a settlement site.
- 3.12. HER 6746, south of Pounce Wood and closer to the site, notes a 'very extensive Roman settlement site'. Unfortunately, no further detail as to the grounds for either inference is provided by the HER entries, although the source appears to be a survey of Roman settlement sites across the county.
- 3.13. HER 48793 records the find of Iron Age and Roman pottery immediately west of the site in trial trenches investigated ahead of residential development. However, the report on this 2015 evaluation confirms that few sherds were found and they were not located in archaeological features, but in natural hollows (Reid & Markus 2015).
- 3.14. The report confirms that, during a circa 5% sampling of the site consisting of more than a hundred trenches, a total of ten sherds of late Iron Age or very early Roman pottery were found in the hollows which had filled with hill wash in Roman times. Most were found in a single trench and later environmental processing of soil samples from both those which held pottery found some tiny prehistoric worked flint fragments too.
- 3.15. However, this level of finds indicates a settlement site away from the site, presumably on higher ground to the south and possibly related to the finds recorded under HERs 261 to 263. The evaluation report concludes that settlement on north facing slopes is rare for the period. It is telling that the wider evaluation found no other pre-medieval finds and a limited number of ditches found to the west was concluded to reflect post-medieval field boundaries (HER 48792).
- 3.16. Other HER records noted on Figure 1 and in Appendix 1 include the find of a medieval horseshoe north of Pounce's Wood and the site (HER 391). Although linear features seen as cropmarks in fields south east of the site are recorded as potentially medieval, they are more likely to reflect more recent field boundaries (HER 47930). HER 15724, south of the site, records the site of a brickworks marked on 19th century maps and likely to have had a short operating life.
- 3.17. North west of the site, HER 47284 records the site of the post-medieval Copt Hall. This farmhouse was investigated ahead of recent residential development. It is noted that extensive trial trenching across the wider eight hectare site found nothing else of interest.
- 3.18. Closer to the site, the line of a 19th century railway and related under-bridges and sidings are recorded (HER 372). One of the sidings served a still extant fuel depot. This includes six large partially sub-surface turf covered conical tanks and was constructed as an Air Ministry supply base in the Second World War (HER 40476).

Historic Maps

- 3.19. A large scale Chapman and Andre county map of 1777 is reproduced in the Saffron Walden conservation area report and indicates the site and surrounding area was undeveloped agricultural land at the time (UDC 2018). 'Shire' or 'Sheer Hill' is shown to include the site on its northern slopes. Pounce Wood, Copt Hall and Sheer Hill Farm are the closest named features to the site and Radwinter Road is also shown.
- 3.20. By the 1881 first edition six inch map, the site had its current boundaries, with an east to west ditch defining an area in the north west, as now (Figure 1). The only other feature marked within the site is a ditch or field boundary in the east. Turnip Hall was in place immediately west of the site, whilst Pounce Hall and a number of roadside properties to its south are shown to the east.
- 3.21. Subsequent twenty five inch maps of 1897 and 1921 do not show any substantive change within the site, although Radwinter Road is shown in cutting north east of the site on the latter. There is no indication that the western and southern site boundaries were parish boundaries at this time, although they are now.

Other Sources

- 3.22. Secondary sources could not be accessed at the county archives, but are unlikely to provide useful additional information for the site or its environs given an agricultural history. Although Saffron Walden's heritage formed part of The Royal Commission on the Historic Monuments of England's extensive early 20th century survey of the county, nothing was recorded close to the site itself (RCHME 1916).
- 3.23. Although the Victoria County History does not cover the parish, the conservation area and Mola Northampton reports confirm the likely Anglo-Saxon origins of Saffron Walden and Sewards End (UDC 2018, Reid & Markus 2015). Pounce Manor, Sewards End, historically lay within Saffron Walden parish and the town was important by the middle ages, earning some of its revenue from the cultivation of the eponymous spice.
- 3.24. The site is, like that adjacent, likely to have been part of open fields with ridge and furrow strips before enclosure of the land (Reid & Markus 2015). A map of 1758 exists which suggests the medieval field system was still in place at that time.

Section 4: Walkover & Geophysics Results

- 4.1. The site was visited in December 2020. The walkover confirmed that site currently consisted almost entirely of a single fallow arable field (Plate 3). In the north west of the site, a narrow east to west aligned field was under pasture (Plate 2). No sign of the internal linear feature marked as lying in the east of the site on historic maps was apparent.
- 4.2. The two site fields are defined by a water filled ditch with hedging on its north and, in places, south sides (Plate 4). The only site structure is a two storey modern metal sheet barn at the eastern end of this boundary (Plate 5). The site rises upwards to the south and south east.
- 4.3. The site boundaries are clearly defined by vegetation and ditches, with some holding water. Land to the north is at a higher level, creating a bank to this boundary too. The northern and eastern site boundaries provide a very good screen to areas beyond, even in winter.
- 4.4. Beyond the site, Turnip Hall appeared to be in commercial use, with some modern storage structures and stored vehicles and machinery north west of the site. Beyond this property and south of it lies a new housing estate (Plate 3). To the north of the site and Radwinter Road, turf covered fuel storage tanks were evident within a secure compound, as was a likely related roadside enclosure (Plate 6). Areas south and east of the site were arable and pasture respectively.
- 4.5. Sewards End was visited and this confirmed that Pounce Hall sits above the road to its south, but with its principal elevation facing west and unaffected by any change within the site (Plate 1). Further listed buildings lie a greater distance to the east and are screened to the west by their own and other surrounding vegetation and buildings.
- 4.6. The site visit confirmed that the spire of Saffron Walden's parish church can be seen from the higher parts of the site. This is against a background of the wider settlement and at some distance. No other designated heritage assets could be made out against the backdrop of the extensive townscape west of the site.
- 4.7. The centre of Saffron Walden was visited and this confirmed that the site area would in no way influence the significance of the designated heritage assets within the town's historic core, including the parish church. There were no views of the site available from close to the church, which is surrounded by older built form.

Geophysical Survey

- 4.8. Following consultation with the Essex archaeological advisor to Uttlesford District Council, a detailed magnetometer survey was completed by Headland Archaeology across all the site in January 2021 (Appendix 2).
- 4.9. Only one area of features with potential to be significant archaeology was identified by this survey: a likely enclosure with internal divisions and a possible entrance route in the north west of the site. Other features were interpreted as possible quarries in the west and north and former field boundaries and land drains.

Section 5: Impact Assessment and Conclusions

- 5.1. This archaeology and heritage assessment supports development of a site for housing and related elements on land lying south of Radwinter Road and east of Griffin Place, Saffron Walden, Essex on behalf of Rosconn Strategic Land. The implications of desk-based assessment, a site walkover and geophysical survey are confirmed.
- 5.2. The site area does not contain any extant features of note other than a ditched field boundary in the north which divides the site's two fields. Hedgerows on the site boundaries reflect long-standing agricultural boundaries too. The proposals for the site would ensure retention of almost all of the peripheral and one internal boundaries. Limited removal of sections in the north west to facilitate site access represents ideally a very limited adverse effect.
- 5.3. The site is likely to have been part of a medieval open field system between Saffron Walden and Sewards End, before enclosure in the later 18th century. The site has seen considerable change over time, with no evidence of medieval ridge and furrow now surviving within it. The separate narrow field in the north west will be retained under grass with drainage basins except where the access passes through it. Given this and retention of the site's external boundaries, the proposals do not represent an adverse effect in historic landscape terms.
- 5.4. Although the HER and other sources indicate some potential for pre-medieval sub-surface remains, archaeological investigation immediately west of the site found little of interest. Known sites lie elsewhere and the site's topography suggests it would not have been favoured for settlement. Indeed, the only feature located during the site wide geophysical survey was a sub-divided enclosure which is most likely to relate to animal husbandry. Past cultivation within the site's main field will also have truncated any sub-surface archaeological deposits.
- 5.5. Given low archaeological potential, the Council's archaeological advisor has agreed that further work can be completed as a condition of planning permission. Trial trenching can be completed to confirm the nature of the features in the north east and the absence of significant remains suggested by the geophysics. Significant remains could subsequently be dealt with through further investigation ahead of, or during development. Suitable post-fieldwork analysis and publication of the results of such work would accord with current policy, guidance and best practice.
- 5.6. The site does not contain any designated heritage assets and none lie nearby. The closest assets are Grade II listed buildings and include older houses in Sewards End and the former workhouse to the west. The site visit confirmed that none of these would be affected by proposed change within the site. The site already has good screening on its boundaries and designated heritage assets are also screened by topography, vegetation and later structures. The proposals will retain and enhance all of the vegetation on the site boundaries.
- 5.7. Even though the town's 19th century church spire and upper tower can be seen from within the site, this does not mean there would be heritage harm to the church. As set out in the latest Historic England Guidance, proposed development would not 'compete' with the church and is not part of a designed or associated view. Indeed, the proposed change would not be perceptible from the asset itself, or its environs. A retained view through to the older parts of the town from the site's highest, south eastern part is not required as heritage mitigation, but has other benefits.

Section 6: References and Sources

Department for Communities and Local Government (DCLG) 2012 *National Planning Policy Framework* London

English Heritage 2008 Conservation Principles London

Historic England 2015 Historic Environment Good Practice Advice in Planning Note 2 – Managing Significance in Decision-Taking in the Historic Environment London

Historic England 2017 *Historic Environment Good Practice Advice in Planning Note 3 – The Setting of Heritage Assets* London

HMSO 1990 Planning (Listed Buildings and Conservation Areas) Act London

Ministry of Housing, Communities and Local Government (MHCLG) 2019 *National Planning Policy Framework* London (3rd edition)

Reid A. & Markus S. 2015 Archaeological Trial Trench Evaluation of Land at Radwinter Road, Saffron Walden, Essex (Mola Northampton unpublished client report ref. 15/196)

Royal Commission on the Historic Monuments of England (RCHME) 1916 *An Inventory of the Historical Monuments in Essex, Vol. 1 – North West* London

Uttlesford District Council (UDC) 2005 *Uttlesford Local Plan – Adopted January 2005* Saffron Walden

Uttlesford District Council (UDC) 2018 Saffron Walden Conservation Area Appraisal and Management Proposals Saffron Walden

Uttlesford District Council (UDC) 2020 Uttlesford Local Heritage List (Draft) Saffron Walden

Maps

Six inch to the mile Ordnance Survey map of 1881 (Sheet IX) and twenty five inch maps of 1897 and 1921 (Sheets IX.6)

Web Sources

British Geological Survey Geology Viewer accessed at www.bgs.ac.uk

British History Online accessed at www.british-history.ac.uk/search

Historic England's National Heritage List for England accessed at www.historicengland.org.uk/professional/protection/process/national-heritage-list-for-england

OS maps of site accessed at National Library of Scotland at www.nls.uk

Street Map Ordnance Survey map of Saffron Walden accessed at www.streetmap.co.uk

Uttlesford District Council website accessed at www.uttlesford.gov.uk/planning

Appendix 1: Essex HER Information

HER ref.	NGR (TL	Period	Notes		
	prefix)				
261 - 263	559 376	Iron Age & Roman	Pottery, including neck of a flagon, IA 'black ware' and millstone fragments found in 1930s. No further detail.		
264	551 388	Roman	Silver coin findspot.		
372	5504 4058	19 th century	Railway opened in 1865, with other HER entries relating to underbridges and sidings within the study area.		
391	56 39	Medieval	Horseshoe findspot. No further details.		
6745	5601 3880	Roman	Pottery and rubble finds at Pounce Wood inferred as potential settlement site.		
6746	5615 3850	Roman	'Very extensive settlement site'.		
15384	5499 3847	19 th century	Former Union Workhouse of 1837 and later local hospital is Grade II listed.		
15724	5559 3763	19 th century	Site of bell's Brickworks shown on historic OS maps.		
27190	5631 3829	17 th century	Pounce Hall is a timber framed Grade II listed building.		
27191	5651 3816	16 th century	Hopwoods Farm farmhouse is timber framed and Grade II listed.		
40476	5549 3864	Modern	Second World War Air Ministry fuel depot including six large semi- subsurface tanks is still in use and was served by a dedicated railway siding (HER 40475).		
47284	5513 3875	Post- medieval	Site of Copt Hall shown on 1777 map and excavated ahead of area's redevelopment. HER 54595 confirms that nothing else of note found during trial trenching.		
47930	5617 3771	Medieval or later	Field boundaries noted as cropmarks on aerial photographs.		
48520	5483	Prehistoric	Investigation of a circa 9ha site included desk based research, fieldwalking, geophysical survey, trial trenching and excavation. Remains of two early to middle Bronze Age barrows were located as well as a burial pit. Later Bronze Age and Iron Age pits were also found. Nothing else of note was recorded.		
48792	5520 3817	Post- medieval	Remains of slighted field boundaries were recorded during 2015 trial trenching across circa 14ha involving a 5% sample (see also HER 48793).		
48793	5546 2823	Iron Age & Roman	Two shallow infilled hollows found during trial trenching in 2015 contained pottery sherds (see also HER 48792).		

Appendix 2: Headland Archaeology Report



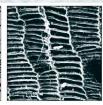














Land south of Radwinter Road, Saffron Walden, Essex

GEOPHYSICAL SURVEY REPORT PLANNING REF. pre-application

Headland Archaeology Yorkshire & North Units 23–25 & 15 | Acorn Business Centre | Balme Road | Cleckheaton BD19 4EZ

for Rosconn Strategic Land

Draft v.2.0 10/02/2021



PROJECT INFORMATION:

PROJECT NAME	ME Land south of Radwinter Road, Saffron Walden, Essex		
TYPE OF WORK	F WORK Geophysical Survey		
PLANNING REF.	Pre-application		
PARISH NUMBER n/a			
CONSULTANT/AGENT BSA Heritage Ltd			
CLIENT Rosconn Strategic Land			
PROJECT CODE RRSW21			
HAS. NO (HEREFORD ONLY) n/a			
NGR TL 5620 3875			
PARISH Saffron Walden			
LOCAL AUTHORITY Essex County Council			
FIELDWORK DATES 25/01/2021 – 27/01/2021			
OASIS REF. Headland5-415478			
ARCHIVE REPOSITORY	Headland Archaeology Ltd		

PROJECT TEAM:

PROJECT MANAGER	Alistair Webb
AUTHOR	Alistair Webb
FIELDWORK	Ross Bishop, Michael Puntorno
GRAPHICS	Sam Harrison, Ross Bishop

PROJECT SUMMARY

Headland Archaeology (UK) Ltd undertook a geophysical (magnetometer) survey on approximately 17 hectares of agricultural land south of Radwinter Road, Saffron Walden, Essex to provide supporting information for a planning application for a proposed residential development and will inform future archaeological strategy at the site, if required. The survey was undertaken to assess the impact of the proposed development on the historic environment.

The survey has successfully evaluated the proposed development area (PDA) and has identified a single feature of possible archaeological origin; a large possible rectangular enclosure of unknown date recorded immediately south of Radwinter Road. No other anomalies of archaeological potential are present within the PDA. The remainder of the identified anomalies are caused by modern and recent agricultural activity and natural events. Overall, the PDA is assessed as of low archaeological potential, reflecting the conclusions of the heritage assessment, except in the vicinity of the enclosure where it is assessed as moderate.

TABLE OF CONTENTS

<u>1.</u>	INTRODUCTION	1
	1.1. SITE LOCATION, TOPOGRAPHY AND LAND-USE1.2. GEOLOGY AND SOILS	1
<u>2.</u>	ARCHAEOLOGICAL BACKGROUND	2
<u>3.</u>	AIMS, METHODOLOGY AND PRESENTATION	2
	3.1. MAGNETOMETER SURVEY 3.2. REPORTING	2
<u>4.</u>	RESULTS AND DISCUSSION	3
	 4.1. FERROUS AND MODERN ANOMALIES 4.2. AGRICULTURAL ANOMALIES 4.3. GEOLOGICAL ANOMALIES 4.4. ANOMALIES OF POSSIBLE ARCHAEOLOGICAL ORIGIN 	3 3 3 4
<u>5.</u>	CONCLUSION	4
<u>6.</u>	REFERENCES	4
<u>7.</u>	APPENDICES	6
	Appendix 1 Magnetometer survey Appendix 2 survey location information Appendix 3 Geophysical survey archive Appendix 4 Data processing Appendix 5 OASIS Archive	6 7 7 7 8

LIST OF ILLUSTRATIONS

Illus 1 Site location (1:7,500)

Illus 2 F1, looking south-west

Illus 3 F1, looking west

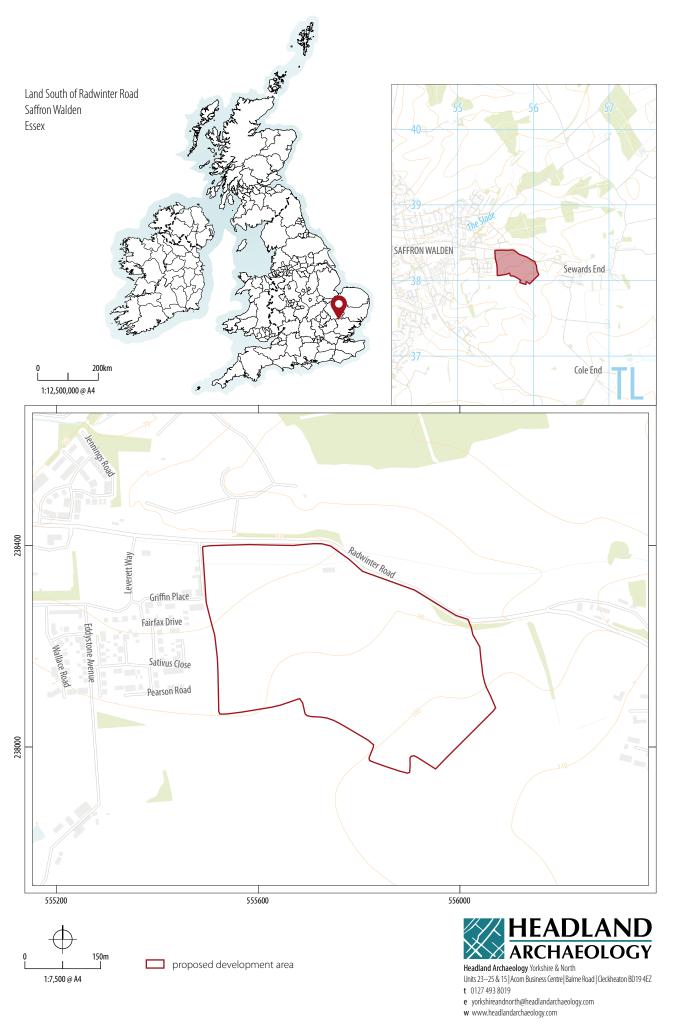
Illus 4 F2, looking west

Illus 5 Survey location showing GPS swaths and photo locations (1:2,500)

Illus 6 Processed greyscale magnetometer data (1:2,500)

Illus 7 XY trace plot of minimally processed magnetometer data 1 (1;2,500)

Illus 8 Interpretation of magnetometer data (1:2,500)



LAND SOUTH OF RADWINTER ROAD, SAFFRON WALDEN, ESSEX

GEOPHYSICAL SURVEY REPORT

1. INTRODUCTION

Headland Archaeology (UK) Ltd was commissioned by BSA Heritage Ltd, on behalf of Rosconn Strategic Land (The Client) to undertake a geophysical (magnetometer) survey south of Radwinter Road, Saffron Walden, in advance of the submission of a planning application for a proposed residential development. The survey extended across two fields (F1 and F2) covering approximately 17 hectares (Illus 1).

The results of the survey will be submitted together with an Archaeology and Heritage Statement (BSA Heritage 2020) in support of a future planning application and will inform future archaeological strategy at the site, if required. The survey was undertaken to assess the impact of the proposed development on the environment and in accordance with an Archaeological Written Scheme of Investigation (WSI) (Headland 2021), approved by Essex County Council. The survey also complies with guidance within the National Planning Policy Framework (MHCLG 2019) and in line with current best practice (Chartered Institute for Archaeologists 2014, Europae Archaeologia Consilium 2016).

The surveys were carried out between January 25th and January 27th 2021.

1.1. SITE LOCATION, TOPOGRAPHY AND LAND-USE

The Proposed Development Area (PDA – Illus 1) is located east of Saffron Walden's historic core, centred at NGR TL 5620 3875, and covers approximately 17 hectares. It comprises a narrow pasture field in the north-west (Illus 4 and Illus 5) and a much larger arable field extending across the rest of the PDA (Illus 2, Illus 3 and Illus 5). The PDA is defined by Radwinter Road (B1053) to the north and open agricultural land to the east and south. To the west lies recently constructed new housing and buildings at Turnip Hall Farm.

Topographically the PDA is north facing and rises from the north-west (80 metres Above Ordnance Datum - AOD) to the south-east (105 metres AOD- Illus 6) from where the land continues to rise to the east, towards the settlement at Sewards End and to a ridge of higher ground to the south-west.

1.2. GEOLOGY AND SOILS

The underlying bedrock geology comprises Lewes Nodular Chalk and Seaford Chalk Formation (undifferentiated). Superficial deposits of Lowestoft Formation Till (Diamicton) are recorded in the east of the site only (NERC 2021).

The soils are classified in the Soilscape 5 Association, characterised as freely draining lime rich loams (Cranfield University 2021).

2. ARCHAEOLOGICAL BACKGROUND

An Archaeology and Heritage Statement (BSA Heritage 2020) has identified that there are no known recorded assets within the PDA. The Statement also reported that very little of archaeological significance was identified during an extensive trial trenching evaluation carried out in advance of a housing development immediately to the west of the PDA. The Statement also noted that a north-facing slope (which the PDA is situated on) is unlikely to have been an attractive location for settlement in the Iron Age or Roman periods and that there are examples of settlements in more suitable locations (of both periods) to the north and south of the PDA. On this basis it was concluded that the PDA has low archaeological potential.

3. AIMS, METHODOLOGY AND PRESENTATION

The general aim of the geophysical survey was to provide enough information to establish the presence/absence, character and extent of any archaeological remains within the PDA. This will therefore enable an assessment to be made of the impact of the proposed development on any subsurface archaeological remains, if present.

The specific archaeological objectives of the geophysical survey were:

- to gather enough information to inform the extent, condition, character and date (as far as circumstances permit) of any archaeological features and deposits within the PDA;
- to obtain information that will contribute to an evaluation of the significance of the scheme upon cultural heritage assets; and
- to prepare a report summarising the results of the survey.

3.1. MAGNETOMETER SURVEY

Magnetic survey methods rely on the ability of a variety of instruments to measure very small magnetic fields associated with buried archaeological remains. A feature such as an infilled ditch, pit or kiln can act like a small magnet, or series of magnets, that produce distortions (anomalies) in the earth's magnetic field. In mapping these slight variations, detailed plans of sites can be obtained as buried features often produce reasonably characteristic anomaly shapes and strengths (Gaffney & Gater 2003). Further information on soil magnetism and the interpretation of magnetic anomalies is provided in Appendix 1.

The survey was undertaken using four Bartington Grad601 sensors mounted at 1m intervals (1m traverse interval) onto a rigid carrying frame. The system was programmed to take readings at a frequency of 10Hz (allowing for a 10-15cm sample interval) on roaming traverses (swaths) 4m apart. These readings were stored on an external weatherproof laptop and later downloaded for processing and interpretation. The system was linked to a Trimble R8s Real Time Kinetic (RTK) differential Global Positioning System (dGPS) outputting in NMEA mode to ensure a high positional accuracy for each data point.

MLGrad601 and MultiGrad601 (Geomar Software Inc.) software was used to collect and export the data. Terrasurveyor V3.0.36.0 (DWConsulting) software was used to process and present the data.

3.2. REPORTING

A general site location plan is shown in Illus 1 at a scale of 1:7,500. Illus 2 to Illus 4 inclusive are site condition photographs. Illus 5 shows the GPS swaths at 1:2,500. Illus 6 to Illus 8 inclusive present the fully processed (greyscale) data, minimally processed data (XY trace plot) and an interpretative plot respectively, all also at a scale of 1:2,500.

Technical information on the equipment used, data processing and magnetic survey methodology is given in Appendix 1. Appendix 2 details the survey location information and Appendix 3 describes the composition and location of the site archive. Data processing details are presented in Appendix 4. A copy of the OASIS

entry (Online Access to the Index of Archaeological Investigations) is reproduced in Appendix 5.

The survey methodology, report and any recommendations comply with the Written Scheme of Investigation (Headland 2020), guidelines outlined by Europae Archaeologia Consilium (EAC 2016) and by the Chartered Institute for Archaeologists (CIfA 2014). All illustrations from Ordnance Survey (OS) mapping are reproduced with the permission of the controller of Her Majesty's Stationery Office (© Crown copyright).

The illustrations in this report have been produced following analysis of the data in 'raw' (minimally processed) and processed formats and over a range of different display levels. All illustrations are presented to display and interpret the data to best effect. The interpretations are based on the experience and knowledge of management and reporting staff.

RESULTS AND DISCUSSION

The whole of the PDA was suitable for survey although the ground conditions were generally poor being waterlogged throughout (Illus 2 to Illus 4), particularly in the low-lying northern parts of the PDA. Despite this data quality was maintained and only minimal post-processing was required.

Overall, the magnetic background is relatively homogenous and numerous anomalies, both non-archaeological and possibly archaeological (see below), have been identified against this 'flat' background. The anomalies are classified into categories depending on their origin and are discussed below. It is considered likely that the survey is giving an accurate indication of the subsurface archaeological resource within the PDA.

4.1. FERROUS AND MODERN ANOMALIES

Ferrous anomalies, characterised as individual 'spikes', are typically caused by ferrous (magnetic)

material, either on the ground surface or in the plough-soil. Little importance is normally given to such anomalies, unless there is any supporting evidence for an archaeological interpretation, as modern ferrous debris is common on most sites, often being introduced into the topsoil during manuring or tipping/infilling. There is no obvious clustering to the ferrous anomalies within any of the fields or across the PDA more generally to indicate an archaeological origin. Far more probable is that the 'spike' responses are likely caused by the random distribution of ferrous debris in the upper soil horizons.

Two, parallel high magnitude linear anomalies (Illus 8 – SP1 and SP2) aligned north-west/south-east crossing through the centre of the PDA are due to buried pipes. A third, similarly strong, response (SP3) is recorded parallel and adjacent to the western boundary of the PDA and is also caused by a buried pipe.

A sub-square area of enhanced readings is identified in the west of the site adjacent to SP3. This anomaly (FQ?) is interpreted as a possible former small area of mineral extraction although none is recorded on the first edition (1896) Ordnance Survey (OS) mapping.

4.2. AGRICULTURAL ANOMALIES

A single former boundary (Illus 8 – FB1), recorded on the first edition OS map, is identified as a line of 'spike' responses aligned north-west/south-east close to the eastern boundary of the PDA. A second (possible) former boundary (FB2) is also identified although this possible feature, and a third (FB3), to the south, are not recorded on the historic mapping. Alternatively, these latter two anomalies may be interpreted as drains.

Numerous other weakly magnetic linear trends in the data are also interpreted as of agricultural origin being caused by ploughing, or possibly drains.

4.3. GEOLOGICAL ANOMALIES

A short, broad and sinuous anomaly (G1) adjacent to the northern boundary is located next to a stream or drain and is therefore interpreted as locating a former stream channel or perhaps a band of alluvium deposited following flooding.

A negative linear anomaly (G2) in the south-west of the PDA is likely also of natural origin, probably marking the accumulation of soil at a break in slope.

4.4. ANOMALIES OF POSSIBLE ARCHAEOLOGICAL ORIGIN

In the east of the PDA and immediately south of Radwinter Road linear ditch type anomalies define a possible enclosure (Illus 8 - E1) of broadly rectangular morphology. Parallel ditches define the eastern side of the 'enclosure' which is aligned north-north-east/south-south-west along its long axis, the same orientation as ploughing trends further to the west. This may indicate that the 'enclosure' is more likely to be of medieval or postmedieval date than of Roman or earlier period. Low magnitude linear ditch type anomalies indicate sub-division at the southern end of the 'enclosure'. Several discrete anomalies have also been identified within and immediately adjacent to the enclosure which could be caused by pits. A low magnitude linear anomaly, (Illus 8 - D1) extends west for approximately 100m from the 'enclosure' before petering out. The 'enclosure' is previously unknown and is not recorded on the historic mapping.

5. CONCLUSION

The survey has successfully evaluated the PDA and has identified a single feature of possible archaeological origin; a large possible rectangular enclosure of unknown date recorded immediately south of Radwinter Road. Although the anomalies are low magnitude possible internal divisions and possible discrete features can also be discerned. This feature is assessed as of moderate archaeological potential. No other anomalies of archaeological potential are present within the PDA

The remainder of the identified anomalies are caused by modern and recent agricultural activity and natural events.

Overall, the PDA is assessed as of low archaeological potential, reflecting the conclusions of the heritage assessment, except in the vicinity of the enclosure where it is assessed as moderate.

6. REFERENCES

BSA Heritage 2020 Land south of Radwinter Road, Saffron Walden, Essex: Archaeology and Heritage Assessment Unpublished Client Doc Ref. BSA 2053

Chartered Institute for Archaeologists (CIfA) 2014 Standard and guidance for archaeological geophysical survey (Reading) https://www.archaeologists.net/sites/default/files/ CIfAS%26GGeophysics_3.pdf accessed 8th February 2021

Natural Environment Research Council (NERC) 2018 British Geological Survey http://www.bgs.ac.uk/ accessed 8th February 2021

Europae Archaeologia Consillium (EAC) 2016 EAC Guidelines for the Use of Geophysics in Archaeology: Question to Ask and Points to Consider (Namur, Belgium) https://www.europae-archaeologiae-consilium.org/eac-guidlines accessed 8th February 2021

Gaffney C & Gater J 2003 Revealing the Buried Past: Geophysics for Archaeologists Stroud

Headland 2020 Land south of Radwinter Road, Saffron Walden, Essex: Written Scheme of Investigation for Geophysical Survey Unpublished Client Doc Ref. RRSW21

Ministry of Housing, Communities and Local Government (MHCLG) 2019 National Planning Policy Framework https://assers.publishing.service.gov.uk/government/uploads/system/uploads/attachment data/file/810197/NPPF Feb 2019 revised.pdf accessed 8th February 2021



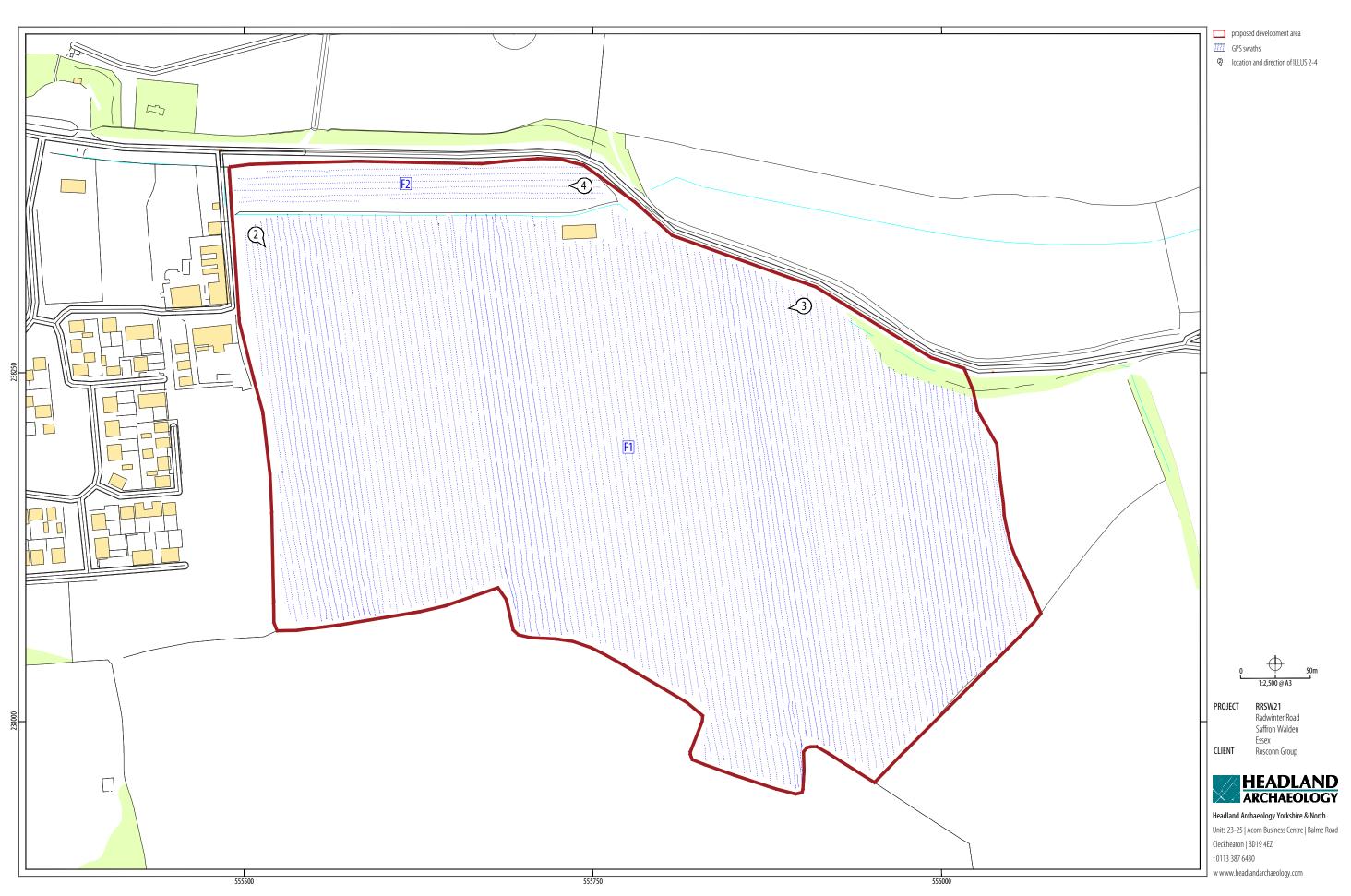
Illus 2. F1, looking south-east

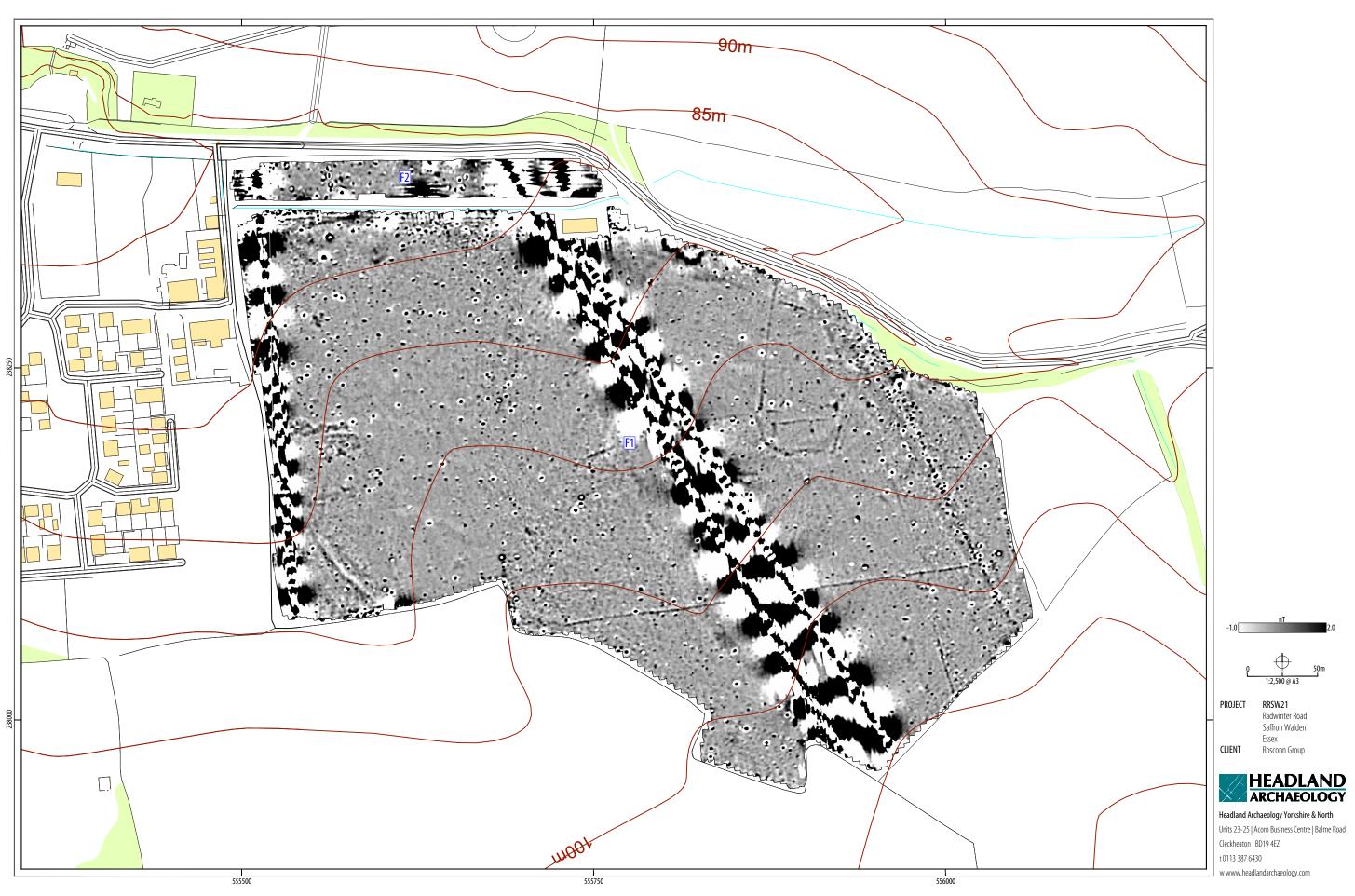


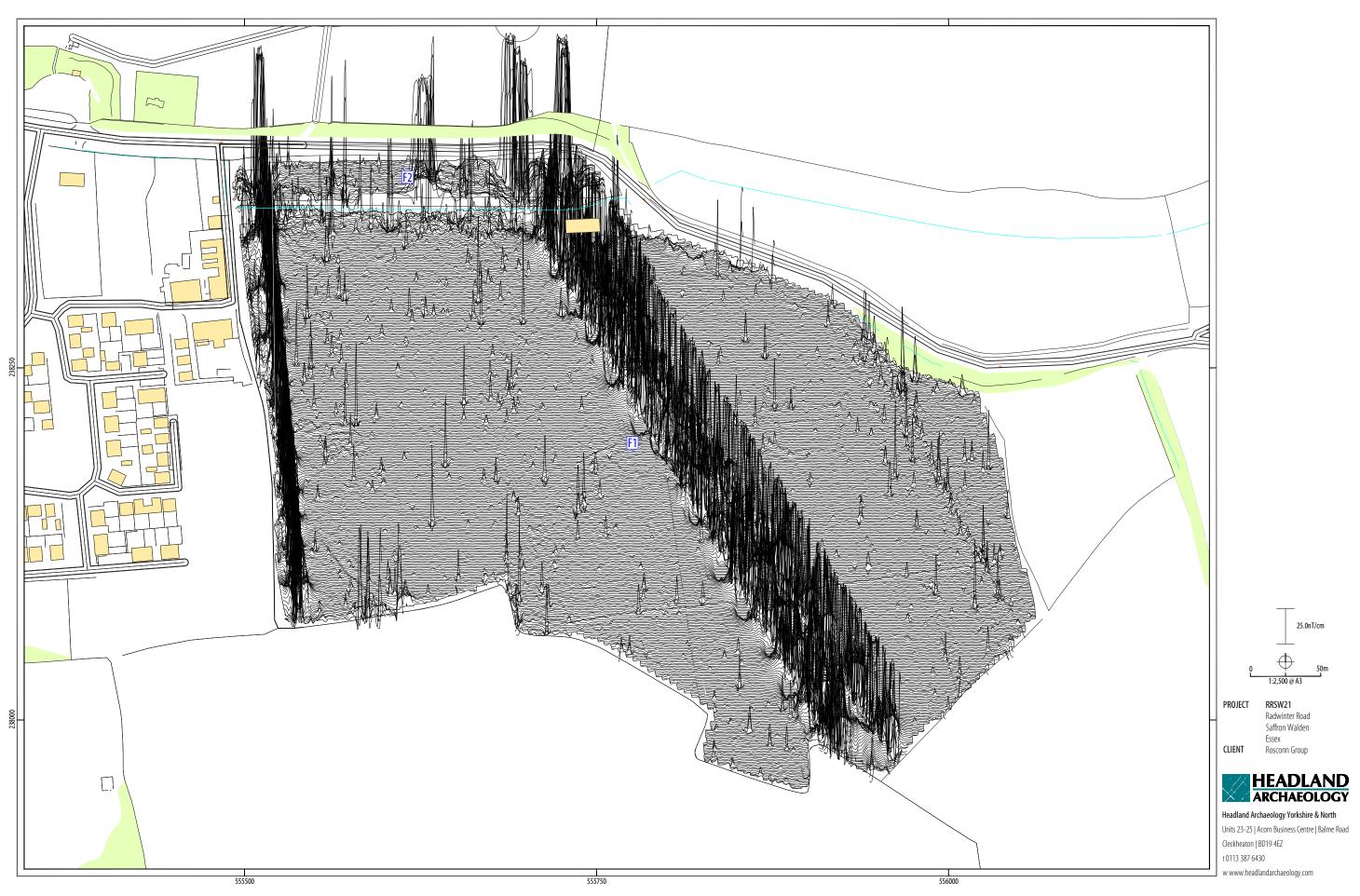
Illus 3. F1, looking west



Illus 4. F2, looking west









7. APPENDICES

APPENDIX 1 MAGNETOMETER SURVEY

Magnetic susceptibility and soil magnetism

Iron makes up about 6% of the earth's crust and is mostly present in soils and rocks as minerals such as maghaemite and haematite. These minerals have a weak, measurable magnetic property termed magnetic susceptibility. Human activities can redistribute these minerals and change (enhance) others into more magnetic forms so that by measuring the magnetic susceptibility of the topsoil, areas where human occupation or settlement has occurred can be identified by virtue of the attendant increase (enhancement) in magnetic susceptibility. If the enhanced material subsequently comes to fill features, such as ditches or pits, localised isolated and linear magnetic anomalies can result whose presence can be detected magnetometer by а (fluxgate gradiometer).

In general, it is the contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of topsoils, subsoils and rocks into which these features have been cut, which causes the most recognisable responses. This is primarily because there is a tendency for magnetic ferrous compounds to become concentrated in the topsoil, thereby making it more magnetic than the subsoil or the bedrock. Linear features cut into the subsoil or geology, such as ditches, that have been silted up or have been backfilled with topsoil will therefore usually produce a positive magnetic response relative to the background soil levels. Discrete feature, such as pits, can also be detected.

The magnetic susceptibility of a soil can also be enhanced by the application of heat. This effect can lead to the detection of features such as hearths, kilns or areas of burning.

Types of magnetic anomaly

Most anomalies are termed 'positive'. This means that they have a positive magnetic value relative to

the magnetic background on any given site. However, some features can manifest themselves as 'negative' anomalies that, conversely, means that the response is negative relative to the mean magnetic background.

Where it is not possible to give a probable cause of an observed anomaly a '?' is appended.

It should be noted that anomalies interpreted as modern in origin might be caused by features that are present in the topsoil or upper layers of the subsoil. Removal of soil to an archaeological or natural layer can therefore remove the feature causing the anomaly.

The types of response mentioned above can be divided into five main categories that are used in the graphical interpretation of the magnetic data:

Isolated dipolar anomalies (iron spikes)

These responses are typically caused by ferrous material either on the surface or in the topsoil. They cause a rapid variation in the magnetic response giving a characteristic 'spiky' trace. Although ferrous archaeological artefacts could produce this type of response, unless there is supporting evidence for an archaeological interpretation, little emphasis is normally given to such anomalies, as modern ferrous objects are common on rural sites, often being present as a consequence of manuring.

Areas of magnetic disturbance

These responses can have several causes often being associated with burnt material, such as slag waste or brick rubble or other strongly magnetised/fired material. Ferrous structures such as pylons, mesh or barbed wire fencing and buried pipes can also cause the same disturbed response. A modern origin is usually assumed unless there is other supporting information.

Lightning-induced remnant magnetisation (LIRM)

LIRM anomalies are thought to be caused in the near surface soil horizons by the flow of an electrical current associated with lightning strikes. These observed anomalies have a strong bipolar signal which decreases with distance from the spike point and often appear as linear or radial in shape.

Linear trend

This is usually a weak or broad linear anomaly of unknown cause or date. These anomalies are often caused by agricultural activity, either ploughing or land drains being a common cause.

Areas of magnetic enhancement/positive isolated anomalies

Areas of enhanced response are characterised by a general increase in the magnetic background over a localised area whilst discrete anomalies are manifest by an increased response (sometimes only visible on an XY trace plot) on two or three successive traverses. In neither instance is there the intense dipolar response characteristic exhibited by an area of magnetic disturbance or of an 'iron spike' anomaly (see above). These anomalies can be caused by infilled discrete archaeological features such as pits or post-holes or by kilns. They can also be caused by pedological variations or by natural infilled features on certain geologies. Ferrous material in the subsoil can also give a similar response. It can often therefore be very difficult to establish an anthropogenic origin without intrusive investigation or other supporting information.

Linear and curvilinear anomalies

Such anomalies have a variety of origins. They may be caused by agricultural practice (recent ploughing trends, earlier ridge and furrow regimes or land drains), natural geomorphological features such as palaeochannels or by infilled archaeological ditches.

APPENDIX 2 SURVEY LOCATION INFORMATION

An initial survey base station was established using a Trimble VRS differential Global Positioning System (dGPS). The magnetometer data was georeferenced using a Trimble RTK differential Global Positioning System (Trimble R8s model). Temporary sight markers were laid out using a Trimble VRS differential Global Positioning System (Trimble R8s model) to guide the operator and ensure full coverage. The accuracy of this dGPS equipment is better than 0.01m.

The survey data were then super-imposed onto a base map provided by the client to produce the displayed block locations. However, it should be noted that Ordnance Survey positional accuracy for digital map data has an error of 0.5m for urban and floodplain areas, 1.0m for rural areas and 2.5m for mountain and moorland areas. This potential error must be considered if coordinates are measured off hard copies of the mapping rather than using the digital coordinates.

Headland Archaeology cannot accept responsibility for errors of fact or opinion resulting from data supplied by a third party.

APPENDIX 3 GEOPHYSICAL SURVEY ARCHIVE

The geophysical archive comprises an archive disk containing the raw data in XYZ format, a raster image of each greyscale plot with associate world file, and a PDF of the report.

The project will be archived in-house in accordance with recent good practice guidelines (http://guides.archaeologydataservice.ac.uk/g2gp/Geophysics_3). The data will be stored in an indexed archive and migrated to new formats when necessary.

APPENDIX 4 DATA PROCESSING

The gradiometer data has been presented in this report in processed greyscale and minimally processed XY trace plot format.

Data collected using RTK GPS-based methods cannot be produced without minimal processing of the data. The minimally processed data has been interpolated to project the data onto a regular grid and de-striped to correct for slight variations in instrument calibration drift and any other artificial data.

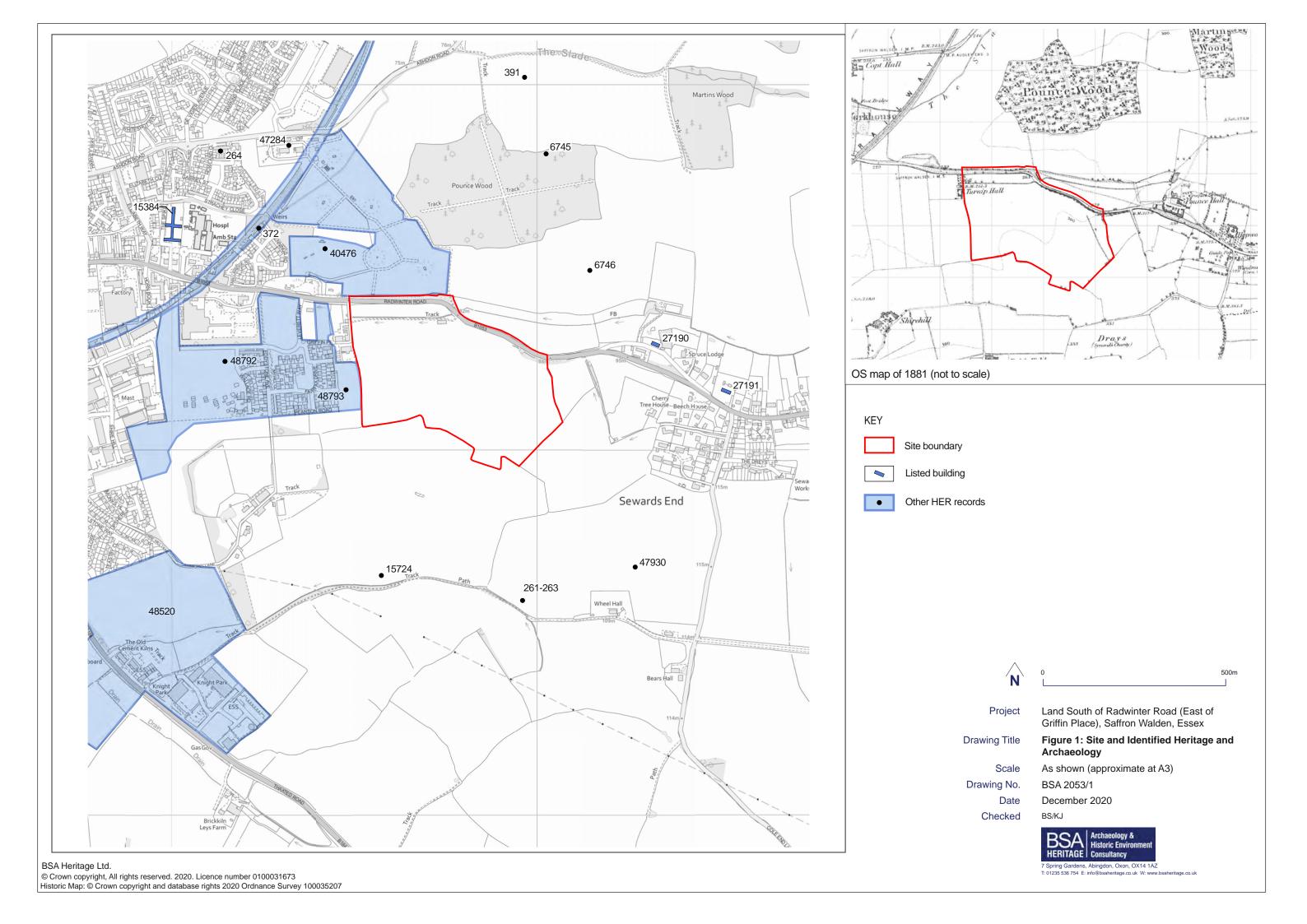
A high pass filter has been applied to the greyscale plots to remove low frequency anomalies (relating

to survey tracks and modern agricultural features) to maximise the clarity and interpretability of the archaeological anomalies.

The data has also been clipped to remove extreme values and to improve data contrast.

APPENDIX 5 OASIS ARCHIVE

Figure 1: Site and Identified Heritage and Archaeology



Plates



Plate 1: Pounce Hall, looking east



Plate 2: Northern site field, looking east



Plate 3: Main site field, looking west



Plate 4: Hedgerow and ditch within site



Plate 5: Modern agricultural building



Plate 6: Fuel depot infrastructure, north of site