

Archaeological geophysical survey at Strumpshaw Road Brundall, Norfolk January 2014

Report No. 14/36

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OASIS REPORT FORM

PROJECT DETAILS		OASIS No: molanort1-171368	
Project name	Archaeological geophysical survey at Strumpshaw Road, Brundall, Norfolk		
Short description	Northamptonshire Archaeology, now operating as MOLA, was commissioned to conduct a magnetometer survey at Strumpshaw Road, Brundall, Norfolk. The survey detected one anomaly which was tentatively interpreted as a brick kiln, and many other anomalies which related to the recent use of the site as a garden and cricket pitch.		
Project type	Geophysical survey		
Site status	None		
Previous work	Desk-based assessment (Collings 2012)		
Current Land use	Garden and cricket pitch		
Future work	Unknown		
Monument type/ period	Post-medieval brick kiln?		
Significant finds	None		
PROJECT LOCATION			
County	Norfolk		
Site address	Strumpshaw Road, Brundall		
Study area	1.6ha		
OS grid reference	TG 334 079		
Height OD	2m-10m aOD		
PROJECT CREATORS			
Organisation	Northamptonshire Archaeology (now operating as MOLA)		
Project brief originator	Norfolk Historic Environment Service		
Project Design originator	Northamptonshire Archaeology		
Director/Supervisor	John Walford		
Project Manager	Mark Holmes		
Sponsor or funding body	CgMs Consulting		
PROJECT DATE			
Start date	30 January 2014		
End date	10 February 2014		
ARCHIVES		Location	Content
Physical	ENF 133584		None
Paper			Site survey records
Digital			Geophysical survey & GIS data
BIBLIOGRAPHY		Journal/monograph, published or forthcoming, or unpublished client report	
Title	Archaeological geophysical survey at Strumpshaw Road, Brundall, Norfolk, 30 January 2014		
Serial title & volume	MOLA 14/36		
Author(s)	John Walford		
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**ARCHAEOLOGICAL GEOPHYSICAL SURVEY AT
STRUMPSHAW ROAD, BRUNDALL, NORFOLK
30 JANUARY 2014**

ABSTRACT

Northamptonshire Archaeology, now operating as MOLA, was commissioned to conduct a magnetometer survey at Strumpshaw Road, Brundall, Norfolk. The survey detected one anomaly which was tentatively interpreted as a brick kiln, and many other anomalies which related to the recent use of the site as a garden and cricket pitch.

1 INTRODUCTION

Northamptonshire Archaeology, now operating as MOLA, was commissioned by CgMs Consulting to conduct a geophysical survey prior to the development of land at Strumpshaw Road, Brundall (NGR TG 334 079; Fig 1). The aim of the survey was to investigate whether there were any archaeological remains present which might be affected by the proposed development.

The fieldwork was conducted on 30th January 2014, and comprised the detailed magnetometer survey of c1.6ha of land. It was recorded on the Norfolk Historic Environment Record under event number ENF133584.

2 TOPOGRAPHY AND GEOLOGY

The proposed development area consists of two adjacent plots of land on the south side of Strumpshaw Road. The western plot forms part of the rear garden of 'Hillside', and incorporates an artificial terrace which is probably a former tennis court. The eastern plot was used until recently as a cricket pitch, and contains a pavilion, a cricket square and nets. Both plots occupy a south-facing slope which declines from an elevation of c10m alongside Strumpshaw Road to c2m in the south. Immediately beyond the southern boundary of the area, the slope levels out onto the marshy floodplain of the River Yare.

The geology of the survey area is mapped as Pleistocene Crag overlain by river terrace gravels (BGS 2014).

3 ARCHAEOLOGICAL BACKGROUND

The survey area has been the subject of an archaeological desk-based assessment (Collings 2012), which provides the basis for the following summary. The sites and findspots referred to are all recorded on the Norfolk Historic Environment Record, and are referenced below by their NHER numbers.

There are several records of Neolithic to Bronze Age worked flints having been found in the Brundall area. One findspot is located immediately opposite the survey area, to the north of Strumpshaw Road, and another is located approximately 100m to the south-east (MNF10224 & MNF10235).

An area of land approximately 200 to 300m west of the survey area is of particular archaeological interest, having produced evidence for Roman, Saxon and medieval activity. Roman burials have been excavated there recently, but full publication of the results is pending (Collings 2012, 10-11). Antiquarian reports indicate that Saxon burials have also been found thereabouts (MNF10232 & MNF10234), and historic evidence shows that the medieval chapel of St Clement stood nearby until its ruins were demolished in 1820 (MNF10231).

Faden's map of Norfolk, dating from 1797, depicts a brick kiln approximately 600m south-west of the survey area (NHER MNF15582). This demonstrates the presence of a local brick-making industry and the potential for similar features to occur nearby. Subsequent historic maps, including the Brundal tithe map (1838) and early editions of the Ordnance Survey, show that the survey area was undeveloped until the turn of the 20th century, when the house now known as 'Hillside' was built.

4 METHODOLOGY

The survey was conducted with Bartington Grad 601-2, twin sensor array, vertical component fluxgate gradiometers (Bartington and Chapman 2003). These are standard instruments for archaeological survey and can resolve magnetic variations as slight as 0.1 nanoTesla (nT).

An independent system of 30m grids was established in each of two areas to be surveyed. The grids were established with a tape measure and optical square and tied in to the Ordnance Survey National Grid using Leica System 1200 dGPS (see EH 2008, 19). The gradiometers were carried at a brisk but steady pace through each grid square, collecting data along 1m spaced traverse lines. Measurements were automatically triggered every 0.25m along the traverses, giving a total of 3600 measurements per square. All fieldwork methods complied with the guidelines issued by English Heritage and by the Institute for Archaeologists (EH 2008; IfA 2011).

It is standard practice in Norfolk for one survey grid to be surveyed twice, in order that the reproductibility of the results may be demonstrated. Unfortunately, a repeat grid was not surveyed on this occasion, due to an oversight on the part of the survey team.

The survey data were processed using Geoplot 3.00v software. The striping was removed using the 'Zero Mean Traverse' function. Destaggering of the data was performed where necessary.

The processed data is presented in this report in the form of a grey-tone plot at a scale of +/- 10nT black/white. This has been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative overlay is shown in Figure 3.

5 SURVEY RESULTS

5.1 The western area

The data from this area is moderately noisy, with a number of intense magnetic anomalies and associated halos indicating the presence of ferrous debris in the soil. An intense linear anomaly with alternating magnetic polarity indicates an underground pipe running through the centre of the area, and a second such anomaly indicates a spur branching off this pipe to the south-west.

There are no fully convincing archaeological anomalies in this area, but there is a set of poorly diagnostic anomalies which could have either an archaeological, geological or horticultural cause. These comprise a staple-shaped positive anomaly, c13m long and ranging in intensity from 5 to 20nT, and a thin linear anomaly which shadows its eastern edge. It would be plausible to interpret these as parts of a small, ditched feature but, considering their context, an interpretation as former flower beds might be more likely.

5.2 The eastern area

There is a pair of anomalies in this area, located slightly west of centre, which have potential archaeological significance. They comprise a moderately intense rectangular anomaly, measuring approximately 8m x 4m, and a less intense linear anomaly, perhaps representing a ditch, which half-surrounds the rectangle on its southern side. The rectangular anomaly has a variable intensity, with individual readings around 15-20nT at its eastern end and much higher readings, in the range 60 to 100nT in its north-western sector.

There are a number of precedents where rectangular anomalies comparable to this have turned out to represent post-medieval brick kilns. One, for example, was recently found at Mulbarton, to the south-west of Norwich (Muldowney 2013). However, very similar anomalies can also be created by other concentrations of brick rubble – for instance a demolished outbuilding, a hardcore surface, or a pit backfilled with building debris.

A few irregular and undiagnostic positive anomalies, generally between 5 to 30nT in strength, occur in a band which runs near to the putative kiln. They could, in principle, represent pits or similar archaeological features, but experience suggests that a geological or recent cause is more likely.

Two linear anomalies in the centre of this eastern area delineate the northern and southern edges of the cricket square. The northern anomaly is typical of a pipe – perhaps for drainage or irrigation - and the southern one coincides with a strip of matting which provides an artificial surface for the crease. To the south-west of the square there are a set of short but intense parallel linear anomalies which probably indicate metal fittings associated with the run-up to the adjacent cricket nets.

The edges of this area exhibit extensive magnetic halos arising from the adjacent fences and buildings. Some intense dipolar anomalies are also present, indicating pieces of ferrous debris.

6 CONCLUSION

The survey has identified an anomaly which perhaps represents a post-medieval brick kiln. There is historical evidence for brick making in Brundall (NHER MNF15582) and the anomaly is comparable in terms of size, shape and intensity with anomalies from known brick kilns found elsewhere. However, the evidence is not totally conclusive, and there is an alternative possibility that the anomaly might relate to a former structure or surface associated with the cricket pitch.

Most of the other anomalies which have been detected relate to modern features, including pipelines and parts of the cricket pitch. A few of the remainder are poorly diagnostic and, whilst they are unlikely to represent archaeological features, the possibility cannot be entirely ruled out.

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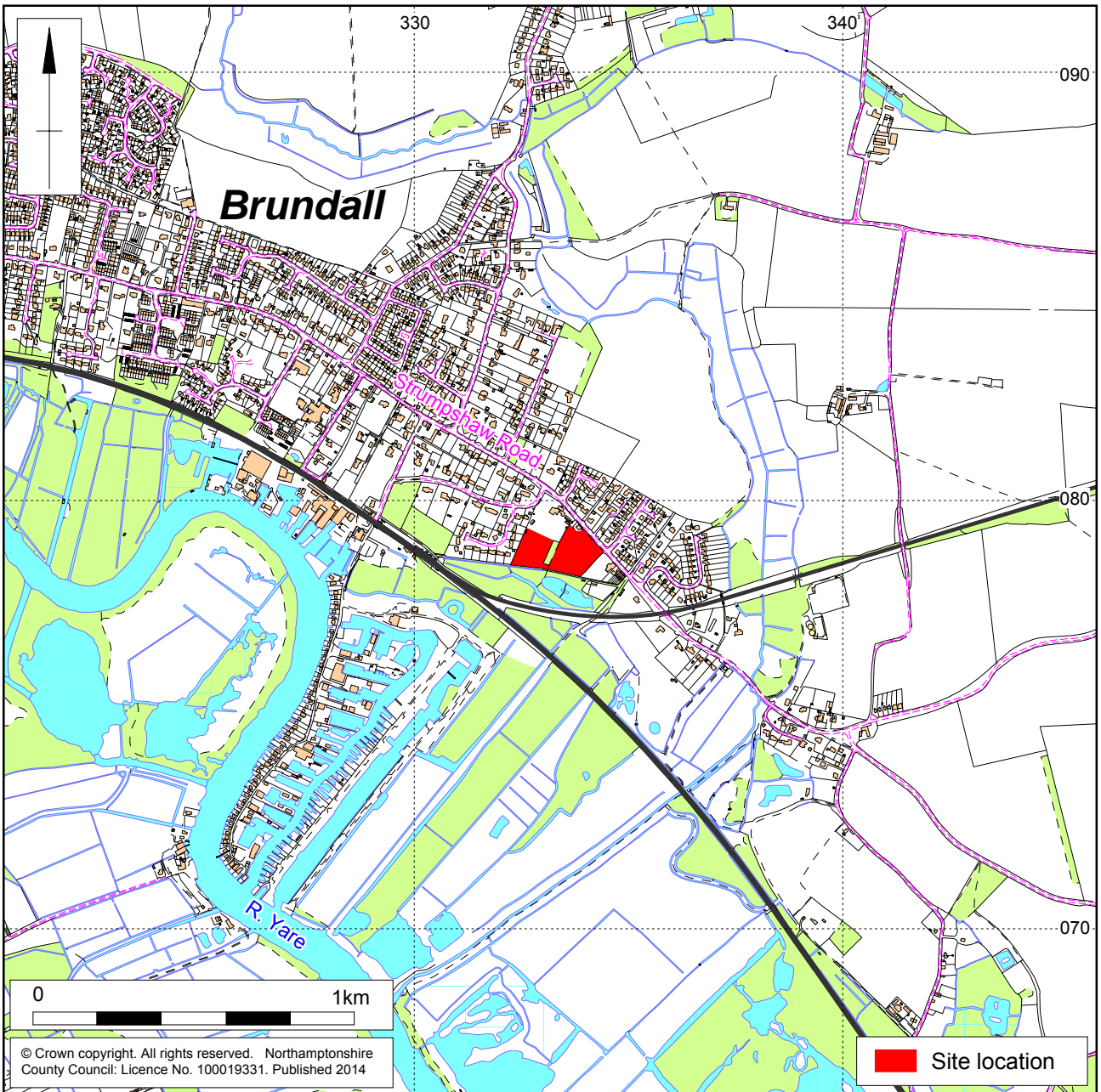
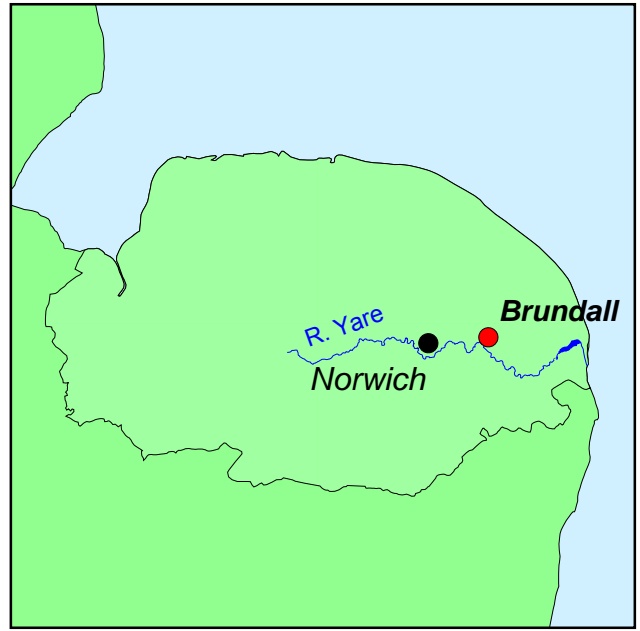
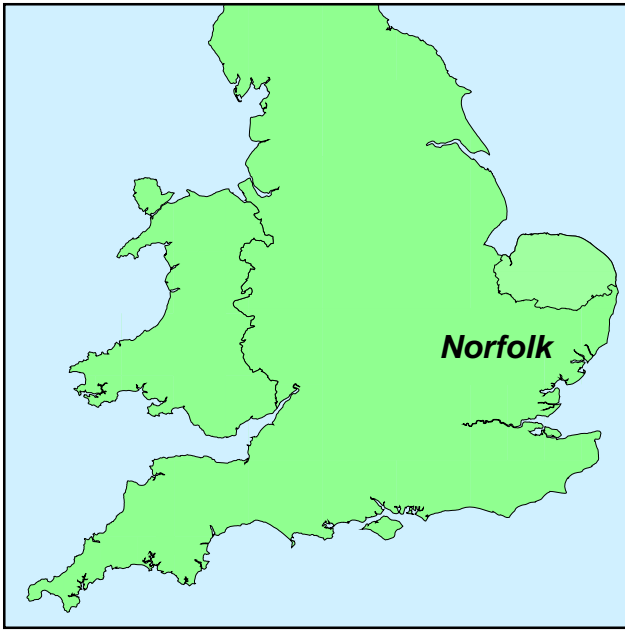
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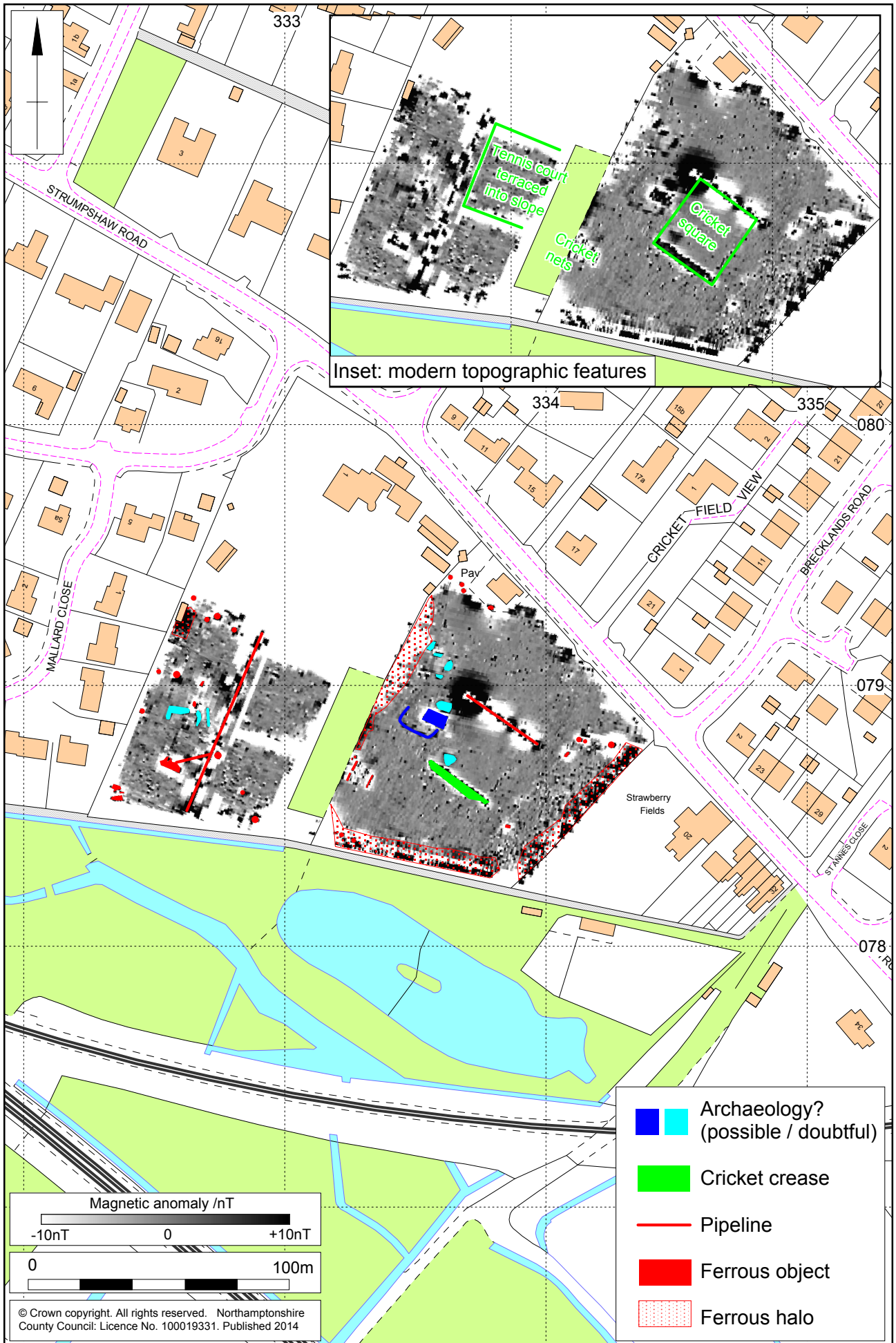
Scale 1:10,000

Site location Fig 1



1:2000

Magnetometer survey results Fig 2



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