

Archaeological geophysical survey of land at Rothwell football ground Rothwell, Northamptonshire January 2014

Report No. 14/33

Author: Paul Clements

Illustrator: Paul Clements





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PROJECT DETAILS	OASIS No: molanor	t1_171051		
Project name	Archaeological geophysical survey of land at Rothwell football			
-	ground, Rothwell, Northamptonshire.			
Short description	MOLA was commissioned by CgMs Consulting to undertake a			
	detailed magnetometer survey of 1.2ha of land at Rothwell Football			
	Ground, Rothwell, Northamptonshire. The results identified four			
	linear anomalies, probably representing medieval or post-medieval			
	plough furrows.			
Project type	Geophysical survey			
Site status	None			
Previous work	None			
Current Land use	Football Pitch			
Future work	Linknown			
Monument type/ period	Undated ditches			
Significant finds	None			
PROJECT LOCATION	· · · · · ·			
County	Northamptonshire			
Site address	Rothwell Football Ground, Rothwell, Northamptonshire			
Study area	c1. 2ha			
OS grid reference	SP 815 816			
Height OD	131-133aOD			
PROJECT CREATORS				
Organisation	MOLA			
Project brief originator				
Project Design originator	MOLA			
Director/Supervisor	Adam Meadows			
Project Manager	Mark Holmes			
Sponsor or funding body	CgMs Consulting			
PROJECT DATE	ž ž			
Start date	31 January 2014			
End date	31 January 2014			
ARCHIVES	Location	Content		
Physical	N/A			
Paper	NA	Site survey records		
Digital	NA	Geophysical survey & GIS data		
BIBLIOGRAPHY	Journal/monograph, published or forthcoming, or unpublished client			
	report			
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OASIS REPORT FORM

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ARCHAEOLOGICAL GEOPHYSICAL SURVEY OF LAND AT ROTHWELL FOOTBALL GROUND, ROTHWELL NORTHAMPTONSHIRE JANUARY 2014

Abstract

MOLA was commissioned by CgMs Consulting to undertake a detailed magnetometer survey of 1.2ha of land at Rothwell Football Ground, Rothwell, Northamptonshire. The results identified four linear anomalies, probably representing medieval or post-medieval plough furrows.

1 INTRODUCTION

MOLA was commissioned by CgMs Consulting to undertake a detailed geophysical survey of land at Rothwell football ground, Rothwell, Northamptonshire (NGR: SP 815 816).The aim of the survey was to detect any archaeological remains that may be present at the site, in accordance with the National Planning Policy Framework (NPPF). The fieldwork was conducted on the 31st January 2014 and comprised detailed magnetometer survey.

2 BACKGROUND

2.1 Location and geology

The survey area comprised the football pitch and an area immediately east totalling 1.2ha of land, at *c*131-133m aOD, overlooking the River Ise Valley to the north. The site is located on the northern edge of Rothwell and is bounded to the south and east by residential estates and fields to the west and north.

The site is underlain by Northampton Sand Formation which is overlain by Glacial Till (BGS 2014). The soils are identified as lime rich loamy and clayey soils with impeded drainage (Landis 2014).

2.2 Historical and archaeological background

No previous archaeological work has been undertaken within the development area. As part an investigation by Northamptonshire Archaeology along the route of the A6 Rothwell and Desborough Bypass, *c*1km west of the development area, a detailed magnetometer survey was conducted which located a pair of ditched enclosures. These were later excavated and dated to the Iron Age (Mudd & Hindmarch 2001). Another geophysical survey was undertaken by Northamptonshire Archaeology on land north of the development area. This located an extensive settlement complex of Iron Age to early Roman date, just east of the A6. Furrows of later medieval ridge and furrow cultivation were also identified (Walford 2007).

3 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 the 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) and with the written scheme of investigation for the project (NA 2013). 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 grey-tone plots at a scale of +/- 4nT black/white. These have been scaled, rotated and resampled (georectified) for display against the Ordnance Survey base mapping (Fig 2). An interpretative overlay is shown in Figure 3. The raw data is presented in Figure 4.

4 SURVEY RESULTS

The survey has identified four positive magnetic anomalies of possible archaeological origin. All four are on similar east to west alignments and likely represent remnant furrows of medieval to post-medieval ridge and furrow cultivation. However, it is possible that, rather than furrows, the anomalies may be former ditches.

Metal fencing around the perimeter of the football pitch has created a magnetic 'halo' effect which would mask any other magnetic anomalies present. Around the stands and other buildings thermoremnant debris has been detected indicative of modern disturbance and a single pipeline, indicated by a series of alternate dipolar linear anomalies, leads to the easternmost structure.

5 CONCLUSION

In the area of the football pitch, the survey has identified the presence of four positive linear anomalies which possibly indicate remnant furrows of medieval to post-medieval ridge and furrow cultivation. However, it is also possible that they may represent undated ditch segments.

Elsewhere, modern disturbance and the effect of standing buildings and fences dominate the survey results.

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Mudd, A, & Hindmarch, E, 2001, *A6 Rothwell and Desborough Bypass, Archaeological Assessment: Stage 4, Geophysical Survey*, Northamptonshire Archaeology report

Walford, J, 2007 Geophysical Survey of land to the north of Rothwell, Northamptonshire Phase 1 (Oct 2006) & Phase 2 (Jan-Feb 2007) Northamptonshire Archaeology report **06/184**

Websites

BGS 2014 http://www.bgs.ac.uk/geoindex/home.html British Geological Survey website

Landis 2014 <u>https://www.landis.org.uk/soilscapes/</u> Cranfield University National Soil Resources Institute

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14 February 2014





Scale 1:5000



1:2000 (A4)



1:2000 (A4)

Magnetometer survey interpretation Fig 3



1:2000 (A4)

Magnetometer survey results raw data Fig 4

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