M6/7

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RESULTS OF ARCHAEOLOGICAL FIELDWALKING AND GEOPHYSICAL SURVEY: ON LAND OFF MAGDALEN ROAD, WAINFLEET ALL SAINTS, SKEGNESS, LINCOLNSHIRE

PRE PLANNING APPLICATION

SITE CODE: MWES 06
ACCESSION NO.: LCNCC 2006.54

NGR: TF 49769 59293
March 2006

COMMISSIONED BY:

MR G.ROBBS
Neil Dowlman Architecture
14 Main Ridge West
Boston
PE21 6QQ

PREPARED BY

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Acknowledgement of receipt sent 23/5/06 PDNwll (pre-application)

CONTENTS

SUMMARY

1.1 Neil Dowlman Architecture is seeking to develop approximately 3ha of agricultural land off Magdalen Road, Wainfleet All Saints, Skegness, Lincolnshire. Following discussions with the Archaeological Advisor to East Lindsey District Council (Lincolnshire County Council Conservation Services Team) a programme of archaeological works is requested prior to an application for planning permission.

1.2 The first stage of fieldwork requested is a field-walking survey of the whole site and a geophysical survey over the southern half. A specification detailing this stage of fieldwork was prepared and subsequent reporting on the results was undertaken according to the specification and within nationally recognised archaeological guidelines.

1.3 *The field-walking survey revealed pottery brick and tile dating from the 13th century through to modern date. There were no specific concentrations to suggest settlement patterns and they are thought more likely to represent manuring scatters. The geophysical survey revealed no archaeological features apart from water pipes from an old water pump.*

2.0 SITE LOCATION & DESCRIPTION

2.1 The site is located on the north western side of Wainfleet All Saints approximately 6km south west of Skegness. The development area is centred on NGR TF 49769 59293 and lies at an approximate altitude of 2m AOD.

2.2 The underlying drift geology is Terrington Beds typified by younger marine deposits (Romano-British to present day), salt marsh, tidal creek and river deposits (sandy silt, sand and clay) (BGS 1995 – Sheet 128: Boston 1: 50,000).

3.0 PLANNING BACKGROUND

3.1 Neil Dowlman Architecture are seeking to develop approximately 3ha of agricultural land off Magdalen Rd, Wainfleet All Saints, Skegness. Following discussions with the Archaeological Advisor to East Lindsey District Council (Lincolnshire County Council Conservation Services Team), a programme of archaeological works is requested in the form of a field walking survey and a magnetometer survey of the southern end of the site. This is a pre-planning application survey.

3.2 A specification detailing the methodology to be maintained during the preliminary stages of field work was prepared and agreed prior to commencing the programme of works. Field-walking and geophysical survey was required relating to the site. The fieldwalking was undertaken by Martin Griffiths BA(Hons), PGDip and the geophysical survey was undertaken by Dr Ian Brooks, Engineering Archaeological Services. The work was undertaken in accordance with current best archaeological practices and the appropriate national standards and guidance including:

Management of Archaeological Projects (English Heritage 1991);
Code of Conduct (Institute of Field Archaeologists 1999);
Standard and Guidance for Archaeological Field Evaluation (IFA 1994);
Geophysical Survey in Archaeological Field Evaluation (EH, David 1995);
Lincolnshire Archaeological Handbook (LCC 1998).

4.0 ARCHAEOLOGICAL BACKGROUND

4.1 The closest recorded archaeological remains date from the medieval period and comprise chance finds of pottery. These are recorded to the east of the site off Magdalen Road (SMR 41928 and SMR 41929).

4.2 Wainfleet is mentioned in the Domesday Survey of 1086AD and is thought to have originated in the late Saxon period. Five manors are recorded including All Saints, St. Marys, Northolme and St. Thomas's. Salterns are recorded in Domesday and salt production continued until the early post-medieval period.

4.3 During the medieval period, Wainfleet was an important port and market centre but by the 16th century, Wainfleet Haven silted up and trade declined.

5.0 AIMS

The aims of the field-walking and geophysical survey were to:

a) to identify past human activity on the site;
b) to identify areas of archaeological potential so that a programme of intrusive archaeological works may be defined;
c) to report on the results of the field-walking and geophysical survey and place them within their Local, Regional or National context

6.0 METHODOLOGY & RESULTS

FIELDWALKING

6.1 The field-walking was undertaken on the 19th - 21st March 2006 by Martin Griffiths PG Dip, BA(Hons). The site was initially divided into 5m transects and walked in both east-west and north-south directions. However, the results were largely negative with no significant concentrations in any specific square (see Appendix A). It was decided to collate the material in 34 squares of 30m to correspond with the geophysical survey. A distribution plot has been produced (see fig.2) but the findings were largely negative.

6.2 The field-walking followed the same grid system as the geophysical survey in order to maintain consistency. However the grid squares for the Geophysical Survey are numbered 1 – 16 in the southern sector only. To avoid interference with the magnetic survey, the field walking was started in the northern end of the site.

6.3 There were many fragments of modern field drain which was seen but not collected and it is suggested that deep ploughing of the field may be responsible for this.

6.4 The field walking revealed no specific concentrations of finds and the amount of pottery, brick and tile material appears uniform in distribution. This suggests

that the presence of this material is as a result of manuring rather than through the presence of settlement on the site.

6.5 One brick of 14th-16th century date was recovered and two pieces of tile of 13th-18th century date were recovered. The remaining brick and tile date from the 18th-20th centuries.

6.6 The largest number of finds are sherds of pottery ranging from 13th -18th centuries. The main type of pottery ware represented are Toynton wares of 13th-15th centuries date. They are largely abraded as a result of ploughing.

GEOPHYSICAL SURVEY (Appendix B).

6.4 A magnetometer survey of the site was undertaken by Dr. Ian Brooks of Engineering Archaeological Services. The results of this survey are presented as Appendix B.

6.5 A fluxgate gradiometer was used which detects magnetic anomalies caused by changes in the composition of the subsoil or the underlying geology to a depth of approximately 1m below the ground surface. A detailed methodology is outlined in the report (Appendix B).

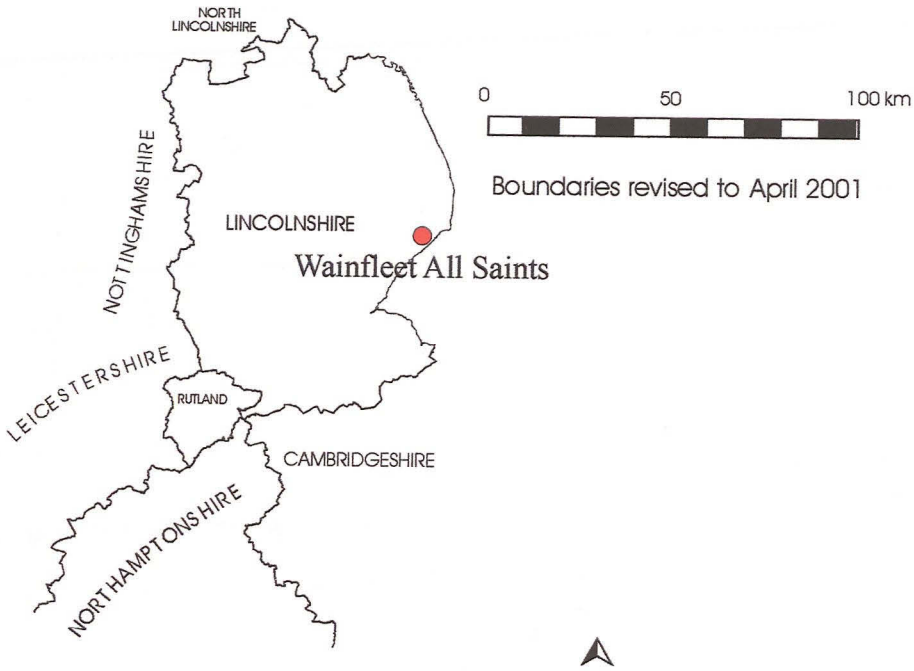
6.6 Overall, the survey displayed no features of archaeological interest.

7.0 DISCUSSION

7.1 In general, both surveys have produced largely negative results. The field-walking did not recover significant archaeological material at all with artefacts from the medieval period represented. The conditions were not necessarily perfect, with the ground having been ploughed. However, visibility was good.

7.2 The geophysical survey was negative. Coupled with the abraded pottery, it is likely that the site was agricultural land during the medieval period. No evidence for settlement was apparent.

8.0 FIGURES



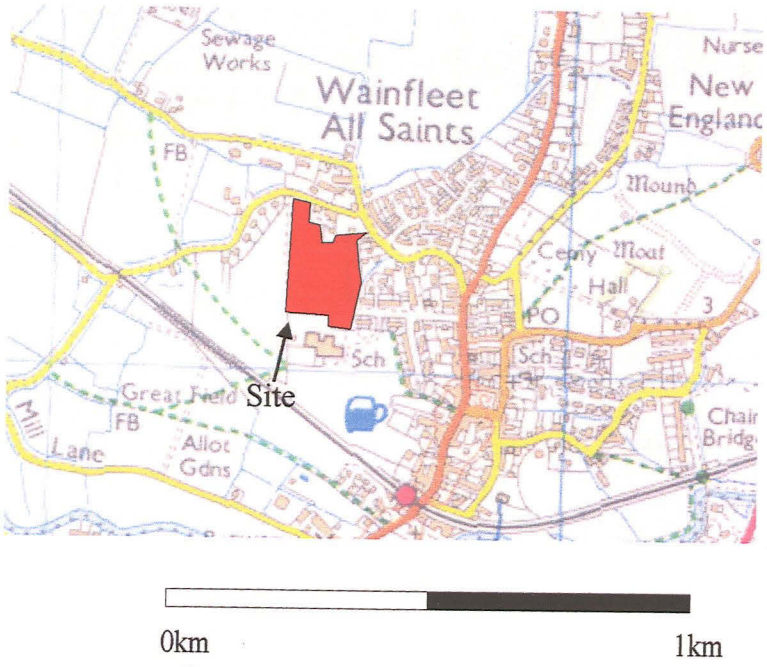


Figure 1. Site location

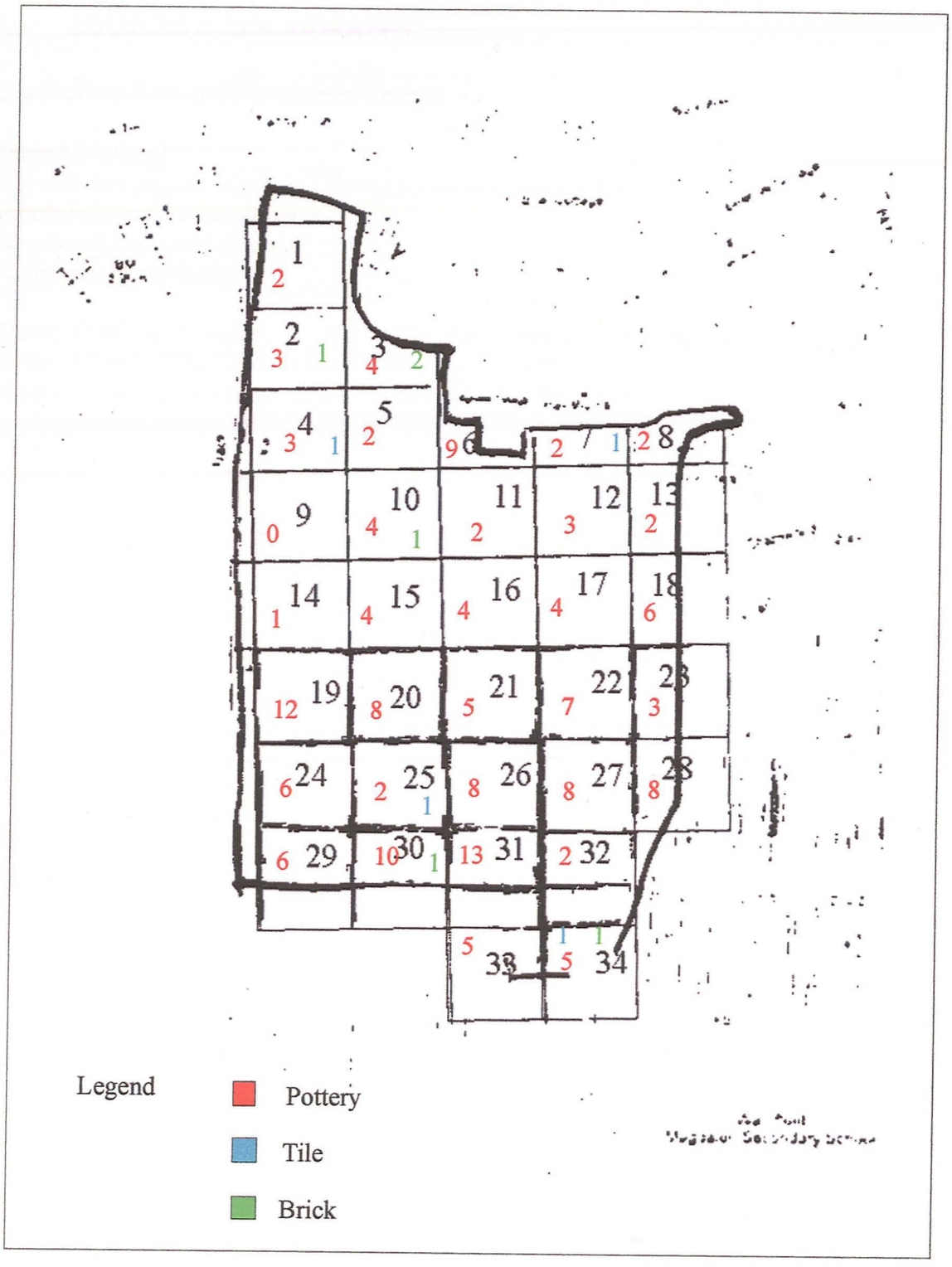


Figure 2 Field Walking Grid

9.0 SOURCES & BIBLIOGRAPHY

Lincolnshire Sites and Monuments Record

English Heritage
The relevant English Heritage County Series was searched for:
Scheduled Ancient Monuments
Registered Parks and Gardens
Registered Battlefields

Foster, C.W. & Longley, T. 1921. *The Lincolnshire Domesday and the Lindsey Survey.* Lincoln: The Lincoln Record Society, rep. 1976.
Morris, J. 1986. *Domesday Book – Lincolnshire 31.* Phillimore.

APPENDIX A:

Pottery Archive

Pottery Archive MWES06

Jane Young

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
01	BL	Black-glazed wares		large vessel	1	1	10		BS		18th to 19th	abraded
01	TOY	Toynton Medieval Ware		bowl ?	1	1	5		BS		late 13th to 15th	abraded
02	TB	Toynton/Bolingbroke wares		large bowl	1	1	35		rim		mid 15th tno 16th	abraded
02	TB	Toynton/Bolingbroke wares		large bowl	1	1	26		rim		mid 15th tno 16th	abraded
02	TOY	Toynton Medieval Ware		jug	1	1	14		BS		late 13th to 15th	abraded
03	TOY	Toynton Medieval Ware		bowl ?	1	1	2		BS		late 13th to 15th	abraded
03	TB	Toynton/Bolingbroke wares		large bowl	1	1	27		BS		mid 15th to 16th	abraded
03	CREA	Creamware		dish	1	1	2		rim		late 18th to mid 19th	abraded
03	CIST	Cistercian-type ware		cup	1	1	5		handle		mid 15th to 16th	abraded
04	TOY	Toynton Medieval Ware		jar	1	1	11		rim		late 13th to 15th	very abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
04	BL	Black-glazed wares		bowl	1	1	8		BS		18th to 19th	abraded
04	TB	Toynton/Bolingbroke wares		jug	1	1	28		handle		mid 15th to 16th	very abraded
05	BOU	Bourne D ware	smooth	jug/jar	1	1	15		base		mid 15th to mid 16th	abraded
05	TOYII	Toynton Late Medieval ware		jug	1	1	24		handle	thick strap handle central hollow	mid 15th to mid 16th	abraded
06	TB	Toynton/Bolingbroke wares		large bowl	1	1	16		BS		mid 15th to 16th	abraded
06	TOY	Toynton Medieval Ware		bowl	1	1	5		BS	? Or TB	14th to 15th	abraded
06	TB	Toynton/Bolingbroke wares		bowl	1	1	22		base		mid 15th to 16th	abraded
06	TOY	Toynton Medieval Ware		jug/jar	1	1	5		BS		late 13th to 15th	abraded
06	TOY	Toynton Medieval Ware		jug	1	1	6		BS		late 13th to 15th	abraded
06	TOY	Toynton Medieval Ware		jug/jar	1	1	8		base		late 13th to 15th	abraded
06	TOY	Toynton Medieval Ware		jug/jar	1	1	4		BS	flake	late 13th to 15th	abraded
06	MISC	Unidentified types	OX/R/OX;med -coarse sandy + ca;hard	?	1	1	8		BS	fine fabric moderate medium - coarse angular quartz ? Some rounded including greensand moderate fe sparse-moderate ca	Roman to medieval	abraded
06	BL	Black-glazed wares		large vessel	1	1	21		base		18th to 19th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
06	TOY	Toynton Medieval Ware		jug/jar	1	1	5		BS		late 13th to 15th	abraded
07	STSL	Staffordshire/Bristol slipware	cream	press moulded dish	1	1	2	brown trailed dec	BS		late 17th to 18th	abraded
07	NOTS	Nottingham stoneware		bowl ?	1	1	36		BS	internal Bristol glaze	mid 19th to 20th	abraded
08	GRIMT	Grimston-type ware	+ ca	jug	1	1	39		handle	grooved rod handle;taken for fabric TS;visually a TOY but Grimston/Lincoln form;looks like fine TOY + ca under x20	13th to 14th	abraded
08	INDUS	Industrial ceramic building material		crucible ?	1	1	23		BS	posible crucible & slag	-	abraded
10	MEDX	Non Local Medieval Fabrics	light oxid;fine-med sandy;hard	jug/jar	1	1	1		BS	common medium subround to round quartz mod fe;? Lincoln/Nottingham	13th to 14th	abraded
10	SNEOT	St Neots-type ware		jar ?	1	1	4		BS	? ID;no punctate brachiopod	10th to 12th	abraded
10	TB	Toynton/Bolingbroke wares		large bowl	1	1	55		base	worn basal edge;odd light firing ext	mid 15th to 16th	abraded
10	TOY	Toynton Medieval Ware	+ ca	small jug/jar	1	1	1		BS	? ID	mid/late 13th to 14th	very abraded
11	GRE	Glazed Red Earthenware		jar	1	1	2		BS		17th to 18th	abraded
11	GRE	Glazed Red Earthenware		small jar	1	1	6		BS		17th to 18th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
12	TOY	Toynton Medieval Ware		jug/jar	1	1	2		BS	late 13th to 15th	15th to 17th ?	abraded
12	TB	Toynton/Bolingbroke wares		large bowl	1	1	59		base		mid 15th to 16th	abraded
12	IMP	Unidentified imported wares		drinking jug ?	1	1	2	impressed dec	BS	? ID;not a stoneware;looks like an underfired Frechen;ash/salt glaze	15th to 17th ?	abraded
13	TOY	Toynton Medieval Ware		jug/jar	1	1	15		BS		late 13th to 15th	abraded
13	TB	Toynton/Bolingbroke wares		large jug/jar	1	1	53		BS		mid 15th to 16th	abraded
14	TOY	Toynton Medieval Ware		jug	1	1	4		BS		late 13th to 15th	abraded
15	TOY	Toynton Medieval Ware		jug/jar	1	1	4		BS		late 13th to 15th	abraded
15	TOY	Toynton Medieval Ware		jug	1	1	6		BS		late 13th to 15th	abraded
15	TOY	Toynton Medieval Ware		jug/jar	1	1	1		BS		late 13th to 15th	very abraded
15	PGE	Pale Glazed Earthenware		large bowl	1	1	16		BS		17th to 18th	abraded
16	TOY	Toynton Medieval Ware		jug	1	1	6		rim	inturned rim ?	late 13th to 15th	abraded
16	LERTH	Late earthenwares		flower pot	1	1	6		base		18th to 20th	abraded
16	GRE	Glazed Red Earthenware		?	1	1	1		BS	flake;? ID	17th to 18th	abraded
16	TOY	Toynton Medieval Ware		jug/jar	1	1	1		BS		late 13th to 15th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
17	TOY	Toynton Medieval Ware		jug	1	1	1		BS		late 13th to 15th	abraded
17	TOY	Toynton Medieval Ware		jug	1	1	2		BS		late 13th to 15th	abraded
17	SCAR	Scarborough ware		miniature jug	1	1	6		handle	tiny oval handle	13th to 14th	abraded
17	TOY	Toynton Medieval Ware		jug	1	1	2		BS		late 13th to 15th	abraded
18	BERTH	Brown glazed earthenware		?	1	1	2		BS	flake	16th to 17th	abraded
18	TB	Toynton/Bolingbroke wares		large jug	1	1	27		BS		mid 15th to 16th	abraded
18	GRE	Glazed Red Earthenware		jar	1	1	19		BS		17th to 18th	abraded
18	TOY	Toynton Medieval Ware		jug	1	1	12		rim	upright rim	14th to 15th	abraded
18	TOY	Toynton Medieval Ware		jug	1	1	7		neck		14th to 15th	abraded
18	TOY	Toynton Medieval Ware		jug/jar	1	1	9		BS		late 13th to 15th	abraded
19	TB	Toynton/Bolingbroke wares		jug	1	1	8		BS		mid 15th to 16th	very abraded
19	TOY	Toynton Medieval Ware		jug	1	1	1		BS	low fired;? ID	late 13th to 15th	abraded
19	TB	Toynton/Bolingbroke wares		bowl	1	1	9		BS		mid 15th to 16th	very abraded
19	STMO	Staffordshire/Bristol mottled-glazed		mug/cup	1	1	2		handle		18th	abraded
19	TOY	Toynton Medieval Ware		jug/jar	1	1	4		BS		late 13th to 15th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
19	GRE	Glazed Red Earthenware		jar ?	1	1	8		BS		17th to 18th	abraded
19	GRE	Glazed Red Earthenware		jar ?	1	1	13		BS		17th to 18th	abraded
19	TB	Toynton/Bolingbroke wares		bunghole vessel	1	1	38		bunghole	plain bung	mid 15th to 16th	abraded
19	GRE	Glazed Red Earthenware		bowl	1	1	8		BS		17th to 18th	abraded
19	GRIMT	Grimston-type ware		jug	1	1	9	fe dec ?	BS	cracked during firing	13th to 15th	abraded
19	TB	Toynton/Bolingbroke wares		large jug	1	1	16		BS		mid 15th to 16th	abraded
19	TOY	Toynton Medieval Ware		jug	1	1	6		BS	? ID or TOYII	late 13th to 16h	abraded
20	SCAR	Scarborough ware		jug	1	1	1		BS	bright cu glaze;? ID	13th to 14th	abraded
20	LERTH	Late earthenwares		dish ?	1	1	6		BS	slipware ?	17th to 18th	abraded
20	TOY	Toynton Medieval Ware		jug	1	1	6		BS		late 13th to 15th	abraded
20	GRIMT	Grimston-type ware	reduced;fine	jug	1	1	5		BS	abundant fine subround to round quartz sparse ca	13th to 14th	abraded
20	GRE	Glazed Red Earthenware		jar ?	1	1	15		BS		17th to 18th	abraded
20	LERTH	Late earthenwares		bowl ?	1	1	2		BS	possibly a BL	17th to 18th	abraded
20	GRIMT	Grimston-type ware		jug	1	1	6		BS		13th to 15th	abraded
20	TOY	Toynton Medieval Ware		jug	1	1	2		BS		late 13th to 15th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
21	TOY	Toynton Medieval Ware		jug/jar	1	1	14		BS		late 13th to 15th	abraded
21	TOY	Toynton Medieval Ware		jug/jar	1	1	6		BS		late 13th to 15th	abraded
21	LERTH	Late earthenwares		flower pot	1	1	2		BS		18th to 20th	abraded
21	TB	Toynton/Bolingbroke wares		large jug	1	1	33		BS		mid 15th to 16th	abraded
21	TB	Toynton/Bolingbroke wares		large jug/jar	1	1	8		BS		mid 15th to 16th	abraded
22	TB	Toynton/Bolingbroke wares		footed pipkin	1	1	46		base with foot		mid 15th to 16th	abraded
22	BL	Black-glazed wares	GRE	bowl ?	1	1	5		BS		mid 16th to 17th	abraded
22	MEDLOC	Medieval local fabrics	dull oxid;fine sandy;hard	jug/jar ?	1	1	4		base	abundant fine subround to round quartz;moderate fe	13th to 15th	abraded
22	TOY	Toynton Medieval Ware		jug/jar	1	1	9		BS		late 13th to 15th	abraded
22	TOY	Toynton Medieval Ware		jug	1	1	4		BS		late 13th to 15th	abraded
22	TOY	Toynton Medieval Ware		jug	1	1	2		BS	? ID or MEDLOC	late 13th to 15th	abraded
22	TOY	Toynton Medieval Ware		jug	1	1	17		BS		late 13th to 15th	abraded
23	TOY	Toynton Medieval Ware		jug	1	1	14		BS		15th to 16th	abraded
23	LERTH	Late earthenwares		garden pot	1	1	1		BS		18th to 20th	abraded
23	TB	Toynton/Bolingbroke wares		large jug	1	1	46		handle		mid 15th to 16th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
24	GRE	Glazed Red Earthenware		large bowl	1	1	25		rim		17th to 18th	abraded
24	TB	Toynton/Bolingbroke wares		large bowl	1	1	16		BS		mid 15th to 16th	abraded
24	GRE	Glazed Red Earthenware		bowl/jar	1	1	9		base		17th to 18th	abraded
24	GRE	Glazed Red Earthenware		jar ?	1	1	1		BS		17th to 18th	abraded
24	TOY	Toynton Medieval Ware		bowl ?	1	1	1		BS		late 13th to 15th	abraded
24	TOY	Toynton Medieval Ware		jug/jar	1	1	6		BS		late 13th to 15th	abraded
25	TOY	Toynton Medieval Ware		jug	1	1	3		BS		late 13th to 15th	very abraded
25	GRE	Glazed Red Earthenware		bowl ?	1	1	5		BS		17th to 18th	abraded
26	SLIP	Unidentified slipware		large bowl ?	1	1	8		BS		18th to 19th	abraded
26	TOY	Toynton Medieval Ware		jug/jar	1	1	5		BS		late 13th to 15th	abraded
26	TOY	Toynton Medieval Ware		jug/jar	1	1	10		BS		late 13th to 15th	abraded
26	TB	Toynton/Bolingbroke wares		small bowl ?	1	1	5		BS		mid 15th to 16th	abraded
26	TOY	Toynton Medieval Ware		large bowl	1	1	8		BS		14th to 15th	abraded
26	TOY	Toynton Medieval Ware	red slipped	jug	1	1	5		BS	as at Louth;? ID	late 13th to 14th	abraded
26	GRE	Glazed Red Earthenware	Bolingbroke ?	bowl ?	1	1	8		BS		18th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
26	SCAR	Scarborough ware		jug	1	1	12		rim	? ID	13th to 14th	very abraded
27	NCBW	19th-century Buff ware		jar/jug	1	1	2	white slip band & mocha dec	BS		19th to 20th	abraded
27	TOY	Toynton Medieval Ware		jug/jar	1	1	1		BS		late 13th to 15th	abraded
27	SCAR	Scarborough ware		small/miniature jug	1	1	3	applied fe scale dec	BS	? ID	13th to 14th	abraded
27	MEDX	Non Local Medieval Fabrics	pale oxid;fine sandy;medium hard	jug	1	1	3		BS	no glaze;? ID Scarborough/Nottingham	13th to 14th	very abraded
27	BOU	Bourne D ware	smooth	jug/jar	1	1	15		BS		mid 15th to 16th	abraded
27	BL	Black-glazed wares	GRE	mug	1	1	7		base		mid 16th to early 17th	abraded
27	BL	Black-glazed wares		large bowl	1	1	39		BS		19th to 20th	abraded
27	TOY	Toynton Medieval Ware		jug/jar	1	1	1		BS		late 13th to 15th	abraded
28	TOY	Toynton Medieval Ware		jug	1	1	12		BS		late 13th to 15th	abraded
28	TOY	Toynton Medieval Ware	+ ca	jug/jar	1	1	1		BS		late 13th to 15th	abraded
28	TB	Toynton/Bolingbroke wares		large jug	1	1	32		base	cracked during firing	mid 15th to 16th	abraded
28	GRE	Glazed Red Earthenware		jar ?	1	1	6		BS		17th to 18th	abraded
28	TB	Toynton/Bolingbroke wares		large bowl	1	1	16		BS		mid 15th to 16th	abraded
28	TB	Toynton/Bolingbroke wares		bowl ?	1	1	2		BS		mid 15th to 16thy	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
28	NOTS	Nottingham stoneware		jar ?	1	1	6		BS	internal Bristol glaze	mid 19th to 20th	abraded
28	GRE	Glazed Red Earthenware		jar ?	1	1	4		BS		17th to 18th	abraded
29	TOY	Toynton Medieval Ware		jug	1	1	6		BS		late 13th to 15th	abraded
29	GRIMT	Grimston-type ware		jug	1	1	2		BS		13th to 15th	abraded
29	STSL	Staffordshire/Bristol slipware	cream	cup	1	1	2	brown combed & trailed dec	BS		18th	abraded
29	TOY	Toynton Medieval Ware		jug	1	1	1		BS		late 13th to 15th	abraded
29	TB	Toynton/Bolingbroke wares		large jug	1	1	19		BS		mid 15th to 16th	abraded
29	NOTS	Nottingham stoneware		large jar ?	1	1	5	machine dec	BS		18th	abraded
30	TOY	Toynton Medieval Ware		jug/jar	1	1	2		BS		late 13th to 15th	very abraded
30	TB	Toynton/Bolingbroke wares		large bowl	1	1	15		BS		mid 15th to 16th	abraded
30	ENGS	Unspecified English Stoneware		ink bottle	1	1	5		BS		19th to 20th	abraded
30	LERTH	Late earthenwares		plant pot	1	1	2		BS		19th to 20th	abraded
30	TOY	Toynton Medieval Ware		jug	1	1	5		BS		late 13th to 15th	abraded
30	TOY	Toynton Medieval Ware		jug	1	1	5		BS		late 13th to 15th	abraded
30	TOY	Toynton Medieval Ware		bowl	1	1	9		BS		late 13th to 15th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
30	TOY	Toynton Medieval Ware		jug/jar	1	1	2		neck		late 13th to 15th	abraded
30	TOY	Toynton Medieval Ware		jug	1	1	6	applied fe curved strip	BS		late 13th to 15th	very abraded
30	GRE	Glazed Red Earthenware		large vessel	1	1	18		BS	cu bichrome	late 16th to 17th	abraded
31	TB	Toynton/Bolingbroke wares		large bowl	1	1	19		BS		mid 15th to 16th	abraded
31	TOY	Toynton Medieval Ware		bowl	1	1	6		BS		late 13th to 15th	abraded
31	BOU	Bourne D ware	smooth	jug/jar	1	1	10		BS		mid 15th to 16th	abraded
31	TOY	Toynton Medieval Ware		jug/jar	1	1	8		BS	? ID	late 13th to 15th	very abraded
31	TOY	Toynton Medieval Ware		bowl	1	1	2		BS		late 13th to 15th	abraded
31	TOY	Toynton Medieval Ware		bowl ?	1	1	1		BS		late 13th to 15th	abraded
31	PGE	Pale Glazed Earthenware		bowl	1	1	15		BS	bichrome;2 sherds stuck together	17th to 18th	abraded
31	TOY	Toynton Medieval Ware		jug/jar	1	1	6		BS	? ID	late 13th to 15th	very abraded
31	GRE	Glazed Red Earthenware		large bowl	1	1	17		rim		17th to 18th	abraded
31	TOY	Toynton Medieval Ware		jug/jar	1	1	1		BS		late 13th to 15th	abraded
31	TOYII	Toynton Late Medieval ware		large bowl	1	1	18		rim		mid 15th to mid 16th	abraded
31	ENGS	Unspecified English Stoneware		jam/lard jar	2	1	14		rim & BS		late 19th to 20th	abraded

context	cname	full name	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date	condition
31	TOY	Toynton Medieval Ware		jug	1	1	11		BS		late 13th to 15th	abraded
32	BL	Black-glazed wares		large vessel	1	1	14		BS		18th to 19th	abraded
32	TB	Toynton/Bolingbroke wares		bowl	1	1	15		BS		mid 15th to 16th	abraded
33	TB	Toynton/Bolingbroke wares		handled bowl ?	1	1	13		BS		mid 15th to 16th	abraded
33	LERTH	Late earthenwares		flower pot	1	1	2		rim		18th to 20th	abraded
33	TOY	Toynton Medieval Ware		small jug	1	1	6		BS		late 13th to 15th	abraded
33	CIST	Cistercian-type ware		cup	1	1	4		UHJ	brown glaze	mid 15th to 16th	abraded
33	TOY	Toynton Medieval Ware		jug	1	1	22		BS		late 13th to 15th	abraded
34	TOY	Toynton Medieval Ware		jug	1	1	2	fe strip	BS		late 13th to 14th	abraded
34	DUTRT	Dutch Red Earthenware-types		jug/jar	1	1	2		BS		14th to 16th	abraded
34	FREC	Frechen stoneware		drinking jug	1	1	3		BS		mid 16th to 17th	abraded
34	TOY	Toynton Medieval Ware		jug ?	1	1	19		BS	unmatured glaze	late 13th to 15th	abraded
34	TOY	Toynton Medieval Ware		?	1	1	19		BS	? ID	late 13th to 15th	very abraded

context	cname	full name	fabric	frags	weight	description	date	condition
02	BRK	Brick		1	53		19th to 20th	abraded
03	BRK	Brick	fine calcareous	1	5	handmade	16th to 20th	abraded
03	BRK	Brick		1	32	malting brick	18th to 20th	abraded
04	PNR	Peg, nib or ridge tile	dull oxidised;fine sandy	1	49	semi vitrified;flat roofer	13th to 16th	abraded
07	MODTIL	Modern tile		1	12		19th to 20th	fresh
10	BRK	Brick	fine fabric	1	35	handmade	16th to 20th	abraded
25	PNR	Peg, nib or ridge tile		1	21	drain/pantile	18th to 20th	abraded
30	BRK	Brick	fine calcareous red fabric	1	29	unmatured yellow-green glaze	14th to 16th	very abraded
34	PNR	Peg, nib or ridge tile	sandy	1	107	flat roofer	13th to 18th	abraded
34	DRAIN	Drain (general)		1	10	brown glazed stoneware	18th to 20th	abraded

APPENDIX B

Results of Geophysical Survey

Survey Commissioned
by
M and M Archaeology

Surveyed
by
I.P. Brooks
Engineering Archaeological Services Ltd.

registered in England
Nº 2869678

Magdalen Road, Wainfleet All Saints
Geophysical Survey

March 2006

EAS Client Report 2006/6

CONTENTS

Magdalen Road Wainfleet All Saints, Geophysical Survey - Introduction:

NGR

Centred on TF 49517 59150

Location and Topography (Figure 1)

The survey area was immediately to the north of Wainfleet Magdalen Secondary School in a field at the western end of Magdalen Road, Wainfleet All Saints. The survey area was in the southern half of the field that stretched between the boundary of Wainfleet Magdalen Secondary School and Mat Pitts Lane. Bounded on the eastern side by the western edge of Wainfleet All Saints the western edge of the survey was defined by open fields.

Basically flat, the field was ploughed and weathered at the time of survey.

Archaeological Background

It is intended to build houses on the survey area in an area allocated for housing by the East Lindsey District Council (http://www.e-lindsey.gov.uk/localplan/maps/54main.htm) The town of Wainfleet has moved its position several times since the Early Medieval period. The original medieval church was approximately 3 km west of the modern town of Wainfleet All Saints, however by the 1300's AD the focus of settlement had moved to the area of the port on Wainfleet Haven. By the fifteenth century, the haven had began to silt up and the port declined (http://www.hemsop.Org.uk/XSLProcessor.asp?resourceCode=HEMSoP-LI-GOL-LOC-22). It is assumed that the town took up its current position after this date. The town gained its charter in AD 1457 and in AD 1484 William of Waynefleet, Bishop of Winchester built a college to feed Magdalen College, Oxford.

A pottery scatter, including Roman, Saxon and Medieval pottery, has been reported from the survey area (M. Griffiths pers. comm.). This however, may be erroneous and no evidence for significant pottery scatters were observed during the course of the survey.

The work was undertaken as part of the mitigation strategy required for the planning application associated with the building of the new houses.

Aims of Survey

To gather sufficient information to establish the location and extent of any archaeological features within the development area and, if possible, to characterise the archaeology located.

SUMMARY OF RESULTS

Only a limited number of consistent magnetic anomalies were located. The most dominant anomaly appears to be a metal pipe, possibly from a wind pump. Other anomalies are difficult to interpret but consist of two areas of magnetic disturbance and a number of feint linear anomalies which do not appear to form any consistent pattern.

Some areas of modern disturbance were also located.

Magdalen Road Wainfleet All Saints, Geophysical Survey -Results:

Methods

The Fluxgate Gradiometer survey was undertaken using parts of sixteen 30 x 30 m grid squares laid out as in Figure 2 . Readings were taken at 0.5 m intervals along transects 1 m apart. These transects were walked in a zigzag pattern.

The survey was carried out using a Geoscan FM 36 Fluxgate Gradiometer with a ST 1 sample trigger. Grey Scale and X - Y Plots were produced using Geoscan Research "Geoplot" v. 3.00mx.

Survey Results:

Area

The development area covers approximately 1.1 Ha, of which 1.04 Ha was surveyed.

Display

The results are displayed as Grey Scale Image and as X-Y Trace Plots. Figures 3 and 4.

Results:

The magnetic disturbance within the survey area is relatively slight. The most dominant anomaly recorded is a linear ferromagnetic response running approximately north- south (Anomaly B, Figure 5). This anomaly terminates with an enlarged area of ferromagnetic responses at its northern end (Anomaly A, Figure 5). The responses of these anomalies is consistent with a metal (probably iron) pipe crossing the survey area. The abrupt northern extent, together with the enlarged area associated with Anomaly A would suggest that the pipe only extended this far into the field. One possible interpretation is that Anomaly A represents the position of a wind pump with the water being taken away along a pipe represented by Anomaly B.

Other ferromagnetic responses within the survey area can be related to modern disturbance of the magnetic field. Anomaly C is the effect of the boundary fences along this part of the survey area, whilst Anomalies D and E are the effect of dumps of modern rubbish at the edge of the field.

Two large areas of magnetic disturbance have been defined (Anomalies G and F, Figure 5). Covering an area of approximately 60 x 20 m Anomaly G forms an irregular area with its long axis running approximately north - south. Whilst this may be the result of archaeological activity it is also possible that this is the response to variation within the underlying glacial geology of the site. Anomaly F covers an area of approximately 20 x 20 m and would appear to be related to Anomaly A. It is possible that this anomaly represents a spread of spoil associated with the construction of the possible wind pump, however a similar range of interpretations to Anomaly G is also possible. The two smaller areas of magnetic disturbance (Anomaly H, Figure 5) are of unknown origin.

A limited number of feint linear anomalies have also been defined. Five of these (Anomaly I, Figure 5) are roughly parallel, running NW - SE, and possibly represent the drainage pattern within the field. This interpretation is not certain, however as two of the elements within this anomaly are not straight. The other linear anomaly (Anomaly J, Figure 5) runs approximately ENE - WSW. It is possible that this also represents part of the drainage pattern of the field although other interpretations are also possible.

Magnetic Susceptibility

It was possible to take soil samples in order to assess the magnetic susceptibility of the soils. It was not possible to obtain a subsoil sample for comparison.

Sample	Volume susceptibility χ_v	Mass susceptibility χ_m
Grid 1	**70**	**93.3**
Grid 2	**132**	**159.0**
Grid 3	**118**	**135.6**

Magdalen Road Wainfleet All Saints, Geophysical Survey - Conclusions:

Sample	Volume susceptibility χ_v	Mass susceptibility χ_m
Grid 4	**79**	**90.8**
Grid 5	**61**	**73.5**
Grid 6	**78**	**84.8**
Grid 7	**92**	**105.8**
Grid 8	**89**	**98.9**
Grid 9	**89**	**100.0**
Grid 10	**73**	**89.0**
Grid 11	**71**	**84.5**
Grid 12	**104**	**111.8**
Grid 13	**75**	**86.2**
Grid 14	**77**	**95.1**
Grid 15	**74**	**86.0**
Grid 16	**77**	**87.5**

In general, the susceptibilities, as measured, are of moderate levels, suggesting that magnetic conditions were adequate. It is noticeable that there are enhanced readings within Grids 2, 3, 7, 8, 9 and 12 which would tend to suggest variable archaeological activity across the survey area. The majority of these enhanced values can be directly related to anomalies recorded in the Fluxgate Gradiometer survey. Anomalies F and G (Figures 5 and 6) occupy Grids 2, 3, 7 and 8 suggesting these anomalies may have an archaeological component. Grids 9 and 12, however, are more difficult to explain. Grid 9 contains part of the linear anomalies described as Anomaly I whilst Grid 12 is at the corner of the school boundary. It would seem likely that the enhanced value for Grid 12 may be related to modern rubbish collecting around this corner.

Conclusions

It is a fundamental axiom of archaeological geophysics that the absence of features in the survey data does not mean that there is no archaeology present in the survey area only that the techniques used have not detected it.

The grey scale plot of the survey is dominated by the ferromagnetic responses of Anomalies A and B. It is possible that this may be the effect of a wind pump in the field and the water pipe leading from this feature. Other ferromagnetic responses are probably the result of modern disturbance.

The two large area of magnetic disturbance (Anomalies F and G) are difficult to define into distinct anomalies, however the enhanced magnetic susceptibility values gained from samples within these anomalies would suggest they may have an archaeological component. It is also possible that there may be a geological element to these area of magnetic variability.

The feint linear anomalies would appear to be related to the drainage pattern in the field, however, they may have an archaeological component. In particular the slightly curved linear anomalies may relate to the enhanced magnetic susceptibility values in Grid 9 may suggest some archaeological activity in this area.

Magdalen Road Wainfleet All Saints, Geophysical Survey - Technical Information:

Techniques of Geophysical Survey:

Magnetometry:

This relies on variations in soil magnetic susceptibility and magnetic remenance which often result from past human activities. Using a Fluxgate Gradiometer these variations can be mapped, or a rapid evaluation of archaeological potential can be made by scanning.

Resistivity:

This relies on variations in the electrical conductivity of the soil and subsoil which in general is related to soil moisture levels. As such, results can be seasonally dependant. Slower than Magnetometry this technique is best suited to locating positive features such as buried walls that give rise to high resistance anomalies.

Resistance Tomography

Builds up a vertical profile or pseudosection through deposits by taking resistivity readings along a transect using a range of different probe spacings

Magnetic Susceptibility:

Variations in soil magnetic susceptibility occur naturally but can be greatly enhanced by human activity. Information on the enhancement of magnetic susceptibility can be used to ascertain the suitability of a site for magnetic survey and for targeting areas of potential archaeological activity when extensive sites need to be investigated. Very large areas can be rapidly evaluated and specific areas identified for detailed survey by gradiometer.

Instrumentation:

1. Fluxgate Gradiometer - Geoscan FM36

2. Resistance Meter - Geoscan RM4/DL10

3. Magnetic Susceptibility Meter - Bartington MS2

4. Geopulse Imager 25 - Campus

Methodology:

For Gradiometer and Resistivity Survey 20m x 20m or 30m x 30m grids are laid out over the survey area. Gradiometer readings are logged at either 0.5m or 1m intervals along traverses 1m apart. Resistance meter readings are logged at 1m intervals. Data is down-loaded to a laptop computer in the field for initial configuration and analysis. Final analysis is carried out back at base.

For scanning transects are laid out at 10m intervals. Any anomalies noticed are where possible traced and recorded on the location plan.

For Magnetic Susceptibility survey a large grid is laid out and readings logged at 20m intervals along traverses 20m apart, data is again configured and analysed on a laptop computer.

Figure 1: Magdalen Road, Wainfleet All Saints Location Scale 1:25,000

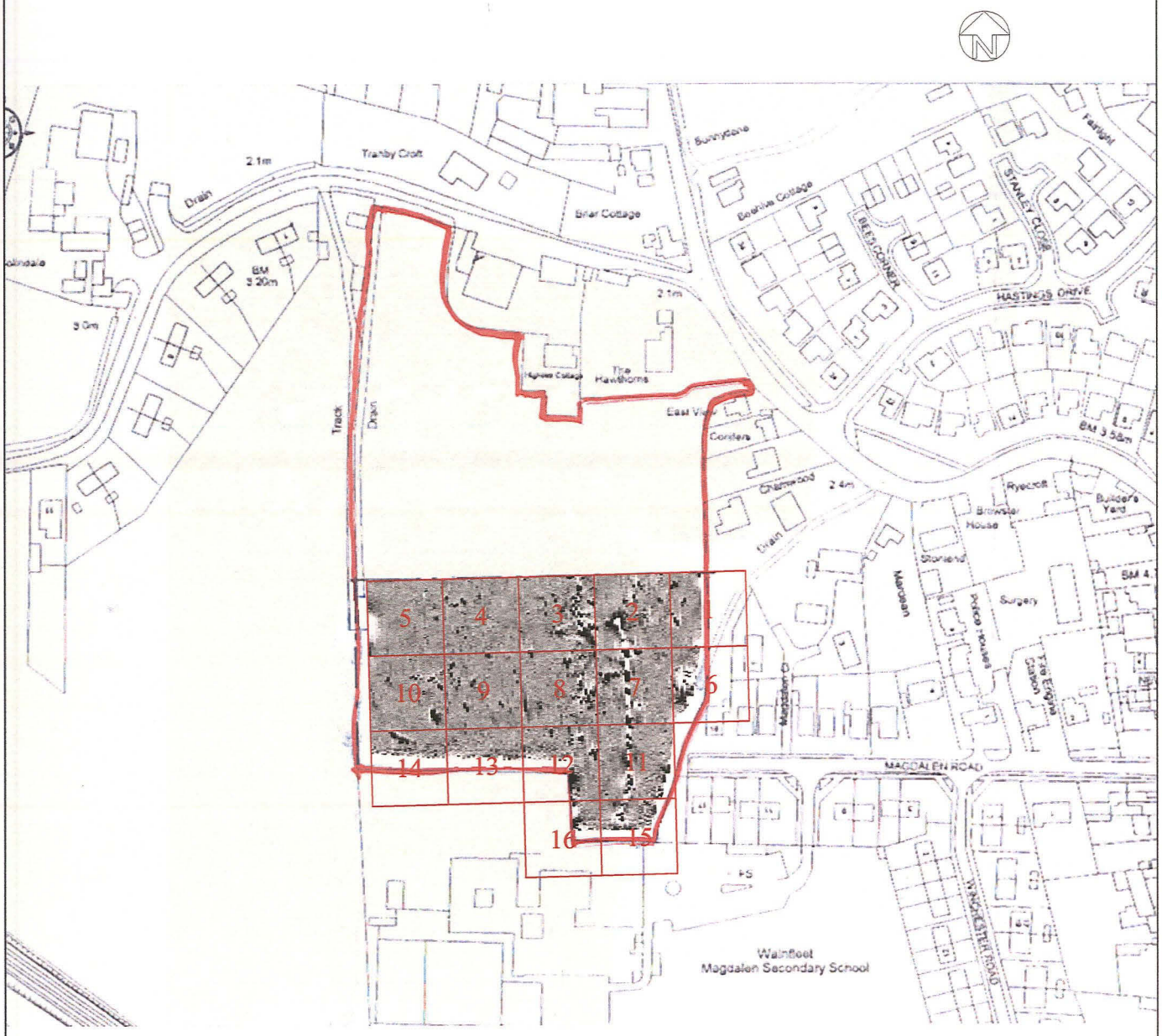
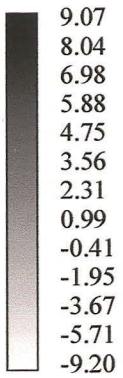


Figure 2: Magdalen Road, Wainfleet All Saints
Location of Survey
Scale 1:2500



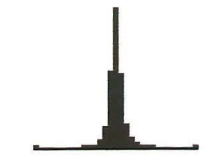


Figure 3: Magdalen Road, Wainfleet All Saints Grey Scale Plot	Scale 1:1000

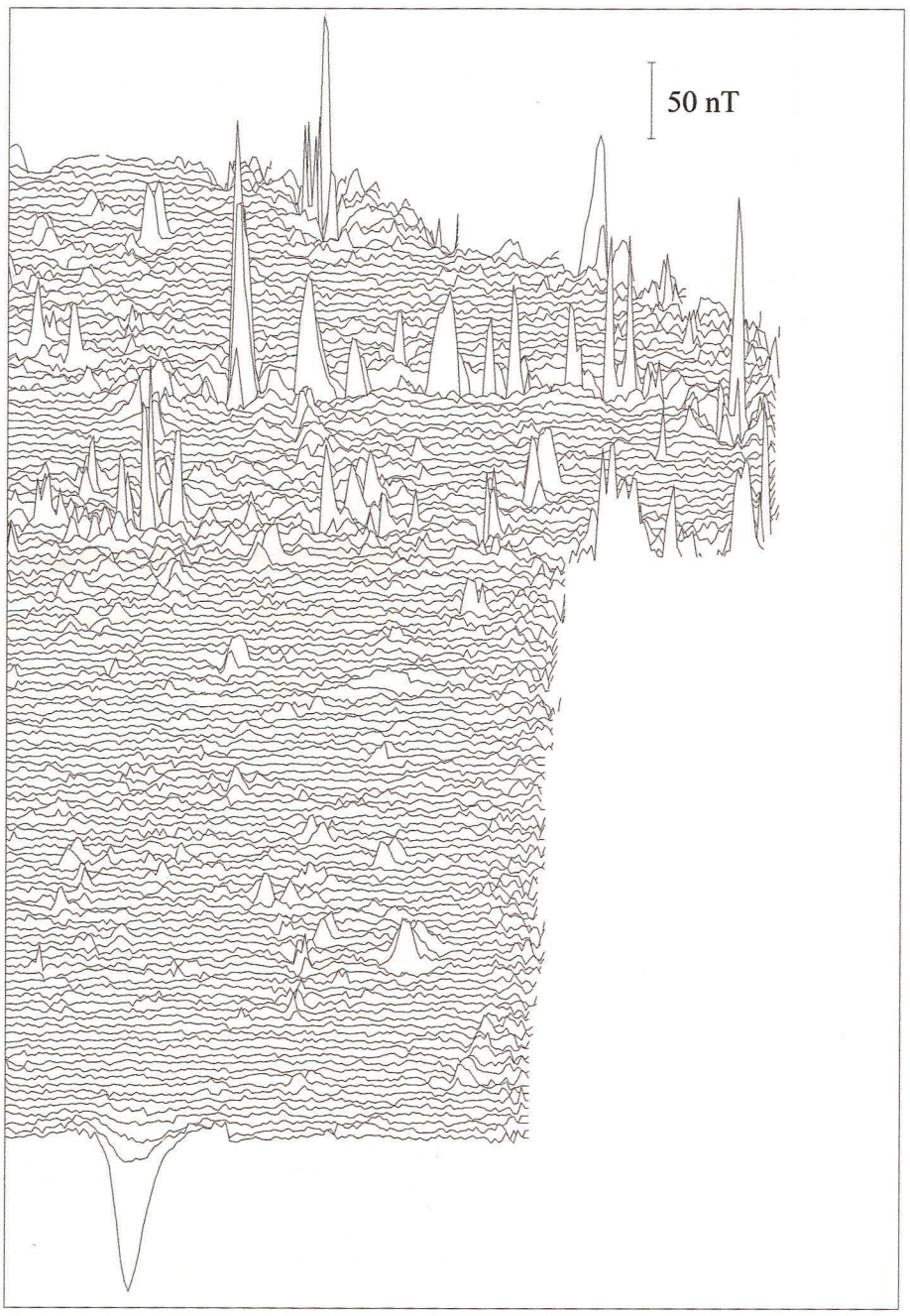
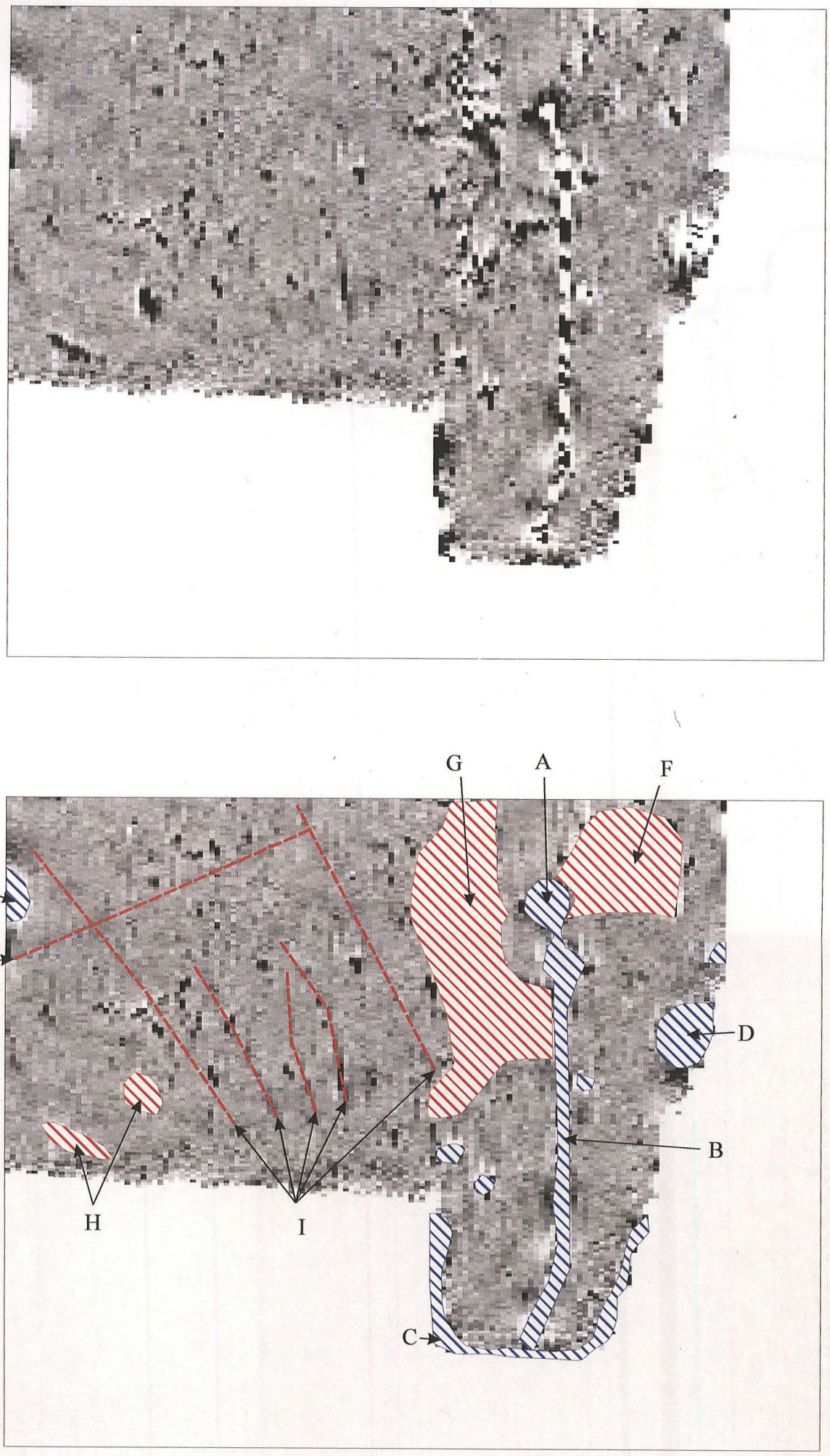


Figure 4: Magdalen Road, Wainfleet All Saints X - Y Plot	Scale 1:1000

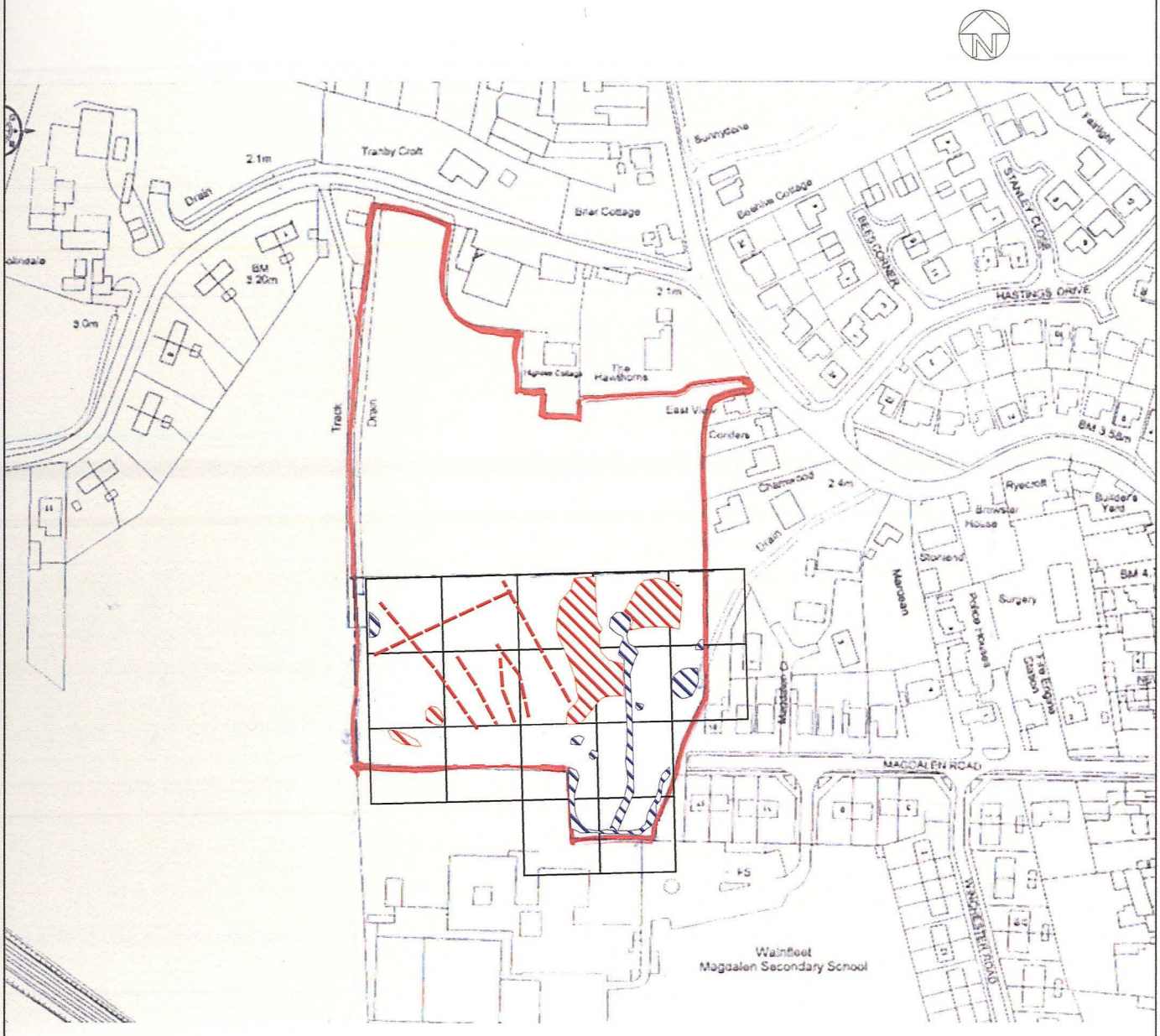


Ferromagnetic response

Area of magnetic disturbance

Possible linear anomaly

Figure 5: Magdalen Road, Wainfleet All Saints Interpretation	Scale 1:1000



Ferromagnetic response

Area of magnetic disturbance

Possible linear anomaly

Figure 6: Magdalen Road, Wainfleet All Saints
Summary
Scale 1:2500