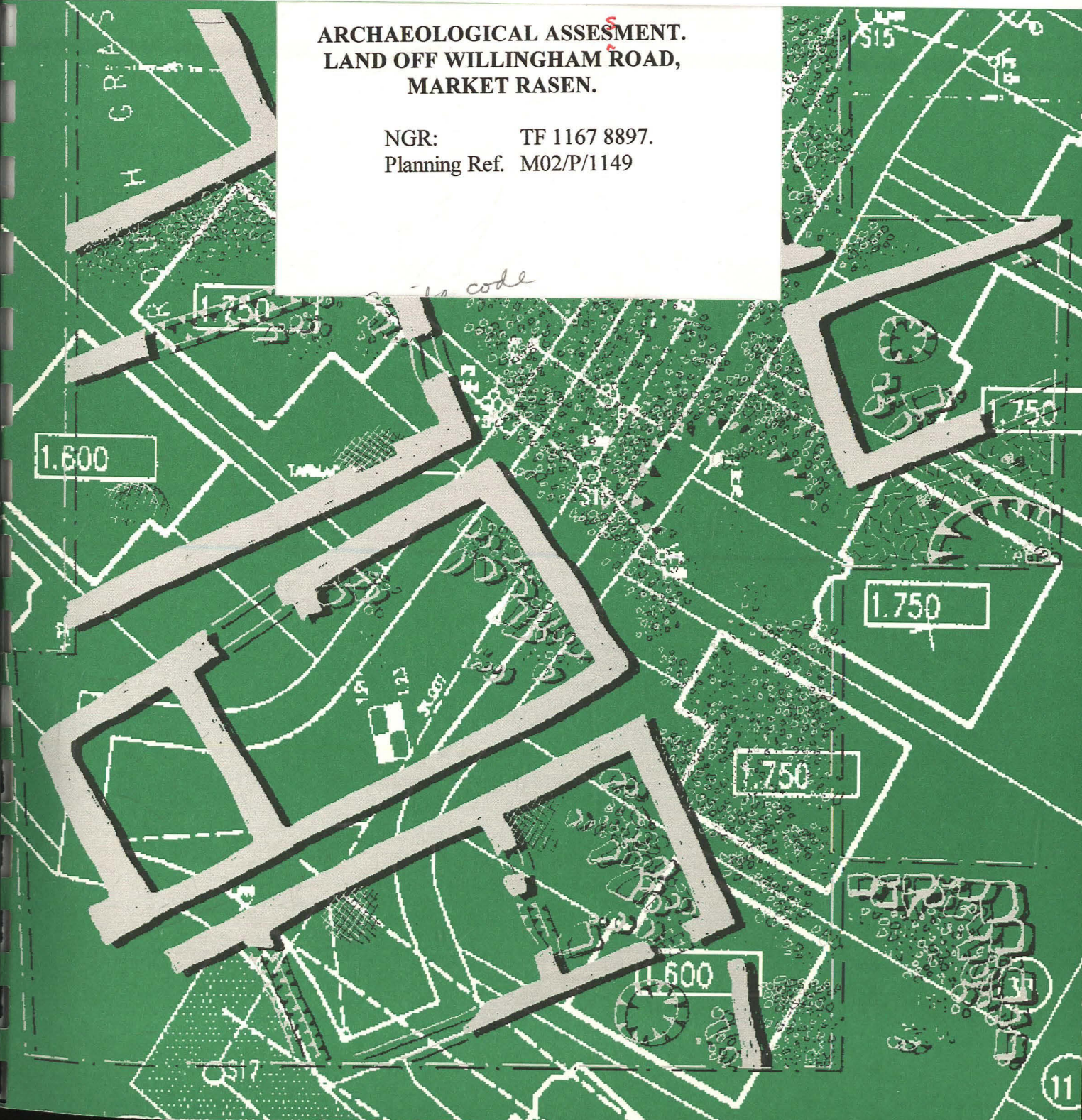


# PRE-CONSTRUCT ARCHAEOLOGY

L I N C O L N

ARCHAEOLOGICAL ASSESSMENT.  
LAND OFF WILLINGHAM ROAD,  
MARKET RASEN.

NGR: TF 1167 8897.  
Planning Ref. M02/P/1149





Conservation  
Services

07 FEB 2003

Highways & Planning  
Directorate



GRID 43865

SOURCE 418519

54807 4183931

Prehistoric

418617

**ARCHAEOLOGICAL ASSESSMENT.  
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? pit code

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### *Summary*

- *A brief archaeological assessment has been prepared for Chartdale Homes Ltd. in respect of a proposed residential development on land off Willingham Road, Market Rasen, Lincolnshire. It has been prepared to satisfy the requirements of West Lindsey District Council, and it will be used to inform a programme of archaeological evaluation that will seek to address the interests of the developer, whilst ensuring at the same time that archaeological resources are not needlessly destroyed as a result of developing the site.*
- *The results of this report suggest that the archaeological potential of the site is relatively limited. The area was peripheral to the medieval settlement focus, and there are no existing records in the SMR or elsewhere to indicate the presence of buried archaeological resources. However, the entire site is covered with vegetation, and fieldwalking of the area to identify surface scatters of archaeological remains is not possible. One worked flint of Neolithic/Bronze Age date was recovered from a mole hill during a rapid walkover survey; carried out as part of this assessment.*
- *Market Rasen is known for its extensive Romano-British pottery industry. There is no current evidence to suggest that elements of this industry fall within the proposed development area, although this possibility requires clarification.*
- *It is proposed in this report that a selective geophysical survey should be undertaken to provide further information relating to any buried archaeological resources. The results of this survey could then be used to establish whether or not any further intervention, such as trial excavation, would be required to further establish the archaeological potential of the area.*



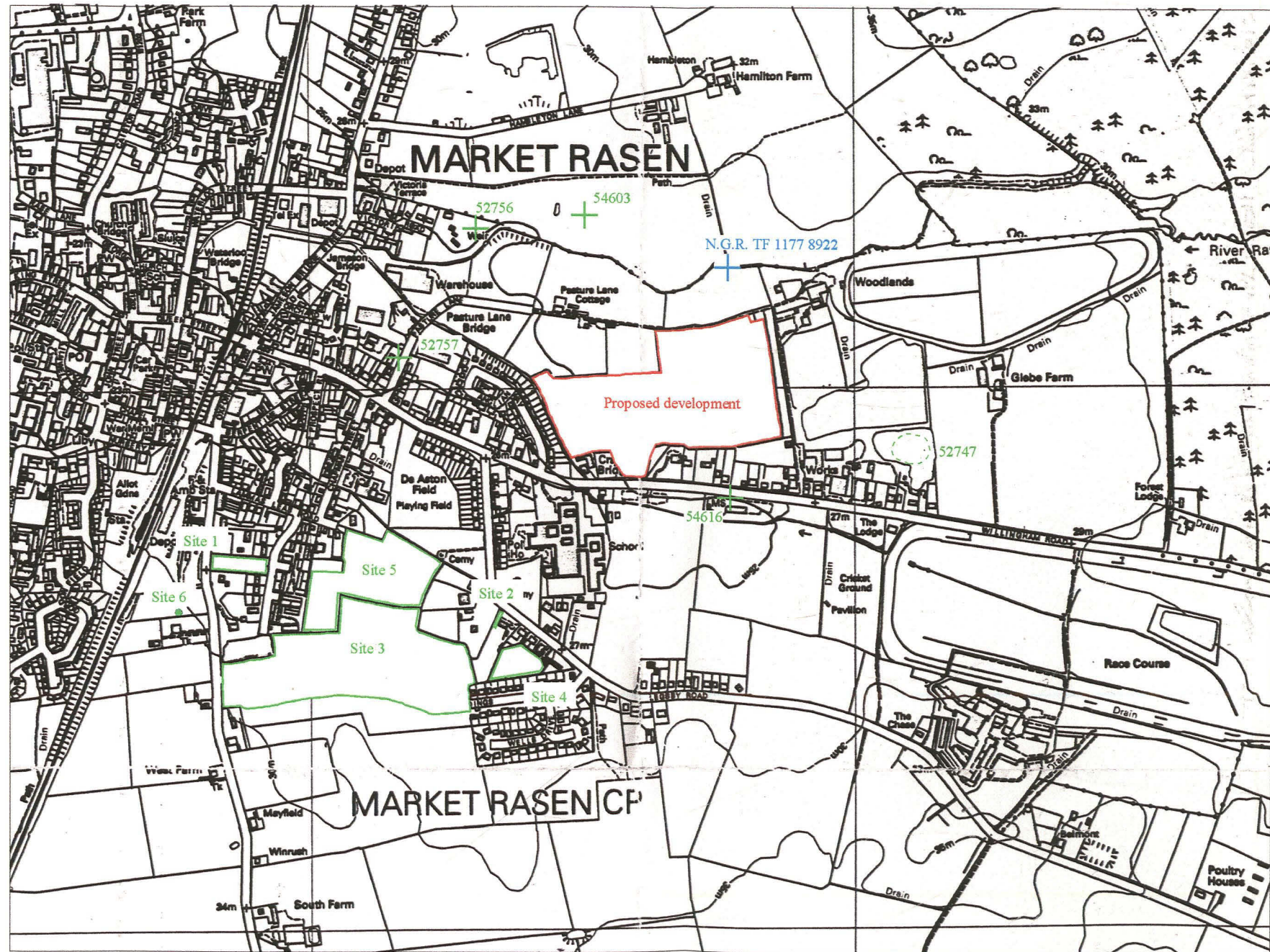
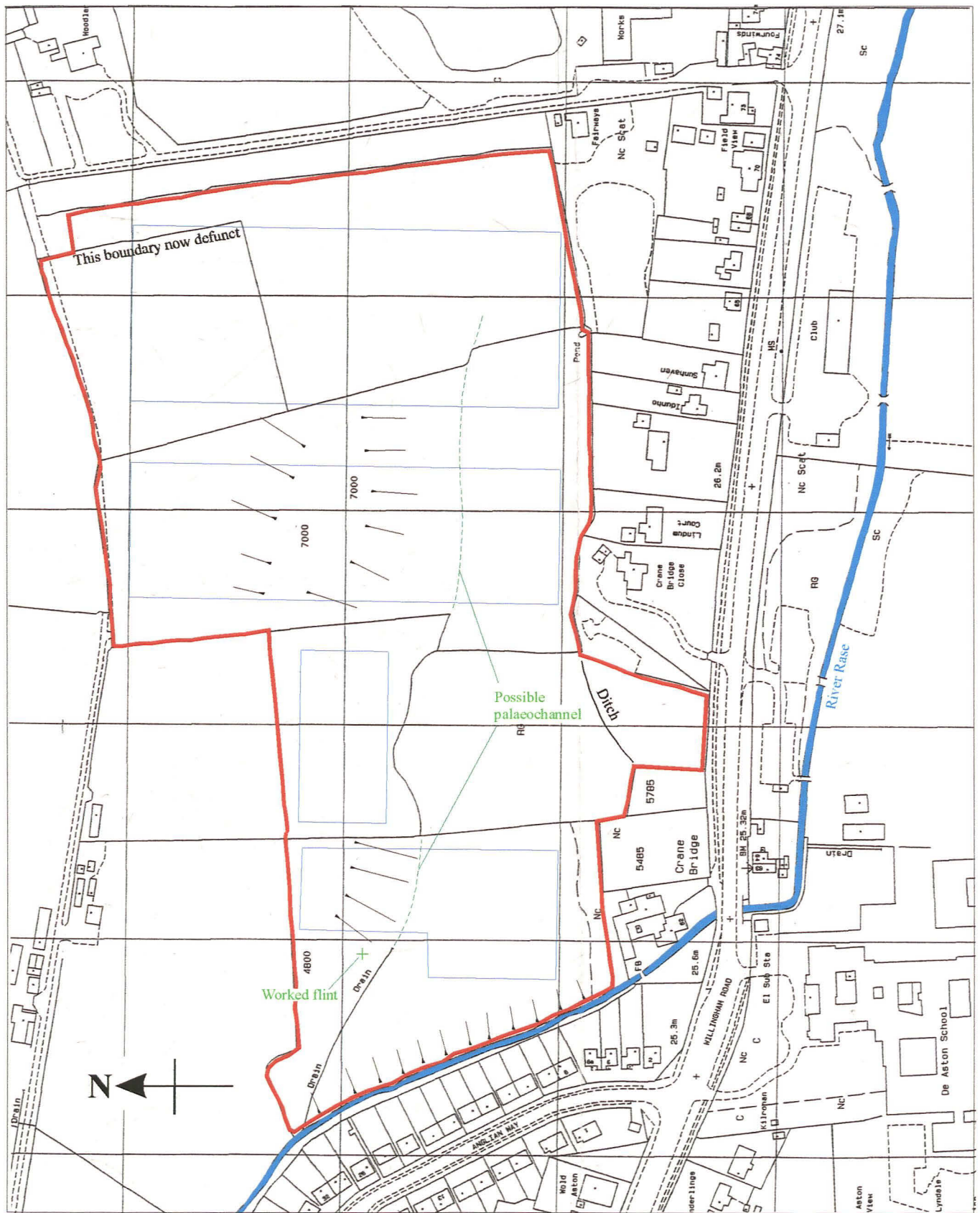


Fig. 1 : General site location. Shows proposed development (in red) and S.M.R. entries and archaeological interventions (in green). 1:10,000





**Fig. 2 :** Site plan. Incorporating areas proposed for geophysical survey (in blue) and topographic information. 1:2,500

## **1.0 Introduction**

This desk-based study was commissioned by Chartdale Homes Ltd. Its purpose is to assess the overall archaeological potential of a proposed development site, without the use of intrusive fieldwork, and to assess the potential impacts which may be posed by development of land off Willingham Road, Market Rasen, Lincolnshire. The report will assist West Lindsey District Council with its decision-making in relation to archaeological matters, and will likewise inform the client of any archaeological constraints which may be of relevance to the application.

This report draws primarily upon the resources contained within the Lincolnshire Sites and Monuments Record, coupled with a thorough inspection of the site itself.

The report was researched and prepared by Alex Brett and Colin Palmer-Brown of Pre-Construct Archaeology (Lincoln) (hereafter PCA) in January 2003.

## **2.0 Location and description**

Market Rasen is in the administrative district of West Lindsey, approximately 18km north-east of Lincoln.

The site that is the subject of this report comprises approximately 8 hectares of land that lies to the north of Willingham Road on the east side of the town (NGR (centre): TF 11670 8897). The 8 hectare area is divided into five unequal sub-units that support predominantly grass and weed/marsh vegetation.

## **3.0 Geology and topography**

The site is situated on the east bank of the River Rase, which forms the west boundary to the proposed development area. In the vicinity of the river itself, there is a localised strip of alluvial silt and clay, although the bulk of the site geology is characterised by Quaternary blown sand. These blown sand deposits extend over a substantial area to the east of Middle Rasen and northwards of Market Rasen (British Geological Survey Sheet 102).

Topographically, the site is characterised by a series of gentle undulations resembling sand dunes. There are noted high spots towards the west side, and a similar elevation towards the centre. The centre of the site is bisected by the 25m contour line.

Internally, the site is sub-divided by a series of drainage ditches. Most of these are of linear character, although one ditch, occupying a west-central location, meanders significantly and may reflect the location of a former tributary of the River Rase. The east bank of the Rase itself is a notable elevation, and this has developed as a result of periodic dredging and dumping to create what is effectively a low flood bank.

The vegetation of the area is a mixture of grazing and rough pasture. In places, the latter is wet and supports localised sedge vegetation. Puddles of standing water were noted in several locations.



#### **4.0 Planning background**

Planning consent is sought from West Lindsey District Council to construct 102 new dwellings with associated access and infrastructure (Planning Reference M02/P/1149). Prior to the determination of this application, West Lindsey District Council, acting on the advice of the Assistant Built Environment Officer of Lincolnshire County Council, has requested the undertaking of an archaeological assessment and evaluation to determine the overall archaeological potential of the site, without the use of intrusive techniques. This approach is consistent with the advice set out in *Archaeology and Planning: Planning Policy Guidance Note 16*, 1990.

#### **5.0 Objectives and methods**

The purpose of this report is to identify and assess archaeological remains that may be sensitive to construction works associated with the proposed development and, if necessary, to suggest further methods by which the site may be evaluated in advance of development.

Data was, for the most part, obtained for a 1km radius, centred on the application area. This was drawn from the following sources:

- Records held by the County Sites and Monuments Record for Lincolnshire (SMR)
- Information supplied by the client company, Chartdale Homes Ltd.
- A detailed inspection of the site (undertaken by C Palmer-Brown on 27<sup>th</sup> January, 2003)

#### **6.0 General archaeological and historical background**

Only low densities of prehistoric artefacts have been recorded within the parish, although there is a suspected prehistoric enclosure with associated field systems recorded as a cropmark at TF 118 883.

The area is well known for its Romano-British remains; in particular an extensive pottery industry to the south-east and south of the medieval settlement (particularly in the Linwood area). One kiln site was discovered in 1964 when an RAF Vulcan bomber crashed in a field to the west of Linwood Road.

Members of De Aston School investigated a pottery production site in 1966 at NGR TF 107 888. This identified several kilns of the simple single flue updraught type. Most of the associated pottery consisted of grey domestic sherds, similar to those associated with the Trentside industries of Torksey, Lea, Knaith and Newton on Trent, although 19 sherds of distinctively stamped and rouletted ware were also found. These have been likened to the Parisian wares associated with the pre-Roman tribal territory and Roman *civitas* of the Parisii of East Yorkshire (Samuels 1983). More recent excavations on the east side of Linwood Road have also identified Parisian type sherds. The general implication has been that these wares were being produced at Market Rasen, although there is now some doubt over this matter (MJ Darling, pers. Comm.).

The pottery industry appears to have flourished between the 2<sup>nd</sup> and 4<sup>th</sup> centuries AD.

## 7.0 Archaeological potential

Information presented below has been collated from a variety of sources. Data from published and unpublished sources has been synthesised, and the site itself has been examined in some detail, resulting in a general assessment of archaeological potential of the proposed development area.

### 7.1 The County Sites and Monuments Record

Seven entries of indirect relevance to the proposed scheme are incorporated as part of the Lincolnshire SMR (locations indicated on fig. 1). These entries exclude purposeful archaeological interventions, which are considered separately.

SMR Ref.	N.G.R.	Description
54603	TF 115 893	Worked flint, Early Neolithic to E. Bronze Age.
54616	TF 1177 8880	Milestone. 18 <sup>th</sup> century.
52747	TF 1210 8885	Brick works. Un-dated.
52752	TF 1115 8905	Earthwork, slit trench. Modern.
52756	TF 1130 8930	Site of windmill. Post-medieval.
-	TF 111 885 to TF 1085 8867	Industrial activity. Roman.
-	TF 1079 8840 to TF 1076 8859	Kilns. Roman.

**NB.** the SMR is currently under revision and no reference numbers are available for some entries.

### 7.2 Archaeological interventions

Recent developer funded investigations in the vicinity of Linwood Road on the south side of the town have identified clay quarry pits, kiln furniture and pottery, dating between the 2<sup>nd</sup> and 4<sup>th</sup> centuries AD. Some imported wares, along with limited evidence for iron smelting, suggest that industrial activities other than pottery manufacture were taking place.

A scheme of archaeological investigation to the east of Linwood Road identified two or possibly three further kilns with associated structures and large quantities of 2<sup>nd</sup> century pottery.



In total, six developer-funded interventions have taken place within 1km of the proposed development site. They are summarised below, and the location of each site is indicated on fig. 1 (Sites 1 – 6).

**Site 1: East of Linwood Road (TF 1074 8867)**

An archaeological watching brief exposed two parallel ditches orientated north to south. The ditches did not marry with any current alignments or those depicted on historical maps of the area. 2<sup>nd</sup> and 3<sup>rd</sup> century pottery was recovered from the site. (Field, 2002)

**Site 2: South-west of Legsby Road (TF 1135 8857)**

A large undated ditch, aligned NNW to SSE was exposed during an archaeological watching brief. (Williams, 2000)

**Site 3: East of Linwood Road (TF 1110 8850)**

Evaluation of a large area identified a significant density of Romano-British cut features, including quarry pits and multiple linear ditches containing pottery waster sherds dating from the 2<sup>nd</sup> to 4<sup>th</sup> centuries AD (Albone, 1998). Kiln debris was also recovered, but the only pottery kiln was not identified until a subsequent programme of excavation at the same site (LAS forthcoming).

**Site 4: South-west of Legsby Road (TF 1137 8848)**

Watching brief carried out during the construction of bungalows: identified no archaeological remains (Clay, 2000 & 2002)

**Site 5: Between Linwood Road and Legsby Road (TF1115 8866)**

A program of evaluation identified medieval ridge and furrow earthworks, as well as Romano-British cut features containing large quantities of 2<sup>nd</sup> and 3<sup>rd</sup> century pottery and kiln furniture (Allen, 2001)

**Site 6: West of Linwood Road (approx. TF1076 8858)**

A program of archaeological evaluation produced evidence for two or three Romano-British pottery kilns; one of which appeared to have been repaired on several occasions. There were also pits; interpreted as clay quarries, and structural remains thought to have been industrial buildings associated with pottery manufacture. Large quantities of 2<sup>nd</sup> century pottery were recovered (M Williams, pers. Comm.).

## **8.0 Proposed evaluation programme**

The site lies significantly eastwards of the medieval settlement and is likely to have been utilised at this time for agricultural/pastoral purposes.

There are no artefactual or other entries within the SMR for this area, although a single worked flint (a blade of possible Neolithic/Bronze Age date – Rylatt, pers. Comm.) was recovered from the top of a mole hill when the site was examined on 27<sup>th</sup> January. This was towards the north-west corner within an elevated area.

There are no visible earthworks on the site, and the varied topography is more likely to reflect buried sand dunes of natural origin. In the extreme north-west of the site, a ditch extends south-eastwards from its junction with the River Rase. Although this



terminates approximately 37m into the site, its terminal appears to align with a meandering ditch situated c. 21m to its east. It is suggested that the two were once linked, forming a palaeochannel which branched south-eastwards from the River Rase and then meandered through the site of proposed development (its course may be further indicated by two pronounced kinks or deviations in fields towards the east of the site – see fig. 2).

The soil surface over the entire site is obscured by vegetation. It is not possible, therefore, to undertake either a superficial or precise programme of archaeological fieldwalking (fortuitously, one flint artefact was recovered from the top of a mole hill).

Today, areas of the site are marshy, and this could well have been similar in antiquity, when a tributary of the River Rase bisected it; potentially rendering some areas unsuitable for sustained human activity. However, the site itself is large, and there remains a possibility at least that zones within it were occupied, or possibly used for industrial purposes. One is aware of the fact that, to date, all of the Romano-British archaeology that has been investigated at Market Rasen has been associated with industrial activities: primarily pottery manufacture. There must have been an associated settlement or series of settlements, which have thus far eluded detection.

To evaluate the site, it is proposed that 50% of its surface area should become the subject of a geophysical survey. Given that topsoil magnetic susceptibility is not possible due to ground cover, the site should be surveyed by detailed gradiometry in the configuration indicated in fig. 2.

The results of the gradiometer survey would be used to inform a programme of strategic trial excavation, if required.

## 9.0 Methodology

Fluxgate gradiometry is a non-intrusive scientific prospecting tool that is used to determine the presence/absence of some classes of sub-surface archaeological features (eg pits, ditches, kilns, and occasionally stone walls). By scanning the soil surface, geophysicists identify areas of varying magnetic susceptibility and can interpret such variation by presenting data in various graphical formats and identifying images that share morphological affinities with diagnostic archaeological remains.

The use of gradiometry should help to establish the presence/absence of buried magnetic anomalies that may reflect sub-surface archaeological features, and therefore form a basis for a subsequent scheme of archaeological trenching, if required.

Pre-Construct Archaeology (Lincoln) would commission Pre-Construct Geophysics to undertake the fluxgate gradiometer survey and produce a detailed written and graphical account on the findings. This phase of work would be carried out in accordance with the English Heritage document *Geophysical Survey in Archaeological Field Evaluation*, 1995.



The survey would be undertaken using a *Bartington DL601* and a *Geoscan Research* fluxgate gradiometer (Model FM36), both with an electronic sample trigger set to take 2 readings per 1.0m (a sample interval of 0.5m). The zigzag traverse method of survey would be used, with 1.0m wide traverses across 20m x 20m grids, subject to site conditions.

David Bunn and Peter Masters would undertake the fieldwork over a period not exceeding three days.

The 50% sample area is indicated on fig. 2. This configuration has been devised to provide maximum coverage, and to sample areas that are most likely to produce archaeological remains. One area of the site (south-central) is largely unsuitable for this type of survey due to high vegetation cover. However, it is proposed that the geophysicists will themselves sample an area not exceeding 0.28ha in area, rendering the total area surveyed 4.0ha (50% of the total site area).

Each survey grid will be recorded with reference to the national grid. This information will be documented in any subsequent report, and survey grid points will be marked on the ground using short canes/stakes. This should allow convenient relocation of the grid, should the survey be followed by a programme of intrusive evaluation.

### 9.1 Reporting

Data would be processed using *Geoplot* version 3.0 software and would be presented in a variety of different formats (greyscale images, X-Y trace plot, interpretative plots as appropriate). The report would include a detailed narrative and an interpretation of any magnetic anomalies detected.

It is anticipated that analysis of the results would take place over a 3 - 4 day period, following completion of the fieldwork.

### 9.2 Dissemination

Copies of the gradiometer survey report would be sent to the commissioning body and the local SMR.

## 10.0 Bibliography

- Albone, J., 1998, *Archaeological Field Evaluation (Phase II). Land of Linwood Road, Market Rasen*. Unpublished Client Report.
- Allen, M., 2001, *Archaeological Evaluation, Land East of Linwood Road, Market Rasen, Lincolnshire*. Unpublished Client Report.
- Bunn, D., & Palmer-Brown, C. 2001, *Fluxgate Gradiometer Survey: Land East of Linwood Road, Market Rasen, Lincolnshire*. Unpublished Client Report.
- Clay, C., 2000, *Archaeological Watching Brief Report; Plot 4 Legsby Road, Market Rasen Lincolnshire*. Unpublished Client Report.

- Clay, C., 2002, *Archaeological Watching Brief Report; Plots 1 & 2 Legsby Road, Market Rasen Lincolnshire*. Unpublished Client Report.
- Cameron, K. 1998 *A Dictionary of Lincolnshire Place-Names*. Nottingham, English Place-Name Society, Popular Series, Vol 1.
- Everson, P.L., Taylor, C.C. & Dunn, C.J. 1991 *Change and Continuity: Rural settlement in north-west Lincolnshire*. HMSO, London.
- Field, N., 2002, *Land Next to 'Petriburg', Linwood road, Market Rasen, Lincs. Archaeological Watching Brief*. Unpublished Client Report.
- Garmonsway, G. N. 1972 *The Anglo-Saxon Chronicles, a translation*. J. M. Dent & Sons Ltd. London.
- IFA 1994 *Standard and Guidance for Archaeological Desk-Based Assessments*. Birmingham, Institute for Field Archaeologists.
- LCC, 1998 *Lincolnshire Archaeological Handbook: A Manual of Archaeological Practice*. Lincoln, Built Environment Section, Lincolnshire County Council.
- Morgan, P. & Thorn, C. (eds.) 1986 *Domesday Book: 31 Lincolnshire*. Chichester, Phillimore.
- Palmer-Brown, C., 1998, *Archaeological Desk Top Assessment and Field Evaluation (Phase I). Land of Linwood Road, Market Rasen*. Unpublished Client Report.
- Williams, M., 2000, *'Sarir', Legsby Road, Market Rasen, Lincs. Residential Development Access Road. Archaeological Watching Brief*. Unpublished Client Report.
- Platts, G. 1985 *Land and people in medieval Lincolnshire. History of Lincolnshire Vol. IV. The History of Lincolnshire Committee*. Broadwater Press, Hertfordshire.
- Samuels, J 1983 *The Production of Roman Pottery in the East Midlands*, Unpublished Phd thesis, Nottingham