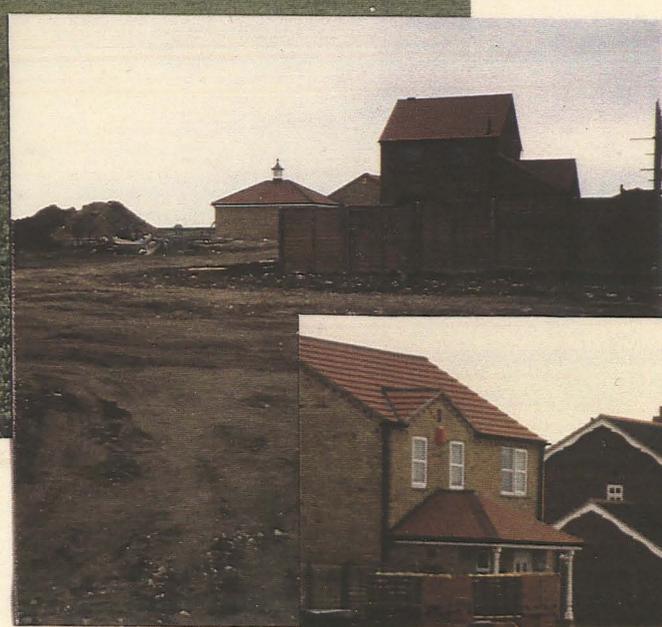


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AN ARCHAEOLOGICAL DESK TOP ASSESSMENT  
BY  
PRE-CONSTRUCT ARCHAEOLOGY

# DEVELOPMENTS AT CHAPEL HEATH, NAVENBY NORTH KESTEVEN, LINCOLNSHIRE



PRE-CONSTRUCT ARCHAEOLOGY

**Further Development at Chapel Heath, Navenby  
North Kesteven  
SK 99305750**

**An Archaeological Desk Top Assessment  
for  
Ploughsound Limited**

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June 1994**

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## 1. NON TECHNICAL SUMMARY

1.1.1 Ploughsound Limited are currently developing land at Chapel Heath, Navenby, (Figure 1) and intend to develop further land. This land located at the junction of Chapel Lane and High Dike (Figure 2) is the subject of this Desk Top Study.

1.1.2 The National Grid Reference for the centre of this development area has been taken, for this study at least, to be SK 99305750.

1.1.3 The archaeological potential, particularly for the Roman period, is considered to be high, and the palaeo-environmental potential low. Landscape and archaeological features of all periods, from the Neolithic to post-Medieval may be recovered. The greatest potential, based on current knowledge, exists for the Roman period.

1.1.4 There have been no borehole and ground soil investigations at the site, which is at the time of writing (June 1994) under crop.

1.1.5 Further works in the form of Field Evaluations will be necessary in the development area, (see Section 2).

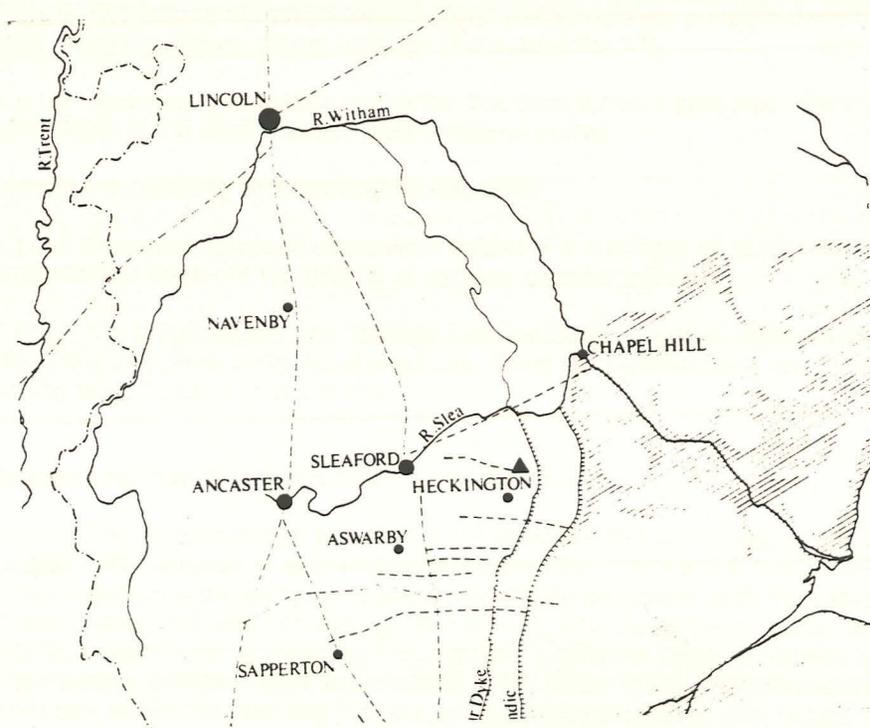


Figure 1. Location of Navenby in relation to known Roman sites in South Lincolnshire

## 2 CONCLUSIONS AND RECOMMENDATIONS

### 2.1 Conclusions

#### 2.1.1 Summary of potential

2.1.1.1 This report has identified that the defined redevelopment area (Figure 2) is one of high archaeological potential with artefactual evidence dating from the Neolithic to the post-medieval periods. The greatest potential exists for landscape, infrastructure and structural remains belonging to the Roman era.

2.1.1.2 Lithic remains, including blades and blade cores from within the development area testify to the presence of Neolithic or Bronze Age activity (7.2.1.4). The nature of this activity has not been determined.

2.1.1.3 Iron Age pottery, including 1st century AD rouletted wares have been recovered from the development area (7.2.1.5).

2.1.1.4 On current evidence the greatest potential within the development area is for the Roman era (7.2.2). Artefacts indicate that occupation of the site extends from the 1st to 5th centuries.

2.1.1.5 The results of field walking suggest that structures, possibly dwellings, may exist along the Ermine Street frontage (7.2.2.14-7.2.2.17).

2.1.1.6 There is no indication that within the development area was anything other than agricultural in the medieval and post-medieval period.

#### 2.1.2 Damage to existing archaeological deposits

2.1.2.1 Due to the absence of previous fieldwork it is difficult to assess the depth of deposits and therefore the degree of damage caused to them.

2.1.2.2 It is probable that any damage that has been caused to date is the result of ploughing and other agricultural practices. There is no evidence of any other activities having been conducted at the site.

#### 2.1.3 Reasons for continuing archaeological involvement in the project.

2.1.3.1 The archaeological potential of the development area in general is high and located within an area of archaeological importance. There are a number of factors which make an archaeological presence on the development sites desirable. The author makes it clear that while endorsing the following statements he is neither setting a research agenda nor committing Ploughsound Limited to large, expensive and unnecessary archaeological excavations. As is stated in the Recommendations section, there are, within the planning process, established procedures with regard to planned field evaluations which seek to identify the character of the buried deposits with a view, ideally, of preserving them *in situ*.

2.1.3.2 The archaeological potential for the Roman period is very high. On present knowledge the greatest potential exists along the High Dike (Ermine Street) frontage.

2.1.3.3 An integrated archaeological programme of works across the development area will allow a large landscape area to be assessed. Although in the first instance archaeological evaluation trenches will be necessary to determine the nature, date, level of survival of any surviving deposits, they may be preceded by non-intrusive geophysical survey techniques, (where applicable), by archaeo-environmental investigations in order to determine dietary, economic, vegetation and climatic questions; by soil micromorphological investigations to determine the nature and development of the soil structure.

2.1.3.4 There has to date been no field excavations in the vicinity of Chapel Heath, Navenby, but it is possible that remains of some or all of the following may be recovered: roads, a 1st century fort, a posting station, a *Mansio*, dwellings, cemetery remains and field boundaries. It is fair to say that the status of the Roman

settlement/occupation is still unclear and therefore all opportunities must be taken to elucidate its form, function, date, density of population etc. **Material information leading to an understanding of these problems may be of importance in a local, regional and national context.**

2.1.3.5 There is no clear understanding of land use in the area in the proto, pre- and early historic periods, and it is possible that deposits or features of these dates may be located. **Archaeological material recovered should be considered to be of at least regional importance. However, if settlement or occupation sites of pre-Roman date are recovered they should be considered within a regional or national framework.**

## 2.2 Recommendations

2.2.1 As is noted in Section 3 (Report Objectives) this report represents the initial stage in the assessment process, and will, as a condition of the Archaeological Brief, be followed by further phases of work.

2.2.2 As this document makes clear the development area being considered is located in an area of high archaeological sensitivity.

2.2.3 Field evaluations will provide information of sufficient quality and detail that reasoned and informed decisions may be made with regard to the preservation, or not, of buried archaeological material, and therefore facilitate the compilation of sympathetic foundation designs.

2.2.4 The objective of field evaluations are:

- To aim to determine, as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed redevelopment. An adequate representative sample of all areas where archaeological remains are potentially threatened should be studied, and attention should be given to sites and remains of all periods (inclusive of evidence of past environments).
- The evaluation should seek to clarify the nature and extent of existing disturbance and intrusions (such as basements) and hence the degree of archaeological survival of buried deposits and surviving structures of archaeological significance.

2.2.5 Field evaluations may include, where applicable, non-invasive techniques such as resistivity, magnetometer or ground penetrating radar. Specialist advice should be sought before commission to determine the suitability of individual locations.

2.2.6 If, for whatever reason, it is not possible to reconcile the preservation *in situ* of archaeological remains with the needs of the construction design, it may be necessary in specific locations for further and more extensive archaeological excavations to be undertaken.

### 3. INTRODUCTION

#### 3.1 Outline

3.1.1 This Desk Top Study is a pre-determination commission by Ploughsound Limited, in advance of a proposed redevelopment of land at the junction of Chapel Lane and High Dike (Ermine Street), Chapel Heath, Navenby, North Kesteven (Figure 2). The central National Grid Reference is SK 99305750.

3.1.2 The written assessment report (DTA) of the likely archaeological impact of development has been written to assist a planning application by the above named developers. This will be followed by further works as requested by the North Kesteven Planning Archaeologist.

3.1.3 The development area will comprise of private housing, and supporting infrastructure.

3.1.4 A period of 5 working days was considered to be sufficient to research and write the report.

3.1.5 The report was researched and written in June 1994 by Gary Brown, Partner, Pre-Construct Archaeology.

3.1.6 Research involved visit to: The Site (16.06.94); Lincolnshire Sites and Monuments Record; The Heritage Trust for Lincolnshire Sites and Monuments Record; the Lincolnshire Archives, Rumbold Street, Lincoln; Local Studies Library, Lincoln. The Royal Commission for Historic Monuments England (Air Photographs) and University of Cambridge Committee for Aerial Photography were contacted with regard to relevant material in these collections

#### 3.2 Report Objectives

3.2.1 This report aims to identify and assess such archaeological remains that might be threatened by construction works associated with the redevelopment at the various sites.

3.2.2 The Desk Top Study forms the **first stage** in the process of archaeological assessment

3.2.3 The archaeological potential, as defined in this report, is sufficiently important to warrant further assessments.

3.2.4 This may comprise non-invasive geophysical surveys and trial excavations across the defined redevelopment areas.

3.2.5 It is possible, based on the evidence of the trial excavations, that a further, and more extensive series of field excavations will be necessary at specified locations.

## 4. THE SITE Figure 2

### 4.1 Location

4.1.1 The site is located at the junction of Chapel Lane and High Dike which form the northern and eastern development boundaries respectively. The south and western limits are marked by field boundaries. The central National Grid Reference for this site is SK 99305750.

4.1.2 The maximum extent of this phase of the development is 166m east to west and 220m north to south.

### 4.2 The Proposed Scheme

4.2.1 The development will consist of residential dwellings.

4.2.2 Outline permission has not yet been sought and therefore details of ground plans and foundation design has not yet been established. However, the development at this site represents a further phase of works with Phase 1 completed and Phase 2 currently being undertaken, and on these sites strip foundations have been used.

4.2.3 Other ground disturbances will be caused by, for example, new infrastructure, establishment of services and drainage.

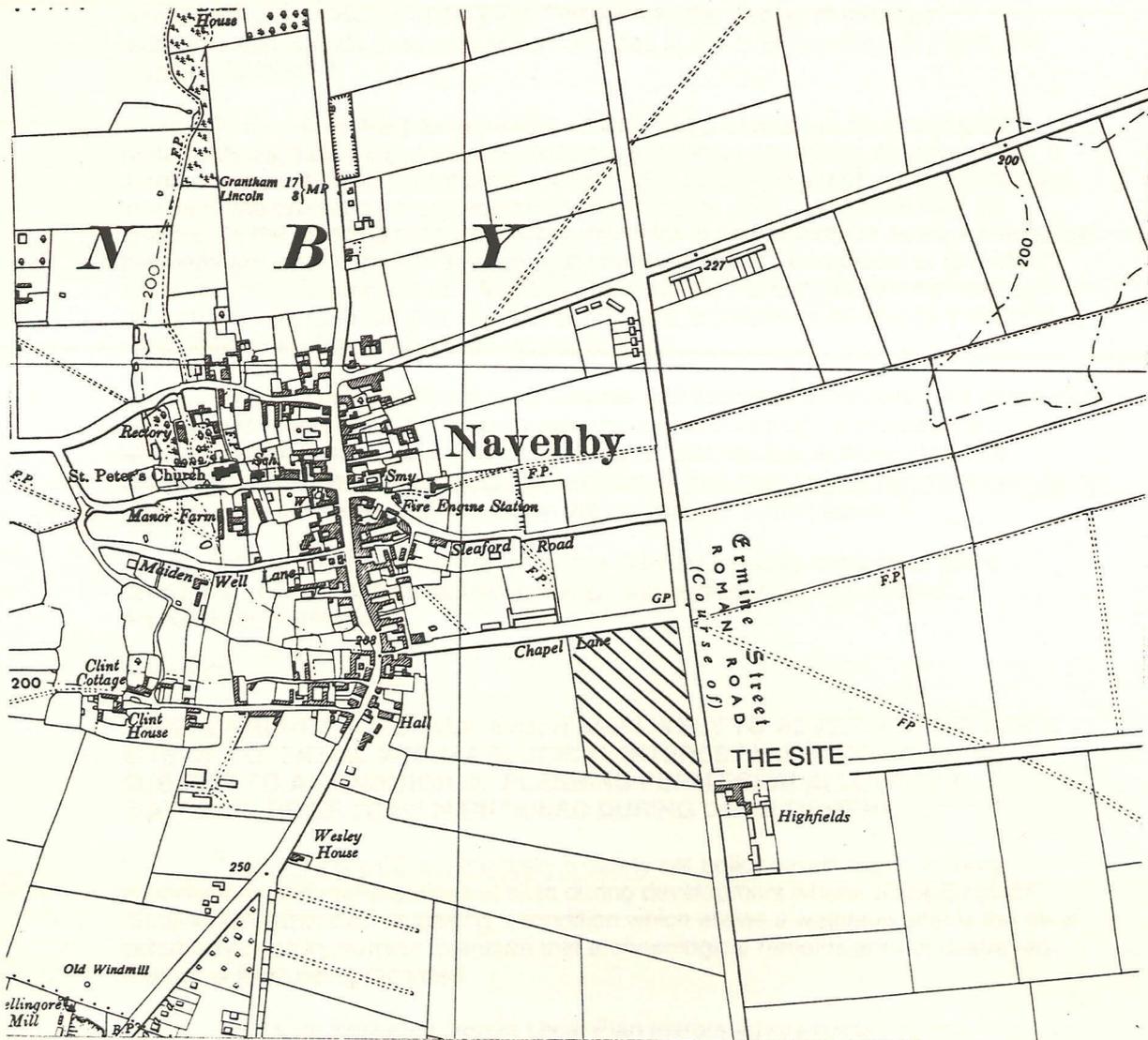


Figure 2. Location of the development site at the junction of Chapel Lane and High Dike

## 5. PLANNING BACKGROUND

### 5.1 Archaeology in North Kesteven and the District Local Plan

5.1.1 North Kesteven has made strong commitments to its archaeological heritage and its policy statements are reproduced below.

#### POLICY C5

**DEVELOPMENT PROPOSALS WHICH ARE LIKELY TO ADVERSELY AFFECT A SITE OF ARCHAEOLOGICAL INTEREST WILL NORMALLY BE SUBJECT TO A CONDITION OF PLANNING PERMISSION REQUIRING ARCHAEOLOGICAL INVESTIGATIONS TO TAKE PLACE BEFORE AND/OR DURING DEVELOPMENT.**

7.12 The current demand for development land is bringing increasing pressure to bear on sites of potential archaeological importance. Although the number of planning applications directly affecting known archaeological sites is estimated to be around 2% this estimate is largely based upon information not influenced by the current level of demand for sites. Therefore the incidence of applications with archaeological implications is likely to grow. Couple to this the fact that only a very small percentage of archaeological sites in the county have been evaluated for the purpose of scheduling (and receive formal protection) then a large number are potentially vulnerable.

7.13 The excavation and recording of archaeological sites is essential in increasing our knowledge of the past. Furthermore the display of artefacts, reconstruction of finds and preservation of areas *in situ* is increasingly of public and commercial interest.

7.15 Over the past ten years or more the protection of archaeological remains through planning policy has become a common and widely debated issue. A number of local planning authorities have included policies in structure and local plans to ensure the protection or recording of archaeological sites. Conditions may be attached to the planning permissions to provide for archaeologists to watch a site during development, or to carry out an excavation before building takes place, or to protect archaeological evidence *in situ*. Advice in Government Planning Guidance Note 16 recognises, and case law has established, that the archaeology of sites is a material consideration in determining planning applications.

7.16 The 1979 Ancient Monuments and Archaeological Areas Act introduced powers to the local authority to designate Areas of Archaeological Importance (AAI's) in which developers must allow time and access for archaeological excavation and recording. Within designated areas, a maximum of four months and two weeks would be allowed for excavations to take place in the period prior to development.

7.17 Policy C5 makes known the District Council's intention to place conditions on any planning permission which may adversely affect a site of Archaeological Interest.

#### Policy C6

**DEVELOPMENT PROPOSALS WHICH ARE LIKELY TO ADVERSELY AFFECT A SITE OF POTENTIAL ARCHAEOLOGICAL INTEREST WILL NORMALLY BE SUBJECT TO A CONDITION OF PLANNING PERMISSION ALLOWING A WATCHING BRIEF TO BE MAINTAINED DURING DEVELOPMENT.**

7.18 Policy C6 is essentially a safety net policy which allows low key observations and investigations of sites during development where archaeological remains are suspected. Imposing a condition which allows a watching brief is the most commonly used instrument to ensure that archaeological remains are not destroyed without at least being recorded.

5.1.2 The North Kesteven District Local Plan mirrors advice contained in a Department of the Environment document, "Planning Policy Guidance: Archaeology And Planning (PPG16)." This document identifies the need for early consultation in the planning process to determine the impact of construction schemes upon buried archaeological deposits. Once the results of the Desk Top Assessment and, where

necessary, the follow-up trial work is known, an informed decision on the necessity, or otherwise, for further archaeological strategies may be taken. These strategies may include preservation *in situ*, excavation, or a watching brief.

5.1.3 There are no Scheduled Ancient Monuments within the development area.

5.1.4 In addition to archaeological considerations the development area is designated in the North Kesteven Local Plan as an "Allocated residential site of ten or more dwellings potential".<sup>1</sup>

## 5.2 Method

5.2.1 This survey has been based on data recorded in the Lincolnshire and Heritage Lincolnshire Sites and Monument Records (SMR), the North Kesteven District Local Plan (Policy C5 & 6) and supplemented by other sources relating to the geological, historical, and archaeological heritage of the Borough (see Appendix 1, Bibliography).

5.2.2 Square brackets, [] within the text refer to archaeological find spots and historical sites shown on the archaeological findspot map, (Figure 3).

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<sup>1</sup> LDP Proposal Map 10

## 6. GEOLOGY AND TOPOGRAPHY

### 6.1 Geology

6.1.1 The background geology in the redevelopment area is based on the British Geological Survey North Lincoln map (Sheet 114, 1:50,000). The map indicates that in the vicinity of the development areas the upper sequence is composed of oolitic limestone.

6.1.2 Navenby village is located on the prominent north to south escarpment known as the Lincoln Edge. The escarpment extends approximately from Grantham in the south to the Humber in the north and is cut through only by the Ancaster and Lincoln Gaps.

6.1.3 The solid geology of lower slope of the escarpment is formed of Upper Liasic clays and shale which are overlain by Lower Estuarine Beds and Northampton Sand, and is capped with Lincolnshire Limestone. The latter, up to 30m thick, is composed of oolitic limestone and clays.

6.1.4 Springs issue from the permeable rocks above the Liasic sequence and these often determine the location of villages along the escarpment. Although this is not the case for the Roman settlement at the site, there is some indication that in the post-medieval period there was a migration west towards escarpment and springline.

6.1.5 The site is located between the 65m and 70m contours.

### 6.2 Topography

6.2.1 The site, which is currently (June 1994) under cereal cultivation, is located to the south-east of the village.

6.2.2 In area the field forming the development site is 9.2 acres (3.72 hectares) and is approximately rectangular in plan.

6.2.3 The principle road through the village is the A607, branching off of which are a number of minor, but historically recognised roads, including Chapel Lane.

6.2.4 Ermine Street (High Dike) at the eastern boundary of the site is a Roman foundation.

6.2.5 The principal watercourse, the River Brant, is located at the base of the escarpment in the Mid or Lincoln Clay Vale.

## 7. THE ARCHAEOLOGICAL AND HISTORICAL BACKGROUND (Figure 3)

### 7.1 Introduction

7.1.1 In order to assess the potential of the archaeology within the areas of redevelopment an examination of all reported finds entered upon the Lincolnshire and Heritage Lincolnshire Sites and Monuments Record (SMR) has been made. The results of this information has been presented on the findspot distribution map (Figure 3). This information is supplemented by other, mainly historical and documentary sources, and also from archaeological investigations (field walking).

7.1.2 The intention of the search is to locate known archaeologically sensitive sites that may be affected by groundworks associated with development, and to predict and extrapolate likely archaeological conditions within the development area from finds made nearby. This latter analysis is important, as those finds and sites entered onto the SMR result mainly from chance discoveries (see below) and is at best a small and unrepresentative sample of the total buried heritage.

7.1.3 The archaeology at both the site and the vicinity is not so much one that exists in the published record as that which is contained in the Sites and Monuments Record. That having been said, the Roman potential has been commented on by Whitwell and others, though there has been little controlled fieldwork to support any suppositions. The field evaluations required by the Planning Archaeologist will provide the first opportunity to examine, under scientific conditions, the nature of any occupation close to Ermine Street at Navenby.

7.1.4 Aerial photographs have been inspected at both the Lincolnshire and Heritage Lincolnshire Sites and Monuments Offices but these contained no information that would aid the interpretation of the site. The same is true of the single photograph held in the University of Cambridge Committee for Aerial Photography. The HBMCE were contacted, but unfortunately their collection is in the process of being moved and the archive not available for inspection.

7.1.5.1 In 1991 Alison Peach, the then North Kesteven Community Archaeologist, initiated an archaeological field walking exercise in the field under consideration. The area considered extended 100m north to south and 130m east to west from the field boundary at the junction of High Dike and Chapel Lane. Within this area a 10m grid was established and all finds from the respective square collected and later quantified. Approximately half the field was walked. LI 5025

7.1.5.2 The results of the field walking are referred to below as they represent the best and most rigorous archaeological field exercise at a location which, for almost 30 years, has been recognised as being of considerable potential.

7.1.6 All letter code references in the footnotes are for the Lincolnshire SMR.

### 7.2 GENERAL BACKGROUND

#### 7.2.1 Pre-Roman

7.2.1.1 The pre-Roman potential in Navenby is poorly defined, with a reporting bias for the high status and easily recognisable objects.

7.2.1.2 A polished stone adze [10]<sup>2</sup> belonging to the middle Bronze Age and a late Bronze Age bronze pegged and socket spearhead [18]<sup>3</sup> are recorded, although their findspots have been recorded no better than having been found in the general vicinity of Navenby. A flint button scraper [9]<sup>4</sup> was located c.100m to the north of the study area in 1966.

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<sup>2</sup> SMR AB

<sup>3</sup> SMR AP

<sup>4</sup> SMR AA

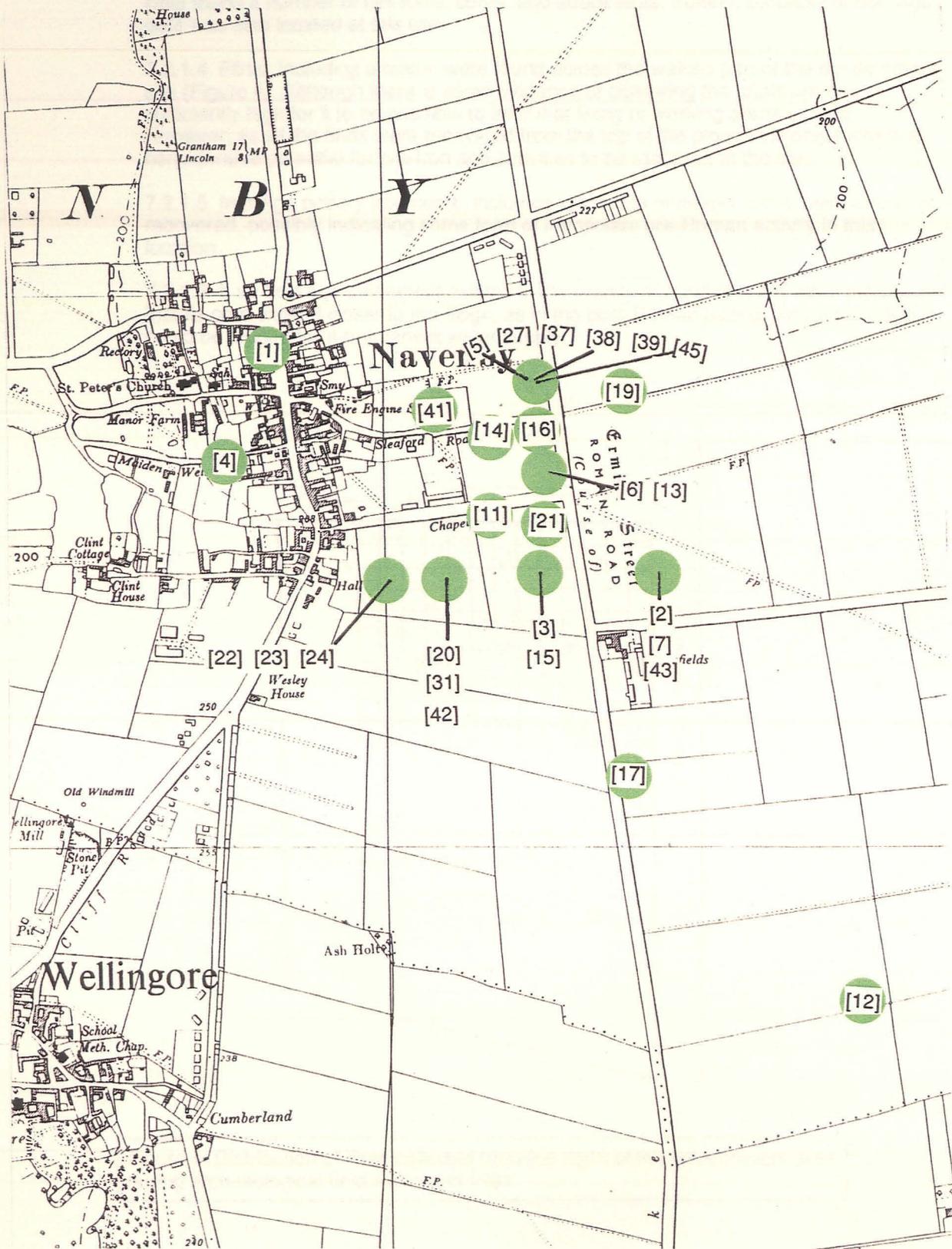


Figure 3. Distribution of finds in the vicinity of the site (see Appendix 1 for key).

7.2.1.3 The field walking demonstrated that the potential in the area is greater than the entries in the SMR suggests. In a separate field walking exercise to the east of High Dike found a number of flint tools, cores, and struck flints. Pottery, probably of Iron Age date was also located at this site.

7.2.1.4 Flints, including a blade, were found across the walked part of the development site (Figure 4). Although there is some evidence of clustering the totals are not sufficiently high for it to be possible to infer that living or working areas existed. However, as all the finds were recovered from the top of the ploughsoil only there is a considerable potential for pre-Iron age activities to be recorded at the site.

7.2.1.5 Iron Age pottery fragments, including some late rouletted forms, have also been recovered, possibly indicating some form of immediate pre-Roman activity in this location.

7.2.1.6 If an Iron Age settlement existed in the vicinity of Navenby, it is more probable that its core existed closer to the Edge, as in the post-Roman period, where the springs could be tapped for a permanent water supply.

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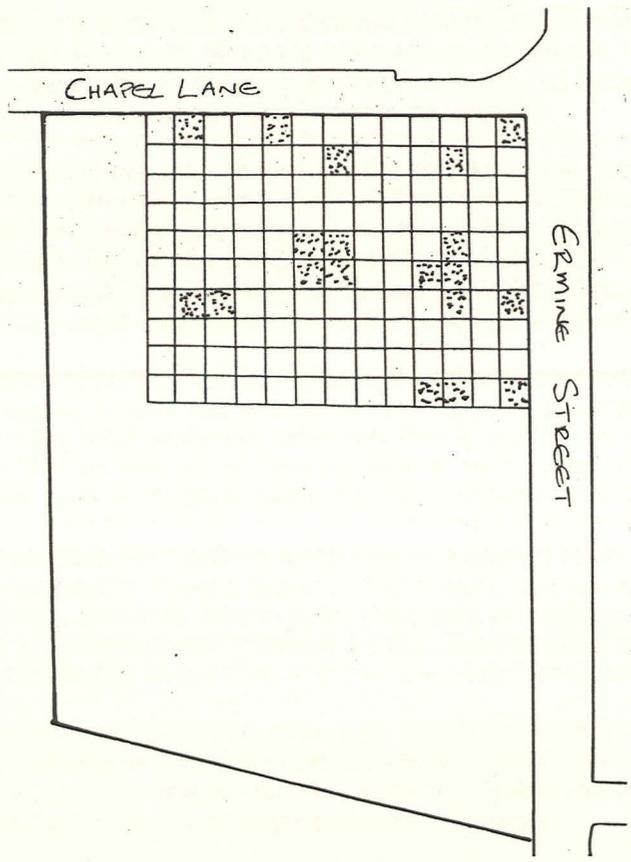


Figure 4. Distribution of flints collected from the north of the development area during archaeological field walking in 1991.

## 7.2.2 Roman

7.2.2.1 More evidence exists for Roman occupation in the vicinity of the development than for any other period, mostly as a result of field walking and metal detectorists. A bias for metal objects exists in the SMR as a result of the metal detecting, the majority of the finds having been reported by Mr. K. Borrell.

7.2.2.2 The Roman potential of Navenby was in fact first raised in 1965 by pupils of the local primary school<sup>5</sup> who, under the guidance of their head teacher, walked this site, and others to the north of Chapel Lane and recovered thousands of pottery fragments and other finds.

7.2.2.3 As noted elsewhere the site is adjacent to the High Dike, otherwise known as Ermine Street. Ermine Street is a Roman foundation which connected the capital of Roman Britain *Londinium* (London) with *Lindum* (Lincoln). Initially the road was built to facilitate rapid movement for the conquering army and maintain its regular supply as it advanced northwards.

7.2.2.4 Roman settlement along the route, including that at Navenby, was not determined by natural features such as springs or sheltered locations, but rather by military needs.

7.2.2.5 Navenby is located an equal distance from the fort at Ancaster and the legionary fortress at Lincoln. When the site was first identified in 1965 it was interpreted as being a posting station<sup>6</sup>. It is more probable however that in the early conquest years that there was a small, probably timber, fort in this location.

7.2.2.6 Mick Jones, who has made a detailed analysis of the early Roman situation in Lincoln and the surrounding area, notes that there are a number of pieces early military equipment from Navenby<sup>7</sup> and favours a site having been located here. The conquest of eastern lowland Britain was completed relatively quickly, and it is probable that the army left the lands of the local tribe, the Coritani, by AD78.<sup>8</sup> Assuming that there was a fort it would have been deliberately dismantled when the army departed.

7.2.2.7 Evidence from the various methods of data collection indicate a Roman presence between the first and fifth centuries. If the army departed by the fourth quarter of the first century what sustained settlement throughout the remainder of the Roman occupation? The fort itself would have provided its own economic attractions and some of the facilities such as shops and inns may have remained after the army's departure.

7.2.2.8 It is possible that Navenby functioned as a posting station as Whitwell<sup>9</sup> and others have suggested. Posting Stations (*Statio*) were originally established by the Emperor Tiberius and were used to police the roads, in this case on either side of Navenby for a distance of approximately 8 miles. Beyond these points the road would have been patrolled by troops from Ancaster and Lincoln respectively.

7.2.2.9 From the late first century there may have been at Navenby a *Mansio*. These originally operated as an overnight stopping place for important travellers, often on imperial business. Over time the term became more liberal and was seen more as a type of coaching inn, often with a group of lesser dwellings.<sup>10</sup>

7.2.2.10 At Navenby there are four main cluster of finds dating to the Roman period (see Figure 3 and Appendix 1 for a description of finds):

- (i). Approximately centred on 993578
  - (ii) Approximately centred on 995575
  - (iii) Approximately centred on 99055750
  - (iv) Approximately centred on 993575
- The latter location (iv) is the site under study.

<sup>5</sup> Lincolnshire Echo 8.July.1965

<sup>6</sup> EMEB 8 P.17, Whitwell p.64

<sup>7</sup> Jones p.285

<sup>8</sup> Jones p.287

<sup>9</sup> Whitwell p.64

<sup>10</sup> Chevallier p.185

7.2.2.11 The minimum extent of the Roman occupation at Navenby, based on the distribution of finds, is 460m north to south and 520m east to west. This distribution appears to contradict the impression of ribbon development along Ermine Street. Cluster (ii) is located on the east side of Ermine Street and stone slabs, possibly wall footings have been recorded from this area [2].<sup>11</sup>

7.2.2.12 A cemetery may have existed between clusters (i) and (iv). Two groups of human bones have been recorded. The more westerly of these [9] was contained within a setting of stones and was accompanied by three bronze bracelets.<sup>12</sup> The eastern burial [6] was found in a location adjacent to Ermine Street.<sup>13</sup>

7.2.2.13 It would appear from the extensive artefact distribution that have been recovered from the east side of Navenby adjacent to Ermine Street, that from the second century there was a small town, possibly centred on what had once been a fort.

7.2.2.14 One of the sites from which the school children in 1965 recovered their pottery and other artefacts was that which is currently under consideration for development. A report in the Lincolnshire Echo made finds of "Roman pottery and tiles particularly where Chapel Lane joins the old Ermine Street".

7.2.2.15 Although Roman material has been recovered from the proposed development in the past ([11], [21]) there are few details of the finds or their location. Sketch maps made by Borrell of some of his finds are in the possession of the Lincolnshire SMR<sup>14</sup>. These indicate that a number of metallic objects were recovered from the development area. The sketch plans also suggest that there is some misplacement of SMR BJ [38] which should instead be centred on SK 993575. If this is indeed the case then the Roman finds that Borrell recovered, including a fragment of bronze mirror, a bronze plumb bob, a plate brooch, cuirass buckle and several coins, were in fact made in the development area.

7.2.2.16 The 1991 field walking indicated moderate concentrations of pottery along the Ermine Street frontage, with lesser amounts extending back to the west. This suggests that activities, probably dwellings or shops were located close to the street. Very high concentrations of pottery (between 60-83 fragments in each 10m<sup>2</sup>) were located on SK99305758 (Figure 5). There is some concordance of these concentrations with ceramic building materials, but the quantities are fewer and possibly a little to the east. Three fragments of tesserae (small tile cubes from a floor surface) were also recovered.

7.2.2.17 The combined artefactual and fieldwalking evidence suggests that there are extensive remains dating to the Roman era in the field under consideration for redevelopment. It is probable that the remains would have been of a domestic nature, possibly even associated with agricultural practices. The general absence of ceramic building materials suggests that the properties were generally built of other materials which have decayed such as timber or thatch, or stone which was robbed. The brick and tile of course may itself have been robbed.

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<sup>11</sup> SMR N

<sup>12</sup> SMR AA

<sup>13</sup> SMR W

<sup>14</sup> Navenby Parish File

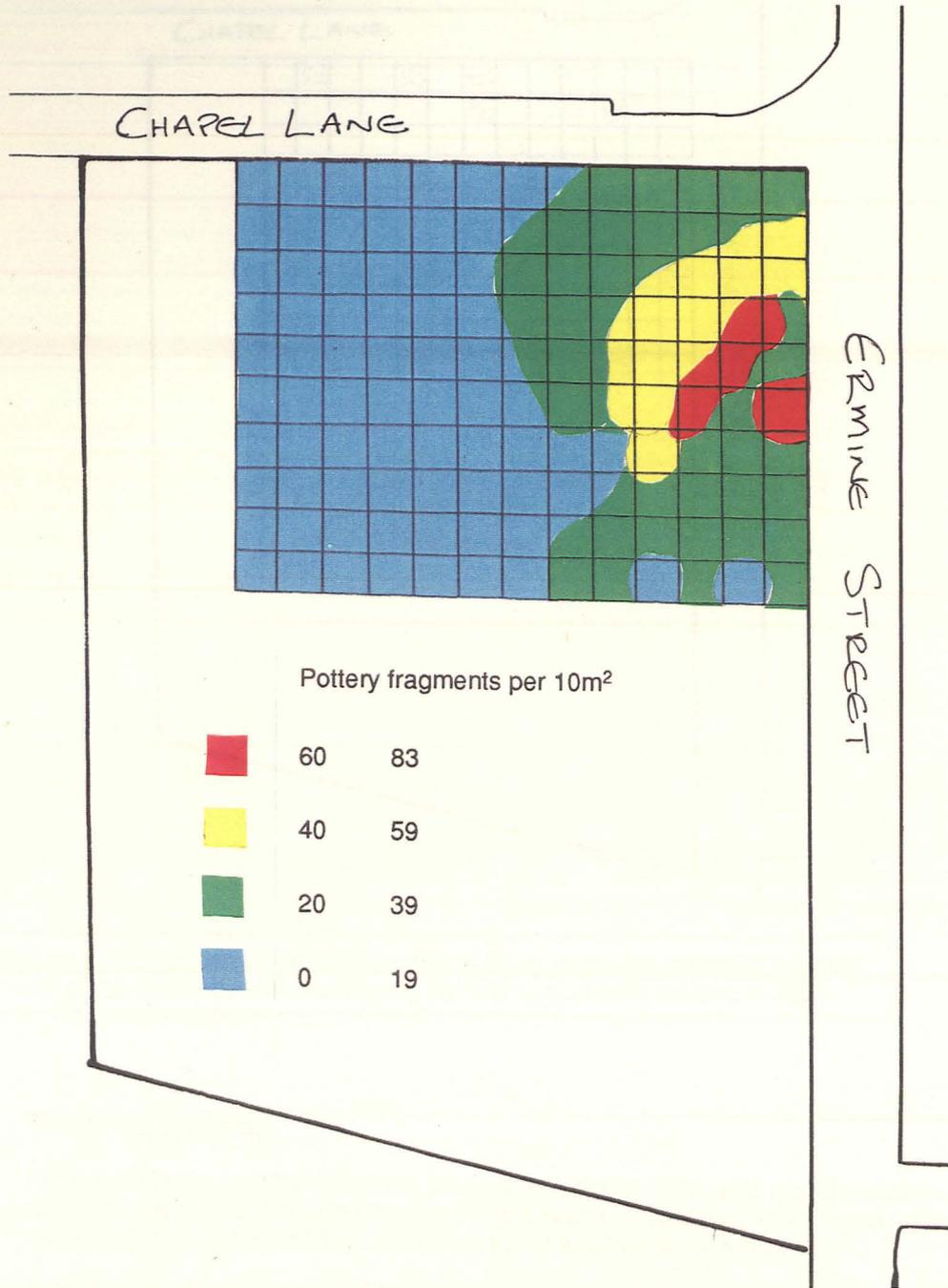


Figure 5. Distribution density map of Roman pottery collected from the north of the development area during archaeological field walking in 1991.

15 Page 1972  
16 Smith p.198

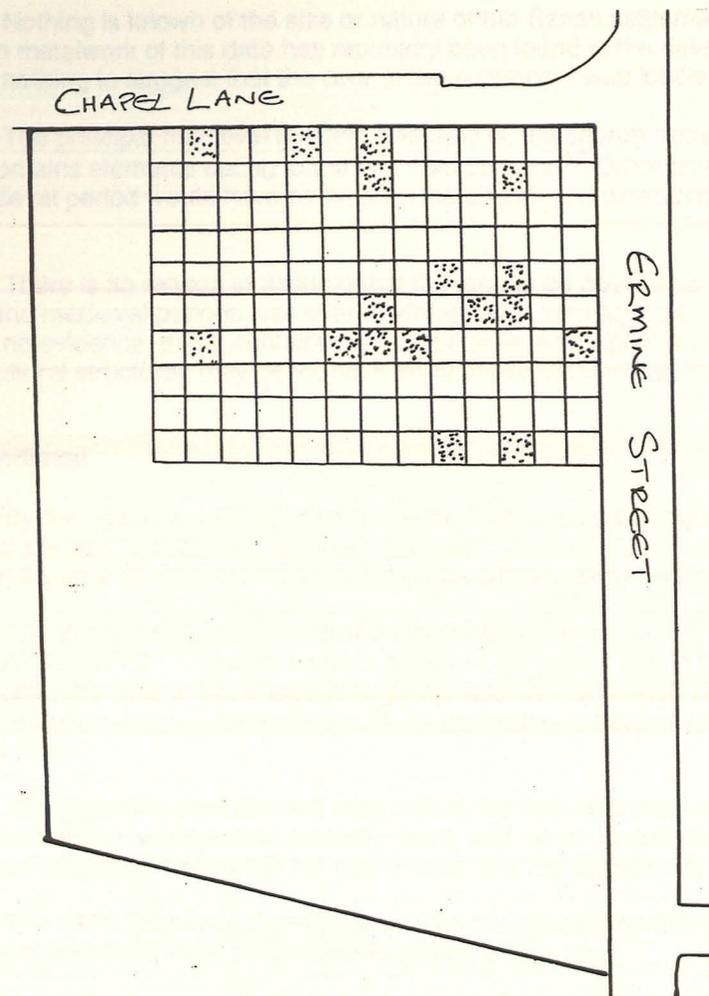


Figure 6. Distribution of Roman ceramic building materials collected from the north of the development area during archaeological field walking in 1991.

### 7.2.3 Saxon and Medieval

7.2.3.1 Navenby is recorded in the Domesday Book of 1086, and would therefore appear to have re-established itself in the pre-Norman Conquest era. How quickly it recovered from the withdrawal of Roman administration is not yet evident.

7.2.3.2 In the Domesday Book Navenby was spelled *Navenebi*, which has been interpreted as meaning "the farmstead or village of Nafni."<sup>15</sup>

7.2.3.3 The entry for Navenby in 1086 records, under the heading: The Land of Dunard Malel

• Rolf had one carucate of land rateable to gelt: the land is 10 bovates. Dunard is there 2 carucates in demesne, and 2 villeins with 2 oxen in a plough and 8 acres of meadow. The annual value was 32s, it is 50s.<sup>16</sup>

7.2.3.4 The major difference between the medieval (and by inference the Saxon) settlement with the Roman predecessor is that the later one migrated west towards the Edge. This demonstrated a move away from the dominance of the road to one based on need of a reliable water supply, as provided by the springs.

<sup>15</sup> Perrot 1979

<sup>16</sup> Smith p.195

7.2.3.5 Nothing is known of the size or nature of the Saxon settlement at Navenby and although metalwork of this date has reputedly been found in the development area, there is nothing to suggest that the core of the settlement was located here.

7.2.3.6 The principal medieval building was, and is, the church dedicated to St. Peter which contains elements dating to the late 12th century.<sup>17</sup> Other buildings throughout the medieval period would have centred on the church and extended along the High Street.

7.2.3.7 There is no reason to assume that the land to be developed throughout the Saxon and medieval periods was ever anything other than agricultural land. Equally there is no evidence that it contained any structures, although it is possible that remains of agricultural structures may be found, if for no other reason than its proximity to High Dike.

#### 7.2.4 Post-medieval

7.2.4.1 By the late 17th century Navenby was recognised as being a market town, and even into the late 19th century a sheep and swine fair was held on each October 17th. There was also a fine market cross, but this has subsequently been removed.

7.2.4.2 The earliest cartographic source located by the writer is the "Navenby Enclosure Award, 25 July 1772". This map was too fragile to be copied and is therefore not reproduced. The core of the village at this date was almost directly comparable with the Ordnance Survey map of 1906 (Figure 7). Chapel Lane at this date was known as Sleaford Road.

7.2.4.3 The proposed development area was in the late 18th century in agricultural usage, as was the western field currently being built upon. In area the field was 9 acres 0 rods and 12 poles, and was in the possession of a Daniel Bowers.

7.2.4.4 The 1906 Ordnance Survey shows that the development area was still agricultural and there is no evidence of buildings on the land.

7.2.4.5 The land is still agriculturally worked, and indeed has a cereal crop on it this year. There is no evidence that the land under consideration has ever been anything other than agricultural in the post-Roman period.

7.2.4.6 To the north-west of the proposed development there is the remains of an undated earth and gravel bank. It is possible that this feature extends to the south-east into the area under consideration.

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<sup>17</sup> Mee p.277

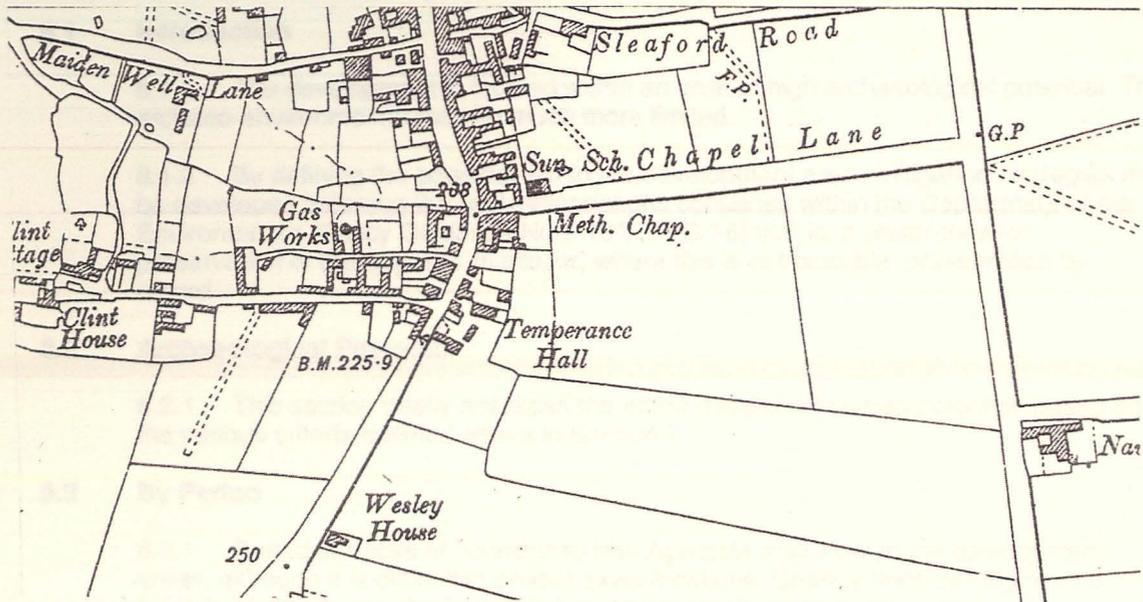


Figure 7. The development site in 1906 can clearly be seen to be open fields. This may be compared with the 1772 Tithe Map held in the Lincolnshire Archives.



Figure 8. Strip footings dug during Phase 2 developments at Chapel Lane suggest that there may be deeper deposits in the north of the site.

## 8. THE ARCHAEOLOGICAL AND ARCHAEO-ENVIRONMENTAL POTENTIAL

### 8.1 Introduction

8.1.1 The development is located within an area of high archaeological potential. The archaeo-environmental may be much more limited.

8.1.2 By defining the potential within the development areas mitigation strategies may be developed following the recommendations contained within the Department of the Environment's "Policy Guidance Note 16", (PPG 16) that is, a preference for preservation of the deposits *in situ*, or, where this is not possible, preservation by record.

### 8.2 Archaeological Potential

8.2.1 This section briefly assesses the entire development area potential, based on the various criteria outlined above in Section 7.

### 8.3 By Period

8.3.1 Buried surfaces of Neolithic to Iron Age date may exist in the development areas, although it is difficult to predict exact locations. Chance finds belonging to these periods of activity may be found divorced from a cultural horizon.

8.3.2 Quality objects dating to the Bronze Age have been recovered from the general vicinity of the site whilst a number of flint objects, including a blade and core were recovered from field walking across the development area.

8.3.3 Iron Age pottery, including rouletted forms dating from the first half of the 1st century AD, were recovered during field walking.

8.3.4 In the development area there is artefactual evidence from surface finds indicating Roman occupation from the 1st to 5th centuries. It is probable that remains of structures will be located along the Ermine Street frontage, with backyard areas to the rear. There may be evidence of ephemeral outbuildings in these areas.

8.3.5 Evidence of pre-Roman, Roman, and post-Roman fields, probably in the form of boundary ditches may be located. It may be possible to determine the morphology of the field/s over the millennia.

8.3.6 There is no evidence that the land under consideration was anything other than in agricultural usage throughout the Medieval and post-Medieval eras.

### 8.4.1 Archaeo-environmental Potential

8.4.1.1 Sampling buried archaeological deposits and features can provide at least two categories of information:

- Environmental; that is information concerning past climates, environments, and ecological conditions.
- The economy of the locality; that is information on such things as human and livestock diet, agricultural land use, crop types and pasture, woodland management.

8.4.1.2 Much of the development area is located over well draining limestone resulting in a desiccated overlying soil structure. Within this type of soil organic materials, such as wood, vegetable matter, or leather rarely survives.

8.4.1.3 However, valid samples can often be obtained from undisturbed intrusive features such as pits or ditches. In these locations it may be possible to recover molluscan (snail) remains which may provide details concerning the nature of the contemporary vegetation, soil type and depositional history, and also pollen remains which can provide information concerning the nature of the adjacent vegetation and land use.

8.4.1.4 This information when used in conjunction with a dated stratigraphic sequence can provide details of, for instance, the period of land transfer from an arboreal or heath environments to an agricultural landscape.

8.4.1.5 As has been outlined above there may be a sequence of field systems in the pre-Roman, Roman and medieval periods. Whilst identifying them is relatively easy, understanding their function is not. Detailed environmental analysis may provide evidence of function, crop type, and degree of weed infestation. These in turn allow a greater understanding of diet and economy to be made.

8.4.1.6 It is most improbable that waterlogged deposits will be recovered unless they are contained in a permanently damp environment, such as a well.

#### **8.4.2 Archaeo-environmental Considerations**

8.4.2.1 In theory at least deposits from the development area may range from the Neolithic to the post-medieval period. In practice there is very little chance that anything relating to the earlier prehistoric periods will be found. If such features are found bulk samples should be taken.

8.4.2.2 Samples should be taken from ditches or field boundaries of pre-Roman, Roman and Medieval date to determine the function of the fields (pasture or arable), type of crops, weed infestation etc.

8.4.2.3 If occupation surfaces, agricultural working surfaces (corn drying ovens, storage pits etc.) charred remains are located, bulk sampling should be undertaken in order to determine food types, diet, economy etc.

## 9 IMPACTS ON THE BURIED ARCHAEOLOGICAL DEPOSITS

Impacts to the buried archaeological deposits may already have, or may be, caused by a number of factors. At this development site these may include:

- the previous land use
- the construction design
- ground soil contamination.

### 9.1 Previous Land Use

9.1.1 The first point that needs to be made is that deposits above the natural surfaces in the vicinity of Chapel Heath tends to be relatively shallow.

9.1.2 The very shallowness of deposits in the redevelopment areas makes any surviving archaeological material vulnerable to modern construction techniques. Intrusive features such as ditches, pits and wells may be better represented than horizontal deposits. However, during a site inspection it was clear that towards Chapel Lane deposits over the limestone may be in excess of 700mm in depth. (Figure 8)

9.1.3 As has been outlined above the land in the vicinity of the redevelopment area has been in continual agricultural usage. Impacts from non-mechanical ploughing is likely to have caused damage to the upper horizons only. More recent ploughing may have caused greater impacts.

### 9.2 The Construction Design.

9.2.1 Outline planning permission has not yet been sought and therefore the detailed construction design has not been finalised. For this reason Pre-Construct Archaeology have not been provided with comprehensive details of the proposed construction design.

9.2.2 Foundation design has not yet been considered, although strip footings is the most probable option and is the one currently being used during developments to the west of the site.

Impacts may also be caused by new infrastructure, services, utilities and drainage.

### 9.3 Ground Soil Contamination

9.3.1 There has been no ground soil investigations, but from the research undertaken there is no indication that practices likely to have introduced contaminants to the site have been conducted in the historical eras.

## 10. MITIGATIONS

10.1.1 As stated above, the North Kesteven District Local Plan contains procedures for dealing with the archaeological heritage. These procedures are based on advice contained within the Department of the Environment's "Planning and Policy Guidance; Archaeology and Planning." (PPG 16) of November 1990.

10.1.2 English Heritage in their recent publication <sup>18</sup> have summarised the key points of this document and which are repeated here. These are:

- "that archaeological remains should be seen as a finite, and non-renewable resource, in many cases highly fragile and vulnerable to damage and destruction;
- that development plans should reconcile the need for development with the interests of conservation including archaeology - and that detailed development plans should include policies for the protection, enhancement and preservation of sites of archaeological interest and their settings:
- that where nationally important remains, whether scheduled or not, and their settings are affected by proposed development there should be a presumption in favour of their preservation - and that in such cases preservation by recording remains after excavation should be regarded as the second best option after physical preservation *in situ*;
- that the needs of archaeology can be reconciled, and potential conflict very much reduced, if developers discuss their preliminary plans for development with the planning authority at an early stage (the PPG gives detailed guidance on how this can be achieved);
- that decisions by planning authorities on whether to preserve archaeological remains *in situ* in the face of proposed development have to be taken on merit, taking account of development plan policies and all other material considerations - including the importance of the remains - and weighing these against the need for development;
- that planning authorities, when they propose to allow development which is damaging to archaeological remains, must ensure that the developer has satisfactorily provided for excavation and recording, either through voluntary agreement with the archaeologists or, in the absence of agreement, by imposing an appropriate condition on the planning permission."

10.1.3 Where archaeological features, as identified by the Desk Top Study or geophysical surveys, are likely to be encountered, strategies should be developed to deal with them. These may include preservation *in situ*, by limiting the archaeological impact, redesigning the building plan or raising the floor levels, <sup>19</sup> or preservation by record. <sup>20</sup> If the latter is the favoured or apposite course for sub-surface deposits, archaeological trial excavations to assess the nature, depth, level of survival etc. may be conducted. This would usually involve the sinking of archaeologically excavated and recorded trenches in one or more locations, usually not exceeding 10% of the area to be developed.

10.1.4 Department of the Environment Planning Policy Guidance 16 of November 1990 states that, where preliminary research suggests survival of important archaeological remains,

"it is reasonable for the planning authority to request the prospective developer to arrange for an archaeological field evaluation to be carried out before any decision on the planning application is taken. This sort of evaluation is quite distinct from full archaeological excavation. It is normally a rapid and inexpensive operation, involving ground survey and small scale trial trenching, but it should be carried out by a professionally qualified archaeological organisation or archaeologist. Evaluations of this kind help to define the character and extent of the archaeological remains that exist in

<sup>18</sup> Wainwright et al.

<sup>19</sup> PPG 16 paragraph 10

<sup>20</sup> PPG 16 paragraph 11

the area of a proposed development, and thus indicate the weight which ought to be attached to their preservation. They also provide information useful for identifying potential options for minimising or avoiding damage. On this Basis, an informed and reasonable planning decision can be taken."<sup>21</sup>

It continues,

"Local planning authorities can reasonably expect developers to provide this information as part of their application for sites where there is good reason to believe there are remains of archaeological importance. If developers are not prepared to do so, the planning authority may wish to consider whether it is appropriate to direct the applicant to supply further information under the provisions of Article 4 of the Town and Country Planning (Applications) Regulations 1988."<sup>22</sup>

10.1.5 The results of the trial work may lead to a redesign or realignment of the proposed structure, further trial or survey work or open area archaeological excavations.

10.1.6 As stated above, the detailed construction scheme are not at present known, but almost certainly will use strip foundations. Construction techniques will almost certainly destroy all archaeological remains.

10.1.7 At the proposed redevelopment site the mitigation options in respect of archaeology, and considering PPG 16, include:

- a consideration of the use of non-intrusive construction techniques wherever possible. Archaeological considerations should be taken into account during the formulation of more detailed design proposals.
- a consideration of the use of a full range of archaeological techniques to recover cultural and environmental remains prior to and/or during redevelopment of the site, subject to health and safety factors. It may be that some techniques are not suitable, and professional advice should be sought.

10.1.8 Ploughsound Limited, by following advice set out in PPG 16, has commissioned an archaeological Desk Top Study early in the redevelopment considerations. This early commission has meant that whilst addressing the considerable archaeological potential of the area, the report has not been able to make use of other data, especially geophysical, test pit, and ground soil contamination surveys that may follow.

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<sup>21</sup> PPG 16 paragraph 21

<sup>22</sup> PPG 16 paragraph 22

## 11. ACKNOWLEDGEMENTS

Pre-Construct Archaeology (PCA) would like to thank Ploughsound Limited for commissioning this report. The report was researched and written by Gary Brown. He would like to thank in particular Mr. D. Herkes, for the help and co-operation freely given. Thanks are also given to Julia Wise of the Lincolnshire Sites and Monuments Record, Ruth Waller, North Kesteven Planning Archaeologist, staff at the Lincoln Local Studies Library, and the Lincolnshire Archives. He would also like to acknowledge the help provided by Mr. Colin Palmer-Brown, Pre-Construct Archaeology, for setting-up the project and for helpful suggestions.

## 12 APPENDICES

## APPENDIX 1 FINDSPOTS

## Lincolnshire Sites and Monuments Record

- [1] H sk 988579 Skeleton beneath layer of stone slabs c.18" deep in garden in Dial House.
- [2] N sk 995575 Romano-British pottery- 3/4 century, occasional stone slabs.
- [3] Q sk 993575 Four coins (346-361) found by Ermine Street.
- [5] U sk 987577 Gritted medieval pot found on a building site opposite the school.
- [6] V sk 993578 Romano-British pottery and stone footings
- [7] W sk 993577 Lead spindle whorl, 4th century coins, pottery with reverse boss impressions, human bones, Stibbington pottery.
- [8] X sk 995575 Two worked flints.
- [9] Z Not located but from 95 NE. Coin
- [10] AA sk 992577 Flint button scraper, 3 Romano-British bronze bracelets, human skull & other bones within a setting of stones. 2-4th century grey and fine wares and coin of Claudius Gothicus.
- [11] AB Not located, from 95NE. Middle Bronze Age polished stone adze with perforation.
- [12] AC sk 992576 Coin-Urbs Roma
- [13] AH sk 9982 5673 4th century coin
- [14] AI sk 99295765 Romano-British pottery, commemorative coin of Constantian (330-35) and coin of Julia Domna
- [15] AJ sk 99235775 14-15th century bronze ring inscribed IHS NAZARENUS
- [16] AL sk 993575 Roman material found but no details
- [17] AN sk 99295777 1st century penanular brooch and coin of Constantius II Caesar (332)
- [18] AO sk 99425711 Bronze key handle, probably Roman.
- [19] AP 95NE Late Bronze Age pegged socket spear head
- [20] AR sk 99405780 Romano-British lead and bronze finds including a 1/2nd century fantail brooch with enamel inlay & 23 4th century coins.
- [21] AQ sk 991575 4 bronze Roman coins, 2 Roman bronze fittings and a lead ?goblet? base, William III farthing
- [22] AS sk 993576 Roman to Post-medieval pottery recovered from field walking.
- [23] AT sk 990575 4 Roman coins and post-medieval pottery from field walking
- [24] AU sk 990575 3 bronze Roman coins, a greyware jug handle and 2 lead fragments
- [25] AV sk 990575 Coin of Tetricus (270-273)
- [26] AW 95NE Bronze looped attachment of Roman date
- [27] AX 95NE A silvered antonianus of Valerian I (253-60)
- [28] AY sk 993578 Quantity of Romano-British greyware, a single sherd of medieval Toyton ware.
- [29] AZ 95NE Finds made on "Roman site" include: Medieval lead wool seal, 3 post-medieval buttons, 3 bronze coins of Constantius II (354-61), 3 illegible 4th century coins, a rams head patera handle.
- [30] BA 95NE Finds include: a bronze rosette (Tudor), A Roman finger ring fragment, several 4th century coins, a gold half Noble of Henry VI
- [31] BB 95NE 3 Romano-British sherds, a bronze strap end, a medieval penanular brooch.
- [32] BC sk 991575 Coin of Constantius II (324-37), 3 of the house of Constantine, a Roman bronze bell. 17/18th century bronze buckle, a post-Medieval knife blade.
- [33] BD Roman bronze cuirass buckle, bronze buckle, 3 bronze decorative attachments
- [34] BE 95NE 6 4th century coins
- [35] BF 95NE 4th century coins and a 1/2d token of 1793
- [36] BG 95NE 4th century coin, 2 bronze strap ends and a bronze handle
- [37] BH 95NE 5 Roman coins, 4 Roman small finds, and post-Medieval copper alloy ring buckle

- [38] BI sk 993578 Finds include: large Roman plate brooch with blue glass settings, bronze cuirass buckle, post-Medieval buckle and lead tag.
- [39] BJ sk 993578 Finds from field walking include Roman bronze plumb bob, a bronze mirror, bronze pin from a medieval ring brooch, a 16th century buckle.
- [40] BK sk 993578 Coin of Victorinus (268-70), 3 copper alloy strap attachments and miscellaneous post-Medieval finds.
- [41] BL sk 993578 2 Roman coins, 1 lead disc, 1 iron knife fragment
- [42] BN sk 991578 2 bronze Roman coins and bronze spoon bowl. Medieval bronze pendant
- [43] BO sk 991575 5 Roman coins and 1 bronze attachment of Roman date
- [44] BP sk 995575 7 bronze Roman coins and miscellaneous items: lead spindle whorl, lead plumb bob, domed rivet head, dolphin brooch attachment, 2 rim fragments from a cast copper alloy bowl, 17/18th century shoe buckle, 1 bronze pin head with ring and dot motifs, cut short cross  $\frac{1}{2}$  d, 5 post-Medieval items.
- [45] BZ sk 993578 Roman coins

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