34753-Roman 97/18

ARCHAEOLOGICAL WATCHING BRIEF ON LAND NORTH-WEST OF WELLINGTON WAY, MARKET DEEPING, LINCOLNSHIRE (NMD97) EU 557

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P. I. S. A.

Archaeological Contractors & Consultancy Services

34753-Roman 97/18

ARCHAEOLOGICAL WATCHING BRIEF ON LAND NORTH-WEST OF WELLINGTON WAY, MARKET DEEPING, LINCOLNSHIRE (NMD97)

NGR: centred on TF 1366 1127

Report prepared by Rebecca Casa & Mark Wood BA MA

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COMMISSIONED BY

Procon DB Ltd., Star Mews, Star Road, Eastgate, Peterborough, PE1 5HY Cambridgeshire

ON BEHALF OF

Axiom Housing Association Ltd.

P. O. BOX 52, STAMFORD, LINCOLNSHIRE, PE9 3TS

Telephone & Fax: 01780 740125

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1.0: SUMMARY

In June 1997, Professional Independent Services for Archaeology Limited (PISA) carried out an archaeological investigation at Wellington Way, Market Deeping, on behalf of Procon Design and Build Limited. The development of the site, entailing the construction of bungalows for the elderly, gave rise to the work given the potential for encountering archaeological remains; particularly that associated with the ancient man-made landscape feature known as the Car Dyke.

Two separate linear trenches with a combined length of *c*. 27m were excavated. The remains of the eastern bank of the Car Dyke were revealed in both trenches. No artefacts earlier than those dating from the mid 20th century were present in either of the trenches. However, stratigraphic evidence suggests that the Car Dyke fell into disuse or disrepair sometime during the post-Roman or Medieval period. Medieval or post-Medieval ploughing on the site caused the gravel bank to be truncated and largely levelled. Mid 20th century activity was recorded in the form of a north-south oriented road still visible at the time of the archaeological investigation. A layer of debris and burnt material, through which the road was cut, is indicative of the demolition and levelling of earlier buildings on the site. The latter were associated with the Second World War military radar installation known to be situated at North Fields but which was decommissioned in the 1950's.

The original construction of the c. 120km long Car Dyke, connecting the River Witham near Lincoln with the River Cam at Waterbeach, is traditionally attributed to the reign of the Emperor Hadrian (117-138 AD). In the absence of definite evidence, its precise function must remain a cause for conjecture. Nevertheless, the former course of the section of the ancient Car Dyke north of Market Deeping, is still visible today in the form of the modern north-south oriented drain adjacent to the development site at Wellington Way.

2.0: INTRODUCTION

Between the third and the fifth of June 1997, an archaeological investigation was undertaken on land situated in the north-western corner of the existing Northfields Housing Estate, Wellington Way, in the parish of Market Deeping, South Kesteven District, Lincolnshire (Fig. 2).

The work was commissioned by Procon Design and Build Limited (hereinafter PDB) of Peterborough on behalf of the Axiom Housing Association and carried out by PISA in accordance with the requirements specified in the project brief set by the Community Archaeologist for South Kesteven District Council (Stevens, 1997). A change in strategy from the observation of the excavation of the foundation trenches for the buildings, to one involving purposely located trenches, was agreed in advance of the archaeological field work with both the Community Archaeologist and the Client.

PISA should like to thank Mike Belton and Paul Sharman of PDB and Jenny Stevens, the Community Archaeologist for South Kesteven District, for their assistance with aspects of the project. In addition, Dr. Rob Scaife provided specialist work and information on the environmental samples taken from beneath the exposed eastern bank of the Car Dyke.

3.0: PLANNING BACKGROUND

The proposed development of the site entailed the construction of 10 bungalows for elderly persons, contained within three blocks, along with the provision for associated services and parking facilities. Details of the proposed development, as submitted to South Kesteven District Council, are recorded under application No. SK97/267/56/12.

The presence of the Car Dyke, situated directly alongside the development area on its western flank, gave rise to the archaeological requirement for a watching brief.

4.0: SITE BACKGROUND

4.1: Site Location

The site, centred on National Grid Reference TF 1366 1127, comprises an area of *c*. 0.14 hectares situated in the north-western corner of the existing Northfields Housing Estate, Wellington Way, Market Deeping.

In relation to Market Deeping itself, which is some 6km to the north of Peterborough and 12km east of Stamford (Fig. 1), the site is located on the extreme northern edge of the town near the A15 leading to the village of Langtoft c. 1km further to the north.

4.2: Topography & Geology

Prior to its development, the site comprised an area of grassed public open space some 6m O.D. The principal features contained within the flat application area include two established trees (to be retained in the development), some modern building debris and a disused metalled road (Fig. 3). The latter road is oriented north-south and located near the western edge of the site where the modern drain (corresponding with the ancient course of the Car Dyke) is situated and forms the western boundary of the application area. The road continues north beyond the site into a similarly grassed area which extends as far as North Field Road.

Situated on the western fringe of the Fens and the limestone uplands to the west, the geology of the site comprises fen sands and gravels with overlying yellow-brown clay beneath the topsoil at an average depth of c. 0.3m.

4.3: Archaeological & Historical Background

No previous archaeological works are recorded in the Lincoln County Sites and Monuments Record as having taken place on or in the immediate vicinity of the development site. However, a number of archaeological investigations have taken place in and around Market Deeping in recent years.

The site itself is located some 300m to the south of the northern arc of the Market Deeping by-pass. At the time of writing, a scheme of archaeological works is nearing completion along the length of the by-pass in advance of the construction of the new road. Broadly speaking, the results of the by-pass work to date reflect that which has been noted from a number of major and minor archaeological projects (summarised below) in the Market Deeping area over the past few years.

Two principal landscape projects nearby, at Rectory Farm (West Deeping) and Maxey have provided evidence for extensive Prehistoric, Roman and Post-Roman field systems with associated occupation evidence. Sites and finds in the area also reflect the ritual practices of the inhabitants, the exploitation of agricultural and pastoral lands as well as the more varied activities associated with the proximity of the Fens to the east.

King Street Roman road, oriented north-south, is located c. 2.5km to the west of the site. At a similar distance from the site but to its north is the village of Baston where a trench was excavated through the Car Dyke in 1989 (Thorpe & Zeffertt 1989). This work showed that from being an open flowing water course in the Roman period the Dyke gradually became choked with peat and silt thereafter and that post-Medieval ploughing reduced the banks of the Dyke as well as largely infilling the channel (*ibid.*). Earlier this century, a more general observation on the Car Dyke in the same area described the section between Baston and Market Deeping as being among the worst preserved sections along the entire length of its course (Phillips 1934, 121).

Prior to the recent construction of the Northfields Housing Estate to the east and south of the site and the associated access road (Wellington Way) on its eastern side, the metalled road within the development site would have provided the principal access from North Field Road. The road is a mid 20th century construction probably associated with the Second World War military radar installation and Camp Site originally located at North Field. The name of the new access road, Wellington Way, recalls the existence of the Second World War base in the area as it was named after an aeroplane (bomber) of the period. This radar (Ground Controlled Interception) base was created in 1941 and closed in the 1950's and although it was situated just to the north of Market Deeping, between 'Five Houses' and Towngate it was actually called RAF Langtoft (Graham Day pers. comm.). Ordnance Survey maps from the latter half of this century show elements of this base along with the road mentioned above; prior to this period, the area is shown as open (arable) land.

5.0: AIMS AND METHODOLOGY

The overall aim of the watching brief was to locate, record and interpret any archaeological remains present on the site; particularly those associated with the Car Dyke.

The field work was conducted as an evaluation rather than a watching brief on the foundation trenches for the new buildings, in that two east-west oriented trenches were excavated. This change in strategy, detailed in the specification for the field work produced by PISA (Wood 1997), was made in agreement with both the South Kesteven Community Archaeologist and the Client. Moreover, provision was made in the specification for the excavation of three trenches in all (*ibid.*). However, it only proved necessary to open two trenches and the reason for this is outlined below.

Two parallel trenches oriented east-west, referred to as T II and T III, c. 5.50m and c. 21.50m in length respectively (Fig. 3), were excavated by means of a mechanical excavator (JCB) fitted with a 1.5m wide toothless ditching bucket. T III was excavated to the level of secure archaeological deposits and T II to the top of the sterile (natural) horizon. In agreement with Jenny Stevens, the Community Archaeologist for South Kesteven District who monitored the work, it was decided not to open the third trench (T I) which would have been located in the northern part of the site, at a distance of some 20m from T II and parallel with it. The results already obtained in the excavation of T II and T III justified the decision not to open T I.

The trenches were located with two considerations in mind. First, to provide the best possible coverage in sample terms across the site in respect of the potential presence of any archaeological remains. Second, with the specific objective of providing a section through any remains of the Car Dyke that might be present. For this reason, the trenches were positioned at right angles to (and less than 0.50m away from) the western boundary of the site which is marked by a fence-line on a north-south alignment along the eastern side of the modern drain.

Each archaeological and natural deposit or feature was individually recorded, allocated a unique reference (context) number and a related written description (context sheet). The features present in T III were base planned at a scale of 1:20 (Fig. 4); none were excavated, as apart from the exposed eastern bank of the Car Dyke, the remaining features were all modern in origin. Conversely, no plan of T II was produced, as with the exception of the gravel bank which was also exposed in the western end of the trench (as was the case in T III), only geological deposits were uncovered. A section drawing at a scale of 1:10 was produced for T II (Fig. 5) along with a stratigraphic matrix (contained in the site archive) to assist with the interpretation of the archaeology. Finally, a photographic record was compiled which comprises black and white prints and colour slides.

6.0: RESULTS

6.1: Trench II

T II (5.50m x 2.50m) was opened following the excavation of T III. It was positioned at a right angle to the western boundary (i.e. the fence-line) of the development area, parallel to T III which lay 25m to the south (Fig. 3). Only the area between the fence-line to the west and the metalled road (see below) to the east was recorded in detail given that the area further to the east proved to be heavily disturbed by modern activity overlying the natural horizon. The depth of the recorded part of the trench varied between c. 1.30m maximum in the west and 1.10m minimum in the east.

The presence of the eastern bank (context 205) associated with the Roman Car Dyke confirmed that which had already been observed in T III. However, in comparison with the situation in T III, the bank in T II was better preserved. It was therefore agreed with Jenny Stevens that the bank would be machine excavated and recorded in section only in T II (Fig. 5).

Stratigraphically, the bank lay beneath a deposit of silty clay (context 204) which was in turn partially sealed by a further silty deposit (context 203). The latter originated either from relatively recent flooding or clearance of the Dyke. Deposit 204 could be interpreted as being the result of further (earlier) episodes of flooding but is more convincing as a Medieval/post-Medieval plough soil. This is suggested by the presence of a well defined spread of bank material (context 212) that must have been 'dragged away' from the bulk of the original bank through ploughing. The only difference between 212 and 204 being that the latter represents greater mixing of the top of the original bank material with the natural clay deposit 211 to form the plough soil. Beneath 212, a further deposit of gravel (context 206) was recorded and can be interpreted either as representing a different phase of construction of the bank (context 205) or, alternatively, as being the result of weathering.

A further spread of gravel (context 213) was observed beneath 205. 213 would appear to represent subsidence of the bottom of the bank and mixing with the natural deposits below (contexts 207 and 209). Deposit 209 is interpreted as a probable buried soil. In view of its apparent potential for providing information on the local environment¹, a total of ten soil samples (for pollen) were taken in spits at 20mm intervals from the top of this deposit to the natural sandy layer below (context

¹ Cf. the environmental sampling strategy outlined in the project specification (Wood 1997, section 2.1).

210). Unfortunately, the assessment of the processed samples determined that the soil conditions had not been conducive to the preservation of suitable pollens for analysis; only the more hardy pollens such as bracken were found to be present (Dr. Rob Scaife, pers. comm.).

6.2: Trench III

T III (21.60m \times 2.5m) was located some 20m from the southern boundary of the development area (Fig. 3). The excavated depth of the trench varied between 0.7m in the west and 0.5m in the east.

The eastern bank of the original Car Dyke (context 005 in T III; corresponding with 205 in T II) was located at the western end of the trench. Machining was contained here to the removal of overburden to the top of the feature's surface as opposed to continuing the investigation vertically through the bank as occurred subsequently in T II. In plan, the preserved width of the bank in T III proved not to be as great as that in T II. Moreover, it was situated closer to the metalled road (to the east) than in T II.

Stratigraphically, the bank lay below silty deposits which, though more heavily disturbed, are interpreted as corresponding with contexts 203 and 204 in T II. Situated to the east of the bank in T III, the north-south oriented metalled road (Fig. 4) represents the most recent event on the site as it was cut through the topsoil and the layers beneath it. This road, still visible and intact at the time of the excavation, consisted of a foundation of house bricks and stones *c*. 0.5m deep with a tarmacadam surface.

Along with the development area in which it is situated, this road, has previously been shown to have been located on the site of a former Second World War radar installation complex which closed in the 1950's (Cf. Section 4.3 above). The construction of the road would appear to have occurred around the middle of the 20th century; the bricks for its foundation probably being reused from the demolition of earlier buildings which were also likely to have been part of the same military complex. Demolition of buildings on the site, along with subsequent levelling of the area, would explain the presence of a layer of burnt material and occasional debris (context 006) as well as the layers of disturbed gravel above it (contexts 008 and 009), through which the road was later cut.

Further to the east, the trench was excavated to the level of a water pipe. This pipe was sealed by layer 006 confirming a mid 20th century date for the burnt material and debris. The presence of the road made it impossible to establish the relationship between the deposits to the east and those to the west of the road itself. However, the apparent similarities between the stratigraphy in the western portions of T II and T III would suggest a Medieval or post-Medieval chronology for the layers above the Roman bank.

At its eastern end, T III was excavated to the level of compacted gravel (context 009) to a depth of c. 0.5m. No further vertical investigation was considered necessary due to the high degree of modern disturbance in the area.

7.0: DISCUSSION

On the basis of the nature of the deposits, the features encountered during the investigation and the analysis of their stratigraphic relationships, the following phases of activity were identified on the site (see also Appendix 1):

- Phase I: Natural deposits.
- Phase II: Roman deposits.
- Phase III: post-Roman/Medieval deposits.
- Undatable Phase: probable post-Medieval deposits.
- Phase IV: Modern deposits.

Natural deposits of clays and silts were revealed during the excavation, the formation of which pre-date recognisable human activity on the site. Evidence for the latter was provided by the discovery of the surviving portion of the eastern bank of the Roman Car Dyke.

No dating evidence was retrieved from any of the Roman or post-Roman contexts. Thus, more precise dating of the individual phases of construction, use and levelling of the (eastern bank of the) Car Dyke itself cannot be determined. That it fell into disuse, or at least disrepair, is suggested by the fact that sometime during the post-Roman or Medieval period the bank became eroded and subsequently levelled through weathering and ploughing.

It was observed that the medieval plough soil was partially sealed by a layer of more recent (post-Medieval?) silty clay likely to have derived from the clearance of the field drain that replaced the original Dyke. Thereafter, the area continued under arable use until the creation of a Second World War radar installation and associated buildings in 1941. Sometime during the period of use of this base (or a little later), following the formation of a relatively thin layer of grassy topsoil, the now disused road was constructed.

The levelling of the land for the purposes of the Second World War base, together with earlier ploughing activity, accounts for the flat nature of the area at the time of the archaeological investigation.

8.0: CONCLUSIONS

The results obtained from the archaeological investigation at Wellington Way have confirmed both the existence of the Roman Car Dyke and that its former course largely corresponds with that of the modern drain located on the western side of the development area.

In the absence of artefacts earlier than those of mid 20th century date, the phases of activity on the site have been attributed a broad chronology based on the stratigraphic relationship of the features and deposits encountered.

The presence of an appreciable rise in the land on the extreme eastern edge of the field on the western side of the existing modern drain adjacent to the development site could indicate the existence of the western bank of the Car Dyke. Indeed, the rise is such that it would seem to suggest that it is not simply a build-up of soil at the edge of as field as a result of ploughing. Furthermore, it should be remembered that at Baston, some 2km to the north of Market Deeping, the western bank of the Car Dyke was found to be better preserved than the eastern one (Thorpe and Zeffertt 1989, 11).

Other evidence obtained during the work at Baston suggested that the Car Dyke acted as a catchwater drain which remained functional until the post-Roman period and that Medieval and subsequent ploughing began the process that resulted in its deliberate infilling (*ibid.*, 14). A similar scenario of infilling of the channel at

Wellington Way can be suggested given the evidence for levelling and ploughing of the eastern bank.

Notwithstanding the fact that the Car Dyke is shown on the map of Roman Britain (Ordinance Survey 1991), its exact date and function are still open to conjecture. The Dyke represents a system of partly artificial, partly natural waterways traditionally attributed to the Roman period, connecting the River Cam at Waterbeach with the River Witham near Lincoln. The name 'Car' is Old English and is suggestive of marshy low-lying land (i.e. the Fens).

That the Car Dyke performed a dual function acting as a transport route (for inland navigation) and as a catchwater drain diverting surplus water from one river system to the next is for the most part plausible. However, these functions cannot be substantiated for the entire length of the Dyke given the narrowness of the artificial channel and the differences in topography of some sections. While the Romans would certainly have made use of navigable sections for water transport and have exploited the drainage propensity where appropriate, some other principal purpose must lie behind the construction of such a major landscape feature. Indeed, the latter element (i.e. 'landscape feature'), probably holds the key to understanding the real purpose of the Car Dyke whatever else it may also have been used for.

The Car Dyke would appear to share similarities with Hadrian's Wall, Offa's Dyke and other man-made landscape features in that they are all highly visible sociopolitical statements. In such a featureless landscape as the Fens, the Car Dyke could have been the visible element used to connect other natural demarcation boundaries such as rivers. As such, it could have served the primary function of distinguishing Imperial Estates from the territories of the Civitas (or tribal) Capitals in the area (Don Mackreth, *pers. comm.*).

The construction of the Dyke is commonly attributed to the Hadrianic period at a time when there was an increase in the population and new settlements emerged in the Fens. This followed a programme of reclamation of land brought about by a change in environmental conditions. The orderly appearance of the scheme, the chronology of the settlements and the well-known involvement of the Emperor Hadrian in programmes of land reclamation elsewhere in the Empire (Cf. African inscriptions), together with the evidence for Hadrian's visit to Britain, would point to a date in the 120's AD.

9.0: REFERENCES

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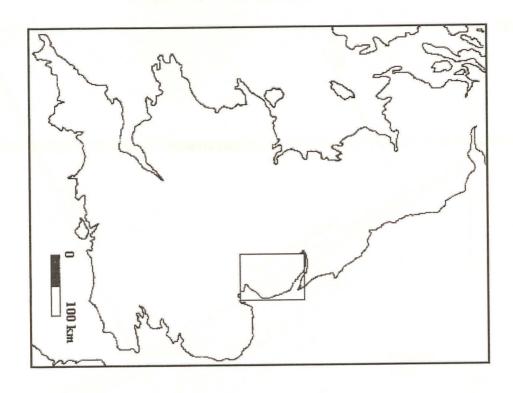
Road, Market Deeping, Lincolnshire., P.I.S.A. Ltd.

10.0: ACKNOWLEDGEMENTS

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Mr. Mike Belton of Procon Design & Build Limited who commissioned the work; Axiom Housing Association who entirely funded the investigation. Jenny Stevens, the Community Archaeologist for South Kesteven District Council; Mark Bennet and Sarah Grundy of the Lincolnshire County Council Archaeology Section (for SMR access). Dr. Rob Scaife (freelance environmental archaeologist); Don Mackreth; and Graham Day of the Air-Historical Branch of the Ministry of Defence in London.

Figure 1: General Location Plan



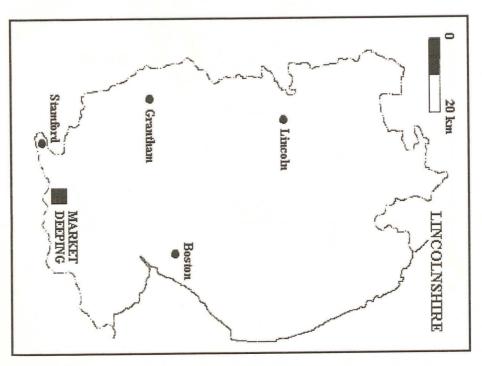


Figure 2: Site Location

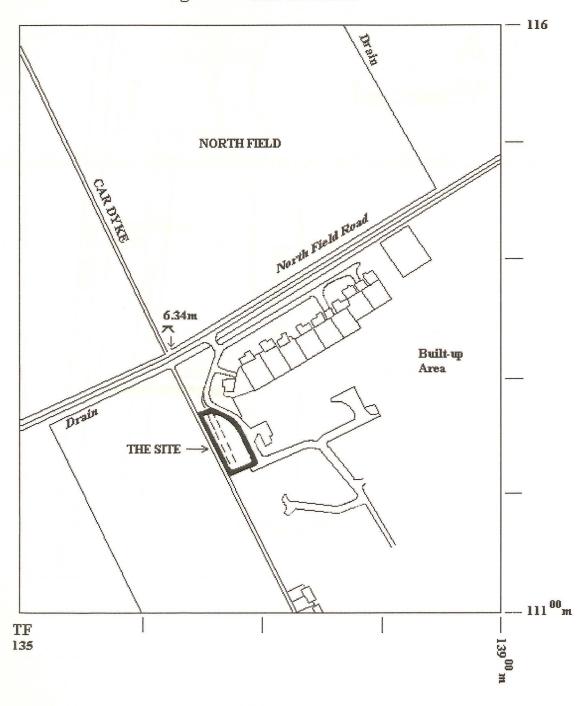
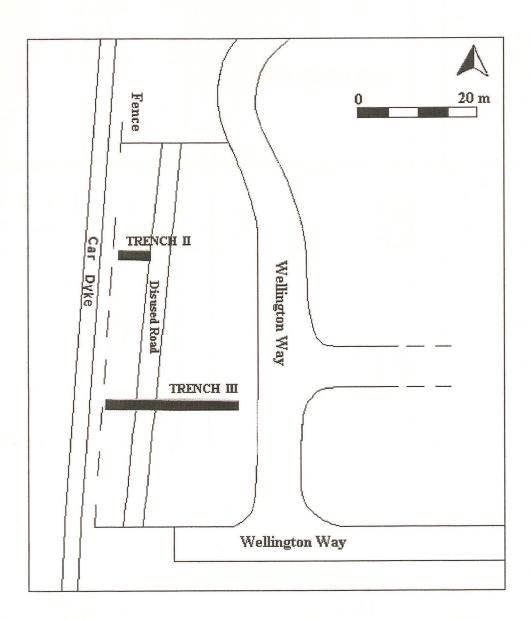


Figure 3: Location of Trenches



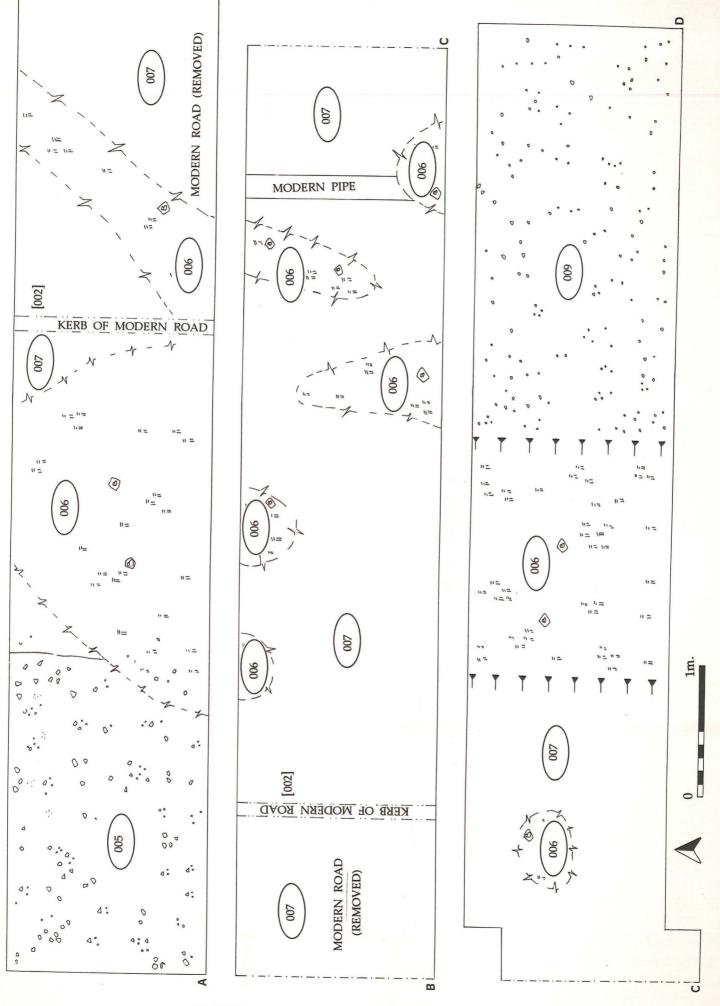
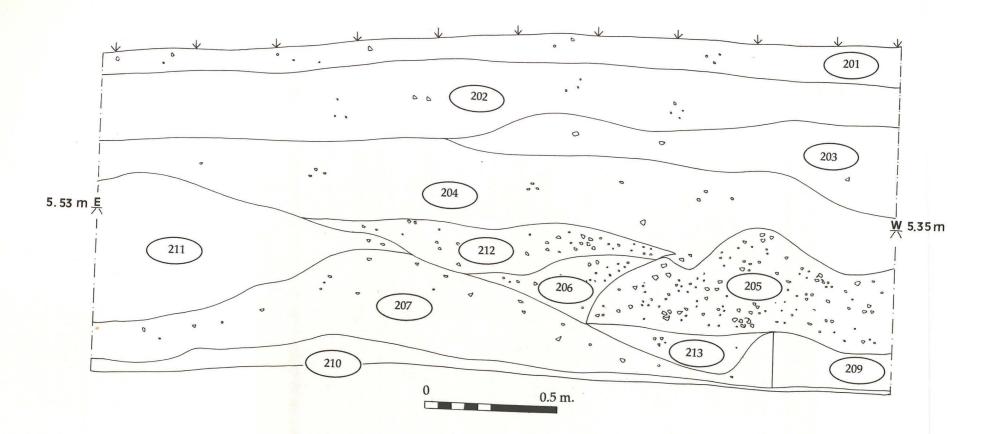


Figure 5: Trench II: North-facing section



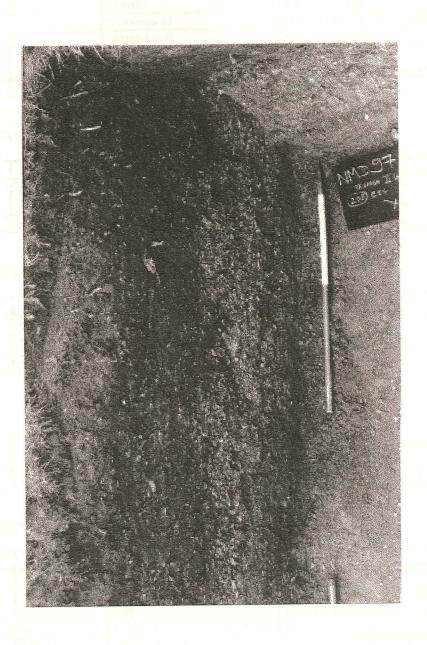


Plate 1: Trench II (North-facing section): showing gravel bank (205)

APPENDIX 1

Summary Description of Contexts

NATURAL DEPOSITS:

CONTEXT	TRENCH	TYPE	DESCRIPTION
(007)	III	Sterile	Soft sandy silt
(207)	П	Geological	Firm yellow-brown sandy silty clay
(209)	П	Buried soil	Firm brown silty clay
(210)=(007)	П	Sterile	Soft sandy silt
(211)	П	Geological	Firm yellow brown silty clay
(213)	П	Geological	Firm brown sandy silty clay

ROMAN DEPOSITS

CONTEXT	TRENCH	TYPE	DESCRIPTION
(005)	III	Gravel bank	Compacted gravel and sandy silt
(205)=(005)	II	Gravel bank	Compacted gravel and sandy silt
(206)	П	Gravel bank	Compacted gravel and sandy silt

POST-ROMAN/MEDIEVAL DEPOSITS:

CONTEXT	TRENCH	TYPE	DESCRIPTION
(011)	III	Flood/plough deposit	Firm yellow-brown silt/clay
(204)=(011)	II	Flood/plough deposit	Firm yellow-brown silt/clay
(212)	II	Deposit	Sandy silt with loose gravel

UNDATABLE DEPOSITS (POST-MEDIEVAL?)

CONTEXT	TRENCH	TYPE	DESCRIPTION
(010)	III	Flood deposit	Firm grey-brown sandy silty clay
(203)=(010)	П	Flood deposit	Firm grey brown sandy silty clay

MODERN DEPOSITS:

CONTEXT	TRENCH	TYPE	DESCRIPTION
(001)	III	Topsoil	-
[002]	III	Cut	Cut of N/S modern metalled road
(003)	III	Fill	Fill of [002]: brick & stone foundation
(004)	III	Subsoil	-
(006)	III	Deposit	Firm clay silt & burnt debris
(008)	III	Deposit	Friable gravel & silty sand
(009)	III	Deposit	Compacted gravel & silty sand
(201)=(001)	II	Topsoil	-
(202)=(004)	II	Subsoil	-

APPENDIX 2

The Archive

The primary records will be deposited with the Lincoln City & County Museum in January 1998 but are presently located at:

P.I.S.A. Ltd., 8 Fountain Court, Main Street, Ufford, Lincolnshire, PE9 3BJ

The archive consists of the following items:

28 Context Records

- 2 Scale Drawings (1 Plan & 1 Section)
- 14 Photographic Records
- 1 Stratigraphic Matrix

Lincoln City & County Museum Accession No.:111.97 PJSA project code: NMD97