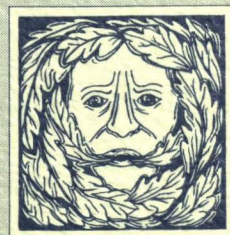


99/25

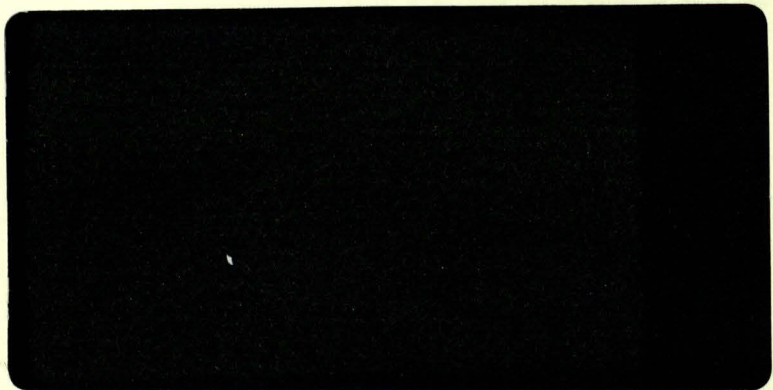
**ARCHAEOLOGICAL EVALUATION
ON LAND TO THE REAR
OF OLD ACRES MILL,
SPALDING,
LINCOLNSHIRE
(SAM 99)**



A P S
ARCHAEOLOGICAL
PROJECT
SERVICES

Lincolnshire County Council
Archaeology Section

29. NOV 99
ack 29/11/99



EVENT 42221
SOURCES 41917 41918
23602 U23602
23604 U23604

**ARCHAEOLOGICAL EVALUATION
ON LAND TO THE REAR
OF OLD ACRES MILL,
SPALDING,
LINCOLNSHIRE
(SAM 99)**

Work Undertaken For
Patterson Properties

November 1999

Report Compiled by
Tobin Rayner and Dale Trimble

National Grid Reference: TF 2500 2255
City and County Museum Accession No: 268.99

A.P.S. Report No. 120/99



CONTENTS

List of Figures

List of Plates

1.	Summary	1
2.	Introduction	1
2.1	Background	1
2.2	Topography, Geology and Soils	2
2.3	Archaeological Setting	2
3.	Aims	3
4.	Methods	3
5.	Results	4
5.1	The Stratigraphic Sequence	4
5.2	Phase 1: Natural Deposits	4
5.3	Phase 2: Undated	5
5.4	Phase 3: Medieval Deposits	5
5.5	Phase 4: Post Medieval Deposits	6
5.6	Phase 5: 18 th - 19 th Century Deposits	7
5.7	Phase 6: Modern Deposits	8
6.	Discussion	9
6.1	Phase 1: Natural Deposits	9
6.2	Phase 2: Undated Deposits	9
6.3	Phase 3: Medieval Deposits	9
6.4	Phase 4: Post-Medieval Deposits	10
6.5	Phase 5: 18 th - 19 th Century Deposits	10
6.6	Phase 6: Modern Deposits	11
7.	Assessment of Significance	11
8.	Conclusions	12
9.	Acknowledgements	12
10.	Personnel	13
11.	References	13
12.	Abbreviations	13

Appendices

- 1 Specification of Work
- 2 Context Descriptions
- 3 The Pottery, Clay-Pipes and Metal Finds by *Hilary Healey and Gary Taylor*
- 4 The Ceramic Building Material by *Phil Mills*
- 5 Industrial Residues by *Jane Cowgill*
- 6 The Glass by *Rachael Hall*
- 7 Environmental Archaeology Assessment by *James Rackham*
- 8 Extract from *Criteria for the scheduling of ancient monuments*
- 9 Glossary
- 10 Archive

List of Plates

- Plate 1 General View of the proposed development area, looking north
- Plate 2 Trench 1, looking southeast
- Plate 3 Trench 2, with cesspit [219] in centre, looking southeast
- Plate 4 Trench 3 with ditch [316] in centre, cutting medieval deposit [217], looking northwest
- Plate 5 Section across medieval ditch [112] in Trench 1, looking northwest
- Plate 6 Plate 6 Brick surface (320) associated with industrial debris in Trench 3, looking east

1. SUMMARY

An archaeological evaluation was undertaken in November 1998 to determine the archaeological implications of proposed development on the former Old Acre's Mill site, High Street, Spalding, Lincolnshire.

Three trenches were excavated at the west, centre and east sides of the site. In Trench 3, located nearest to Spalding High street and the east bank of the river Welland, medieval layers were sealed beneath a 1.4m thick sequence of 18th -19th century and modern deposits.

Pottery dating to the 10th - 13th century and evidence for the disposal of domestic food waste was recovered from the medieval layers in Trench 3, indicating that settlement was well established in this area during the period. A ditch in Trench 1 at the east side of the site contained a number of bricks and a range of domestic food debris. The ditch may represent a boundary defining a building plot or larger parcel of land. Medieval deposits in Trench 1 were defined at 1.2m below the current ground surface. The identification of medieval deposits in Trenches 1 and 3 indicates that deposits of this period are likely to extend across the site. No definitely medieval deposits were recorded in Trench 2, although undated deposits recorded beneath a large post-medieval cess pit could be of this date.

The post medieval period is represented by the cess pit recorded in Trench 2 and by a ditch in Trench 3 which may be of similar date. Food debris from the cess pit demonstrates that domestic occupation of the area continued into the post medieval period, when buildings were possibly fronted onto a road adjacent to the east bank of the river. Occupation of the site continued into the 18th and 19th century and it is possible that some kind of industrial

activity was undertaken in the area close to Trench 3.

2. INTRODUCTION

2.1 Background

A desk-top assessment of the impact of a proposed development on land to the southwest of the Old Acres Mill site was undertaken in 1998 by Archaeological Project Services (Herbert, 1998). Following a proposal to develop the land within the Old Acres Mill site an evaluation of the site as a whole was undertaken in November 1999 at the request of Jim Bonner, the Archaeology Officer for Lincolnshire County Council. The development proposal comprised the construction of residential houses, distributed evenly across the area apart from along the west side of the site where the building currently fronting onto the High Street is located.

The main aim of the evaluation was to assess the presence and character of the archaeological resource within the proposed development area. Patterson Homes commissioned the archaeological investigation. Archaeological Project Services (APS) carried out the work in accordance with the specification produced by APS and approved by the Archaeology Officer for Lincolnshire County Council.

Archaeological Field Evaluation is defined by the Institute of Field Archaeologists (IFA) as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, and relative quality; and it enables an assessment of their worth in a local,

regional, national or international context as appropriate.' (IFA 1997).

2.2 Topography, Geology and Soils

Spalding is situated 23km southwest of Boston and 30km southeast of Sleaford, in South Holland District, in the Fenland of south Lincolnshire (Fig. 1).

The proposed development is located on the east bank of the River Welland, c.200m to the east of Spalding town centre as defined by the Market Place (Fig. 2). Situated at a height of c. 5m OD at National Grid Reference TF 2500 2255, the site covers approximately 0.75 hectares and is on land gently sloping down from the river.

As an urban area, the local soils have not been mapped by the soil survey of England and Wales, but are probably Wallasea 2 Association peloalluvial gley soils.

2.3 Archaeological Setting

Spalding is located in an area of known archaeological activity dating from the prehistoric to post-medieval periods.

Prehistoric activity is represented by two unprovenanced stone axe hammers found in 1733 (SMR TF 22 S.E. 7), probably dating to the Neolithic period. Because of the depth of Neolithic deposits in the Spalding area, these tools are unlikely to have originated locally.

Approximately 550m southwest of the investigation area Romano-British pottery, including Samian ware has been found. Also, cropmarks indicative of Romano-British domestic occupation are located on the outskirts of the town.

Spalding is first referred to in a Tribal Hideage of the 7th century wherein a tribe

known as the *Spaldas* are recorded. The place name is derived from the Old English *Spaldingas*, 'descendants of *Spaldas*' (Ekwall 1974, 432). The first account of the town was in a charter to the monks of Crowland by King Ethelbald in AD 716 (Clark 1978).

Crowland had been given land in Spalding by Thorold of Buckenhale, sheriff of Lincoln, supposedly in 1051. Money was provided to build a chapel and for six brethren to maintain it (Page 1906, 118). Later, the lands passed to Ivo Taillebois, William the Conqueror's nephew, who forced the Crowland monks out of the town and then invited the abbot of St. Nicholas of Angers to build a monastery in its place (*ibid*, 119).

The Domesday Book of 1086 records that Spalding was owned principally by Ivo Taillebois with land also belonging to Crowland Abbey and Guy of Craon (Foster and Longley 1976). The survey also mentions the existence of a market, six fisheries, salt-pans and a wood of alders. Although the name of the town is Saxon in derivation, numerous street-names in Spalding have a Danish origin (Hallam 1954, 8).

Spalding's wealth has been dependent on the River Welland as the town was the nearest port with trade routes to southwest Lincolnshire. It developed into a transport and administrative centre for the surrounding agricultural area, its main industries being shipping, the railway (construction of which began in 1848), and those using agricultural produce or providing a service for the local farmers. Once the railway had opened the port trade began to diminish and the port was last used in 1939 (Wright 1973, 38).

An evaluation undertaken by Archaeological Project Services at the corner of Spalding High Street and Church street recorded post-

medieval archaeological deposits at 0.6m below current ground level (Dymond 1995).

3. AIMS

The aims of the archaeological evaluation, as outlined in the specification (Appendix 1), were to gather information to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits. This will enable the Archaeology Officer for Lincolnshire County Council to provide detailed recommendations to South Holland District Council Planning Committee.

4. METHODS

The original specification required the excavation of five 12m x 3.5m trenches across the site. After a site meeting the Lincolnshire County Council Archaeological Officer reduced the number to four, due to the difficulties of locating trenches outside of the footprint of the proposed buildings on the site. At the same meeting it was agreed to limit the length of Trench 2 to avoid encroaching within the footprint of a proposed bungalow. During the machining of the fourth trench on the north side of the site a sheet of corrugated asbestos was revealed. With the agreement of the client and the Archaeology Officer it was agreed that no trenching would be undertaken on this area of the site.

The specification for the project required that if necessary the trenches should be excavated to a depth of two metres. As a result all trenches were excavated to at least three metres wide to allow a one metre step if the archaeological deposits extended below the 1.2m limit specified by Health and Safety requirements.

Trenches 1 and 3 located at the west and

east side of the site both measured 12m x 3.5 metres. Trench 2 was located midway between these and measured 4.9m x 3.5m. In Trench 1 deposits were removed by mechanical excavator to a depth of 1.2m. At this depth inspection of the sides of the base of the trench determined that archaeological deposits had not yet been exposed and it was decided to use the mechanical excavator to remove a sondage down the centre of the trench to the the upper surface of natural deposits or to the level at which archaeological deposits were clearly defined. If natural deposits were not uncovered the sondage would not be excavated to beneath 2m from the current ground surface. This decision was vindicated by the discovery of clearly defined archaeological features at a depths below 1.2m. In Trenches 2 and 3 archaeological layers were clearly visible at 1.2m depth and all excavation beyond this depth was undertaken by hand.

Where information was needed beneath safety limits a hand operated screw augur was used to investigate underlying deposits. This was particularly appropriate in Trenches 2 and 3 where the lower limits of the archaeological deposits were not reached at the maximum depth of excavation.

After machining the exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains. Where present, features were excavated by hand in order to retrieve dateable artefacts and other remains.

Each deposit exposed during the evaluation was allocated a unique reference number (context number) with an individual written description. A photographic record was compiled, and sections were drawn at a scale of 1:10 and plans at a scale of 1:20. Recording of deposits encountered during the evaluation was undertaken according to standard Archaeological Project Services

practice.

Environmental samples were taken after advice had been sought from the project environmentalist, James Rackham.

Field survey of the excavated trenches and existing reference points was compiled using a Geodolite Total Station in conjunction with a Psion Datalogger.

5. RESULTS

5.1 The Stratigraphic Sequence

Finds recovered from the deposits identified during the evaluation were examined and a date assigned where possible (Appendix 3). Records of the deposits encountered during the evaluation were also examined. A list of all the contexts and interpretations appears as Appendix 2. Phasing was based on the nature of the deposits and recognisable relationships between them, supplemented by artefact dating where relevant. Six phases were identified:

- Phase 1 Natural deposits
- Phase 2 Undated deposits
- Phase 3 Medieval deposits
- Phase 4: Post-medieval deposits
- Phase 5: 18th - 19th Century and later deposits
- Phase 6 Modern deposits

Contexts numbers appear in brackets, and these refer to the individual cut and deposit descriptions recorded during excavation.

5.2 Phase 1: Natural deposits

The history of marine and freshwater flooding in this area often makes determining the limit of archaeological deposits problematical. Indeed, it is known that prehistoric land surfaces in the in the

Spalding area can be buried beneath several metres of sediments deposited over the past three thousand years in the Fen basin. However, the purpose of this evaluation was to determine the likely impact of the proposed development on buried archaeological deposits, effectively limiting the investigation to the upper two metres of deposits. Nevertheless, deposition of layers of flood silts and clays continued until comparatively recently and it is likely that archaeological deposits could be sealed beneath layers of naturally deposited sediments.

Trench 1: (Fig. 5, Plates 2 and 5) The earliest layer encountered was (129), a blueish grey silt clay recorded in an overcut of feature [128]. This was overlain by deposit (132), the layer exposed within the base of the trench at the limit of excavation, some 1.4m below the current ground surface at 2.65m OD. This deposit merged gradually with overlying deposit (104) a 0.15m thick yellowish brown clayey silt. It is thought that (104) and (132) are part of the same layer but the former has been transformed by soil formation processes comprising the reworking of deposits by biological, chemical and physical processes.. This interpretation is supported by layer (103), a mid brown silt which overlies (104) and is thought to represent a buried former topsoil. In effect these three layers represent the formation of a topsoil (103) and concomitant reworking of lower deposits (104) by soil formation processes. The topsoil probably started to form in the medieval or post-medieval period but has been described here to clarify details of the development of soils at the site.

Although archaeological deposits were cut through or sealed beneath the deposits described above the cuts were not easily visible. As described in the methodology section, the trench was machined to a depth where archaeological deposits were clearly

visible against the cleaner yellow sandy silt (132). These layers effectively represent the natural deposits into which all archaeological features are cut. However, the possibility that earlier archaeological deposits lie beneath these cannot be ruled out.

Trench 2: No definitely natural deposits were recorded in Trench 2.

Trench 3: No natural deposits were recorded within the excavated depth of Trench 3. However, a 5mm thick layer of peat recorded at 2.28m OD in a augur hole located at the the base of the hand dug sondage in Trench 3, may in effect define the lower limit of archaeology at 2.7m below the current ground surface. A greyish blue laminated clay deposit was recorded to a depth of 0.45m below the peat.

5.3 Phase 2 Undated

Trench 1: No deposits belonging to this phase were recorded in trench.

Trench 2: (Fig 6, Plate 3) Undated deposits in Trench 2 are represented by a sequence of yellowish, pinkish and greyish white and brown silts (204), (205), (206) (210) and (223) revealed in the sections of the 1m square sondage excavated by hand in the base of Trench 2. The top of these layers was recorded at 1.20m below the current ground surface at 3.55m OD and the sequence extended down 1.00m to the limit of excavation. Within these silts, between (205) and (223), and at a depth of 1.97m below current ground level, a 5mm layer of charcoal was recorded which contained a large assemblage of charred cereal grains, beans, *Brassica*(?) seeds and straw and some weed seeds. These silts and the charcoal layer represent the earliest deposits within Trench 2 but due to the lack of any associated dating evidence they can only be treated as undated. Rackham (Appendix 7)

suggests that the charred material in the layer was burnt *in-situ* and that layer (211) could represent an early ground surface or may be a fill of a large feature not defined within the limits of the 1m sondage.

If the charcoal layer represents a former ground surface the surrounding silts must have originated in flood conditions as this is the only means by which such clean, fine sediments could have been deposited. Alternatively, if the charcoal layer lies within a large pit or ditch the sediments may have formed as the feature silted up, possibly during flood conditions but equally they could have derived from the weathering of earlier sediments from the sides of the cut.

Trench 3: No deposits belonging to this phase were recorded in Trench 3

5.4 Phase 3: Medieval deposits

Trench 1:(Fif. 5, Plates 2 and 5) A flat based, east-west linear ditch (112) recorded at the southwest end of the trench ditch was clearly visible at a depth of 1.2m below the current ground surface, cutting through natural deposit (104). From the base of the trench the ditch had a known depth of 0.9m. However, transformation of the upper levels of sediments in the trench by soil formation processes made determining the upper limits of the ditch problematical. It is possible that the Phase 6 modern deposits in the upper levels at the southwest end of the trench may be filling the hollow left by this ditch. The full width of the ditch could not be determined, but measured 2 metres to the limit of excavation.

The ditch contained a mid-greyish brown coarse silty primary fill (120) beneath a dark brownish grey sandy silt (113) from which a number of 14th century pottery sherds were recovered. Other archaeological material recovered from deposit (113) includes brick,

visible against the cleaner yellow sandy silt (132). These layers effectively represent the natural deposits into which all archaeological features are cut. However, the possibility that earlier archaeological deposits lie beneath these cannot be ruled out.

Trench 2: No definitely natural deposits were recorded in Trench 2.

Trench 3: No natural deposits were recorded within the excavated depth of Trench 3. However, a 5mm thick layer of peat recorded at 2.28m OD in a augur hole located at the base of the hand dug sondage in Trench 3, may in effect define the lower limit of archaeology at 2.7m below the current ground surface. A greyish blue laminated clay deposit was recorded to a depth of 0.45m below the peat.

5.3 Phase 2 Undated

Trench 1: No deposits belonging to this phase were recorded in trench.

Trench 2: (Fig 6, Plate 3) Undated deposits in Trench 2 are represented by a sequence of yellowish, pinkish and greyish white and brown silts (204), (205), (206) (210) and (223) revealed in the sections of the 1m square sondage excavated by hand in the base of Trench 2. The top of these layers was recorded at 1.20m below the current ground surface at 3.55m OD and the sequence extended down 1.00m to the limit of excavation. Within these silts, between (205) and (223), and at a depth of 1.97m below current ground level, a 5mm layer of charcoal was recorded which contained a large assemblage of charred cereal grains, beans, *Brassica*(?) seeds and straw and some weed seeds. These silts and the charcoal layer represent the earliest deposits within Trench 2 but due to the lack of any associated dating evidence they can only be treated as undated. Rackham (Appendix 7)

suggests that the charred material in the layer was burnt *in-situ* and that layer (211) could represent an early ground surface or may be a fill of a large feature not defined within the limits of the 1m sondage.

If the charcoal layer represents a former ground surface the surrounding silts must have originated in flood conditions as this is the only means by which such clean, fine sediments could have been deposited. Alternatively, if the charcoal layer lies within a large pit or ditch the sediments may have formed as the feature silted up, possibly during flood conditions but equally they could have derived from the weathering of earlier sediments from the sides of the cut.

Trench 3: No deposits belonging to this phase were recorded in Trench 3

5.4 Phase 3: Medieval deposits

Trench 1:(Fif. 5, Plates 2 and 5) A flat based, east-west linear ditch (112) recorded at the southwest end of the trench ditch was clearly visible at a depth of 1.2m below the current ground surface, cutting through natural deposit (104). From the base of the trench the ditch had a known depth of 0.9m. However, transformation of the upper levels of sediments in the trench by soil formation processes made determining the upper limits of the ditch problematical. It is possible that the Phase 6 modern deposits in the upper levels at the southwest end of the trench may be filling the hollow left by this ditch. The full width of the ditch could not be determined, but measured 2 metres to the limit of excavation.

The ditch contained a mid-greyish brown coarse silty primary fill (120) beneath a dark brownish grey sandy silt (113) from which a number of 14th century pottery sherds were recovered. Other archaeological material recovered from deposit (113) includes brick,

tile and animal bone. A range of archaeological material recovered from the processing of environmental samples includes coal and cinder, small quantities of slag and hammer scale and animal bone. Charred cereal grains, cockle and mussel shell fragments, eggshell, fragmented domestic animal bone and eel vertebrae probably represent the disposal of domestic food refuse items. The palaeo-environmental evidence clearly indicates a freshwater environment in the ditch with no evidence of a marine influence. It is clear that the ditch was located in proximity to domestic activity during the medieval period.

A sub-circular cut feature (139), tentatively interpreted as a pit (or ditch terminus), contained a yellowish brown clayey silt fill (138) and was truncated by ditch (112). Although no finds were recovered from fill (138) the pit is stratigraphically earlier than the ditch and is presumed to be of medieval date. Two other features, an east-west gully (131) and a pit (128) measuring 1.40m long x 0.40m wide x 0.25m deep and 1.80m long x 0.80m wide x 0.24m deep respectively, both contained similar fills to pit (139) and are probably of a similar date.

Trench 2: No deposits of definite medieval date were recorded in Trench 2 although it is quite possible that the sequence of layers described for this trench in the undated phase are of this date.

Trench 3: (Fig. 7, Plates 4 and 6) The earliest archaeological deposit in this Trench was (317), a dark greyish brown clayey silt excavated in the 0.5m wide hand dug sondage. This deposit had a maximum thickness of 0.3m to the lower limit of excavation but an additional 0.7m was probably recorded within a augur hole sunk from the limit of excavation to a level of 2.28m O.D. Pottery dating from the 10th - 12th, 11th - 13th, and 12th to 13th centuries

was recovered from the deposit which also contained a number of pieces of animal bone and a cockle shell. Processing of environmental samples from (317) recovered a house mouse jaw, charred cereals, cockle and mussel shell fragments and chicken, eel and herring bone. The house mouse jaw suggests nearby buildings and the other remains indicates the deposition of domestic food debris. Within the limits of excavation it is unclear if this deposit was contained within a large feature sealed or truncated by later deposits and not visible within the limits of the trench. The upper surface of (317) was recorded at 3.6m OD, 1.4m below current ground level.

5.5 Phase 4: Post-medieval deposits

Trench 1: No deposits belonging to this phase were recorded in this trench.

Trench 2: (Fig. 6, Plate 3) The undated deposits in Trench 2 were truncated by (219) a linear feature thought to be aligned northeast to southwest, although the exact orientation and shape was difficult to determine as the cut was not fully exposed within the trench. The flat base of the feature was recorded within the sections of the 1m square sondage to a depth of 2.2m below the current ground surface at 2.56m OD. In plan the feature extended across the base of the trench outside of the sondage but was sealed by 1m of horizontal layers recorded in the south section of the trench. The feature was 1.5m wide to the western limit of excavation and 1.0m deep. A sequence of light silty fills (202/203/209) and (201/207/208/224) were recorded within this cut, some of which, contained 13th - 16th century pottery. Processing of environmental samples recovered calcareous phosphatic concretions of cess with visible mineralised plant fibres and other vegetable matter in the concretions. This confirms the field

identification of the feature as a cesspit. The later fills contained material which suggests that the feature was later used as to dispose of general domestic rubbish.

Trench 3 (Fig 7, Plates 4 and 6) Medieval layer (317) was truncated by (316) a 3.5m wide and 1.3m deep ditch also excavated within the hand dug sondage. The ditch contained a single dark greyish brown clayey silt fill (315) from which quantities of ceramic building material and mortar were recovered during the processing of environmental samples. A small amount of domestic debris including charred cereals, bird eggshell and mussel fragments were also recovered from the samples. Deposition of later sediments created difficulty in determining the alignment of the ditch but it is likely to have followed an east-west alignment. The upper surface of (315) was recorded at a depth of 1.10 metre below the current ground surface at around 3.9m OD. Although there is no direct dating evidence to confirm a post-medieval date for this feature, it seems reasonable to assume a fairly lengthy chronological separation from overlying deposits which contained abundant 18th and 19th century artefacts.

5.6 Phase 5: 18th - 19th Century and later deposits

Trench 1: (Fig 5, Plates 2 and 5) Located in the eastern corner of the trench was a 0.65m wide and 0.5m deep east-west aligned ditch (115) which contained a single mid brown silt fill (116). This ditch is almost certainly the same feature as a north-south ditch (122) which contained a similar fill (121) and from which 18th and 19th century pottery was recovered. The corner defined by these two features was probably removed during the excavation of the second stage of the trench.

Cutting ditch (122) was a square posthole (124) containing a yellowish brown silt fill

(123). A second similar posthole was located to the west.

Overlying feature (115 = 122) was 0.25m thick mid brown silt deposit (103), containing brick rubble and shell. As described in the section on natural deposits for this trench, this layer is thought to represent a buried topsoil deposit. In effect the surface of this layer probably represents the level from which medieval and post medieval features were cut. The stratigraphic relationship of ditch (121) and layer (103) was unclear, as would be expected if (103) represents a topsoil which would be in a continuous process of formation.

A 0.4m thick deposit (105) overlying (103) probably represents a late phase of flooding, possibly as late as the 18th or 19th centuries. Pottery dated to the 18th and 19th century was recovered from the fill of a north south linear gully (118) recorded towards the south end of the trench. To the east of gully (118) was a sub-oval pit (126) measuring 0.70m long x 0.40m wide x 0.44m deep. Within the pit (126) was a mid brownish grey clayey silt fill (125) containing late 18th - 19th century pottery.

An undated U - shaped feature (134) containing a greyish brown clayey silt (133) was recorded within the southeast facing section and probably represents a gully or pit.

Trench 2: (Fig 6, Plate 3) Located centrally within the trench, truncating the Phase 3 cesspit (219) was an undated posthole (214), measuring 0.36m wide x 0.69m deep. Contained within feature (214) was a mid grey brown mottled sandy fill (213) with wood and shell fragments.

Trench 3: (Fig 7, Plates 4 and 6) Overlying post medieval ditch fill (315) was a mid-

brown clayey silt thought to represent a phase of soil formation (319). The layer contained late 17th century pottery and at the northwest corner of the trench was overlain by a brick surface (320). Some of the surfaces of the bricks were encrusted with industrial residue and one example was vitrified, suggesting exposure to very high temperatures. The brick surface (320) was recorded at 4.34m OD, 0.85 below current ground level.

5.6 Phase 4: Natural deposits

Along the southwest edge of the trench deposit (319) was truncated by linear feature (314) which contained a sequence of dumped deposits (312), (311 = 318), (310), (309) and (308) containing building debris and late 17th - 18th century pottery. Deposit (318) was a charcoal rich layer which extended beyond the limits of cut (314) to form a 0.10m thick horizon recorded throughout the trench.

Situated at the southern end of the trench was a northeast-southwest aligned feature (325) which cut through fill (309) of ditch (314) and contained a sequence of silt deposits (308=324), (323) and (313) from which 17th and 18th century pottery was retrieved. Overlying feature (325) was a sequence of levelling deposits (327) and (326) along with also 18th century pottery and building debris. Above these make-up layers two deposits (305) and (306) thought to represent a phase of freshwater flooding were recorded. The combined maximum thickness of these deposits was 0.4m and both were mid reddish yellow silts. This flood horizon was recorded in all sections of the trench and completely sealed all earlier deposits. The upper surface of these silts were recorded at 4.59m OD, 0.6m below the ground surface in this area.

5.7 Phase 6: Modern deposits

Trench 1: (Fig 5, Plates 2 and 5) Two

probable dumped deposits (108) and (137), a greyish brown clayey silt containing 19th - 20th century pottery and a brick rubble filled deposit respectively were recorded overlying the Phase 5 deposit (103). Cutting deposit (137) was a small U-shaped feature (136), recorded in section only. Overlying this feature was a 0.50m thick mid-greyish brown silt (105) that has been interpreted as a flood deposit.

Located in the northeastern end of the trench, cutting deposit (105), was an east-west linear gully (117) containing a mid-brown silt (116). Overlying feature (117) were two modern dumped deposits (101) and (109).

A mid-yellowish brown fine silt deposit containing frequent brick and concrete rubble was recorded overlying the whole of the trench area and has been interpreted as the modern topsoil. Cutting deposit (100) was an east-west aligned modern brick wall (106).

Trench 2: Overlying the Phase 4 posthole fill (212) were two deposits (218 and (217), a dark greyish brown silt layer containing 20th century pottery and brick fragments and a pinkish grey silt respectively. Seen in the north facing section cutting deposit (217) was an undated feature (220) containing two fills (216) and (222). Above fill (222) was an ash rich dumped deposit (215).

A deposit of dark grey/black brown mottled sandy silt (214), containing frequent stones and brick rubble, was recorded overlying deposit (215) to a thickness of 0.48m and represents the modern topsoil.

Trench 3: A sequence of modern deposits (301), (302), (303) and (322), forming a concrete road surface, was recorded overlying the archaeological features.

6. DISCUSSION

Archaeological evaluation of land at the former Old Acre's Mill Site, High Street, Spalding, Lincolnshire, has identified a range of archaeological deposits including a medieval ditch and pits?, a post medieval cess pit, an 18th-19th century brick surface, flood deposits of various dates and a number of recent make-up layers.

6.1 Phase 1: Natural deposits

Natural deposits which can be conclusively shown to pre-date all archaeological deposits were difficult to identify at the Old Acres Mill site. It is thought that silts (232) and (104) recorded in Trench 1 probably do represent silts deposited in a marine environment when settlement in the Spalding area would probably not have been possible. The top of these layers was recorded at around 3.4m OD, just over 0.5m below the current ground surface. However, similar silts from the undated phase in Trench 2 contained a thin layer of charcoal (211) which contained charred plant remains which must be archaeological in origin. At 2.80m OD this layer falls below the upper level at which natural deposits were recorded in Trench 1. As pointed out in the description of the undated silts in Trench 2 these deposits could be contained within a much larger feature not visible within the confines of the trench. There is a possibility that the charcoal rich deposit (211) represents a pre medieval land surface which might extend some distance across the site and beneath the silts recorded in Trench 1. The lowest levels reached in the excavation of Trench 3 were at 2.98m OD and did not reveal any conclusively natural layers. A layer of peat revealed in an auger hole at 2.28m OD may represent the upper surface of undisturbed natural layers in this area.

6.2 Phase 2 Undated

A series of silts recorded in the lower levels of Trench 2 contained the charcoal rich layer already referred to in the above discussion of natural deposits. It is possible that this charcoal layer may represent a buried land surface sealed and overlain by silty flood deposits, or may be contained within a much larger feature not visible within the limits of Trench 2. If the layer does represent a land surface, it lies at a lower level than all deposits revealed in Trench 3 and underneath the lower surface of Trench 1..

6.3 Phase 3: Medieval deposits

Pits (139), (128), and gully (131) recorded in Trench 1 appear to be earlier than the dated medieval ditch (112) to the south. However, the east-west alignment of the features suggest that they still extant when the later feature was dug. The actual function of the features is difficult to determine, although the larger ditch (112), probably defined a boundary and acted as a drain. The recovery of a range of materials suggesting the disposal of domestic food waste in the ditch indicated that the feature was located at no great distance from an area of occupation. This suggestion is supported by the recovery of quantities of bricks from the fills of the ditch, indicating that a building was located nearby. Medieval pottery was recovered from the same fill which contained the bricks. The environmental evidence indicates freshwater conditions in the ditch. No definite medieval remains were recorded in Trench 2 although the possibility remains that the undated charcoal layer (211) is of this date.

Sediments containing medieval artefacts were recorded in the lower levels excavated in Trench 3. The highest level that these layers were recorded was around 3.9m OD, 1.4m below the current ground surface. An auger survey suggests these deposits extend down for at least an additional 0.7m, to a

level of around 2.3m OD. This level is below the top of what are considered natural deposits in Trench 1 and it is possible that the Trench 3 medieval layers are contained within a large negative feature not recorded within the excavated limits of the trench. As in Trench 1, the dated medieval deposits in Trench 3 contained evidence for the disposal of domestic food waste and the recovery of a house mouse jaw from an environmental sample indicated that a building may have been located nearby. The date range of the medieval pottery from Trench 3 spans the 10th to the 13th centuries, slightly earlier than the 13th - 14th century material recovered from trench 1. The archaeological evidence recovered from the site for the medieval period suggests domestic occupation in the area, probably within plots defined by ditches aligned at right angles to the river.

6.4 Phase 4: Post-medieval deposits

The cesspit (219 = 221) in Trench 2 is the only positively dated post-medieval feature recorded during the evaluation. The location of the cesspit within the development area would suggest that the site had been occupied during the period. The position of the cesspit may suggest that it was situated behind a building that fronted on to the High Street during the post-medieval period. Although no dateable material was recovered from the fill (315) of ditch (316) in Trench 3, the feature lies stratigraphically between medieval and 18th and 19th century material. Processing of environmental samples from fill (315) recovered mortar and ceramic building material, suggesting that buildings stood on the site during this period

6.5 Phase 5: 18th - 19th Century and Undated deposits

Trench 1 contained several features dated to this period, the earliest of which appears to

be the corner of a ditch formed by cuts (115) and (122), probably defining the northwest corner of an enclosed area of land. The two gullies (117) and (118), located to the east and to the west respectively, are probably associated. Deposit (105) appears to seal this ditch corner and may represent a very late flood deposit.

No material of this date was recovered from Trench 2, although deposits recorded in the upper levels of the trench section are likely to derive from this phase.

In Trench 3 a number of deposits and features from this phase were recorded. These were all stratigraphically later than (219) which is thought to represent a phase of *in-situ* soil development. The soil development must relate to a relatively stable environmental phase and is probably contemporary with the medieval occupation of the site. Although the soil stratigraphically overlies the medieval deposits, it has to be stressed this does not necessarily indicate that soil development post dates the medieval period. The development of this soil would be an ongoing process, possibly initiated before the cutting of medieval features and continuing during and after the end of the period.

Industrial activity at the site during this period is indicated by the recovery of *in situ* vitrified brick from the surface (320) recorded at the northeast corner Trench 3. Vitrification of ceramic material occurs at very high temperatures and is usually associated with industrial processes such as brick making or iron smithing. It is likely that the layer of bricks formed a yard surface, possibly adjacent to a area devoted to some type of industrial process. The surface may be contemporary with a linear ditch (314) recorded running along the southwest edge of the trench. The ditch was filled with a sequence of dumped deposits including (318)

which extended beyond the limit of the ditch and directly sealed the brick surface. This layer may represent the dumping of residues associated with whatever industrial activity was undertaken in the area.

Other features within Trench 3, including the northeast-southwest aligned ditch (316) and possible ditches trenches (314) and (325) suggest an intensive use of the area. Brick debris from the fill of (314) infers a probable building in the immediate vicinity, possibly associated with the industrial activity represented by the vitrified bricks and industrial residues associated with surface (320).

All of the 18th and 19th century deposits recorded in Trench 3 were overlain by a 0.4m thick sequence of sediments which are thought to represent a phase of probably freshwater flooding. These light coloured silty deposits form a striking horizon in the stratigraphy of the trench and contrast strongly with the very dark underlying charcoal rich layer (318) (Plate 6). Together the 18th - 19th century layers and the flood deposits form a 0.50m thick sequence of deposits in Trench 3. The upper surface of these layers is located at around 4.5m OD, 0.5m below the current ground surface.

6.6 Phase 6: Modern deposits

A modern topsoil was recorded across the southern area of the site encompassing Trenches 1 and 2. Below the topsoil in both trenches was a sequence of made ground, demolition and flooding deposits, and several unidentified features, probably associated with previous land usage.

Trench 3 was covered by a modern concreted road surface overlying associated layers of make-up. These extend to a depth of 0.5m beneath the current ground surface in this area.

7.0 ASSESSMENT OF SIGNIFICANCE

For assessment of significance the Secretary of State's criteria for scheduling ancient monuments has been used (DoE 1990, Annex; See Appendix 9)

Period

Medieval, post medieval and modern deposits were revealed during the evaluation.

Rarity

Deposits such as these would not be deemed rare in many towns. However, the presence of medieval features within Spalding is extremely rare, chiefly due to intermittent flooding which has deposited bands of alluvial sediment in the town at intervals since that time. The post medieval and modern deposits are not rare.

Documentation

A Desktop Assessment prepared for the Old Acres Mill site assembled detailed cartographic evidence of the area. Moreover, all relevant SMR data for the area surrounding the mill was included. Numerous reports are available in the SMR of archaeological interventions in Spalding. In addition there are a number of general histories of Spalding and its environs and articles about specific aspects of Spalding life through the ages. Hallam (1970) reported on the Roman settlement of the adjacent Fenland and Hayes and Lane (1992) conducted field survey and ancient landscape reconstruction to the west of the town.

Group value

Other than churches, and a few extant (but altered) buildings, little survives of the medieval period in Spalding. The remains at Old Acres Mill are some of the first of the medieval period to be exposed in Spalding.

Survival/Condition

None of the features were permanently waterlogged but all were damp with reasonable to moderate survival of environmental evidence. Charred environmental material was plentiful from medieval contexts and survived well. Due to depth, some medieval features were well preserved physically. However, others were truncated due to later development on the area.

Fragility/Vulnerability

Due to proposed development most of the modern and post medieval deposits are vulnerable. The deeper, medieval deposits are less threatened, particularly if the current development plans (for footings of no more than 1m deep) are retained. Drainage of the site could affect detrimentally the environmental remains within the deeper features.

Diversity

A diverse functional range is present. This appears to include remains of settlement and associated features (eg cess pit) and a possible property boundary. The brick feature in Phase 5 exhibited some *in situ* burning and may possibly have once been part of a small scale industrial unit. Hammerscale in small quantities was recovered from the area in general and suggested the presence of a smithy somewhere in the vicinity. Feature types ranged from pits and ditches to naturally formed flood deposits to modern roads. Period diversity covered the medieval to modern periods.

Potential

Acres Mill site has the potential to provide insight into the domestic life of the town in the medieval period and later. The proven survival of environmental indicators in medieval deposits indicates the potential to enhance the information provided by the surviving physical remains with data on

medieval diet. Moreover, indicators of the local environment and changes therein through time are retrievable. Flood deposits, interleaved with datable dumping/levelling layers, offers insight into the local flooding sequences and possibly to more regional climatic variations.

8. CONCLUSIONS

Archaeological evaluation of land at the former Old Acre's Mill Site, High Street, Spalding, Lincolnshire, has achieved the aims set out in the specification (Appendix 1). Archaeological artefacts and deposits dating from the medieval period to the present were recorded.

Evidence of medieval domestic occupation at the site comes from a ditch, gully and pits located in Trench 1 and the clayey silt deposit (317) within Trench 3. A cesspit dated to the post-medieval period was recorded within Trench 2 and inferred continuation of land usage from the medieval period.

Evidence of 18th century industrial activity is suggested by the recovery of vitrified brick from a brick surface in Trench 3.

The alignments of the features recorded in Trench 1 suggests that a general north - south and east - west alignment has persisted at the site throughout all periods. This suggests that the river has maintained its north - south alignment from at the least the medieval period.

9. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Mr Dennis Patterson of Patterson Properties who commissioned the evaluation. The work was coordinated by Gary Taylor and Dale Trimble, and this report was edited by Dale

Trimble and Tom Lane.

10. PERSONNEL

Project Coordinators: Gary Taylor and Dale Trimble

Site Supervisor: Tobin Rayner

Site Assistants: Denise Buckley, Rachael Hall and Katie-Sue Wilson

Finds Processing: Denise Buckley

Illustration: Phil Mills and Tobin Rayner

Photographic Reproduction: Sue Unsworth

Post-excavation Analysts: Tobin Rayner and Dale Trimble

11. REFERENCES

BGS, 1992, *Spalding, Solid and Drift geology*, 1:50,000 map sheet **144**

Brassington, M., 1994, 'The White Hart Hotel, Spalding: Absentee owners and property developers of the past' in *Lincolnshire Past and Present*, No. **17**

Clark, B, 1978 *Spalding - The Evolution of a Fenland Town*, Holland Teachers Centre

Cope-Faulkner, P., 1996, *Desk-Top Assessment of the Archaeological Implications of proposed development of land to the rear of the White Hart Hotel, Market Place, Spalding, Lincolnshire (SWH 99)*, Unpublished APS report No. **19/99**

DoE, 1990 *Archaeology and Planning, Planning Policy Guidance note 16*

Dymond, D. 1995, *Archaeological Evaluation at 2/3 High Street, Spalding, Lincolnshire*. Unpublished APS report.

Ekwall, E., 1974 *The Concise Oxford Dictionary of English Place-Names* (4th ed)

Foster, C.W. and Longley, T. (eds), 1976, *The Lincolnshire Domesday and the Lindsey Survey*, The Lincoln Record Society **19**

Hallam, H.E., 1954 *The New Lands of Elloe*

Hallam, S.J., 1970, 'Settlement around the Wash', in Phillips, C.W. (ed), *The Fenland in Roman Times*, Royal Geographic Society Res. **5**, 22-88

Hayes, P.P. and Lane, T.W., 1992, 'The Fenland Project, Number 5: Lincolnshire Survey, The South-West Fens', *E. Anglian Archaeol.* **55**

Herbert, N, 1998, *Desktop Assessment of the Archaeological Implication of Development North of Church Street, Spalding*. Unpublished APS report.

IFA, 1997 *Standard and Guidance for Archaeological Evaluation*

Leveritt, N. and Elsdon, M.J., 1989 *Aspects of Spalding: People and Places*

MoLAS, 1994 *Archaeological Site Manual* (3rd edition)

Murphy, P.L. and Wiltshire, P.E.J., 1994 *A guide to sampling archaeological deposits for environmental analysis*, unpublished document

Page, W., 1988 *A History of Lincolnshire II, The Victoria History of the Counties of England* (reprint of 1906 ed)

Pevsner, N. and Harris, J., 1989 *Lincolnshire. The Buildings of England* (2nd edition, revised Antram, N.)

Robson, J.D., 1990 *Soils of the Boston and Spalding District (Sheet 131)*, Memoirs of the Soil Survey of Great Britain

Sumner, J.N., 1987 *The proposed re-development of Red Lion Street, Market Place, Broad Street in Spalding town centre: the archaeological implications*, unpublished document

Symonds, J., 1988 *Spalding Town Centre: An Archaeological Assessment of proposed Development*, Unpublished TLA report

Wright, N., 1973 *Spalding. An Industrial History*. Lincolnshire Industrial Archaeology Group

12. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey

CBA Council for British Archaeology

DoE Department of the Environment

HMSO Her Majesty's Stationary Office

IFA Institute of Field Archaeologists

MoLAS Museum of London Archaeology Service

TLA Trust for Lincolnshire Archaeology

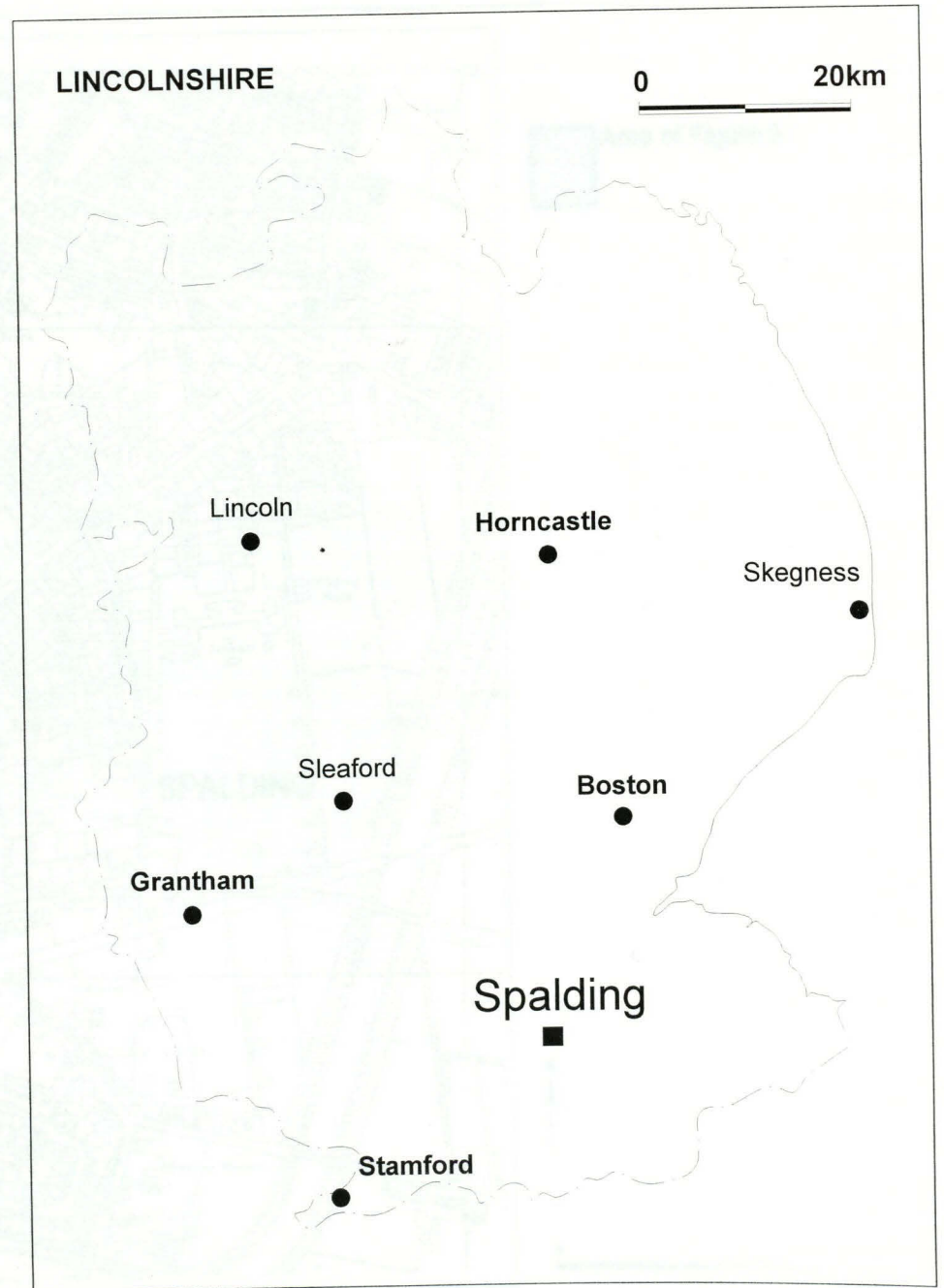
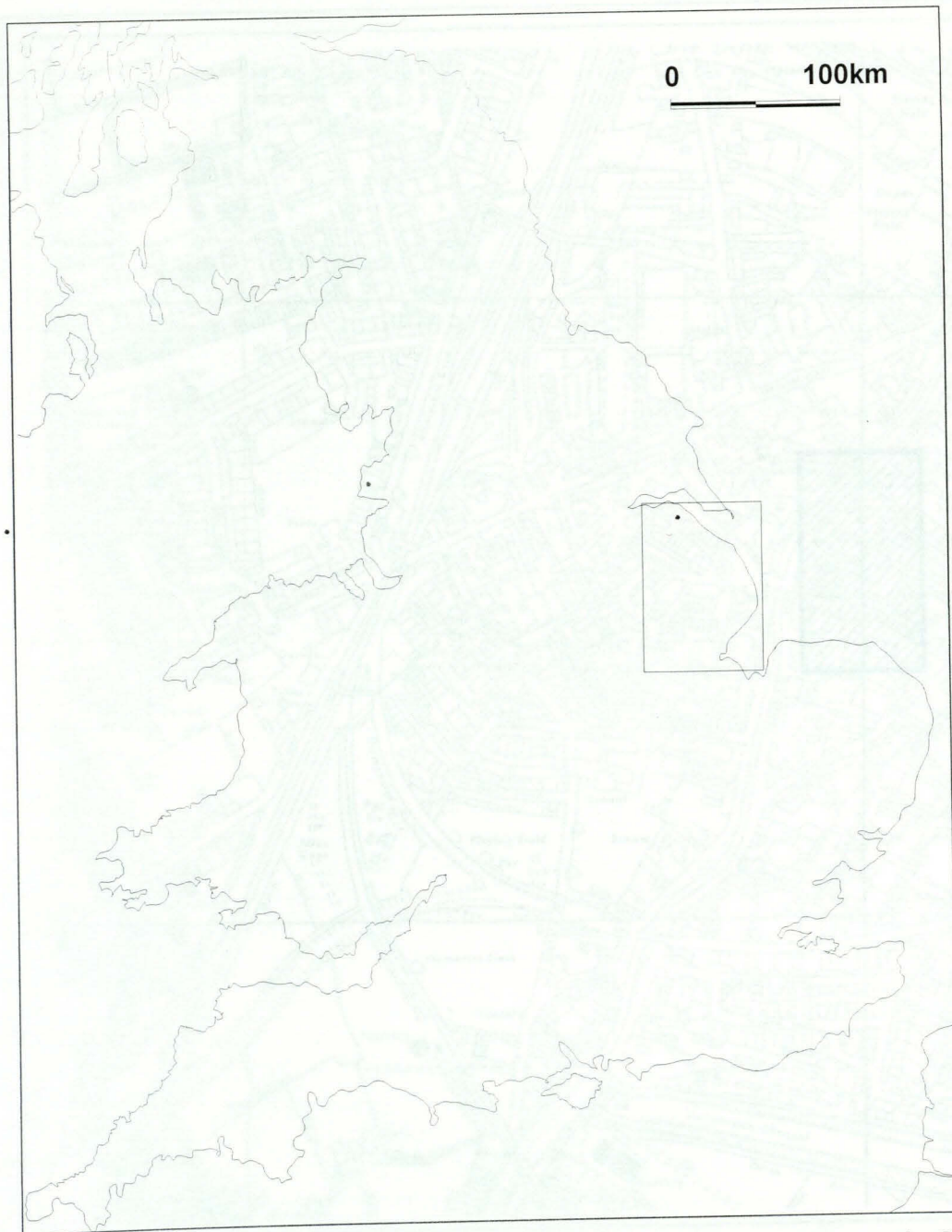
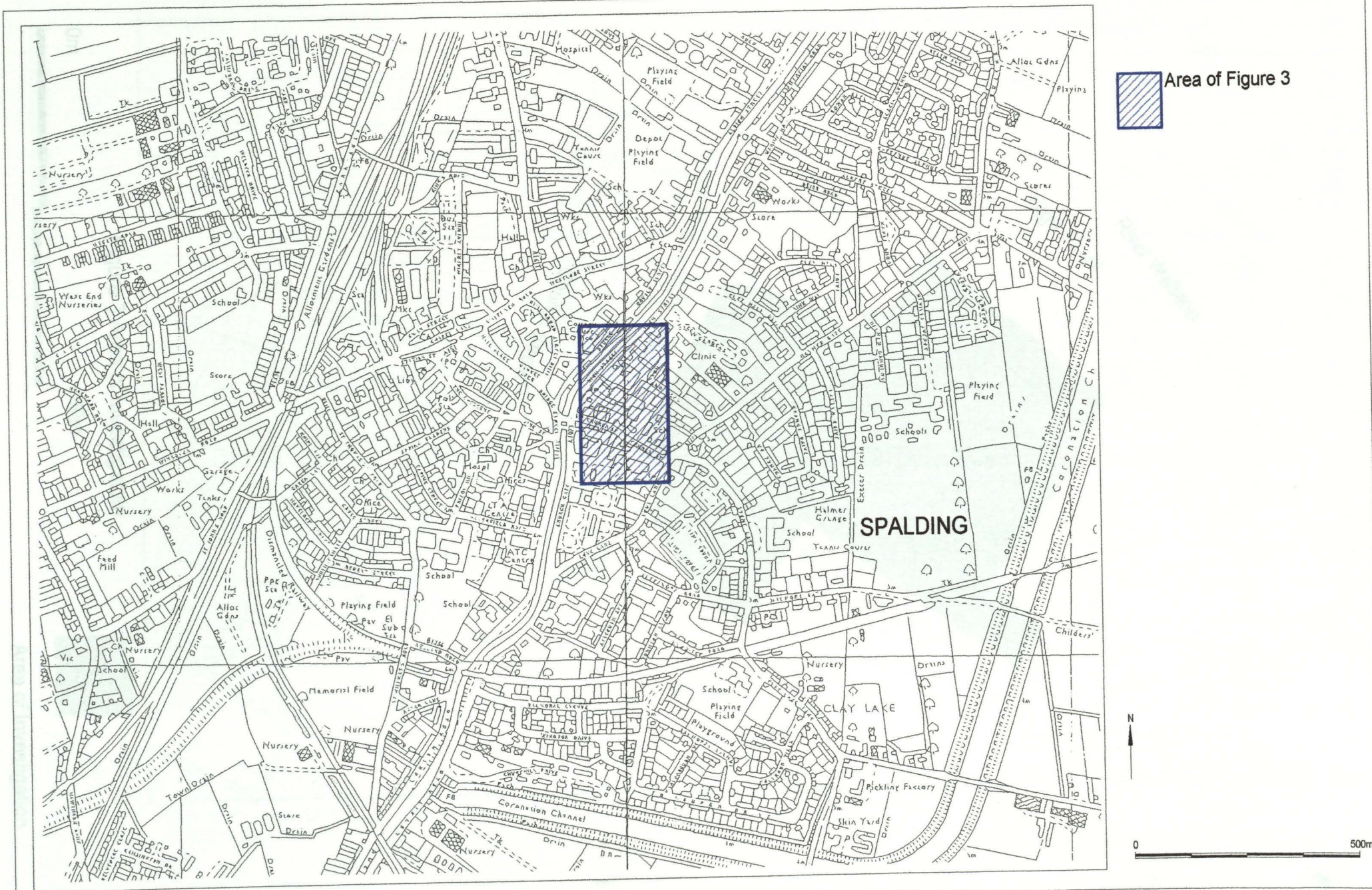


Figure 1: General location map




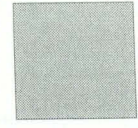
 Area of Figure 3

Figure 2 - Site Location Plan



Figure 3 Area of Investigatoin



Area of Investigation

Figure 4: Tranch Invidon

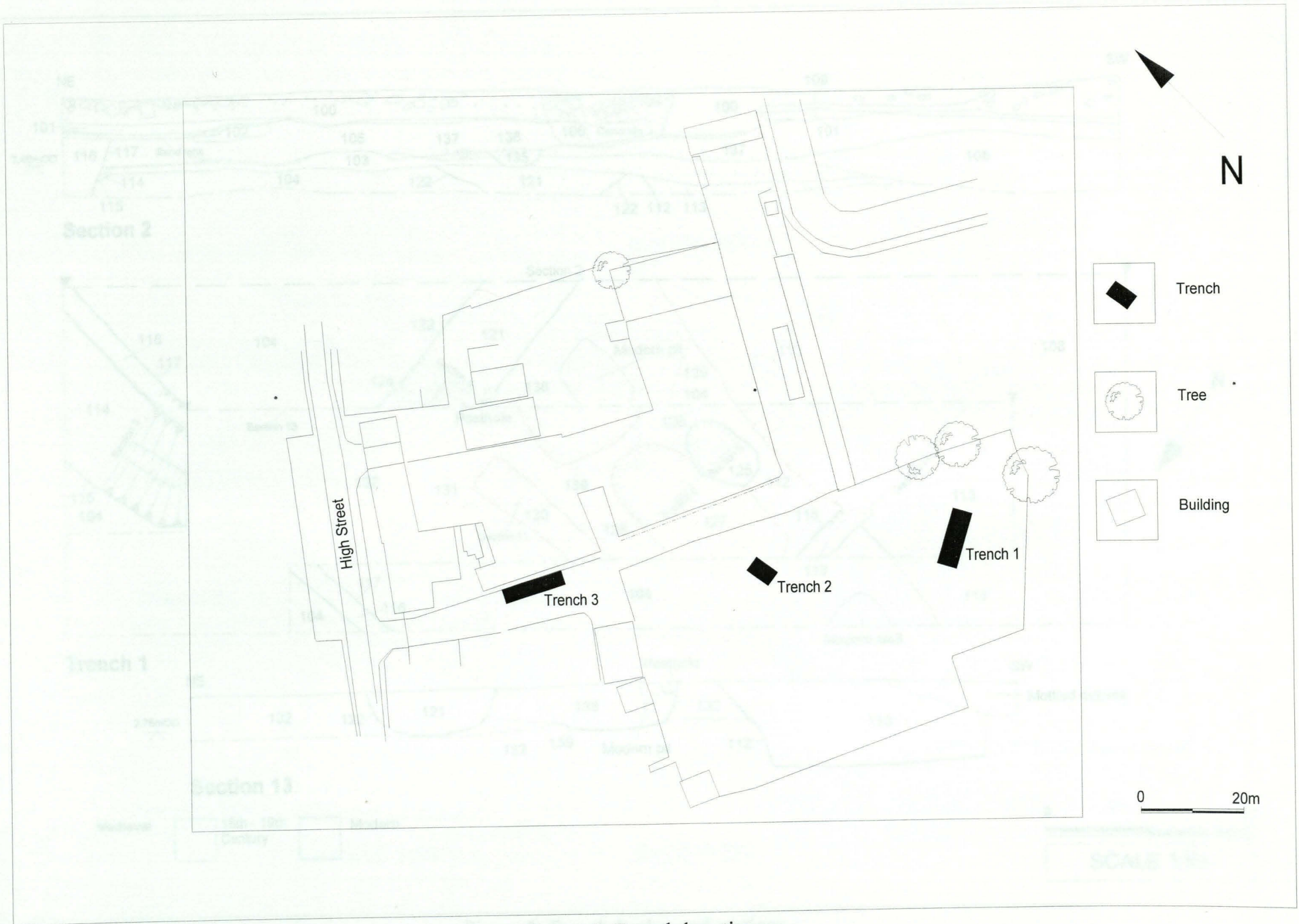


Figure 4: Trench location

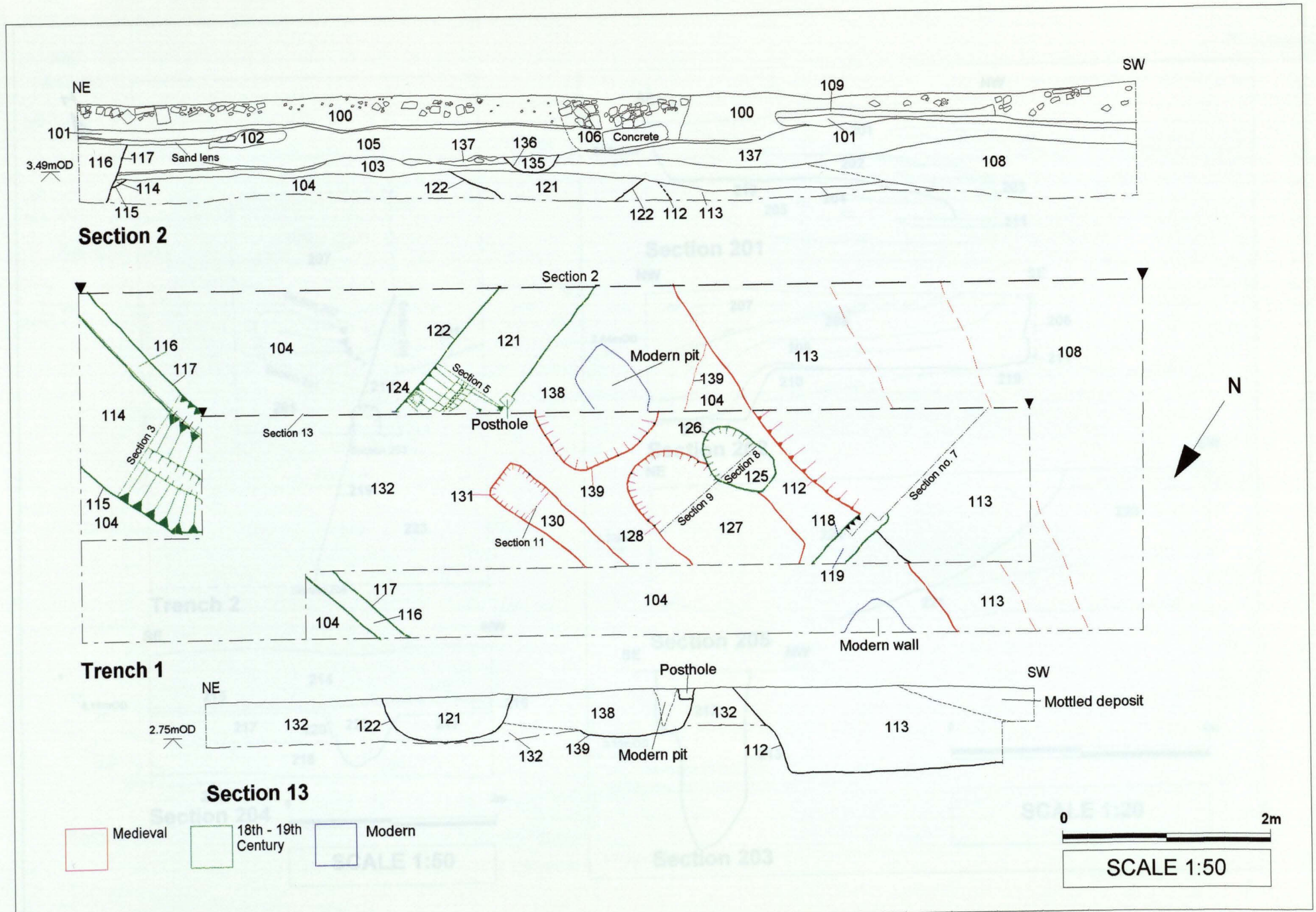


Figure 5: Trench 1, plan and sections

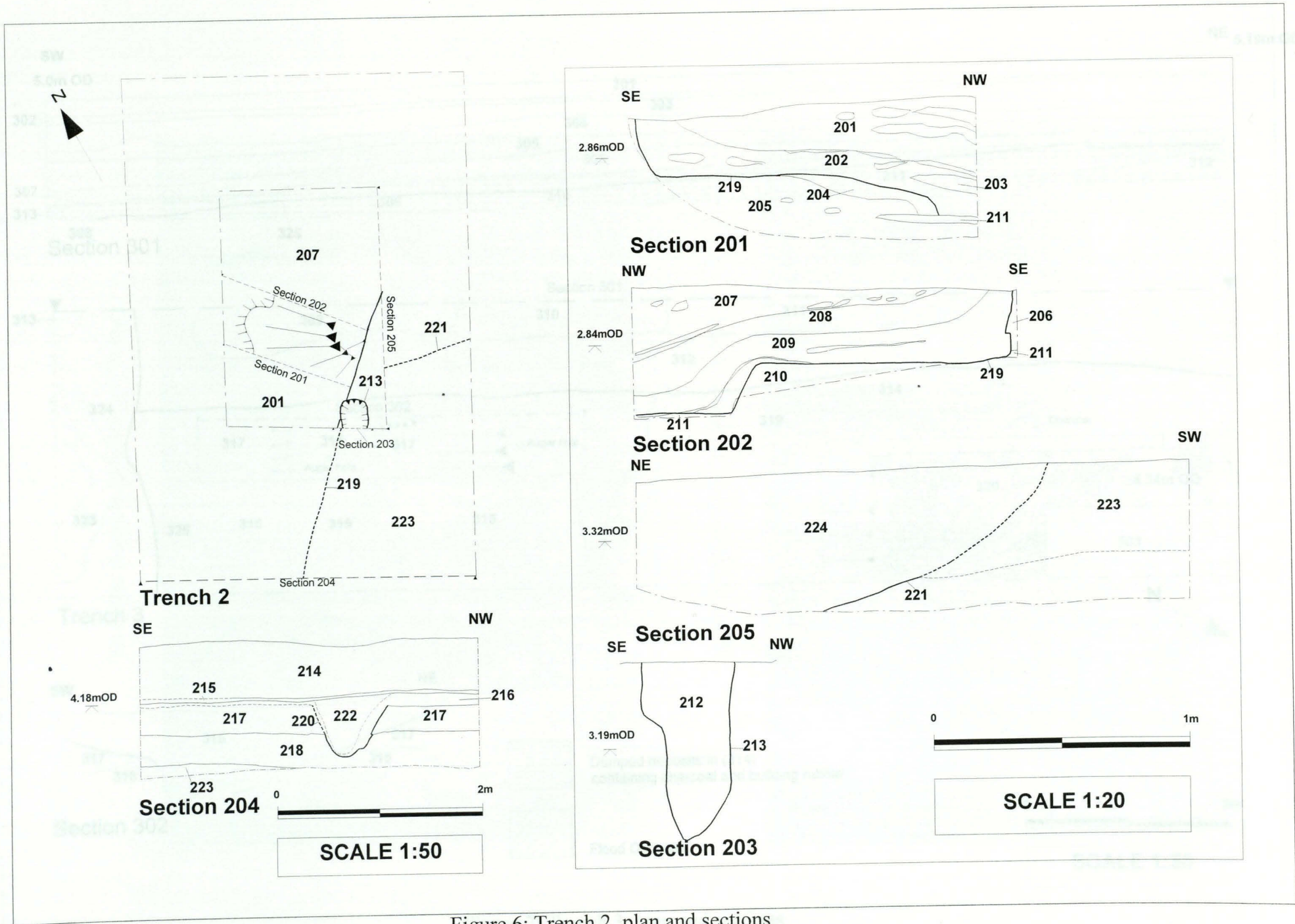


Figure 6: Trench 2, plan and sections

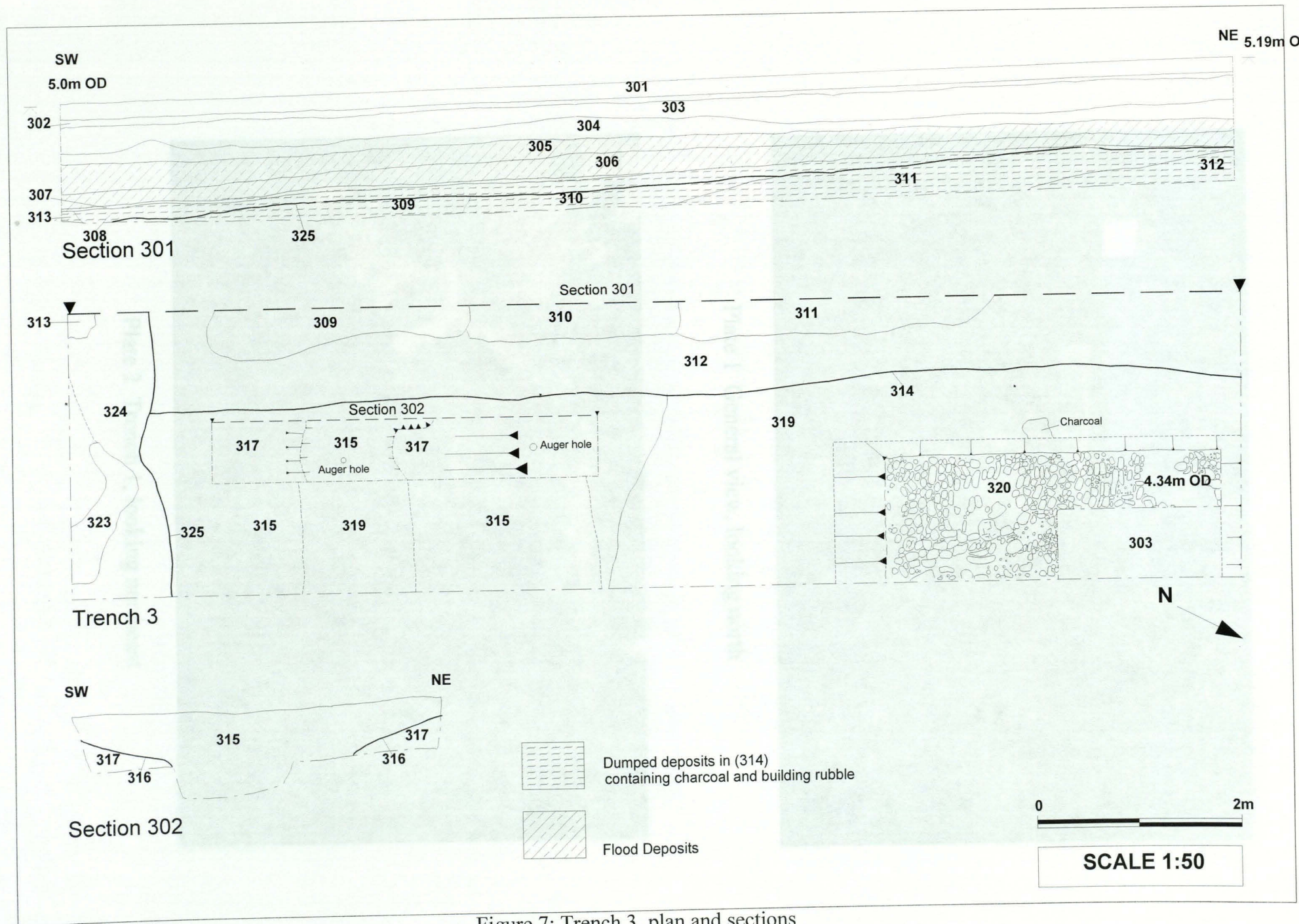


Figure 7: Trench 3, plan and sections



Plate 1 General view, looking north



Plate 2 Trench 1, looking northeast



Plate 3 Trench 2 with cesspit [219] in centre, looking southeast
in Trench 1, looking northwest



Plate 4 Trench 3 with ditch [316] in centre,
cutting medieval deposit (317), looking northwest

Note the overlying charcoal rich layer (318)
and subsequent light coloured flood deposits.

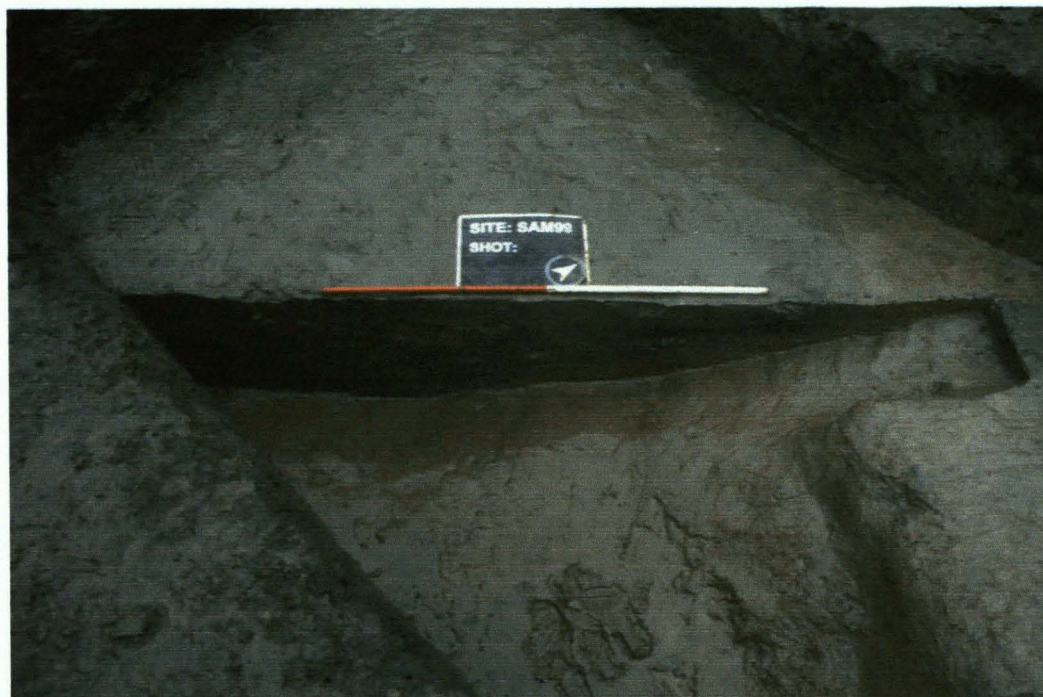


Plate 5 Section across medieval ditch [112]
in Trench 1, looking northwest



Plate 6 Brick surface (320) associated
with industrial debris in Trench 3, looking east.
Note the overlying charcoal rich layer (318)
and subsequent light coloured flood deposits.

TABLE OF CONTENTS

Appendix 1

1	SUMMARY	1
2	INTRODUCTION	1
3	SITE DESCRIPTION	2
4	PLANNING BACKGROUND	2
5	SPECIFICATION FOR ARCHAEOLOGICAL EVALUATION	2
6	ARCHAEOLOGICAL BACKGROUND	2
7	FORMER ACRE'S MILL SITE, HIGH STREET SPALDING, LINCOLNSHIRE	3
8	LIAISON WITH THE ARCHAEOLOGICAL OFFICER	4
9	TRIAL TRENCHING	4
10	PREPARED FOR	6
11	PATTERSON PROPERTIES	7
12	POST-EXCAVATION REPORT SEPTEMBER 1999	7
13	ARCHIVE	8
14	REPORT DEPOSITION	9
15	PUBLICATION	9
16	CURATOR National Grid Reference TF 2500 2255	9
17	VARIATIONS TO THE PROPOSED SCHEME OF WORKS	9
18	SPECIALISTS TO BE USED DURING THE PROJECT	9
19	PROGRAMME OF WORKS	10
20	PREPARED BY ARCHAEOLOGICAL PROJECT SERVICES	10

(Archaeological Project Services is an IFA registered organisation:
No 21)

TABLE OF CONTENTS

1	SUMMARY	1
2	INTRODUCTION	1
3	SITE DESCRIPTION	2
4	PLANNING BACKGROUND	2
5	SOILS AND TOPOGRAPHY	2
6	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	2
7	AIMS AND OBJECTIVES	3
8	LIAISON WITH THE ARCHAEOLOGICAL OFFICER	4
9	TRIAL TRENCHING	4
10	CONTINGENCY	6
11	ENVIRONMENTAL ASSESSMENT	7
12	POST-EXCAVATION AND REPORT	7
13	ARCHIVE	8
14	REPORT DEPOSITION	9
15	PUBLICATION	9
16	CURATORIAL MONITORING	9
17	VARIATIONS TO THE PROPOSED SCHEME OF WORKS	9
18	SPECIALISTS TO BE USED DURING THE PROJECT	9
19	PROGRAMME OF WORKS	10
20	BIBLIOGRAPHY	10

1 SUMMARY *List of specialists*

1.1 *This document comprises a specification for an archaeological evaluation at the former Johnson Brother's site, High Street, Spalding, Lincolnshire.*

1.2 *The site is located in Spalding town centre, on the east side of the River Welland, opposite the parish church.*

1.3 *The site lies in an area of considerable archaeological interest. Late Iron Age and Roman settlements are known from the Spalding area and a number of Roman coins have been found in the River Welland close to the development area. Little is known of the Saxon town although a market is mentioned in the Domesday Book of 1086. The town grew in importance during the medieval period becoming one of the wealthiest settlements in the Lincolnshire fens. The town's importance declined during the 15th and 16th centuries but increased during the 17th and 18th centuries and the town remains an important local centre. Acre's Mill, on the site frontage, is a listed building.*

1.4 *The project will comprise an archaeological evaluation consisting of a programme of trial trenches. Depending on the level and nature of alterations to Acre's Mill, some building recording may also be necessary. A report will be prepared, detailing the results of the evaluation and correlating them with previous studies of the area.*

2 INTRODUCTION

2.1 *An archaeological evaluation is defined as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, and relative quality: and it enables an assessment of their worth in a local, regional, national or international context as appropriate' (IFA 1994).*

2.2 This document contains the following parts

2.2.1 Overview

2.2.2 The archaeological and natural setting

2.2.3 Stages of work and methodologies to be used

2.2.4 List of specialists

2.2.5 Programme of works and staffing structure of the project

3 SITE DESCRIPTION

3.1 Spalding lies 23km southwest of Boston in the fenlands of south Lincolnshire. The site is situated approximately 150m east of the High Bridge and is situated off the northern side of the High Street at NGR TF 2500 2255.

3.2 The site comprises an irregular block of land, approximately 0.75 hectares in area.

4 PLANNING BACKGROUND

4.1 Patterson Homes Ltd have submitted a planning application to South Holland District Council for the development of the site. The Archaeological Officer of Lincolnshire County Council advised that the site is archaeologically sensitive and advised the developer that they should commission an archaeological desk-top assessment (APS 1998). The desk-top assessment indicated that the site lies in an area of considerable archaeological interest and the County Council have advised that an archaeological evaluation is now required. The development proposals include conversion of Acre's Mill, a listed building, to apartments. The frontage of the building will remain unaltered, though it is expected that internal changes will be made.

5 SOILS AND TOPOGRAPHY

5.1 Local soils have not been mapped as the site lies in an urban area. The surrounding soils comprise the Wallasea 2 Association, peat alluvial gley soils developed on young marine alluvium, usually salt march, tidal creek and river deposits, overlying a solid geology of Oxford Clay (Hodge *et al.* 1984). The site slopes gently to the southeast and has a height of approximately 6.5m OD.

6 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

6.1 The site lies within an area of considerable archaeological interest.

6.2 A number of Iron Age sites have been identified from aerial photographs of the surrounding area.

6.3 A number of Roman coins have been found in the River Welland at Spalding and it is possible that Spalding was the site of a small Roman settlement, perhaps the

Salinae Gyrviorum mentioned by Ptolemy (Clark 1978, 2).

6.4 It is likely that the present town originated in the Anglo Saxon period. The settlement may be implied by a reference in the Tribal Hideage of the 7th Century where the *Spaldas* are mentioned. Spalding appears in a number of charters from the 8th Century onwards.

6.5 The Domesday Book of 1086 AD records that Spalding was principally owned by Ivo Taillebois with some land also belonging to *Croyland* (Crowland) Abbey and Guy of Craon (Foster and Longley 1976, 60, 89 and 194).

6.6 During the medieval period Spalding was an important fishing centre and was also involved in the export of salt, the town declined in the 15th and 16th century due to the silting up of Bicker Haven. The river required regular maintenance resulting in the canalisation and deepening of the course in 1743. This was one of a number of drainage schemes during the 17th and 18th century which led to increasing prosperity in the 18th century. This is represented by the construction of several large buildings on the High Street, including Yew Lodge, Holland House and the Gamlyn's Almshouses.

6.7 Previous trial trenching in the vicinity and desk-based assessment of the area indicated that archaeological remains of post-medieval date extended to approximately 1m below the present ground surface, though those investigations did not reach the levels of medieval or earlier deposits (APS 1995; APS 1998). The assessment also indicated that there were buildings on the High Street frontage in the 18th century, with other parts of the site developed through the 19th and into the 20th century, with saw mills and timber yards on, or adjacent to, the site (APS 1998). Acre's Mill, on the High Street frontage, is a listed building.

6.8 Excavations in Spalding have shown that waterlogged layers and artefacts are frequently present. Waterlogging results in enhanced preservation of wood, leather and other organic materials. There is potential for the discovery of waterlogged layers and artefacts during the evaluation. However, previous investigations immediately to the south did not encounter such evidence, though only went to 1m depth (APS 1995).

7 AIMS AND OBJECTIVES

7.1 The aim of the evaluation will be to assess the survival of archaeological remains on the site, enabling the Archaeology Officer, Lincolnshire County Council, to provide detailed recommendations to South Holland District Council Planning Committee. Additionally, subject to the proposed level and nature of alterations

9.1 to the listed building, Acre's Mill, some degree of building recording may be necessary. The need for, and level of any such building recording will be determined by the Archaeology Officer after an assessment of the building, fixtures and fittings and potential disturbance to such by redevelopment.

7.2 The objectives of the work will be to:

7.2.1 Establish the type of archaeological activity that may be present within the site.

7.2.2 Determine the likely extent and survival of archaeological activity present within the site.

7.2.3 Determine the spatial arrangement of the archaeological features present within the site.

7.2.4 Identify the extent to which the surrounding archaeological features extend into the application area.

7.2.5 Determine the way in which the archaeological features identified fits into the pattern of occupation and land-use in the surrounding landscape.

7.2.6 Determine the function of the archaeological features present within the site.

7.2.7 Determine the date of the archaeological features present on the site.

7.2.8 Determine the extent to which there may be survival of waterlogged and environmental material.

7.2.9 Assess the potential of the site to answer questions relating to the origins and developments of the east side of the river.

8 LIAISON WITH THE ARCHAEOLOGICAL OFFICER

8.1 Prior to the commencement of the trial trenching the arrangement of the excavations will be agreed with the Archaeology Officer for Lincolnshire County Council, to ensure that the proposed scheme of works fulfils their requirements.

9 TRIAL TRENCHING

9.1 Reasoning for this technique

9.1.1 Trial trenching enables the *in situ* determination of the sequence, date, nature, depth, environmental potential and density of archaeological features present on the site.

9.1.2 The trial trenching will consist of the excavation of a 2% sample of the evaluation area. If archaeological deposits extend below a depth of 1.2m the trench sides will be stepped in, or shored, as appropriate. Augering may be used to determine the depth of the sequence of deposits present.

9.2 General Considerations

9.2.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the evaluation.

9.2.2 The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). Archaeological Project Services is an IFA registered organisation (no. 21).

9.2.3 Excavation of the archaeological features exposed will only be undertaken as far as is required to determine their date, sequence, density and nature. Not all archaeological features exposed will be excavated. However, the evaluation will, as far as is reasonably practicable, determine the level of the natural deposits to ensure that the depth of the archaeological sequence present on the site is established.

9.2.4 Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.

9.2.5 The site will be protected and open trenches will be fenced off. Subject to the consent of the Archaeological Officer, Lincolnshire County Council and following the appropriate recording, the trenches, particularly those of excessive depth, will be backfilled as soon as possible to minimise any health and safety risks.

9.3 Methodology

9.3.1 Removal of the topsoil and any other overburden will be undertaken by mechanical excavator using a toothless ditching bucket. All machine

excavation will be supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits will be assessed by hand excavation before any further mechanical excavation that may be required. Thereafter, the trenches will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.

- 9.3.2 Investigation of the features will be undertaken only as far as required to determine their date, form and function. The work will consist of half- or quarter-sectioning of features as required and, where appropriate, the removal of layers. Should features be located which may be worthy of preservation *in situ*, excavation will be limited to the absolute minimum, (*ie* the minimum disturbance) necessary to interpret the form, function and date of the features.

10 CONTINGENCY

- 9.3.3 The archaeological features encountered will be recorded on Archaeological Project Services pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn.

- 9.3.4 A drawn record will be made of all significant features on the evaluation. Generally, plans will be produced at a scale 1:20 and sections at a scale of 1:10. Larger scale illustrations may be produced, if deemed necessary.

- 9.3.5 A photographic record will be made of the evaluation. The record will consist of black and white prints (reproduced as contact sheets) and colour slides. The photographic record will consist of:

- 9.3.5.1 the site before the commencement of field operations.
- 9.3.5.2 the site during work to show specific stages of work, and the layout of the archaeology within individual trenches.
- 9.3.5.3 individual features and, where appropriate, their sections.

11 ENVIRONMENTAL ASSESSMENT

- 9.3.5.4 groups of features where their relationship is important.

- 9.3.5.5 the site on completion of field work

- 9.3.6 Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such

remains. The appropriate Home Office licences will be obtained and the local environmental health department and the police informed.

9.3.7 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered ready for later washing and analysis.

9.3.8 The spoil generated during the evaluation will be mounded along the edges of the trial trenches with topsoil being kept separate from the other material excavated for subsequent backfilling.

9.3.9 The precise location of the trenches within the site and the location of site recording grid will be established by an EDM or tape survey.

10 CONTINGENCY

10.1 General occupation remains of medieval and later date are expected to occur at the site. Should archaeological remains be encountered which are of other (earlier) periods, or nature (*ie*, industrial, ritual, *etc.*), very well-preserved, extensive, unusual or otherwise of notable significance, then contingency for more thorough investigation may be required. In the event of any such discovery the client and archaeological curator will be notified as soon as possible and a site meeting convened to determine the level of any enhanced investigation. Any such mutually acceptable contingency requirement will only be activated by the archaeological curator, not the archaeological contractor.

10.2 Contingencies have been specified in the budget. These include: environmental sampling/analysis of waterlogged remains; pump; Iron Age pottery (not expected); Roman pottery (not expected); Anglo-Saxon pottery (not expected); Medieval and post-medieval pottery -large quantities (moderate amount expected and allowed for); faunal remains -large quantities (moderate amounts expected and allowed for); Conservation and/or Other unexpected remains or artefacts.

10.3 Should ground water be encountered, or the trenches otherwise take in water, contingency will be required to hire a pump.

11 ENVIRONMENTAL ASSESSMENT

11.1 If appropriate, during the evaluation specialist advice will be obtained from an environmental archaeologist. The specialist may visit the site and prepare a report detailing the nature of the environmental material present and its potential for additional analysis should further stages of archaeological work be required. The

results of any such specialist's assessment will be incorporated into the final report.

12 POST-EXCAVATION AND REPORT

12.1 Stage 1

12.1.1 On completion of site operations, the records and schedules produced during the trial trenching will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.

12.1.2 All finds recovered during the trial trenching will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

12.2 Stage 2

12.2.1 Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.

12.2.2 Finds will be sent to specialists for identification and dating.

12.3 Stage 3

12.3.1 On completion of stage 2, a report detailing the findings of the evaluation will be prepared. This will consist of:

12.3.1.1 A non-technical summary of the findings of the evaluation.

12.3.1.2 A description of the archaeological setting of the site with reference to the previous desk-top assessment of the area and other evaluations in the proximity.

12.3.1.3 Description of the topography and geology of the evaluation area.

- 12.3.1.4 Description of the methodologies used during the evaluation and discussion of their effectiveness in the light of the findings of the investigation.
- 12.3.1.5 A text describing the findings of the evaluation.
- 12.3.1.6 Plans of the trenches showing the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
- 12.3.1.7 Sections of the trenches and archaeological features.
- 12.3.1.8 Interpretation of the archaeological features exposed and their context within the surrounding landscape, with particular reference to previous desk-top study of the area and evaluation on adjacent land.
- 12.3.1.9 Specialist reports on the finds from the site.
- 12.3.1.10 Appropriate photographs of specific archaeological features.
- 13 **ARCHIVE**
- 13.1 The documentation, finds, photographs and other records and materials generated during the evaluation will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This sorting will be undertaken according to the document titled *Conditions for the Acceptance of Project Archives* for long term storage and curation.
- 14 **REPORT DEPOSITION**
- 14.1 Copies of the evaluation report will be sent to: the client, the Archaeological Officer, Lincolnshire County Council; Spalding Borough Council Planning Department; and the Lincolnshire County Sites and Monuments Record.
- 15 **PUBLICATION**
- 15.1 A report of the findings of the evaluation will be published in Heritage Lincolnshire's annual report and an article of appropriate content will be submitted
-

for inclusion in the journal *Lincolnshire History and Archaeology*. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.

16 CURATORIAL MONITORING

16.1 Curatorial responsibility for the project lies with the Archaeological Officer, Lincolnshire County Council. As much notice as possible, ideally at least seven days, will be given in writing to the archaeological curator prior to the commencement of the project to enable them to make appropriate monitoring arrangements.

17 VARIATIONS TO THE PROPOSED SCHEME OF WORKS

17.1 Variations to the scheme of works will only be made following written confirmation from the archaeological curator.

17.2 Should the archaeological curator require any additional investigation beyond the scope of the brief for works, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

18 SPECIALISTS TO BE USED DURING THE PROJECT

18.1 The following organisations/persons will, in principal and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

<u>Task</u>	<u>Body to be undertaking the work</u>
Conservation	Conservation Laboratory, City and County Museum, Lincoln.
Pottery Analysis	Prehistoric: Dr D Knight, Trent and Peak Archaeological Trust. Roman: B Precious, independent specialist.

Anglo-Saxon: J Young, independent specialist

Medieval and later: H Healey, independent archaeologist, or G Taylor, APS

Other Artefacts

J Cowgill, independent specialist, or G Taylor, APS

Human Remains Analysis

R Gowland, independent specialist

Animal Remains Analysis

Environmental Archaeology Consultancy, or P Cope-Faulkner, APS

Environmental Analysis

Environmental Archaeology Consultancy

19 PROGRAMME OF WORKS

19.1 Refer to enclosure.

20 BIBLIOGRAPHY

APS, 1995 *Archaeological Evaluation at 2/3 High Street Spalding, Lincolnshire*

APS, 1998 *An Archaeological Desktop Assessment of land at High Street Spalding, Lincolnshire*

Clark, B 1978 *Spalding - The Evolution of a Fenland Town*

Foster, C.W and Longley, T. 1976 *The Lincolnshire Domesday and Lindsey Survey*, The Lincolnshire Record Society **19**

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R, and Seale, RS, 1984 *Soils and their use in Eastern England*, Soil Survey of England and Wales **13**

Specification: Version 2, 10/9/99

Appendix 2

Summary of the contexts from the archaeological evaluation at Old Acres Mill, Spalding

Trench 1

Context	Description	Interpretation	Fill of/by
100	Loose, mid yellowish brown fine silt, containing frequent brick and concrete rubble and gravel, 0.30m thick.	Topsoil	
101	Loose, brownish black silt, containing burnt waste material, 0.12m thick.	Dumped deposit	
102	Loose, whitish yellow pea gravel, 0.16m thick.	Dumped deposit	
103	Loose, mid brown silt, containing occasional brick rubble and shell, 0.25m thick.	Dumped deposit	
104	Loose, mid yellowish brown clayey silt, 0.30m thick	Dumped deposit	
105	Loose, mid greyish brown silt, containing moderate small rubble fragments, 0.50m thick.	Dumped deposit	
106	Brick and concrete rubble, remains of east-west aligned wall, 0.50m thick.	Modern wall	
107	Loose, mid yellow sand, 0.08m thick.	Foundation fill	
108	Loose, greyish brown clayey silt, containing occasional small brick rubble, 0.35m thick.	Dumped deposit	
109	Loose, whitish yellow sand, 0.10m thick.	Dumped deposit	
110	Linear cut with steep straight sides and a flat base, 3.00m ⁺ x 0.48m wide x 0.72m deep. Same as 117.	Gully	111
111	Loose, dark brown silt, 0.72m thick.	Gully fill	110
112	Linear cut with concave sides and a flat base, 3.00m ⁺ long x 2m wide x 0.50m deep.	Ditch	113, 120
113	Loose, dark brownish grey sandy silt, containing occasional gravel, shell and charcoal inclusions, 0.40m thick.	Ditch fill	112
114	Loose, mid greyish brown silt, containing shell and charcoal fragments, 0.50m thick. Same as 121.	Ditch fill	115
115	Linear cut with stepped sides and a tapered base and right angle corners, 0.65m wide x 0.50m deep. Same as 122.	Ditch	114
116	Loose, mid brown silt, containing occasional shell fragments, 0.60m thick.	Gully fill	117
117	Linear cut with steep straight sides and a flat base, 3.00m ⁺ long x 0.48m wide x 0.72m deep. Same as 112.	Gully	116
118	Linear cut with straight sides and a rounded base, 1.00m ⁺ long x 0.25m wide x 0.30m ⁺ deep.	Gully	119
119	Soft, mid grey silt, containing charcoal and shell fragments, 0.15m thick.	Gully fill	118

Context	Description	Interpretation	Fill of/by
120	Firm, mid grey brown coarse silty sand with reddish yellow lenses, 0.10m thick.	Gully fill	112
121	Loose, mid greyish brown silt, containing shell fragments and charcoal flecks, 0.50m thick. Same as 114.	Ditch fill	122
122	Linear cut with stepped sides and a tapered base and right angle corners, 0.80m wide x 0.50m deep. Same as 115.	Gully	121
123	Compact, yellowish brown silt, containing occasional charcoal flecks, 0.30m thick.	Posthole fill	124
124	Square cut with vertical sides and a flat base, 0.23m long x 0.21m wide x 0.30m deep.	Posthole	123
125	Firm, mid brownish grey clayey silt, containing occasional shell and charcoal fragments, 0.44m thick.	Pit/Posthole fill	126
126	Oval cut with vertical sides and flat base, 0.70m long x 0.40m wide x 0.44m deep.	Pit/Posthole	125
127	Firm, yellowish brown clayey silt, containing occasional shell fragments, 0.10m thick.	Gully/Pit fill	128
128	Linear cut with concave sides and an irregular base, 1.80m ⁺ long x 0.80m wide x 0.24m deep.	Gully/Pit	127
129	Firm, blueish grey silty clay, 0.12m thick.	Natural	
130	Firm, yellowish brown clayey silt, 0.25m thick.	Gully fill	131
131	Linear cut with vertical sides and flat base, 1.40m ⁺ long x 0.40m wide x 0.25m deep.	Gully	130
132	Loose, reddish yellow sandy silt.	Natural	
133	Loose, greyish brown clayey silt, containing shell fragments, 0.15m thick.	Gully/Pit fill	134
134	Concave sided and round based feature, seen in section only, 1.02m wide x 0.34m deep.	Gully/Pit	133
135	Unrecorded fill containing modern debris, 0.55m wide x 0.15m.	Gully/Pit fill	136
136	U shaped cut seen in section only, 0.55m wide x 0.15m deep.	Gully/Pit	135
137	Unrecorded layer containing brick rubble, seen in section.	Flood deposit	
138	Firm, yellowish brown clayey silt, containing occasional shell fragments, 0.10m thick.	Gully/Pit fill	139
139	Linear cut with concave sides and an irregular base, 0.60m ⁺ long x 1.20m wide x 0.10m deep.	Gully/Pit	138

Trench 2

Context	Description	Interpretation	Fill of/by
201	Soft, mid pinkish yellow brown silt, containing frequent lens of burnt material, 0.25m thick. Same as 207.	Cesspit fill	219
202	Soft, light grey brown silt containing ashy lenses and burnt material, 0.15m thick.	Cesspit fill	219

Context	Description	Interpretation	Fill of/by
203	Loose mid greyish white ashy material, 50mm thick.	Cesspit fill	219
204	Soft, yellowish white silt, 60mm thick.	Cesspit fill	219
205	Soft, light pinkish white silt, containing frequent brick fragments, 0.22m thick.	Natural	
206	Soft, light greyish white silt with green mottling, 2mm thick.	Natural	
207	Soft, mid pinkish grey brown mottled silt, containing frequent lenses of burnt material, 0.25m thick. Same as 201.	Cesspit fill	219
208	Soft, light pinkish yellow brown silt, 0.16m thick. Same as 201.	Cesspit fill	219
209	Soft, light grey brown silt containing ashy lenses and burnt material, 0.18m thick. Same as 202	Cesspit fill	219
210	Soft, yellowish white silt, 0.12m thick. Same as 205	Natural	
211	Soft, black silt, 30mm thick.	Burnt deposit	
212	Loose, mid grey brown mottled sandy silt, containing wood and shell fragments, 0.69m thick.	Posthole fill	213
213	Unknown shaped cut with vertical sides and rounded base, 0.36m wide x 0.69m deep.	Posthole	212
214	Firm, dark grey/black brown mottled sandy silt, containing frequent stones and brick rubble, 0.48m thick.	Made ground	
215	Firm, black ash and coal dust, 30mm thick.	Dumped deposit	
216	Firm, light yellowish brown silt, 0.15m thick.	Pit fill	220
217	Firm, pinkish grey silt, containing brick, stone and charcoal fragments, 0.23m thick.	Dumped deposit	
218	Firm, dark greyish brown silt, containing occasional brick fragments, 0.50m thick.	Flood deposit	
219	Linear cut with vertical sides and flat base, 1.50m+ wide x 0.50m deep.	Cesspit	201 - 204, 207 - 209
220	U-shaped feature with steep sides and rounded base, 0.70m wide x 0.57m deep.	Probable ditch	222
221	Linear cut, 1.60m wide x 0.54m deep.	Ditch	224
222	Soft, light greyish brown silt, containing occasional charcoal, brick stone and shell fragments, 0.54m thick.	Ditch fill	216, 220
223	Soft, mid pinkish yellow brown silt, 0.12m thick.	Natural	
224	Soft, mid pinkish yellow brown silt, 0.12m thick.	Ditch fill	221

Trench 3

Context	Description	Interpretation	Fill of/by
301	Indurated, light grey reinforced concrete, 0.15m thick	Road surface	
302	Indurated, mid grey broken concrete, 0.05m thick.	Hardcore	
303	Loose, mid yellowish white sand containing frequent limestone, 0.25m thick.	Hardcore	

Context	Description	Interpretation	Fill of/by
304	Firm, mid grey clayey silty sand, containing flint, gravel and charcoal flecks, 0.27m thick.	Flood deposit	
305	Firm, mid reddish yellow, mid grey mottled fine clayey silt, 0.28m thick.	Flood deposit	
306	Firm, mid grey, mid reddish yellow mottled fine clayey silt, 0.14m thick.	Flood deposit	
307	Soft, dark grey fine sandy clay, containing charcoal fragments, 50mm thick.	Flood deposit	
308	Soft, dark grey fine sandy clay, containing building rubble, 0.16m thick.	Building debris	314
309	Loose, mid greyish white limestone and clayey sand, 0.20m ⁺ thick.	Building debris	314
310	Loose, mid dark grey sand, containing charcoal and limestone fragments, 0.23m ⁺ thick.	Dumped deposit	314
311	Loose, dark brown sand, containing frequent charcoal deposit and occasional brick, tile and limestone fragments, 0.24m ⁺ thick. Same as 318.	Dumped deposit	314
312	Loose, dark grey clayey sand, containing occasional charcoal, brick and limestone fragments, 0.20m ⁺ thick.	Dumped deposit	314
313	Loose, dark grey clayey sand, containing occasional charcoal, brick and limestone fragments, 0.15m ⁺ thick	Dumped deposit	
314	Linear cut with near vertical sides, 12m long x 1m wide	Foundation trench?	308 - 312
315	Friable, mid greyish brown clayey silt, 1.30m thick.	Ditch fill	316
316	Linear cut with concave sides, 3.51m wide x 1.30m deep.	Ditch	315
317	Firm, dark greyish brown clayey silt, 0.25m thick	Natural	
318	Loose, dark brown sand, containing frequent charcoal deposit and occasional brick, tile and limestone fragments, 0.24m ⁺ thick. Same as 311.	Dumped deposit	
319	Soft, mid brown clayey silt, containing moderate brick fragments and occasional charcoal flecks, 0.12m thick.	Dumped deposit	
320	Dry bonded 0.25m x 0.20m x 50mm brick surface, 3.10m x 1.30m in extent.	Brick surface	
321	Compact, grey concrete kerb stones, 0.65m x 0.15m x 0.25m.	Kerb stones	
322	Compact, greyish brown clayey silt, containing frequent bricks, sand and mortar, 0.28m thick.	Levelled deposit	
323	Loose, dark greyish brown silt.	Ditch fill	325
324	Compact, mid greyish brown silt, containing occasional brick and coal fragments.	Ditch fill	325
325	Linear cut with a northern gradual slopped side.	Ditch	323, 324
326	Loose, brick rubble, 0.20m thick.	Building debris	
327	Compact mid red crushed brick, 0.13m thick.	Levelling deposit	

Appendix 3

THE POTTERY AND CLAY PIPES *Hilary Healey MPhil and Gary Taylor MA*

Provenance

Most of the material was recovered from ditch and pit fills of medieval and post-medieval date. The only discrete medieval material occurred in Trench 3 (contexts in range 301-399), though redeposited medieval pottery occurred with later material in Trenches 1 (contexts 101-199) and 2 (contexts 201-299). Trench 3 also contained the largest assemblage of material.

Much of the post-medieval pottery assemblage was produced in Staffordshire in the Midlands, though there are pieces from Germany and Holland together with more local Lincolnshire wares. The older, medieval and early post-medieval pottery sherds are generally local products and were made in kilns at Boston, 20km to the northeast of Spalding, Bourne, 15km to the west, Stamford, 25km southwest, and elsewhere in southern Lincolnshire. It is probable that the majority, if not all, of the clay pipes were made in the Spalding area. It is likely that the fragments of limestone probable building stone were obtained from quarries in the areas of Ancaster or Stamford to the west of Spalding.

Range

The range of material is detailed in the tables. In addition to these materials, glass, industrial waste, brick/tiles and animal bones were also recovered.

Table 1: Pottery

Context	Description	Date
unstratified, Trench 2	1x Midlands Purple-type ware	17 th century
100	1x limestone, mortar adhering 1x limestone (discarded)	
105	2x Staffordshire slipware 1x plant pot 1x limestone	18 th century 19th-20th century
108	5 x natural stone, discarded	
113	2x linked Lincoln/Nottingham ware 3x Toynton All Saints-type ware jugs 1x iron nail, square-sectioned shaft 1x natural limestone, discarded 4x mussel shells 2x oyster shells	13th-14th century 14th-15th century
114	1x red painted earthenware, brown glazed 1x Staffordshire slipware 1x clay pipe bowl, Oswald G5 variant, bore 6/64" 1x clay pipe stem, bore 7/64"	18 th century 18 th century 1640-1680 17 th -early 18 th century
119	1x brown glazed tableware	18th-19th century
121	1x Midlands Purple-type ware 1x ?Boston-type ware 1x Nottingham/Lincoln ware	17 th century 17 th century 13th-14th century

125	1x creamware 1x ?Toynton All Saints-type ware 1x unidentified medieval grey ware 1x iron L-shaped handle, structural fitting; wood impressions on corrosion near retaining bolt 1x limestone	18 th -early 19 th century 14 th -15 th century 13 th -15 th century
201	1x Lincoln/Nottingham ware	13 th -14 th century
202	3x coal 2x oyster shell	
207	1x ?Lincoln ware 2x linked ?Boston-type ware 1x Toynton All Saints-type ware	13 th -14 th century 16 th -17 th century 14 th -15 th century
218	1x blue and white transfer printed tableware 1x Bourne D ware 1x Boston-type ware	19 th -early 20 th century 16 th -17 th century 17 th century
304	2x white saltglazed stoneware, ?cup 1x Bourne D ware	18 th century 16 th -17 th century
307	1x Staffordshire mottled ware	
308	1x white saltglazed stoneware, cup/tankard	18 th century
309	1x cinder	
310	1x Staffordshire slipware 2x iron nails, 1 with square-sectioned shaft 1x cinder	18 th century
311	1x white saltglazed stoneware 1x clay pipe bowl, Oswald G22 variant, bore 5/64" 1x clay pipe stem, bore 5/64" 1x oyster shell	18 th century c. 1730-80 18 th century
312	1x red painted earthenware, brown glaze 1x Westerwald stoneware ?tankard 2x clay pipe stems, bores 6/64" and 7/64"	17 th -18 th century 17 th -early 18 th century 17 th century
313	1x clay pipe bowl 'TH' on heel, Oswald G12 variant, bore 4/64" 2x iron nails square-sectioned shafts	c. 1730-80
317	1x Stamford ware 8x South Lincs. Sandy ware 1x ?splash glazed ware, jug 2x South Lincs. Shelly ware 1x cockle shell	10 th -12 th century 10 th -12 th century 11 th -13 th century 12 th -13 th century

Documentation

Like post-medieval artifact assemblages, including groups from Spalding, of similar nature to the present collection have previously been reported on. However, previously there has been few assemblages of medieval pottery recovered from the town. Several previous archaeological interventions in Spalding have been undertaken and reported, including just to the northwest of the site on the opposite side of the Welland (Symonds 1988) and to the south of the site on High Street (Archaeological Project Services 1995).

Potential

Most of the assemblage has moderate potential and signifies post-medieval general domestic occupation on the site. However, the medieval material is of greater potential, as one of the few such collections ever recovered from the town. In particular, the concentration of medieval material at the road frontage suggests there are intact occupation horizons of the period in that part of the site.

318	4x tin glazed earthenware, 2 linked 4x ?Dutch red earthenware 2x linked Staffordshire ?mottled ware 2x mottled ware 4x red painted earthenware, black glaze 1x red painted tableware, black glaze 1x saltglazed stoneware 1x Midland Yellow ware, Staffordshire 2x lead glazed stoneware 1x ?Bourne D ware 1x South Lincs. Sandy ware 3x iron nails, 1 with square-sectioned shaft 1x iron bolt with diamond-shaped retaining plate 1x coal 1x cinder 3x oyster shell 1x cockle shell	18 th century 17 th century 17 th -18 th century 17 th -18 th century 18 th century 17 th -18 th century 18 th century 18 th century 17 th century 18 th century 16 th -17 th century 10 th -12 th century
319	1x red painted earthenware, brown glaze 2x clay pipe bowls, Oswald G5-7 variant, bores 6/64" and 7/64" 3x clay pipe stems, bore 7/64" 1x clay pipe stem, mouthpiece, bore 6/64"	17 th -18 th century c. 1640-80 17 th century 17 th -early 18 th century
323	2x clay pipe stems, bore 7/64" 1x clay pipe stem, bore 6/64" 1x coal 1x cinder	17 th century 17 th -early 18 th century
324	1x red painted earthenware, black glaze 1x Boston-type ware	17 th century 17 th century
326	5x mortar	

Westerwald stoneware, as found in (312), is generally of 17th century date, though the piece appears to be a fragment of tankard, a form that was first produced in this ware in the early 18th century (Hurst *et al.* 1986, 222).

The clay pipe bowl from context (313) stamped 'TH' corresponds with previous examples found in Lincolnshire (Wells 1979, fig. 1 no. 10). These earlier discoveries have been found within a 25km radius of Spalding, including nearby at the White Hart Hotel (Healey and Taylor 1999), and are thought to have been made in the town, although the identity of the maker has not yet been established (Wells, 163).

None of the clay pipe groups are large enough to attempt bore-dating.

Condition

All of the material is in good condition and presents no long-term storage problems. Storage of the archive is by material class.

Documentation

Late post-medieval artefact assemblages, including groups from Spalding, of similar nature to the present collection have previously been reported on. However, previously there have been few assemblages of medieval pottery recovered from the town. Several previous archaeological interventions in Spalding have been undertaken and reported, including just to the northwest of the site on the opposite side of the Welland (Symonds 1988) and to the south of the site on High Street (Archaeological Project Services 1995).

Potential

Most of the assemblage has moderate potential and signifies post-medieval general domestic occupation on the site. However, the medieval material is of greater potential, as one of the few such collections ever recovered from the town. In particular, the concentration of medieval material at the road frontage suggests there are intact occupation horizons of the period in that part of the site.

References

Archaeological Project Services, 1995 *Archaeological Evaluation at 2/3 High Street, Spalding, Lincolnshire*, unpublished report

Healey, H. and Taylor, G., 1999 The Pottery and Clay Pipes, in P. Cope-Faulkner, *Archaeological Evaluation on land adjacent to the White Hart Hotel, Market Place, Spalding, Lincolnshire (SPW99)*, unpublished Archaeological Project Services report **113/99**

Hurst, J. G., Neal, D. S. and van Beuningen, H. J. E., 1986, *Pottery Produced and Traded in North-west Europe 1350-1650*, Rotterdam Papers **VI**

Oswald, A., 1975, *Clay Pipes for the Archaeologist*, British Archaeological Reports **14**

Symonds, J., 1988, *Spalding Town Centre: An Archaeological Assessment of proposed Development*, Unpublished TLA report

Wells, P. K., 1979, The Pipemakers of Lincolnshire, in P. Davey (ed), *The Archaeology of the Clay Tobacco Pipe I*, British Archaeological Reports British Series **63**

There were a total of 36 fragments, weighing a total of 2250 grams recovered from the site. A large proportion of the material had been fired to a high degree, and had been also exposed to repeated high firing and residual residues during their lifetimes. In particular the brick sampler from surface (320) are consistent with having been exposed to an industrial process, such as smelting.

There were 6 different fabric types described with no obvious parallels within the APS fabric series, it being possible that they were locally produced for a kiln or smelting structure. No complete forms were recovered, however it was possible to get some brick width and thickness measurements.

The bricks sampled from surface (320) showed evidence of intense burning and some had encrustation of fused industrial residue on them, in addition exhibiting highly vitrified surfaces. This burning and the slag suggests that the surface was part of a smelting process.

Statement of Potential

It is recommended that the pieces be retained for future information about the spread of tile fabric types over the region, therefore helping to map out the changing development of the medieval brick and tile industry in the region.

Fabric

SAMI

Appendix 4

The Ceramic Building Material from SAM99

By Phil Mills B.Sc. (Hons)

Methodology

The fragments of ceramic building material recovered from the site were examined under a 20 x binocular microscope. Their fabrics were described and compared with the fabric type series retained at Archaeological Project services. Where possible forms were identified and described. A basic record of the number of fragments, weight and complete dimensions of different examples by fabric and form were recorded for each context.

Condition of the material

There were a total of 96 fragments, weighing a total of 9265grams recovered from the site. A large proportion of the material had been fired to a high degree, and had been also exposed to repeated high firing and industrial residues during their lifetime. In particular the brick samples from surface (320) are consistent with having been exposed to an industrial process, such as smithing.

There were 6 different fabric types described with no obvious parallels within the APS fabric series, it being possible that they were locally produced for a kiln or smithy structure. No complete forms were recovered, however it was possible to get some brick width and thickness measurements.

The bricks sampled from surface (320) showed evidence of in situ burning and some had encrustation of fused industrial residue on them, in addition to exhibiting highly vitrified surfaces. This burning and the slag suggests that the surface was part of a smithy.

Statement of Potential

It is recommended that the pieces be retained for future information about the spread of tile fabric types over the region, therefore helping to map out the changing development of the medieval brick and tile industry in the region.

Fabrics

SAM1

A reddish brown (Munsell: 2.5y55/3) very hard granular feel irregular fracture, with abundant well-sorted medium subangular quartz, moderate well-sorted medium subangular calcite, moderate well-sorted medium rounded clay, moderate poorly-sorted medium rounded ferro-magnesium and sparse well-sorted very fine rounded mica.

Only one fragment of this fabric was recovered, from the topsoil stripped from trench 1, and suggesting that it is a modern fabric type.

SAM2

A red to dark red (Munsell: 2.5yr5/6) hard sandy feel fine fracture, with moderate well-sorted fine rounded black iron stone, abundant poorly-sorted medium subangular calcite, abundant poorly-sorted medium subangular quartz and sparse poorly-sorted medium subangular voids.

This was the most common fabric recovered from site, and was found with material dating from, at the earliest the 13th century AD, but mainly around the late 17th and 18th century, suggesting that this was the most likely period for the usage of this fabric.

SAM3

A light red (Munsell: 2.5yr6/6) hard smooth feel smooth fracture, with sparse well-sorted fine rounded black iron stone, abundant well-sorted fine well-rounded quartz and sparse well-sorted fine well-rounded voids.

This fabric was recovered with material dated to the 18th century.

SAM4

A light red to dark red (Munsell: 2.5yr6/8) hard sandy feel fine fracture, with abundant poorly-sorted medium subangular clay, abundant poorly-sorted medium well-rounded quartz, moderate poorly-sorted medium rounded ferro- magnesium, sparse well-sorted medium rounded mica and sparse poorly-sorted coarse angular voids.

Only one fragment of this material was recovered, without any dating evidence.

SAM5

A red surface with grey core (Munsell: 2.5yr5/1) 2.5yr5/8 hard granular feel irregular fracture, with sparse well-sorted medium rounded black iron stone, moderate well-sorted medium subangular calcite, sparse poorly-sorted medium rounded clay and abundant well-sorted medium subangular quartz.

Only a small amount of this fabric type was recovered, associated with 14 to 15th century AD pottery.

SAM6

A very pale brown with reddish yellow core (Munsell: 5yr6/6) 2.5y8/2 very hard granular feel fine fracture, with sparse well-sorted fine rounded black iron stone, sparse well-sorted very fine rounded mica, abundant well-sorted fine subangular quartz and sparse well-sorted medium rounded slate.

Only one fragment of this material was recovered, without any dating evidence.

The Forms

No Complete forms were recovered from the site, however a number of larger fragments did allow measurements of width as well as thickness to be made.

Bricks

A number of bricks all in fabric SAM2 were recovered. Dimensions recorded ranged, for width from 104.5 - 112.5mm, and for thickness from 53.25 - 61.35mm. They were mostly moulded, but one piece from surface (320) was hand shaped, and had an angled header face (at c 45°), suggesting that the normal bricks were mass produced, but that specialist bricks were hand shaped.

Tiles

Fragments of roof tile were identified:

Floor Tiles

Two fragments of a possible floor tile were recovered. One from (113) was of fabric SAM5, and was 20.3mm thick. The other was of fabric SAM6 and was 13.5mm, and was recovered from (319).

Pan Tiles

Three fragments of pan tile were recovered, in fabrics SAM3 and SAM4. Thickness of the fragments ranged from 13.5mm to 15.9mm.

Markings

One brick had straw impressions on the surface, left as part of the drying process during manufacture, when the stacked brick would have been covered in straw to protect them from rain.

CBM Catalogue

	Fabric	Wt (g)	No	Cnrs	Len(mm)	Wth(mm)	Tk (mm)	Mortar	Glaze
100									
B/T	SAM2	20	1						No
<i>Redder than type</i>									
Brick	SAM2	110	3						Yes
Tile	SAM1	25	1				12.55		No
104									
Brick	SAM2	40	2						No
105									
B/T	SAM2	25	1						No
<i>High fired version</i>									
B/T	SAM2	10	1						No
<i>Very reduced</i>									
Brick	SAM2	145	4				58.25		No
Tile	SAM3	15	1				14.45		No
108									
Brick	SAM2	70	2						Yes
/T	SAM4								No
113									
B/T	SAM5	135	2				20.3		Yes
<i>Floor tile?</i>									
B/T	SAM2	5	1						No
<i>Very reduced almost vitrified</i>									
Brick	SAM2	2135	27						No
114									
B/T	SAM2	15	5						No
116									
B/T	SAM2	5	4						No
<i>1 very reduced</i>									
119									
B/T	SAM2	15	1						No

Wt = Weight, No = No of fragments, Cnrs = No of Corners, Len = Mean Length, Wth = Mean Width TK = Mean Thickness, Mortar = presence or absence

		Fabric	Wt (g)	No	Cnrs	Len(mm)	Wth(mm)	Tk (mm)	Mortar	Glaze
120										
	B/T	SAM2	15	2					No	
121										
	B/T	SAM2	130	3					No	
125										
	B/T	SAM1	30	4					No	
207										
	Brick	SAM2	40	1					Yes	
	Brick	B1 SAM2	535	1	2			65.80	No	
	Brick	SAM2	270	1				57.05	No	
	<i>Burnt oxidised on one edge product of firing</i>									
304										
	B/T	SAM2	2	1					No	
	Brick	SAM2	30	1					Yes	
	Tile	SAM3	10	1				14.6	No	
308										
	Brick	SAM2	200	1				58.1	No	
	<i>Scraped upper surface</i>									
309										
	B/T	SAM5	2	1					No	
	B/T	SAM2	15	1					No	
	B/T	SAM3	15	1					No	
	<i>Layer of surface</i>									
	Tile	PT1 SAM3	190	1				15.9	No	
311										
	Brick	SAM2	205	1				56	No	
312										
	Brick	SAM2	25	1					No	
	<i>Very reduced, Vitrified industrial residue adhered to surface</i>									

Wt = Weight, No = No of fragments, Cnrs = No of Corners, Len = Mean Length, Wth = Mean Width TK = Mean Thickness, Mortar = presence or absence

Wt = Weight, No = No of fragments, Cnrs = No of Corners, Len = Mean Length, Wth = Mean Width TK = Mean Thickness, Mortar = presence or absence

		Fabric	Wt (g)	No	Cnrs	Len(mm)	Wth(mm)	Tk (mm)	Mortar	Glaze
313										
	Tile	PT?	SAM4	270	1			13.5	No	
	<i>Possible pan tile fabric.</i>									
319										
	Tile	FT?	SAM6	30	1	1		13.5	No	
320										
	Brick		SAM2	440	1			75.5	No	
	<i>Reduced. Highly vitrified warped</i>									
	Brick	B1	SAM2	565	1				No	
	Brick		SAM2	1005	1	4	112.5	53.25	No	
	<i>Angled header c 45</i>									
	Brick		SAM2	60	1				No	
	Brick		SAM2	1020	1	4	104.5	61.35	No	
	<i>Straw impressions on surface. Slag stuck to surface. Hand moulded</i>									
	Brick		SAM2	335	1	1			No	
	<i>Very reduced, slag on surface</i>									
	Brick		SAM2	870	1				No	
	<i>Slag, fuel ash adhered to surface very reduced fired</i>									
326										
	B/T		SAM6	1					No	
	Brick		SAM2	150	8				No	
	/T		SAM4	35	1				No	

Wt = Weight, No = No of fragments, Cnrs = No of Corners, Len = Mean Length, Wth = Mean Width TK = Mean Thickness, Mortar = presence or absence

Appendix 5

Industrial Debris Jane Cowgill

Two pieces of iron slag were recovered from investigations at Acre's Mill, Spalding.

Context 116 1 piece of probable smithing slag, 11g

Context 120 1 hearth bottom fragment, 143g

The hearth bottom contains abundant small coal fragments, the fuel used in the smithing process, and is likely to be late medieval or early post-medieval in date. The two pieces suggest iron smithing in the vicinity, though the limited quantity of material may indicate that were imported to the site.

Appendix 6

THE GLASS Rachael Hall

Provenance

The majority of the material was recovered from Trench 3 located near the existing factory buildings. The assemblage dates to the post medieval period with the majority of the glass dating between the 18th century and 19th century

Range

The range of material is detailed below in Table 1

Table 1

Context	Description	Date
307	Two body fragments of pale green bottle glass, frequent inclusion of air bubbles, iridescence. T.4mm	C18 th - 19 th
309	Fragment of colourless window glass T.1mm	Undated
	Fragment of pale green window glass T.1mm	Modern
318	Three body fragments of dark green wine bottle glass. Much iridescence T.5mm	C.18 th - 19 th
313	Three fragments of yellowish green wine bottle glass. Moderate inclusion of small air bubbles. Iridescence T.4mm	C.18 th - 19 th
	Two fragments of colourless vessel glass, part of an outverted beaker rim and a body sherd	C.18 th
	Two fragments of pale yellowish green wine bottle glass. Iridescence	C.18 th - 19 th
	Complete base of a mid yellowish green wine bottle, deep kick up with a circular pontiff scarring. Much iridescence D.110mm T.4mm	C.18 th

Condition

Many of the assemblage fragments have undergone surface weathering in the addition of a surface layer of iridescence. The fragments retrieved are small in dimension as expected with a site where demolition has taken place

Potential

The assemblage is small in nature and further analysis of the assemblage is not recommended.

Appendix 7

Spalding - SAM99

Environmental Archaeology Assessment

Introduction

Evaluation excavations conducted by Archaeological Project Services in Spalding resulted in the taking of eight soil samples for environmental assessment and the hand excavation of a small sample of animal bones from a number of contexts. These samples are briefly assessed.

Table 1: Samples taken for environmental analysis

site	sample	context	trench	volume in l.	description	date
SAM99	1	113	1	7	top fill of ditch	14-15th C
SAM99	2	113	1	2.5	bottom fill of ditch	14-15th C
SAM99	3	317	3	8	layer	13-14th C
SAM99	4	211	2	8	black layer below cut 219	13-16th C
SAM99	5	209	2	7	cess pit, 219, fill	13-16th C
SAM99	6	315	3	6	ditch fill?	post dates 317
SAM99	7	207	2	9.5	? cess pit, 219, fill	13-14th, ?15-16th C
SAM99	8	212	2	2	post hole fill	13-16th C

Methods

The soil samples were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a 'Siraf' tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet-sieve of 1mm mesh for the residue. Both residue and float were dried, and the residues subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flots were measured, and the volume and weight of the residues recorded.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through each residue in order to recover magnetised material such as hammerstone and prill. The residue was then discarded. The float of each sample was studied under a low power binocular microscope. The presence of environmental finds (ie snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The float was then bagged. The float and finds from the sorted residue constitute the material archive of the samples.

The individual components of the samples were then preliminarily identified and the results are summarised below in Tables 2 and 3.

Results

Trench 1

Two samples were taken from the fills of the large late medieval ditch in Trench 1. One from the top of fill 113 and one from the base of this fill. The samples were taken partly to establish whether there was any evidence for marine incursion into this feature. The upper part of this fill included pottery, brick/tile, coal and cinder, small quantities of slag and hammerstone and bone

(Table 2). The environmental evidence provide a range of food items including charred cereal grains, cockle and mussel shell fragments, eggshell, fragmented domestic animal bone and eel vertebrae. Other fish bones and scales may also derive from food fish.

The palaeo-environmental evidence is limited, but frog/toad bones, stickleback, ostracod valves (a freshwater crustacea), slugs, shells of *Vallonia* sp., and the opercula of *Bithynia* sp. along with uncharred seeds of *Carex* (sedge) and *Sambucus* (elder) in general indicate a wet and damp environment in the ditch.

In the sample from the bottom of the fill the quantity of debris was much smaller, the residue was composed of concreted silts rather than the cinder, small stones and occasional brick/tile and mortar in the sample from the top of this layer (sample 1). This suggests a more natural waterlain sediment and the presence of shells of *Planorbis leucostoma*, *P. laevis* and *Valvata cristata*, taxa found variously in marshes, ponds and muddy streams (Macan 1977), clearly indicates a freshwater habitat with no evidence for marine influence. The presence of charred grain, cockle and mussel shell fragments, although in much lower densities than higher up the sequence, indicates some nearby occupation.

Table 2: Finds from the samples

sample	context	vol in l.	residue vol ml.	pot no.	brick/tile g	coal/cinder	slag	ham'r scale	bone in g.	comments
1	113	7	125	3	6	34	+	+	4	
2	113	2.5	100		3	<1			<1	glass splinter
3	317	8	40	2	5	1	+		7	
4	211	8	600							most of residue fired earth
5	209	7	500		4	9			3	majority of residue is cess
6	315	6	900	2	183	1		+	<1	majority of residue is mortar
7	207	9.5	150	1	42	4		+	6	lots of fuel ash slag
8	212	2	30		3	6	+	+		smithing slag?

(+ - few fragments present)

Trench 2

The four samples from Trench 2 derive from a sequence of deposits. Layer 211, a black deposit rich in charred material, was sectioned at the base of a deep cut, above this were two deposits of sandy silt which were cut by a large pit feature, 219. Two samples were taken from the fills of this pit, interpreted on site as a cess pit, 209 towards the base and 207 higher in the sequence of fills. Cut into the upper deposits of this feature was a posthole whose fill, 212, was also sampled.

The residue from the sample from the basal layer in this trench, 211, was composed almost entirely of fired earth. This appears not to have been wedged and suggests that the burning may have been *in situ*. Accompanying this material was a large assemblage of charred cereal grains, beans, *Brassica* (?) seeds and straw, with some weed seeds. Exactly what this assemblage represents would require the identification and quantification of the botanical remains but it would appear that a large quantity of straw, cereals and pulses has been burnt *in situ*. This deposit may be on an earlier ground surface or in a much larger feature than that represented by cut 219.

The material from context 209 within the cut (219) confirms the field identification of this feature. The residue from the sample from this layer is composed almost entirely of calcareous phosphatic concretions of cess with visible mineralised plant fibres and other vegetable matter in the concretions. An abundance of mineralised seeds, including many *Brassica* (?), warrant specific identification if possible.

The sample from 207 above does not show a similar concentration of cess and if a cess pit was the primary function of the feature then by the time 207 formed the deposits were more typical of general rubbish with pottery, brick/tile, coal, cinder, lots of fuel ash slag and charred cereals and straw, although some cess may still have been deposited (Tables 2 and 3).

The fourth sample in this trench, 212, included the degraded remains of what was presumably the post that had filled the posthole. The presence of flake and spheroidal hammerstone, with a number of small globules of what look like smithing slag suggests that smithing may have been practised nearby.

Trench 3

Two samples were taken from the earliest deposits excavated in Trench 3. The earliest was a layer, possibly a ground surface, 317, which produced Saxo-Norman pottery and one sherd of 13-14th century date. The sample yielded two sherds of pottery, a few grammes of brick/tile, a little coal, slag and bone. The presence of a house mouse jaw suggests nearby buildings and charred cereals, cockle and mussel shell fragments, chicken, eel and herring (?) bones indicates the deposition of food debris. Scales and bones of small fish were particularly abundant in this layer. The presence of ostracod valves and stickleback bones may indicate an aquatic element in the deposit but the molluscs include only *Ceciliodes acicula* and *Discus rotundatus*, both terrestrial taxa. The sediments above this layer were interpreted on site as flood deposits and the stratigraphy suggests a significantly lower ground surface that was flooded, perhaps repeatedly, during the medieval period.

Context 315 is an undated fill of a ditch or cut through layer 317. The sample from this layer produced much larger quantities of ceramic building material than any of the other samples and the bulk of the residue was composed of mortar (Table 2). A small amount of domestic debris is suggested by the presence of charred cereals, bird eggshell and mussel fragments.

Animal Bone

A small collection of 72 bone fragments were collected and are recorded in the attached catalogue. These derive from deposits of medieval and post-medieval date (Table 4) and include fragments of cattle, horse, sheep (or goat), pig and duck. The condition of the bone was good and a number of the fragments were sufficiently intact for measurements to be taken.

Interestingly all the fish bones collected were recovered from the samples and no bone from large species such as cod, ling or haddock were identified in the deposits. Contemporary deposits in Kings Lynn (Wheeler 1977; Locker unpubl) in contrast included many bones from large fish.

In addition to the animal bones three shells of periwinkle were recovered from context 318.

Discussion

It is possible that layers 317 and 211 in Trenches 2 and 3 represent a medieval ground surface later covered by flood deposits, but since both were only revealed within a very small trench they may lie within larger features undiscovered by the evaluation. Both these layers were of some

interest and included specific assemblages worthy of further analysis, and potentially of some interpretive significance. The large feature in Trench 2 can be positively identified as a cess pit, although it probably later functioned as a rubbish pit. The presence of small quantities of coal in a number of the samples, often with very little charcoal, suggests that coal is already a major fuel in the medieval period. The few remains of slag and hammerscale in the posthole sampled in Trench 3 suggests contemporary smithing nearby.

The medieval deposits in general produced a range of food debris including barley, wheat, oat, beans, brassicas, cattle, sheep, pig, chicken, duck, cockles, mussels, periwinkles, eel, herring and other small edible fish.

There is no evidence for any marine influence in the samples, and the flood deposits therefore seem likely to represent sediments being washed downstream by the river rather than material coming upstream with the tide.

Recommendations

The evaluations have suggested, but failed to determine whether the early layers in Trenches 2 and 3 represent a medieval ground surface. This has significant implications for any development of the site and it may be appropriate to establish the extent of the layers discovered in the evaluation trenches by augering. This should permit a more accurate statement of the archaeological threat and may also be a reason, if many of the medieval deposits are buried under later flood sediments, for the limited recovery of medieval material in previous excavations in Spalding.

Three of the samples from the evaluation specifically warrant post-excavation analysis if no further archaeological work takes place at the site. The environmental assemblages from samples 3, 4 and 5 (contexts 317, 211 and 209) include important groups (the fish, cess, and cereal and pulses) for which no comparable data currently exists for Spalding.

The results from these environmental samples suggest that there is abundant and potentially informative evidence for medieval Spalding on the site. A programme of environmental sampling and sediment description and analysis should be implemented if the archaeological curators require further archaeological investigations to be undertaken.

Acknowledgments

I should like to thank Alison Foster and Jeremy Dubber for the sample processing.

Bibliography

- Cameron, R.A.D. and Redfern, M. 1976 *British Land Snails*. Linnean Soc. Synopses of the British Fauna No. 6
- Evans, J.G. 1972 *Lands Snails in Archaeology*, Academic Press
- Locker, A. 1999 The fish Bones from Austin Street, Kings Lynn. Unpublished report
- Macan, T.T. 1977 *A Key to the British Fresh- and Brackish-water Gastropods*. FBA
- Wheeler, A. 1977 Fish bone. In H.Clarke and A.Carter *Excavations in King's Lynn 1963-1970*. Med. Arch. Monograph No. 7. 399 403-408
- Williams, D.1973 Flotation at Siraf, *Antiquity*, 47, 198-202

Table 3: Environmental finds from the samples with preliminary identifications

sample	cont	vol in l.	flot vol ml.	snail */#	ch'rd grain *	chaff *	ch'rd seed *	miner- alised seed *	un- ch'rd seed *	Char coal *	ch'rd straw *	egg- shell *	fish *	small mam- mal *	comment
1	113	7	4	1/2	1		1		1	1		1	2	2	barley?, oat?, cockle, mussel, frog/toad, eel, stickleback, ostracod
2	113	2.5	<1	2/2	1		1		1	1		1			barley?, cockle, mussel
3	317	8	4	1/1	2		1		1	2			4	1	barley?, wheat, cockle, mussel, house mouse, chicken, eel, stickleback, herring, ostracod
4	211	8	55	1/1	3/4		3/4		1	4	5				barley, wheat?, Brassica, beans, frog/toad
5	209	7	35		2			4		3	2		3	1	mussel, Brassica, rodent, frog/toad, eel, small fish, cress
6	315	6	3	2/1	1				2	2		1	1	1	barley?, mussel, frog/toad, vole, small bird, small fish
7	207	9.5	20	1/1	2		1		2	2	2		2	1	barley, oat?, wheat?, mussel, sheep, eel, stickleback, cress?
8	212	2	500						1						degraded wood from post, mussel, frog/toad, stickleback

* frequency of items: 1=1-10; 2= 11-100; 3=101-250; 4=251-500; 5=>500

diversity of molluscs as follows: 1=1-3; 2=4-10; 3=11-25; 4=26-50 taxa.

Archive Catalogue of Animal Bone from Spalding - SAM99

site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path	comment	preservation
SAM99	105	CSZ	INN	1	F								LATERAL FRAGMENT- 2 PIECES	4
SAM99	113	BOS	ATL	1	L				DG				CHEWED LEFT SIDE	4
SAM99	113	BOS	HUM	1	L	DN	690		DG				SHAFT-BOTH ENDS CHEWED-CALF	4
SAM99	113	BOS	HUM	1	F	PN	3						PART OF PROX EPIPHYSIS	4
SAM99	113	BOS	MTT	1	L	DF	345	CH			SD-23.4 Bd-48.4 Dd-27.3		DISTAL HALF-SMALL CHOP ON SHAFT	4
SAM99	113	BOS	MTT	1	L		5	CH					DISTAL SHAFT-CHOPPED	4
SAM99	113	BOS	RAD	1	R	DF	6		DG				DISTAL SHAFT WITH DIST ULNA FUSED- DISTAL CHEWED	4
SAM99	113	BOS	TIB	1	L		4	CH					MIDSHAFT-POROUS-CALF- DIST SHAFT CHOPPED- 2 PIECES	4
SAM99	113	CSZ	LBF	1	F								SHAFT FRAGMENT	4
SAM99	113	CSZ	RIB	1	F								SHAFT	4
SAM99	113	CSZ	RIB	1	F								PROX SHAFT FRAGMENT	4
SAM99	113	CSZ	UNI	1	F								CANCELLOUS BONE	4
SAM99	113	CSZ	UNI	1	F								FRAGMENT INDET	4
SAM99	113	DUCK	TIB	1	L								SHAFT	4
SAM99	113	EQU	PH2	1	F	PF	12	CH					CHOPPED THRU PROXIMAL ARTICULATION	4
SAM99	113	OVCA	MTC	1	R		12				SD-14.3		PROX END AND SHAFT-CONCRETED SURFACE	3
SAM99	113	OVCA	MTC	1	L		12						PROX END AND PART SHAFT -CONCRETED SURFACE- 2 PIECES	3
SAM99	113	SSZ	RIB	1	R								PROX SHAFT FRAGMENT	4
SAM99	114	OVCA	FEM	1	R		3						PROXIMAL SHAFT- 2 PIECES	4
SAM99	119	BOS	MTT	1	R				DG				SHAFT-POROUS-IMM-BOTH ENDS CHEWED OFF	4
SAM99	121	BOS	RAD	1	R	PF	1	CH					PROXIMAL END-CHOPPED THRU SHAFT	4
SAM99	121	BOS	ULN	1	F								DISTAL SHAFT-FUSED TO RADIUS	4
SAM99	121	CSZ	RIB	1	F								SHAFT FRAGMENT	4
SAM99	121	CSZ	RIB	1	F								SPLIT SHAFT FRAGMENT	4
SAM99	121	OVCA	RAD	1	R	PFDf	123456				GL-137 Bp-29.2 SD-15.8 Bd-27.4 Dd-17.8		COMPLETE	4
SAM99	125	CSZ	LBF	1	F								INDET SHAFT FRAG	4
SAM99	125	CSZ	SCP	2	F								NECK FRAGMENTS	3
SAM99	125	CSZ	UNI	1	F								VERT?	4
SAM99	201	OVI	MTC	1	R	DF	345				SD-13 Bd-25.3 Dd-15.9		SHAFT AND DISTAL END	4
SAM99	202	BOS	TIB	1	L				DG				PROXIMAL SHAFT FRAGMENT-PROX CHEWED	4
SAM99	202	CSZ	LBF	1	F				DG				SHAFT FRAGMENT-WELL CHEWED	4
SAM99	207	BOS	SCP	1	L								PROX BLADE FRAGMENT BENEATH SPINE	4
SAM99	207	BOS	TIB	1	L	PF	123		DG				PROXIMAL END-CHEWED	4

SAM99	207	BOS	TIB	1	R									PROX ANT SHAFT FRAGMENT	4
SAM99	207	CSZ	RIB	1	F				DG					SHAFT-POROUS-IMM-DISTAL CHEWED	4
site	context	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path	comment	preservation	
SAM99	207	CSZ	RIB	1	F				DG					SPLIT SHAFT FRAGMENT-CHEWED	4
SAM99	207	CSZ	RIB	1	F			CH						SHAFT FRAG-BOTH ENDS CHOPPED	4
SAM99	207	CSZ	RIB	1	R			CH	DG					PROX SHAFT-PROX CHEWED-DISTAL CHOPPED	4
SAM99	207	OVCA	FEM	1	R		4		DG					DISTAL SHAFT FRAGMENT-CHEWED	4
SAM99	207	OVCA	HUM	1	R	DF	6789		DG		BT-32.2 HT-20.7			DISTAL END-CHEWED	4
SAM99	207	OVCA	RAD	1	R		3		DG		SD-17.5			SHAFT-PROX CHEWED	4
SAM99	207	SSZ	RIB	1	L				DG					SHAFT-PROX CHEWED	4
SAM99	208	SUS	FIB	1	F				DG					PROX AND MIDSHAFT-PROX CHEWED	4
SAM99	309	BOS	FEM	1	F	PN	1							POORLY FORMED HEAD-CALF	4
SAM99	310	OVCA	TIB	1	F									POST MIDSHAFT	4
SAM99	310	SSZ	RIB	1	R									PROX HALF SHAFT	4
SAM99	317	CSZ	LBF	1	F			CH						SHAFT FRAGMENT-CHOPPED	4
SAM99	317	CSZ	UNI	1	F									INDET	4
SAM99	317	OVCA	HUM	1	L	PF	3							POSTERIOR PROXIMAL FRAGMENT	4
SAM99	317	OVCA	PH1	1	R	PF	12							COMPLETE	4
SAM99	317	OVCA	PH2	1	R	PF	12							SLIGHTLY ERODED	3
SAM99	317	SSZ	RIB	1	L									PROX SHAFT FRAGMENT	4
SAM99	317	SUS	INN	1	R		23		DG					ANT ILIAL SHAFT-ANT CHEWED-POROUS-IMM	4
SAM99	317	UNI	UNI	1	F									INDET	4
SAM99	317	UNIB	LBF	1	F									SHAFT FRAG	4
SAM99	318	BOS	MAN	1	F									LATERAL FRAG HORI RAMUS WITH ALVEOLI	4
SAM99	318	CSZ	RIB	1	R	PN								PROX SHAFT-LARGE	3
SAM99	318	CSZ	UNI	5	F									INDET	4
SAM99	318	OVCA	TIB	1	L	DF	567				Bd-29.3 Dd-22.9			DISTAL THIRD	4
SAM99	318	OVCA	TIB	1	R									SPINE FRAGMENT	4
SAM99	318	SUS	SCP	1	R	DF	1235							DISTAL END AND NECK- 2 PIECES	4
SAM99	318	UNI	UNI	1	F									INDET	4
SAM99	323	CSZ	RIB	1	F									SHAFT FRAGMENT	4
SAM99	999	EQU	INN	1	L	EF	23579		DG					ILIUM AND ISCHIUM SHAFT+ACET- 3 PIECES-LARGE ADULT-TRENCH 2 +	4
SAM99	999	OVCA	MAN	1	L		245678		DG	J13K12				SYMPHYSIS CHEWED OFF- TRENCH 2+	4
SAM99	999	OVCA	MTT	1	R		12							PROX END AND SHAFT-TRENCH 2+	4
SAM99	999	OVCA	TIB	1	R		4							MIDSHAFT-TRENCH 2 +	4

Appendix 8

SECRETARY OF STATE'S CRITERIA FOR SCHEDULING ANCIENT MONUMENTS - extract from *Archaeology and Planning* DOE Planning Policy Guidance note 16, November 1990

The following criteria (which are not in any order of ranking), are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

- i *Period:* all types of monuments that characterise a category or period should be considered for preservation.
- ii *Rarity:* there are some monument categories which in certain periods are so scarce that all surviving examples which retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and regional context.
- iii *Documentation:* the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.
- iv *Group value:* the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement or cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.
- v *Survival/ Condition:* the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features.
- vi *Fragility/ Vulnerability:* highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection that scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed buildings.
- vii *Diversity:* some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.
- viii *Potential:* on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.

Appendix 9

GLOSSARY

- Context** An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretations of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, e.g.(004).
- Cut** A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, etc. Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
- Fill** Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) which become contained by the 'cut' are referred to as its fill(s).
- Layer** A layer is a term to describe an accumulation of soil or other material that is not contained within a cut.
- Medieval** The Middle Ages, dating from approximately AD 1066-1500.
- Post-medieval** The period following the Middle Ages, dating from approximately AD 1500-1800.

Appendix 10

THE ARCHIVE

The archive consists of:

81	Context records
35	Scale drawings
1	Photographic archive (comprising 33 colour slides and 33 black and white prints)
2	Box of finds
8	Processed environmental sample
1	Stratigraphic matrix

All primary records and finds are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

Lincolnshire City and County Museum
12 Friars Lane
Lincoln
LN2 1HQ

The archive will be deposited in accordance with the document titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

Lincolnshire City and County Council Museum Accession Number: 268.99

Archaeological Project Services Site Code: SAM99

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act 1988* with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.

