JB

00/26

ARCHAEOLOGICAL EVALUATION OF LAND ADJACENT TO PETTICOAT LANE AND MITRE LANE, BOSTON, LINCOLNSHIRE (BSBA 00)

A P S
ARCHAEOLOGICAL
PROJECT
SERVICES

ARCHAEOLOGICAL EVALUATION OF LAND ADJACENT TO PETTICOAT LANE AND MITRE LANE, BOSTON, LINCOLNSHIRE (BSBA 00)

Work Undertaken For
Meldrum Lee and Gillatt
on behalf of
Oldrids and Co. Ltd

February 2000

Report Compiled by
Paul Cope-Faulkner BA(Hons) AIFA

Planning Application No: B\99\0488
National Grid Reference: TF 3285 4418
City and County Museum Accession No: 2000.16

A.P.S. Report No. **25/00**

CONTENTS

List of Figures

List of Plates

1. SUMMARY

An archaeological evaluation, comprising trial trenching, was undertaken to determine the archaeological implications of proposed development on land adjacent to Petticoat Lane and Mitre Lane, Boston, Lincolnshire.

The site lies close to the medieval (AD 1066-1500) core of Boston and adjacent to the town's principle boundary, the Barditch. Medieval development started to occur along Wide Bargate during the 13th century. Maps dating to 1741 show Petticoat Lane as largely undeveloped and containing gardens belonging to structures fronting Strait Bargate. At this time, Mitre Lane contained a number of buildings. Subsequent maps indicate development along both thoroughfares during the 19th century to the present day.

The earliest deposits encountered were flood silts, possibly laid down during the medieval period. Upon these flood deposits, a medieval brick structure, probably a house, was built outside of the Barditch. By the post-medieval period, deposits were associated with an open space and indicate that dumping of refuse was occurring in the vicinity. In accordance with earlier maps, 18th - 19th century developments was exposed in the trenches and relate to houses and warehouses known to have existed within the proposed development area.

Artefacts include a range of local pottery and few sherds of foreign imports indicating trade during the post-medieval period. Glass, clay pipes, brick, tile and animal bone were also recovered.

2. INTRODUCTION

2.1 Definition of an Evaluation

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 1997)

2.2 Background

Between the 13th and 21st January 2000, an archaeological evaluation was undertaken on land adjacent to Petticoat Lane and Mitre Lane, Boston, Lincolnshire. The evaluation was requested prior to the determination of planning permission for an extension to Oldrid's Department Store and road realignment (Planning Application No. B\99\0488), in order to assess the presence and character of the archaeological resource within the proposed development area. The archaeological investigation was commissioned by Meldrum, Lee and Gillatt on behalf of Oldrid and Co. Ltd. Archaeological Project Services carried out the work in accordance with a brief set by the Community Archaeologist for Boston District Council (Appendix 1).

2.3 Topography and Geology

Boston is situated 45km southeast of Lincoln and approximately 7km northwest from the coast of The Wash, among the fens of south Lincolnshire. Bisected by the River Witham, the town is located in Boston District, Lincolnshire (Fig. 1).

The proposed development is located 110m east of the town centre as defined by the parish church of St. Botolph (Fig. 2). The site comprises two open areas adjoining the Oldrid's department store on fairly level ground. The site is centred on National Grid Reference TF 3285 4418 and is situated at a height of *c.* 5m OD.

As an urban area, local soils have not been mapped, but are likely to be of the Wisbech Series, typically coarse silty calcareous alluvial gley soils (Robson 1990, 36). Beneath the soils are drift deposits of marine alluvium overlying glacial drift that was deposited in a geological basin between the Lincolnshire Wolds and the East Anglian Heights (Harden 1978, 5). These glacial deposits in turn overlie a solid geology of Jurassic Ampthill Clay (BGS 1995).

2.4 Archaeological Setting

Although a fragment of Romano-British pottery has previously been recovered northeast of the development area, evidence of this period is scarce in the vicinity of Boston. The only excavation of stratified Romano-British deposits in the town has been at Boston Grammar School, 430m to the south, where occupation remains of the period were recorded 1.4m below the present ground surface, at a height of 2m OD (Palmer-Brown 1996, 5).

Boston is not mentioned in the Domesday Survey of *c.* 1086. However, the same survey recorded two churches and two fisheries in Skirbeck, a parish lying to the southeast of Boston (Foster and Longley 1976, 69). One of these churches, St. Botulph's, was granted to St. Mary's Abbey, York in 1089. In 1130, Boston received its first mentioned when it was referred to as '*Botulvestan*' (Dover 1972, 1).

Part of the investigated area lay within the medieval core of the town as defined by the '*Barditch*', a substantial feature surrounding the town, possibly used for defence. The first mention of the Barditch is in 1160 although by the middle of the 13th century, property was held outside it (Harden 1978, 18). The Barditch probably had an internal bank, and excavations carried out in 1959 may indicate the existence of an internal 'town' wall added in the late 13th or 14th century (Barley n.d., 3). The portion of the Barditch adjacent to the site was uncovered during the construction of Oldrid's department store during the 1970s and a new concrete sewer was installed (*pers. comm.* Mr. Isaacs).

Archaeological investigations in the vicinity have revealed 14th century deposits at depths of 2.9m (2m OD) below the surface in the adjacent Pescod Hall car park (Symonds 1988, 5) and evaluation at 11 Wide Bargate revealed late medieval deposits at heights of 3.2m OD (Trimble 1995, 3). Excavations carried out at 24-30 Strait Bargate revealed 14th century deposits at heights of *c.* 4m OD (Jarvis 1992, 14). All three of these investigations took place outside the course of the Barditch.

Petticoat Lane was formerly known as Smock Lane in the 18th century (Thompson 1856, 219) and led to an area of open ground known as Skin Hill. Mitre Lane was formerly known as Petticoat Lane in the 18th century and Pescod Lane in the 16th century (*ibid.* 206). A map of 1741depicts the area of investigation as the rear plots to buildings fronting Bargate with a building spanning the width of Mitre Lane and a small building fronting Petticoat Lane midway along its length (Molyneux and Wright 1974, Map 6). A subsequent map of 1829 shows development along both sides of Petticoat Lane (*ibid.* Map 8).

The site is adjacent to Nos. 3 and 4 Petticoat

Lane which are both Grade II listed buildings dating to the 18th century (DoE 1975, 45).

3. AIMS

The aims of the archaeological evaluation, as outlined in the brief (Appendix 1), were to locate archaeological deposits and determine, if present, their extent, state of preservation, date, type, vulnerability, documentation, quality of setting and amenity value. The purpose of this identification and assessment of deposits was to establish their significance, in order to facilitate recommendations for an appropriate strategy that could be integrated with the proposed development.

4. METHODS

Excavation
Three trenches were excavated by machine to the surface of undisturbed archaeological remains. The three trenches were located to give adequate coverage of the proposed development area (Fig. 3). However, the presence of services eventually restricted the sizes of the trenches. As a result, the trenches were too small to facilitate the deepening of the excavated areas.

Once the overburden had been removed, all deposits and features were excavated by hand. Sections and the sides of the trenches were rendered vertical and cleaned. Upon reaching a depth of 1.2m from the present ground surface, excavation in each trench ceased. Deeper deposits were examined with a gouge auger, cored at intervals along appropriate sections.

Environmental sampling was taken at the discretion of the site supervisor based on comments from the environmental archaeology consultant, James Rackham. Samples were taken using guidelines established by Murphy and Wiltshire (1994).

Recording was undertaken based on the single context approach developed by the Museum of London (MoLAS 1994) with minor unit modifications. Each deposit or feature was given a unique reference number (context number) with an individual written description. All plans were drawn at a scale of 1:20 and all sections and elevations at a scale of 1:10. A photographic record was compiled using colour print, colour slide and monochrome formats.

The trenches were surveyed, using known reference points, with a Geodolite Total Station in conjunction with a Psion data logger.

Post-excavation
Following excavation, all records were checked and ordered to ensure that they constituted a complete Level II archive and a stratigraphic matrix of all identified deposits was produced. Finds recovered from those deposits excavated were examined and a period date assigned where possible. A list of all contexts and interpretations appears as Appendix 2. Phasing was based on artefact dating and the nature of the deposits and recognisable relationships between them.

5. RESULTS

Following post-excavation analysis and the submission of specialist reports, five phases were identified:

Phase 1	Undated deposits
Phase 2	Medieval deposits
Phase 3	16th - 17th century deposits
Phase 4	18th - 19th century deposits
Phase 5	Modern deposits

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

Phase 1 Undated deposits

Augering in Trench A established a yellowish brown silt (055) extended more than a metre below the limit of excavation. Identified as flood layer, this deposit contained small fragments of tile, mortar, bone and marine shell that was recovered from the environmental samples (Appendix 8).

Cut into this flood deposit was a possible pit (061) with a visible extent of 0.6m by 0.3m (Fig. 4). This was filled with a greyish brown silt (057). No dateable artefactual material was recovered from this feature.

A 1.2m sequence of clean silts, ranging from light yellowish brown to dark brown were identified in augering in the base of Trench B. Water obscured the uppermost 0.4m at the point where charcoal and small tile fragments were noted, indicating human activity in the vicinity.

Phase 2 Medieval deposits

No securely dated medieval deposits or features were found in Trenches A and B.

The earliest deposit encountered in Trench C was a greenish brown silt (087) which may have been contained within a feature (086), although this could not be proven during the investigation. Lincoln type and Potterhanworth pottery was recovered from this deposit, indicating a date of the 13th - 14th centuries. Tile fragments, retrieved from the environmental samples, indicate the existence of an earlier roofed structure in the vicinity.

This feature (086) was partially overlain by possible flood deposits of greyish brown silt (080, 081 and 084) having a combined thickness of 0.24m (Fig.9). Plaster, with some fragments depicting a surface, also indicate the presence of a structure in the vicinity.

Upon these flood silts, a brick wall was constructed (070). Visible measurements were 1.9m length, by 0.25m wide and 0.57m high, although it extended beyond the limits of the trench (Fig. 8 and 9). Within a small area defined by the wall was a 40mm thick greyish brown silt (079), interpreted as a possible floor surface. This was overlain by 20mm thick deposit of greyish brown sandy silt (078), which in turn was sealed by a second possible surface of greyish brown silt (077) that contained coal and cinder fragments.

Cut through these apparent floor surfaces was a possible pit (085). With visible dimensions of 0.7m wide by 0.39m deep, it contained a single fill of greyish brown sandy silt (076) that contained 14th -15th century pottery.

This pit was sealed by greyish brown sandy silt (075) with brick and mortar fragments, measuring 40mm thick and possibly indicating a further floor surface.

All the deposits contained by wall (070) were overlain by a brown sandy silt (074), possibly representing demolition of the wall or structure. This measured 0.35m thick and contained a single sherd of 14th - 15th century date.

Phase 3 16th - 17th century deposits

Cut into the undated flood deposit in Trench A was a linear feature (056), possibly a ditch aligned north-south (Fig. 4). This was 1.6m long by 0.5m wide and 0.3m deep with vertical sides and with a lower fill of grey

silty sand (054) that contained tile, mortar, brick and shell fragments. An upper fill of grey silty sand (028 and 053), besides containing brick and tile fragments, also produced locally made Bolingbroke or Boston type pottery.

In Trench B, the sequence of undated silt deposits was overlain by a yellowish brown silt (060). A single sherd of 17th century Cistercian type pottery was retrieved from this layer along with residual medieval material. Possibly originating as a flood deposit, environmental evidence suggests that a proportion of this layer was dumped.

The flood deposit was overlain by a layer of brown silt (004) that was 0.26m thick and may be a buried soil (Figs. 6 and 7). Only a single sherd of 16th - 17th century pot was retrieved. Overlying this layer was a reddish brown silt (040 and 043) between 60mm and 100mm thick containing brick and mortar fragments and identified as a dumped deposit. This was sealed by a 0.55m thick layer of greyish brown silt (002), possibly a further buried soil.

Cut into layer (002) was a feature (047), truncated by later activity. This feature, probably a refuse pit, had a minimum width of 1m and depth of 0.72m. A single fill of dark brown silt (003) was recorded from which a range of 16th - 17th century pottery was retrieved as well as brick, tile and mortar fragments.

Trench C contained no deposits or features securely dated to this phase.

Phase 4 18th - 19th century deposits

Cut into the upper fill of the Phase 3 ditch in Trench A was a north-south aligned linear feature (052), identified as a ditch. This was visible for a length of 1.4m and was 0.74m wide and 0.45m deep. A single fill of greyish brown silty sand (005) filled this ditch and spread beyond its confines to form a continuous layer, possibly a buried soil, across the remainder of the trench (014). Artefacts retrieved from this deposit were of predominantly 18th century date and environmental evidence suggests that this soil may have originated as a flood deposit with later episodes of dumping, including the waste from a possible smithy.

Cut into the buried soil were two pits. The first was circular (024) and had a diameter of 0.83m by 0.43m deep and contained a single fill of greyish brown silty sand and white limestone fragments (023). Cut into this pit was a further pit (058), with an extent of 1.5m by 1.25m and a depth of 0.3m and containing dark greyish brown silty sand with charcoal (017 and 018).

A foundation trench (022) for a small rectangular brick structure (021) was inserted into pit (058). The dimensions of this structure are 0.33m wide and 0.25m high.

The second pit (031), cut into the buried soil, was 0.47m wide and 0.4m deep with vertical sides and a flat base. Greyish brown silty sand, with limestone, brick and charcoal fragments (025) filled the pit. This pit was truncated by a linear foundation trench (033) that contained a possible brick wall (032). This structure was 0.52m wide and 0.25m high.

Overlying the 16th - 17th century deposits in Trench B was a buried soil of brown silt (001), measuring 0.38m thick. Residual pottery was found alongside 18th century white stonewares. A deposit of black coal (050) intruded into the buried soil and was subsequently sealed by a demolition deposit of mixed limestone, concrete and brick (048). A brick structure (049), possibly a foundation wall, was constructed upon the

demolition deposit to a height of 0.49m and a width of 0.5m.

Lying above the medieval (Phase 2) deposits in Trench C, was a buried soil of greyish brown sandy silt (071) that was 0.17m thick. This was truncated by an east-west aligned linear feature (067) cut alongside the medieval wall (070). Measuring 1.95m in length, this trench contained a brick foundation structure (072) upon which a subsequent brick wall was built (065). The combined height of both walls was 1.45m. Backfilling the foundation trench was a deposit of yellowish grey silty sand (068). Bonded to this wall, albeit loosely, was a brick surface (066) with an extent of 2m by 0.88m visible. Possibly associated with this floor was a brick structure exposed in the southeast corner of the trench (082), although no function could be determined for this.

Phase 5 Modern deposits

Most deposits encountered in this phase relate to the demolition of former buildings along Petticoat and Mitre Lanes, the construction of Oldrids and the resurfacing of roads and pathways. As such, this phase is dateable to the 1970s.

Overlying Phase 4 deposits in Trench A was a 0.13m thick dumped demolition deposit of white limestone and concrete (016) overlain in part by a greyish brown silty sand (015) that contained charcoal, shell and brick fragments. This deposit was 0.27m thick.

Cut into the underlying deposits were two linear features. The first (012) was 0.33m wide by 0.4m deep and contained concrete casing for a foul drain (011). The second feature (020) was 3.8m in length, 0.21m wide and 0.18m deep and backfilled with brick and tile fragments (013 and 027).

Above these deposits was a 0.21m thick demolition layer (010). Comprising greyish brown silty sand, this deposit contained frequent brick, concrete and limestone rubble. Cut through this was a linear feature (009) containing a sewer pipe (008). A 0.31m thick make-up deposit of limestone fragments was laid for the modern tarmac surface (006).

Overlying the Phase 4 deposits in Trench B was a demolition layer of brick fragments (039) and cut into the earlier strata was a possible rectangular pit (088) containing clean yellow sand (046 and concrete 'lumps' (059). A storm drain (038, 041 and 042) had been inserted and then sealed by a make-up deposit (045) and the present tarmac surface (036) or kerbstones (037).

The 18th -19th century building in Trench C was razed as evidenced by a demolition deposit of grey silty sand with brick and mortar fragments (064). Deposits in Trench C were sealed by limestone fragments (063) forming a make-up layer for the present surface of tarmac (062).

6. DISCUSSION

The earliest, though undated, deposits encountered are silts indicating a flooding episode. Flood deposits have been encountered elsewhere in Boston. For example, natural alluvium was found at *c.* 1.6m OD along Spain Lane and Wide Bargate (Cope-Faulkner 1994, 3 and Herbert 1997). The upper surface of natural deposits at Petticoat Lane is in the region of 2m-2.5m OD and therefore may represent a later flooding horizon. This is supported by evidence from environmental sampling which has recovered tile *etc.* from the flood deposit encountered at the base of trench A. A possible pit in Trench A was also undated but is probably medieval or post-medieval in

origin.

Medieval deposits (Phase 2) are restricted to Trench C. Again these appear to have originated as flood deposits and were then transformed by the addition of cultural waste. The artefactual evidence, albeit from the samples, shows indications of structures in the form of tile and plaster fragments and suggest the presence of an unidentified building within the vicinity during the 13th - 14th centuries. It is known that medieval development had started along Wide Bargate by the middle of the 13th century.

A brick building was then constructed, perhaps in the 14th to 15th centuries, and was probably inhabited as floor surfaces, separated by occupation layers, are recorded. A brick structure of similar date was found during excavations at the former General Hospital in Boston (Dymond 1995, 8) and King's Lynn (Cope-Faulkner *forthcoming*). Furthermore, a previous excavation of the Barditch uncovered part of a tile clamp constructed of brick (Barley n.d.) And a second tile kiln, also using brick, was found adjacent to the Maud Foster drain (Mayes 1965, 86). Both kilns are dateable to the first half of the 14th century.

During the 16th - 17th century (Phase 3) deposits and features are limited to Trenches A and B. Trench A contained a single north-south aligned ditch, that probably marked a boundary between two properties fronting Strait Bargate. In Trench B, flood deposits were replaced or transformed into a soil and probably remained as an open area until the 18th - 19th centuries. A refuse pit was dug into these soils.

A result of the dearth of Phase 3 deposits from Trench C is that the full medieval and post-medieval sequence cannot be gauged. However, this apparent lack of remains is unlikely to be due to an absence of features and deposits of this period, but rather subsequent disturbance either destroying or masking them. Although, during this period Boston was shrinking in extent from its heyday in the 14th century, areas such as Wide Bargate seem to have been continuously occupied.

During the subsequent 18th - 19th century, Boston gradually expanded once more and development of this period was noted in all three trenches. Although none of the walls and structures encountered are able to provide a groundplan or function, later maps and aerial photographs are able to ascertain the general layout (Plate 6).

Modern deposits are associated with services to existing buildings and road surfaces of Petticoat Lane. These are all thought to be part of the general development of the area that occurred when Oldrid's department store was constructed in the early 1970s.

A wide range of artefacts were retrieved during this investigation. Medieval pottery comprised Lincoln type, Toynton type and Potterhanworth wares all imported from elsewhere in Lincolnshire. During the post-medieval period, pottery is from the local Boston or Bolingbroke kilns, although there is evidence for trade with Norfolk and Germany and possibly Holland. Later products are typical of the mass produced pottery of Staffordshire. Glass was also found and includes 16th - 17th century examples. The remaining artefacts, clay pipes and brick and tile are probably all of local manufacture. Diet, to a certain degree can be ascertained from the animal bone. These indicate that cattle, goat, sheep, pig, rabbit, duck and fish were consumed. However, cattle and sheep are the only medieval meat products, although oyster, mussel, cockle, hazlenut, grape, wheat and barley are evidenced in the environmental

samples. Non-edible animals include some evidence for rodents, Jackdaw, frog or toad, other marine molluscs and stickleback.

Site Overview

Status

The status of the site throughout the medieval and post-medieval periods cannot easily be verified. The medieval deposits indicate that a brick building was constructed in the vicinity of the Mitre Lane and Petticoat Lane junction. Such a structure may imply a relatively higher status, although it is just as likely to reflect the fire risk that wooden buildings and the thatched roof pose. Certainly, documentary evidence from King's Lynn details the change of roofing materials allowed within the town (Clarke and Carter 1979, 441). Later status of the site cannot be determined until the 19th century when the area appears to have been under light industrial use.

Craft and Industries

The artefacts reflect no evidence for craft and industries taking place on the site, with the exception of smithing waste found in 16th - 17th century deposits in Trench A. It is not certain that this was taking place on the site or the waste was brought into the area, possibly dumping.

Trade and Commerce

Medieval trade is only reflected in the pottery assemblage, which indicates connections along the River Witham to Lincoln and Potterhanworth and overland, via Stickney, to the pottery producing centres at East Keal, Bolingbroke and Toynton All Saints. Coal fragments found in some deposits may have been traded into Boston as far away as Newcastle, although this could only be proven with detailed scientific examination. During the post-medieval period, it is still locally produced pottery forming the bulk of the assemblage, although a single sherd of Bourne D ware and West Norfolk Bichrome indicate regional links and Frechen stoneware and Dutch earthenware points to trade with the continent. Overall, the evidence from this site does not reflect the known archaeological and historical trade links of the town.

5. 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

Features and deposits of the medieval to the modern period were recorded during this investigation. Possible earlier medieval deposits, were encountered during augering. The range of features and deposits are typical of urban settlement of these periods.

Rarity

The range of features of medieval and subsequent post-medieval deposit are not scarce within the town of Boston. However, the presence of a medieval brick structure may be considered rare, only as so few are recorded in the town.

Documentation

Records of archaeological sites and finds made in the Boston area are held in the Lincolnshire Sites and Monuments Record and the files maintained by the Boston District Community Archaeologist.

Reports on archaeological interventions in Boston have previously been produced. However, this work represents the first site specific intervention along Petticoat Lane.

Contemporary documentation exists and portions of this material have been

summarised previously (*eg.* Thompson 1856). However, no contemporary documentation was examined as part of this investigation.

Group value
The majority of the remains encountered are related to typical urban functions and range from domestic in the medieval period to industrial activity in the last century. As such, moderately high group value could be conferred.

Survival/Condition
The features recorded appeared to have survived well although evidence for recent disturbance, in the form of services to surrounding buildings, was apparent. Few preserved organic remains were recorded at the site and any environmental remains would be associated with the recovery of charred or other non organic material. Waterlogged deposits were noted during augering at heights of *c.* 3m OD and increase the potential for the recovery of organic remains.

Fragility/Vulnerability
Development of the site is likely to impact into medieval and later deposits. Consequently, archaeological remains present are vulnerable. If the development impacted 1.4m below the present ground surface, it is likely that waterlogged deposits would be under threat.

Diversity
Medieval occupation, post-medieval open areas and recent industrial buildings were revealed during this investigation. Therefore, there is moderately high functional and period diversity present within the proposed development area. However, this is typical of most urban deposits.

Potential
There is potential that the remaining deposits associated with the medieval structure in Trench C may survive, although this area has been impacted upon since the 18th century. Post-medieval deposits in Trenches A and B survive well, although have limited potential. Any deeper investigations near these two trenches have the potential to reveal medieval deposits, possibly some of which would be waterlogged.

8. CONCLUSIONS

Archaeological evaluation along Petticoat Lane and Mitre Lane, Boston, was undertaken as the site lay within the medieval urban core of Boston and adjacent to the Barditch, the former town defensive ditch.

Medieval activity is represented by early flooding deposits containing evidence of human activity. Upon these flood deposits a brick structure, most probably a dwelling, was built and a sequence of silt floors and layers of occupation debris were recorded.

In the earlier post-medieval period, there appears to be no occupation and the area was maintained as an open space, possibly to the rear of properties fronting Strait Bargate. A ditch was recorded that marked the boundary between two such properties.

By the beginning of the 20th century, a number of brick buildings had been constructed along Petticoat Lane and recent maps indicate these were generally warehouses, although a cottage was also known to front Petticoat Lane. These buildings survived until the 1970s and the construction of Oldrid's department store.

A range of finds were retrieved during this investigation and comprise Lincolnshire

produced medieval and post-medieval pottery. A few sherds of pottery indicate trade with Norfolk, Germany and possibly Holland. Glass, clay pipes, brick, tile and animal bones were also found. Environmental evidence indicated the survival of organic remains at depth, with potential for further waterlogged material below the limit of excavation.

9. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Mr F. Yuill of Meldrum, Lee and Gillat who commissioned the evaluation and post-excavation analysis on behalf of Oldrid and Co. Ltd. Mr A. Isaac, of Oldrids and Co. Ltd., permitted access to the site. The work was coordinated by Gary Taylor and Steve Malone and a draft of this report was read by Gary Taylor prior to a final edit by Tom Lane. Susan Smith, the Community Archaeologist for Boston District Council, kindly permitted examination of the relevant parish files.

10. PERSONNEL

Project Coordinators: Steve Malone, Gary Taylor
Project Officers: Paul Cope-Faulkner, Tobin Rayner
Site Assistants: Rachael Hall, Jim Snee
Finds Processing: Denise Buckley
Photographic Reproduction: Sue Unsworth
Illustration: Paul Cope-Faulkner
Post-excavation Analyst: Paul Cope-Faulkner

11. BIBLIOGRAPHY

Barley, M.W., n.d., *The Medieval Defences of Boston*, unpublished manuscript

BGS, 1995, *Boston, Solid and Drift edition*, 1:50,000 map sheet **128**

Clarke, H. and Carter, A., *Excavations in King's Lynn 1963-1970*, The Society for Medieval Archaeology Monograph Series: No. **7**

Cope-Faulkner, P., 1994, *Archaeological Watching Brief of Test Pits at land adjacent to Spain Lane, Boston, Lincolnshire*, unpublished APS report

Cope-Faulkner, P., forthcoming, *Archaeological Investigations at Raynham House, King's Lynn, Norfolk (5530KLY)*, unpublished APS report

DoE, 1975, *List of Buildings of Special Architectural or Historic Interest: District of Boston*

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

Dover, P., 1972, *The Early Medieval History of Boston, AD 1086-1400*, History of Boston Series No. **2** (2nd edition)

Dymond, M., 1995, *Archaeological Excavation at the former General Hospital, Boston, Lincolnshire*, unpublished APS report

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

Harden, G., 1978, *Medieval Boston and its Archaeological Implications*

Herbert, N., 1997, *Archaeological Evaluation of land at 51 Wide Bargate, Boston, Lincolnshire (BWB 97)*, unpublished APS report No. **11/97**

IFA, 1997, *Standard and Guidance for*

Archaeological Evaluations

Jarvis, M., 1992, *Archaeological Evaluation at 24 and 28-30 Strait Bargate, Boston, Lincolnshire*, unpublished HTL report

Mayes, P., 1965, 'A Medieval Tile Kiln at Boston, Lincolnshire' in *Journal of the Archaeological Association* 3rd series, Vol. **XXVIII**

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

Molyneux, F.H. and Wright, N.R., 1974, *An Atlas of Boston*, History of Boston Series No. **10**

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

Palmer-Brown, C., 1996, *Boston Grammar School Archaeological Evaluation Report*, unpublished PCA report

Robson, J.D., 1990, *Soils of the Boston and Spalding district,* Memoirs of the Soil Survey of Great Britain

Symonds, J., 1988, *Pescod Square, Boston; An Archaeological Evaluation*, unpublished TLA report

Thompson, P., 1856, *The History and Antiquities of Boston and the Hundred of Skirbeck* (Reprint 1997)

Trimble, R., 1995, *11 Wide Bargate, Boston; Archaeological Evaluation*, unpublished CLAU report No. **167**

12. ABBREVIATIONS

APS Archaeological Project Services

ARCUS Archaeology Research and Consultancy at the University of Sheffield

BGS British Geological Survey

CLAU City of Lincoln Archaeological Unit

DoE Department of the Environment

HTL Heritage Trust of Lincolnshire

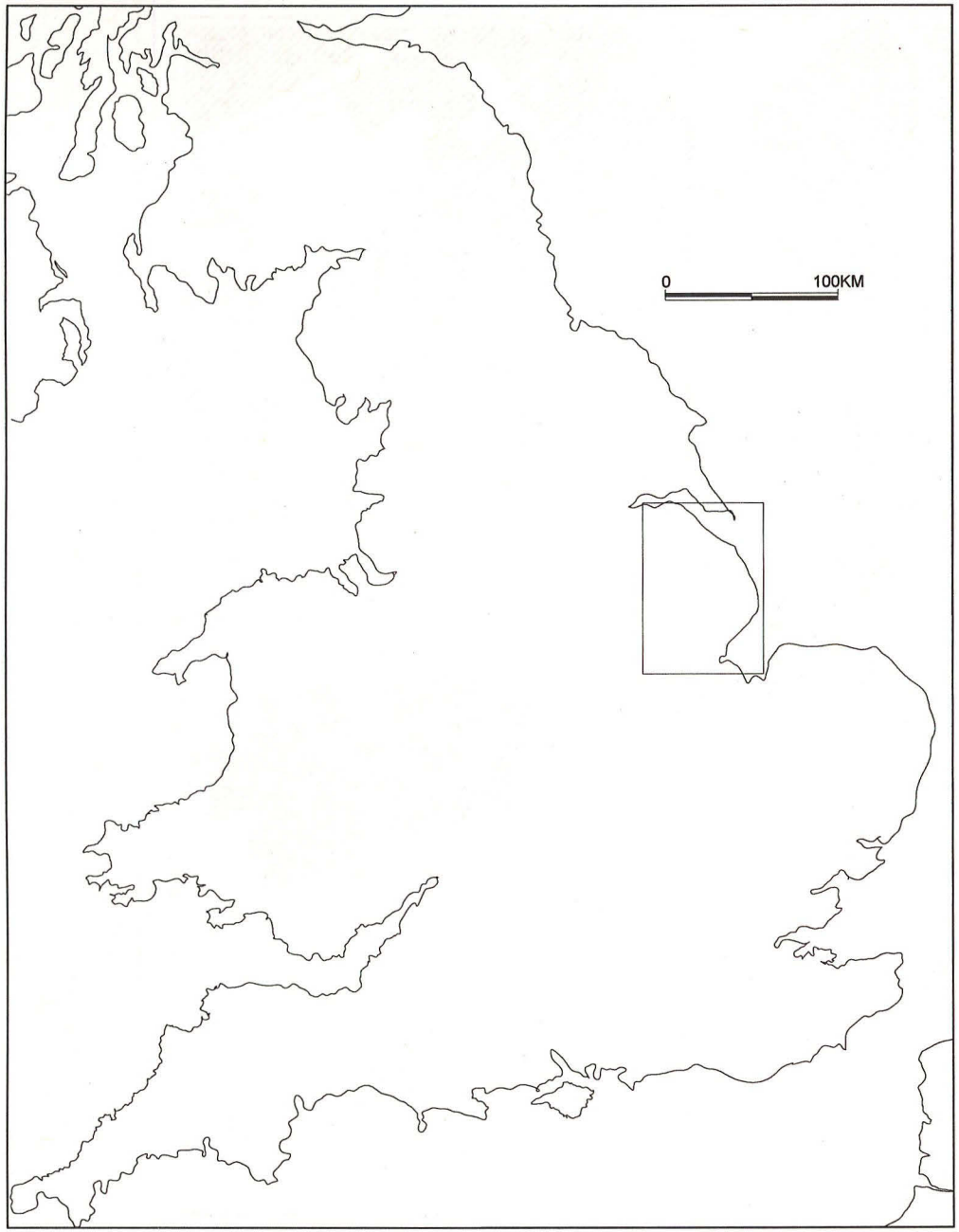
IFA Institute of Field Archaeologists

MoLAS Museum of London Archaeology Service

OD Ordnance Datum

PCA Pre-Construct Archaeology (Lincoln)

TLA Trust for Lincolnshire Archaeology



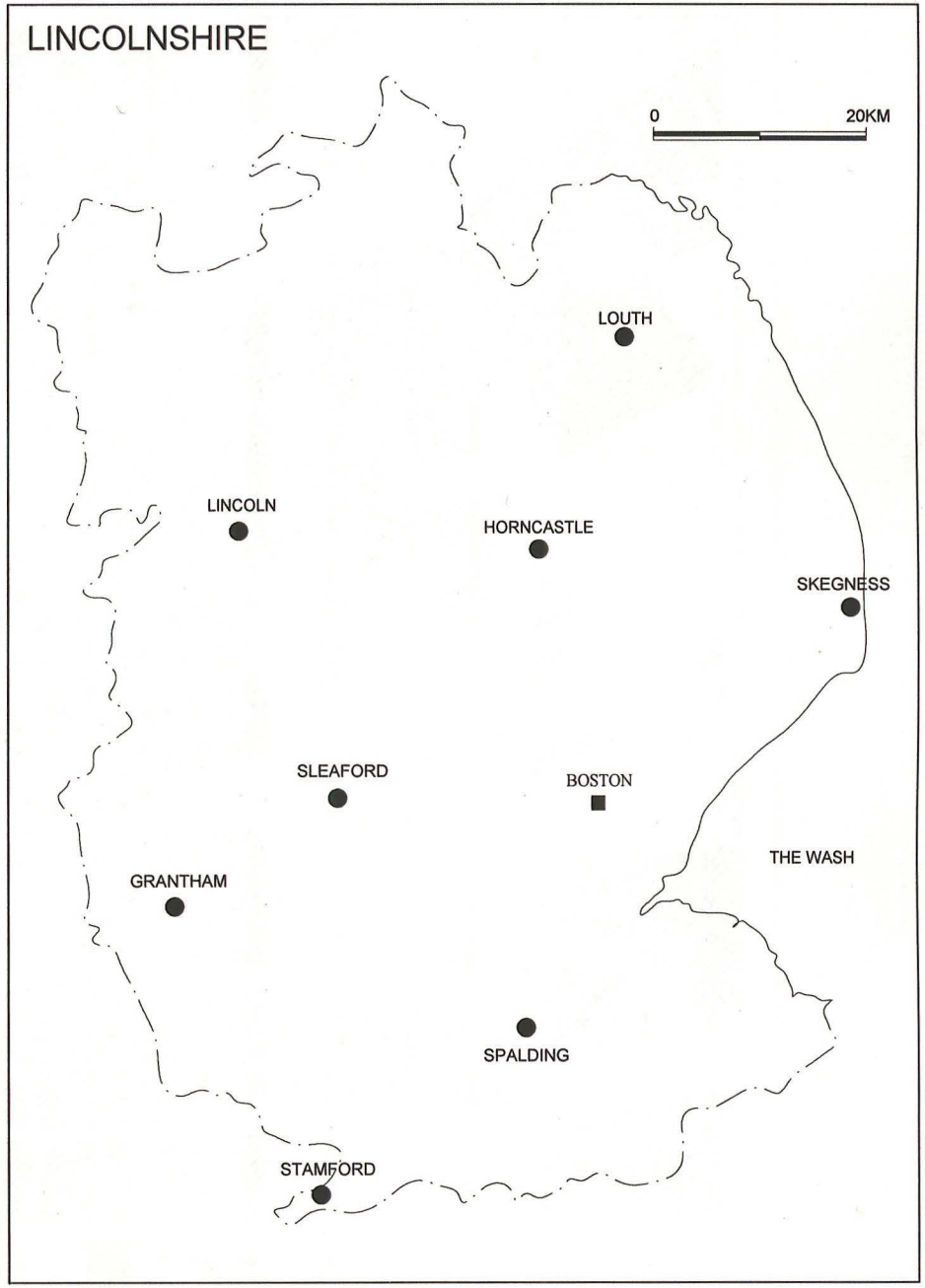


Figure 1 - General location map

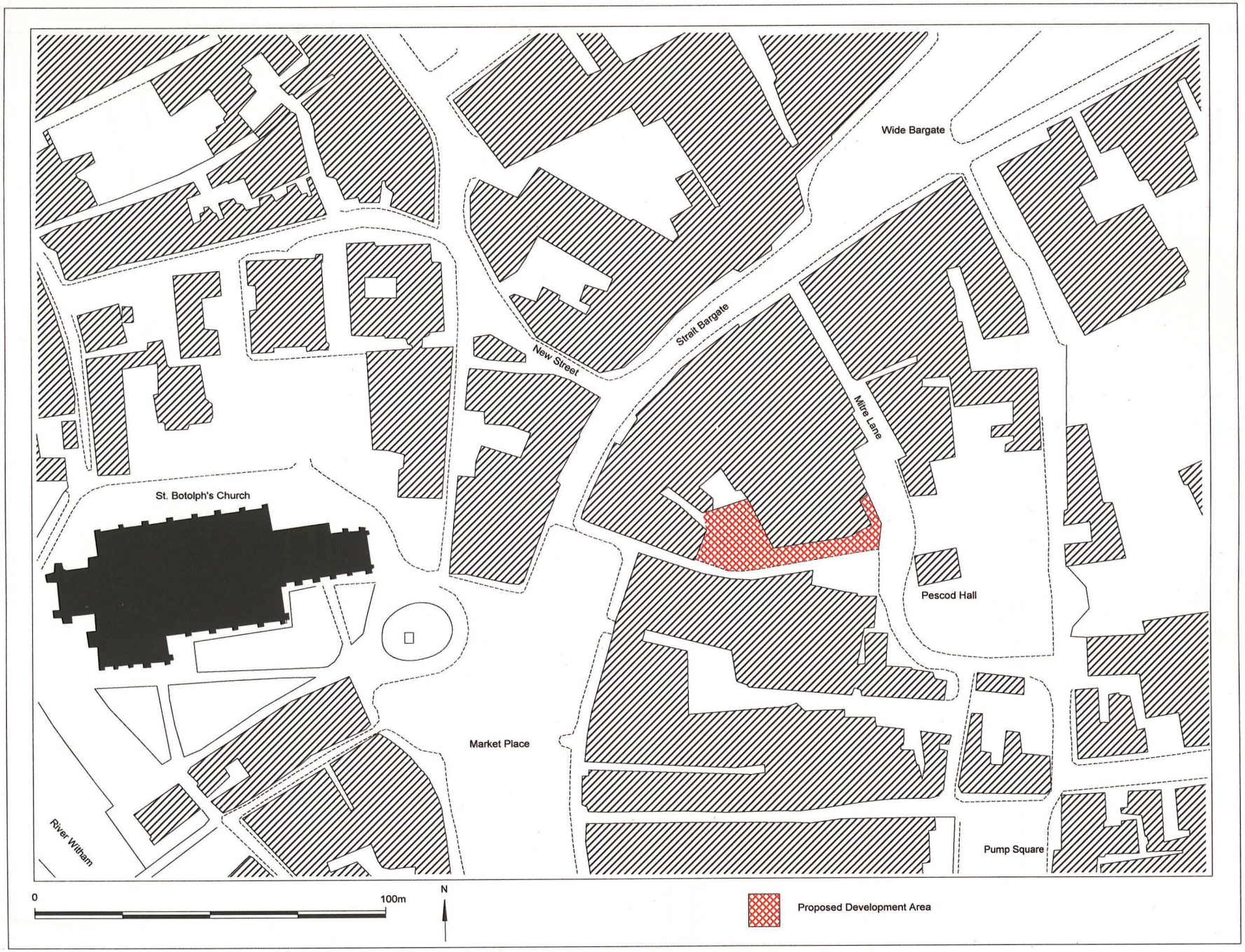


Figure 2 - Site location plan

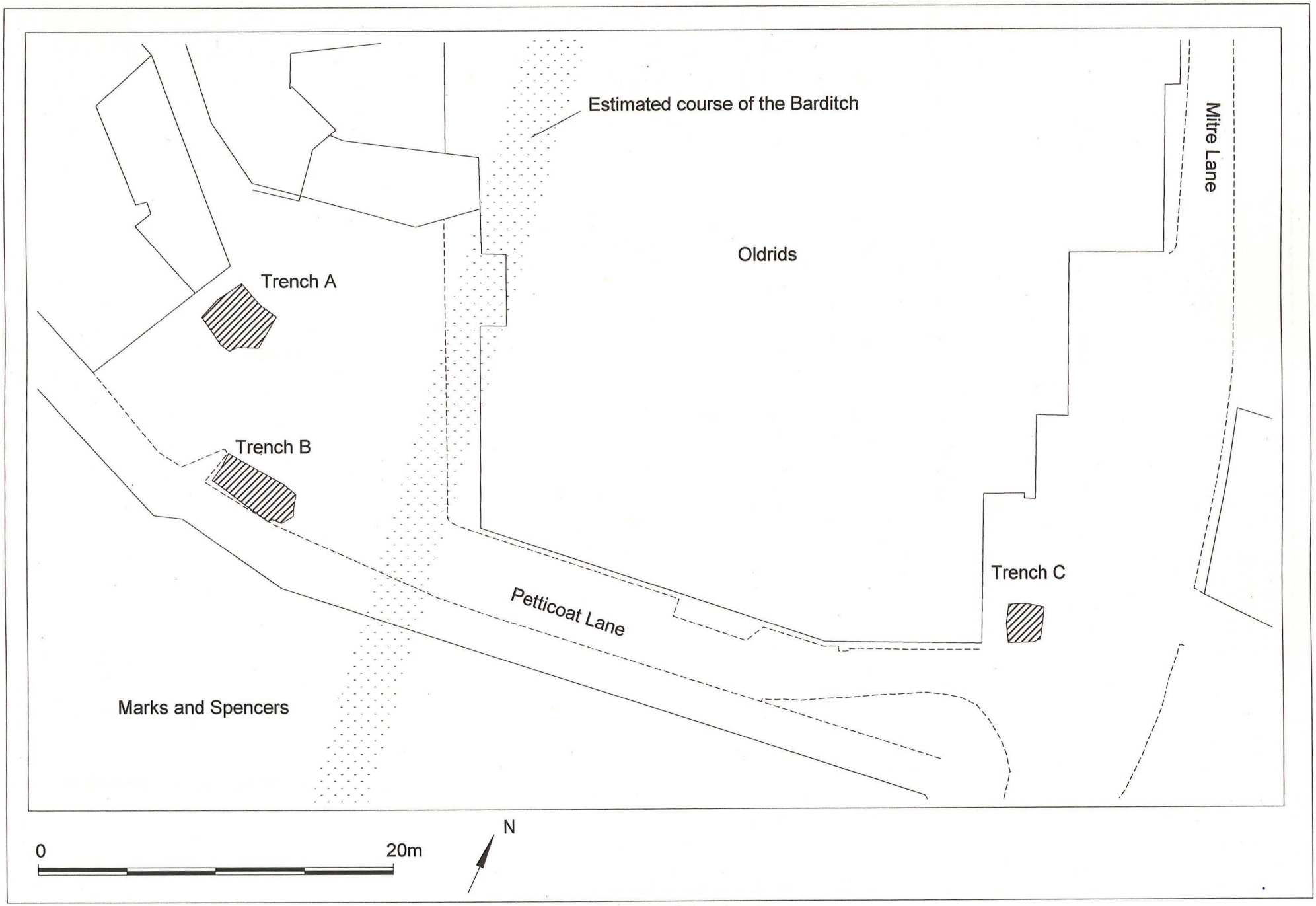


Figure 3 - Trench location plan

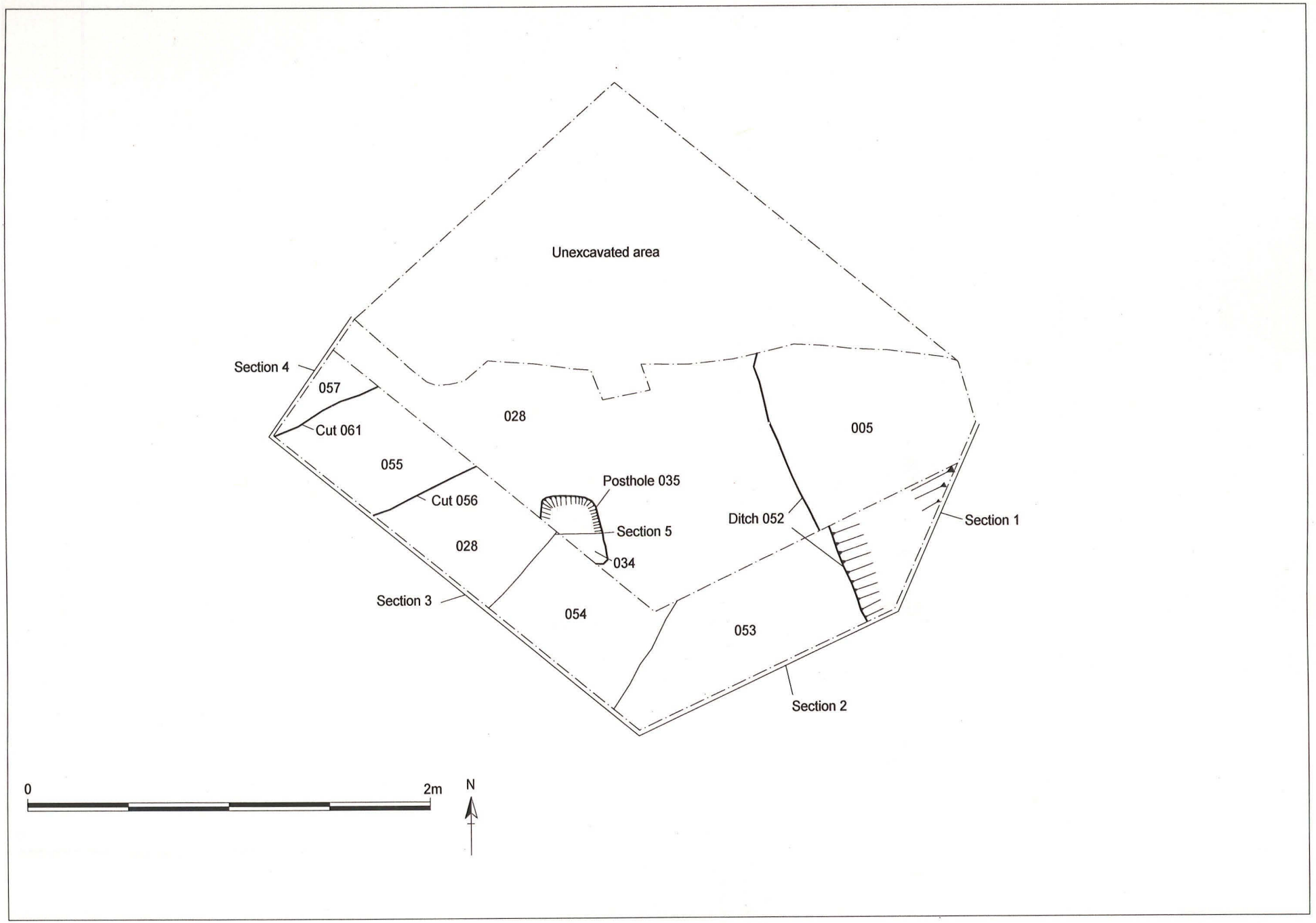


Figure 4 - Trench A: Plan

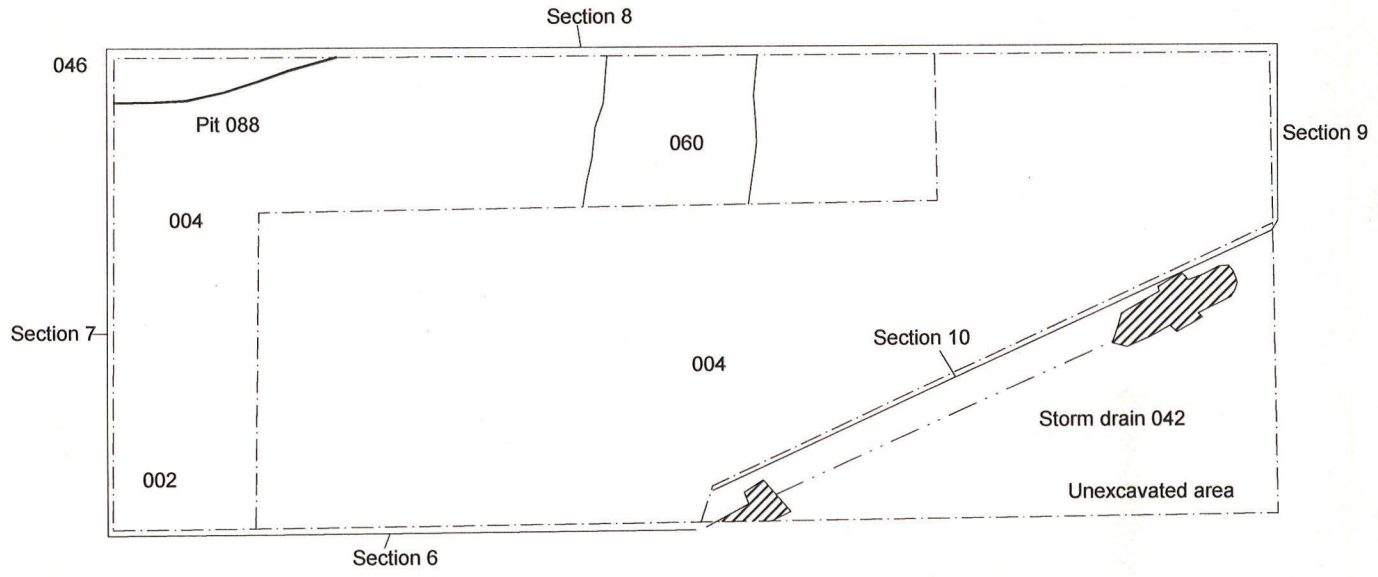
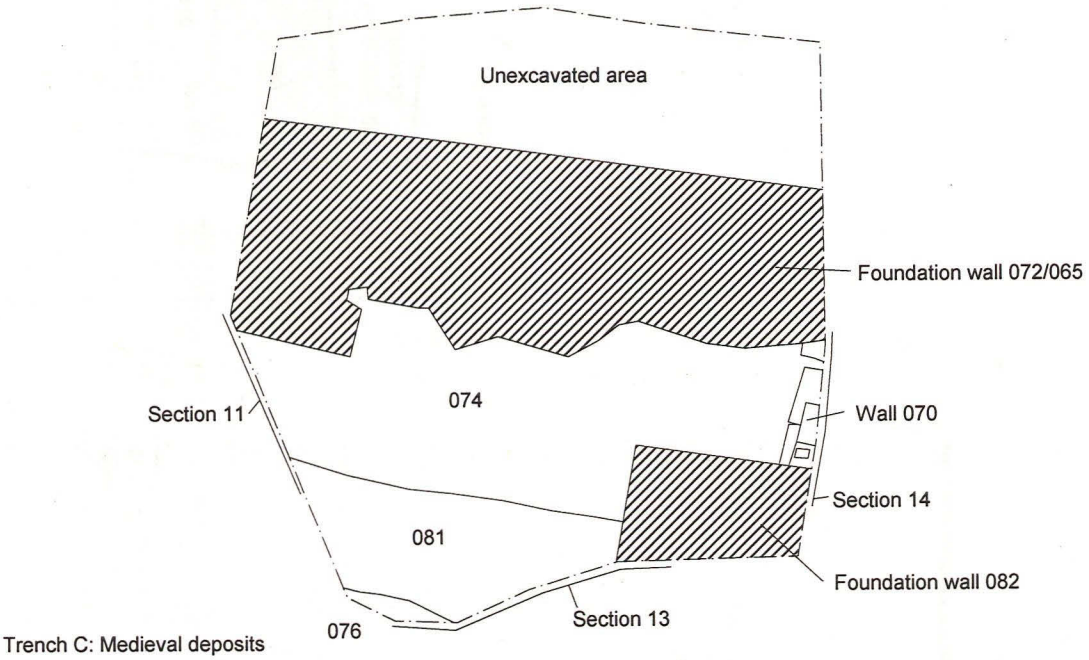
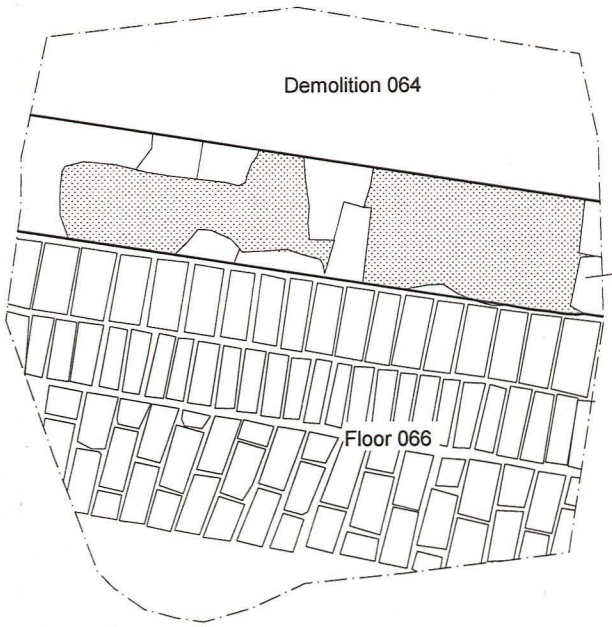


Figure 6 - Trench B: Plan



Trench C: Medieval deposits



Trench C: 18th-19th century deposits

Figure 8 - Trench C: Plans

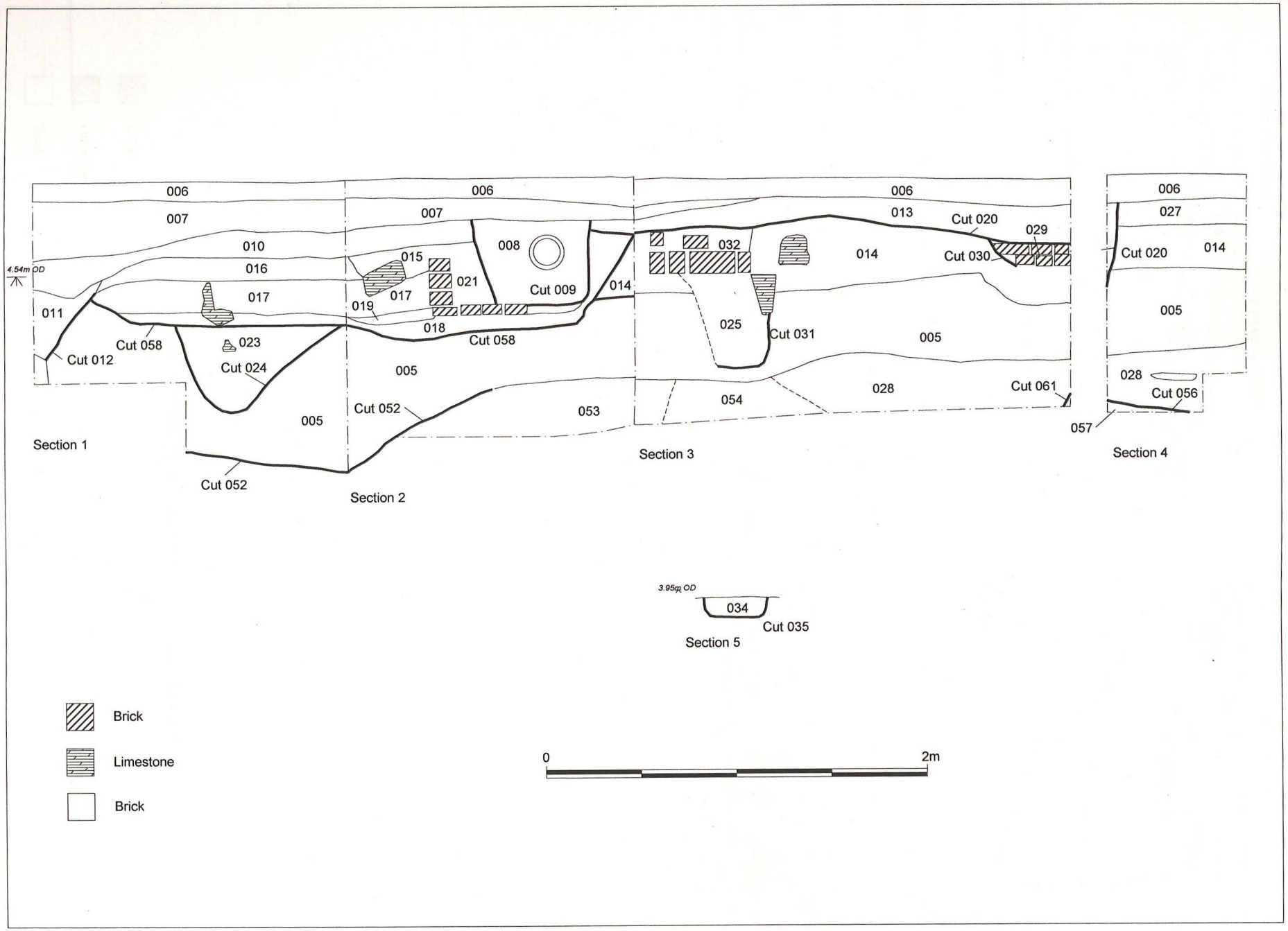


Figure 5 - Trench A: Sections

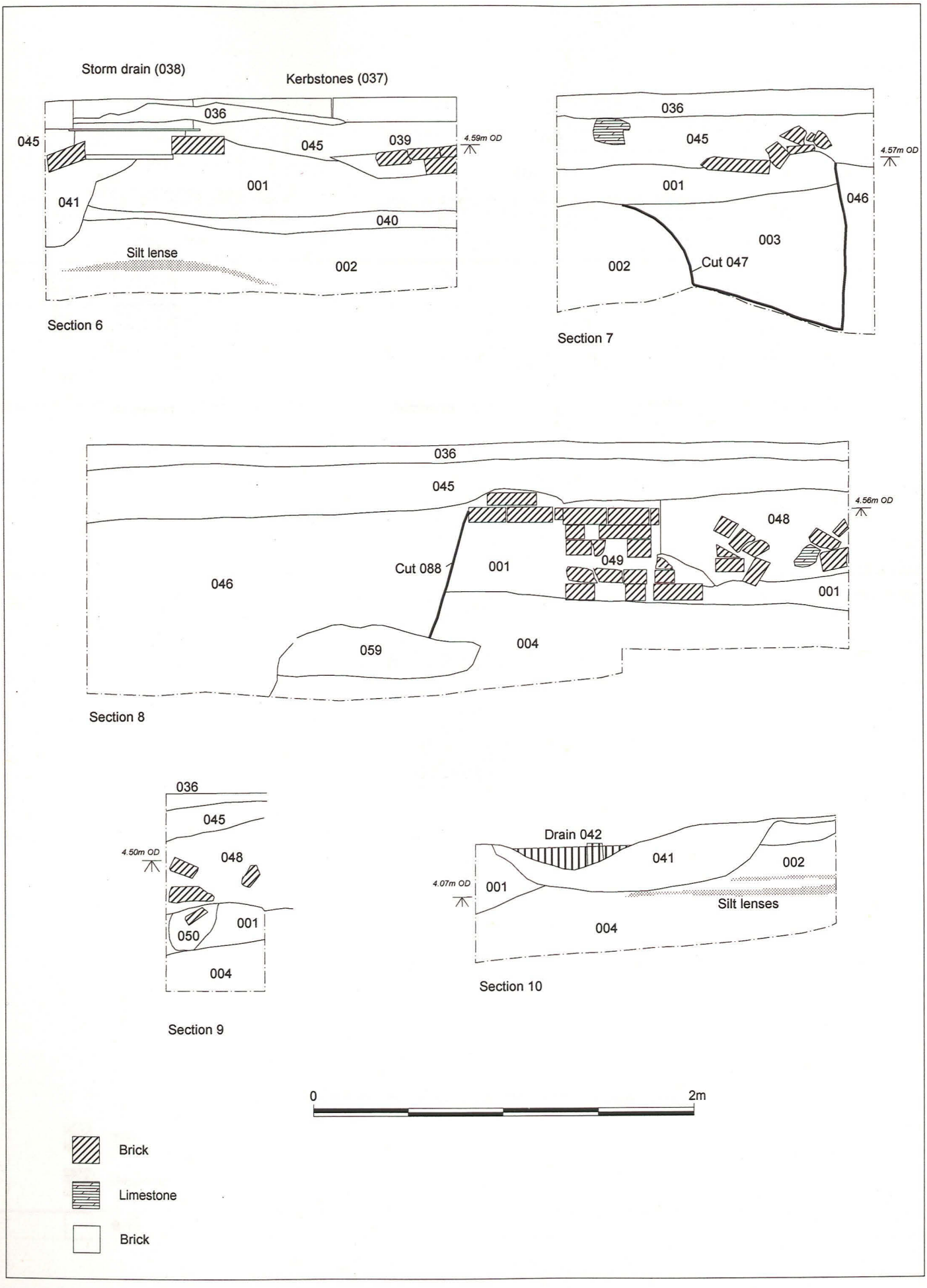


Figure 7 - Trench B: Sections

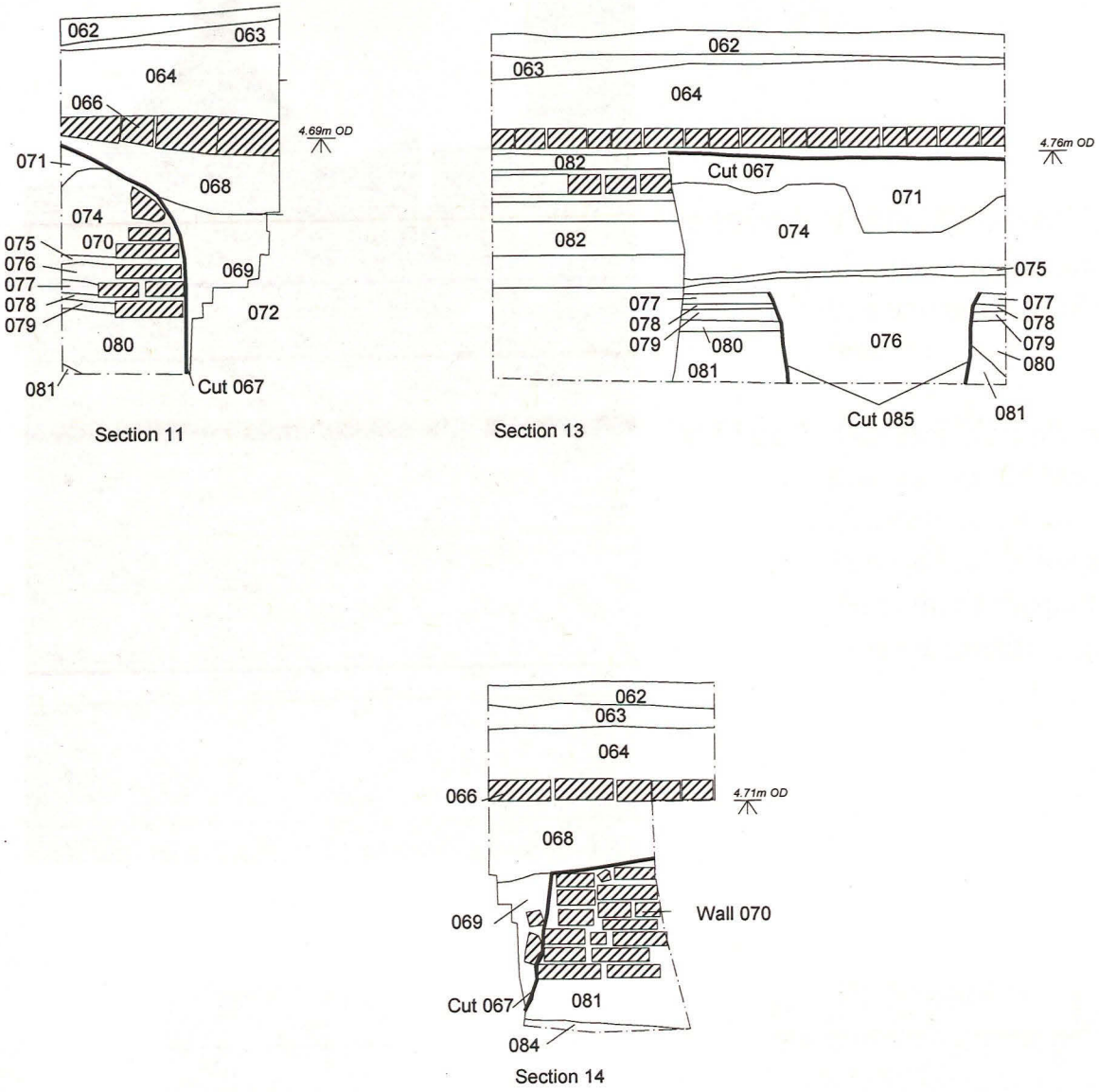


Figure 9 - Trench C: Sections

Plate 1 - General view of the area along Petticoat Lane, prior to excavation, looking west

Plate 2 - General view showing the junction of Mitre Lane and Petticoat Lane. Pescod Hall is located on the right of the picture, looking north

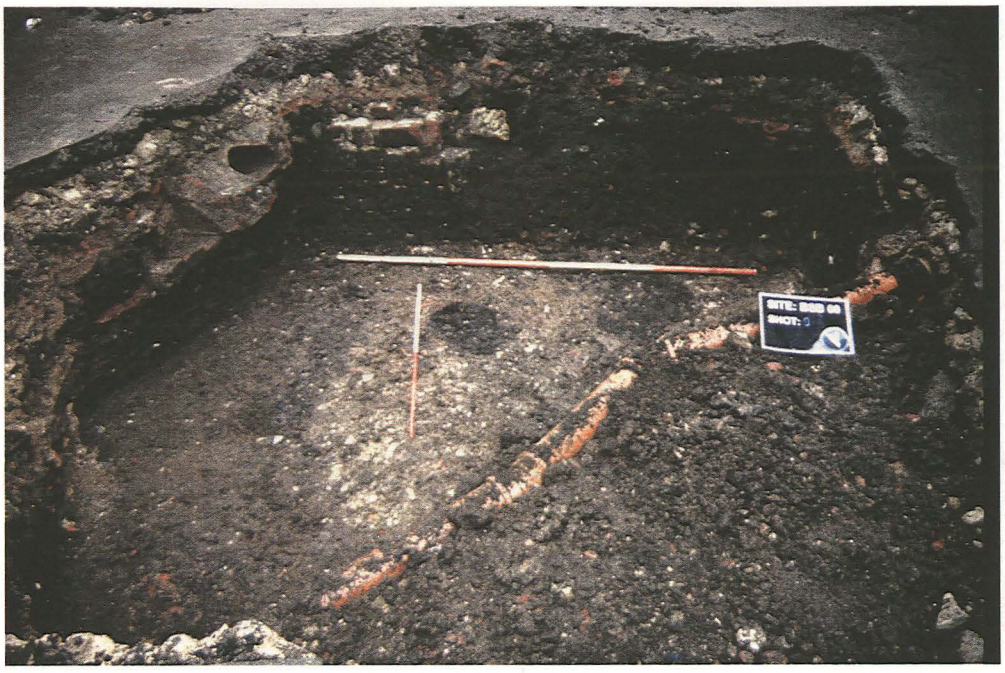


Plate 3 - Trench A, after excavation, looking southwest

Plate 4 - Trench B, after excavation, looking east

Plate 5 - Trench C, after excavation and showing Wall (065), looking north

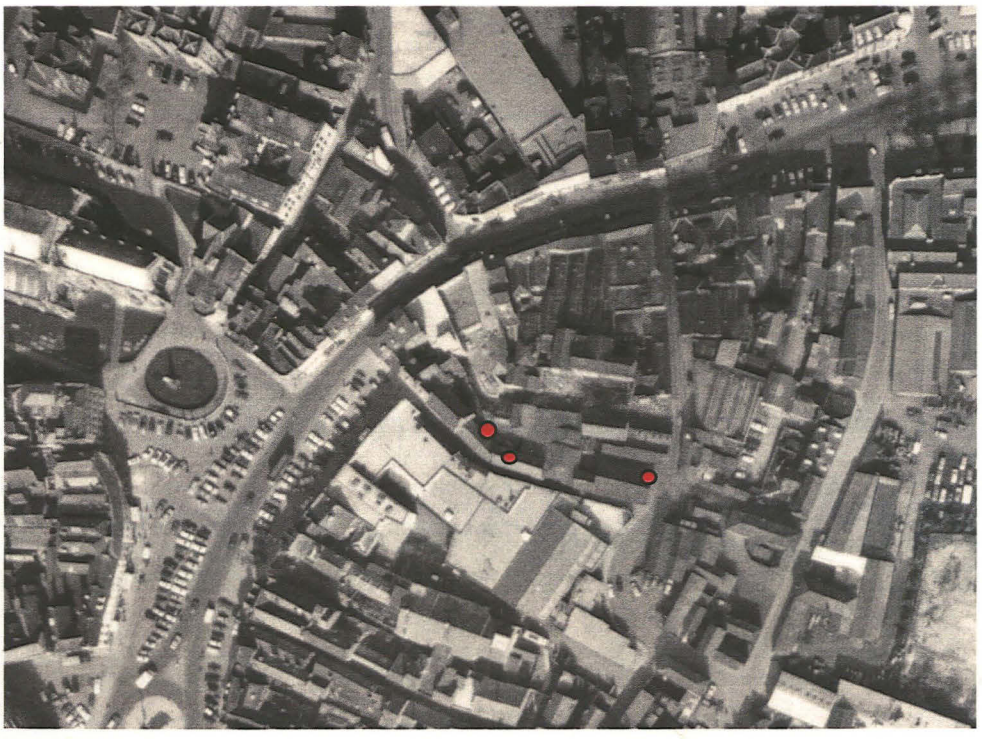


Plate 6 - Aerial view of the development area, taken before Oldrid's was constructed in 1972, depicting the general layout of structures in the vicinity (trenches marked by red circles)

Appendix 1

PESCOD SQUARE, BOSTON - ARCHAEOLOGICAL EVALUATION BRIEF

1 Summary

1.1 This brief sets out the basis for an archaeological evaluation to be carried out at Oldrids Department store, Boston, in advance of construction of the proposed Petticoat Lane shop front extension. This evaluation will need to be carried out prior to a final planning permission being made. A scheme of work is required to define the character and extent of the archaeological deposits within the proposed development area.

1.2 This brief should be used by archaeological contractors as the basis for the preparation of a detailed project specification. Specifications should also refer to the Desk-based assessment produced by Archaeological Research and Consultancy at the University of Sheffield (ARCUS 270) if this is available. All of the detailed specifications will be submitted for approval to the Community Archaeologist for Boston Borough Council. The client will be free to chose between specifications that are considered to satisfy adequately this brief.

1.3 All contractors supplying specifications should refer to SCAUM Principles of Competitive Tendering (SCAUM Guidelines and Notes on Competitive Tendering for Archaeological Services 1996).

2 Site Location and Description

2.1 Boston is situated in the south Lincolnshire Fens, approximately 45km southeast of Lincoln and 7km from the northwest coast of the Wash.

2.2 The site is located at the edge of the historic core of the town on the northeast edge of the town centre.

3 Specification Requirements

3.1 All specifications should include detail on techniques to be applied during a trial-trenching scheme based on requirements of this document and post-excavation strategies (including techniques used by specialists).

3.2 All specifications must conform to national and local guidelines as set out in relevant documents (see **Section 8 Standards**).

3.3 All specifications must contain detail on recording techniques, sampling guidelines and health and safety issues.

3.4 All specifications must include a list of personnel expected to carry out work and a provisional time-scale.

3.5 All specifications must include a list of appropriate specialists (any change to specialists following acceptance of specification must be agreed by Local Authority prior to any input into the project).

3.6 All specifications should include an archaeological background that includes knowledge of recent excavation results within the town.

3.7 All specifications should exhibit an understanding of the Desk-based assessment documentation if this is available.

3.8 All specifications must exhibit an understanding of the nature of archaeological deposits likely to be encountered.

4 Primary Aims of Evaluation

4.1 To characterise all aspects (i.e. extent, preservation, potential, level of importance in terms of national, regional and local issues, date and fragility) of archaeological deposits/remains and to facilitate a mitigation strategy which may entail preservation in-situ and/or preservation by record.

4.2 To assess the impact of development on deposits/remains in terms of survival of both physical remains and environments.

4.3 To account for all archaeological factors as set out in section **3** of this document.

5 Archaeological Factors

5.1 The Desk-based Assessment identified areas of archaeological potential. Primary focus should therefore be placed on the high and medium potential areas. All specifications should include contingencies should further investigation be required in medium and low areas if the initial assessment of potential is not confirmed.

5.2 High potential areas are known to include waterlogged (anaerobic) environments containing wood, leather and other organic archaeological material including preserved micro and macrofossils.

5.3 Medieval and Post-medieval structures and well preserved stratigraphic sequences spanning from the 11th century are likely to be encountered during trenching. The assessment of structure's internal floors should be undertaken (including environmental examination). Medieval structures from the town often have complex internal floor stratigraphy comprised of many layers and a method should be proposed for understanding of these deposits.

5.4 Urban medieval deposits such as those found at York and London should be expected and all specifications should account for a full environmental assessment of these and similar deposits.

5.5 Investigation of the preservation of the Barditch and associated deposits should form part of the evaluation.

5.6 The evaluation should enable the interpretation of the utilisation of specific areas within the site and the basic reconstruction of the entire site's history.

5.7 Building remains, particularly if well preserved, are of high importance especially if situated within a tenement plot with surviving secondary features such as rubbish pits etc. The function of buildings within the town is not well understood especially in terms of artisan or industrial uses and it is expected that identifiable structures of this nature exist in this area.

5.8 The potential of evidence for complete ground plans of structures surviving is high and investigations should seek to assess this.

6 Specialist Roles

6.1 Specifications should include a list of specialists who should exhibit knowledge of, and experience in the above archaeological environment and time period.

6.2 All specialists should be consulted during the evaluation and site visits by appropriate personnel are mandatory. Sampling strategies for the recovery of environmental data should be agreed with the Local Authority during the course of the evaluation but initial aims and procedures should be set out in the specification.

7 Trial Trenching Scheme

7.1 A trial-trenching scheme should form part of the specification. The scheme should account for all above factors and should fulfil all requirements of this brief and listed documentation.

7.2 A specification will not be accepted if a scheme is deemed inappropriate in terms of scale (i.e. numbers and size of trenches), positioning of trenches or awareness of above factors.

7.3 **Trenching schemes should not be based on a 2% sample but on the necessity to investigate adequately the nature and extent of the archaeology.** Consideration must the Archaeological Factors described in Section 5 of this brief. Consideration should also be given to the Desk-based Assessment if this is available.

7.4 Tendering Agents should be aware of the likelihood of trenches being flooded during evaluation and should therefore include this factor in calculating costs.

8 Standards

8.1 All specifications must accord with the following documents: Lincolnshire Archaeological Handbook (Lincolnshire County Council (1998), IFA Code of Conduct, Standard and Guidance for Evaluations (Institute of Field Archaeologists (1994) and Management of Archaeological Projects (English Heritage (1991)) (MAP2).

9 Reporting Requirements

9.1 An interim statement is expected within two weeks, which may take the form of consultation with the Community Archaeologist if results of trial trenching are mainly negative. The final report should be a straightforward account of the fieldwork carried out and should be produced within two months of the completion of the fieldwork phase. If this is not possible then the Boston Community Archaeologist must be consulted at the earliest possible opportunity. The report should include:

9.2 plans of the trench layout and features therein, including relevant trench sections,

9.3 tables summarising features and artefacts together with a full description and brief interpretation,

9.4 plans of actual and potential deposits,

9.5 a consideration of the evidence within the wider landscape setting,

9.6 a consideration of the importance of the findings on a local, regional and national basis,

9.7 a critical review of the effectiveness of the methodology,

9.8 a consideration of the impact of the proposed development upon any archaeological remains,

9.9 A copy of the evaluation report must be deposited with Lincolnshire Sites and Monuments Record and the Boston Community Archaeologist.

10 Archive Deposition

10.1 Arrangements must be made with the landowner(s) and/or developers and an appropriate museum for the deposition of the object and paper archive. If the receiving museum is to be the City and County Museum, Lincoln then the archive should be produced in the form outlined in that museum's document 'Conditions for the Acceptance of Project Archives'. The address of the museum is given at the end of this document.

11 Publication and Dissemination

11.1 The results of this evaluation are expected to be of importance and interest. Therefore consideration must be made for these results to be published (in an appropriate format) in national publications including Medieval Archaeology or other relevant organs.

11.2 The deposition of a copy of the report with the Lincolnshire Sites and Monuments Record will be deemed to put all information into the public domain, unless a special request is made for confidentiality. If material is to be held in confidence a timescale must be agreed with the Boston Community Archaeologist but is expected this will not exceed six months. Consideration must be given to a summary of the results being published in Lincolnshire History and Archaeology in due course.

12 Additional information

12.1 This document attempts to define the best practice expected of a detailed project specification brief but cannot fully anticipate the conditions that will be encountered as work progresses. Changes to the approved programme are only to be made with the prior written approval of the Boston Community Archaeologist.

Brief set by Boston Community Archaeologist September 1999

Appendix 2

CONTEXT DESCRIPTIONS

No.	Trench	Description	Interpretation
001	B	Soft dark brown silt with frequent brick and tile fragments, 0.38m thick	Buried soil
002	B	Soft mid greyish brown silt with frequent brick and tile fragments, 0.55m thick	Layer
003	B	Loose dark brown silt with frequent brick and mortar fragments	Fill of 047
004	B	Soft mid brown silt with frequent coal flecks, 0.26m thick	Layer
005	A	Friable dark greyish brown silty sand, 0.86m thick	Buried soil
006	A	Indurated black tarmac, 0.15m thick	Surface
007	A	Loose mid yellowish white limestone fragments, 0.31m thick	Make-up for (006)
008	A	Brick structure, containing sewer pipe	Sewer pipe
009	A	Linear feature, 0.6m wide by 0.43m deep, aligned northwest-southeast	Cut for (008)
010	A	Friable dark greyish brown silty sand with frequent brick, concrete and limestone rubble, 0.21m thick	Demolition/ construction deposit
011	A	Indurated light yellowish brown concrete	Casing for sewer pipe
012	A	Linear feature, 0.33m wide by 0.4m deep, aligned east-west	Cut for (011)
013	A	Loose mid red brick and tile fragments	Fill of (020)
014	A	Friable dark greyish brown silty sand with frequent charcoal flecks, 0.46m thick	Buried soil
015	A	Friable dark greyish brown silty sand with frequent charcoal, shell and brick fragments, 0.27m thick	Demolition deposit
016	A	Loose mid yellowish white limestone with concrete, 0.13m thick	Demolition deposit
017	A	Loose dark greyish brown silty sand with frequent charcoal	Fill of (058)
018	A	Loose dark greyish brown silty sand with frequent charcoal flecks	Fill of (058)
019	A	Brick floor, 1.06m by 0.2m extent visible	Surface
020	A	Linear feature, 3.8m long by 0.21m wide by 0.18m deep, vertical sides, flat base, aligned east-west	Drain trench?
021	A	Brick structure, 0.33m by 0.25m extent	Wall
022	A	Linear feature, 0.33m wide by 0.25m deep, vertical sides flat base	Foundation cut for (021)
023	A	Loose mottled dark greyish brown and yellowish white silty sand and limestone with frequent brick and tile fragments	Fill of (024)
024	A	Sub-circular feature, 0.83m diameter by 0.43m deep, concave sides and rounded base	Pit
025	A	Friable dark greyish brown silty sand with frequent limestone, brick and charcoal fragments	Fill of (031)
026	A	Loose mid yellowish white angular limestone, 80mm thick	Make-up deposit
027	A	Loose mid red brick and tile fragments, 70mm thick	Demolition deposit

No.	Trench	Description	Interpretation
028	A	Soft mid grey silty sand with frequent brick, tile, mortar fragments, 0.31m thick	Demolition deposit
029	A	Brick structure, 0.44m by 0.13m extent	Surface
030	A	Cut, 0.44m by 0.13m visible extent, vertical sides flat base	Foundation cut for (029)
031	A	Cut, 0.47m wide by 0.4m deep, vertical sides flat base	Pit
032	A	Brick structure	Possible wall
033	A	Cut, 0.52m wide by 0.25m deep, vertical sides flat base	Foundation cut for (032)
034	A	Soft mid grey silty sand with frequent charcoal flecks and limestone fragments	Fill of (035)
035	A	Rectangular cut, 0.35m long by 0.32m wide and 0.1m deep, vertical sides flat base	Posthole
036	B	Indurated dark grey tarmac, 0.1m thick	Surface
037	B	Concrete	Kerbstones
038	B	Metal grill with ceramic surround	Storm drain
039	B	Firm mid red brick, 0.13m thick	Demolition deposit
040	B	Soft reddish brown silt with frequent brick and mortar fragments, 0.1m thick	Dumped deposit
041	B	Hard whitish yellow concrete	Storm drain casement
042	B	Ceramic pipe	Storm drain
043	B	Soft reddish brown silt with frequent brick and mortar fragments, 60mm thick	Dumped deposit
044	B	Loose brownish white crushed mortar, 20mm thick	Dumped deposit
045	B	Loose yellowish white limestone fragments, 0.29m thick	Make-up for (036)
046	B	Loose light brownish yellow sand with frequent gravel	Fill of (088)
047	B	Cut, gradual sides flat base	Pit
048	B	Loose mixed limestone, brick and concrete, 0.48m thick	Demolition deposit?
049	B	Brick structure, 0.49m high and 0.5m long	Possible foundation wall
050	B	Loose greyish black coal, 0.23m thick	Dumped deposit
051	B	Soft light pink plaster, 10mm thick	Assoc. with storm drain
052	A	Cut, 1.4m long by 0.74m wide and 0.86m deep, concave sides rounded base, aligned north-south	Ditch
053	A	Soft mid grey silty sand with frequent tile, mortar, brick and shell fragments, 0.3m thick	Demolition deposit
054	A	Soft mid grey silty sand with frequent tile, mortar, brick and shell fragments, 0.23m thick	Demolition deposit
055	A	Soft mid yellowish brown silt, >1m thick	Natural deposit
056	A	Linear? cut, 1.6m long by 0.5m wide and 0.3m deep, vertical sides, aligned north-south	Possible pit or ditch
057	A	Soft mid greyish brown silt	Fill of (061)

No.	Trench	Description	Interpretation
058	A	Cut, 1.5m by 1.25m visible extent by 0.54m deep, uniform sides flat base	Pit
059	B	Indurated greyish white concrete lumps	Fill of (088)
060	B	Loose yellowish brown silt with frequent cockle shell	Flood? Deposit
061	A	Cut, 0.6m by 0.3m visible extent	Pit?
062	C	Indurated dark greyish black tarmac, 0.1m thick	Surface
063	C	Firm whitish yellow limestone fragments, 0.13m thick	Make-up for (062)
064	C	Firm light brownish grey silty sand with frequent brick and mortar fragments	Demolition deposit
065	C	Brick structure, 1.95m by 0.39m visible extent by 0.53m high, east-west aligned	Wall
066	C	Brick floor, 2m by 0.88m visible extent	Surface
067	C	Linear feature	Foundation cut for (072)
068	C	Firm yellowish grey silty sand with frequent brick, mortar and shell fragments	Backfill of (067)
069	C	Soft mixed grey, brown and black silt with frequent brick fragments	Backfill of (067)
070	C	Brick structure, 1.9m by 0.25m visible extent by 0.57m high	Wall
071	C	Friable dark greyish brown sandy silt with frequent mortar and brick fragments, 0.17m thick	Buried soil
072	C	Brick structure, 1.95m length exposed, >0.68m high	Wall foundation
073	C	Linear	Foundation cut for (072)
074	C	Soft mid brown sandy silt,	Demolition deposit
075	C	Soft greyish brown sandy silt with frequent brick and mortar fragments, 40mm thick	Dumped deposit
076	C	Soft mid greyish brown sandy silt with frequent charcoal, limestone, brick and tile fragments	Fill of (085)
077	C	Soft light greyish brown silt, 40mm thick	Surface
078	C	Soft mid greyish brown sandy silt with frequent charcoal, limestone, brick and tile fragments, 20mm thick	Dumped deposit
079	C	Soft light greyish brown silt, 40mm thick	Surface
080	C	Soft light greyish brown silt	Flood deposit
081	C	Soft light greyish brown silt	Flood? Deposit
082	C	Brick and concrete structure	Indeterminate structure
083	C	Possible rectangular cut	Foundation cut for (082)
084	C	Soft dark greyish brown silt	Flood deposit
085	C	Oval cut, 0.2m long by 40mm wide	Pit
086	C	Brick wall	Indeterminate feature
087	C	Soft greenish brown silt	Fill of (086)
088	B	Rectangular? cut, 2m wide by 0.9m deep, steep sides	Pit

Appendix 3

THE POTTERY

Hilary Healey MPhil and Gary Taylor MA

Provenance

The material was recovered from buried soil, demolition deposits, pit fills and flood deposits. Most of the pottery is of relatively local manufacture, being produced in Boston or related kilns at the southern edge of the Lincolnshire Wolds, about 20km to the north. A few earlier pieces were made in the Lincoln area, and there is a number of foreign imports from Holland and Germany. A single piece that was probably made in west Norfolk was also recovered.

Range

The range of material is detailed in the tables. Pottery, metal objects, mortar, cinders and mollusc shell were recovered during the investigation. Rare sherds of a medieval date are the earliest materials recovered though the major component of the assemblage is post-medieval, 16th -18th century, date.

Table 1

Context	Description	Date
001	1x white salt glazed stoneware, 18th century 2x Boston/Bolingbroke-type wares, 16th -17th century 2x Dutch/Boston-type wares, 16th -17th century	18th century
002	2x Boston/Bolingbroke-type wares, 16th -17th century 1x Frechen stoneware, 16th -17th century	16th -17th century
003	6x Boston/Bolingbroke-type wares, including pancheon and jug, 16th -17th century 2x Dutch/Boston-type wares, 16th -17th century 1x Cistercian-type black glazed ware, 17th century 1x Midlands Yellow ware, 17th century 1x brown glazed red earthenware, 17th century	17th century
004	1x Boston/Bolingbroke-type ware, jug, 16th -17th century	16th -17th century
005	6x Boston/Bolingbroke-type wares, 16th -17th century 3x Dutch/Boston-type wares, 16th -17th century 1x Bourne D ware, 16th -17th century 2x Bolingbroke/Toynton-type wares, linked, 15th -16th century 1x Cistercian-type black glazed ware, 17th century 1x red painted earthenware, black glazed, 17th -18th century 1x West Norfolk bichrome ware, 17th century 1x white glazed tableware, minute fragment, ?18th -20th century	17th -18th century
014	1x Boston-type ware, mottled, 17th -18th century 1x Cistercian-type black glazed ware, 17th century 3x white salt glazed stoneware, 2 linked, all tankards, 18th century	18th century
028	3x Boston/Bolingbroke-type wares, 16th -17th century	16th -17th century
053	2x Boston/Bolingbroke-type wares, 16th -17th century	16th -17th century
060	1x Cistercian-type black glazed ware, 17th century 1x Lincoln-type ware, 13th -14th century	17th century
074	1x Bolingbroke/Toynton-type ware, 14th -15th century	14th -15th century

Context	Description	Date
076	1x Bolingbroke/Toynton-type ware, 14th -15th century	14th -15th century
081	2x Bolingbroke/Toynton-type ware, linked, 14th -15th century	14th -15th century
084	2x ?Bolingbroke/Toynton-type ware, 14th -15th century	14th -15th century
087	1x ?Lincoln-type ware, 13th -14th century 1x ?Potterhanworth ware, 13th -14th century	13th -14th century

Although most of the pottery is relatively local there are regional and foreign imports. These include a single sherd of West Norfolk bichrome ware from context (005). Dating to the 17th century, limited amounts of this pottery type have been found at King's Lynn (Clarke and Carter 1977, 238; Jennings 1981, 148), though it is not known if the ware has been identified in Boston previously. Foreign imports include a single fragment of German stoneware from (002) made at Frechen near Cologne (Hurst *et al.*, 1986, 214) and several probable Dutch vessels, though at least some of these could be local, Boston, copies of wares from Holland.

Most of the earlier, medieval, pottery fragments are small or very small and were retrieved from samples, rather than during manual excavation. Although these medieval pieces are fairly coherent, not occurring as residual artefacts in later contexts, the very limited quantity may suggest that the area was not occupied in the medieval period, or that there are significant flood silts sealing medieval layers. This suggestion is supported by the lack of residual or redeposited medieval artefacts in the largely post-medieval assemblage.

Condition

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

None of the iron was X-rayed.

Documentation

Numerous archaeological investigations have previously been undertaken in Boston and are the subjects of reports. Post-medieval pottery types, as found during this investigation, have been studied and reported both as kiln evidence and site assemblages.

Potential

The post-medieval aspect of the assemblage has moderate potential and consolidates and enhances previous contemporary assemblages from Boston. The medieval component of the collection is of limited potential, occurring as rare, small fragments. However, the dearth of medieval material in this area around the medieval boundary of Boston, was unexpected and is informative, indicating an absence of occupation of the period in this area, or that medieval horizons are more deeply buried.

Bibliography

Clarke, H. and Carter, H., 1977, *Excavations in King's Lynn 1963-1970*, The Society for Medieval Archaeology Monograph Series: No. 7

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**

Jennings, S., 1981, *Eighteen centuries of pottery from Norwich*, East Anglian Archaeology **13**

Appendix 4

THE BRICK AND TILE
by Phil Mills

METHODOLOGY
The fragments of ceramic building material recovered from the site were examined under a 20x binocular microscope. Their fabrics were described and compared with the fabric type series retained by Archaeological Project Services. Complete bricks were recorded following the method described by Ryan (1996, 91).

A total of 116 pieces weighing 17720g, were recovered from the site. Seven distinct fabric types were identified. Three of these fabric types were found to be similar to fabrics recovered from evaluation at King's Lynn. While complete certainty of a match is not possible without more extensive tests, there is a strong possibility that tiles from the same, or similar sources were utilised at both places. One fabric in particular (BSB-7, KLY -1) is associated with Flemish imports or local copies of this material.

CONDITION OF THE MATERIAL
The material was of a fragmentary nature, but on the whole in good condition. Some pieces were abraded, possibly because of low temperatures during their original firing.

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. The fragment of form NT2 should be retained for comparison with further examples which may be recovered in Boston or from around the county.

FABRICS
BSB1
A dark red surface with reddish grey core (Munsell: 10r6/4)10r5/8 hard sandy feel fine fracture, with inclusions of sparse well-sorted coarse sub-angular black iron ore, very common poorly-sorted coarse sub-rounded limestone, very common well-sorted fine rounded mica, abundant poorly-sorted medium sub-angular quartzite and very common well-sorted medium rounded red iron stone. This fabric was equivalent to fabric KLY-8, a fabric found at Kings Lynn, associated with 14th to 15th century material, although is earlier from this site.
Phase **3/4.**

BSB2
A pale red with dark reddish grey core (Munsell: 10r3/1) 10r6/3 hard granular feel fine fracture, with inclusions of sparse poorly-sorted medium sub-angular black iron ore, abundant well-sorted medium angular limestone, rare well-sorted fine sub-angular mica, rare well-sorted medium sub-rounded quartzite and very common well-sorted medium sub-angular voids limestone.
Phase **3/4.**

BSB3
A light red (Munsell: 10r6/6) hard sandy feel irregular fracture, with inclusions of sparse poorly-sorted medium rounded black iron stone, moderate poorly-sorted medium angular clay, moderate poorly-sorted medium angular metasediment, abundant well-sorted medium sub-angular quartzite and moderate well-sorted medium angular red iron stone.
Phase**1/2/3** residual in Phase **4.**

BSB4
A light red to dark red (Munsell: 10r6/8) soft sandy feel irregular fracture, with inclusions of sparse poorly-sorted coarse sub-angular black iron stone, abundant well-sorted fine sub-angular limestone, very common well-sorted fine rounded mica, rare well-sorted medium sub-angular quartzite and abundant poorly-sorted medium angular shell. This fabric was equivalent to material found at Kings Lynn (KLY-2), where it was associated with material dated from the 14th to the 15th century AD. On this site this fabric was associated with 16th to 18th century pottery. The bulk of the material appears to be associated with 16th century material.
Phase **3/4.**

BSB5
A red (Munsell: 10r5/6 very hard smooth feel fine fracture, with inclusions of sparse well-sorted coarse sub-angular black iron stone, very common well-sorted very fine rounded mica, sparse well-sorted medium sub-angular quartzite and abundant well-sorted fine angular shell. This was associated with 16th century pottery in a single context, but would appear to be an early fabric, from its appearance in the site stratigraphy.
Phase **3**.

BSB6
A dark red surface with light reddish grey core (Munsell: 2.5yr 7/1)2.5yr2.5 soft sandy feel irregular fracture, with abundant poorly-sorted medium sub-angular coal, very common moderately-sorted medium sub-angular limestone and sparse moderately-sorted medium sub-angular quartzite.
Phase **4**.

BSB7
A yellow with red bands (Munsell: 2.5yr 4/8 and 10yr 8/6) hard granular feel irregular fracture, with moderate moderately-sorted medium sub-angular limestone, sparse poorly-sorted very coarse angular metasediment and moderate poorly-sorted medium sub-angular quartz.
Phase **4**.

THE FORMS
Bricks
10 fragments of brick were identified, and 3 complete bricks (form B1) are described. Eight of the fragments of brick had an average thickness of 63.5mm, and were represented in fabrics BSB4, and BSB3, suggesting that they were examples of the same form, but from different production sites, or manufactured at different times. A further two fragments, in fabric BSB-6, existed, but it was not possible to measure any complete dimensions.

B1
Three examples of this form were catalogued. Two were of fabric BSB3 and one, more friable, was of fabric BSB4. They averaged 205.5 x 104.3 x 55.1 mm in size. The two BSB3 fabric types were characterised as red bricks. Regular shaped, fairly regular, slightly rounded arises, fairly rough, with striations, upper face, with some straw marks, slightly creased header and stretcher faces, with fairly rough base face. The brick of fabric BSB4 was similar, only more abraded in form.

Tiles
There were 32 fragments of tile recognised from the assemblage. Two forms were recognised, NT1 and NT2. The remainder were tile fragments which could not be further characterised. They ranged in thickness from 14.6mm to 18.4mm, suggesting the possibility that two types of tile form may have been in use. They were represented by fabrics BSB1, BSB2, BSB3, BSB5 and BSB7. The thicker tile fragments were all of fabric BSB1.

NT1
This form was characterised by a nib folded over the edge of the tile, Eight small fragments of this type were found, but it could be discerned that the thickness ranged from 14.5mm to 16.5mm. This form was represented by fabric BSB1 and BSB3.

NT2 (fig 1)
This unusual form was represented by a single fragment weighing 440g and 19.5mm thick. It was manufactured from fabric BSB-1. It was unusual in terms that it displayed a peg hole, which had been pierced prior to firing, as well as a nib. This form has been previously noted as being manufactured within Boston (Mayes 1962), which was dated to the first half of the 15th century AD.

Bibliography

Mayes, P.P., 1965, A Medieval tile Kiln at Boston, Lincolnshire, *Journal of the Archaeological Association*, third series, vol **XXVIII** 1965, pp86 -102

Mills, P.J.E., forthcoming, The Brick and Tile, in Cope-Faulkner, P., *Archaeological investigations at Raynham House, Austin Street, Kings Lynn, Norfolk 5530KLY*. APS Report

Ryan, P., 1996, *Brick in Essex from the Roman Conquest to the Reformation*

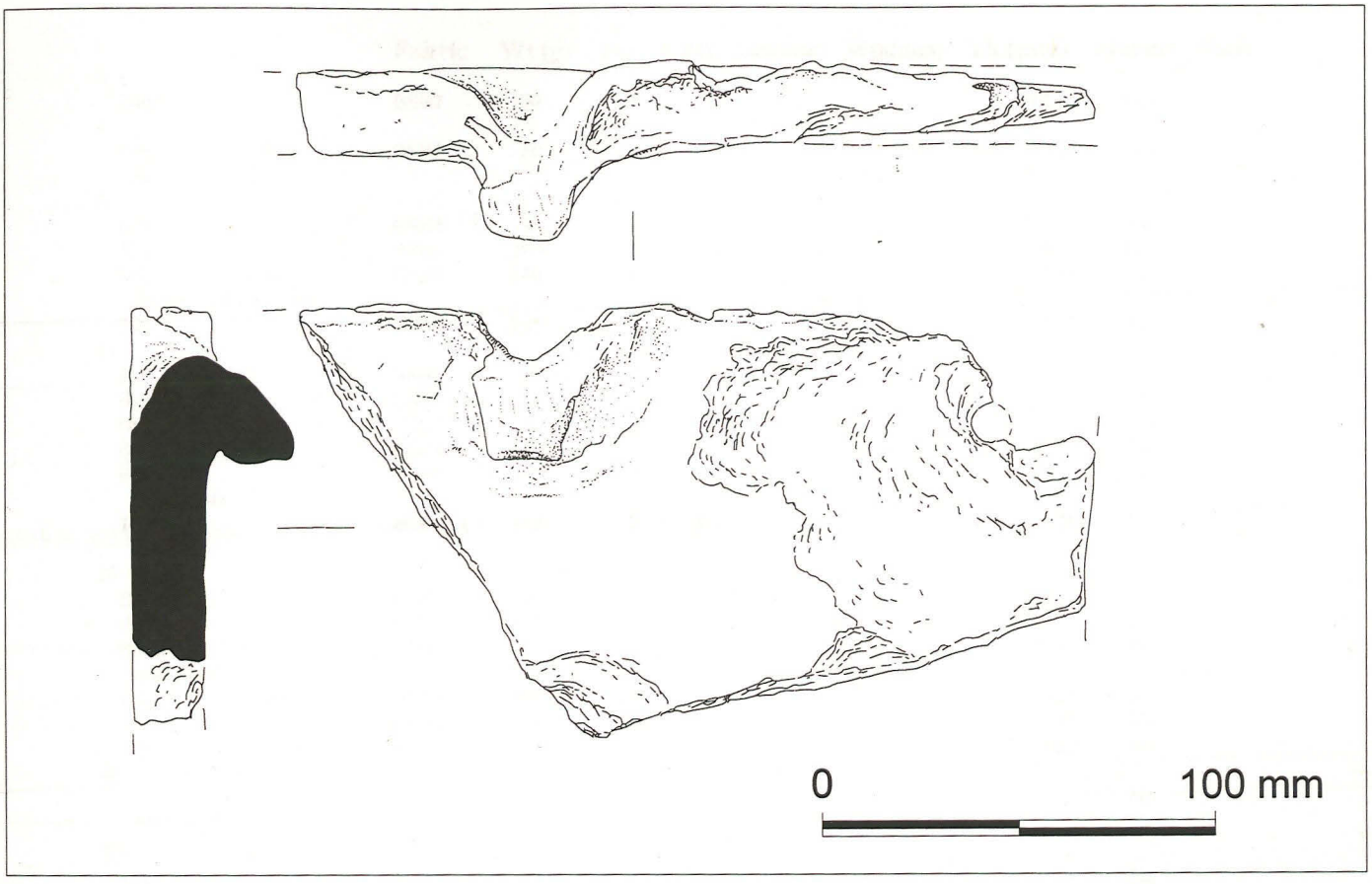


Figure 1 Tile Form NT2 Fabric BSB-1 Context (005)

		Fabric	Wt (g)	No	Cnrs	Len(mm)	Wth(mm)	Tk (mm)	Mortar	Glaze
3										
Tile		BSB7	150	3				12.25	Yes	
4										
Tile	NT1	BSB3	60	1				12.35	Yes	
nib										
5										
B/T		BSB4	30	1					No	
Tile		BSB1	295	3				18.9	Yes	
Tile	NT2	BSB1	440	1				19.15	Yes	
drawn - nib and perf hole										
Tile		BSB3	295	2				15.5	No	
14										
B/T		BSB2	10	1					No	
Brick		BSB4	65	1					No	
Brick		BSB3	30	1					Yes	
Brick		BSB4	85	2					No	
Brick		BSB6	575	2					No	
fab sample										
Tile		BSB1	115	2	1			20	No	
28										
B/T		BSB3	80	2					No	
B/T		BSB2	30	2					No	
Brick		BSB4	460	1				62.25	No	
over fired										
Tile	NT1	BSB1	890	6				15.25	Yes	
Tile		BSB5	55	1				17	No	
Tile		BSB3	35	1				13.5	No	
38										
B/T		BSB2	5	1					No	
fab sample										
53										
B/T		BSB4	70	2					Yes	
Tile		BSB5	55	1				15.3	No	
fab sample										
Tile		BSB1	275	2				17.65	Yes	
57										
B/T		BSB3	15	1					No	
fab sample										
68										
B/T		BSB4	20	1					No	
B/T		BSB4	55	1	1				Yes	
Brick	B1	BSB4	2410	1	8	205	105.5	52.65	No	
very abraded sides										
Tile		BSB1	60	1				18.15	Yes	
Tile		BSB7	410	2				15.25	Yes	
retained for fab samp										
69										
B/T		BSB1	30	1				14.5	No	
B/T		BSB3	20	1					No	
B/T		BSB3	120	1	1			53.15	Yes	
Brick		BSB3	300	1				61.75	Yes	
70										
Brick	B1	BSB3	3815	1	8	205.5	102.1	55	Yes	
Brick	B1	BSB3	3695	1	8	205	102.5	56	Yes	
71										
B/T		BSB2	20	1					No	
B/T		BSB4	25	2					No	
B/T		BSB3	10						No	
reduced										
Tile		BSB1	20	1					No	
Tile		BSB3	30	1				14	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
74										
Brick		BSB3	845	1	1			63.65	No	
75										
B/T		BSB4	25	2					No	
B/T		BSB2	15	1					Yes	
B/T		BSB3	60	8					No	
B/T		BSB1	70	3				15.25	No	
Tile		BSB1	220	1	1			16.5	No	
fab sample										
76										
B/T		BSB1	40	1				12.95	No	
B/T		BSB4	5	1					No	
B/T		BSB3	170	4				15.3	No	
B/T		BSB2	10	1					No	
77										
B/T		BSB4	65	2					No	
B/T		BSB1	50	2				14.95	No	
Tile		BSB2	195	1					No	
Reduces										
78										
Brick		BSB3	145	1	1				No	
79										
B/T		BSB3	85	4					No	
B/T		BSB4	30	2					No	
fab sample (20 g)										
80										
B/T		BSB3	210	13					No	
B/T		BSB4	100	2					No	
81										
B/T		BSB3	25	1					No	
Tile	NT1	BSB3	30	1					No	
Tile		BSB1	60	1				14.65	No	
84										
B/T		BSB3	15	2					No	
reduced										
B/T		BSB3	5	2					No	
B/T		BSB4	85	2					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

THE CLAY PIPE

by Gary Taylor MA

Provenance

The material was recovered from dumped deposits (002 and 071), a buried soil (014), the fill of a pit (003) and a layer (004). All of the assemblage is likely to have been made in the Boston area.

Range

The range of clay pipe material is detailed in the table. Pieces date from the mid 17th century to about the start of the 20th century, with earlier material being the more common.

Table 1

Context	Description	Date
002	2x stems, bore 3/64", 19th -early 20th century 1x stem, bore 5/64", 18th century 1x stem, bore 7/64", 17th century	19th -20th century
003	1x bowl, Oswald type G5, bore 8/64", *c.* 1640-60 1x stem, bore 8/64", 17th century 1x stem, bore 7/64", 17th century	17th century
004	1x bowl, Mann form 162, bore 4/64", *c.* 1850-80 1x stem, bore 8/64", 17th century	*c.* 1850-80
014	1x bowl fragment, Oswald type G21?, *c.* 1700-40 1x unident bowl fragment, thick walled, 17th century 2x stems, bore 8/64", 17th century	early 18th century
071	1x bowl fragment, thin walled, later 18th-early 20th century	later 18th-early 20th century
084	2x bowl fragments, thick walled, 17th century	17th century

Two complete bowls were recovered. The earlier example, from Context (003), is Oswald's General Type 5, dating from *c.* 1640-60 (Oswald 1975, 37; 39). Stem fragments associated with this bowl are probably also of 17th century date. Context (004) contained a bowl of Mann's form 162 which dates to the mid-late 19th century (Mann 1977, 23-4). A residual 17th century stem fragment was associated with this bowl. Five further bowl fragments were recovered, two from context (014), two from (084) and one from (071). One from (014) is probably Oswald General Type 21, of early 18th century date, though too little of the bowl survives for this to be certain. The others are very small and unidentifiable, though the thickness of the pieces suggest that three of the fragments, from contexts (014) and (084), are early pipes of probable 17th century date. The remaining fragment, from context (071) is thin and dates to the later 18th to early 20th century.

The assemblage is too small, both as material from individual contexts and as a whole, to permit statistical analysis.

Condition

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

Documentation

Numerous archaeological investigations have previously been undertaken in Boston and are the subjects of reports. Clay pipes are well studied artefacts and a Lincolnshire typology for the earlier period of their use has been formulated (Mann 1977).

Potential

As a small collection, the clay pipes are of limited potential. However, as they are artefacts that, individually, have a short life they may assist in the clarification of the chronology of broadly dated contexts.

Bibliography

Mann, J. E., 1977, *Clay Tobacco Pipes from Excavations in Lincoln 1970-74*, Lincoln Archaeological Trust Monograph Series Vol. **XV-1** (Council for British Archaeology)

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

Appendix 6

THE GLASS
by Rachael Hall

Provenance
The material derived from two contexts, a buried soil (005) and the backfill (068) of a foundation cut (067).

The assemblage is post-medieval and 19th century in date.

Range
The range of material is detailed in the table.

Context	Description	Context date
005	1x Body sherd of bottle glass. Yellowish green. With much iridescence.Post-medieval	16th - 17th century
068	1x pale blue sherd of bottle glass. Post-medieval 1x body sherd of yellowish green bottle glass. Iridescence. Inclusion of frequent air bubbles.Post-medieval 1x basal push-up of cylindrical wine bottle. Yellowish green. Iridescence. Frequent air bubbles. Slight pontil scarring on push-up. 19th century	19th century

Condition
The glass is generally in good condition and is archived by material class. The glass has been packaged in acid free tissue and may require periodic maintenance.

Documentation
Post-medieval glass assemblages from throughout the county have previously been studied.

Potential
The assemblage, being so small, has little potential.

Appendix 7

OTHER FINDS
by Gary Taylor

Range
A catalogue of the remaining finds is shown in the table.

Context	Description	Phase
002	1x copper alloy fitting, post-medieval	Phase 3
003	1x iron nail 4x mortar, 3 with wattle impressions 1x cinder 1x flint flake, natural	Phase 3
005	1x iron nail	Phase 4
014	1x mortar 1x cinder	Phase 4
028	1x cinder	Phase 3
053	1x iron bar 2x oyster shells	Phase 3
068	2x iron nails/lumps	Phase 4
071	1x mortar 1x cinder	Phase 4
076	1x flint flake, natural	Phase 2
077	1x coal 1x cinder	Phase 2
084	1x mortar 2x cinder	Phase 2

The wattle-impressed mortar from the Phase 3 deposit (003) is likely to have derived from a structure incorporating wattle and plaster. The material implies the proximity of an early post-medieval half-timber building with plastered wall panels. However, the scarcity of material may suggest that the building represented by the mortar was dismantled and removed, rather than demolished.

Condition
All the material has been archived by material class. None of the iron was x-rayed.

Potential
The material has little potential.

Appendix 8

ENVIRONMENTAL ARCHAEOLOGY ASSESSMENT AND ANIMAL BONE REPORT

by James Rackham,
The Environmental Archaeology Consultancy

Introduction

Evaluation excavations conducted by Archaeological Project Services on Straight Bargate, Boston resulted in the taking of fourteen soil samples of which seven were submitted for environmental assessment along with a small assemblage of hand excavated animal bones from a number of contexts. These samples, dating the the 16th century and later, are briefly assessed.

Table 1: Samples submitted for environmental assessment

sample	context	trench	vol. In litres	description	phase
2	014	A	8	Dark sandy silt layer	Phase 4
3	005	A	9	Layer	Phase 4
6	055	A	8	Silt deposit within cut	Phase 1
8	060	B	6	Silt deposit, possible fill	Phase 3
12	081	C	9	Silt layer	Phase 2
13	087	C	8	silt layer	Phase 2
14	084	C	3	silt layer	Phase 2

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 hammerscale 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 A

Three samples from Trench A were submitted for assessment, samples 2, 3 and 6, from contexts 014, 005 and 055 respectively. These are undated (phase 1) or of 18th - 19th century date (Table 1). The question concerning samples 2 and 3 was whether they were a buried or garden soil. The residue of both these samples was largely comprised of coal and cinder, with brick/tile, some mortar and limestone fragments. The flot was also mainly vesicular cinder and coal fragments. The presence of many fragments of hammerscale, both flake and spheroidal, and much small, and occasionally larger, slag suggests that the coal, cinder and slag probably derive from an iron smithy, presumably located nearby. The deposits have more the character of dumps that include both industrial, building and domestic refuse, but with the natural fine sandy silts, that make up the estuarine and flood deposits upon which Boston sits, comprising 80-85% of these samples. The deposits had clearly formed some sort of soil, and these deposits must have formed a surface at some time in the past. A number of bones from a jackdaw skeleton in sample 3 tends to

Table 2: Finds from the samples

Sample	Context	Volume	Residue vol	pot No.	brick/tile	mortar	coal/cinder	slag	hammerscale	metal	glass	bone	comments
2	014	8	1.5l	4/26	85g	15	96		6g	*Cu* x3	3	72g	pipe stem x2
3	005	9	1.1l	6/18	116g		43	164	4g		5	33g	
6	055	8	0.1		Y	Y	Y		1g			<1g	
8	060	6l	4l	2/2	351g	153g	5	4	<1g			1g	limestone rubble, 1691g
12	081	9l	0.5l		20g	85	3		Y			<1g	plaster with surfaces
13	087	8	0.5l	2/4	118g	Y	Y		<1g			3g	
14	084	3l	0.8l	4/10	48g	5	5		Y			2g	

Y = few fragments present

Table 3: Environmental finds from the samples with preliminary identifications

Sample	Flot ml	Marine shell g.	snail */#	char'd grain *	chaff *	char'd seed *	un-char'd seed *	inverte-brates	charc oal *	bird *	eggshel l *	fish g.	small mammal *	Comments
2	110	2					2		2	1		4		periwinkle, rough winkle, mussel, oyster, elder, cattle, sheep/goat
3	60	6		1			3		2	1	2	2	2	rough winkle, mussel, oyster, cockle, barnacle, elder grain, sheep/goat, frog/toad, mouse, jackdaw, stickleback
6	2	2	1/1				1		2		1	<1		rough wnkle, cockle, mussel, oyster, tellen
8	3	586	2/1				2		1		1	<1		cockle, mussel, oyster, periwinkle, rough winkle, dog whelk, common whelk, tellen, elder
12	24	14		1		1	3		3		1	<1		cockle, mussel, tellen, wheat? *Daphnia*
13	45	26	1/1	2	2	2	5	3	4		1	<1		oyster, mussel, cockle, tellen, cattle, moss, buds, hazelnut, wheat barley, wood and twigs, waterflea, beetles, ants, fly puparia
14	60	12	1/1	1		2	5	2	3		2	<1	1	mussel, cockle, oyster, tellen, cattle, rodent, grape, hazelnut, bark, wood twigs, fly puparia, weevil

* 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

reinforce an interpretation of the deposits as dumping, at least in part. The deposits may have formed a yard surface for the smithy or been brought in from a smithy to form a yard surface for another tenement.

Sample 6, taken from context 055, several layers below sample 2, included very little debris - less than 2% of the sample being retained on the 1mm sieve, showing a much lower input of cultural material. Brick/tile, mortar, coal/cinder, hammerscale, bone and marine shell were present, but in small quantities and small fragments and many may have worked their way down through the soil. This implies that the deposits were relatively unaffected by cultural material and may have been a disturbed natural layer or flood deposit.

Trench B

Only one sample was processed from Trench B. This was taken from context 060 at the base of the sequence in the evaluation trench. The reason for the sampling was to obtain dating evidence. Two small sherds of pottery were recovered which may give some indication as to the date of the layer, and a high concentration of small limestone rubble, brick/tile, mortar and marine shell suggests that the layer represents dumping, possibly as part of a backfilling programme. Domestic rubbish is at a low density in this layer. Over 60% of the sample was retained on the 1mm mesh indicating an unusually low sand and silt content further supporting an interpretation that the material has been fairly rapidly dumped.

Trench C

Three samples were collected and processed from Trench 3. All these were taken from the basal deposits exposed in the evaluation trench, and have been dated to the medieval period. Finds include pottery and brick/tile, with mortar, coal and bone in small quantities. The lowest layer includes fragments of what appear to be plaster, some with a surface. The proportion of residue reduces with depth (26% to 5%) suggesting a lower proportion of cultural material in the lower layers. A high concentration of partially humified organic material in the upper contexts 081 and 084 suggests that these may have been partially compressed floors or occupation horizons of similar character to those excavated in the medieval tenements at South Street, Boston. Uncharred plant remains are abundant in both these contexts, with wood and twigs, fly puparia, beetles and food debris (Table 3), a much higher proportion of domestic debris than the other samples, and an interpretation as an occupation horizon or floor seems probable. The basal layer, 087, as well as having a lower density of cultural material, is poorer in organics and food debris and might be partly composed of flood deposits or natural silts. Repeated flood horizons were recognised at South Street, Boston, including a large deposit that sealed the medieval layers, and earlier deposits of medieval date beneath context 087 are probable. The presence of waterfleas and aquatic and estuarine molluscs in these samples would tend to suggest some flood component to the deposits.

Animal Bone

Sixty nine fragments of animal bone were hand recovered from the evaluation trenches. These included fragments of cattle, goat, sheep, pig, rabbit, duck and fish (Table 4) and the catalogue of the material is attached. The condition of the bones is good and there is unlikely to have been any loss of deposited bone through erosion in the soil. 19% of the fragments show clear evidence of dog gnawing which is therefore likely to have resulted in some destruction and loss from the originally deposited assemblage. A fairly high proportion, 40%, of the bones carried butchery marks indicating that many of the bones may have been reduced to the fragment sizes that were found before deposition - the average number of zones per fragment of bone is one, a relatively low level of fragmentation by comparison with many hand collected archaeological collections.

The bones of cattle and sheep are large reflecting the much larger size of post-medieval stock. Fish remains are relatively rare, both in the hand collected sample and the soil samples, and this may be a factor of deposit type or date. Dump and occupation deposits of medieval date in Kings Lynn produced much higher concentrations of fish bone (Rackham *et al* 1999), and similar levels might have been expected in Boston.

Table 4.. Number of identified bone fragments - excavated animal bone

Context	002	003	004	005	014	028	068	069	074	081	084
Cattle		8	2	4		1		2		3	
Cattle size		9	3	6			1				
Goat		1									
Sheep/goat		8	1	3	1	1		2			
Sheep	2					1					
Sheep size		1		1		1					1
Pig									1		
Rabbit		2									
Duck		1		1							
Fish		1									

Discussion

There are clear indications that Trench A was located near or adjacent to a post-medieval smithy, although the debris could have been brought onto the site to surface a yard or floor, The lowest layer in this trench produced little material and the possibility that much of this layer was a flood deposit should be considered.

The sample from Trench B suggests dumped material, largely building rubble, and may have been backfill as interpreted on site, and are 0f 16th - 17th century date based on the evidence of the two sherds of pottery recovered from the sample-

The upper two assessed samples from Trench C probably reflect occupation or floor layers, with a flood component in the deposits, but this can only be confidently assessed by specific identification of the botanical and insect remains recovered from the samples. The lower sample, context 087, may have a much higher component of flood deposit and may reflect sediments that built up during medieval flooding in the town. Organic preservation of seeds and insects in the samples from this trench is very good and considerable information on context formation, diet and the character of the organic debris can be expected from detailed studies of deposits like this.

Recommendations

The animal bone and soil samples have considerable potential for addressing the diet, presence of industrial activities, and deposit formation on the site should further archaeological work be required. Bone collection should be routine during any excavation. Since the evaluation soil samples have helped to define the character of some of the archaeological layers samples should be taken both to aid the understanding of the diet and economy of the site and to aid in the definition of the archaeological contexts. This may be particularly important for identifying the location of the smithy, if it is present at the site, and its longevity on the site, and occupation, floor or flood horizons in the stratigraphy,

In any further work, or should no further work take place, the waterlogged plant remains from the basal layers of Trench C should be studied in order to clarify the character of these deposits and establish whether or not they could be flood layers, floors or occupation deposits.

Acknowledgments

1 should like to thank Alison Foster for the sample processing.

Bibliography

Rackham, D.J., Giorgi, J.A. and Locker, A., 1999, *Austin Street, Kings Lynn, 553OKLY - The Environmental Archaeology Report* Unpublished report

Williams, D. 1973, Flotation at Siraf, *Antiquity,* 47, 198-202

Archive Catalogue of Animal Bone from Boston Straight Bargate - BSB00

site	cont.	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path.	comment	preservation
BSB00	002	OVI	MTC	1	R	DF	345				Bd-31.3 Dd-18.9		DIASTAL HALF- 2 PIECES-BROAD AND FLAT-RAM?	4
BSB00	002	OVI	MTC	1	R	DC	345				Bd-32 Dd-19.4		DISTAL HALF-BROAD-RAM	4
BSB00	003	BOS	CAL	1	R	PF	12	CH					PROX HALF-CHOPPED THRU ARTICULATION	4
BSB00	003	BOS	FEM	1	L	PN	3	CH					PROX SHAFT-CHOPPED THRU EPI JUNCTION	4
BSB00	003	BOS	INN	1	F			CH					FRAG LATERAL TO ACETABULUM-CHOPPED	4
BSB00	003	BOS	MTC	1	R	DF	345	CH	DG		Bd-67.8 Dd-34.6		DISTAL HALF-SL CHEWED-CONDYLE CHOPPED-STRONGLY ASYMETRIC	4
BSB00	003	BOS	MTC	1	L	DF	345	CH			Bd-63.6		DISTAL END-SHAFT CHOPPED	4
BSB00	003	BOS	MTT	1	R		12	CH					PROX HALF-MULTIPLE CHOPS ACROSS PROX SHAFT	4
BSB00	003	BOS	RAD	1	R			CH	DG				DISTAL SHAFT-DISTAL CHEWED AND SHAFT CHOPPED OFF	4
BSB00	003	BOS	SAC	1	R	CF		CH					WING 1ST SACRAL VERT-CHOPPEDAXIALLY THRU CENTRUM	4
BSB00	003	CRA	MTT	1	L	DF	345				Bd-23.2 Dd-15.3		DISTAL END-ID ON BASIS OF VERTICELLI COME TOGETHER	4
BSB00	003	CSZ	LBF	1	F				DG				SHAFT FRAG-POROUS-CHEWED	4
BSB00	003	CSZ	LBF	1	F								SHAFT FRAG-POROUS-IMM	4
BSB00	003	CSZ	RIB	1	F								SHAFT FRAGMENT	4
BSB00	003	CSZ	TRV	1	F		5	CH					BASAL HALF SPINE-CHOPPED AT BASE- 2 PIECES	4
BSB00	003	CSZ	TRV	1	F								SPINE FRAGMENT	4
BSB00	003	CSZ	UNI	1	F								INDET	4
BSB00	003	CSZ	UNI	3	F								INDET FRAGMENT	4
BSB00	003	DUCK	ULN	1	R								DISTAL END-PROBABLY DOMESTIC	4
BSB00	003	ORC	FEM	1	L								COMPLETE-SL DAMAGE TO PROX END	4
BSB00	003	ORC	INN	1	L								ACETAB WITH ILIUM AND ISCHIUM SHAFTS	4
BSB00	003	OVCA	INN	1	R		23		DG				ILIAL SHAFT-BOTH ENDS CHEWED	4
BSB00	003	OVCA	LMV	1	L								TRANS PROCESS WITH ANT ZYGAPOPHYSIS	4
BSB00	003	OVCA	MTC	1	L	DN	125						BROAD SHAFT-POROUS-SURFACE	4
BSB00	003	OVCA	RAD	1	L		3		DG				MIDSHAFT-POROUS-IMM-DISTAL CHEWED	4
BSB00	003	OVCA	RAD	1	L	PF	13		DG				PART PROX END AND SHAFT-DISTAL CHEWED	4
BSB00	003	OVCA	RAD	1	R	PF	1236		DG				PROX END AND SHAFT-DISTAL CHEWED	4
BSB00	003	OVCA	RIB	1	L			CH					SHAFT-1ST RIB-PROX CHOPPED-POROUS	4
BSB00	003	OVCA	TIB	1	L	DF	567				Bd-26.8 Dd-21		DISTAL END	4
BSB00	003	SSZ	RIB	1	F								SHAFT FRAG	4
BSB00	003	UNIF	UNI	1	F								FRAG -GADID SIZ	4
BSB00	004	BOS	CAL	1	R	PN		CH					PROX SHAFT-EPI LOST-CHOPPED DISTALLY	4
BSB00	004	BOS	CQ	1	W		1						COMPLETE	4
BSB00	004	CSZ	RIB	1	R	PF	1	CH	DG				PROX END-SHAFT CHOPPED OFF-PROX WITH TOOTH MARKS	4
BSB00	004	CSZ	TIB	1	L				DG				MIDSHAFT-VERY POROUS-CHEWED	4

site	cont	species	bone	no.	side	fusion	zone	butchery	gnawing	toothwear	measurement	path.	comment	preservation
BSB00	004	CSZ	VER	1	F	CN		CH					CENTRUM FRAG-CHOPPED TRANSVERSELY AND AXIALLY	4
BSB00	004	OVCA	RAD	1	L		3						FRAG PROX SHAFT	4
BSB00	005	BOS	HUM	1	L	DN	69	CH					DISTAL SHAFT-CHOPPED THRU PROX SHAFT	4
BSB00	005	BOS	MAN	1	L		6						ANGLE-CALF	4
BSB00	005	BOS	MAX	1	L		9						FRAG WITH PM ALEVOLI	4
BSB00	005	BOS	PAT	1	L		1	CH	DG				PROX CHOPPED-TOOTH PUNCTURES	4
BSB00	005	CSZ	LMV	1	R	CNAN	4	CH					CENTRUM-CHOPPED DOWN MIDDLE	4
BSB00	005	CSZ	LMV	1	R		5	CH					PART NEURAL ARCH AND BASE TP-CHOPPED DOWN LEFT SIDE SPINE	4
BSB00	005	CSZ	LMV	1	L								BASE TRANS PROCESS- 2 PIECES	4
BSB00	005	CSZ	RIB	3	F								SHAFT FRAG	4
BSB00	005	DUCK	SCP	1	L								COMPLETE	4
BSB00	005	OVCA	INN	1	R								ANT ILIUM	4
BSB00	005	OVCA	SAC	1	R	CF	4	CH					1ST SACRAL VERT-CHOPPED DOWN MIDDLE	4
BSB00	005	OVCA	TIB	1	R		4		DG				PROX AND MIDSHAFT-PROX END CHEWED OFF	4
BSB00	005	SSZ	TRV	1	F		1						SPINE-PROB PIG	4
BSB00	014	OVCA	LMV	1	R	CFAF	4	CH					CENTRUM LAST LUMBAR-CHOPPED DOWN MIDDLE	4
BSB00	028	BOS	SAC	1	F	AF	1	CH					SPINE POST 3 SACRAL VERT-CHOPPED TRANSVERSLY ACROSS ANT END	4
BSB00	028	OVCA	TIB	1	L	PF	123	CH			BP-43.3 Pd-41.1		PROX END-SHAFT CHOPPED OFF	4
BSB00	028	OVT	SKL	1	R			CH					HORNLESS-PARIETAL AND FRONTAL FRAGS-CHOPPED DOWN MIDDLE	4
BSB00	028	SSZ	RIB	1	F			CH					DISTAL SHAFT-PROX CHOPPED-POROUS	4
BSB00	068	CSZ	RIB	1	F			CH					SHAFT FRAG-BOTH ENDS CHOPPED	4
BSB00	069	BOS	MAN	1	R		45	CH					DORSAL ASC RAMUS-CHOPPED BELOW CONDYLE	4
BSB00	069	BOS	SCP	1	L								PROX MID BLADE FRAG WITH BASE SPINE	4
BSB00	069	OVCA	SCP	1	R	DF	1235				GLP-37.9 LG-30 BG-24.3 SLC-23.2		GLENOID AND NECK	4
BSB00	069	OVCA	TIB	1	R		7		DG				DISTAL SHAFT-DISTAL END CHEWED	4
BSB00	074	SUS	INN	1	L		2						ANT ILIUM WITH SACRAL SCAR	4
BSB00	081	BOS	HUM	1	L	DF	6789	CH			BT-88.7 HT-50.2		DISTRAL THIRD-CHOPPED ACROSS CONDYLE	4
BSB00	081	BOS	MAN	1	R		678	CH					VENTRAL HALF ASC RAMUS- 2 PIECES-CHOPPED BELOW CONDYLE AND BEHIND M3	4
BSB00	081	BOS	MAN	1	R			CH		GH1H16J15			RAMUS FRAG-CHOPPED ANT TO P2 AND POST TO M2	4
BSB00	084	SSZ	TIB	1	F				DG				DISTAL SHAFT-CHEWED	4

THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

Key to codes used in the cataloguing of animal bones

SPECIES

BOS	cattle
CSZ	cattle size
SUS	pig
OVCA	sheep or goat
OVI	sheep
SSZ	sheep size
EQU	horse
CER	red deer
CAN	dog
MAN	human
UNI	unknown
CHIK	chicken
GOOS	goose, dom
LEP	hare
UNB	indet bird
MALL	duck, dom.
GULL	gull sp.
FISH	fish
UNIB	bird indet
UNIF	fish indet
GSZE	goose size
BEAV	beaver
CORV	crow or rook
POLE	polecat/ferret
PART	partridge
ORC	rabbit
ROD	rodent
JACK	jackdaw
OWL	owl indet.
AUR	aurochs
DUCK	duck sp.
CRA	goat
FER	feral dove
DAM	fallow deer

BONE

SKL	skull
TEMP	temporal
FRNT	frontal
PET	petrous
PAR	parietal
OCIP	occipital
ZYG	zygomatic
MAN	mandible
MAX	maxilla
ATL	atlas
AXI	axis
CEV	cervical vertebra
TRV	thoracic vertebra
LMV	lumbar vertebra
SAC	sacrum
CDV	caudal vertebra
SCP	scapula
HUM	humerus
RAD	radius
MTC	metacarpus
MC1-4	metacarpus 1-4
INN	innominate
ILM	ilium
PUB	pubis
ISH	ischium
FEM	femur
TIB	tibia
AST	astragalus
CAL	calcaneum
MTT	metatarsus
MT1-4	metatarsus 1-4
PH1	1st phalanx
PH2	2nd phalanx
PH3	3rd phalanx
LM1-LM3	Lower molar 1 - molar 3
UM1-UM3	upper molar 1 - molar 3
LPM1-LPM4	lower premolar 1-4
UPM1-UPM4	upper premolar 1-4
DLPM1-4	deciduous lower premolar 1-4
DUPM1-4	deciduous upper premolar 1-4
MNT	mandibular tooth
MXT	maxillary tooth
LBF	long bone
UNI	unidentified
STN	sternum
INC	incisor
TTH	indet. tooth
CMP	carpo-metacarpus
SKEL	skeleton

SIDE

W - whole
L - left side
R - right side
F - fragment

FUSION

Records the fused/unfused condition of the epiphyses
P - proximal; D - distal; E - acetabulum;
N - unfused; F - fused; C - cranial; A - posterior

TOOTH WEAR

Codes are those used in Grant, A. 1982 The use of tooth wear as a guide to the age of domestic animals, in B.Wilson, C.Grigson and S.Payne (eds) *Ageing and sexing animal bones from Archaeological sites, 91-108.*

Teeth are labelled as follows in the tooth wear column:

h ldpm4/dupm4	f ldpm2/dupm2
H lpm4/upm4	g ldpm3/dupm3
I lm1/um1	
J lm2/um2	
K lm3/um3	

ZONES

zones record the part of the bone present.
The key to each zone on each bone is on page 2

MEASUREMENTS

Any measurements are those listed in A.Von den Driesch (1976) *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Bulletin 1, Peabody Museum, Harvard, USA

PRESERVATION

1 - enamel only surviving
2 - bone very severely pitted and thinned, tending to break up teeth with surface erosion and loss of cementum and dentine
3 - surface pitting and erosion of bone, some loss of cementum and dentine on teeth
4 - surface of bone intact, loss of organic component, material chalky, calcined or burnt
5 - bone in good condition, probably with some organic component

ZONES - codes used to define zones on each bone

SKULL -
1. paraoccipital process
2. occipal condyle
3. intercornual protuberance
4. external acoustic meatus
5. frontal sinus
6. ectorbitale
7. entorbitale
8. temporal articular facet
9. facial tuber
0. infraorbital foramen

MANDIBLE
1. Symphyseal surface
2. diastema
3. lateral diastemal foramen
4. coronoid process
5. condylar process
6. angle
7. anterior dorsal acsending ramus posterior M3
8. mandibular foramen

VERTEBRA
1. spine
2. anterior epiphysis
3. posterior epiphysis
4. centrum
5. neural arch

SCAPULA
1. supraglenoid tubercle
2. glenoid cavity
3. origin of the distal spine
4. tuber of spine
5. posterior of neck with foramen
6. cranial angle of blade
7. caudal angle of blade

HUMERUS
1. head
2. greater tubercle
3. lesser tubercle
4. intertuberal groove
5. deltoid tuberosity
6. dorsal angle of olecranon fossa
7. capitulum
8. trochlea

RADIUS
1. medial half of proximal epiphysis
2. lateral half of proximal epiphysis
3. posterior proximal ulna scar and foramen
4. medial half of distal epiphysis
5. lateral half of distal epiphysis
6. distal shaft immediately above distal epiphysis

ULNA
1. olecranon tuberosity
2. trochlear notch- semilunaris
3. lateral coronoid process
4. distal epiphysis

METACARPUS -
1. medial facet of proximal artciulation, MC3
2. lateral facet of proximal articulation, MC4
3. medial distal condyle, MC3
4. lateral distal condyle, MC4
5. anterior distal groove and foramen
6. medial or lateral distal condyle

FIRST PHALANX
1. proximal epiphysis
2. distal articular facet

INNOMINATE
1. tuber coxae
2. tuber sacrale + scar
3. body of illium with dorso-medial foramen
4. iliopubic eminence
5. acetabular fossa
6. symphyseal branch of pubis
7. body of ischium
8. ischial tuberosity
9. depression for medial tendon of rectus femoris

FEMUR
1. head
2. trochanter major
3. trochanter minor
4. supracondyloid fossa
5. distal medial condyle
6. lateral distal condyle
7. distal trochlea
8. trochanter tertius

TIBIA
1. proximal medial condyle
2. proximal lateral condyle
3. intercondylar eminence
4. proximal posterior nutrient foramen
5. medial malleolus
6. lateral aspect of distal articulation
7. distal pre-epiphyseal portion of the diaphysis

CALCANEUM
1. calcaneal tuber
2. sustentaculum tali
3. processus anterior

METATARSUS
1. medial facet of proximal artciulation, MT3.
2. lateral facet of proximal articulation, MT4
3. medial distal condyle, MT3
4. lateral distal condyle, MT4
5. anterior distal groove and foramen
6. medial or lateral distal condyle

Appendix 9

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 10

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.

Natural Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity.

Post-medieval The period following the Middle Ages, dating from approximately AD 1500-1800.

Romano-British Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Saltern Salt producing site typified by ash, derived from fuel needed to evaporate sea water, and briquetage.

Saxon Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany

Appendix 11

THE ARCHIVE

The archive consists of:

88	Context records
30	Scale drawings
4	Context record sheet
1	Plan record sheet
1	Section record sheet
1	Photographic record sheet
7	Daily record sheets
1	Stratigraphic matrix
1	Box of finds
7	Processed environmental samples

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: 2000.16

Archaeological Project Services Site Code: BSBA 00

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.