

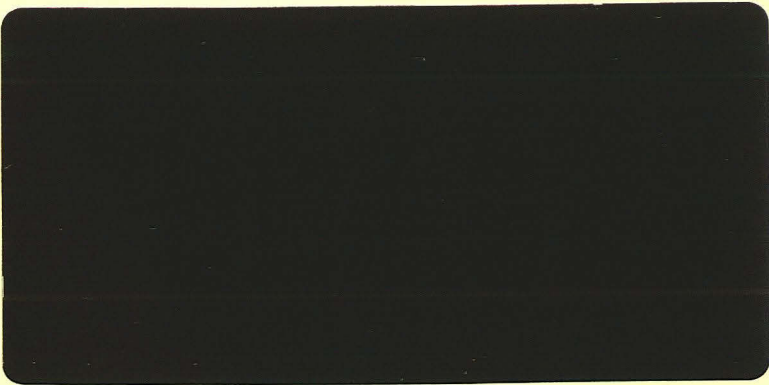
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**ARCHAEOLOGICAL WATCHING BRIEF
ON LAND AT CHURCH LANE, SWINESHEAD,
LINCOLNSHIRE
(SCL99)**



A P S
ARCHAEOLOGICAL
PROJECT
SERVICES



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Lynchburg County Courthouse
Lynchburg, Virginia

EUGENE L11403
SOURCES L16158/59
PRI 13551 L180975
13552 L180976

**ARCHAEOLOGICAL WATCHING BRIEF
ON LAND AT CHURCH LANE, SWINESHEAD,
LINCOLNSHIRE
(SCL99)**

Work Undertaken For
Lofthouse Developments

Report Compiled by
James Snee

November 2000

National Grid Reference: TF 237 402
City and County Museum Accession No: LCNCC : 1999.261

A.P.S. Report No. **169/00**



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1. SUMMARY

A watching brief was undertaken during groundworks associated with the construction of a single dwelling at Church Lane, Swineshead. The site is located within the core of the medieval village and medieval pottery has previously been recovered from the site.

A previous archaeological evaluation on the site recorded a sequence of deposits interpreted as a medieval plough soil, sealed below a layer of marine sediment.

The current investigation identified a distinct horizon above the natural silts as the same deposit. The project environmental archaeologist suggests that this represents a gleyed horizon, formed as a consequence of a fluctuating water table.

A large post-medieval ditch or pond covered most of the area of the investigation.

No evidence of a late medieval or post-medieval marine inundation was encountered during the investigation or subsequent soil analysis.

2. INTRODUCTION

2.1 Definition of a Watching Brief

An archaeological watching brief is defined as 'a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons within a specified area... where there is a possibility that archaeological deposits may be disturbed or destroyed' (IFA 1997).

2.2 Planning Background

An archaeological evaluation was carried out by John Samuels Archaeological Consultants prior to outline planning permission for development of the site at Church Lane, Swineshead, Boston, Lincolnshire. The evaluation recorded a possible palaeosol sealed below a layer of silt interpreted as having been deposited during a marine transgression (JSAC 1997). The level of the suggested marine sediment was significantly higher and later than previous evidence of sea level maximums and the Boston Community Archaeologist advised that the deposit should be investigated by an environmental archaeologist during an archaeological watching brief which was imposed as a planning condition of the development.

A watching brief was undertaken on the 20th September 1999 during the excavations of footings for the single dwelling constructed in the application area. Approval for the development was sought through the submission of planning application number B19/0574/96 to Boston Borough Council. Permission was granted subject to a condition for the implementation of a scheme of archaeological works.

The watching brief was commissioned by Lofthouse Developments and undertaken by Archaeological Project Services in accordance with a brief set by the Boston Community Archaeologist (Appendix 1) and a specification submitted by APS (Appendix 2).

2.3 Topography and Geology

Swineshead is located approximately 45km south east of Lincoln in the administrative district of Boston Borough Council (fig. 1). The site is located in the southern part of the

village, just south of the parish church at national grid reference TF 237 402 (Fig. 2).

The area surrounding the site is relatively flat and lies at approximately 5m OD. Local soils are alluvial gleys of the Agney Association developed on marine alluvium (Hodge *et al.* 1984, 87).

2.4 Archaeological Setting

No finds of Roman or prehistoric material have been made from the immediate vicinity, though finds of these dates are reported from the general area. However, the Roman and prehistoric land surfaces occur at depth, buried beneath later silts and peats.

During the construction of the Swineshead bypass, the paleoecology and lithostratigraphy of the area were studied and radiocarbon dates were taken. A period of marine regression was identified followed by a significant marine transgression, laying down silty sands up to a height of 4.04 mOD. The base of the transgression layer was identified at *c.* 1.80 mOD and dated to 315-425 cal.AD and 395-535 cal.AD. It is believed that the fens underwent a major transgression occurring between the 5th and 7th centuries (Waller 1994).

During the medieval period Swineshead was an important settlement, established on the navigable River Swin. The settlement is first mentioned shortly after 650 AD when there are references to a monastery at Swineshead. In the Domesday Book, Swineshead itself is not mentioned but the settlements of Stenning and Drayton, both within the parish, are referred to.

The medieval core of the village is likely to have been centred around the parish church of St. Mary's. Medieval pottery has been found both to the east and west of the

church. Located to the west of the village is the deserted medieval settlement of *Estovening*.

Previous investigations in the immediate vicinity of the site has revealed several undated features including pits and a possible boundary ditch (Cope-Faulkner, 1997).

Archaeological evaluations of the site revealed a modern ditch and what was interpreted as a medieval buried soil, sealed by silts thought to represent a phase of marine transgression. At the watching brief phase the Boston Community Archaeologist requested that the site was visited by an environmental archaeologist, to identify and if possible re-evaluate the interpretation of this sequence of deposits (See Appendix 1).

3. AIMS

The aim of the archaeological investigation, as detailed in the specification (Appendix 2), was to ensure that any archaeological remains, including the buried soil and overlying silts, exposed during the development should be recorded and, if present, to determine their date, function and origin. In particular, to establish the nature of the silt above the buried soil, ie, whether it was of marine or freshwater origin, or caused by transformation, and to establish the nature of the buried soil.

4. METHODS

Topsoil was stripped from the site, followed by excavation of foundation trenches for the dwelling. The foundation trenches were opened by a mechanical excavator to a maximum depth of 1.34m. The sections were then hand cleaned to enable

identification of remains. Deposits recorded during the investigation were allocated a unique reference number (Context Number) with an individual written description. Sections were drawn at a scale of 1:10, and located on a development plan at 1:100. A photographic record was also compiled.

Records of deposits were examined. A summary list of all contexts appears as Appendix 2. Phasing was assigned on the nature of deposits and recognisable relationships between them. A stratigraphic matrix was produced.

5. RESULTS

Three phases were identified:

Phase 1	Natural deposits
Phase 2	Medieval deposits
Phase 3	Undated deposits
Phase 4	Modern deposits

Archaeological contexts are listed below and described. The numbers in brackets are the context numbers assigned in the field.

5.1 Phase 1: Natural Deposits

The earliest deposits encountered were firm, light grey-brown silt and fine sand (004 & 009), encountered on the east side of the footing, below cut (006) at a level of 2.91m OD. In the west they were encountered at a level of 2.88m OD and were overlain by approximately 0.23m of firm grey-brown sandy silt (008). This latter deposit had highly diffuse boundaries and contained occasional small stones and charcoal flecks.

5.2 Phase 2: Medieval or later deposits

Overlying the sandy silt (008) in the west of

the footing was *c.* 0.5m of firm, dark yellow-brown silt (002) with occasional small stones. A single sherd of 14th to 15th century pottery was recovered from this layer which suggests a late medieval or later date for the formation of the deposit.

5.3 Phase 3: Undated deposits

Cutting through deposit (002) was a large feature (006) that extended across most of the footing and in many places extended beyond the limits of the excavations. The shape of the cut was unclear, as the position and depth of the trench sections provided only small fragments of its profile. However, the available evidence suggests an approximately north-south aligned broad ditch or pond curving slightly northwest. Two fills of (006) were revealed during the investigation. The earliest was at least 0.35m of firm mid yellow brown silt (005) with occasional small stones, shell, bone and charcoal fragments. Overlying this was firm, very dark yellowish brown silt (007) of varying thickness.

5.4 Phase 4: Modern Deposits

Sealing ditch/pond (006) was firm, dark grey brown silt (001) with occasional brick and rubble fragments and a large quantity of root material. A single sherd of modern pottery was recovered from this deposit. In the southern half of the development (001) was buried by a thick layer of loose, mid grey brown silt (003) with occasional bricks, small stones/pebbles and plastic litter. This was a very recent dump of spoil.

6. DISCUSSION

The earliest phase (Phase 1) was a naturally deposited silt (004), typical of the alluvial soils of this region. Overlying this was a silt

layer (008) which is possibly the same deposit as the 'palaeosol' identified during the evaluation. An examination by the project environmental specialist showed a single fining upwards of particles throughout the soil profile revealed within the section, suggesting a gleyed horizon, with periodic waterlogging (See Appendix 5).

The medieval or later deposit (Phase 2) was either material transported as slope wash, levelling/makeup or a subsoil transformed *in situ*. The latter would suggest that ground level has not significantly changed since the beginning of the medieval period, which is consistent with the results of other investigations in Swineshead (Albone 1999).

The large undated (Phase 3) ditch or pond was cut through the medieval or later soil (002) and is therefore likely to be post-medieval, although no artefacts were recovered that could have dated it more securely. A large post-medieval ditch was revealed during the evaluation, to the west of the current investigation. It is possible that these two features relate either to the division of land or the drainage regime.

The modern (Phase 4) topsoil (001) was buried below a very recent dump of spoil (003) which formed the modern ground level.

7. CONCLUSIONS

Archaeological investigations were undertaken at Church Lane, Swineshead because the site was located within the core of the medieval village and medieval pottery had previously been recovered from the site. Previous investigations recorded a possible buried soil underlying a silt layer interpreted as a marine flood deposit. It was therefore

possible that the proposed development could reveal further information about the nature and date of these deposits, and expose other associated archaeological remains.

Disturbance by the large ditch or elongated pond extending over most of the area of the current investigation made it difficult to reveal further information about the soils, although a horizon observed above the natural silts was identified as probably the 'palaeosol' reported during the evaluation. Examination of the soils by an environmental archaeologist has suggested that the most likely explanation for the presence of this deposit is gleying caused by fluctuations in the level of the water table.

The sequence of soils revealed during the evaluation was not as clearly represented in the watching brief and it is probable that this is a function of the difference in level between the two investigations (*c.* 2m). Significantly no evidence of a late medieval or post-medieval marine inundation was identified either during the watching brief or the subsequent soils analysis.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wish to acknowledge the assistance of Mr P. Lofthouse of Lofthouse Developments who commissioned the fieldwork and post-excavation analysis. The work was coordinated by Gary Taylor and this report was edited by Dale Trimble and Tom Lane.

9. PERSONNEL

Project Coordinator: Gary Taylor
Supervisor: Denise Buckley
Illustration: Rachael Hall & James Sneec
Post-excavation Analyst: James Sneec

10. BIBLIOGRAPHY

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11. ABBREVIATION

APS	Archaeological Project Services
GSGB	Geological Survey of Great Britain
IFA	Institute of Field Archaeologists
JSAC	John Samuels Archaeological Consultants

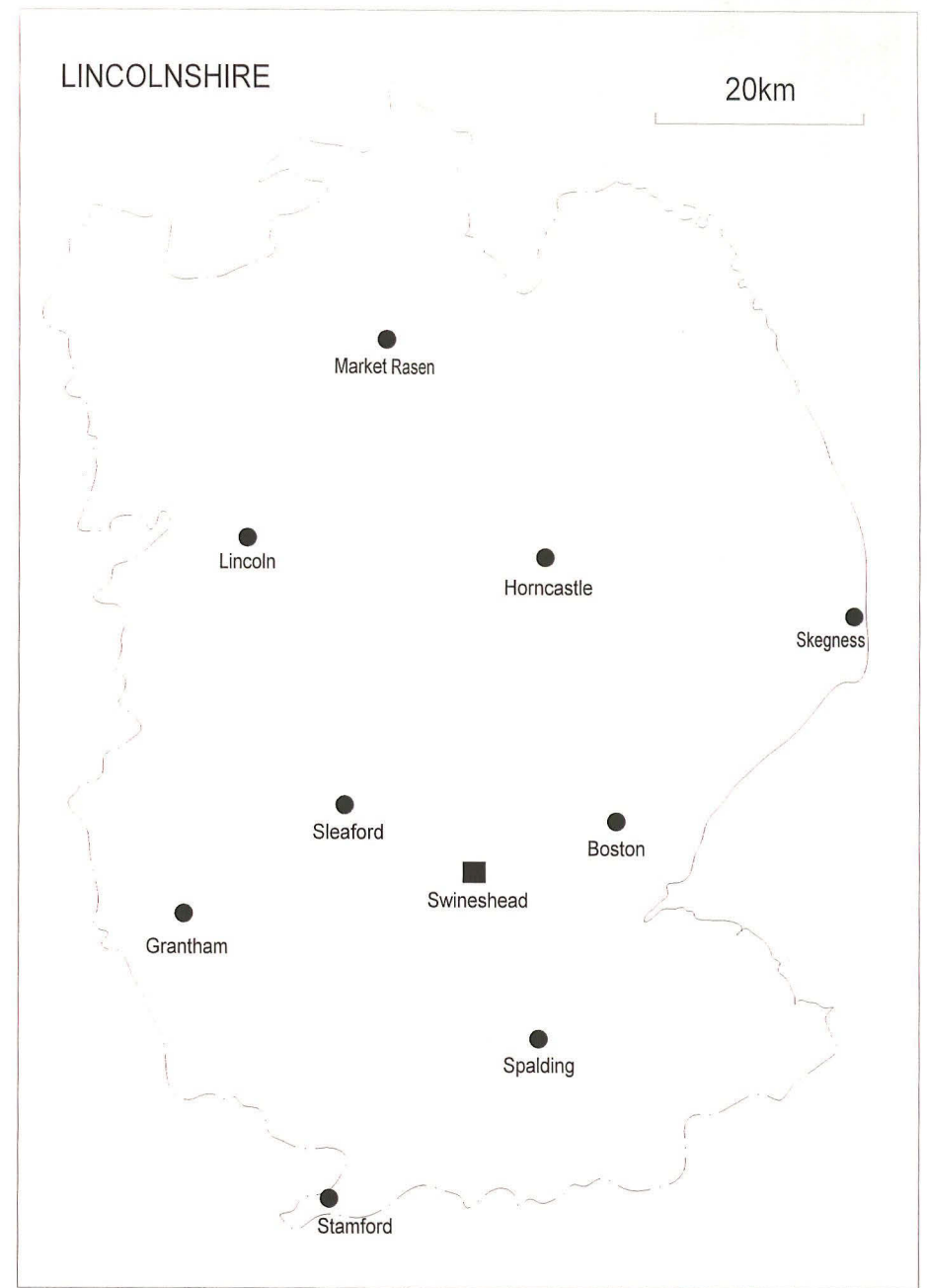


Figure 1 General Location Plan

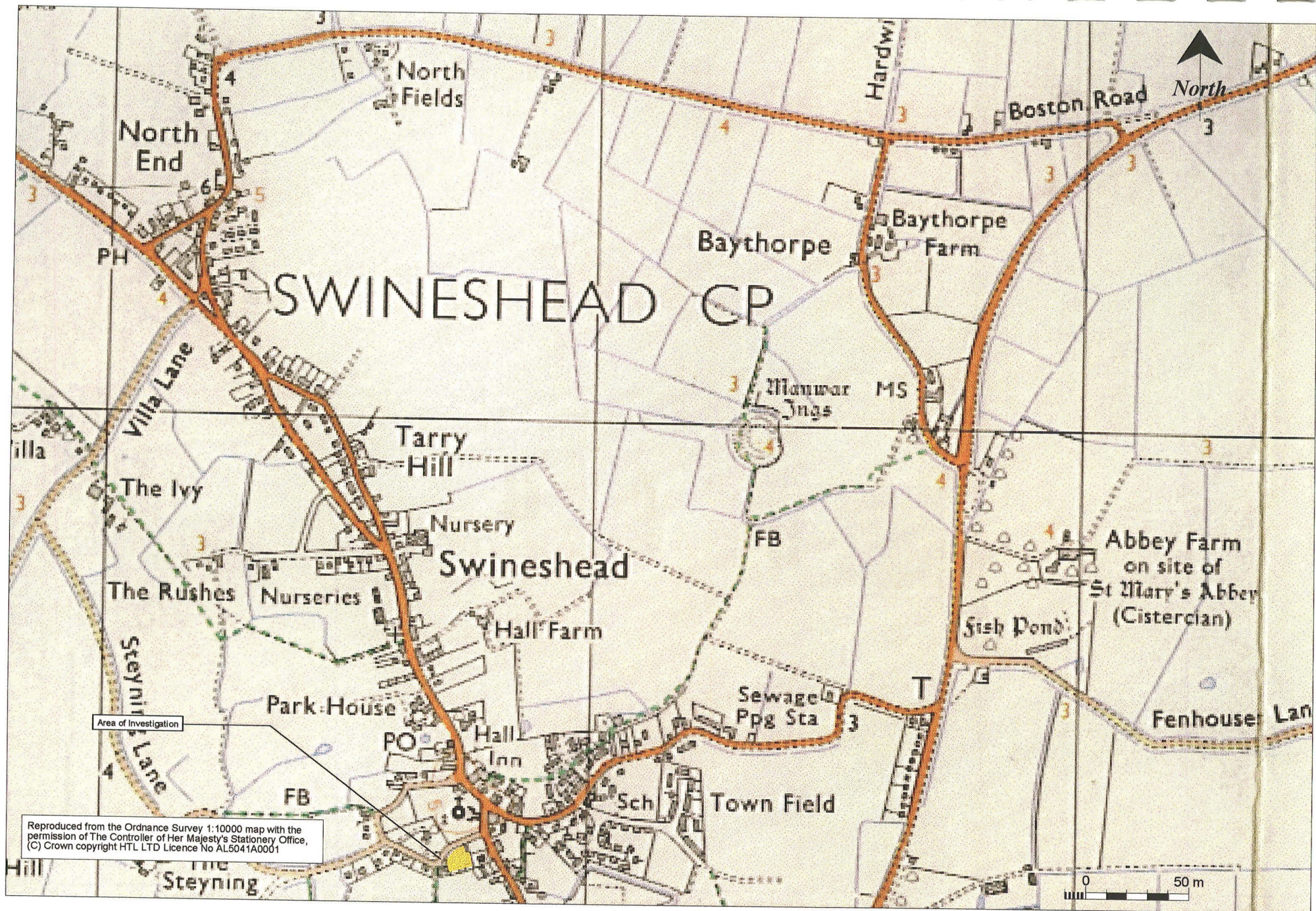


Figure 2 Area of investigation

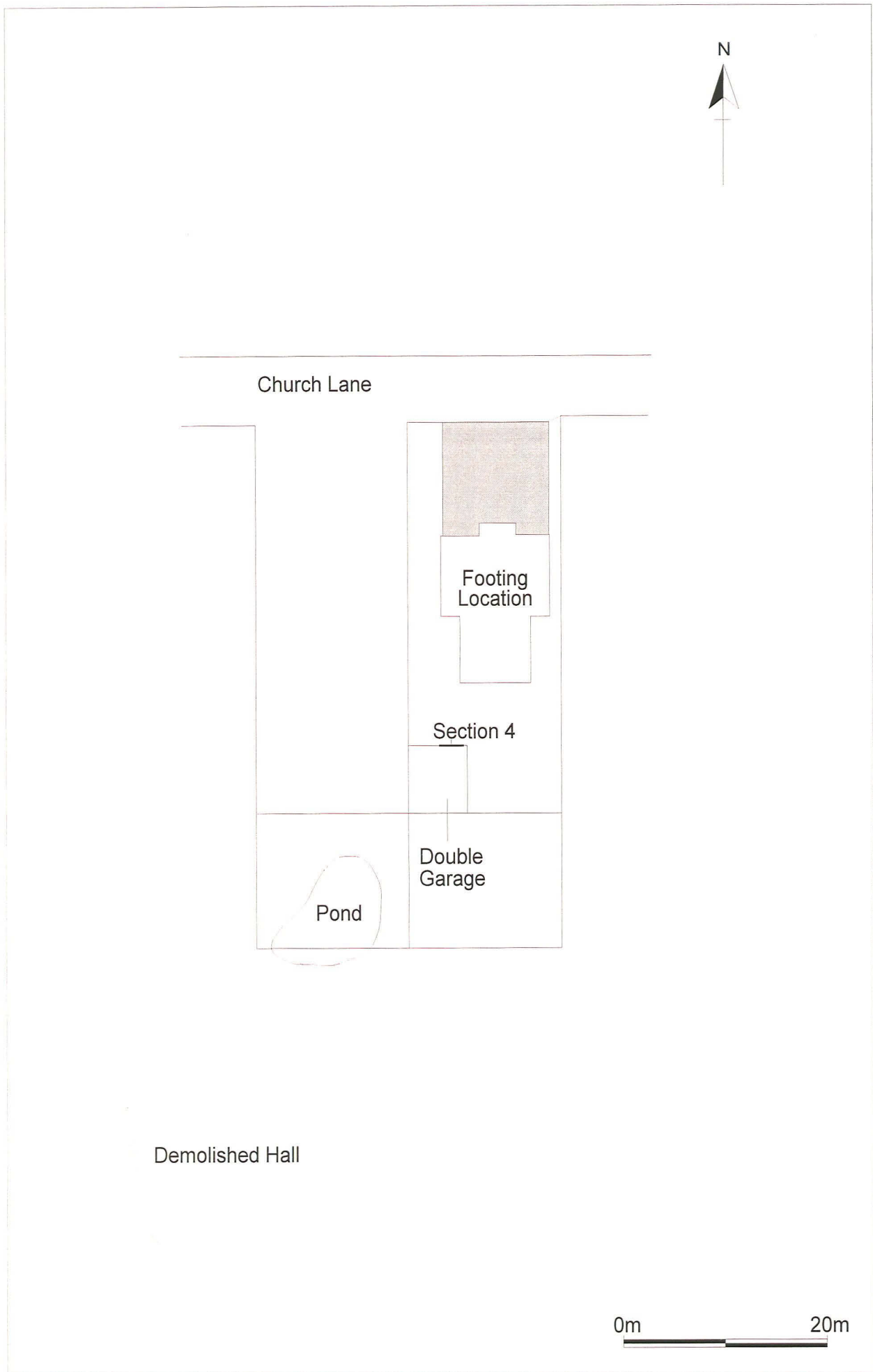


Figure 3 Development Site Location

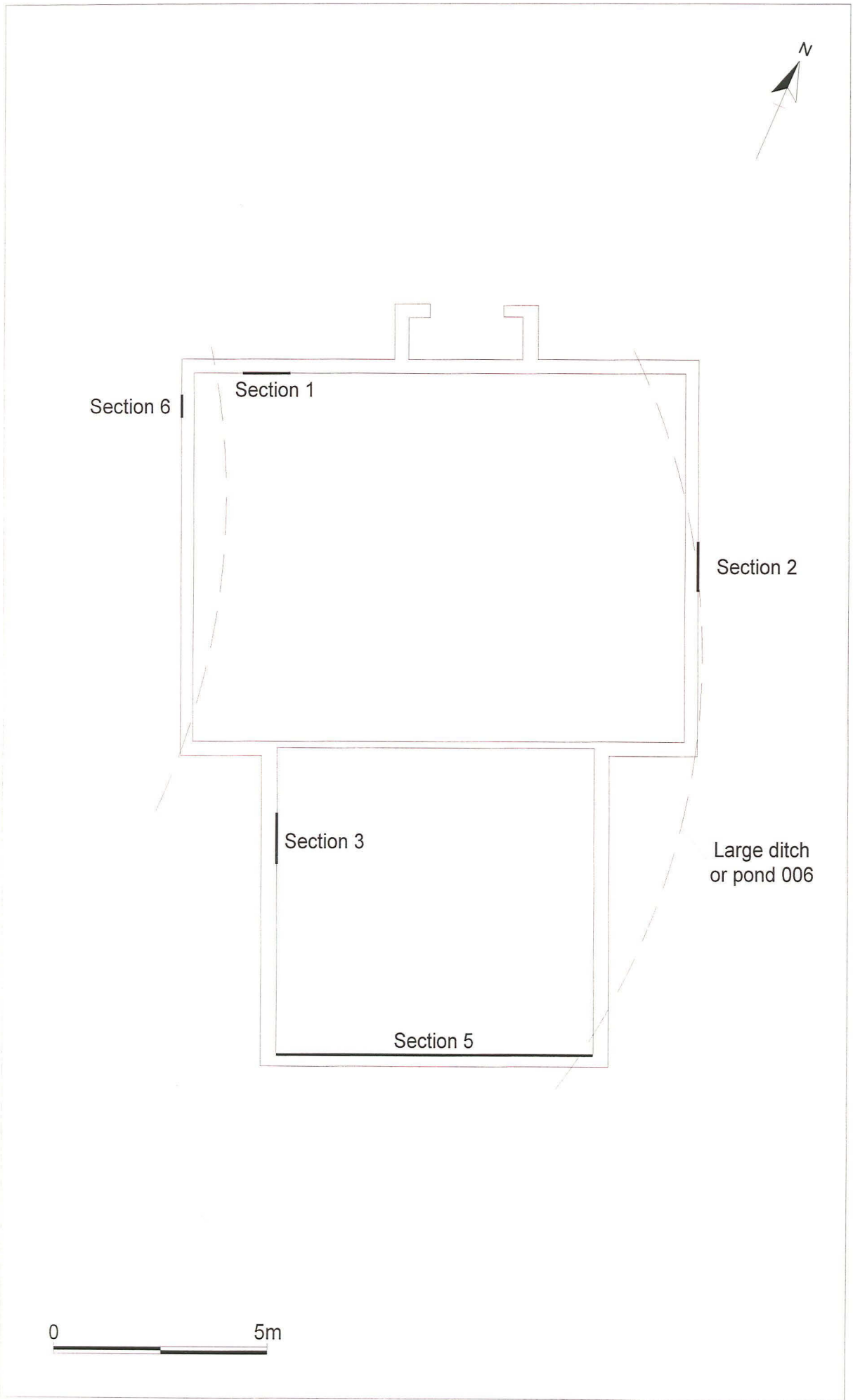


Figure 4 Foundation Plan Showing Section Location

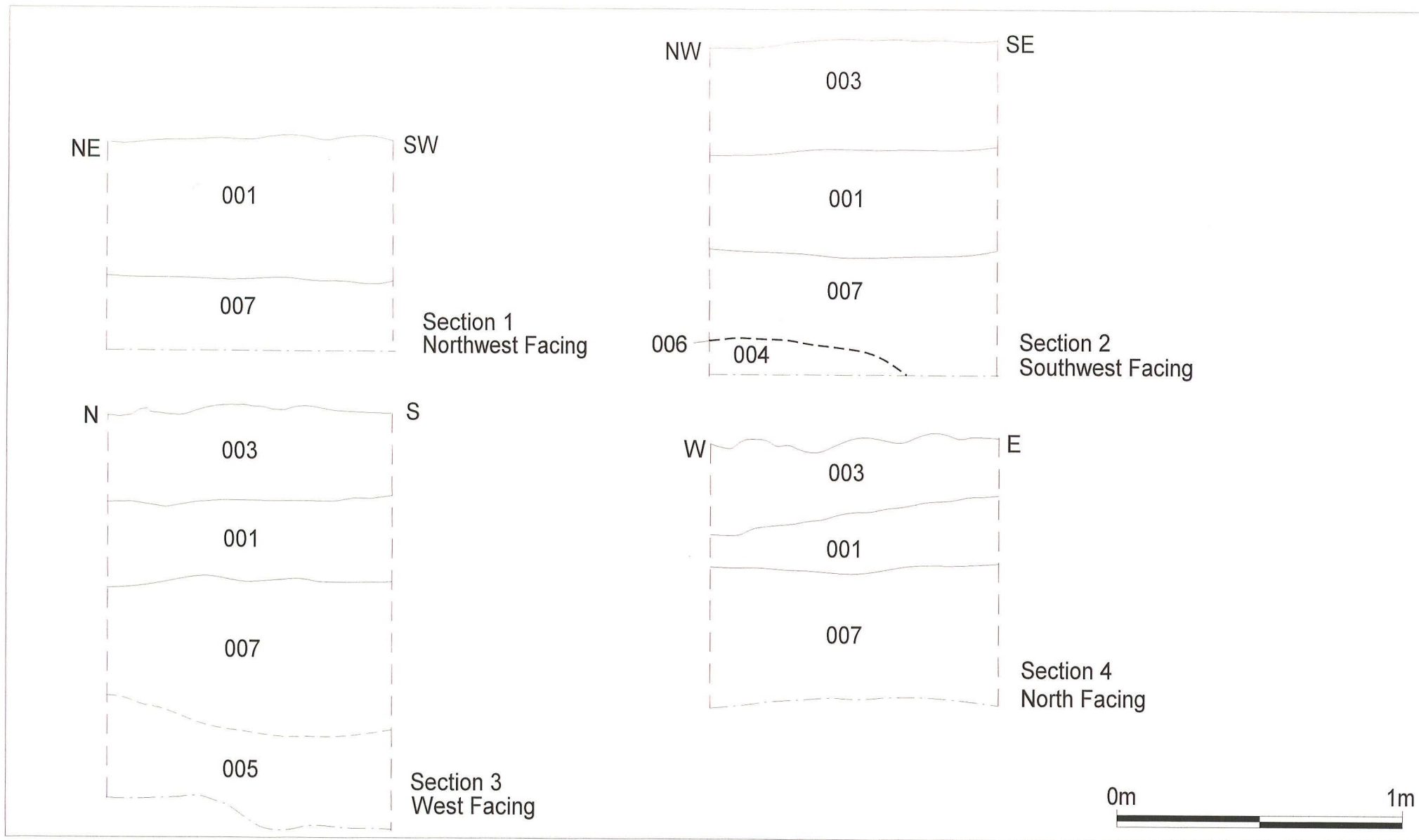


Figure 5 Details of Sections 1-4

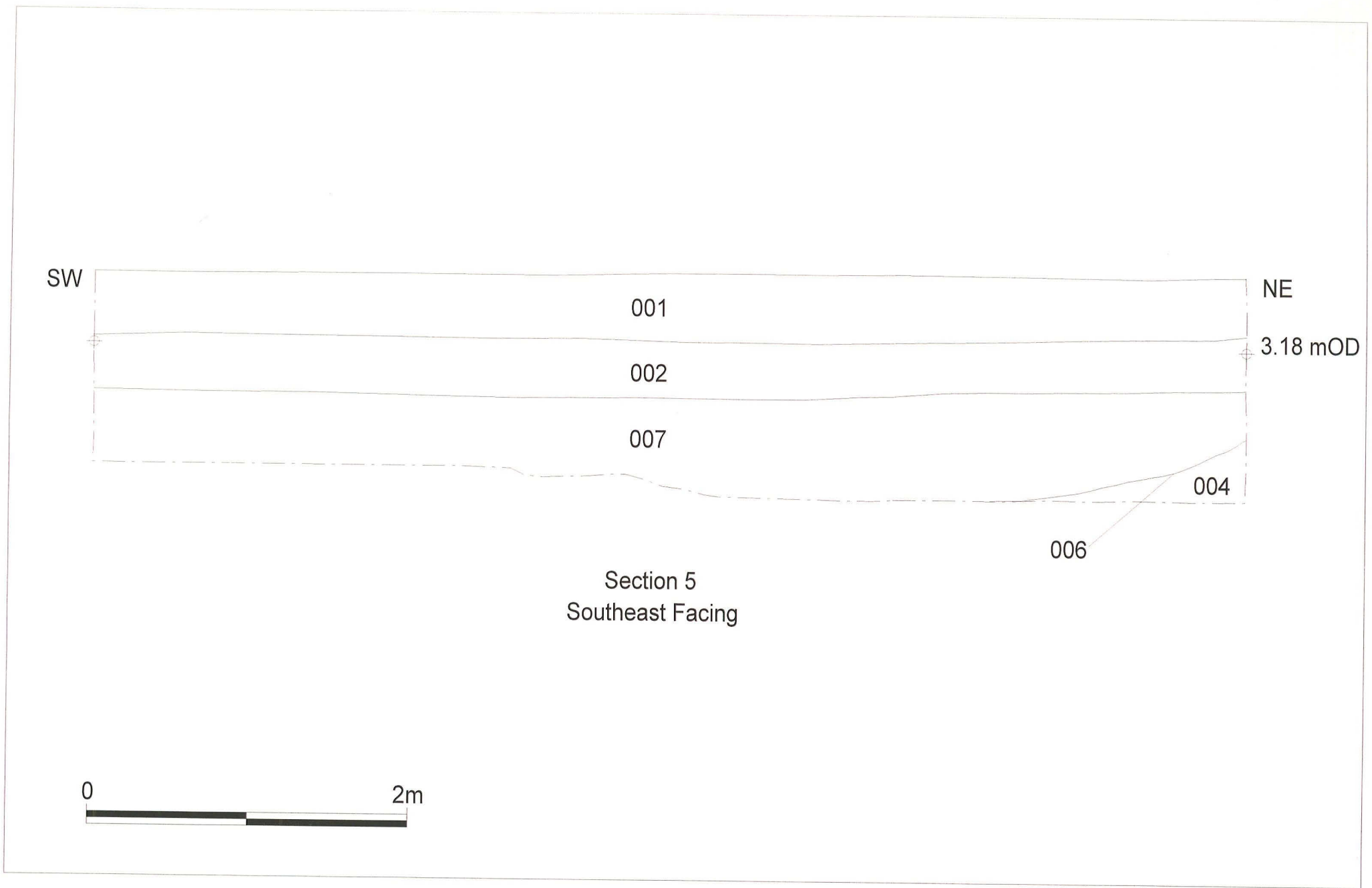


Figure 6 Section 5 showing cut 006

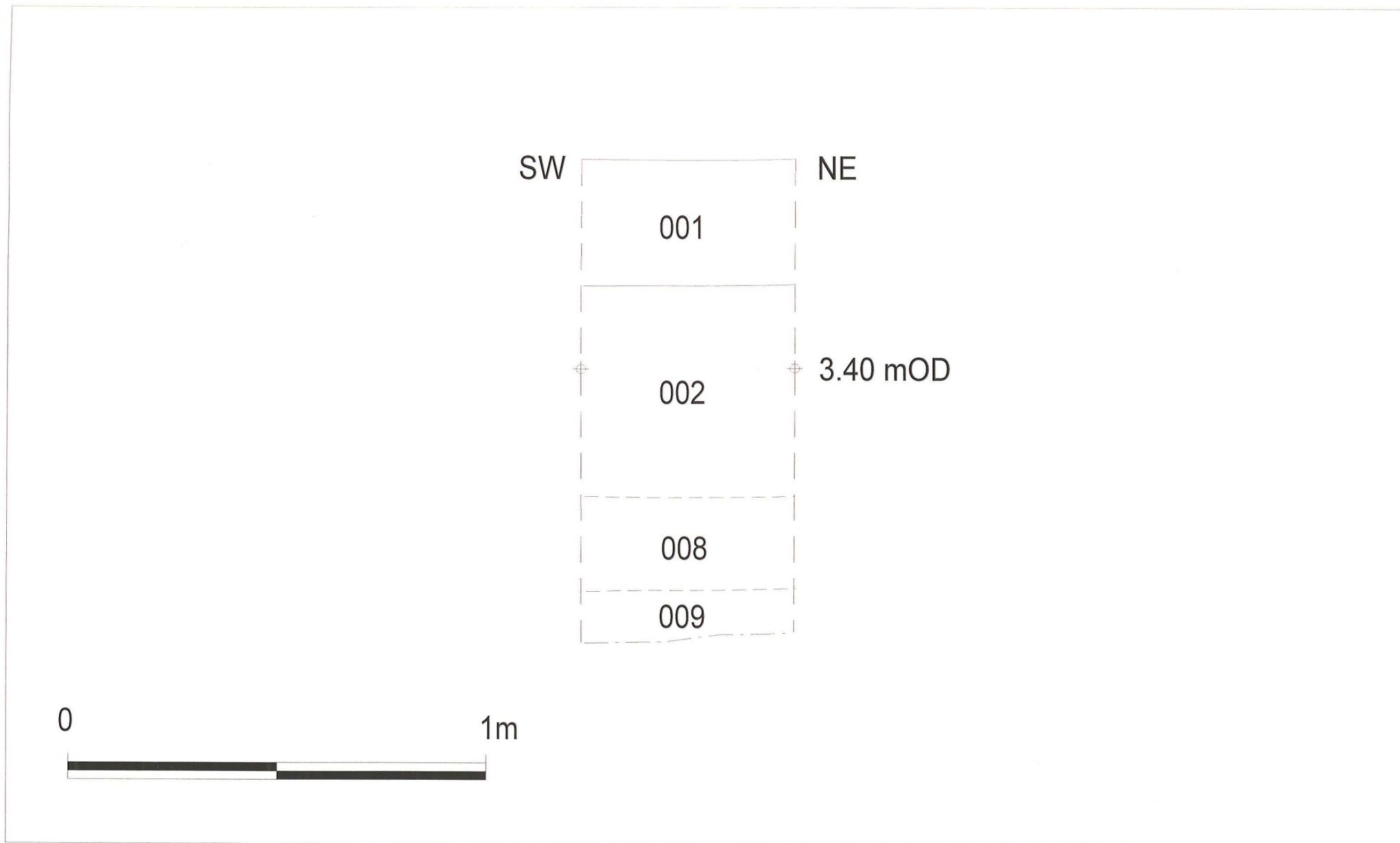


Figure 7 Section 6, Southeast Facing



Plate 1 General view of development, looking southeast



Plate 2 Representative section, looking northeast

ARCHAEOLOGICAL PROJECT BRIEF
ENHANCED OBSERVATION AND RECORDING INCORPORATING
TRENCHED INVESTIGATION

Church Lane, Swineshead, Boston

1. SUMMARY

- 1.1 This document is the brief for an archaeological scheme of works to be carried out at Church Lane, Swineshead, Boston
- 1.2 This brief should be used by archaeological contractors as the basis for the preparation of a detailed archaeological project specification. In response to this brief contractors will be expected to provide details of the proposed scheme of work, to include the anticipated working methods, timescales and staffing levels.
- 1.3 All of the detailed specifications will be submitted for approval to the Boston Community Archaeologist. The client will be free to choose between those specifications which are considered to adequately satisfy this brief.
- 1.4 **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. Swineshead is located approximately 10km to the south west.

3. Planning Background

- 3.1 A planning application was submitted to Boston Borough Council (B19/0574/96) and granted permission subject to a condition for the implementation of a scheme of archaeological works.

4. Archaeological Background

- 4.1 Two prehistoric stone axes (B19/030) and (B19/023) have previously been recovered from swineshead the second axe found dates to the Bronze Age. However, the Bronze Age land surface is known to be deeply buried under later peats and alluvial silts.

Romano-British pottery has been recovered within the locality of the development (B19/023 and B19/032), and fieldwalking has produced a significant quantity of material from this period within a 5km radius of the site. Aerial photography has located a series of enclosures, probably of late prehistoric-Romano-British date (B19/001; 002; 004; 012).

Late Saxon pottery (B19/053), recovered from the area provides evidence for occupation during the of Anglo-Scandinavian period. A single Late Saxon strap-end (B19/018), found near the centre of the village, close to the development, is the only other recorded artifact from this period. The earliest historical reference to Swineshead dates to approximately A.D. 650, (Anglo-Saxon Chronicle mentions *Swineshaefed* in 675 A.D)

Medieval finds are common in the village, and the surrounding landscape contains several standing monuments from this period. A scatter of pottery of medieval date was recovered from land during a watching brief (B19/050). *Stenning* or *Estovening* (B19/014), a village mentioned in the Domesday survey of A.D. 1086 but deserted in the 14th century, lay approximately 1.5km away from the development area. The 14th century church of , St. Mary the Virgin (B19/006), lies 100m to the north, and Manwar Ings Castle (B19/025) is situated c.2km to the southeast. A Cistercian abbey of the 12th century is located c. 2km to the southeast of the development site .

Swineshead was a market town during the medieval period with charters for two annual fairs (Platts 1985, appendix 1). In the centre of the village, c 1.5km to the south of North End is the Butter Cross (B19/005). This stone market cross provided a focus for trading activities during the medieval period and later. Boston is situated in the south Lincolnshire Fens, approximately 45km southeast of Lincoln and 7km from the northwest coast of the Wash.

An archaeological evaluation carried out by John Samuels Archaeological Consultants prior to outline planning permission recorded a possible palaeosol interpreted as a medieval ploughsoil which produced a range of pottery dating from the 13th - 14th centuries. Based on this interpretation, an undulating base of this transformed horizon noted within the evaluation implies a possible furrow, and the lack of a corresponding undulation on the upper horizon is possibly describing a levelling phase. Cut into the upper horizon is an undated gully of undetermined function. Sealing the poss. palaeosol and the gully is a layer interpreted as a marine inundation. This layer represents the first evidence of sea level rise to a height of c.5.25 within this region and post-dates earlier evidence of sea level maximums which are assumed to have taken place in the Saxon/early medieval period prior to widespread drainage (Waller *The Fenland Project, No.9: Flandrian Environmental Change in Fenland*, EAA 70 1994). This data has implications for medieval settlement within the area and the wider region as sea level maximum boundaries have only previously been estimated at 3.5 OD (*ibid*).

5. REQUIREMENT FOR WORK.

- 5.1 The objective of the investigation should be to confirm the presence of a marine inundation at the upper boundary of the medieval period and to re-construct the environmental/archaeological history of the site throughout the medieval period. Further observation and recording work should ensure that any archaeological features exposed by the groundworks are recorded and interpreted and that any remains disturbed are recovered.
- 5.2 Palaeoenvironmental sampling and archaeological recording of features associated with the palaeosol should take place in a controlled excavation which can take place in

conjunction with development groundworking but will form extra trenching.

- 5.2 Any adjustments to the brief for the This brief project should only be made after discussion with the Boston Community Archaeologist.
- 5.3 The following details should be given in the contractor's specification:
 - 5.3.1 A projected timetable must be agreed for the various stages of work.
 - 5.3.2 The staff structure and numbers must be detailed. **This should include lists of specialists and their role in the project. If named specialists do not contribute to the final report agreement must be made with the Community Archaeologist prior to report production.**
 - 5.3.3 It is expected that all on-site work will be carried out in a way that complies with the relevant Health and Safety Legislation and that due consideration will be given to site security.
 - 5.3.4 **The recovery and recording strategies to be used must be described in full.**
 - 5.3.5 An estimate of time and resources allocated for post excavation work and report production.

6. METHODS

- 6.1 The investigation should be carried out by a recognised archaeological body in accordance with the code of conduct of The Institute of Field Archaeologists.
- 6.2 The investigation should involve:
 - 6.2.1 a limited trenching scheme;
 - 6.2.2 palaeoenvironmental sampling of soil sequence;
 - 6.2.3 full record of archaeological deposits/features;
 - 6.2.4 archaeological supervision of soil stripping;
 - 6.2.5 inspection of subsoil for archaeological features;
 - 6.2.6 recording of archaeological features in plan;
 - 6.2.7 rapid excavation of features if necessary;
 - 6.2.8 archaeological supervision of subsoil stripping;
 - 6.2.9 inspection of natural for archaeological features and recording of them;
 - 6.3.0 sampling of deposits which warrant further investigations

- 6.3.1 any human remains encountered must be left in situ and only removed if absolutely necessary. The contractor must comply with all statutory consents and licences under the Disused Burial Grounds (Amendment) Act, 1981 or other Burial Acts regarding the exhumation and interment of human remains. It will also be necessary to comply with all reasonable requests of interested parties as to the method of removal, reinterment or disposal of the remains or associated items. Attempt must be made at all times not to cause offence to any interested parties;
- 6.3.2 If discovered during excavation finds of gold and silver must be archaeologically removed to a safe place and reported to the local Coroner immediately (within 14 days) in accordance with the procedures of Treasure Act 1997 and Code of Practice. If removal of such finds is not possible on the same day then adequate security arrangements must be made.

7. MONITORING ARRANGEMENTS

- 7.1 The Boston Community Archaeologist will be responsible for monitoring progress and standards throughout the project and will require at least seven days notice prior to the commencement of the work. The Community Archaeologist should be kept informed of any unexpected discoveries and regularly updated on the project's progress. They should be allowed access to the site at their convenience and will comply with any health and safety requirements associated with the site.

8. REPORTING REQUIREMENTS

- 8.1 A full report should be produced and deposited with the Boston Community Archaeologist, Boston Council Planning Department, the Developer and the County Sites and Monuments Record. The report should include:
- 8.1.1 location plan of the trenches;
 - 8.1.2 section and plan drawing, with ground level, Ordnance Datum, vertical and horizontal scales as appropriate;
 - 8.1.3 specialist descriptions and discussions of artefacts and ecofacts;
 - 8.1.4 an indication of potential archaeological deposits not disturbed by the present development;
 - 8.1.5 colour photographs should be utilised to illustrate specific points or for general views;
 - 8.1.6 palaeoenvironmental report detailing environmental sequence;
 - 8.1.7 description/interpretation of site history and taphonomy;
 - 8.1.8 discussion and interpretation of evidence including comments on local and

regional significance.

- 8.2 After agreement with the landowner, arrangements should be made for long term storage of all artefacts in the City and County Museum, Lincoln, as outlined in that Museum's document 'Conditions for the acceptance of Project Archives'. The City and County Museum should be contacted at the earliest possible opportunity so that the full cost implications of the archive deposition can be taken into account.
- 8.3 A site archive should be produced and deposited with the artefacts as detailed in 8.2.

9. ADDITIONAL INFORMATION.

- 9.1 This document attempts to define the best practice expected of an archaeological scheme but cannot fully anticipate the conditions that will be encountered as work progresses. However, changes to the approved programme of excavation are only to be made with the prior written approval of the Community Archaeologist.

9.2 Further contact addresses:

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APPENDIX 2

LAND AT CHURCH LANE,
SWINESHEAD,
LINCOLNSHIRE
SPECIFICATION FOR
ENHANCED ARCHAEOLOGICAL
WATCHING BRIEF

PREPARED FOR

LOFTHOUSE DEVELOPMENTS

BY

ARCHAEOLOGICAL PROJECT SERVICES
Institute of Field Archaeologists'
Registered Archaeological Organisation No. 21

JULY 1999

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1 **SUMMARY**

- 1.1 *An enhanced watching brief is required during residential development at Church Lane, Swineshead, Lincolnshire.*
- 1.2 *The site is in the core of the medieval village. Previous investigations at the site identified an apparent buried soil layer of medieval date.*
- 1.3 *The enhanced watching brief will be undertaken during groundworks associated with the development. The archaeological features exposed will be recorded in writing, graphically and photographically. The buried soil, and overlying silts, will be examined in situ by an environmental archaeologist.*
- 1.4 *On completion of the fieldwork a report will be prepared detailing the findings of the work. The report will consist of a narrative, including a consideration of the buried soil, supported by illustrations and photographs.*

2 **INTRODUCTION**

- 2.1 This document comprises a specification for an enhanced archaeological watching brief during development at Church Lane, Swineshead, national grid reference TF 237 402.
- 2.2 This document contains the following parts:
 - 2.2.1 Overview.
 - 2.2.2 Stages of work and methodologies.
 - 2.2.3 List of specialists.
 - 2.2.4 Programme of works and staffing structure of the project.

3 **SITE LOCATION**

- 3.1 Swineshead is located approximately 45km south east of Lincoln in the administrative district of Boston Borough Council. The site is in the southern part of the village, just south of the parish church at national grid reference TF 237 402.

4 **PLANNING BACKGROUND**

- 4.1 Planning permission for the residential development of the land has been applied for. The Boston Community Archaeologist has advised that consent will be subject to conditions requiring a programme of enhanced archaeological recording.

5 **SOILS AND TOPOGRAPHY**

- 5.1 The area surrounding the site is relatively flat and lies at approximately 5m OD. Local soils are alluvial gleys of the Agney Association developed on marine alluvium (Hodge *et al.* 1984, 87).

6 **THE ARCHAEOLOGY**

- 6.1 No finds of Roman or prehistoric material have been made from the immediate vicinity, though finds of these dates are common in the general area. However, the Roman and prehistoric land surfaces occur at depth, buried beneath later silts and peats.

- 6.2 During the medieval period Swineshead was an important settlement, established on the navigable River Swin. The settlement is first mentioned shortly after 650 AD when there are references to a monastery at Swineshead. In the Domesday Book, Swineshead itself is not mentioned but the settlements of Stenning and Drayton, both within the parish, are referred to.
- 6.3 The medieval core of the village is likely to have been centred around the parish church of St. Mary's. Medieval pottery has been found both to the east and west of the church. Located to the west of the site is the deserted medieval village of *Estovening*.
- 6.4 Previous investigations in the immediate vicinity of the site has revealed several undated features including pits and a possible boundary ditch (Archaeological Project Services 1997, 3). Investigations originally undertaken at the site itself revealed a modern ditch and a possible buried soil of 13th-14th century date. The undulating base of this deposit may be due to ploughing while the lack of corresponding undulation on the upper surface of deposit may be due to an episode of levelling. This soil layer was sealed by silt layers thought to have resulted from marine flooding of the area (JSAC 1997). However, this is significantly higher than previous estimations of the maximum sea level in this area and also post-dates the general evidence of marine flooding which is thought to have taken place in the Late Saxon-early medieval period, prior to widespread drainage operations in the Lincolnshire fenland.

7 AIMS AND OBJECTIVES

- 7.1 The aims of the investigation will be:
- 7.1.1 To record and interpret the archaeological remains, including the buried soil and overlying silts, exposed during the excavation of the foundation trenches and other areas of ground disturbance.
- 7.2 The objectives of the watching brief will be to:
- 7.2.1 Establish the nature of the silt above the buried soil, ie, whether it is of marine or freshwater origin, or caused by transformation;
- 7.2.2 Establish the nature of the buried soil
- 7.2.3 Determine the form and function of the archaeological remains encountered;
- 7.2.4 Determine the spatial arrangement of the archaeological remains encountered;
- 7.2.5 As far as practicable, recover dating evidence from the archaeological remains, and
- 7.2.6 Establish the sequence of the archaeological remains present on the site.

8 SITE OPERATIONS

- 8.1 General considerations
- 8.1.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the watching brief.
- 8.1.2 The work will be undertaken according to the relevant codes of practise issued by the Institute of Field Archaeologists (IFA), under the management of a Member of the Institute (MIFA). *Archaeological Project Services* is an IFA Registered Archaeological Organisation (no. 21).

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

8.2 Methodology

- 8.2.1 The enhanced watching brief will be undertaken during the ground works phase of development, and includes the archaeological monitoring of all phases of soil movement.
- 8.2.2 If the buried soil known to occur at the site is not encountered in the development trenches then other trenches will be excavated to locate the deposit.
- 8.2.3 The buried soil will be examined *in situ* by an environmental archaeologist who will advise on the need, or otherwise, for more detailed examinations of the deposit. Similarly, the environmental archaeologist will also examine the silt deposit which overlies the buried soil in order to establish its nature and advise if more detailed examinations or sampling are required.
- 8.2.4 Trench sections will be observed regularly to identify and record archaeological features that are exposed and to record changes in the geological conditions. The section drawings of the trenches will be recorded at a scale of 1:10. Should features be recorded in plan these will be drawn at a scale of 1:20. Written descriptions detailing the nature of the deposits, features and fills encountered will be compiled on Archaeological Project Services pro-forma record sheets.
- 8.2.5 Any finds recovered will be bagged and labelled for later analysis.
- 8.2.6 Throughout the investigation a photographic record will be compiled. The photographic record will consist of:
- 8.2.6.1 The site during work to show specific stages, and the layout of the archaeology within the trench.
- 8.2.6.2 groups of features where their relationship is important
- 8.2.7 Should human remains be located they will be left in position and only removed if absolutely necessary. The appropriate Home Office licence will be obtained before any such removal. In addition, and if appropriate, the Local Environmental Health Department, the coroner and the police will be informed.

9 **POST-EXCAVATION**

9.1 Stage 1

- 9.1.1 On completion of site operations, the records and schedules produced during the watching brief will be checked and ordered to ensure that they form a uniform sequence forming a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued and labelled, the labelling referring to schedules identifying the subject/s photographed.
- 9.1.2 All finds recovered during the field work will be washed, marked and packaged according to the deposit from which they were recovered. Any finds requiring

specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

9.2 Stage 2

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

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

9.3 Stage 3

9.3.1 On completion of stage 2, a report detailing the findings of the watching brief will be prepared.

9.3.2 This will consist of:

9.3.2.1 A non-technical summary of the results of the investigation.

9.3.2.2 A description of the archaeological setting of the watching brief.

9.3.2.3 Description of the topography of the site.

9.3.2.4 Description of the methodologies used during the watching brief.

9.3.2.5 A text describing the findings of the watching brief.

9.3.2.6 A consideration of the local, regional and national context of the watching brief findings.

9.3.2.7 Plans of the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.

9.3.2.8 Sections of the archaeological features.

9.3.2.9 Interpretation of the archaeological features exposed, and their chronology and setting within the surrounding landscape.

9.3.2.10 Specialist reports on the finds from the site.

9.3.2.11 Specialist reports on the buried soil and overlying silts at the site.

9.3.2.12 Appropriate photographs of the site and specific archaeological remains.

10 **REPORT DEPOSITION**

10.1 Copies of the report will be sent to the client; the Boston Borough Community Archaeologist; Boston Borough Council Planning Department; and to the County Sites and Monuments Record.

11 **ARCHIVE**

11.1 The documentation and records generated during the watching brief will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This will be undertaken following the requirements of the document titled *Conditions for the Acceptance of Project*

Archives for long term storage and curation.

12 **PUBLICATION**

12.1 A report of the findings of the watching brief will be published in Heritage Lincolnshire's Annual Report and a note presented to the editor of the journal of the Society for Lincolnshire History and Archaeology. If appropriate, notes on the findings will be submitted to the appropriate national journals: *Britannia* for discoveries of Roman date, and *Medieval Archaeology* and the journal of the *Medieval Settlement Research Group* for findings of medieval or later date.

13 **CURATORIAL RESPONSIBILITY**

13.1 Curatorial responsibility for the archaeological work undertaken on the site lies with the Boston Borough Council Community Archaeologist. They will be given seven days notice in writing before the commencement of the project.

14 **VARIATIONS**

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

15 **PROGRAMME OF WORKS AND STAFFING LEVELS**

15.1 The watching brief will be integrated with the programme of construction and is dependent on the developers' work programme. It is therefore not possible to specify the person-hours for the archaeological site work.

15.2 An archaeological supervisor with experience of watching briefs will undertake the work. An environmental archaeologist will examine the buried soil.

15.3 Post-excavation analysis and report production will be undertaken by the archaeological supervisor, or a post-excavation analyst as appropriate, with assistance from a finds supervisor, illustrator and external specialists. It is expected that each fieldwork day (equal to one man-day) will require a post-excavation day (equal to one-and-a-half man-days) for completion of the analysis and report. If the fieldwork lasts longer than about six days then there will be an economy of scale with the post-excavation analysis.

16 **SPECIALISTS TO BE USED DURING THE PROJECT**

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

<u>Task</u>	<u>Body to be undertaking the work</u>
Conservation	Conservation Laboratory, City and County Museum, Lincoln
Pottery Analysis	Prehistoric Pottery - Trent & Peak Archaeological Trust Roman - B Precious, independent specialist Saxon - City of Lincoln Archaeology Unit Medieval and later - Hilary Healey, independent archaeologist

Non-pottery Artefacts	J Cowgill, independent specialist
Animal Bones	Environmental Archaeology Consultancy
Buried Soil Examination	Environmental Archaeology Consultancy
Human Remains Analysis	R Gowland, independent specialist

17 **BIBLIOGRAPHY**

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JSAC, 1997 *An Archaeological Evaluation at Church Lane, Swineshead, Boston*

18 **ABBREVIATIONS**

JSAC John Samuels Archaeological Consultants

Appendix 3

Context Descriptions

Context Number	Section Number	Description	Interpretation
001	1, 2, 3, 4	Firm, dark grey brown silt with occ brick/rubble frags. Deposit 0.5m thick	Topsoil
002	1, 2, 3, 4	Firm, dark yellow brown silt with occ small stones. Deposit 0.25m thick.	Subsoil
003	2, 3, 4	Loose, mid grey brown silt with occ bricks, bits of plastic, mod small stones/pebbles. Deposit 0.4m thick.	Built up ground
004	2	Firm, light grey brown silt.	Natural
005	3	Firm, mid yellow brown silt with occ small stones, mod charcoal flecks and occ shell.	Fill of (006)
006	5	Cut, possibly linear, >0.6m deep, sloping sides, only fragments revealed.	Ditch or elongated pond
007	5	Firm, very dark yellowish brown silt, with occasional stones.	Fill of (006)
008	6	Firm, grey-brown sandy silt, with occasional small stones and charcoal flecks, c. 0.23m thick.	Silt layer/gleyed horizon
009	6	Firm, pale grey-brown silty sand, > 0.12m thick.	Natural silt.

Appendix 4

THE FINDS

Paul Cope-Faulkner, Hilary Healey and Gary Taylor

Provenance

The material was recovered from a layer of subsoil (002) and the topsoil (001).

The earlier pottery fragment was probably made locally at Toynton All Saints, 30km to the south, though the second piece is probably a product of Staffordshire in the Midlands.

Range

The range of material is detailed in the table.

A single fragment of pottery of probable 14th-15th century date is the earliest material recovered. In addition to the pottery, animal bone and mollusc shell was also retrieved.

Context	Description	Context Date
001	1x white glazed tableware, 19 th century	19 th century
	1x bone, sheep sized, unidentified fragment	
002	1x Toynton All Saints-type ware, 14 th -15 th century	14 th -15 th century
	1x sheep sized rib	
	1x sheep sized skull fragment	
	2x mussel shell	

Condition

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

Documentation

There have been numerous previous archaeological investigations at Swineshead, including in immediate proximity of the present investigation site, which are the subjects of reports. Details of archaeological sites and discoveries in the area are maintained in the files of the Boston Community Archaeologist and the Lincolnshire County Council Sites and Monuments Record.

Potential

As a small group, the assemblage has limited potential. However, the medieval pottery indicates activity of the period in the vicinity and concurs with previous investigations close by.

Church Lane, Swineshead, Boston - SCL99

Introduction

The evaluation excavations at Church Lane, Swineshead (JSAC 1997) interpreted a charcoal flecked 0.33m thick 13-14th century layer (104) in Trench 1 as a possible palaeosol. This layer was covered by an 'orangey light brown sandy silt (103)' interpreted as resulting from a marine inundation of the site in the late medieval period. Beneath layer 104 two further deposits, 111 and 112, were interpreted as marine silts.

This interpretive sequence of marine silts upon which a medieval soil developed and was later, in the 14th century or later, inundated again by the sea which deposited further marine silts would represent the only site where a late medieval or post-medieval marine inundation has been recognised in Lincolnshire. The normal sequence of events, identified at Swineshead (Waller 1994), is marine inundation depositing sands and silts in the Iron Age and early Roman period, a period of marine regression leading to colonisation of areas of marine silt in the Roman period, a subsequent transgression - radiocarbon dated at Swineshead to 315-425 cal. AD and 395-535 cal. AD (Waller 1994) which is consistent with Hallam's (1970) interpretation based upon settlement evidence, and finally a return to terrestrial conditions probably in the Saxon or late Saxon period and reclamation of the salt marshes during the medieval period. This sequence is at odds with the interpretation based on the fieldwork at Church Lane, Swineshead and the Boston Community Archaeologist requested that the 'palaeosol' was re-investigated during the watching brief.

Results and Discussion

The site was visited on 20th and 21st September 1999 to view the sections visible in the foundation trenches of the house being built upon the site. A horizon interpreted as possibly the same as layer 104 in the evaluation Trench 1 was identified on site but nowhere was this as clearly defined as illustrated in the photograph produced in the evaluation report (JSAC 1997). The stratigraphy within the foundation trench was discontinuous with a large post-medieval feature cutting most of the deposits leaving the original sequence in only portions of the sections. The foundation trenches lay lower down the slope than evaluation Trench 1 and this may have been a factor in the reduced visibility of the 'layer'. The upper surface of the possible palaeosol in Trench 1 of the evaluation is recorded at 5.12m OD while in the foundation trench of the new building the top of the layer correlated with it was recorded at 3.1m OD.

A soil monolith sample was taken from the sequence in the foundation trench for closer inspection. The 75cm monolith is composed of slightly silty fine sands fining upwards to very silty fine sands. These appear to be typical marine sediments that reflect deposition of the sediments under intertidal conditions with the finer sediments above being pioneering mudflat or saltmarsh deposits (Shennan 1994). The lowest deposits still retain the laminate pattern typical of undisturbed tidally deposited sediments. A terrestrial episode within this sequence would be expected to show fining to a saltmarsh depositional environment and then a return to intertidal deposits with fine sand deposition. The fact that the sequence shows a single fining upwards tendency suggests that it reflects just one period of regression with no subsequent inundation. The barely visible horizon located at 3.1m OD is not reflected by any sedimentary change and in this sequence is not characterised by any visible concentration of archaeological inclusions. Fragments of stone, building material and charcoal occur throughout the sequence

down to a depth of 65cm in the monolith and visible evidence of root penetration to this depth and beyond indicates that small fragments at least could have moved down as a result of soil processes. Only below 65cm in the monolith do the fine sands pale, begin to show mottling and laminations indicating minimal disturbance of the sediments by soil processes. The fact that the sediments fine upwards through the horizon provisionally equated with the possible palaeosol observed during the evaluation and that the sediments at 65 cms depth still retain their laminations suggests that this horizon is probably a product of ground water table levels and has resulted from post-depositional changes in the sediment rather than reflecting a palaeosol.

With this in mind we can reassess the interpretation of a possible palaeosol from the evaluation. Firstly the palaeosol is described as being covered by 0.2m of sandy silt attributed to marine inundation. The OD height of this sandy silt is 5.1-5.3m (JSAC 1997). Estimates of the maximum height for marine sedimentation in this area in the Saxon/early medieval period are variable. Godwin (1978) and Hall (1987) have suggested a maximum of 3.5m OD. Waller (1994) records silty sands attaining a maximum of 4.04m OD on the Swineshead bypass. It is questionable whether any marine sediments of late medieval date could have been laid down up to a height of 5.3m OD and at this height the upper sequence of sediments in evaluation Trench 1 (contexts 101, 102 and 103) if they do overlie a palaeosol are much more likely to have originated as slopewash from upslope. There is little ground around the site which is higher although the adjacent church sits on land at approximately 6.0m OD. Since this church is Decorated to Perpendicular (Pevsner and Harris 1989) and therefore of 14-15th century date it is not impossible that layer 104 in the evaluation trench could have been covered during ground levelling or other earth moving activities associated with its building.

Without direct observation of the profile recorded in Trench 1 it is difficult to interpret. Nevertheless using the information available in the Evaluation Report an attempt can be made to interpret the deposit which has been described as a possible palaeosol. The photograph of the section contained in the report shows a developed soil profile with an upper dark-grey brown topsoil, described in the report as a clayey silty sand, corresponding with the turf layer and upper humic soil. Beneath this is what is described as a sub-soil of mid-brown silt (102) and then an orangey light brown sandy silt (103). This sequence corresponds with a natural soil formation and is almost certainly the product of soil processes rather than depositional events. The layer below, 104 - the possible palaeosol, appears fairly uniform on the site photograph and is described in the report as a mid-grey brown silty clay. The photograph, and the higher clay content implied by the sediment description, suggests that this layer is probably more appropriately described as a gleyed horizon and will have formed as a result of groundwater levels effecting the lower part of the soil. The occurrence of ceramics dated to the 13-14th centuries in this horizon clearly creates an anomaly should we view it as a gleyed horizon, however this can be explained.

Repeated seasonal fluctuations in water tables on these fine sandy and silty soils can result in the visual truncation of features and cuts such that they only become visible at or below the level to which the soil water table normally falls in summer. The occurrence of finds in this layer might therefore indicate the location of features whose cuts are no longer visible.

Conclusions

In conclusion the upper supposed marine silt covering the possible palaeosol in the evaluation occurs at an OD height and is of a supposed date which is not consistent with any known marine inundation in the Fens. On the basis of the evidence available to the author this is a mis-interpretation of the deposits. The possible palaeosol has two potential origins. It is either a palaeosol that has become covered by material that washed over or was dumped on the site, possibly prior to construction of the Parish church, or it formed *in situ* as a result of fluctuations in the ground water table. The presence of medieval pottery would argue against the latter interpretation although an explanation can be offered for its occurrence, while the photograph in the evaluation report is more suggestive of a gley horizon than a palaeosol. The rather tentatively correlated banding in the foundation trenches of the new building is more consistent with a gleyed horizon than a palaeosol.

Although this report has not clearly identified the character of the layer described as a possible palaeosol in the Evaluation report for Church Lane, Swineshead, it is the author's opinion on the basis of the information available, the exposures he observed in the foundation trenches and observation of the monolith that the horizon was probably an artefact of soil processes and changing soil water levels rather than a definable archaeological deposit. It is almost certain that this could have been resolved in the field during the evaluation by a visit from an environmental archaeologist or more particularly an environmental soil scientist.

Bibliography

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Shennan, I. 1994 Models of coastal sequences. In Waller 1994
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9th June 2000

Appendix 6

GLOSSARY

Bronze Age	A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.
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, <i>e.g.</i> (004).
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> 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).
Iron Age	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
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.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Appendix 7

THE ARCHIVE

The archive consists of:

9	Context records
6	Scale drawings
1	Photographic record sheets
1	Stratigraphic matrix
1	Bag of finds

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: LCNCC : 1999.261

Archaeological Project Services Site Code: SCL99

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.

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