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ARCHAEOLOGICAL EVALUATION ON LAND AT LINCOLN ROAD, HOLDINGHAM, SLEAFORD, LINCOLNSHIRE (SLLR 06)

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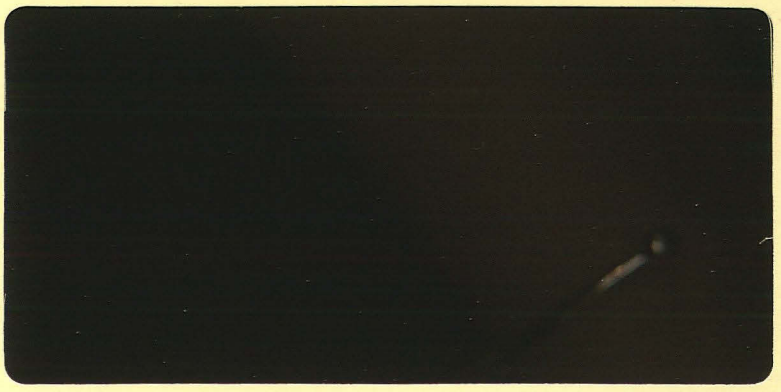

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ARCHAEOLOGICAL EVALUATION ON LAND AT LINCOLN ROAD, HOLDINGHAM, SLEAFORD, LINCOLNSHIRE (SLLR 06)

Work Undertaken For
NCHA Ltd

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

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ARCHAEOLOGICAL PROJECT SERVICES

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Quality Control

Lincoln Road,
Holdingham,
Sleaford
SLLR 06

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1. SUMMARY

An archaeological evaluation was undertaken on land at Lincoln Road, Holdingham, Sleaford, Lincolnshire. The evaluation was undertaken to assess the archaeological potential of the site in advance of proposed development.

The site lies close to a Romano-British (AD 43-410) villa and a possible associated cemetery located to the southwest. During construction adjacent to the site a Saxon settlement was partly revealed which took the form of two enclosures with accompanying structures and pits.

During the medieval period (AD 1066-1540) Holdingham lay at the centre of the three medieval fields of Sleaford as partly evidenced by ridge and furrow which survived to the south of the site until recently.

The evaluation identified deposits and features of Saxon, medieval, post-medieval and modern date as well as a range of undated deposits. The majority of features, including postholes, pits, ditches and gullies, indicate a sizeable settlement dating to between the 5th and 8th centuries. Concentrations of domestic refuse were noted on the east side of the site (in Trenches C and N) where structural remains were encountered.

Medieval and later remains are generally scarce across the site. However, a medieval stone building was located in the southern part of the evaluated area and was possibly associated with two contemporary quarry pits. The function of this structure is not clear, but could be a watermill, given its location adjacent to the Holdingham Beck.

Finds retrieved include a substantial amount of Saxon pottery, mainly locally produced during the Early to Middle Saxon periods, although the assemblage does includes examples from further afield, including Leicestershire. Other finds include loomweights, quernstones and metalwork.

A moderate assemblage of medieval pottery was also collected and again mostly comprised local products, although regional and international trade is also represented.

In addition to the Saxon and medieval finds, a prehistoric flint tool, Bronze and Iron Age pottery and a quantity of Romano-British artefacts, comprising pottery and a Coin of Constantius II (AD 346-50) was collected. The fragmentary and residual nature of the pottery would suggest it entered the site as a manuring scatter.

Environmental sampling identified moderately well preserved plant remains, including food crops such as wheat, barley and oats and smaller animal bones such as fish and small wild mammals. The samples were also tested for hammerscale which revealed that iron smithing was undertaken at the site.

Animal bones retrieved during the investigation indicate that cattle, sheep/goat and pig were the principal meat sources with horse and goose also represented. Numbers of animal bones decreased during subsequent phases, although the same principal species are represented.

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, quality and preservation, and it enables an assessment of their worth in a local, regional, national or international context as appropriate' (IFA 1999).

2.2 Planning Background

Archaeological Project Services was commissioned by NCHA Limited to undertake an archaeological evaluation of land at Lincoln Road, Holdingham, Sleaford, Lincolnshire. The work was undertaken between the 18th April and 16th May 2006 in accordance with a specification prepared by Archaeological Project Services (Appendix 1) and approved by the North Kesteven Planning Archaeologist.

2.3 Topography and Geology

Sleaford is located 27km south of Lincoln and 26km west of Boston in the administrative district of North Kesteven, Lincolnshire (Fig. 1). Holdingham is located 1.5km north of the centre of Sleaford.

The proposed development site is located adjacent to Lincoln Road on its eastern side at National Grid Reference TF 0595 4730 and encompasses some 2.4 hectares (Fig. 2). The site is bordered by Lincoln Road to the west, the A17 to the north and the Holdingham Beck to the south with a farm track located to the east. The site lies at heights of between 25.8m OD towards the north of the field dropping to 22.5m OD in the southwest corner of the site.

Local soils at the site are of the Aswarby Series, typically brown calcareous earths (George and Robson 1978, 44). These soils are developed upon a solid geology of Jurassic Cornbrash with Blisworth Clay outcropping in the narrow valley of the Holdingham Beck (GSGB 1972).

2.4 Archaeological Setting

Holdingham is located in an area of known archaeological remains dating from the Romano-British period to the present day.

It has been suggested that Lincoln Road fossilises the route of a Roman thoroughfare that once connected the Romano-British settlement at Old Sleaford with Lincoln (Margary 1973, 236). This is likely to be the case north of Brauncewell where short straight lengths are evident. However, between Sleaford and Brauncewell the route is more winding and not typical of a Roman road, though it may have prehistoric origins.

To the east of the site is the suspected site of a Romano-British villa as evidenced by stone, tessera and tile. Southwest of the site, skeletons associated with Romano-British pottery were discovered and may indicate the position of a cemetery.

A watching brief was undertaken during the construction of a fast food restaurant immediately west of the site. This identified two enclosures, each with a structure and a sunken floored building, dating to the Early-Middle Saxon period (Rayner forthcoming). Evidence for weaving was found within one enclosure and pottery retrieved may suggest some international and regional trade. Occupation of the site continued into the Middle Saxon period, albeit on a smaller scale with the site largely abandoned by the 9th century.

Holdingham is first mentioned in the Assize Rolls of 1202. Referred to as *Haldingeham* the name derives from the Old English and means 'the farm or

settlement (*hām*) of *Halda's* people' (Cameron 1998, 64).

Although place-name evidence indicates a Saxon foundation, the fact that it was omitted from the Domesday Survey indicates that the medieval settlement lay within the Bishop of Lincoln's Estate of New Sleaford (Roffe 1979, 13). This estate, centred on Sleaford, included the church and 8 mills with 320 acres of meadow and 1 acre of underwood (Foster and Longley 1976, 7/43). It has been suggested that Holdingham was the original and more important village, positioned as it is at the centre of the former medieval three fields of the parish (Pawley 1996, 29).

The Assize Rolls indicate that in the 13th century Holdingham was still in the possession of the Bishop of Lincoln and still formed a portion of the Sleaford estate (Trollope 1872, 180). In fact, it remained in possession of the Bishops of Lincoln until 1550 when it was sold to the Crown. It then passed to Edward, Lord Clinton before being sold to Robert Carre in 1559 (Pawley 1996, 36). The estate eventually passed to the Marquis of Bristol through marriage in the late 17th century (Trollope 1872, 181). The Bristol estates owned much of the land until the 1960s.

A chapel, possibly a chapel of ease, dedicated to the Virgin Mary is recorded at Holdingham in the 16th century (Trollope 1872, 181). It is not known when this chapel was constructed but it was recorded as being ruinous at this time, thus indicating an older date. It is believed to have been destroyed in 1554 although standing portions were still visible in 1640 and earthworks of the chapel were noted in the early 19th century (Creasey 1825, 89).

A plan dating to 1776 entitled '*The property of the Rt. Hon. Earl of Bristol in the Lordship of New Sleaford and Holdingham*' depicts the site where it forms one of three parcels of land that are not shown with ridge and furrow. They are labelled as Croft Close, Home Close and Hume Close which may suggest that they were settled at this period.

In advance of the evaluation a geophysical survey of the site was undertaken (Smalley 2006, 6). This identified a number of linear anomalies which appear to create rectilinear enclosures with a number of smaller discrete anomalies perhaps indicating the position of pits (Fig. 4).

3. AIMS

The aim of the evaluation was to gather information to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits in order to enable the North Kesteven Planning Archaeologist to formulate a policy for the management of archaeological resources present on the site.

4. METHODS

Trenches were positioned to intercept various anomalies identified during the geophysical survey and to give suitable coverage (*c.* 5%) of the proposed development area. Trenches were surveyed in using a GPS system so opened areas could then be related to Ordnance Survey Grid Coordinates.

Removal of topsoil was undertaken by mechanical excavator using a toothless ditching bucket. The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains.

Each deposit exposed during the evaluation was allocated a unique reference number (context number) with

an individual written description. A list of all contexts and interpretations appears as Appendix 2. A photographic record was compiled and sections were drawn at a scale of 1:10 and plans at a scale of 1:20. Recording of deposits encountered was undertaken according to standard Archaeological Project Services practice.

Following excavation, finds were examined and a period date assigned where possible (Appendices 3-4). Records were checked and ordered to ensure that they constituted a complete MAP II archive and a stratigraphic matrix of all identified deposits was produced. Phasing was based on the nature of the deposits and recognisable relationships between them and supplemented by artefact dating.

5. RESULTS

Following post-excavation analysis seven phases were identified;

Phase 1	Natural deposits
Phase 2	Undated deposits
Phase 3	Early Saxon deposits
Phase 4	Early to Middle Saxon deposits
Phase 5	Medieval deposits
Phase 6	Post-medieval deposits
Phase 7	Recent deposits

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

Phase 1 Natural deposits

Trench A
Natural deposits in Trench A comprised brownish red silt and yellow limestone in a clay matrix (149).

Trench B
The earliest deposit encountered in this trench was a layer of reddish brown clayey silt (005).

Trench C
A layer of brownish yellow sandy silt (036) was identified as the natural in this trench.

Trench D
Natural of yellowish red sand to clayey sand with limestone (078) was recorded.

Trench E
The earliest deposit encountered was a dark yellow limestone with clay (281). This was overlain by an intermittent deposit of reddish brown silty sand (280).

Trench F
Deposits of brownish red sand with clay and limestone (119) was recorded as natural within this trench.

Trench G
A layer of red sand with outcrops of yellow limestone (171) was identified in this trench. A linear band of red sand (167) was excavated further to reveal a natural feature, possibly a palaeochannel (168) that was 3.14m wide and 0.45m deep (Fig. 16, Section 63).

Trench H
Red silty sand (148) was identified as natural in this trench.

Trench I
Natural deposits comprised a layer of reddish brown clayey silt (183) with outcrops of white and yellow limestone (193).

Trench J
The earliest deposit in this trench was a layer of yellowish red sandy clay with limestone (195).

Trench K
Within Trench K, natural was recorded as

a layer of brownish yellow clayey silt (190).

Trench L
Brownish yellow clay with limestone (162) was identified as natural in this trench.

Trench M
Natural deposits within this trench comprised a layer of mixed red sand and yellow clay with limestone (200).

Trench N
Layers of yellow clay with limestone and intermittent red sand (267) was identified within this trench.

Trench O
The earliest layer identified in Trench O was yellow limestone in a white clay matrix (207) that was overlain by brownish red clayey silt (206).

Trench P
Natural deposits comprised a single layer of red sand (268).

Trench Q
A layer of yellow sandy clay with limestone (278) was recorded as natural within this trench.

Trench R
A layer of yellow limestone and clay (228) comprised the natural geology in Trench R.

Trench S
The earliest deposit encountered in this trench comprised yellow clayey sand with limestone fragments (263).

Phase 2 Undated deposits

Trench A
Located to the northern end of Trench A was a shallow pit (121) measuring over 0.7m long and wider than 0.5m with a depth of 60mm (Fig. 6, Section 45). This was filled with reddish brown silty sand with frequent charcoal (120). This had been truncated by a second pit (123). Over 0.68m long by 0.48m wide and 0.28m deep, this was filled with reddish brown silty sand (122).

South of these pits were two postholes, the northerly of which was oval in shape (031) and measuring 0.38m long, 0.34m wide and 40mm deep. The second posthole (029) had a diameter of 0.3m and a depth of 40mm. Both were filled with brownish grey sandy clay, (032) and (030) respectively.

Approximately 7m to the south of these features was a north-south aligned gully (081). This was over 3.85m long, wider than 0.44m and 50mm deep (Fig. 6, Section 16). Dark brownish grey sandy clay (082) was recorded as the fill.

Located alongside this gully were two postholes. One (129) was 0.25m in diameter and 60mm deep and the second (131) was 0.22m long, 0.16m wide and 100mm deep (Fig. 6, Section 46). Both were filled with reddish brown silty sand (128) and (130).

A further 1.8m south was posthole (066). This was circular with a diameter of 0.22m and a depth of 80mm (Fig. 6, Section 15) and filled with brownish grey sandy clay (067).

Another isolated posthole (137) was located 7m to the south. This had a diameter of 0.22m, a depth of 0.13m (Fig. 6, Section 48) and contained greyish brown silt (136).

Located at the southern end of the trench was a northwest-southeast aligned gully (134). This was 4.6m long with a return west at its southern end, 0.4m wide and 40mm deep (Fig. 6, Section 47) and was

filled with greyish brown silt (135).

Trench B

Located fairly centrally in this trench was a group of four postholes. The first posthole (006) was 0.82m wide and 0.29m deep (Fig. 8, Section 2). This was filled with greyish brown clayey silt (007).

Located 0.3m to the north was posthole (008). This was smaller, measuring 0.13m long by 0.11m and 50mm deep (Fig. 8, Section 3) and contained a fill of greyish brown clayey silt (009).

Situated 0.5m to the east was posthole (010) that had a diameter of 0.3m and depth of 0.23m (Fig. 8, Section 4). Greyish brown clayey silt (011) was recorded as the fill.

The final posthole (012) was located 0.5m to the north. This was oval in shape, measuring 0.32m long by 0.22m wide and 0.17m deep. This was also filled with greyish brown clayey silt (013).

Trench C

Towards the southern end of Trench C was a 0.36m diameter posthole (153) with a single fill of yellowish brown clayey silt (152).

Further south was an isolated pit (151) recorded in section only. This was 0.7m wide and 0.18m deep (Fig. 10, Section 53). This contained a single fill of yellowish brown clayey silt with frequent charcoal flecks (150).

Trench D

Located towards the eastern end of the trench (Fig. 11) was a sub-rectangular feature (026), identified as a truncated pit. This was 0.67m long by 0.46m wide and 70mm deep (Fig. 12, Section 21) and contained a single fill of greyish brown silty sand (025).

Immediately west of the pit was a circular posthole (052), part of a small cluster of such features, which had a diameter of 0.41m and was 0.14m deep (Fig. 12, Section 23). This had a single fill of yellowish brown silty sand (051).

A second posthole (063) was located 0.5m to the north with a diameter of 0.42m and a depth of 0.15m. This contained a fill of greyish brown silty sand (062).

Northwest of this was a further posthole (065). This was much smaller, measuring 0.18m in diameter with a depth of 80mm, with a fill of brown sand (064).

A final posthole (080) in this grouping lay 1.2m to the north. This was not excavated, though measured 0.15m in diameter and contained a single fill of greyish brown sand (079).

Towards the northwest end of the trench was another cluster of features, of which one posthole (046) was dated (see below Phase 3). The first of these features was a sub-circular posthole (069) measuring 0.34m long by 0.29m wide and 0.12m deep (Fig. 12, Section 29) and filled with yellowish brown sandy silt (068). Adjacent to this feature was posthole (071) which had a diameter of 0.3m and depth of 70mm. A fill of brownish yellow sandy silt (070) was recorded.

Southwest of the postholes against the side of the trench was a possible gully terminus (073). This was 0.31m wide and 0.14m deep (Fig. 12, Section 28) and contained a fill of brownish yellow silty sand (072).

Located 3m to the northwest was posthole (075) that measured 0.5m long by 0.48m wide and 0.2m deep (Fig. 12, Section 30). A single fill of yellowish brown sand with limestone fragments for packing (074).

Trench F
Revealed towards the eastern end of the trench was a number of undated postholes. The first (110) was 0.24m in diameter and 0.11m deep with a fill of yellowish brown sandy silt (109). The second (114) was oval, 0.28m long by 0.2m wide and 0.11m deep and filled with reddish brown sand (113).

The remaining two postholes were located further east where one (116) measured 0.34m long, 0.22m wide and 0.14m deep with a fill of yellowish brown clayey sand (115). The final posthole (118) was 0.21m long and 0.15m wide and 80mm deep and contained a fill of brown silty sand (117).

Trench H
A single pit (147), located towards the southwest end of the trench, was identified and was 0.87m long by 0.65m wide and 0.13m deep. This was filled with brown silty sand (146) that contained a fragment of lavastone quern.

Trench I
Located at the northern end of this trench was a probable pit (175). This was 0.9m long and wider than 0.5m and 0.17m deep (Fig. 20, Section 65). A single fill of greyish brown clayey silt (176) was recorded from which animal bone was retrieved.

Located towards the south end of the trench was a northwest-southeast aligned gully (181). This was over 1.8m long, 0.33m wide and 49mm deep with a fill of greyish brown sandy silt (182).

Trench J
Located in the centre of this trench was an oval posthole (158). This measured over 0.5m long by 0.25m wide and 0.13m deep (Fig. 22, Section 58). This contained brownish yellow silty sand (157).

A further 5m to the west was an elongated oval pit (173) measuring 1.05m long, 0.18m wide and 70mm deep. A reddish brown silty sand (172) constituted the fill.

Situated 2.4m west of the pit was a north-south aligned gully (185). This was over 1.5m long by 0.35m wide and 60mm deep (Fig. 22, Section 69) with a fill of yellowish brown silty sand with gravel (184).

Trench M
Located towards the north end of the trench was posthole (197) that measured 0.42m long by 0.28m wide and 0.21m deep (Fig. 25, Section 74). This was filled with yellowish brown silty sand (196)

Towards the south end of the trench was a further posthole (211). This was oval in shape and was 0.46m long, 0.41m wide and 0.12m deep with a single fill of yellowish brown silty sand (210).

Trench N
A number of undated postholes were identified towards the northeast end of the trench where they appeared to form part of a structure. These postholes include (217, 219, 232, 238, 240, 242 and 250) which were between 70mm and 0.27m deep. These were filled with either yellowish brown clayey silt (216, 218 and 231), or brown silty sand (237), reddish brown silty sand (239) and reddish brown sand (241 and 249).

Trench O
Located towards the northern end of this trench was a sub-rectangular posthole (201). This was 0.66m long by 0.48m wide and 0.15m deep (Fig. 28, Section 72). A single fill of greyish brown silt (202) was recorded.

Trench Q
Located towards the northwest end of Trench Q was a pit (272) measuring over 1.23m in length, 1.05m wide and 80mm

deep (Fig. 31, Section 94). A single fill of brownish grey silty sand (271) was identified.

Located 13.5m to the southwest was a gully terminal (277). Aligned north-south, this measured over 1m long by 0.54m wide. This was not excavated but contained a fill of brownish grey silty sand (276).

Trench R
Located along the north side of this trench was a broadly rectangular feature (223) perhaps a posthole or gully. This was over 0.3m long by 0.36m wide and 50mm deep (Fig. 33 Section 85). This feature contained a single fill of greyish brown silty sand (222).

Trench S
Cutting into the natural towards the eastern end of the trench was a pit (265). This was only partially exposed and excavated but measured 1.5m long, over 0.42m wide and greater than 0.18m deep. A single fill of yellowish brown silty sand (264) was recorded.

Phase 3 Early Saxon deposits

Trench A
A second ditch (041) was identified 2m to the south. This was aligned northwest-southeast and measured 2.9m wide and 0.3m deep (Fig. 6, Section 14). Fills comprise yellowish brown sandy silt (042), brownish grey sandy silt (043) and brownish grey clayey silt with frequent charcoal (044). Early Saxon pottery and residual Romano-British pottery was collected from the basal layer (042).

Trench B
Located centrally within this trench was an oval pit (014) that measured 1.7m long, 0.45m wide and 0.42m deep (Fig. 8, Section 6). A single fill of greyish brown clayey silt with ash, charcoal and shell (015) was recorded from which Early Saxon pottery was retrieved. Samples produced fired clay as well as bone and plant remains including cereals.

Trench C
Located at the northern end of this trench was an oval pit (002). This was 1.52m long by 1.2m wide and 100mm thick (Fig. 10, Section 1). It contained a fill of yellowish brown clayey silt with frequent charcoal flecks (001) from which Anglo-Saxon pottery was retrieved, as well as fired clay/daub and animal bone.

A structure was situated between 2m and 7m to the south. This comprised nine postholes. From the north, the first was a circular posthole (022) that contained yellowish brown silt (021) that produced a single sherd of Early Saxon pottery. Adjacent to this was a smaller posthole (024) that also contained yellowish brown clayey silt (023).

To the southwest was a third posthole (040) with a diameter of 0.4m. Further postholes include (020), 038), (061), (059), (085) and (091). These were all filled with yellowish brown clayey silt (039, 019, 037, 060, 058, 084 and 090). Early Saxon pottery was retrieved from contexts (040, 061, 059 and 085) and smithing slag from (084).

Midway along the structure, and cut by posthole (085) was a probable circular pit (087). This was 1.22m long, wider than 0.68m and 0.33m deep (Fig. 10, Sections 18 and 19). This was filled with yellowish brown clayey silt (086).

The southern end of the structure was marked by an east-west aligned gully (089). This was visible for a length of 0.95m and 0.49m wide and 70mm deep and also filled with yellowish brown clayey silt (088).

Located towards the centre of the trench was a north-south aligned gully (095 and 097) This was 3.43m long by 0.4m wide and 70mm deep (Fig. 10, Section 43). Fills of yellowish brown clayey silt were recorded (094 and 096) from which a single sherd of Early Saxon pottery was retrieved.

This gully had then been cut by a northeast-southwest aligned ditch (093). This was over 2m long by 1.2m wide and 0.25m deep (Fig. 10, Sections 41 and 42). A fill of yellowish brown clayey silt (092) was recorded from which Early Saxon pottery and a loomweight fragment was collected. Wheat, barley and oats were identified in the environmental samples.

Trench D

Located at the southeast end of this trench was an oval pit (018) that was 0.91m long and over 0.49m wide with a depth of 0.14m (Fig 12, Section 20). A single fill of yellowish brown silty sand (017) was recorded from which late 6th century pottery was retrieved.

A gully terminus or posthole (048) was located 6.5m to the northwest. This measured 0.49m wide and 0.27m deep (Fig. 12, Section 22) and contained a fill of yellowish brown silty sand (047). Early Saxon pottery was retrieved from the fill along with a fragment of a fired clay loomweight.

A further 8m to the northwest was a northeast-southwest aligned ditch (028). The ditch was 1.16m wide and 0.4m deep (Fig. 12, Section 26) and contained brown silty sand (027) from which Early Saxon pottery, smithing slag and burnt stone were collected.

Close to the cluster of undated postholes was a sub-circular feature (046). Identified as a posthole, this was 0.47m long by 0.44m wide and 0.2m deep with a fill of yellowish brown silty sand (045). Two sherds of Early Saxon pottery were collected from this feature.

At the northwest end of the trench was posthole (077) that was 0.4m long by 0.34m wide and 100mm deep (Fig. 12, Section 31). This was filled with brown sand (076) that contained Early Saxon pottery.

Trench F

Cutting natural and aligned north-south through the trench was a shallow feature (108). Perhaps a furrow, this was 1.65m wide and 80mm deep (Fig. 14, Section 33). A single fill of yellow clayey sand (107) was recorded from which Anglo-Saxon pottery was retrieved. However, it is possible that these ceramics are intrusive in a later agricultural feature.

A posthole (112) was located 1.8m east of the possible furrow and was 0.3m long, 0.25m wide and 0.17m deep (Fig. 14, Section 35). Brownish yellow silty sand with limestone packing (111) was recorded as the fill and produced Anglo-Saxon pottery.

Trench G

Located towards the southwestern end of the trench was a north-south aligned gully (166) and measured over 1.4m long and 0.58m wide and 90mm deep. This appears to have drained into a larger ditch (104) that was over 1.55m long, over 1m wide and 0.29m deep (Fig. 16). The gully was filled with greenish brown sand (165) and the ditch with brown silty sand (103). Early Saxon pottery and a loomweight were retrieved from these deposits along with a small quantity of Residual Romano-British pottery.

Trench H

A small posthole was located along the northeast side of the trench (145). This was not excavated but had a fill of brown sandy

silt (144) from which a single sherd of Early Saxon pottery was retrieved.

Trench I

Located adjacent to the undated pit (175) was a second pit (177), measuring 0.9m long and over 0.5m wide with a depth of 0.17m. This was filled with greyish brown clayey silt (178) from which Early Saxon pottery was retrieved and residual Iron Age pottery.

Aligned northeast-southwest across the trench was a ditch (179). This was over 3m long by 2.06m wide and 0.3m deep (Fig. 20, Section 57). This was filled with greyish brown sandy silt (180) from which a single sherd of Early Saxon pottery was collected along with a fragment of lavastone quern.

Trench J

Situated towards the west end of the trench was a sub-rectangular pit (187) measuring 0.42m long, 0.4m wide and 0.2m deep. A fill of brownish yellow silty clay (186) was recorded that contained a single sherd of Early Saxon pottery.

Approximately 16m to the east was a possible circular posthole (155). This measured over 0.4m long by 0.7m wide and 0.35m deep (Fig. 22, Section 57). A single fill of reddish brown clayey sand (154) yielded a single sherd of Early Saxon pottery.

Trench M

Two northeast-southwest aligned ditches were located within this trench. The more northerly (199) was 0.9m wide and 0.31m deep with a fill of brown sand (198). The southern ditch (214) was 0.65m wide and 0.26m deep and was also filled with brown sand (213). Both contained Early Saxon pottery.

Trench N

Aligned north-south through the trench was a ditch (230). This was longer than 4.5m and 0.49m wide and 0.17m deep (Fig. 27, Sections 81 and 82). A single fill of yellowish brown clayey silt (229) was recorded from which Early Saxon and residual Romano-British pottery was retrieved.

Two metres to the west of this ditch was a gully opening into a ditch (236). This was aligned north-south and was 0.2m wide and 100mm deep expanding to 0.63m wide and 0.15m deep once it had passed the undated postholes of the probable structure. Yellowish brown clayey silt (235) filled this feature from which Early Saxon pottery was recovered.

Located almost 9m to the southwest was a northeast-southwest aligned ditch (252). Measuring 0.57m wide and 0.16m deep (Fig. 27, Section 92) the ditch contained a single fill of brown silty sand with charcoal (251).

Trench P

Cutting natural across the trench was a north-south aligned ditch (247). This was 0.75m wide and 0.22m deep (Fig. 29, Section 91). A single fill of greyish brown sandy silt with frequent charcoal (246) was recorded from which Early Saxon pottery and residual Bronze Age pottery was retrieved along with an iron scale tang handle.

Phase 4 Early to Middle Saxon deposits

Trench A

Located 8.5m south of the northern end of this trench was an east-west aligned ditch (016). This was 1.45m wide and 0.36m deep (Fig. 6, Section 9). Two fills were recorded, a lower of brownish grey clayey sand (053) and an upper of a lighter brownish grey clayey sand (054). Pottery of late 7th to 8th century date was retrieved from the lower fill.

Trench F
Towards the western end of the trench was a north-south aligned ditch (102). This measured 1.24m wide and 0.27m deep (Fig. 14, Section 32) and contained a single fill of greenish brown sandy silt (101). Early to Middle Saxon pottery was retrieved from the fill as was smithing slag.

Trench H
Towards the northern end of the trench was a sub-circular pit (141). This was over 0.92m long, wider that 0.38m and 0.23m deep (Fig. 18, Section 54). This was filled with brown sandy silt (140) from which Early to Middle Saxon pottery was retrieved.

Cutting this pit was a northeast-southwest aligned ditch (143). This was over 1.55m long by 0.46m wide and 0.2m deep and contained a single fill of yellowish brown sandy silt (142). Redeposited Romano-British and Early Saxon pottery was found within the ditch.

Phase 5 Medieval deposits

Trench M
Located towards the centre of this trench was a northeast-southwest aligned gully (209). This measured over 2.47m long by 0.6m wide and 60mm deep (Fig. 25, Section 76). This was filled with brown sand (208) and produced pottery of 11th to 12th century pottery.

Trench Q
Cut into natural deposits towards the centre of the trench was a quarry pit (275) that measured 4.1m wide and over 0.48m deep (Fig. 31, Section 93). This contained fills of brown silty sand (273) and yellowish brown silty sand (274). Pottery of 13th to 15th century date was collected from the upper fill.

Trench R
Located towards the southwest end of the trench was a large feature, also identified as a quarry pit (227). This was only partly excavated but was 8.5m long and over 0.6m deep (Fig. 33, Section 83). Two fills were recorded, a lower of brown sand with yellow clay and limestone fragments (233) and an upper fill of brown sand (226) from which pottery of 12th to early 13th century date was retrieved.

Located to the northeast of the quarry was an isolated posthole (225). This was 0.46m long, 0.43m wide and 0.22m deep (Fig. 33, Section 86) and contained a fill of yellowish brown silty sand (224) from which 11th – 12th century pottery was retrieved.

Trench S
Sealing the undated pit (265) was a buried topsoil of mid brown sand (255) that was 0.25m thick. Pottery of late 12th to 13th century date was retrieved from this layer.

Seemingly trench built into the former soil was a limestone wall (256). This was aligned east-west and measured 4m long by 0.74m wide and 0.36m high. This was located on the south side of the trench where a low mound indicates its continuation to the south. Contained within the wall and perhaps indicating a former floor surface was a compacted layer of dark yellow sandy clay (284).

A second (257) wall was located 3m to the west. This wall had only partly survived but was aligned north-south and measured 1.04m long and 0.45m wide.

Demolition of this building was indicated by a layer of brown sand with limestone fragments (254). Pottery of 13th century date was retrieved from this deposit.

Phase 6 Post-medieval deposits

Trench A
Aligned east-west through the northern part of the trench was a ditch (126). This was 3.2m wide and 0.38m deep (Fig. 6, Section 39) and contained a single fill of reddish brown clayey silt (127) from which Saxon and later pottery was collected.

Trench C
Aligned east-west through this trench was a ditch (099) that measured 2.1m wide and 0.7m deep. This contained a fill of yellowish brown clayey silt with limestone fragments (098) from which redeposited Romano-British and Saxon pottery was retrieved.

Trench K
Cut into natural deposits in Trench K was a north-south aligned ditch (164). This was over 6.7m long by 1.8m wide and 0.49m deep (Fig. 23). Two fills were recorded, a lower of yellowish brown clayey silt with limestone (188) and an upper of yellowish brown clayey silt (163). This was dated by the presence of a post-medieval pantile.

Trench R
Sealing all features was a subsoil of brown silty sand (221) that was 0.38m thick.

Constructed upon the subsoil was a spread of limestone fragments within a yellowish brown silty sand matrix (234), perhaps indicating a former path. This spread was 1.5m wide and 0.13m thick and was aligned east-west (Fig. 33, Section 84).

Trench S
Located at the western end of the trench was a sub-circular feature (260) identified as a pond. This was over 5m long and over 1.5m wide. A fill of brownish grey sand with limestone and modern debris (259) was identified, though the feature is recorded on early maps of the area.

A subsoil (258) was also evident within the western part of the trench, west of the medieval wall (257). This was not excavated but produced pottery of late 12th – 14th century date.

Phase 7 Recent deposits

Trench A
Sealing all deposits in Trench A was a 0.37m thick buried soil (055) comprising greyish brown clayey silt with pebbles. This was in turn sealed by dumped deposits of greyish brown sandy silt (056) and reddish brown sandy silt (125) measuring between 0.25m and 0.5m thick and restricted to the northern end of the trench.

Above this lay a topsoil of brownish grey sandy silt (057 and 124). This measured between 0.28m and 0.3m thick.

Trench B
Sealing the earlier features was a former soil layer of reddish brown sandy silt (083) that was 0.2m thick. Overlying this was an extensive dumped deposit of reddish brown sandy silt (004). This was in turn sealed by the current topsoil of greyish brown sandy silt (003) that was 0.3m thick.

Trench C
As in Trenches A and B, a former buried soil was encountered. This comprised a 0.22m thick layer of yellowish brown clayey silt (035). Again, this was sealed by a dumped deposit of yellowish brown clayey silt (034).

Topsoil in this trench was recorded as a layer of greyish brown clayey silt (033) measuring 0.35m thick.

Trench D
Sealing all deposits was a subsoil of brown sandy silt (050) that was 0.26m thick and

contained redeposited Saxon pottery. Overlying this was a layer of brownish grey sandy silt (049), identified as the topsoil within this trench, that measured 0.39m thick and contained a coin of George II.

Trench E
Overlying the natural deposits in this trench was a 50mm thick subsoil comprising greenish grey silty sand (282).

Topsoil in this trench was recorded as a 0.3m thick brownish grey sandy silt (279).

Trench F
Greyish brown silty sand (105) was identified as topsoil and measured 0.3m thick and sealed a 90mm thick subsoil of yellowish brown sandy silt (105).

Trench G
Present intermittently along the trench was a layer of brown sand (170) identified as the subsoil. This was sealed by a topsoil of brownish grey sand (169).

Trench H
Brownish grey sand (138) was also identified as topsoil in this trench and sealed a subsoil of brown sandy silt with limestone inclusions (139).

Trench I
A 0.3m thick layer of greyish brown sandy silt (174) represents topsoil deposits in this trench.

Trench J
All deposits were sealed by a subsoil of reddish brown silty clay (194) from which residual medieval pottery was collected. Overlying the subsoil was the topsoil layer of greyish brown clay (156). This measured 0.4m thick.

Trench K
Sealing the ditch was a topsoil layer of greyish brown clayey silt (189). This measured 0.4m thick.

Trench L
Subsoil within this trench was recorded as reddish brown sandy silt (161). A number of modern ploughmarks were identified within the subsoil and were indicated by deposits of greyish brown sandy silt (160). These are probably derived from the topsoil which was also recorded as greyish brown sandy silt (159) that was 0.4m thick.

Trench M
A layer of grey silty sand (191) measuring 0.3m thick overlay a 0.18m thick brown sand subsoil (192).

Trench N
A 0.2m thick subsoil was identified and comprised yellowish brown clayey silt (212) from which a coin of Constantius II was found. Above this was a topsoil of grey silty sand (266) and was 0.34m thick.

Trench O
Cut into the natural layers was a small shallow pit (203). This contained a fill of sand around a partial sheep skeleton (204).

Sealing the sheep burial was a 0.32m thick layer of greyish brown sandy silt (205) identified as the topsoil.

Trench P
Sealing a subsoil of brown silty sand (283), from which a Bronze Age flint scraper was retrieved, was a 0.35m thick topsoil comprising brown sandy silt (245).

Trench Q
Topsoil in this trench was recorded as a mid grey sand (269) that measured 0.33m thick and sealed a brown silty sand subsoil (270).

Trench R
Cut into the subsoil was a north-south aligned field drain (244). This was over

0.64m deep and aligned on a field drain in Trench S. This drain contained a ceramic pipe and was backfilled with grey silty sand (243).

Overlying the cut, post-medieval path and subsoil was a topsoil comprising grey sand (220). This was 0.35m thick.

Trench S
Cutting through the demolition deposits, wall (256) and into natural was a linear field drain (262), a continuation of the drain recorded in Trench R.

Sealing all deposits in this trench was the topsoil (253) comprising grey silty sand and measuring 0.33m thick.

6. DISCUSSION

Natural deposits (Phase 1) comprise limestone with clay, principally of the underlying Cornbrash with Blisworth Clay possibly exposed in Trench S. Also evident were red sands, silty sands and clayey sands that are probably glacial in origin. These deposits also filled natural features, possibly palaeochannels or infilled pseudomorphs caused by intensive frost conditions.

A number of features and deposits remain undated (Phase 2) due to a lack of artefactual material. Given the predominantly Saxon nature of the area investigated it is probable that the majority of these features can be placed within the corresponding Saxon phases. The range of features include postholes, pits and gullies. Clustering of undated postholes occur in Trenches B and D and could well be structural, though no obvious building can be surmised from their pattern.

Early Saxon (Phase 3) remains were the most numerous and extensive of those revealed during the investigation. The range of features include ditches, gullies, pits and postholes. The ditches and gullies served some form of land demarcation, perhaps enclosing the area into smaller crofts, as was seen during the watching brief on the adjacent site. Pits were probably for waste disposal, although finds were generally few from these features. Postholes formed at least two identified structures, with the remainder perhaps isolated posts of fence lines.

Of the two post-built structures identified with certainty, one comprised a rectangular building in Trench C and a probable round or horseshoe shaped structure in Trench N. Both these layouts are paralleled at Quarrington, nearly 3km to the south (Taylor 2003, 237) and are broadly contemporary in date to the examples revealed during this work.

In addition to these remains of probable buildings in Trenches C and N, Early Saxon occupation debris of all kinds was most abundant in the area including and between these trenches, and immediately adjacent. High concentrations of Early Saxon pottery, animal bone, hammerscale and environmental debris were recovered from a broadly north-south band that encompasses Trenches C, G and N on the eastern side of the site, with appreciable quantities of comparable domestic waste also found in Trench J, just west of Trenches G and N. The association of structural remains and occupation debris points to the posthole arrangements probably representing domestic buildings.

Some suggestion of settlement shrinkage, or relocation, between the Early and Early-Middle Saxon phases is provided by variations in the distribution of artefacts. In contrast to the Early Saxon pattern with the majority of ceramics of this date being concentrated on the eastern side of the site in Trenches C, G, N and J, the Middle Saxon pottery was found more to the west

and centre being most abundant in Trenches A, F and J.

Early to Middle Saxon deposits (Phase 4) comprise two ditches and a pit identified in Trenches F and H. This paucity of features, also identified during the watching brief on the adjacent site (Rayner forthcoming), would suggest that the settlement was no longer focused on the site but had perhaps shifted to somewhere else in the vicinity. This is believed to have also occurred at Quarrington (Taylor 2003, 276) and may be explained due to the increased importance of Sleaford or perhaps a shift of activity from the site to the opposite side of Lincoln Road, where the medieval hamlet was focused and is still partly evidenced by earthwork remains.

Furthermore, no Late Saxon material was identified during the evaluation and it is likely that the site had by this time reverted to an agricultural regime, which apart from the few medieval features identified mainly towards the southern portion of the site, was largely the case until recently.

Medieval deposits (Phase 5) were generally sparse across the site but include a posthole, a gully, a buried soil, 2 quarry pits and a stone structure along with its demolition horizon. The function of the stone structure is not clear but it possibly dates from the 12th century and had been demolished by the early 13th century. The date of its construction suggests that it may have been of some significance. A chapel and manorial centre can be ruled out as perhaps can a dwelling given its low lying nature. A watermill is a strong possibility given its location next to the Holdingham Beck and a find of Millstone Grit may support this. No mill at Holdingham has previously been identified in documentary sources, though there are a number of mills recorded in Sleaford at the time of the Domesday Survey which had subsequently disappeared by the mid 13th century (Pawley 1988, 37). However, it is more likely that most of these mills were located on the River Slea. There is the likelihood that the structure was once thatched as very little roofing tile was found in the demolition deposits and the second wall revealed may indicate an associated yard.

Two quarry pits were identified in Trenches Q and R, immediately north of the stone structure, perhaps indicating the source of the stone used in its construction, although alternatives such as material to repair the adjacent road may also be considered.

Remaining features of medieval date include a gully and a posthole. The gully may possibly be agricultural in origin. The posthole is isolated and is difficult to interpret.

Post-medieval features (Phase 6) are also relatively rare. A pond identified in Trench S was depicted on the 1st edition Ordnance Survey map of 1891. A linear band of stonework was identified in Trench R which was interpreted as a path. If so, this would have possibly connected Poplar Farm with Lincoln Road. A ditch that passes through Trenches A and C also appears on the 1891 map and earlier maps.

A ditch, that appears in Trenches A and C was assigned to the post-medieval period as it matches boundaries depicted on early Ordnance Survey maps, even though no post-medieval material was collected from the relevant fills.

Recent features (Phase 7) generally comprise topsoil and subsoil deposits and field drains. The subsoils have been grouped into this phase though they are likely to have started developing much earlier.

A sequence of buried soil, beneath a

dumped deposit which is covered by a topsoil, was recorded in Trenches A, B and C. The dumped deposit would appear to derive from construction of the Sleaford A17 bypass and has produced a noticeable east-west aligned ridge along the northern boundary of the site. A recent sheep burial was also uncovered in Trench O.

The earliest artefacts retrieved were pottery and a flint scraper dating to the Bronze Age. This may represent nothing more than casual loss, although these finds were concentrated towards the southern part of the site and may indicate settlement or some activity of the period in this vicinity. However, no Bronze Age features were identified. Few Bronze Age remains are known from Sleaford and these have tended to cluster in areas surrounding the church, an area south of Boston Road and in fields to the west of the town. Residual Iron Age pottery was also retrieved during the investigation from an Early Saxon pit in Trench I.

A small quantity of Roman artefacts, including a coin of Constantius II, and fragments of pottery were found during the evaluation, often as residual finds. The nearest known Roman site lies some way to the east, close to Sleaford Wood, and these finds may have entered the site in manuring scatters.

A whole range of artefacts of the Saxon period were evident and demonstrate the site's use as a settlement. Pottery was the most numerous but loomweights, querns and slag indicate textile production, crop processing and smithing was occurring at the site, though not on a scale that represents industry.

Of the pottery, Central Lincolnshire fabrics dominate and are of a type that overlap between Early and Middle Saxon periods. Temper within the pottery also indicates sources outside of Lincolnshire including Charnwood in Leicestershire. Middle Saxon pottery is dominated by Maxey wares of which some are locally produced.

Nearly all medieval finds were retrieved from the southern part of the site, and are related to the quarry pits and the possible watermill. The earliest medieval pottery comprises Stamford ware dating to the late 11th century. The remaining pottery also includes local products, with Bourne, Lincoln, South Lincolnshire types and Toynton ware well represented. Regional trade is highlighted by Peterborough and Nottingham types with a single import from east of Cologne, Germany.

Environmental remains comprised a range of plant, animal and artefactual material. Plant remains included quantities of economic crops such as wheat, barley and oats, as well as a range of wild plants, of which some were perhaps used as fuel. Snails identified during the environmental assessment indicate that the Saxon settlement was placed in an open grassland habitat.

Samples were also tested for the presence of hammerscale, a waste product formed during iron smithing. Quantities of this material were found across the site but denser concentrations were found in Trenches C and N.

Sheep/goat were the most numerous of the animal species present on the site, followed closely by cattle. A range of mature and young animals was indicated suggesting that wool and dairy farming were undertaken with the animals also used for meat. Pig and horse were also present, both of which were consumed, along with goose and duck. Bones retrieved from sampling of deposits also identified fish (including eel), frog or toad, mouse, weasel and field vole. Eggshell of chicken was also present.

Site Overview

Investigations have identified that a Saxon village revealed during an adjacent watching brief extends into and across the site (at least 3.8 hectares in size). Though not regionally rare (a similar site exists at Quarrington), the evaluation enhances the corpus of such material in Lincolnshire.

Little is known of the size, character and layout of Saxon settlements of this period, both regionally and nationally. Full analyses of the pottery assemblage may provide information to what extent the inhabitants were integrated into regional and national trade and exchange networks. Assessment and analyses of the environmental and faunal remains from the site may provide information on the domestic economy of the inhabitants, illustrating to what extent production was geared to subsistence or to supply of markets further afield. It is traditionally held that the onset of the Middle Saxon period sees the agglomeration of settlements into 'village' style communities, perhaps linked with wider social changes, including the growth of Christianity, with occupation concentrated around newly founded churches. Preliminary results from the Holdingham excavation do indicate a decline in the intensity of settlement after the close of the Early Saxon period, but it is not clear whether this is real or as a result of a shift in occupation to other adjacent areas. Also, dating of the pottery may be skewed to the early part of the period as some of the pottery represented by fabrics which are known to have originated in the early Saxon period may have continued in use for several centuries.

Most of the main activities associated with settlement were identified during the evaluation. Loomweights attests to textile production, querns and animal bones point to a largely agricultural economy and a few fragments of slag and quantities of hammerscale indicate metalworking occurring.

7. CONCLUSIONS

An archaeological evaluation at Lincoln Road, Holdingham, Sleaford, was undertaken as the site lay close to previously recorded features of Saxon and medieval date, particularly an Early-Mid Saxon settlement.

The evaluation revealed an extensive area of Saxon features across the site. Most of the features encountered comprise gullies and ditches which are likely to indicate further enclosed areas. Remains were also identified suggesting the presence of at least two structures with the remaining postholes forming possible fence lines.

Fewer features were identified that belonged to an Early to Middle Saxon phase, suggesting that the site was no longer a focus of settlement. A hiatus in activity is also recorded during the Late Saxon period.

In addition to the Saxon settlement, a medieval stone building was revealed towards the southern area of the site. This may possibly be a watermill given its location adjacent to Holdingham Beck.

8. ACKNOWLEDGEMENTS

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9. PERSONNEL

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Finds Processing: Denise Buckley
Photographic reproduction: Sue Unsworth
Illustration: Paul Cope-Faulkner
Post-excavation Analyst: Paul Cope-Faulkner

10. BIBLIOGRAPHY

Cameron, K., 1998, *A Dictionary of Lincolnshire Place-Names*, English Place-Name Society Popular Series No. **1**

Cope-Faulkner, P., 2000, *Desk-Top Assessment of the Archaeological Implications of Proposed Development of land adjacent to Lincoln Road, Holdingham, Sleaford, Lincolnshire (HLR 00)*, unpublished APS report **192/00**

Creasey, J., 1825, *Sketches Illustrative of the Topography and History of New and Old Sleaford*

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

George, H. and Robson, J.D., 1978, *Soils in Lincolnshire II, Sheet TF04 (Sleaford)*, Soil Survey Record No. **51**

GSGB, 1972, *Grantham; Solid and Drift geology*, 1:63360 map sheet **121**

IFA, 1999, *Standard and Guidance for Archaeological Field Evaluations.*

Pawley, S., 1988, 'Grist to the Mill. A New Approach to the Early History of Sleaford', *Lincolnshire History and Archaeology* **23**

Pawley, S., 1996, *The Book of Sleaford*

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

Rayner, T., forthcoming, *Archaeological Investigation Of Land Off Holdingham Roundabout, Sleaford, Lincolnshire (SLH01)*, unpublished APS report

Roffe, D., 1979, 'Origins' in Sleaford, *South Lincolnshire Archaeology* **3**

Smalley, R., 2006, *Geophysical Survey Report: Lincoln Road, Sleaford, Lincolnshire*, unpublished Stratascan report

Taylor, G., 2003, 'An Early to Middle Saxon Settlement at Quarrington, Lincolnshire', *The Antiquaries Journal* **83**

Trollope, E., 1872, *Sleaford and the Wapentakes of Flaxwell and Aswardhun in the County of Lincoln* (reprinted 1999)

11. ABBREVIATIONS

APS Archaeological Project Services

IFA Institute of Field Archaeologists

GSGB Geological Survey of Great Britain

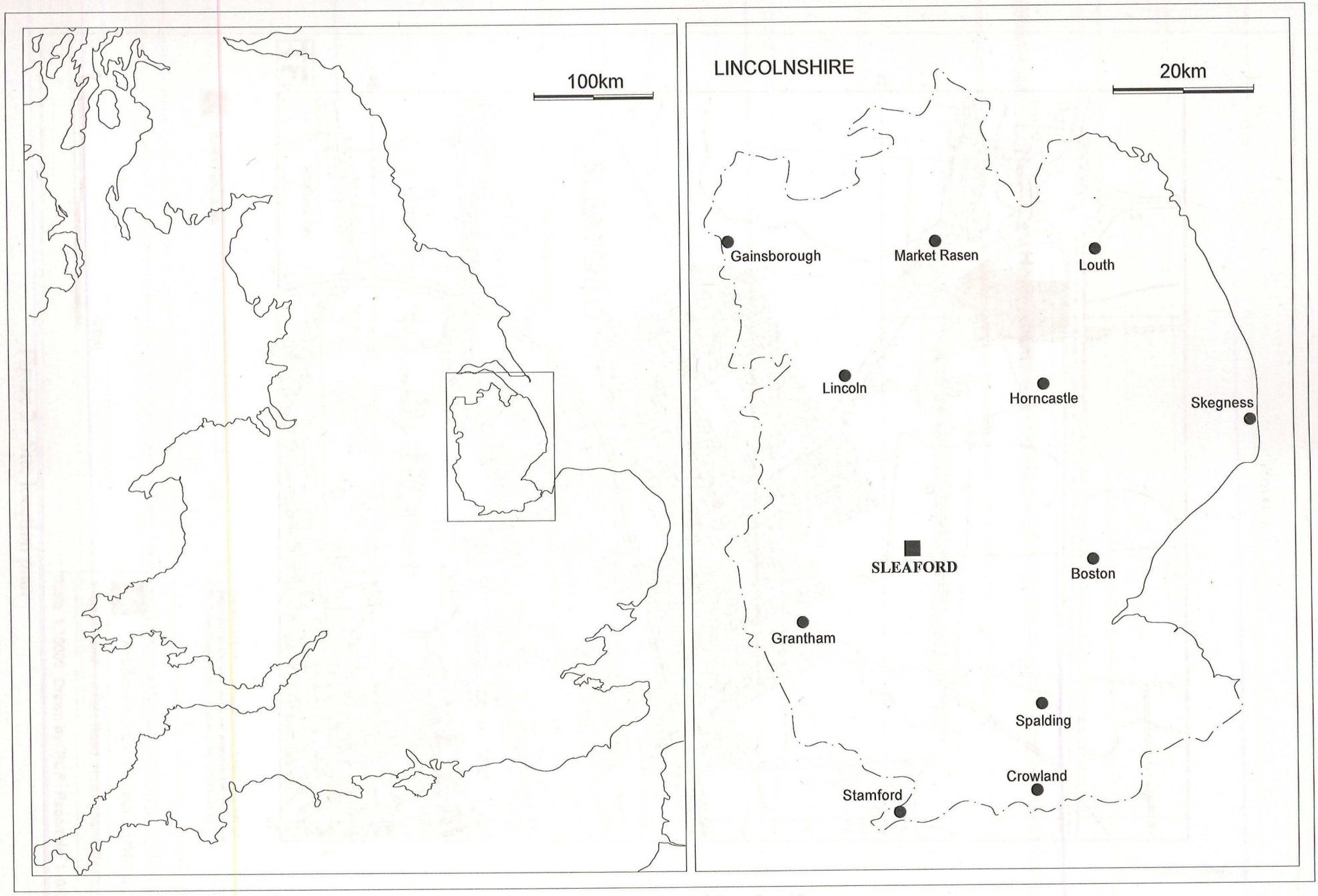
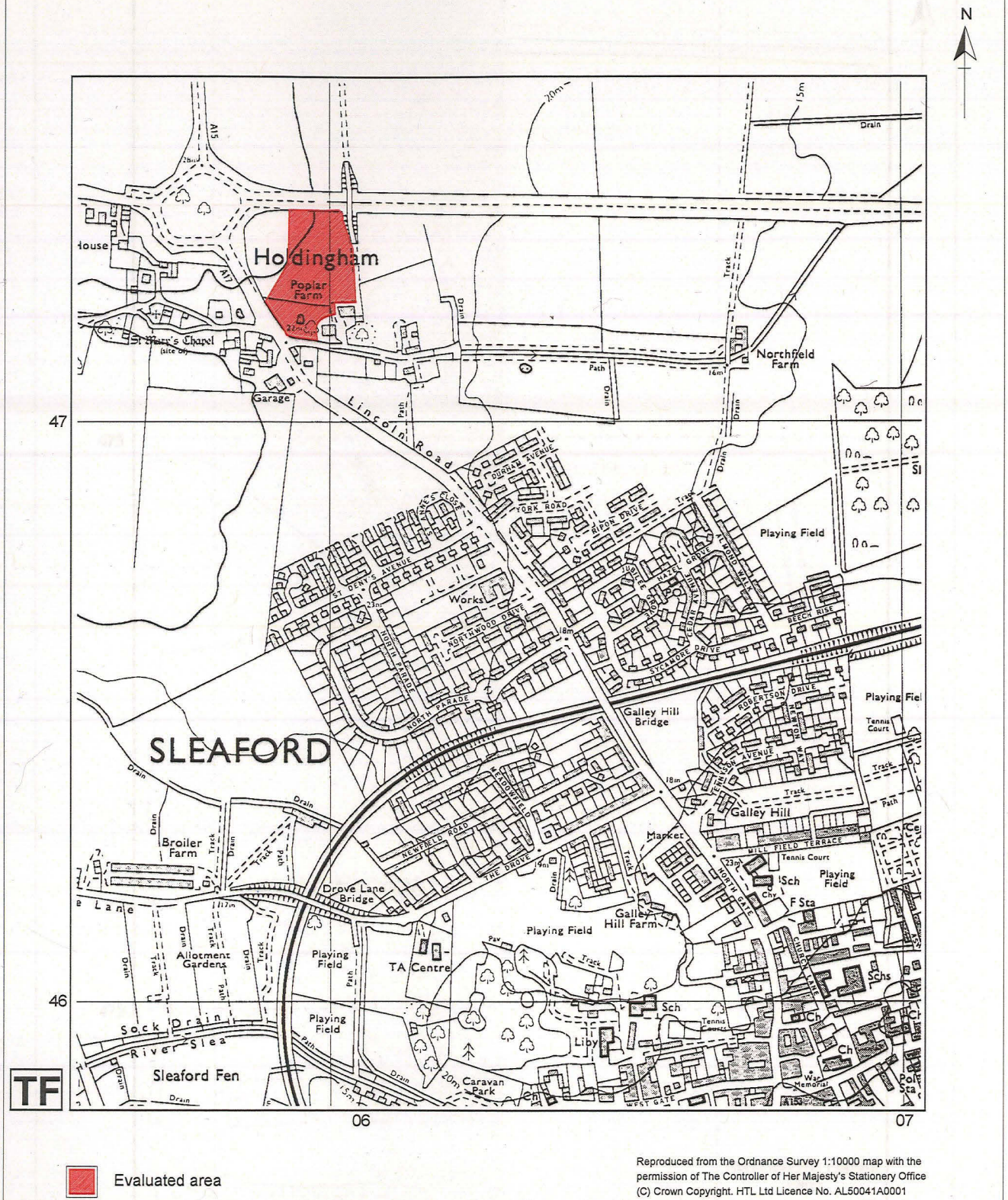


Figure 1 - General location plan



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Project Name: Lincoln Road, Holdingham, Sleaford		
Scale 1:10000	Drawn by: PCF	Report No: 110/06

Figure 2 - Site location plan

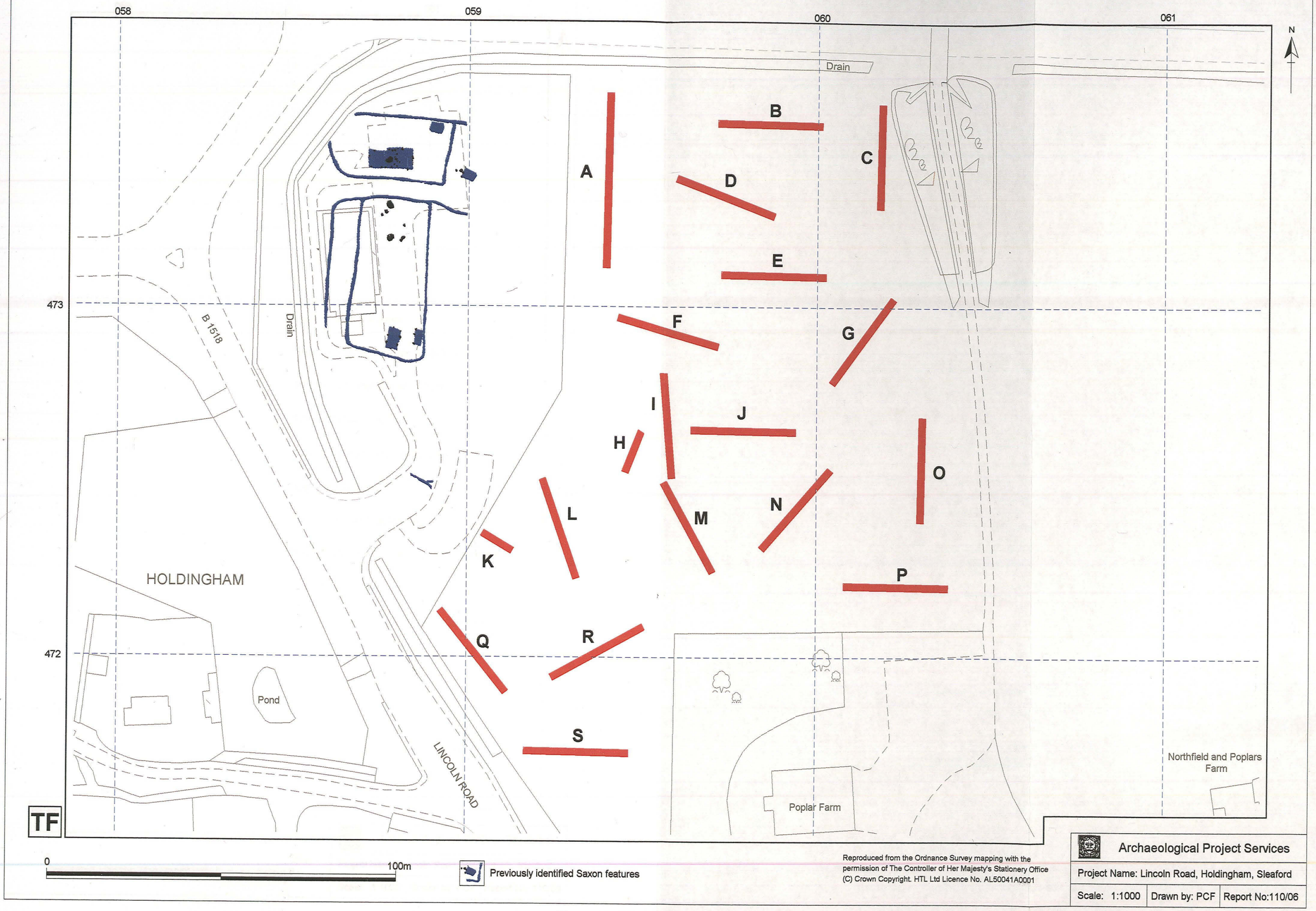


Figure 3 - Trench location plan

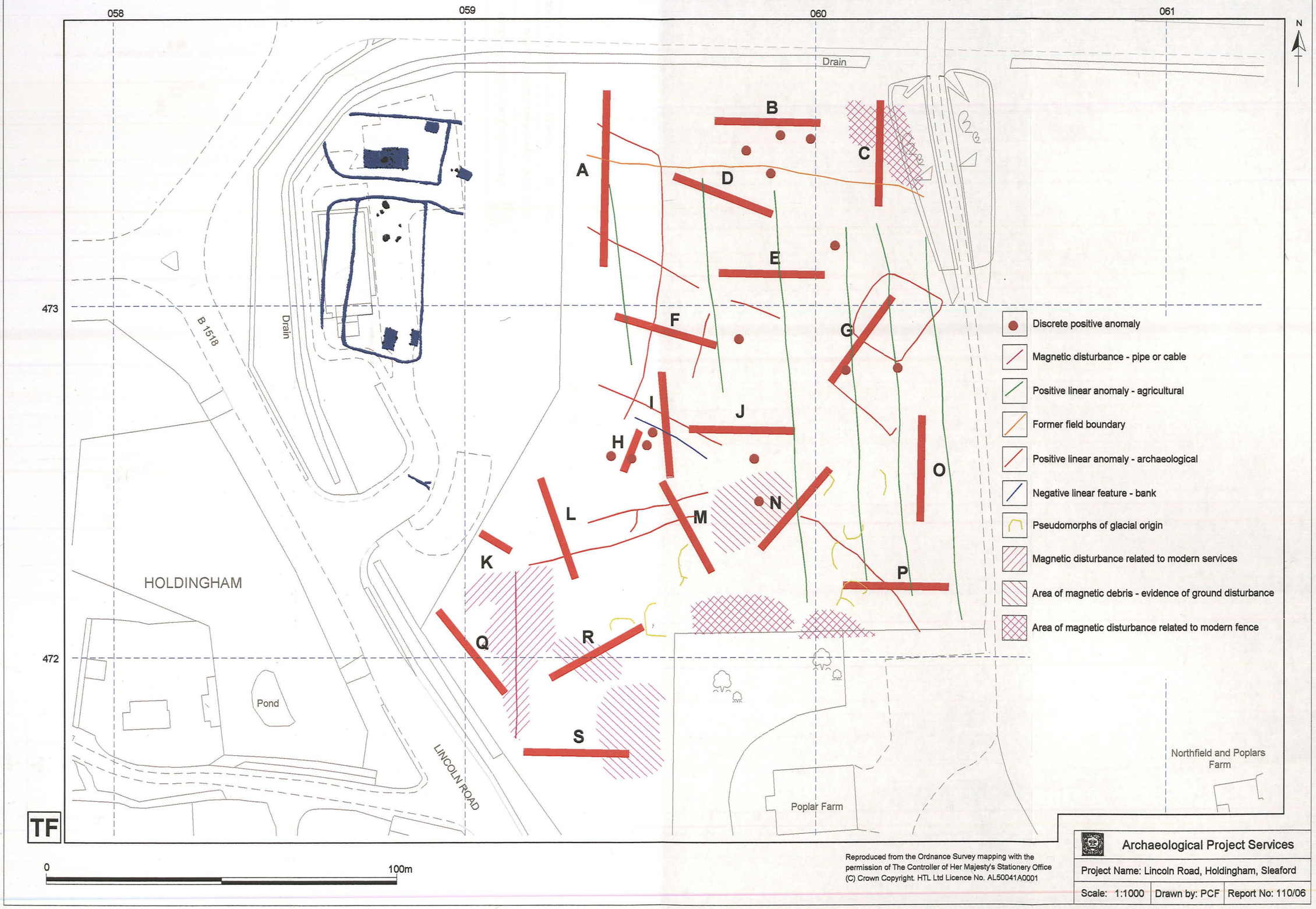


Figure 4 - Geophysical survey interpretation with trench location

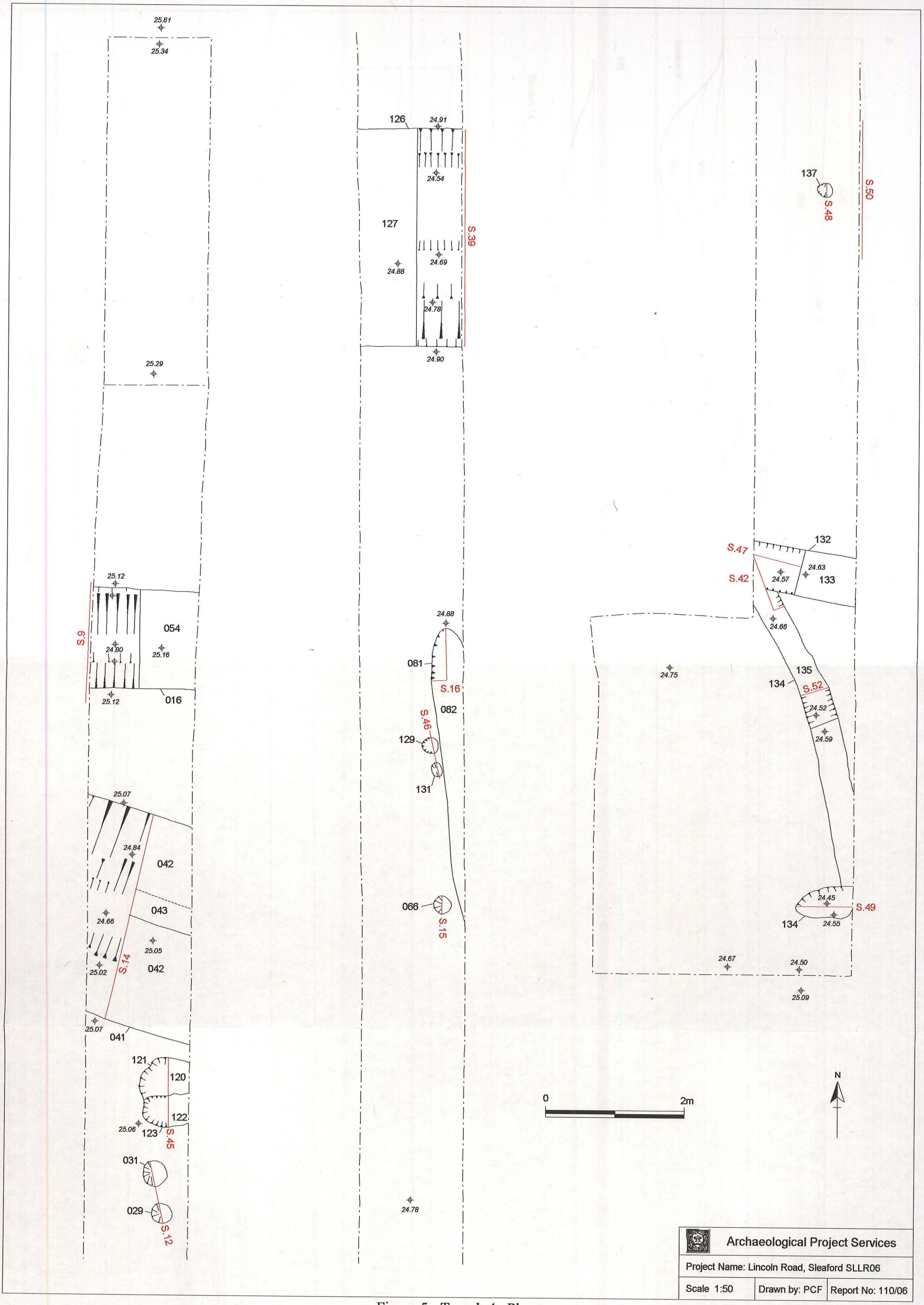
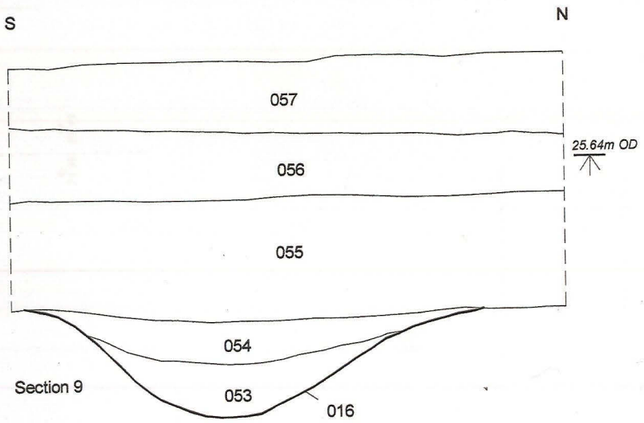
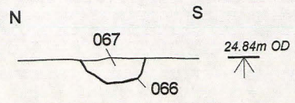


Figure 5 - Trench A: Plan



Section 9

Section 12



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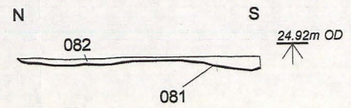

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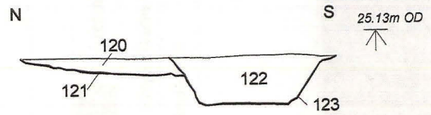

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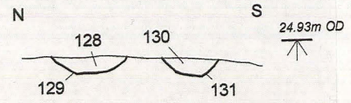

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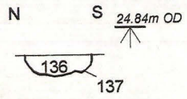

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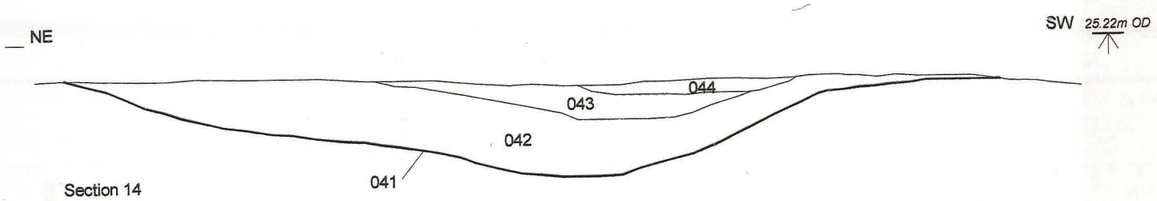

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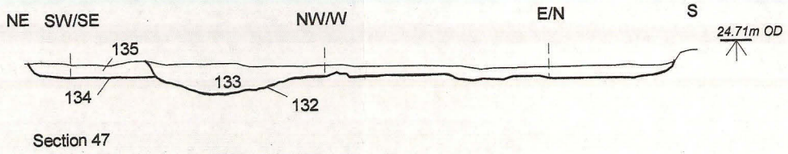

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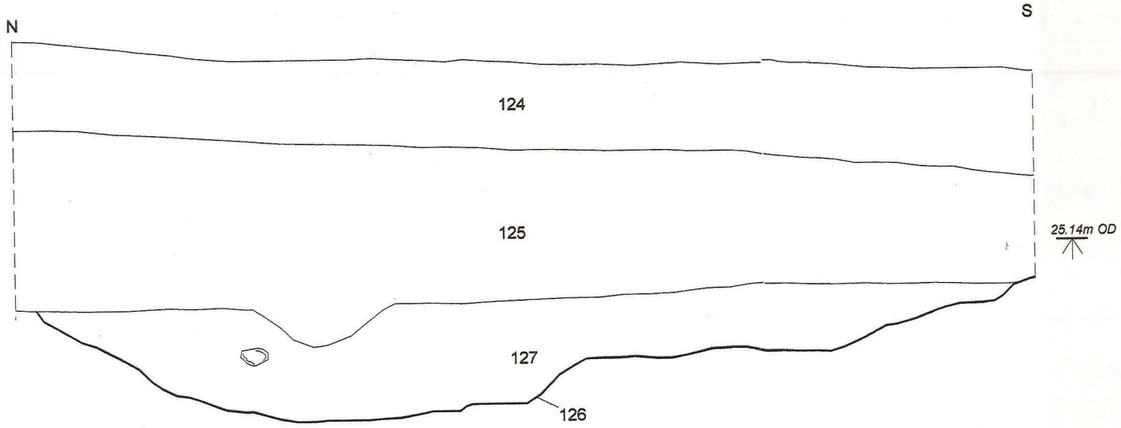
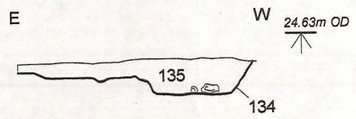
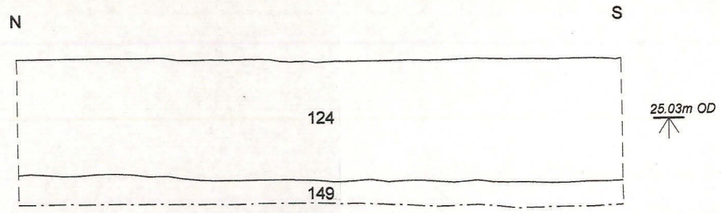


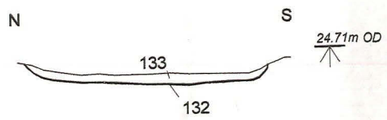
Section 39



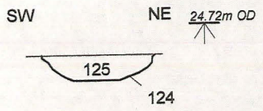
Section 49



Section 50



Section 51



Section 52

Archaeological Project Services		
Project Name: Lincoln Road, Sleaford SLLR06		
Scale: 1:20	Drawn by: PCF	Report No: 110/06

Figure 6 - Trench A: Sections

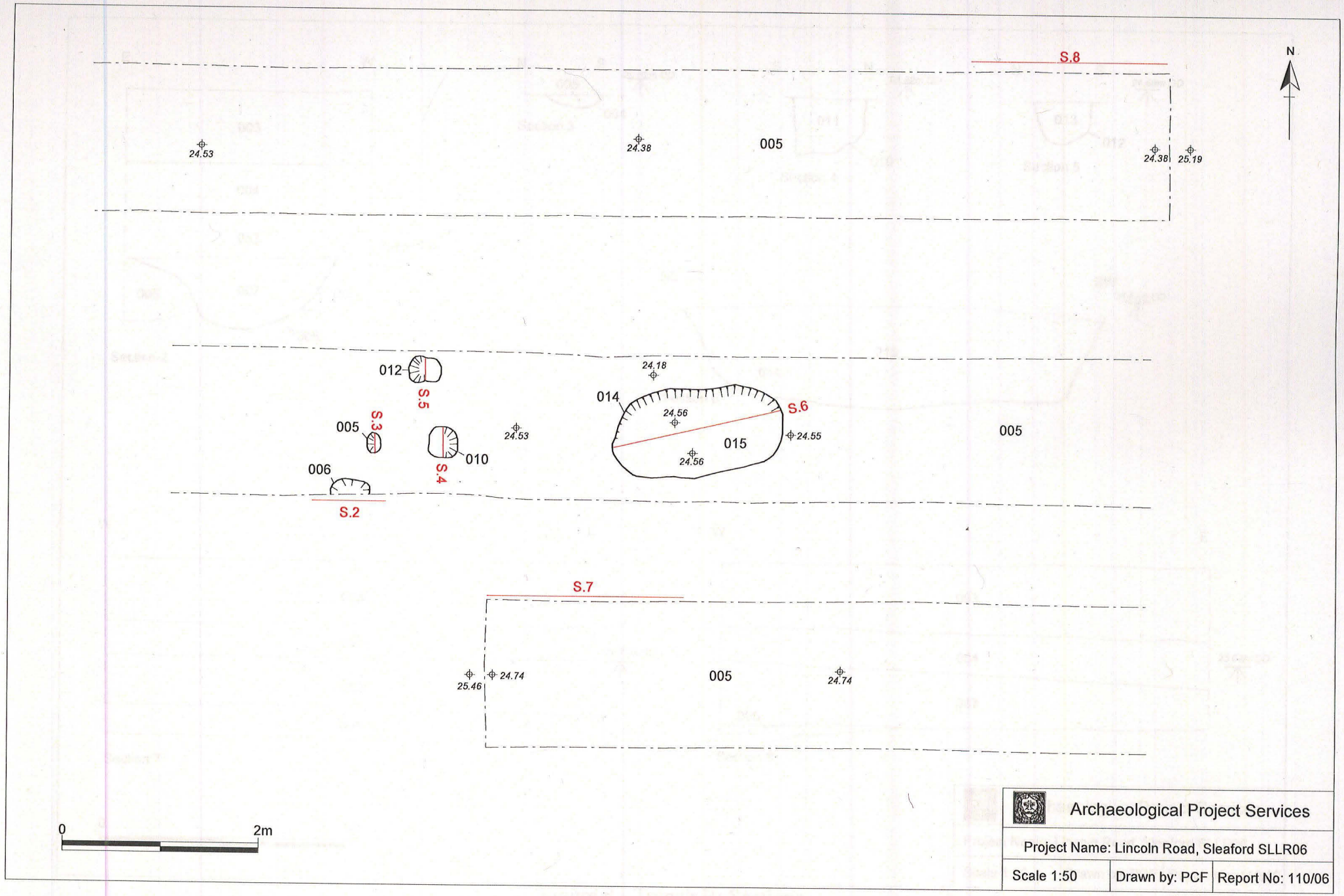


Figure 7 - Trench B: Plan

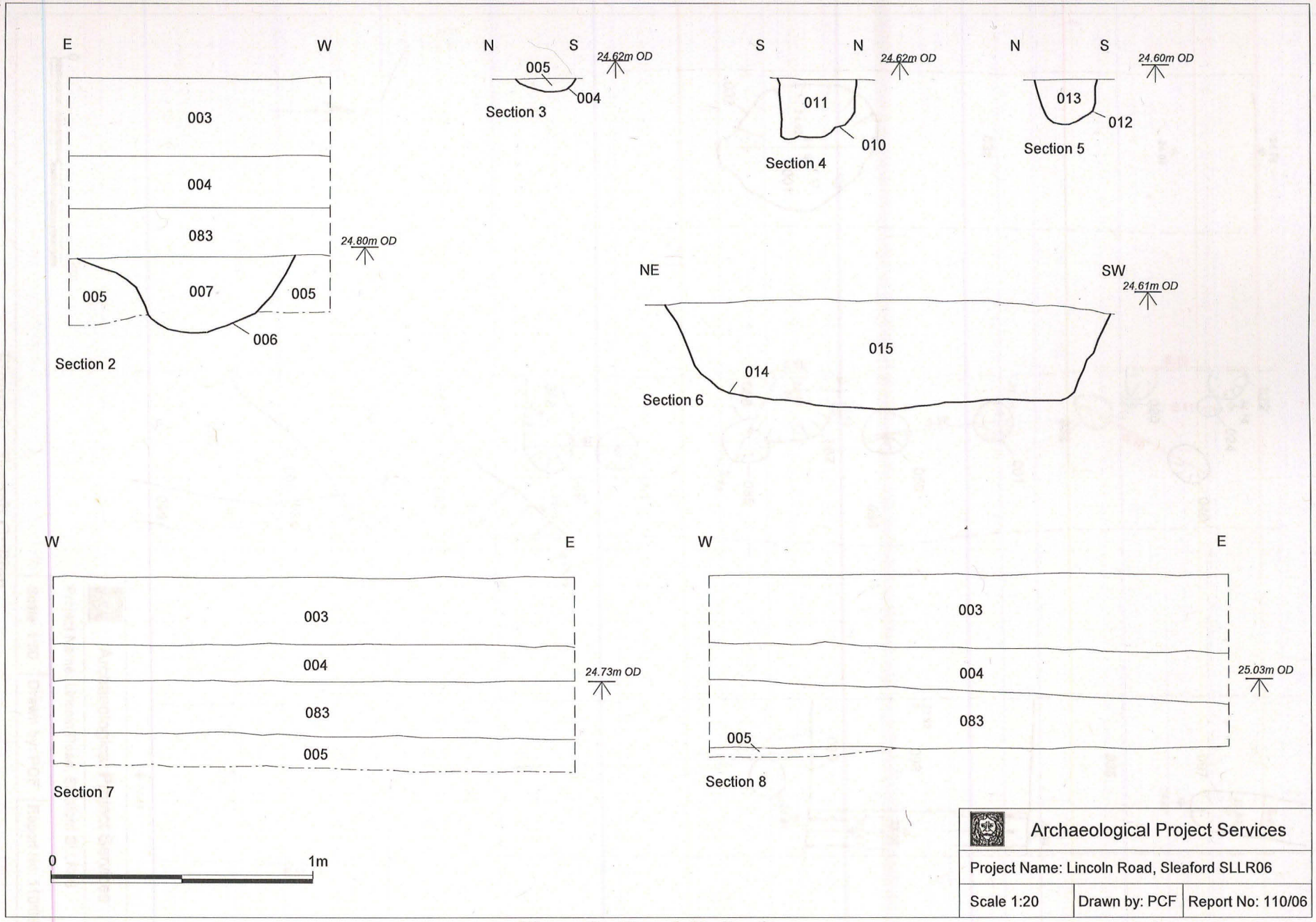


Figure 8 - Trench B: Sections

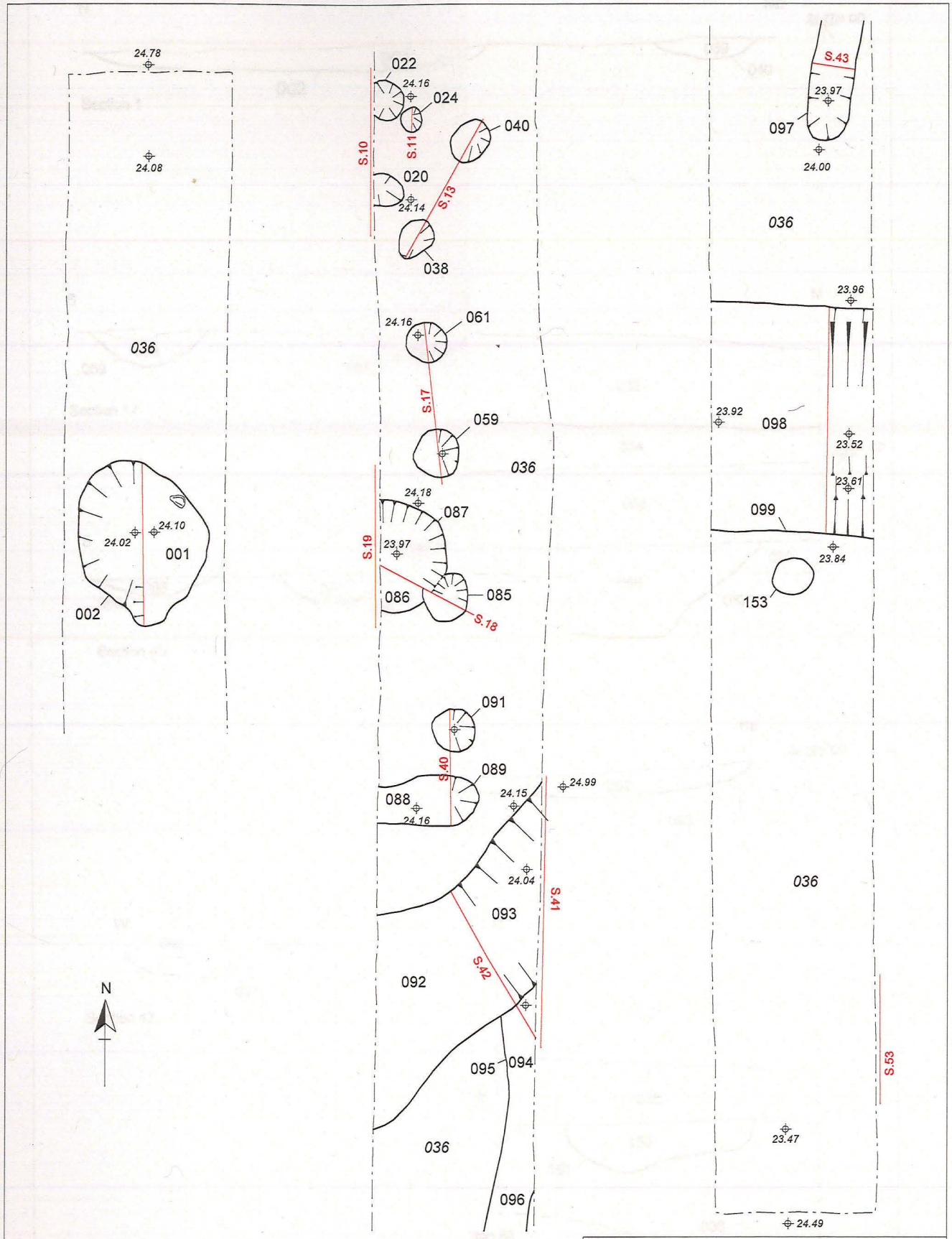
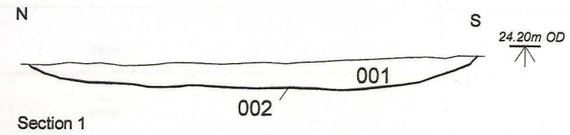
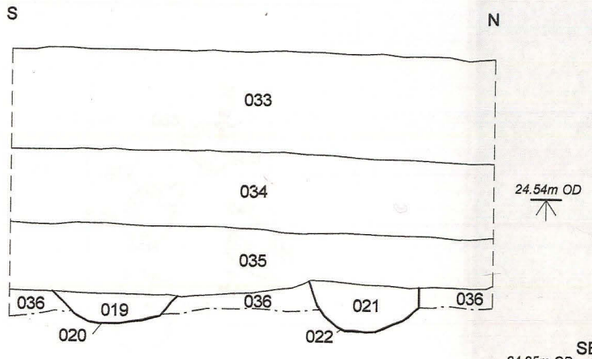


Figure 9 - Trench C: Plan



Section 1



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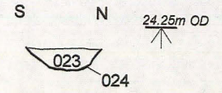
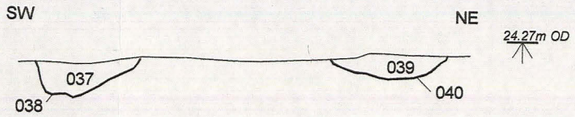
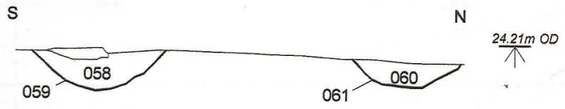


Section 11



Section 13



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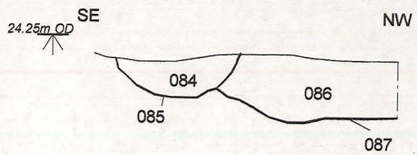
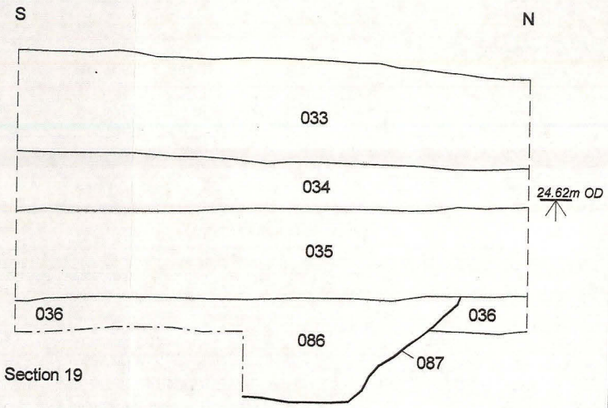


Section 18



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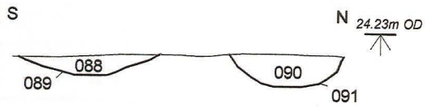
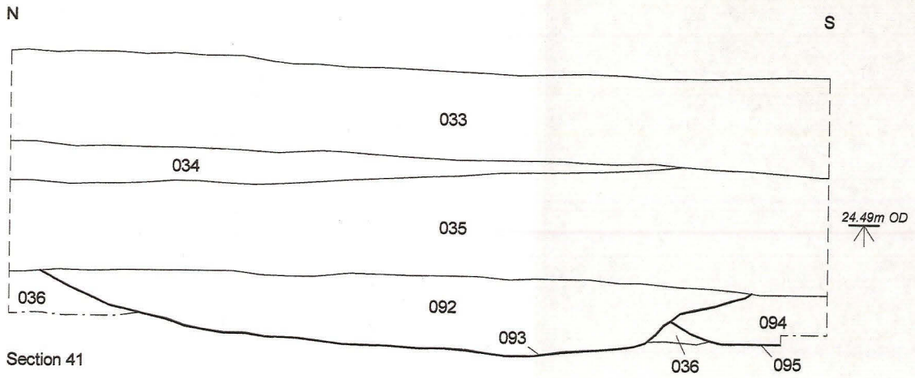


Section 40



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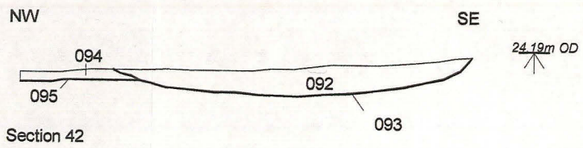

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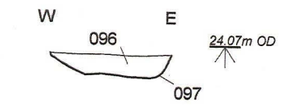

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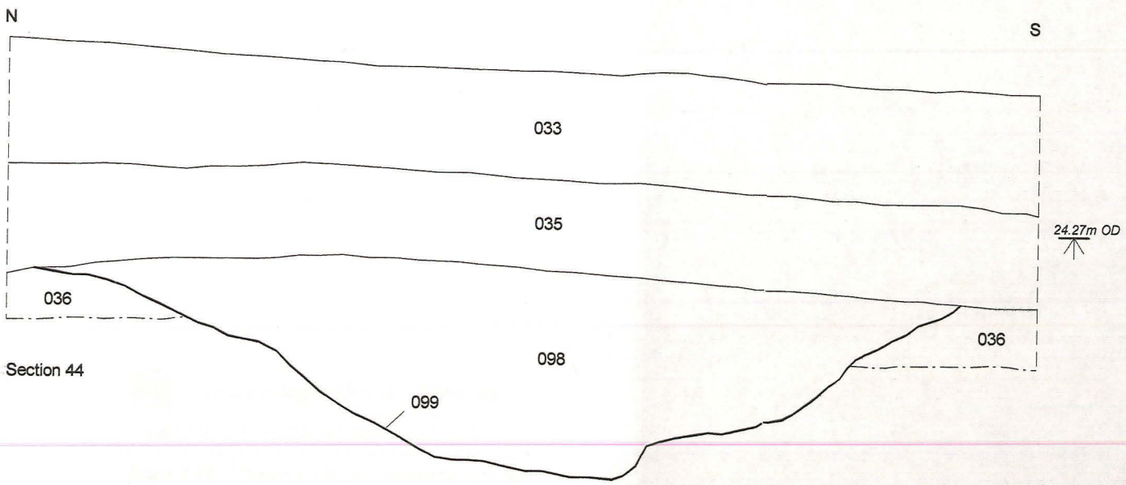
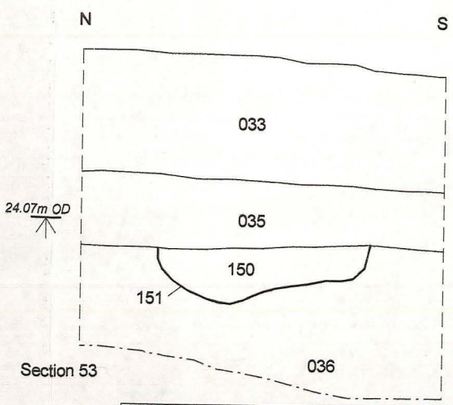


Section 44



Section 53

Archaeological Project Services		
Project Name: Lincoln Road, Sleaford SLLR06		
Scale: 1:20	Drawn by: PCF	Report No: 110/06

Figure 10 - Trench C: Sections

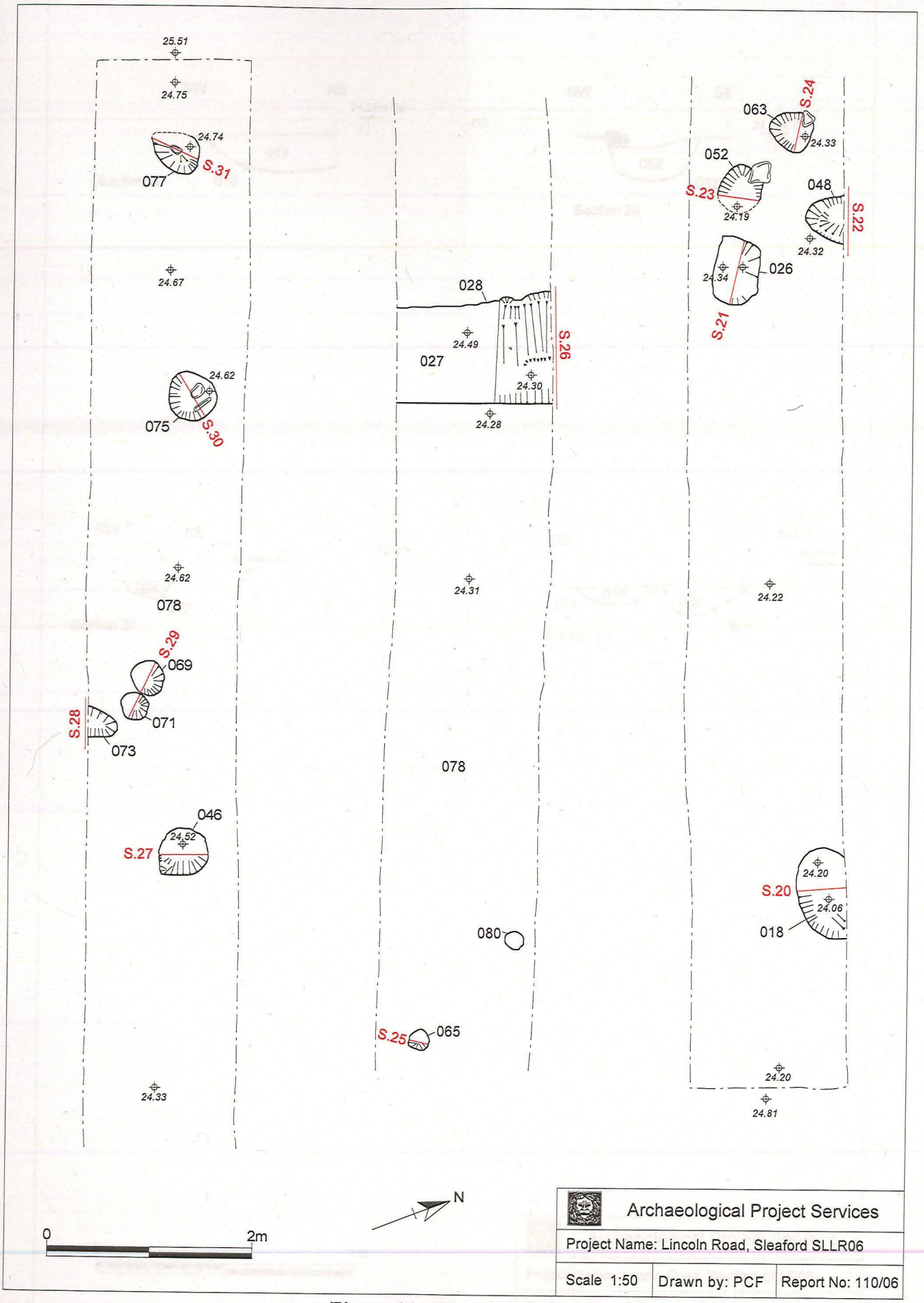
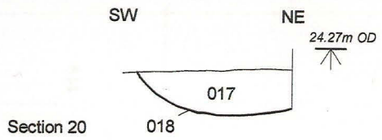


Figure 11 - Trench D: Plan



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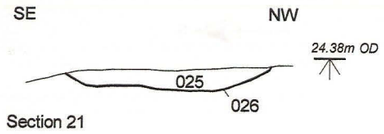

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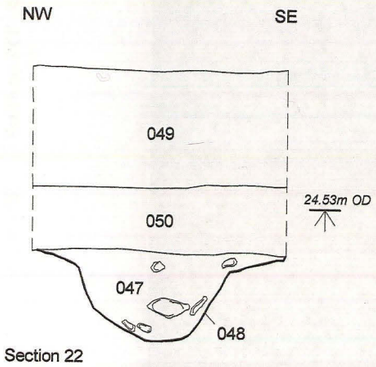

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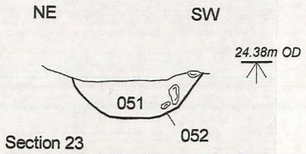

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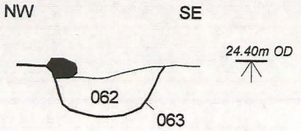

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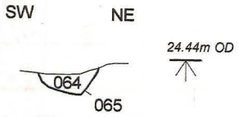
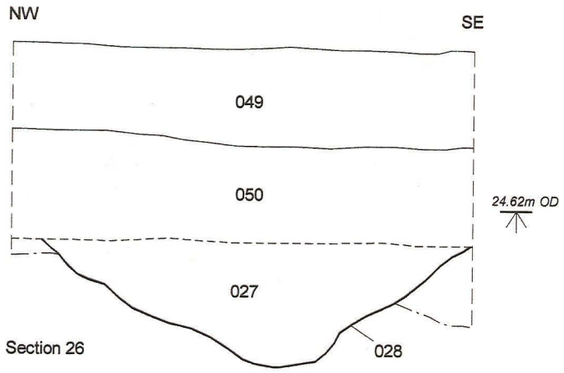


Section 25



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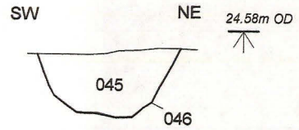
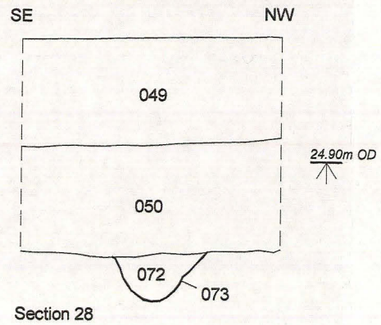


Section 27



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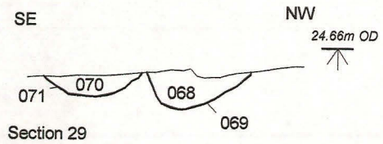
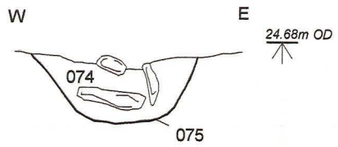
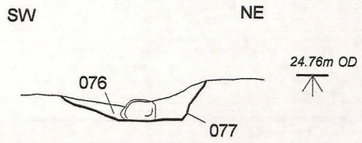


Section 29



Section 30



Section 31

Archaeological Project Services		
Project Name: Lincoln Road, Sleaford SLLR06		
Scale: 1:20	Drawn by: PCF	Report No: 110/06

Figure 12 - Trench D: Sections

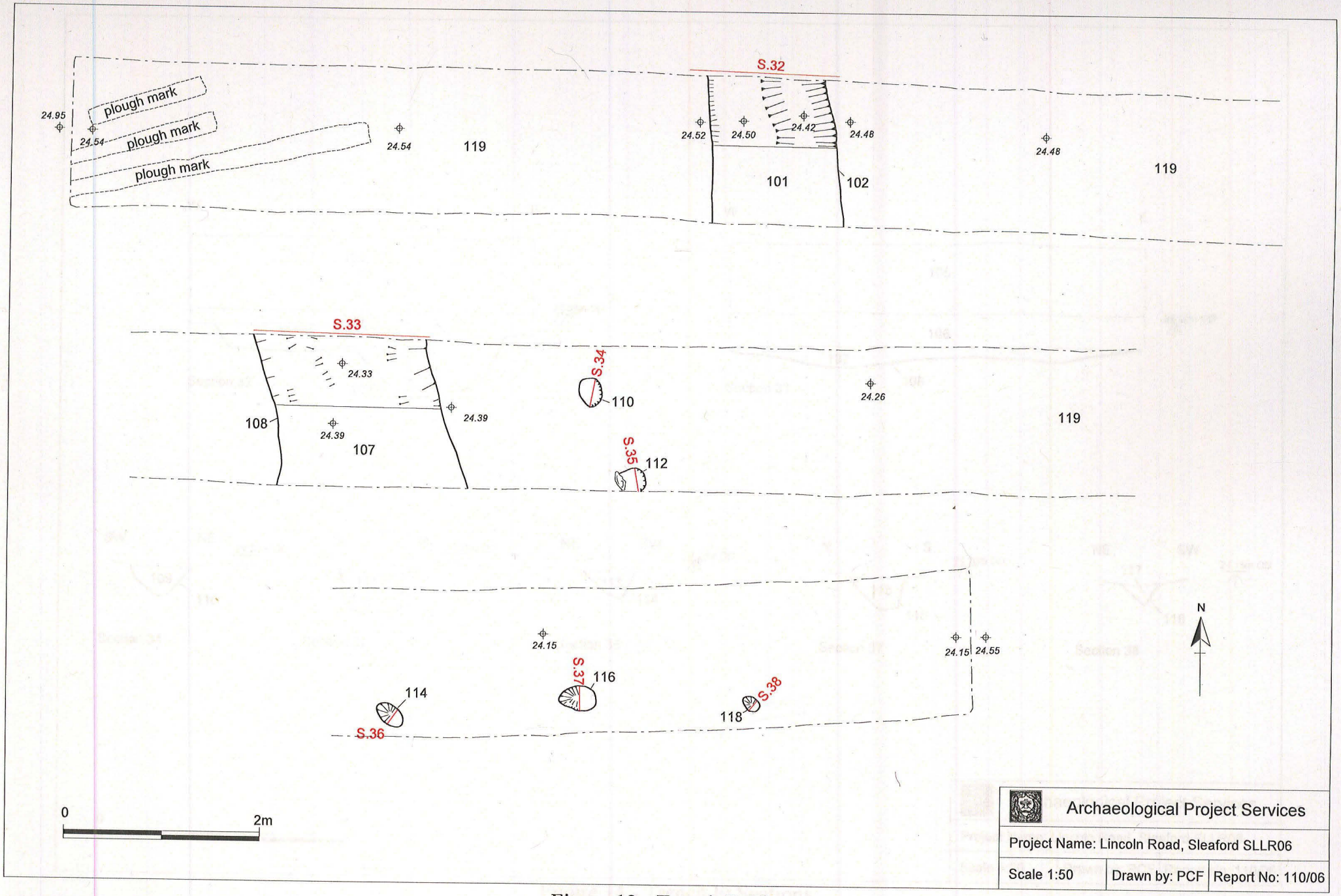
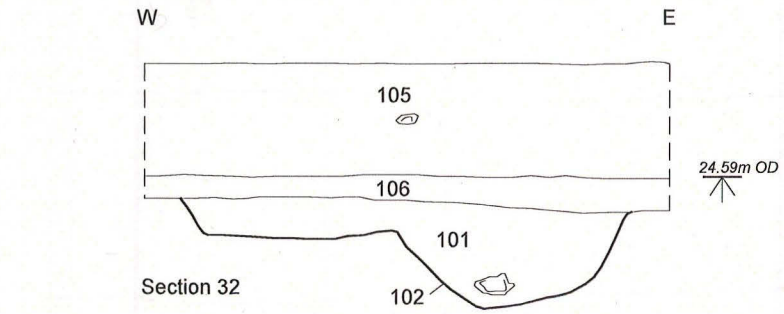
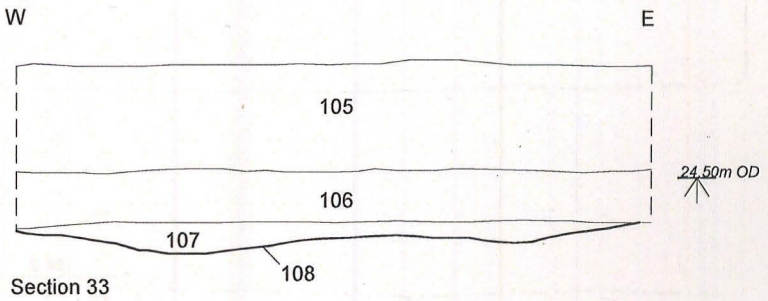
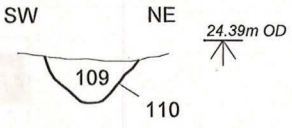
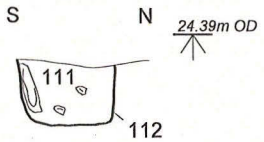


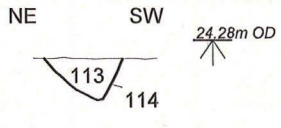
Figure 13 - Trench F: Plan

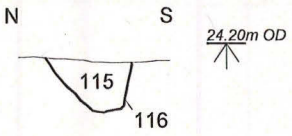


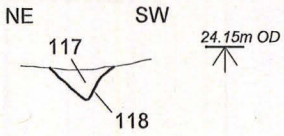












Archaeological Project Services		
Project Name: Lincoln Road, Sleaford SLLR06		
Scale 1:20	Drawn by: PCF	Report No: 110/06

Figure 14 - Trench F: Sections

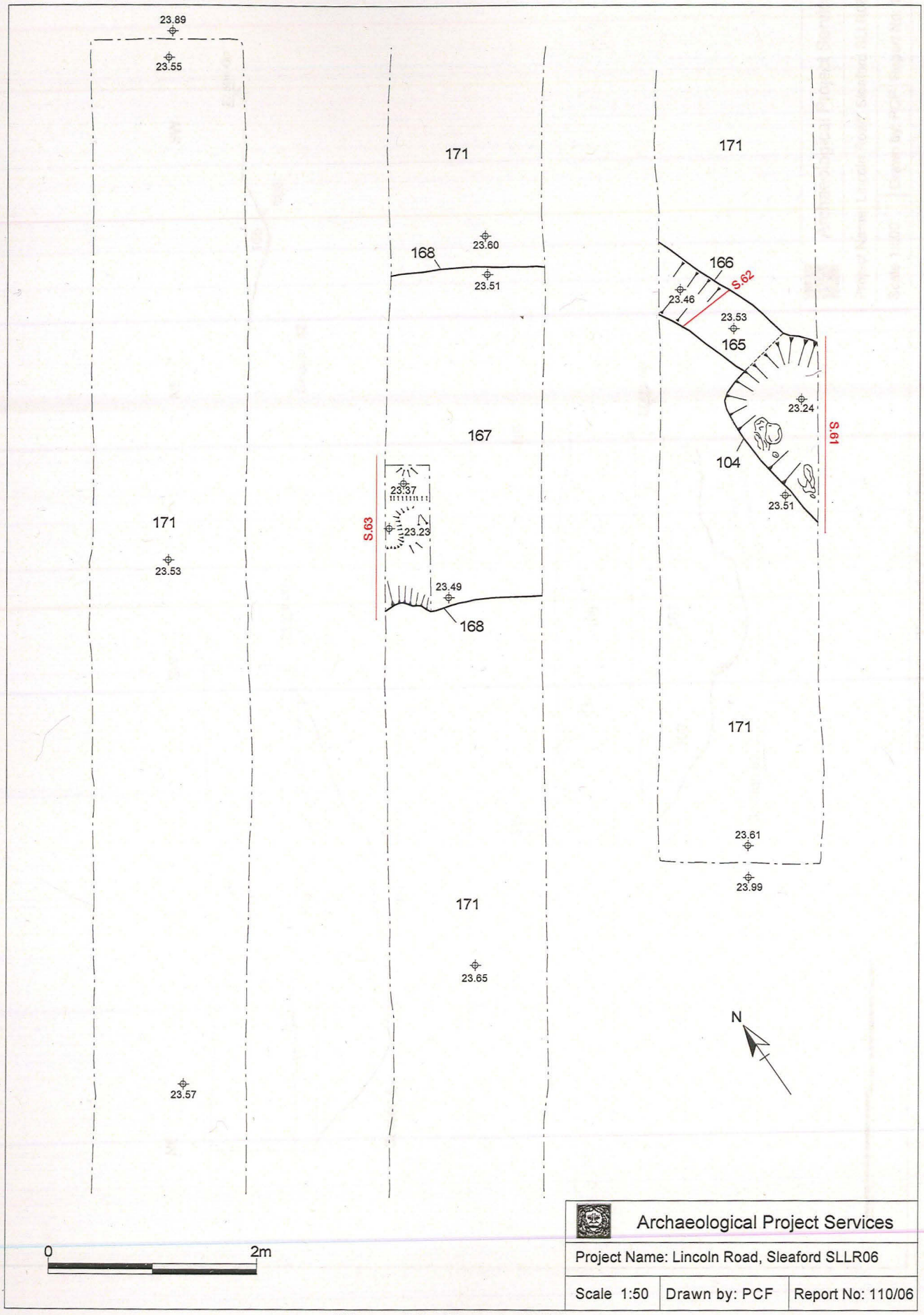


Figure 15 - Trench G: Plan

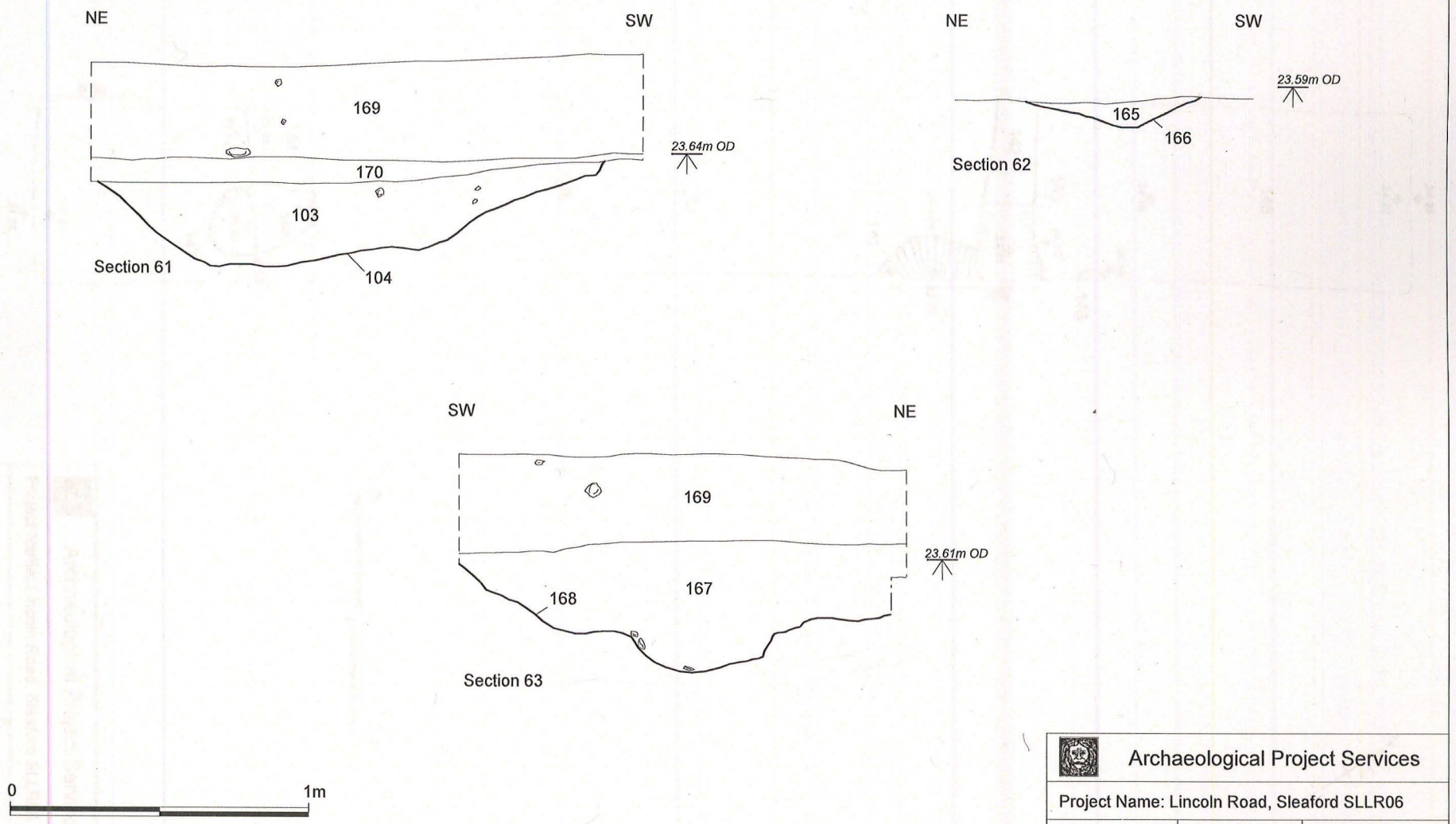


Figure 16 - Trench G: Sections

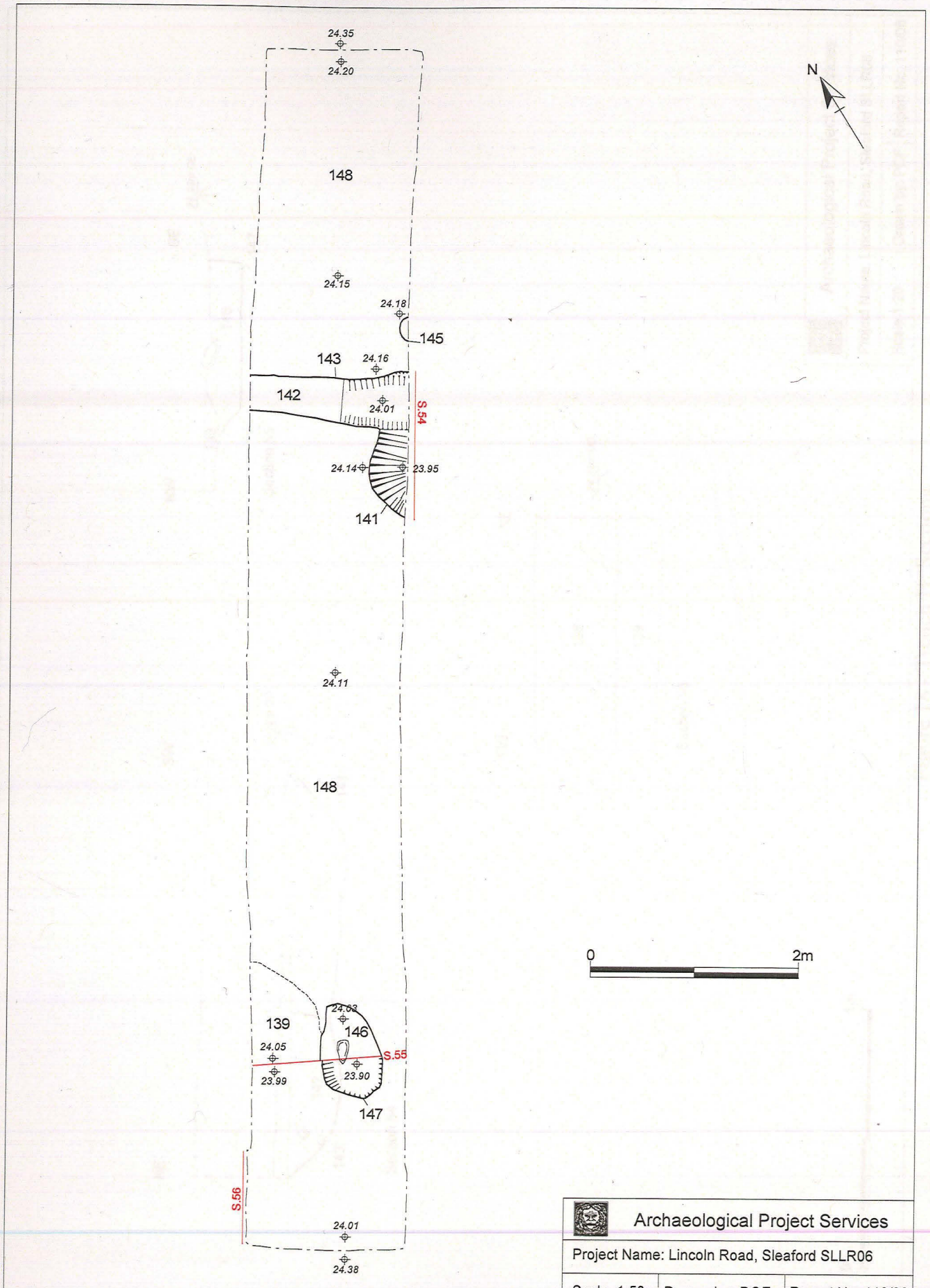
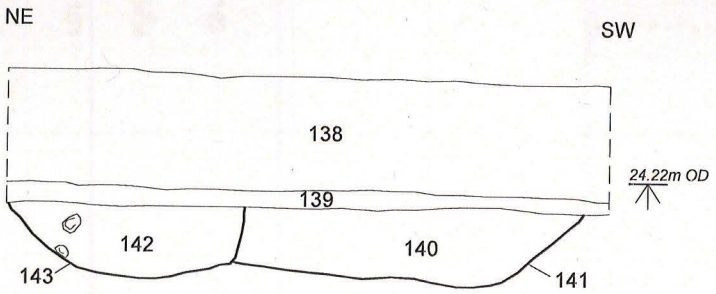
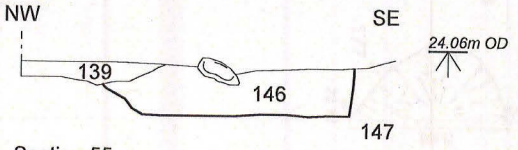


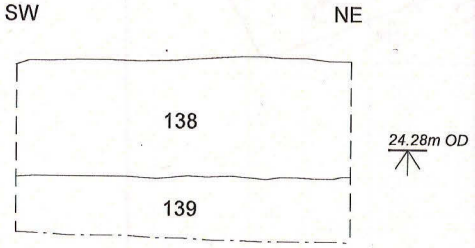
Figure 17 - Trench H: Plan



Section 54



Section 55



Section 56

Archaeological Project Services		
Project Name: Lincoln Road, Sleaford SLLR06		
Scale 1:20	Drawn by: PCF	Report No: 110/06

Figure 18 - Trench H: Sections

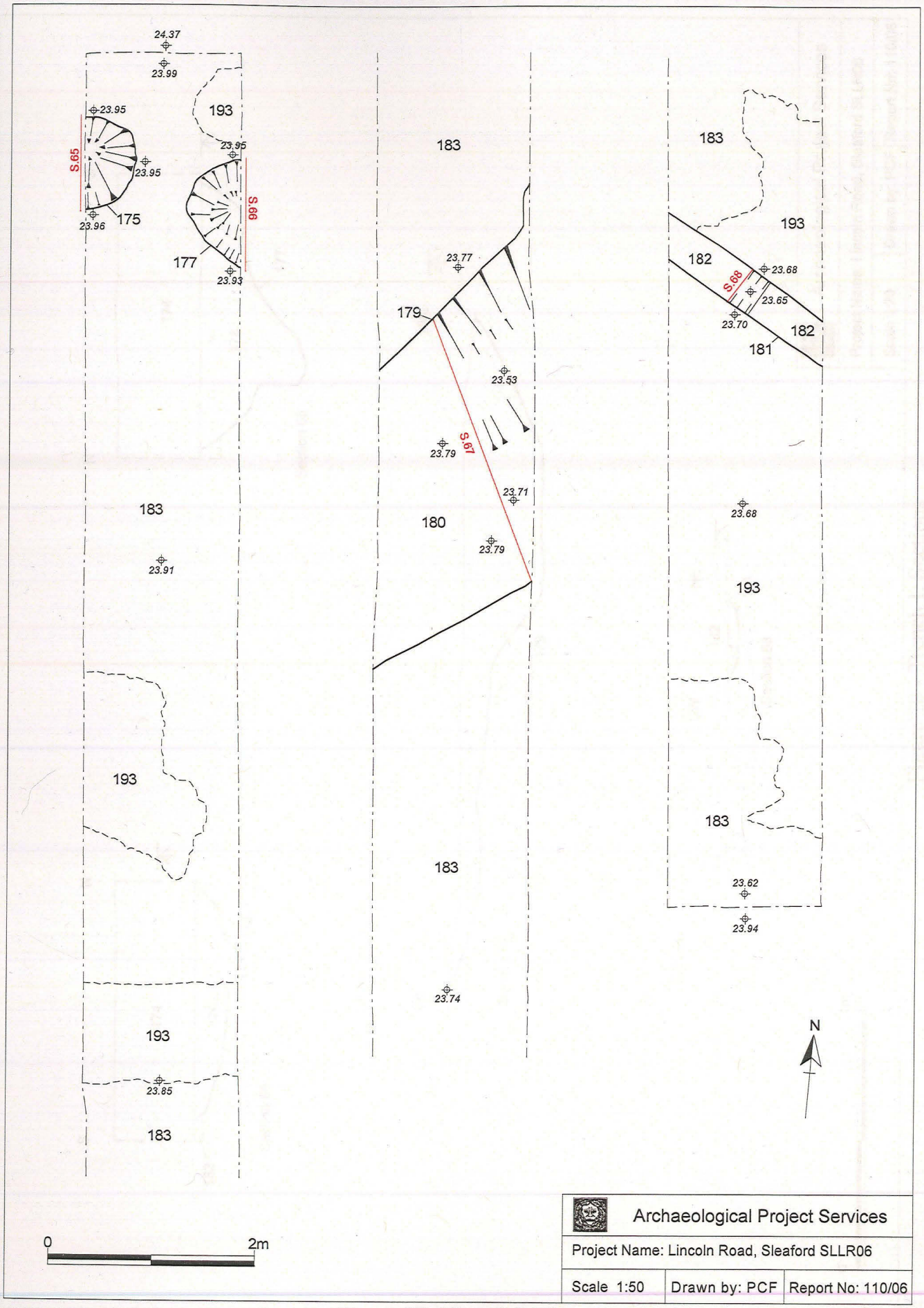


Figure 19 - Trench I: Plan

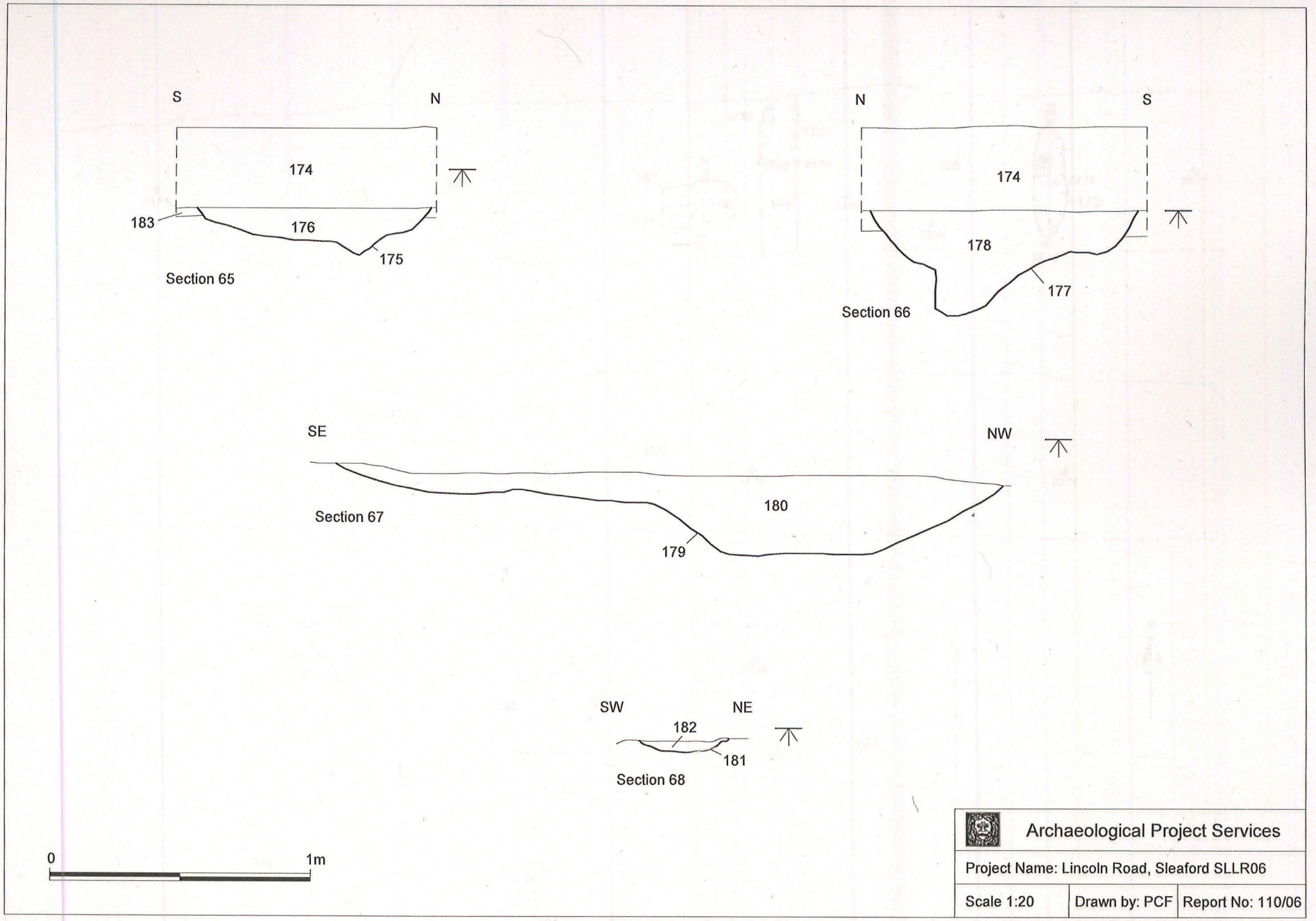


Figure 20 - Trench I: Sections

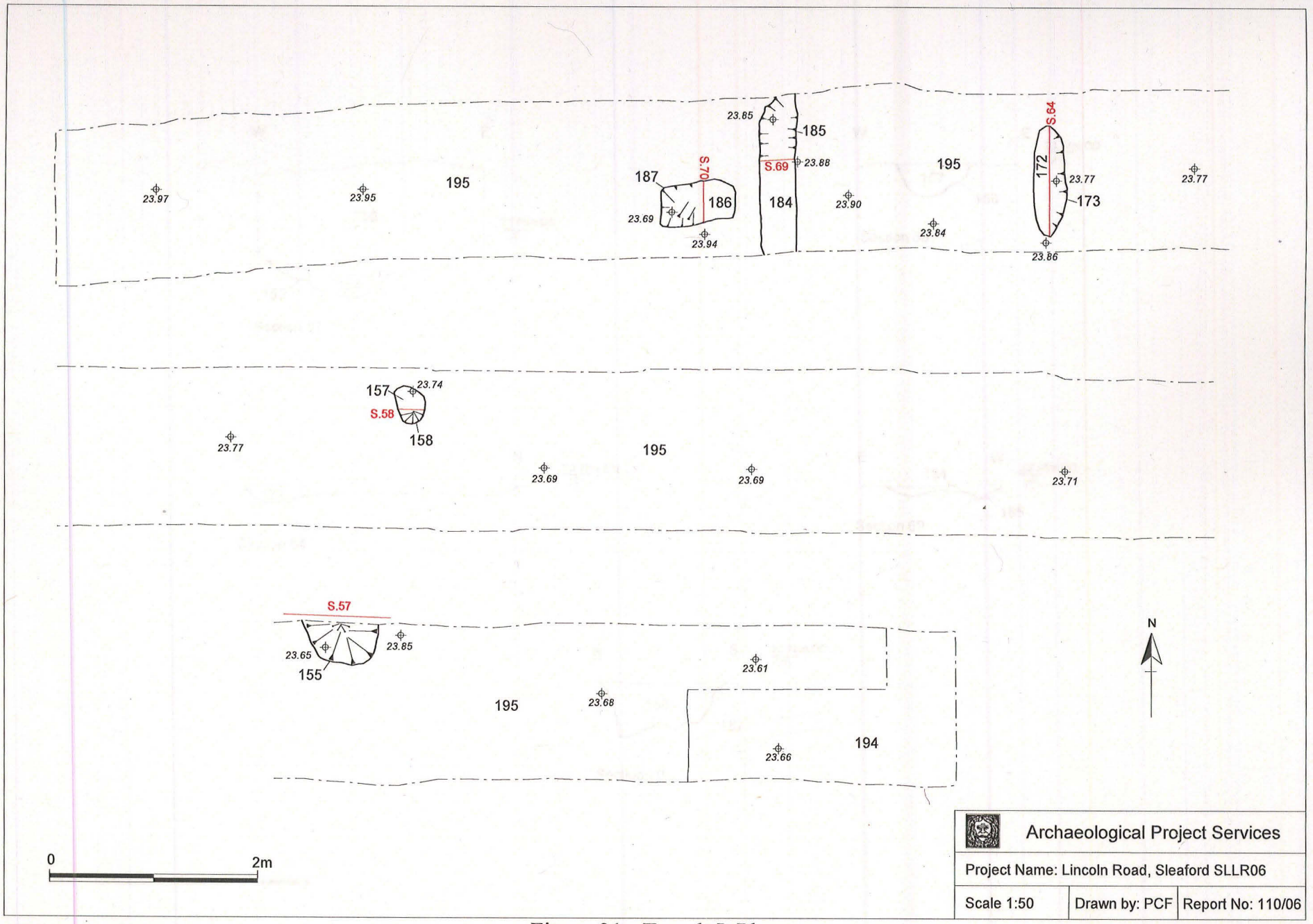


Figure 21 - Trench J: Plan

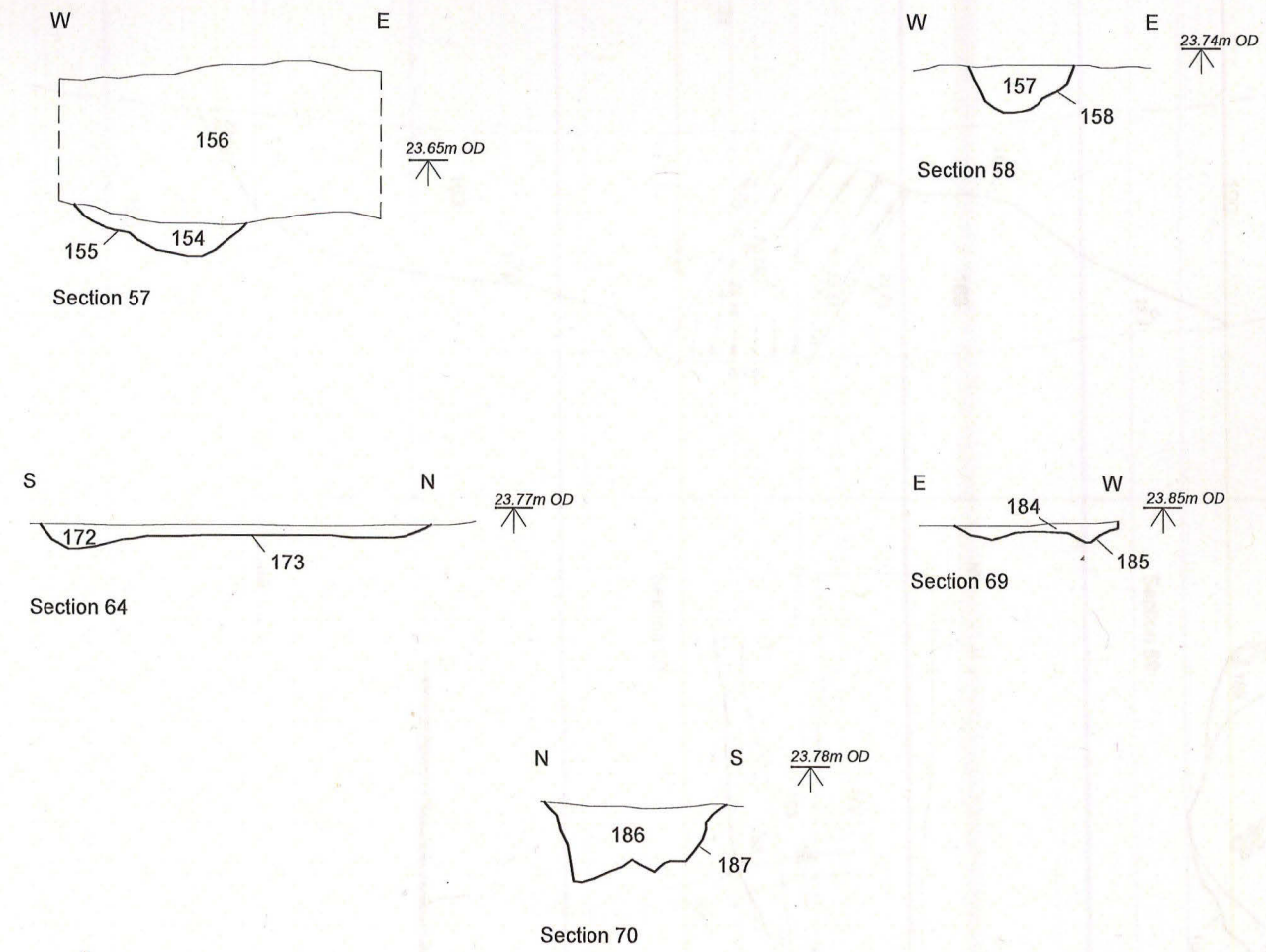
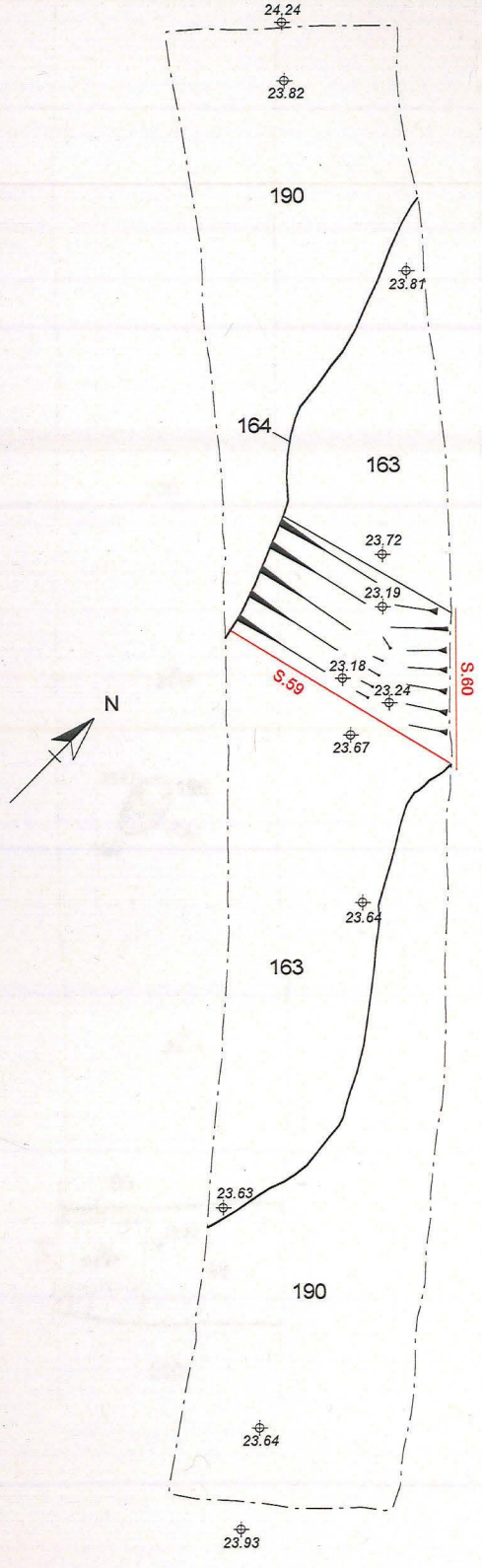
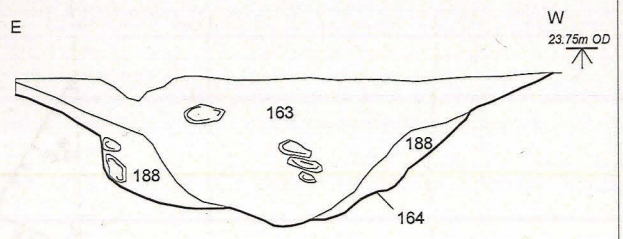
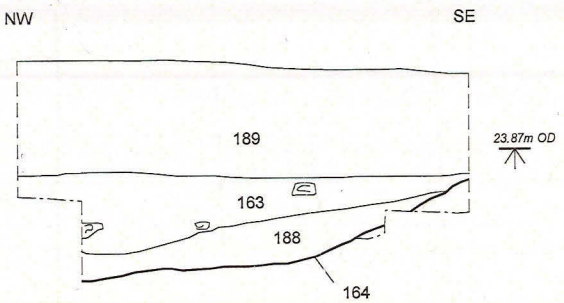


Figure 22 - Trench J: Sections





Section 59



Section 60

Scale 1:25

Archaeological Project Services		
Project Name: Lincoln Road, Sleaford SLLR06		
Scale 1:50	Drawn by: PCF	Report No: 110/06

Figure 23 - Trench K: Plan and Sections

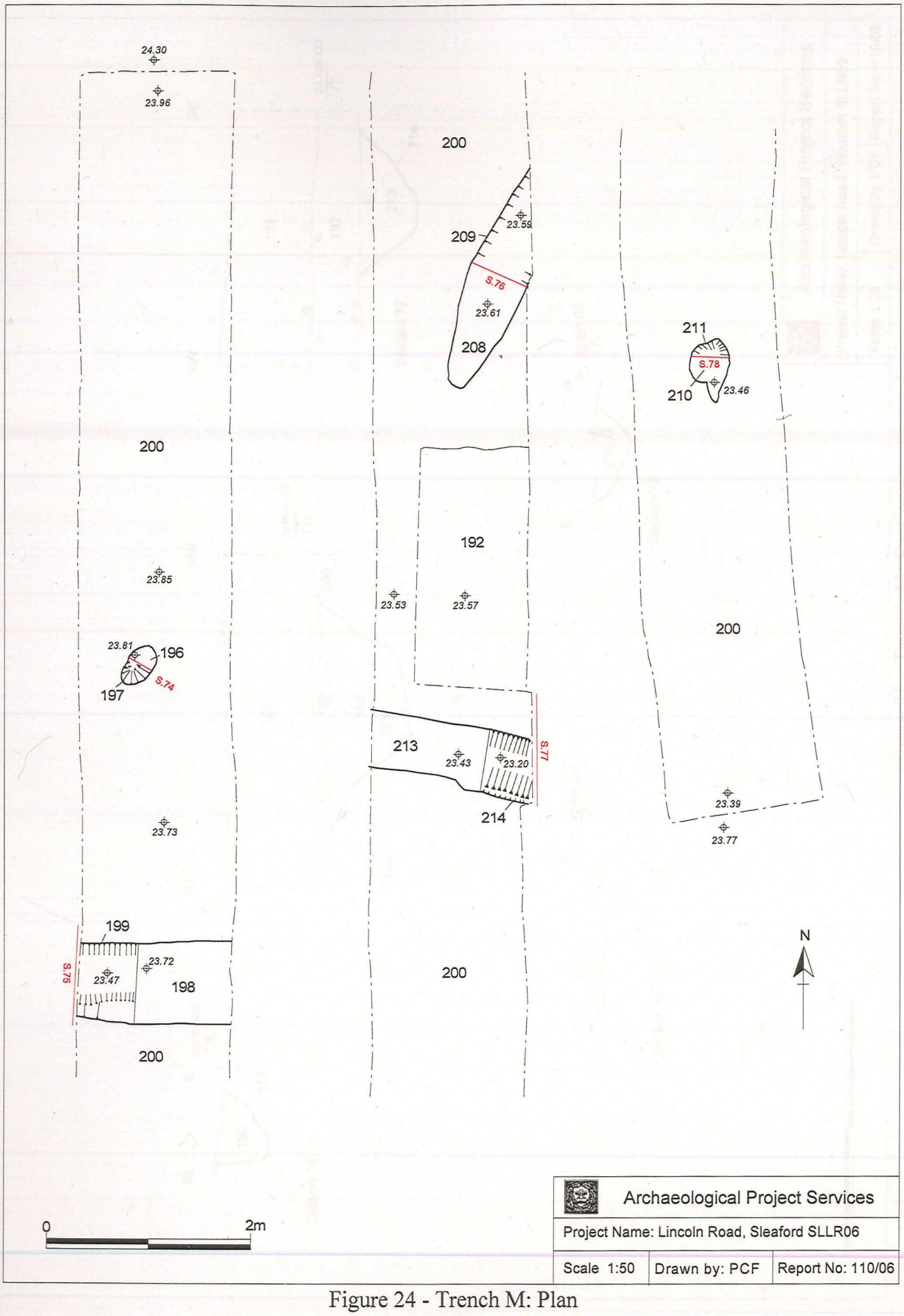


Figure 24 - Trench M: Plan

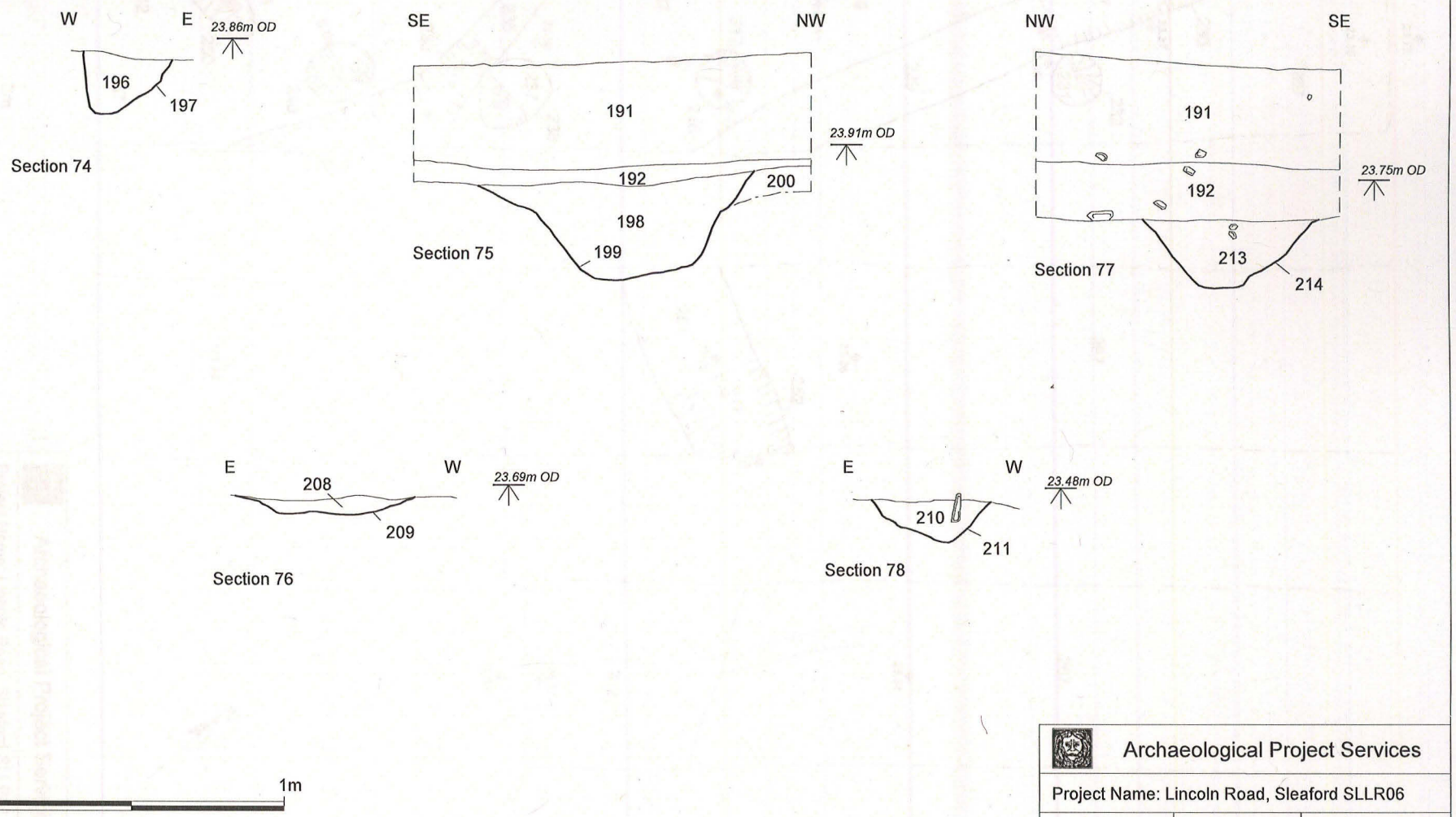


Figure 25 - Trench M: Sections

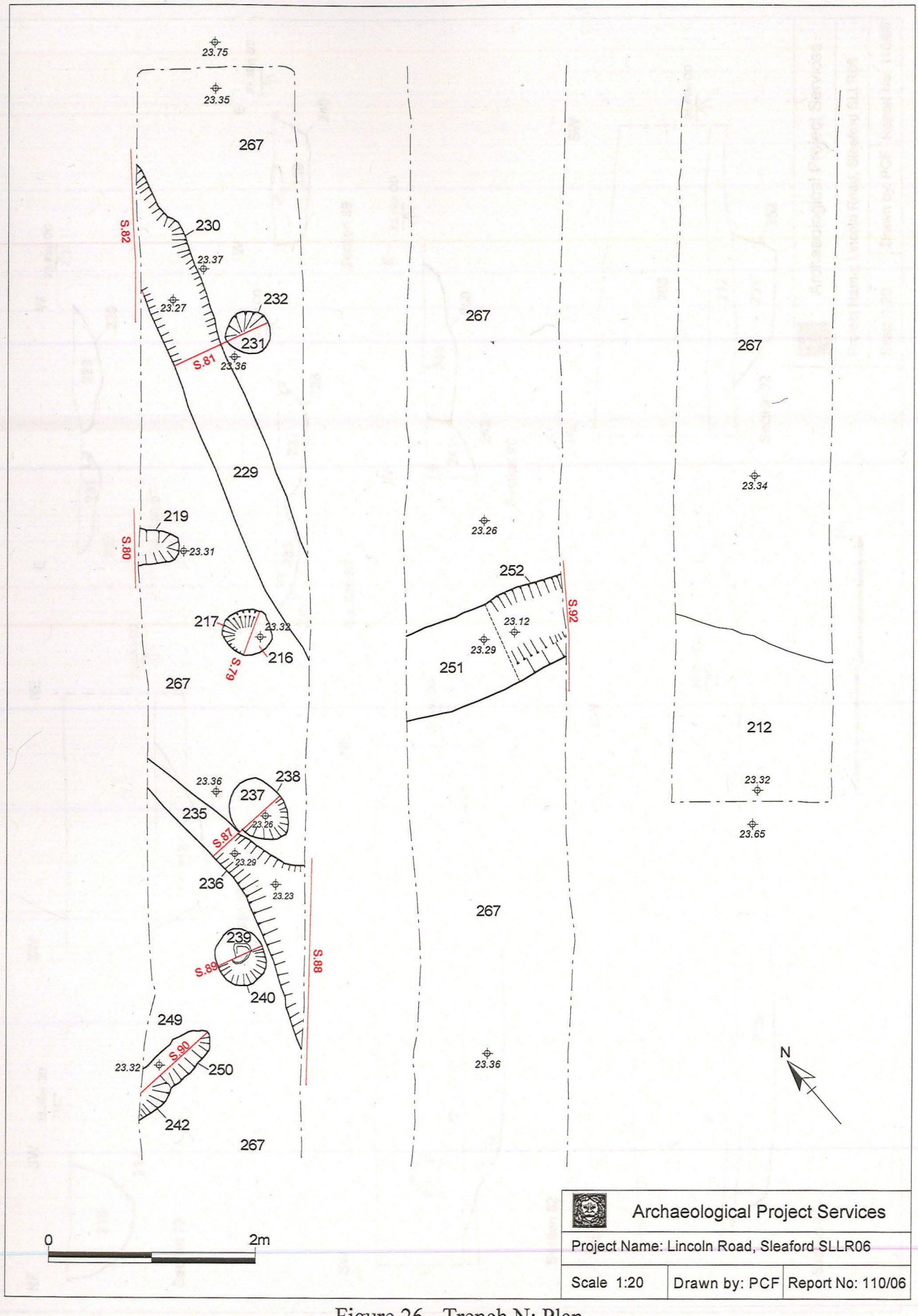


Figure 26 - Trench N: Plan

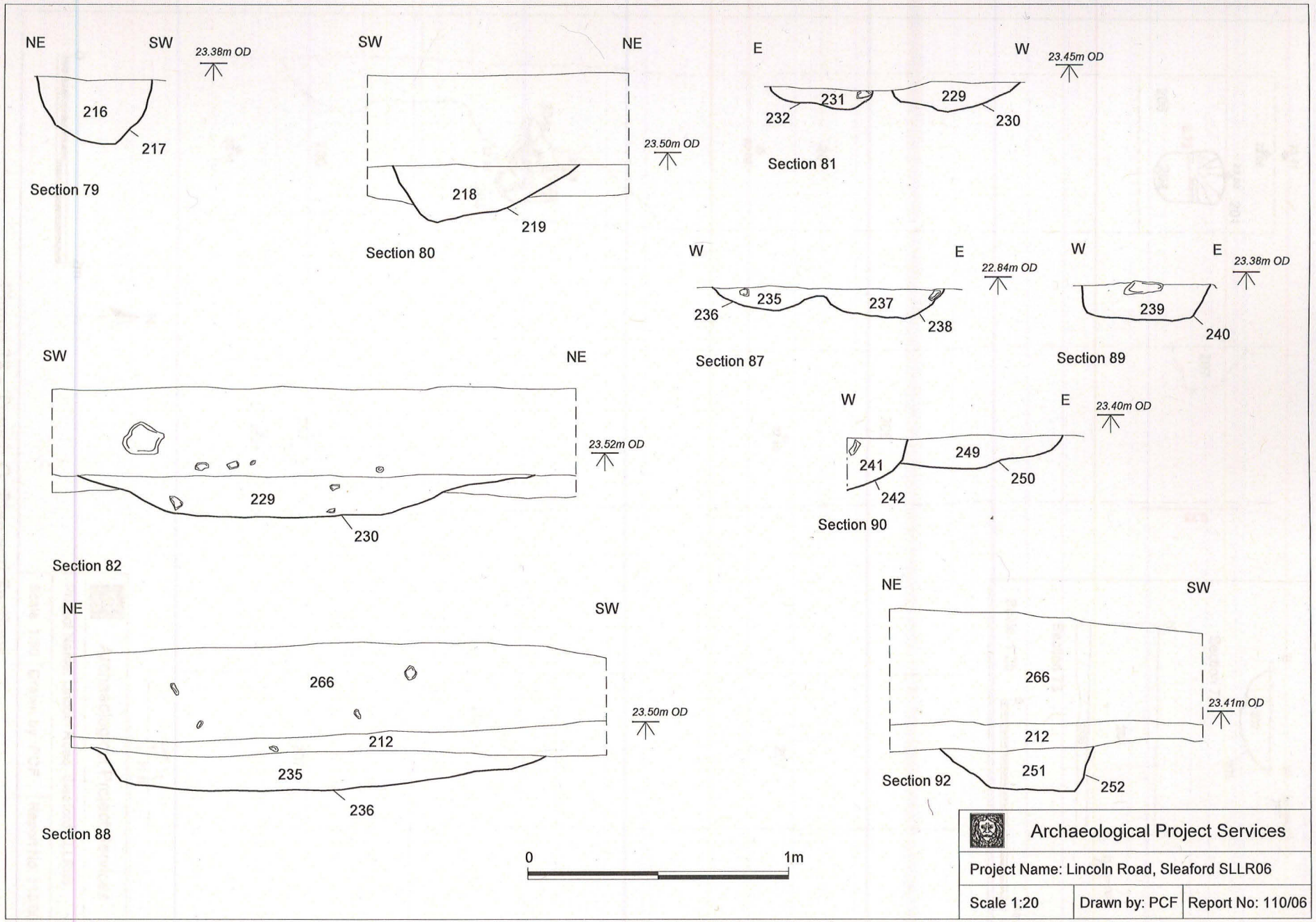


Figure 27 - Trench N: Sections

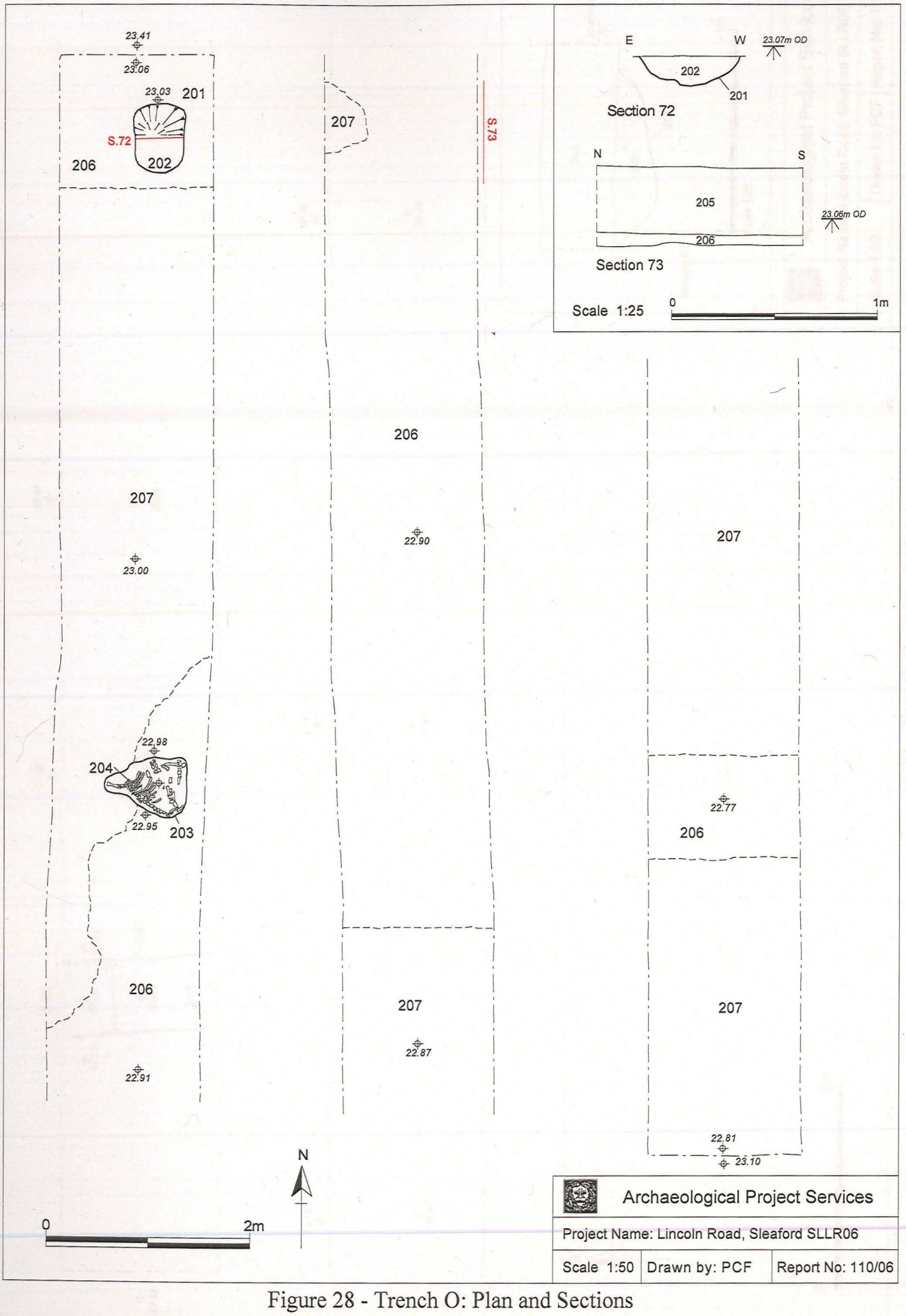


Figure 28 - Trench O: Plan and Sections

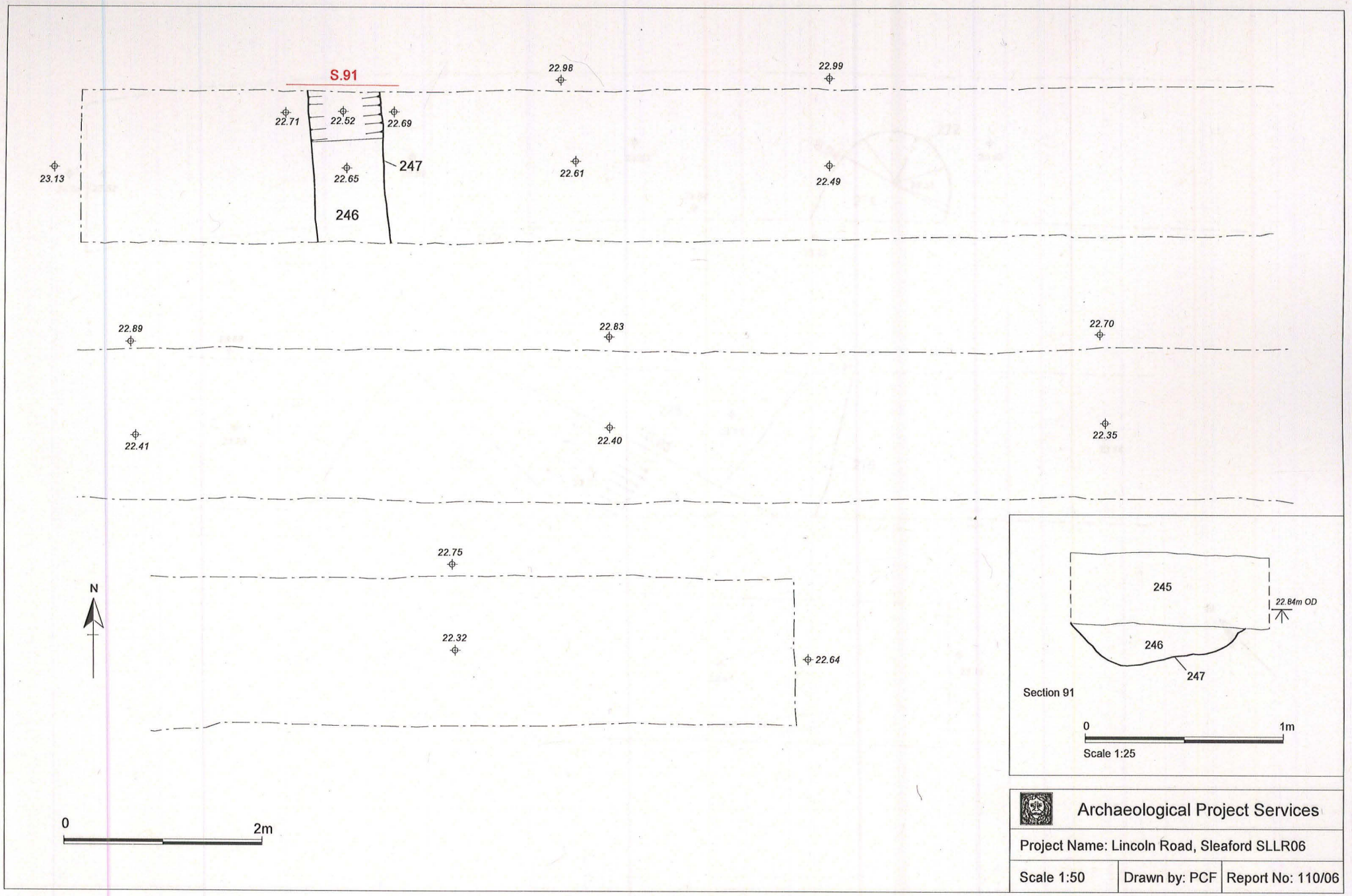


Figure 29 - Trench P: Plan and Section

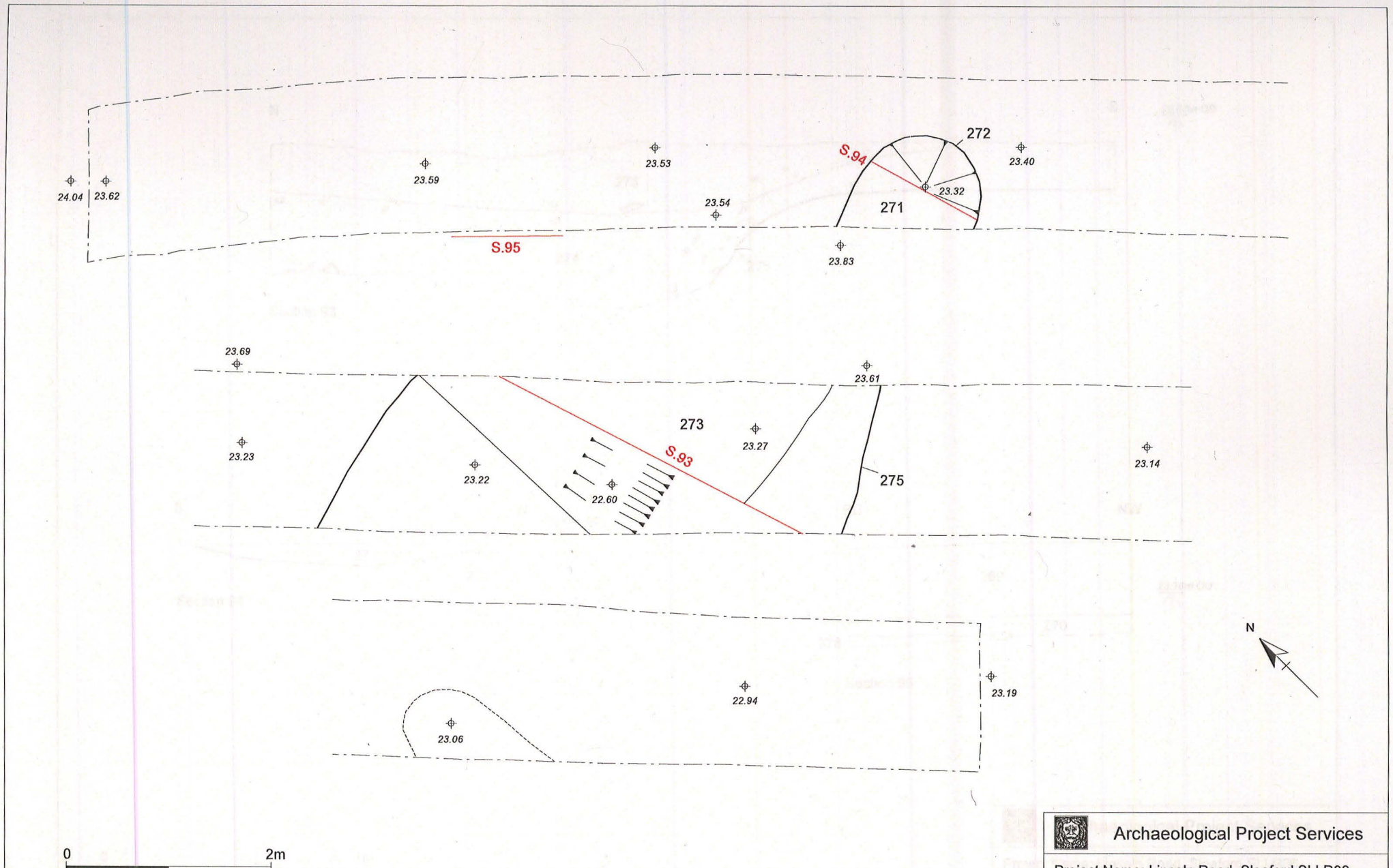
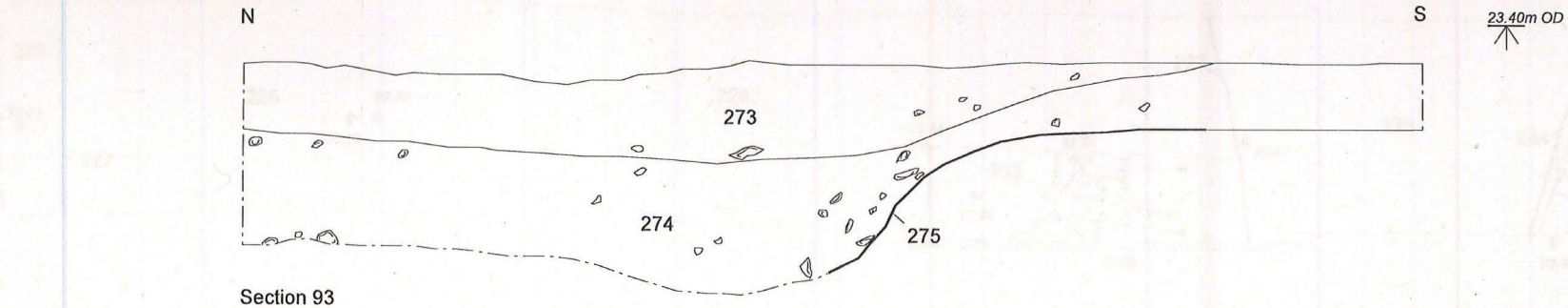
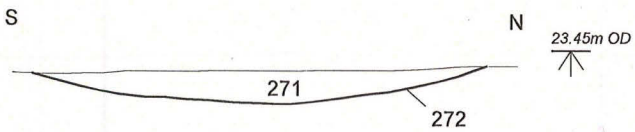


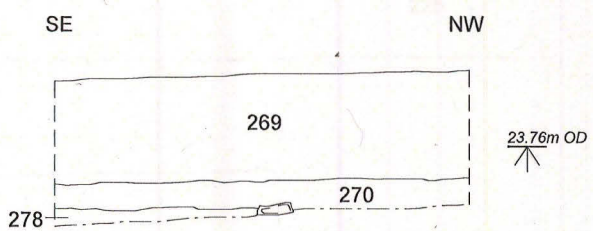
Figure 30 - Trench Q: Plan



Section 93



Section 94



Section 95

Archaeological Project Services		
Project Name: Lincoln Road, Sleaford SLLR06		
Scale 1:20	Drawn by: PCF	Report No: 110/06

Figure 31 - Trench Q: Sections

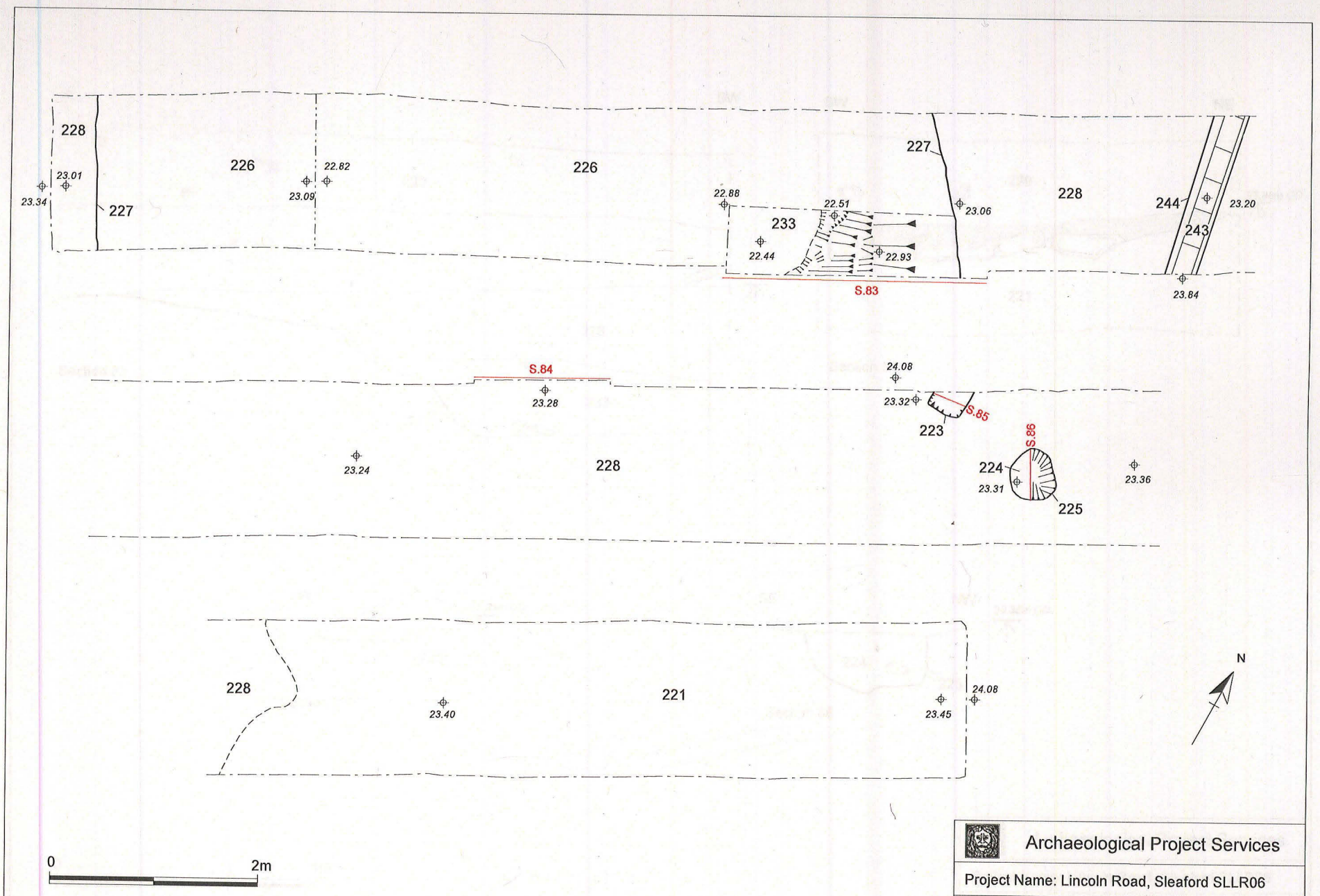


Figure 32 - Trench R: Plan

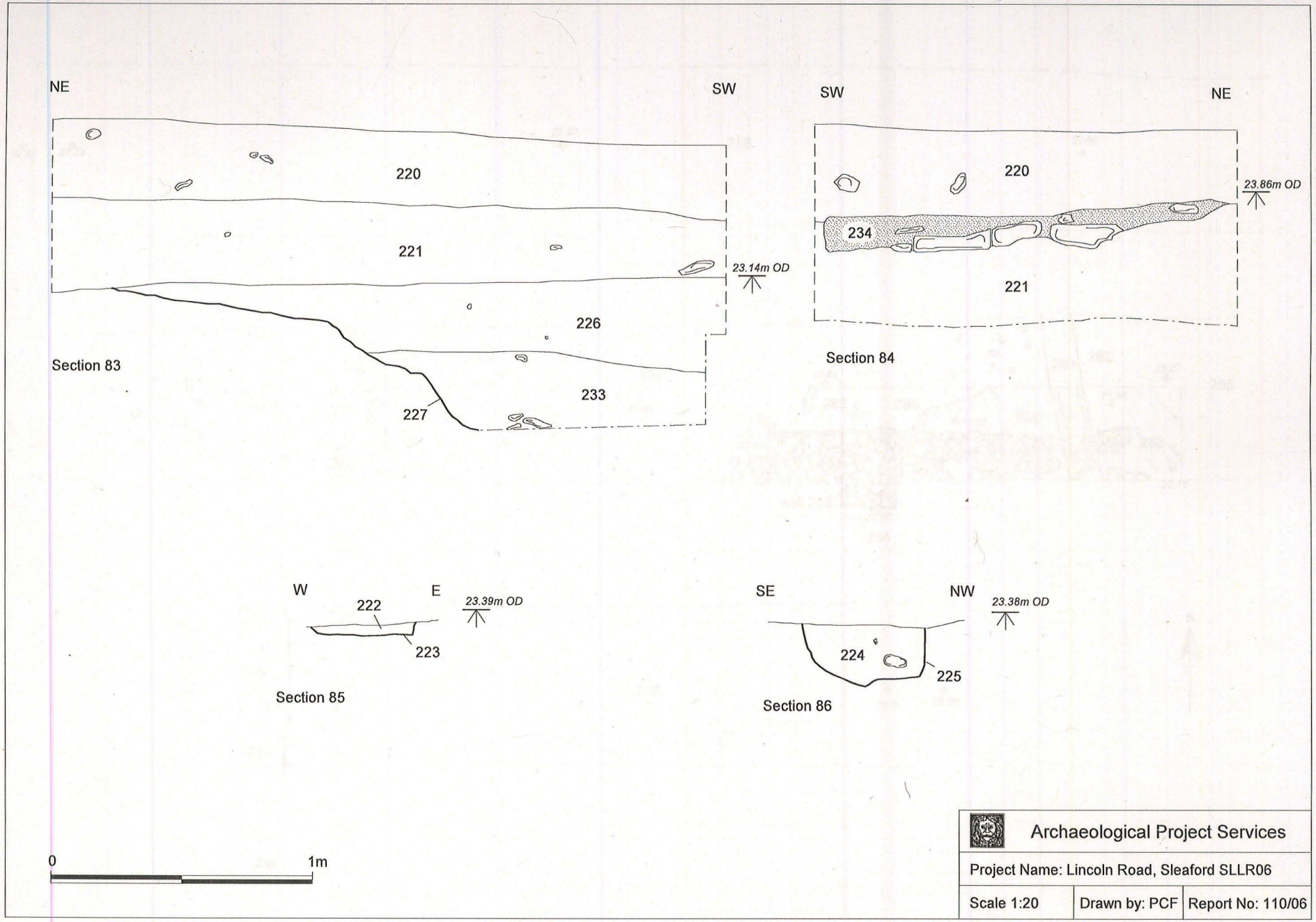


Figure 33 - Trench R: Sections

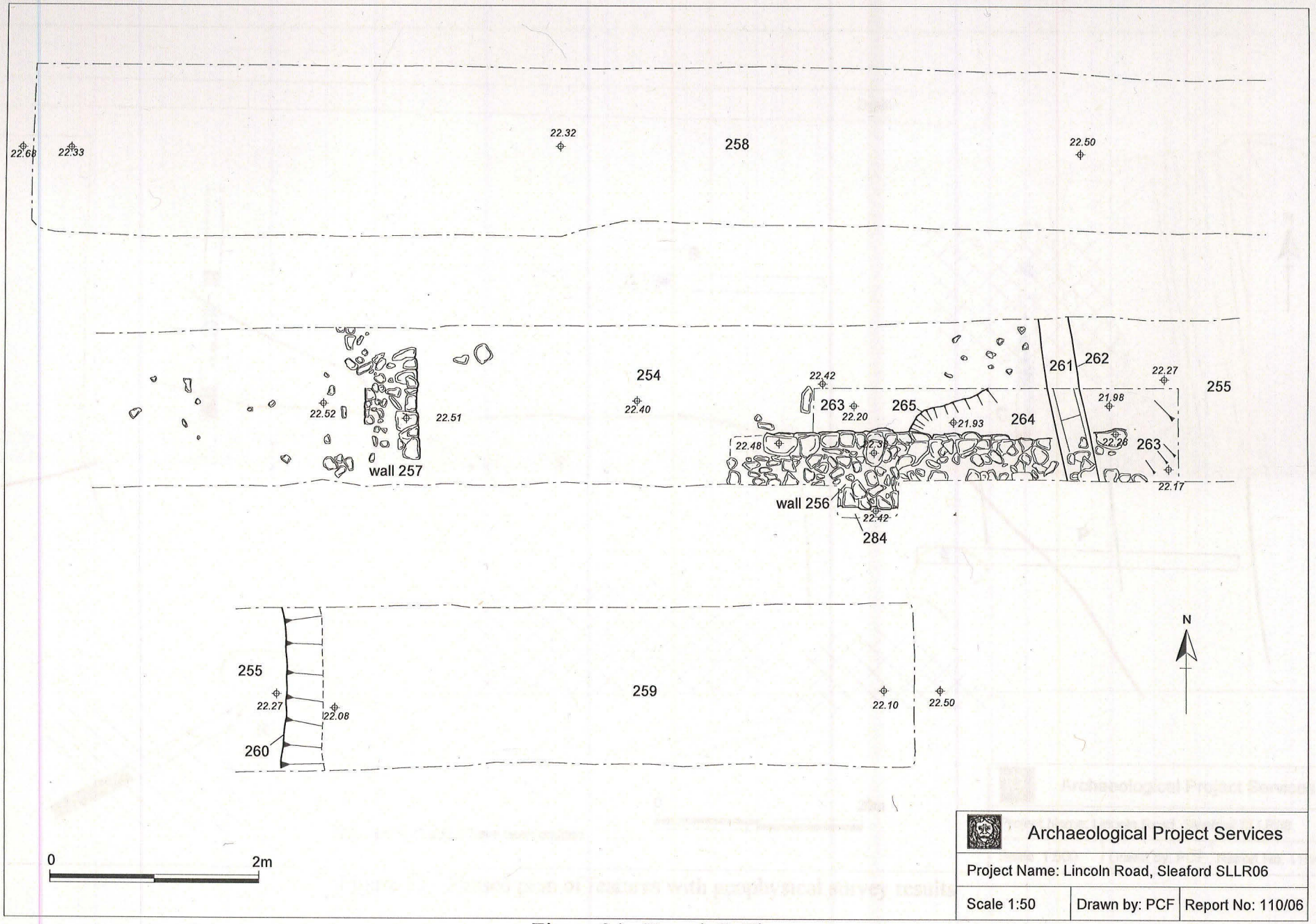


Figure 34 - Trench S: Plan

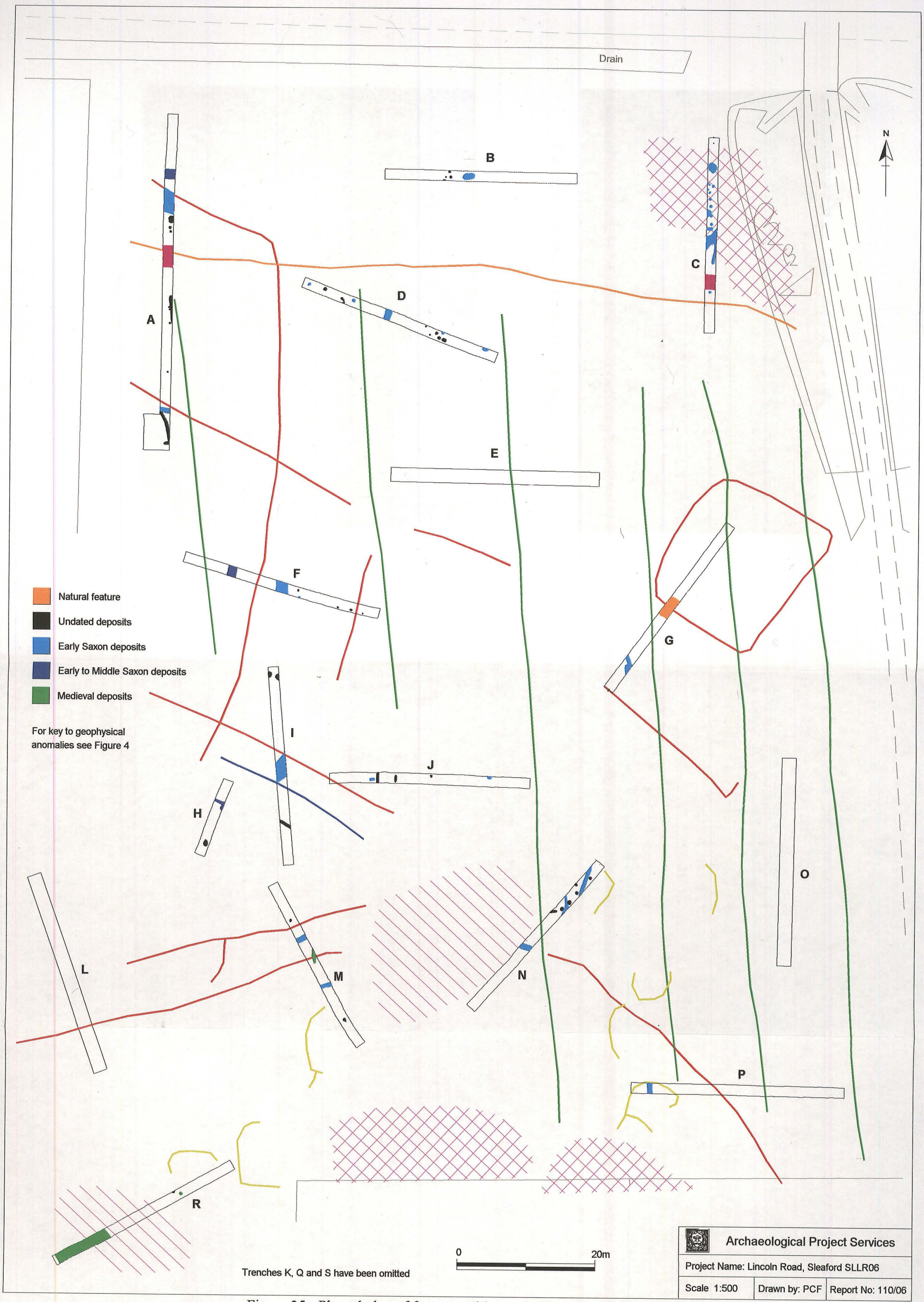


Figure 35 - Phased plan of features with geophysical survey results

Plate 1 - View across the evaluated area, looking southwest

Plate 2 - The northern part of the evaluated area, looking northwest

Plate 3 - View of Trench A before excavation, looking north

Plate 4 - Section 9 showing the Early Saxon ditch (016), looking northwest

Plate 5 - Section 14 showing ditch (041), looking southeast

Plate 6 - Section 39 showing ditch (126), looking east

Plate 7 - Section 6 showing the Early Saxon pit (014), Trench B, looking south

Plate 8 - Trench C after cleaning, looking

Plate 9 - View of the posthole alignment of a possible structure in Trench C, looking south

Plate 10 - View of the possible post-medieval ditch (099), looking southwest

Plate 11 - Trench D after cleaning, looking north-west

Plate 12 - Early Saxon pit (016), looking northwest

Plate 13 - Early Saxon ditch (028), looking north-

Plate 14 - Trench F, Early to Middle Saxon ditch (102), looking north

Plate 15 - Trench G, Early Saxon ditch (104), looking south

Plate 16 - Trench H after cleaning, looking south-west

Plate 17 - Early Saxon ditch (143) and pit (141), looking southeast

Plate 18 - Trench K, Post-medieval ditch (164), looking south

Plate 19 - Trench M, Early Saxon ditch (199), looking west

Plate 20 - Trench N after cleaning, looking north-east

Plate 21 - Undated gully (230) and posthole (232), looking south

Plate 22 - Early Saxon ditch/gully (236) and undated posthole (238), looking north

Plate 23 - Early Saxon ditch (252), looking west

Plate 24 - Trench O, Medieval quarry pit (275), looking south-east

Plate 25 - Trench S showing medieval stone wall (256) of possible watermill, looking southeast

Plate 26 - Trench S showing medieval wall (257), looking north

Appendix 1

SPECIFICATION FOR THE ARCHAEOLOGICAL EVALUATION OF LAND OFF LINCOLN ROAD, SLEAFORD

1 SUMMARY

1.1 This document comprises a specification for the archaeological field evaluation of land between Lincoln Road and the A17 at Holdingham, Sleaford, Lincolnshire.

1.2 The site lies immediately adjacent to a site where archaeological remains of Early to Middle Saxon settlement have been recorded. An initial geophysical survey of the site has identified features potentially related to this settlement.

1.3 Residential development of the site is proposed. The archaeological works are being undertaking to provide information to assist the determination of any application.

1.4 The second phase of evaluation will consist of a programme of trial trenching of the site. On completion of the fieldwork a report will be prepared detailing the findings of the investigation. The report will consist of a text describing the nature of the archaeological deposits located and will be supported by line drawings and photographs.

2 INTRODUCTION

2.1 This document comprises a specification for the archaeological field evaluation of land between Lincoln Road and the A17 at Holdingham, Sleaford, Lincolnshire.

2.2 The document contains the following parts:

2.2.1 Overview

2.2.2 The archaeological and natural setting

2.2.3 Stages of work and methodologies to be used

2.2.4 List of specialists

2.2.5 Programme of works and staffing structure of the project

3 SITE DESCRIPTION

3.1 Sleaford is located 27km south of Lincoln in the administrative district of North Kesteven. The former hamlet of Holdingham is located on the northern edge of the town. The site lies to the northeast of Lincoln Road and south of the A17, immediately to the east of the Macdonalds restaurant, comprising an area of some 2.4ha centred on National Grid Reference TF 0595 4730.

4 PLANNING BACKGROUND

4.1 Residential development of the site is proposed. Archaeological evaluation is required in order to provide information to assist in the determination of any application.

5 SOILS AND TOPOGRAPHY

5.1 The site lies at c. 25m O.D. on ground sloping to the south and east. Local soils are fine loamy soils of the Aswarby Association developed on Jurassic limestone and clay (Hodge et al. 1984, 99).

6 ARCHAEOLOGICAL OVERVIEW

6.1 Archaeological remains dating from the Early to Middle Saxon period were uncovered during development on land immediately to the west. The finds assemblage, including pottery, loom weights and bone tools, is characteristic of domestic settlement. Dating of the pottery suggests that the site was occupied from the 6th to the 8th century, and possibly into the 9th. Archaeological

remains were concentrated in the north of the site on a prominent east-west ridge which extends into the current development area.

6.2 Gradiometer survey of the site (Stratascan 2006) identified a number of anomalies of possible archaeological potential. A strong east-west anomaly matches the line of a medieval ditch noted on the McDonald's site; ditched enclosures on the western edge of the area may represent a continuation of the Middle Saxon settlement. Possible pits and ditch features are also present more widely in the east and south of the area.

7 AIMS AND OBJECTIVES

7.1 The aim of the work will be to gather sufficient information for the North Kesteven Planning Archaeologist to be able to formulate an appropriate policy for the management of the archaeological resource of the site.

7.2 The objectives of the work will be to:

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

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

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

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

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

7.2.6 Determine the date and function of the archaeological features present on the site

8 TRIAL TRENCHING

8.1 Reasoning for this technique

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

8.1.2 The trial trenching will consist of the excavation of up to a 5% sample of the available area (2.2ha). This will be achieved through the excavation of eighteen 30m x 2m trenches laid out as agreed with the North Kesteven Planning Archaeologist. Trenches in the wooded area (0.25ha) at the southern edge of the site may not be possible at this stage. Some trenching will be held in reserve in order to widen trenches if necessary.

8.1.3 Should archaeological deposits extend below 1.2m depth then the trench sides will be stepped in, or shored, as appropriate. Trenches will be at least 1m wide at the lowest levels of excavation. Augering may be used to determine the depth of the sequence of deposits present. As specified in the brief for works, 25% of each trench will be fully excavated to natural.

8.2 General Considerations

8.2.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the evaluation. A risk assessment will prepared prior to the commencement of site works.

8.2.2 The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). *Archaeological Project Services* is an IFA Registered Archaeological Organisation (No. 21).

8.2.3 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.

8.2.4 A metal detector will be used during mechanical and subsequent manual excavation. Mechanically excavated spoil will be scanned by detector and all excavated surfaces, of all trenches, will be scanned daily by detector.

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

8.2.6 The area is on private land and enclosed with HERAS fencing. Subject to the consent of the North Kesteven Heritage Officer, and following the appropriate recording, the trenches, particularly those of excessive depth, will be backfilled as soon as possible to ensure good health and safety procedures.

8.3 Methodology

8.3.1 Removal of the topsoil and any other overburden will be undertaken by mechanical excavator using a toothless ditching bucket. To ensure that the correct amount of material is removed and that no archaeological deposits are damaged, this work will be supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits will be assessed by hand excavation before any further mechanical excavation that may be required. Thereafter, the trenches will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.

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

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

8.3.4 Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at more appropriate scales.

8.3.5 Throughout the duration of the trial trenching a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:

- the site before the commencement of field operations.
- the site during work to show specific stages of work, and the layout of the archaeology within individual trenches.
- individual features and, where appropriate, their sections.
- groups of features where their relationship is important.
- the site on completion of fieldwork

8.3.6 Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such remains. If exhumation is necessary, the appropriate Home Office licences will be obtained and the local environmental health department, the coroner and the police informed.

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

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

8.3.9 The precise location of the trenches within the site and the location of site recording grid will be established, relative to the National Grid, by an EDM survey.

9 ENVIRONMENTAL ASSESSMENT

9.1 If appropriate, during the evaluation specialist advice will be obtained from an environmental archaeologist. The specialist will visit the site and will prepare a report detailing the nature of the environmental material present on the site and its potential for additional analysis should further stages of archaeological work be required. The results of the specialist's assessment will be incorporated into the final report

10 POST-EXCAVATION AND REPORT

10.1 Stage 1

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

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

10.2 Stage 2

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

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

10.3 Stage 3

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

- A non-technical summary of the findings of the evaluation.
- A description of the archaeological setting of the site with reference to prevous discoveries in the area.
- Description of the topography and geology of the evaluation area
- Description of the methodologies used during the evaluation and a critical review of their effectiveness in the light of the findings of the investigation.
- A text describing the findings of the evaluation.
- Plans of the trenches showing the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.
- Sections of the trenches and archaeological features.
- Interpretation of the archaeological features exposed and their context within

the surrounding landscape.

- Specialist reports on the finds from the site.
- Appropriate photographs of the site and specific archaeological features.
- A consideration of the importance of the findings on a local, regional and national basis.

11 ARCHIVE

11.1 The documentation, finds, photographs and other records and materials generated during the evaluation will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This sorting will be undertaken according to the document titled *Conditions for the Acceptance of Project Archives* for long-term storage and curation.

12 REPORT DEPOSITION

12.1 Copies of the evaluation report will be sent to: the client; the North Kesteven Planning Archaeologist; and the Lincolnshire County Sites and Monuments Record.

13 PUBLICATION

13.1 Details of the investigation will be input to the Online Access to the Index of Archaeological Investigations (OASIS).

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

14 CURATORIAL MONITORING

14.1 Curatorial responsibility for the project lies with the North Kesteven Planning Archaeologist. They will be given notice in writing of the commencement of the project to enable them to make appropriate monitoring arrangements.

15 VARIATIONS TO THE PROPOSED SCHEME OF WORKS

15.1 Variations to the scheme of works will only be made following written confirmation from North Kesteven Planning Archaeologist.

15.2 Should the North Kesteven Planning Archaeologist require any additional investigation beyond the scope of the brief for works, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

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.

Task	Body to be undertaking the work
Conservation	Conservation Laboratory, City and County Museum, Lincoln.
Pottery Analysis	Prehistoric: Dr D Knight, Trent and Peak Archaeological Trust Roman: B Precious, independent specialist Anglo-Saxon: J Young, independent specialist Medieval and later: H Healey, independent specialist
Other Artefacts	J Cowgill, independent specialist

Human Remains Analysis	R Gowland, independent specialist
Animal Remains Analysis	Jen Kitch, APS
Environmental Analysis	Environmental Archaeology Consultancy
Radiocarbon dating	Beta Analytic Inc., Florida, USA
Dendrochronology dating	University of Sheffield Dendrochronology Laboratory

17 PROGRAMME OF WORKS AND STAFFING LEVELS

17.1 Fieldwork is expected to be undertaken by up to 4 staff and to take about ten (10) days.

17.2 Post-excavation analysis and report production is expected to take 12 person-days within a notional programme of 10-15 days. A project officer or supervisor will undertake most of the analysis, with assistance from the finds supervisor and CAD illustrator. Three days of specialist time are allotted in the project budget.

17.3 **Contingency**

17.3.1 Contingencies have been specified in the budget. These include: environmental sampling/analysis of waterlogged remains (expected to be some level of sampling and assessment, but cannot be estimated in advance); Roman pottery-large amounts (moderate quantities expected and allowed for); non-pottery artefacts –moderate quantities (small amounts expected and allowed for); Conservation and/or Other unexpected remains or artefacts.

17.3.2 Other than the pump, the activation of any contingency requirement will be by the archaeological curator, not Archaeological Project Services.

18 INSURANCES

18.1 Archaeological Project Services, as part of the Heritage Trust of Lincolnshire, maintains Employers Liability insurance to £10,000,000. Additionally, the company maintains Public and Products Liability insurances, each with indemnity of £5,000,000. Copies of insurance documentation can be supplied on request.

19 COPYRIGHT

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

19.2 Licence will also be given to the archaeological curators to use the documentary archive for educational, public and research purposes.

19.3 In the case of non-satisfactory settlement of account then copyright will remain fully and exclusively with Archaeological Project Services. In these circumstances it will be an infringement under the *Copyright, Designs and Patents Act* 1988 for the client to pass any report, partial report, or copy of same, to any third party. Reports submitted in good faith by Archaeological Project Services to any Planning Authority or archaeological curator will be removed from said Planning Authority and/or archaeological curator. The Planning Authority and/or archaeological curator will be notified by Archaeological Project Services that the use of any such information previously supplied constitutes an infringement under the *Copyright, Designs and Patents Act* 1988 and may result in legal action.

19.4 The author of any report or specialist contribution to a report shall retain intellectual copyright of their work and may make use of their work for educational or research purposes or for further publication.

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

Smalley, RAJ 2006 *Geophysical Survey Report: Lincoln Road, Sleaford, Lincolnshire*, unpublished Stratascan report J2136

Appendix 2

CONTEXT DESCRIPTIONS

Phasing is based principally on the dates of pottery (Appendices 3 and 4). Seven phases were identified;

Phase 1	Natural deposits
Phase 2	Undated deposits
Phase 3	Early Saxon deposits
Phase 4	Early to Middle Saxon deposits
Phase 5	Medieval deposits
Phase 6	Post-medieval deposits
Phase 7	Recent deposits

Trench A

No	Description	Interpretation	Phase
016	Linear feature, aligned east-west, >1.5m long by 1.45m wide and 0.36m deep, steep sides and rounded base	Ditch	4
029	Circular feature, 0.3m diameter by 60mm deep, steep sides and blunt tapering point	Posthole	2
030	Soft dark brownish grey sandy clay	Fill of (029)	2
031	Oval feature, 0.38m long by 0.34m wide and 40mm deep, steep sides and rounded base	Posthole	2
032	Soft dark brownish grey sandy clay	Fill of (031)	2
041	Linear feature, aligned northwest-southeast, >1.6m long by 2.9m wide and 0.3m deep, shallow sides and rounded base	Ditch	3
042	Firm mid yellowish brown sandy silt	Fill of (041)	3
043	Firm mid brownish grey sandy silt with moderate charcoal flecks	Fill of (041)	3
044	Soft moist dark brownish grey clayey silt with frequent charcoal	Fill of (041)	3
053	Soft mid brownish grey clayey sand	Fill of (016)	4
054	Soft mid brownish grey clayey sand	Fill of (016)	4
055	Firm mid greyish brown clayey silt with moderate sub-angular pebbles, 0.37m thick	Buried soil	7
056	Firm mid greyish brown sandy silt, 0.25m thick	Dumped deposit	7
057	Soft dark brownish grey sandy silt, 0.28m thick	Topsoil	7
066	Circular feature, 0.22m diameter by 80mm deep, gradual sides and rounded base	Posthole	2
067	Soft dark brownish grey sandy clay	Fill of (066)	2
081	Linear feature, aligned north-south, >3.85m long by >0.44m wide and 50mm deep, gradual sides and flat base	Gully	2
082	Soft to friable dark brownish grey sandy clay	Fill of (081)	2
120	Soft to friable dark reddish brown silty sand with frequent charcoal flecks	Fill of (121)	2
121	Sub-circular feature, >0.7m long by >0.5m wide and 60mm deep, gradual sides and flattish base	Pit	2
122	Soft and friable dark reddish brown silty sand with moderate charcoal flecks	Fill of (123)	2
123	Sub-rectangular feature, >0.68m long by 0.48m wide and 0.28m deep, steep sides and rounded base	Pit	2
124	Firm mid brownish grey sandy silt, 0.3m thick	Topsoil	7
125	Soft mid reddish brown sandy silt, 0.5m thick	Dumped deposit	7
126	Linear feature, aligned east-west, >1.5m long by 3.2m wide and 0.38m deep, stepped sides and flat base	Ditch	6

No	Description	Interpretation	Phase
127	Soft mid reddish brown clayey silt	Fill of (126)	6
128	Firm dark reddish brown silty sand	Fill of (129)	2
129	Circular feature, 0.25m diameter by 60mm deep, gradual sides and rounded base	Posthole	2
130	Friable dark reddish brown silty sand	Fill of (131)	2
131	Oval feature, 0.22m long by 0.16m wide and 100mm deep, gradual sides and rounded base	Posthole	2
132	Linear feature, aligned east-west, >1.5m long by 0.8m wide and 100mm deep, gradual sides and uneven base	Gully	4
133	Soft mid greyish brown silt	Fill of (132)	4
134	Linear feature, aligned northwest-southeast, 4.6m long by 0.4m wide and 40mm deep, gradual sides and flat base	Gully	2
135	Firm light greyish brown silt	Fill of (134)	2
136	Soft mid greyish brown silt	Fill of (137)	2
137	Sub-circular feature, 0.22m diameter by 0.13m deep, gradual sides and tapered point base	Posthole	2
149	Soft mid brownish red silt and mid yellow limestone in clay matrix	Natural deposit	1

Trench B

No	Description	Interpretation	Phase
003	Loose to friable mid greyish brown sandy silt, 0.3m thick	Topsoil	7
004	Soft mid to light reddish brown sandy silt, 0.15m-0.2m thick	Dumped deposit	7
005	Soft light reddish brown clayey silt	Natural deposit	1
006	Sub-circular feature, 0.82m diameter by 0.29m deep, gradual sides and rounded base	Posthole	2
007	Soft mid greyish brown clayey silt	Fill of (006)	2
008	Oval feature, 0.13m long by 0.11m wide and 50mm deep, shallow sides and rounded base	Posthole	2
009	Soft mid greyish brown clayey silt	Fill of (008)	2
010	Circular feature, 0.3m diameter by 0.23m deep, near vertical sides and uneven base	Posthole	2
011	Soft mid greyish brown clayey silt	Fill of (010)	2
012	Oval feature, 0.32m long by 0.22m wide and 0.17m deep, gradual sides and rounded base	Posthole	2
013	Soft mid greyish brown clayey silt	Fill of (012)	2
014	Oval feature, 1.7m long by 0.45m wide and 0.42m deep, steep sides and flat base	Pit	3
015	Soft mid greyish brown clayey silt with moderate ash, charcoal and shell	Fill of (014)	3
083	Soft mid to dark reddish brown sandy silt, 0.2m thick	Buried soil	7

Trench C

No	Description	Interpretation	Phase
001	Firm mid yellowish brown clayey silt with frequent charcoal flecks and occasional baked clay fragments	Fill of (002)	3
002	Oval feature, 1.52m long by 1.2m wide and 100mm deep, shallow sides and rounded base	Pit	3
019	Firm mid yellowish brown clayey silt	Fill of (020)	3
020	Sub-circular feature, 0.3m long by 0.28m wide and 100mm deep, gradual sides and rounded base	Posthole	3

No	Description	Interpretation	Phase
021	Firm mid yellowish brown clayey silt	Fill of (022)	3
022	Near circular feature, 0.35m long by 0.31m wide and 0.17m deep, steep sides and rounded base	Posthole	3
023	Firm mid yellowish brown clayey silt	Fill of (024)	3
024	Circular feature, 0.25m diameter by 70mm deep, gradual sides and rounded base	Posthole	3
033	Firm mid greyish brown clayey silt, 0.35m thick	Topsoil	7
034	Firm light yellowish brown clayey silt, 0.25m thick	Dumped deposit	7
035	Firm mid yellowish brown clayey silt, 0.22m thick	Buried soil	7
036	Firm light brownish yellow sandy silt	Natural deposit	1
037	Firm mid yellowish brown clayey silt	Fill of (038)	3
038	Sub-circular feature, 0.35m diameter by 100mm deep, uneven sides and undulating base	Posthole	3
039	Firm mid yellowish brown clayey silt	Fill of (040)	3
040	Circular feature, 0.4m diameter by 80mm deep, gradual sides and rounded base	Posthole	3
058	Firm mid yellowish brown clayey silt and limestone fragments	Fill of (059)	3
059	Circular feature, 0.44m diameter by 0.13m deep, gradual sides and rounded base	Posthole	3
060	Firm mid yellowish brown clayey silt	Fill of (061)	3
061	Circular feature, 0.36m diameter by 90mm deep, gradual sides and rounded base	Posthole	3
084	Firm mid yellowish brown clayey silt	Fill of (085)	3
085	Circular feature, 0.41m diameter by 0.15m deep, gradual sides and rounded base	Posthole	3
086	Firm mid yellowish brown clayey silt	Fill of (087)	3
087	Possible circular feature, 1.22m long by >0.68m wide and 0.33m deep, steep sides and flattish base	Pit	3
088	Firm mid yellowish brown clayey silt	Fill of (089)	3
089	Linear feature, aligned east-west, >0.95m long by 0.49m wide and 70mm deep, shallow sides and rounded base	Gully	3
090	Firm mid yellowish brown clayey silt	Fill of (091)	3
091	Circular feature, 0.38m diameter by 0.11m deep, gradual sides and rounded base	Posthole	3
092	Firm mid yellowish brown clayey silt	Fill of (093)	3
093	Linear feature, aligned northeast-southwest, >2m long by 1.2m wide and 0.25m deep, shallow sides and rounded base	Ditch	3
094	Firm mid yellowish brown clayey silt	Fill of (095)	3
095	Linear feature, aligned north-south, >3.43m long by 0.4m wide and 70mm deep, steep sides and flat base	Gully	3
096	Firm mid yellowish brown clayey silt	Fill of (097)	3
097	Linear feature, *Same as (095)*	Gully	3
098	Firm mid yellowish brown clayey silt with limestone fragments	Fill of (099)	6
099	Linear feature, aligned east-west, >1.5m long by 2.1m wide and 0.7m deep, steep sides and rounded base	Ditch	6
150	Firm mid yellowish brown clayey silt with frequent charcoal flecks	Fill of (151)	2
151	Feature, 0.7m wide by 0.18m deep, steep sides and uneven base, recorded in section only	Pit	2
152	Firm mid yellowish brown clayey silt	Fill of (153)	3
153	Sub-circular feature, 0.36m diameter	Possible posthole	3

Trench D

No	Description	Interpretation	Phase
017	Soft mid yellowish brown silty sand	Fill of (018)	3
018	Oval feature, 0.91m long by >0.49m wide and 0.14m deep, steep sides and flat base	Pit	3
025	Firm mid greyish brown silty sand	Fill of (026)	2
026	Sub-rectangular feature, 0.67m long by 0.46m wide and 70mm deep, shallow sides and rounded base	Pit	2
027	Firm mid brown silty sand	Fill of (028)	3
028	Linear feature, aligned northeast-southwest, >1.6m long by 1.16m wide and 0.4m deep, steep to near vertical sides and rounded base	Ditch	3
045	Firm mid yellowish brown silty sand	Fill of (046)	3
046	Sub-circular feature, 0.47m long by 0.44m wide and 0.2m deep, near vertical sides and rounded blunt base	Posthole	3
047	Firm mid yellowish brown silty sand	Fill of (048)	3
048	Sub-circular feature (as exposed), >0.37m long by 0.49m wide and 0.27m deep, steep to near vertical sides and flattish base	Posthole/gully terminus	3
049	Soft to friable mid brownish grey sandy silt, 0.39m thick	Topsoil	7
050	Soft mid brown sandy silt, 0.26m thick	Subsoil	7
051	Firm mid yellowish brown silty sand	Fill of (052)	2
052	Circular feature, 0.41m diameter by 0.14m deep, steep to vertical sides and flattish base	Posthole	2
062	Soft mid greyish brown silty sand	Fill of (063)	2
063	Circular feature, 0.42m diameter by 0.15m deep, near vertical sides and flattish base	Posthole	2
064	Firm mid brown sand	Fill of (065)	2
065	Circular feature, 0.18m diameter by 80mm deep, blunt tapering point	Posthole	2
068	Firm mid yellowish brown sandy silt	Fill of (069)	2
069	Sub-circular feature, 0.34m long by 0.29m wide and 0.12m deep, steep to near vertical sides and rounded base	Posthole	2
070	Firm mid brownish yellow sandy silt	Fill of (071)	2
071	Circular feature, 0.3m diameter by 70mm deep, shallow sides and rounded base	Posthole	2
072	Firm mid brownish yellow silty sand	Fill of (073)	2
073	Oval feature, >0.26m long by 0.31m wide and 0.14m deep, steep sides and flattish base	?gully terminus	2
074	Firm mid yellowish brown sand with moderate limestone fragments	Fill of (075)	2
075	Sub-circular feature, 0.5m long by 0.48m wide and 0.2m deep, near vertical sides and blunt tapering point	Posthole	2
076	Friable mid brown sand	Fill of (077)	3
077	Sub-circular feature, 0.4m long by 0.34m wide and 100mm deep, steep to shallow sides and flat base	Posthole	3
078	Firm to friable mid yellowish red sand to clayey sand with limestone fragments	Natural deposit	1
079	Firm mid greyish brown sand with moderate charcoal flecks	Fill of (080)	2
080	Circular feature 0.15m diameter, not excavated	Posthole	2

Trench E

No	Description	Interpretation	Phase
100	Unstratified finds retrieval		
279	Firm dark brownish grey sandy silt, 0.3m thick	Topsoil	7
280	Soft mid reddish brown silty sand	Natural deposit	1
281	Firm dark yellow limestone with clay	Natural deposit	1
282	Soft mid greenish grey silty sand, 50mm thick	Subsoil	7

Trench F

No	Description	Interpretation	Phase
101	Firm mid greenish brown sandy silt	Fill of (102)	4
102	Linear feature, aligned north-south, >1.57m long by 1.24m wide and 0.27m deep, steep sides with step to west and flattish base	Ditch	4
105	Firm mid greyish brown silty sand, 0.3m thick	Topsoil	7
106	Firm mid yellowish brown sandy silt, 90mm thick	Subsoil	7
107	Firm dark yellow clayey sand	Fill of (108)	3
108	Linear feature, aligned north-south, >1.55m long by 1.65m wide and 80mm deep, shallow sides and undulating base	?Possible furrow	3
109	Firm mid yellowish brown sandy silt with moderate charcoal flecks	Fill of (110)	2
110	Circular feature, 0.24m diameter and 0.11m deep, steep to vertical sides and flattish base	Posthole	2
111	Firm mid brownish yellow silty sand with moderate limestone fragments	Fill of (112)	3
112	Sub-circular feature, 0.3m long by 0.25m wide and 0.17m deep, vertical sides and flat base	Posthole	3
113	Firm to cemented mid reddish brown sand	Fill of (114)	2
114	Oval feature, 0.28m long by 0.2m wide and 0.11m deep, steep sides and tapered point	Posthole	2
115	Firm mid yellowish brown clayey sand	Fill of (116)	2
116	Oval feature, 0.34m long by 0.22m wide and 0.14m deep, steep sides and rounded blunt point	Posthole	2
117	Firm mid brown silty sand	Fill of (118)	2
118	Oval feature, 0.21m long by 0.15m wide and 80mm deep, steep to near vertical sides and tapering point	Posthole	2
119	Firm to well cemented mid brownish red sand with clay and limestone fragments	Natural deposit	1

Trench G

No	Description	Interpretation	Phase
103	Soft and friable mid brown silty sand	Fill of (104)	3
104	Linear feature, aligned north-south, >1.55m long by >1m wide and 0.29m deep, steep uneven sides and flattish base	Ditch	3
165	Firm mid greenish brown sand	Fill of (166)	3
166	Linear feature, aligned north-south, >1.4m long by 0.58m wide by 90mm deep, gradual sides and rounded base	Gully	3
167	Firm mid red sand	Fill of (168)	1
168	Linear feature, >1.55m long by 3.14m wide and 0.45m deep, variable sides and base	Natural palaeochannel	1

No	Description	Interpretation	Phase
169	Friable mid brownish grey sand	Topsoil	7
170	Firm mid brown sand, 90mm thick	Subsoil	7
171	Firm to well cemented mid red sand and mid yellow limestone	Natural deposit	1

Trench H

No	Description	Interpretation	Phase
138	Firm mid brownish grey sand, 0.3m thick	Topsoil	7
139	Firm mid brown sandy silt with moderate limestone fragments, 0.12m thick	Subsoil	7
140	Firm mid brown sandy silt	Fill of (141)	4
141	Sub-circular feature, >0.92m long by >0.38m wide and 0.23m deep, steep to gradual sides and rounded base	Pit	4
142	Firm dark yellowish brown sandy silt	Fill of (143)	4
143	Linear feature, aligned northwest-southeast, >1.55m long by 0.46m wide and 0.2m deep, steep sides and flattish base	Ditch	4
144	Firm mid brown sandy silt	Fill of (145)	3
145	Possible circular feature, 0.28m long by >80mm wide, not excavated	Possible posthole	3
146	Firm mid brown silty sand	Fill of (147)	2
147	Oval feature, 0.87m long by 0.65m wide and 0.13m deep, vertical to gradual sides and flat base	Pit	2
148	Firm mid red silty sand	Natural deposit	1

Trench I

No	Description	Interpretation	Phase
174	Firm mid greyish brown sandy silt, 0.3m thick	Topsoil	7
175	Possible circular feature, 0.9m long by >0.5m wide and 0.17m deep, steep sides and rounded base	Pit	2
176	Soft mid greyish brown clayey silt	Fill of (175)	2
177	Possible circular feature, 1.03m long by >0.5m wide and 0.4m deep, steep to vertical sides and rounded base	Pit	3
178	Soft mid greyish brown clayey silt	Fill of (177)	3
179	Linear feature, aligned northeast-southwest, >3m long by 2.06m wide and 0.3m deep, uneven sides and flat base	Ditch	3
180	Soft mid greyish brown clayey silt	Fill of (179)	3
181	Linear feature, aligned northwest-southeast, >1.8m long by 0.33m wide and 40mm deep, gradual sides and flat base	Gully	2
182	Firm mid greyish brown sandy silt	Fill of (181)	2
183	Soft mid reddish brown clayey silt	Natural deposit	1
193	Hard white and yellow limestone	Natural deposit	1

Trench J

No	Description	Interpretation	Phase
154	Soft dark reddish brown clayey sand	Fill of (155)	3
155	Possible circular feature, >0.4m long by 0.7m wide and 0.35m deep, steep sides and tapered point	Posthole	3
156	Firm dark greyish brown clay, 0.4m deep	Topsoil	7

No	Description	Interpretation	Phase
157	Soft mid brownish yellow silty sand	Fill of (158)	2
158	Oval feature, >0.5m long by 0.25m wide and 0.13m deep, steep sides and rounded base	Posthole	2
172	Soft mid reddish brown silty sand	Fill of (173)	2
173	Elongated oval feature, 1.05m long by 0.18m wide and 70mm deep, steep sides and flattish base	Pit?	2
184	Soft mid yellowish brown silty sand with frequent small angular gravel	Fill of (185)	2
185	Linear feature, aligned north-south, >1.5m long by 0.35m wide and 60mm deep, uneven sides and flattish base	Gully	2
186	Soft mid brownish yellow silty clay with frequent limestone fragments	Fill of (187)	3
187	Sub-rectangular feature, 0.42m long by 0.4m wide and 0.2m deep, vertical to steep sides and uneven base	Pit	3
194	Soft dark reddish brown silty clay	Subsoil	7
195	Soft light yellowish red sandy clay with limestone	Natural deposit	1
215	Unstratified finds retrieval		

Trench K

No	Description	Interpretation	Phase
163	Firm mid yellowish brown clayey silt	Fill of (164)	6
164	Linear feature, aligned north-south, >6.7m long by 1.8m wide and 0.49m deep, steep sides and uneven base	Ditch	6
188	Firm light yellowish brown clayey silt with limestone	Fill of (164)	6
189	Firm mid greyish brown clayey silt, 0.4m thick	Topsoil	7
190	Firm light brownish yellow clayey silt, >0.5m deep	Natural deposit	1

Trench L

No	Description	Interpretation	Phase
159	Firm mid greyish brown sandy silt, 0.4m thickness	Topsoil	7
160	Soft mid greyish brown sandy silt	Plough mark	7
161	Loose mid reddish brown sandy silt	Subsoil	7
162	Firm light brownish yellow clay with limestone	Natural deposit	1

Trench M

No	Description	Interpretation	Phase
191	Firm mid grey silty sand, 0.3m thick	Topsoil	7
192	Firm mid brown sand, 0.18m thick	Subsoil	7
196	Firm mid yellowish brown sand	Fill of (197)	2
197	Oval feature, 0.42m long by 0.28m wide and 0.21m deep, vertical to steep sides and rounded blunt point	Posthole	2
198	Firm mid brown sand	Fill of (199)	3
199	Linear feature, aligned northeast-southwest, >1.55m long by 0.9m wide and 0.31m deep, steep sides and flattish base	Ditch	3
200	Firm mid red sand and mid yellow clay with limestone	Natural deposit	1
208	Firm mid brown sand	Fill of (209)	5

No	Description	Interpretation	Phase
209	Linear feature, aligned north-south, >2.47m long by 0.6m wide and 60mm deep, gradual sides and undulating base	Gully	5
210	Firm mid yellowish brown silty sand	Fill of (211)	2
211	Oval feature, 0.46m long by 0.41m wide and 0.12m deep, near vertical sides and flattish base	Posthole	2
213	Firm mid brown silty sand	Fill of (214)	3
214	Linear feature, aligned northeast-southwest, >1.55m long by 0.65m wide and 0.26m deep, steep sides and flat base	Gully	3

Trench N

No	Description	Interpretation	Phase
212	Firm mid yellowish brown clayey silt, 0.2m thick	Subsoil	7
216	Firm mid yellowish brown clayey silt	Fill of (217)	2
217	Sub-circular feature, 0.45m diameter by 0.27m deep, steep sides and rounded base	Posthole	2
218	Firm mid yellowish brown clayey silt	Fill of (219)	2
219	Possible circular feature, 0.7m long by >0.4m wide and 0.21m deep, steep sides and uneven base	Posthole	2
229	Firm mid yellowish brown clayey silt	Fill of (230)	3
230	Linear feature, aligned north-south, >4.5m long by 0.49m wide and 0.17m deep, Steep sides and rounded base	Ditch	3
231	Firm mid yellowish brown clayey silt	Fill of (232)	2
232	Sub-circular feature, 0.4m diameter by 70mm deep, steep sides and rounded base	Posthole	2
235	Firm mid yellowish brown clayey silt	Fill of (236)	3
236	Linear feature, aligned north-south, >3.06m long by 0.63m wide and 100mm – 0.15m deep, gradual sides with flat base with step down	Ditch	3
237	Soft mid brown silty sand	Fill of (238)	2
238	Oval feature, 0.65m long by 0.54m wide and 100mm deep, gradual sides and flattish base	Posthole	2
239	Soft mid reddish brown silty sand	Fill of (240)	2
240	Oval feature, 0.55m long by 0.48m wide and 0.13m deep, near vertical sides and flattish base	Posthole	2
241	Firm mid reddish brown sand	Fill of (242)	2
242	Possible sub-circular feature, >0.46m long by >0.46m wide and 0.2m deep, steep sides and tapering point	Posthole	2
249	Firm mid reddish brown sand	Fill of (250)	2
250	Oval feature, 0.62m long by 0.3m wide and 0.12m deep, steep sides and flattish base	Posthole	2
251	Firm mid brown silty sand with moderate charcoal	Fill of (252)	3
252	Linear feature, aligned northeast-southwest, >2m long by 0.57m wide and 0.16m deep, steep sides and flat base	Ditch	3
266	Firm mid grey silty sand, 0.34m thick	Topsoil	7
267	Firm to well cemented dark yellow clay with limestone and dark red sand	Natural deposit	1

Trench O

No	Description	Interpretation	Phase
201	Sub-rectangular feature, 0.66m long by 0.48m wide and 0.15m deep, steep sides and rounded base	Posthole	2

No	Description	Interpretation	Phase
202	Soft mid greyish brown silt	Fill of (201)	2
203	Irregular feature, 0.8m long by 0.55m wide, shallow sides and flat base	Pit	2
204	Soft mid greyish brown silty sand with sheep burial	Fill of (203)	2
205	Firm mid greyish brown sandy silt, 0.32m thick	Topsoil	7
206	Soft mid brownish red clayey silt	Natural deposit	1
207	Hard light yellow limestone and white clay	Natural deposit	1

Trench P

No	Description	Interpretation	Phase
245	Firm mid brown sandy silt, 0.35m thick	Topsoil	7
246	Firm mid greyish brown sandy silt with frequent charcoal	Fill of (247)	3
247	Linear feature, aligned north-south, >1.55m long by 0.75m wide and 0.22m deep, steep sides and uneven base	Ditch	3
248	Unstratified finds retrieval		
268	Firm mid red sand	Natural deposit	1
283	Firm mid brown silty sand	Subsoil	7

Trench Q

No	Description	Interpretation	Phase
269	Firm mid grey sand, 0.33m thick	Topsoil	7
270	Firm mid brown silty sand	Subsoil	7
271	Firm mid brownish grey silty sand	Fill of (272)	2
272	Sub-circular feature, >1.23m long by 1.05m wide and 80mm deep, gradual sides and flattish base	Pit	2
273	Firm mid brown silty sand	Fill of (275)	5
274	Firm mid yellowish brown silty sand	Fill of (275)	5
275	Sub-rectangular feature, 4.1m wide and >0.48m deep, steep sides, not fully excavated	Quarry pit	5
276	Soft mid brownish grey silty sand	Fill of (277)	2
277	Linear feature, aligned north-south, >1m long by 0.54m wide, not excavated	Gully	2
278	Firm dark yellow sandy clay with limestone	Natural deposit	1

Trench R

No	Description	Interpretation	Phase
220	Cemented to friable mid grey sand, 0.35m thick	Topsoil	7
221	Firm to soft mid brown silty sand, 0.38m thick	Subsoil	6
222	Firm mid greyish brown silty sand	Fill of (223)	2
223	Rectangular feature, >0.3m long by 0.36m wide and 50mm deep, steep sides and flattish base	Gully/posthole	2
224	Firm mid yellowish brown silty sand	Fill of (225)	5
225	Sub-circular feature, 0.46m long by 0.43m wide and 0.22m deep, vertical to steep sides and tapered blunt point	Posthole	5
226	Firm mid brown sand	Fill of (227)	5
227	Linear feature, 8.5m long by >1.55m wide and >0.6m deep, shallow then steep sides, not fully excavated	Quarry pit	5

No	Description	Interpretation	Phase
228	Firm dark yellow limestone and clay	Natural deposit	1
233	Firm mid brown sand with mid yellow clay and limestone fragments	Fill of (227)	5
234	Cemented Light yellowish brown silty sand and limestone fragments, 1.5m wide and 0.13m deep	Path	6
243	Loose dark grey silty sand with ceramic pipe (0.3m diameter)	Fill of (244)	7
244	Linear feature, aligned north-south, >1.55m long by 0.35m wide and >1.2m deep, vertical sides, not fully excavated	Field drain	7

Trench S

No	Description	Interpretation	Phase
253	Firm mid grey silty sand, 0.33m thick	Topsoil	7
254	Loose mid brown sand with limestone fragments, 0.12m thick	Demolition deposit	5
255	Firm mid brown sand, 0.25m thick	Buried soil	5
256	Limestone (310mm x 200mm x 70mm; 140mm x 110mm x 50mm) structure, random coursing with dark yellow sandy clay bonding, 4m long by 0.74m wide and 0.36m high	Wall	5
257	Limestone (180mm x 120mm x 60mm) structure, random coursing, 1.04m long by 0.45m wide and 80mm high	Wall	5
258	Soft mid brown silty sand	Subsoil	7
259	Soft dark brownish grey silty sand with moderate limestone fragments and modern debris	Fill of (260)	6
260	Probable sub-circular feature, >5m long by >1.5m wide, not excavated	Pond	6
261	Soft dark grey silty sand with ceramic pipe (0.3m diameter)	Fill of (262)	7
262	Linear feature, aligned north-south, >1.55m long by 0.35m wide and >0.27m deep, vertical sides, not fully excavated	Field drain	7
263	Friable dark yellow clayey sand with moderate limestone fragments	Natural deposit	1
264	Firm mid yellowish brown silty sand	Fill of (265)	2
265	Feature, 1.5m long by >0.42m wide and >0.18m deep, steep sides, not fully excavated	Possible pit	2
284	Firm dark yellow sandy clay	Floor surface	5

Appendix 3

THE ROMAN POTTERY

By Margaret J. Darling, M.Phil., F.S.A., M.I.F.A

The pottery consists of 10 sherds from ten contexts, weighing 0.040kg. All of the sherds are tiny scraps, all body sherds, the average sherd weight being 4g. The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by *The Study Group for Roman Pottery*. There are no problems for long term storage. Codes are compatible with the archive structure and coding used in the City of Lincoln database and for Lincolnshire sites. The archive is below, and will be curated for future study and research.

INTRODUCTION

Summary of the pottery with quantities, dating and comments is in Table 1.

Table 1

Trench	Cut	Deposit	Cxt	Sherds	Weight	Date	Comments
A	041	Ditch	042	1	1	ROM/POSTRO	
C	099	Ditch	098	1	2	2C/POSTRO	
E	-	Unstratified	100	1	2	M2?	UNID FM;NO CLOSE RO DATE
G	104	Ditch	103	1	4	ROM/POSTRO	
A	132	Gully	133	1	1	ROM/POSTRO	
M	-	Subsoil	192	1	2	3-4C?/POSTRO	UNUS CC/FM
M	199	Ditch	198	1	3	2-3C?/POSTRO	
J	-	Unstratified	215	1	6	ROM/POSTRO	
N	230	Ditch	229	1	3	ROM?/POSTRO	
S	-	Demolition	254	1	16	POSS 3C/POSTRO	
		Total		10	40		

DISCUSSION

All the sherds were residual in post-Roman deposits. The only sherds not in grey fabrics were single body sherds of cream (CR), colour-coated (CC) and Central Gaulish samian (SAMCG). The flake of samian (unstrat., Trench E) cannot be identified for the vessel form, and appears to come from the base, probably from a dish form. The cream body sherd (Ditch 099, Trench C) is from the basal trimmed zone of the closed vessel, probably a flagon or similar type. The colour-coated sherd (subsoil, Trench M) is not definitely from the Nene Valley, and is an unusual type, appearing as if from a base, diameter about 80mm. If a base, it would have to be a type of pedestal, and the diameter appears to be too large for such as the beaker type RPNV 31. The only other Nene Valley type likely to be relevant is the so-called coffee-pot lid (type RPNV 71-2), in which case the sherd represents part of the flange. This may also explain the atypical fabric, since these lids are late in the Nene Valley industry, dating to the 4th century.

The rest of the grey sherds are largely undatable body sherds, only one having any diagnostic features, the sherd from the demolition deposit Trench S, which is likely to be from a necked or wide-mouthed bowl, broadly datable to the 3rd century. The finds are scattered over the area, with an outlier in Trench S. Six came from cut features. The fragmentary nature suggests a manuring scatter, but this would depend on the stratification of the sherds in the cut features.

The overall date range is mid 2nd century to the 3rd and, possibly the 4th century.

BIBLIOGRAPHY

RPNV = Howe, M.D., Perrin, J.R. and Mackreth, D.F., 1980. *Roman pottery from the Nene Valley: a Guide,* Peterborough City Museum Occasional Paper **2**.

ARCHIVE DATABASE

Tr	Cut	Deposit	Cxt	Fabric	Form	Manuf +	Ve	Altn	D#	Details	Lnk	Shs	Wt
A	041	Ditch	042	GREY	-	-	-	-	-	CHIP BS LTGRY	-	1	1
	041	Ditch	042	ZDATE	-	-	-	-	-	ROM/POSTRO	-	-	-
C	099	Ditch	098	CR	CLSD	-	-	-	-	BS EXT SCORING;?BASAL ZONE TRIMMING ?F	-	1	2
	099	Ditch	098	ZDATE	-	-	-	-	-	2C/POSTRO	-	-	-
E	-	Unstrat	100	SAMCG	D?	-	-	-	-	FLAKE W INTERAL CONC GROOVES;?BASE FRAG	-	1	2
	-	Unstrat	100	ZDATE	-	-	-	-	-	M2?	-	-	-
	-	Unstrat	100	ZZZ	-	-	-	-	-	UNID FM;NO CLOSE RO DATE	-	-	-
G	104	Ditch	103	GREY	-	-	-	-	-	FLAKE ONLY;LTGRY	-	1	4
	104	Ditch	103	ZDATE	-	-	-	-	-	ROM/POSTRO	-	-	-
A	132	Gully	133	GREY	-	-	-	-	-	BS THIN WALL;DKGRY HARD	-	1	1
	132	Gully	133	ZDATE	-	-	-	-	-	ROM/POSTRO	-	-	-
M	-	Subsoil	192	CC	-	-	-	-	-	?BASE FR;UNUS;DIAM8CM;?PEDESTAL;NOT DEF NVCC;CR/?GRY FB;?C'POT LID	-	1	2
	-	Subsoil	192	ZDATE	-	-	-	-	-	3-4C?/POSTRO	-	-	-
	-	Subsoil	192	ZZZ	-	-	-	-	-	UNUS CC/FM	-	-	-
M	199	Ditch	198	GREY	CLSD	-	-	-	-	BS SHLDR;GROOVED;LTGRY;F.THIN WALL	-	1	3
	199	Ditch	198	ZDATE	-	-	-	-	-	2-3C?/POSTRO	-	-	-
J	-	Unstrat	215	GREY	-	-	-	-	-	BS	-	1	6
	-	Unstrat	215	ZDATE	-	-	-	-	-	ROM/POSTRO	-	-	-
N	230	Ditch	229	GREY?	-	-	-	-	-	BS UNUSUAL FB;MIXED QTZ;FLINT;BN FB	-	1	3
	230	Ditch	229	ZDATE	-	-	-	-	-	ROM?/POSTRO	-	-	-
S	-	Demolition	254	GREY	BNK?	-	-	-	-	BS SHLDR BURNISHED;DIAM SUITABLE BNK/BWM	-	1	16
	-	Demolition	254	ZDATE	-	-	-	-	-	POSS 3C/POSTRO	-	-	-

Appendix 4

THE POST-ROMAN POTTERY

By Anne Boyle And Jane Young

1. INTRODUCTION

Two hundred and eighty-three sherds, from at most two hundred and thirty-one vessels and weighing two thousand, two hundred and seven grams, were recovered from the site. All the material was recorded at archive level in accordance with Lincolnshire County Council's Archaeological Handbook (section 13.4.2) and with the guidelines laid out in Slowikowski *et al.* (2001). The pottery ranges in date from the Early Saxon to the modern period.

Three of the handmade vessels are typical of Bronze and Iron Age material, and are possibly prehistoric sherds (*pers com.* Alan Vince). However, these remain tentatively identified and it is strongly recommended they are examined by a Prehistoric pottery specialist. The one suspected Iron Age and two Bronze Age sherds come from contexts **178**, **246** and **270** respectively. The possible presence of a stamp on one of the Bronze Age sherds (context **270**) would be unusual, and is possibly a bone impression (Gibson and Woods1997, 109). A small amount of Roman pottery is also present in the assemblage, and is reported on separately (Darling, Appendix 3). The possible Prehistoric and Roman sherds have been omitted from the tables that follow.

A small amount of fired clay was recovered from several stratified context. Most of the fired clay was undiagnositic, though at least four fragments (contexts **001**, **015** and **017**) may be mould. Two fragments from contexts **176** and **037** are possibly ceramic building material, though these could not be positively identified due to their poor condition.

1.2. METHODOLOGY

The material was laid out and viewed in stratigraphic order. Sherds were counted and weighed by individual vessel within each context. The chronology and coding system of the *Lincoln Ceramic Type Series* and that developed during the *East Midlands Anglo-Saxon Pottery Project* was used to assess the pottery (Young *et. al* 2005: Appendix 1), which was examined visually and using x20 magnification. This data was then added to an Access database. An archive list of the pottery and fired clay is included in Appendices 1 and 2. The range of pottery, codenames and a summary of sherds and vessels is shown in Table 1. A list of illustrated sherds is included in Table 2.

Table 1. Pottery codenames and by date, and total number of sherds and vessels

Code name	Full Name	Earliest Date	Latest Date	Total Sherds	Total Vessels
BLGR	Paffrath-type or blue-grey ware	1050	1200	1	1
BOU	Bourne D ware	1350	1650	1	1
BOUA	Bourne-type Fabrics A, B and C	1150	1400	1	1
CHARN	Charnwood ware	450	800	9	9
ECHAF	Early to mid Anglo-Saxon chaff-tempered ware	450	800	1	1
ELGQC	East Lincolnshire Glazed Quartz and Chalk fabrics	1150	1220	1	1
ERRA	erratic	450	800	1	1
ESAXIMP	Early Saxon Imported ware	450	800	1	1
ESGS	Early to mid Anglo-Saxon Greensand quartz tempered	450	800	1	1
FE	Ironstone tempered	450	800	8	7
GRIMT	Grimston-type ware	1200	1550	1	1
LEMS	Lincolnshire Early Medieval Shelly	1130	1230	6	3
LIM	Oolitic limestone-tempered fabrics	700	1070	17	16
LSH	Lincoln shelly ware	850	1000	1	1

Code name	Full Name	Earliest Date	Latest Date	Total Sherds	Total Vessels
LSW2	13th to 14th century Lincoln Glazed Ware	1200	1320	1	1
LSWA	Lincoln Glazed ware Fabric A	1100	1500	3	3
MAX	Northern Maxey-type ware	680	870	9	9
MAXQ	South Lincs Maxey-type ware	680	800	2	2
MEDX	Non Local Medieval Fabrics	1150	1450	1	1
MISC	Unidentified types	400	1900	3	3
MSAXLOC	Local middle Saxon fabrics	700	850	4	4
NCSW	Nottingham Coarse Sandy ware	1200	1500	2	1
NOTGE	Early Nottingham Green Glazed ware	1200	1230	1	1
NOTGI	Iron-rich Nottingham Green Glazed ware	1200	1230	1	1
NOTGL	Light Bodied Nottingham Green Glazed ware	1220	1320	7	6
NOTS	Nottingham stoneware	1690	1900	1	1
NSP	Nottingham Splashed ware	1100	1250	5	4
POTT	Potterhanworth-type Ware	1250	1500	2	2
PSHW	Peterborough Shelly Ware	1180	1400	2	2
RMAX	Southern Maxey-type ware	680	950	8	8
RQCL	Central Lincolnshire Early to Mid Saxon Rounded Quartz Fabric	450	800	37	26
SLSQ	South Lincolnshire Shell and Quartz (generic)	1200	1500	1	1
SLST	South Lincolnshire Shell Tempered ware	1150	1250	28	14
SSTCL	Central Lincolnshire Early to mid Saxon sandstone-tempered	450	800	92	73
SSTMG	Early to mid Saxon sandstone-tempered (carboniferous sandstone)	450	800	15	15
ST	Stamford Ware	970	1200	2	2
TOY	Toynton Medieval Ware	1250	1450	3	3

Table 2. Catalogue of illustrated fragments

Drawing	Context	Code name	Full name	Description
01	001	RQCL	jar	flared rim; horizontal external burnishing; one sherd from sample
02	017	SSTMG	small biconical jar	soot
03	076	ESAXIMP	bowl ?	abraded inner surface; external horizontal burnishing; flared rounded rim; analyse

1.3. CONDITION

The pottery is in a slightly abraded to very abraded condition, with sherd size mainly falling into the small range (below thirty grams), with an average weight of seven grams. In total, twenty vessels are represented by more than one sherd, though no cross-context vessels were identified.

Just sixty-three vessels have external and/or internal soot residues present, perhaps an indication of their domestic or industrial use. Five vessels have soot over broken edges, which suggests they cracked during their use over a fire, or that they were in contact with fire subsequent to their breakage. Three vessels (context **111, 133 and 270**) have an internal thick carbonised deposit that may be the remains of burnt food.

A burnt white internal deposit (possibly 'kettle fur' caused by the heating of water or containment of urine) is present

on a single vessel (context **103**) and a vessel in context **194** has a white internal deposit that may have been affected by heat.

1.4. CHRONOLOGY AND SOURCE

In total, at least two hundred and twenty-eight post-Roman vessels, in thirty-seven identifiable post-Roman pottery ware types, were recovered from the site. The range of form types, where they can be discerned, is quite restricted with various types of jar and bowl forming the main body of the assemblage.

The majority of the pottery dates to the Early and Middle Saxon periods. The pottery is discussed (as far as possible) by ceramic period. However, some of the material from this site belongs to pottery productions that spanned several ceramic periods, making close dating and estimating residual sherds difficult.

5. DISCUSSION BY PERIOD

Two hundred and twenty-eight vessels are identifiable as Post-Roman ware types.

5.1 EARLY SAXON TO MIDDLE SAXON

A summary list of the Early to Middle Saxon pottery is included in Table 3. Nine specific Anglo-Saxon handmade pottery types occurred on the site. The fabric of these vessels can be paralleled with Anglo-Saxon wares elsewhere in Lincolnshire. All of the handmade Anglo-Saxon fabrics in the assemblage have been defined in detail elsewhere (Vince 2003a and 2003b), therefore only the basic features of each ware type is outlined here. The use of handmade Anglo-Saxon pottery types usually fall into the early Saxon period, though some do continue into the Middle Saxon period; for example, Oolitic limestone-tempered fabrics (LIM) continues into this later period.

Table 3. Summary of the Early to Middle Saxon Pottery

Code name	Total sherds	Total vessels	Total weight
CHARN	9	9	69
ECHAF	1	1	4
ERRA	1	1	4
ESAXIMP	1	1	15
ESGS	1	1	1
FE	8	7	35
LIM	17	16	71
RQCL	37	26	278
SSTCL	92	73	818
SSTMG	15	15	125
TOTAL:	**181**	**149**	**1405**

The earliest handmade Saxon pottery in the assemblage is represented by a range of ware types, all of which may be as early as the mid 5th century. Several of the fabrics continue to appear on sites until the mid 8th to 9th centuries.

The most common handmade Anglo-Saxon type, represented by seventy-three vessels, *Central Lincolnshire Early to Mid Saxon Sandstone-Tempered fabrics* (SSTCL). SSTCL is mainly tempered with fine sandstone and contains other inclusions such as oolites and fossiliferous limestone (Vince and Young Forthcoming a). The ware appears in two fabrics: fine (F) and mixed (M). At SLLR06, SSTCL fabric F represents ten percent of the total number of Saxon vessels (one hundred and forty-nine vessels); SSTCL fabric M accounts for thirty-eight percent. Overall vessels made in SSTCL account for forty-eight percent of the Anglo Saxon vessels and fifty-eight percent of the total weight of Anglo Saxon vessels. The few SSTCL vessels whose form could be determined reveals large and small jars and vessels. No firm evidence for bowls is present. A number of rim forms are discernible; these are mainly rounded upright rims, though inward sloping, flared and flat topped rims are also present. Some of the SSTCL vessels are externally burnished, with others showing signs of having been brushed or wiped.

It is thought that SSTCL was produced in Central Lincolnshire, and this is where it mainly occurs. Finds of SSTCL in the south of the county are (so far) mainly limited to the Sleaford area, Grantham and Foston. Vessels identified

as SSTCL in a group from West Halton in North Lincolnshire (Young and Boyle Forthcoming) are similar in appearance to the southern Lincolnshire examples, though it is unlikely they are related to the same production. A single SSTCL vessel (**017**) has cordons of multi-grooved horizontal lines with circular grids stamped between the cordons. The stamp appears similar to A3ai-vii and A3aix as classified in the *Archive of Saxon Pot Stamps.* The presence of stamped decoration suggests this vessel dates to the 6th century.

The next most common handmade Anglo Saxon ware is *Lincolnshire Early to Mid Saxon Rounded Quartz Fabric* (RQCL), with twenty-six vessels present (representing sixteen percent of the total number of Anglo Saxon vessels). RQCL contains grains of rounded quartz sand as its main inclusion; grains of rounded limestone/oolite are sometimes present (Vince 2003b and Young 2003). Jars and small and large vessels are the only forms that can be identified. The RQCL rims in the assemblage are round and slightly everted or flared. Two of the vessels appear to be externally burnished.

The distribution of these vessels tends to be limited to Central Lincolnshire, though the comparatively high number of the Central Lincolnshire types (SSTCL and RQCL) on this site extends the southern limit of these ware types. Chemical and Thin Section analysis of Anglo-Saxon pottery from Brough and Hatton has revealed that pots within each site assemblage are more similar to each other, than to vessels in the same ware from other sites (Vince 2003a and Vince 2003b and Young 200b). It would therefore be beneficial to confirm the identification of the SLLR06 sherds by ICPS and thin section analysis.

Sixteen vessels of *Oolitic Limestone-Tempered fabrics* (LIM) and fifteen vessels of Early to Mid Saxon Carboniferous Sandstone-Tempered ware (SSTMG) are present in the assemblage. The oolitic limestone in LIM comes from Lincolnshire, and the source is likely to be south of Sleaford, and it occurs in Saxon assemblages from this area (Vince and Young Forthcoming a and Young 1996). A single LIM vessel is burnished, and another is decorated with stamped with a fully indented circle. This suggests a 6th century date for this vessel.

SSTMG contains quartzose sand in which there are grain derived from Millstone Grit. Other inclusions are often present, such as oolitic limestone, polished quartz and igneous rock fragments (Vince 2003a). Rims are upright or rounded; several vessels are burnished or wiped. Bowls and large and small a jars are present. A single example of a small biconical jar (context **017**) is decorated with pendants and horizontal lines. This decoration is attributable to the 5th to 7th centuries (Vince and Young Forthcoming a), though the biconical form is associated with the late 6th century.

LIM has a wide distribution, occurring on sites in South Lincolnshire and north of Lincoln. SSTMG, as a recently defined fabric, appears on less sites, though does occur in South and Central Lincolnshire. Further identification of SSTMG where it occurs in assemblages will help define its geographical spread.

Other fabric types were present in smaller numbers. Nine sherds of Charnwood ware (CHARN) were also recovered. Charnwood fabrics include acid igneous rock fragments and biotite sometimes accompanied by limestone (Vince 2003a). CHARN is known to occur in Leicestershire and in the south and west of the country as well as across Lincolnshire (Vince and Young Forthcoming a and Young, Vince and Nailor 2005: 31) despite the likelihood that it was produced in Leicestershire, and therefore is found many miles from its place of production. It seems likely this distribution was achieved through utilising the navigable waterways and coastal trade (Vince and Young Forthcoming and Vince Forthcoming), therefore its presence in South Lincolnshire (which lies within easy distance of tributaries of the River Witham and the Wash) is not unanticipated.

Also present in the assemblage are seven vessels of Ironstone Tempered ware (FE), and single vessels of Erratic Tempered ware (ERRA), (ECHAF) and (ESGS). FE contains iron rich material as the primary tempering agent; the sub fabric includes millstone grit (Vince 2003b and Young 2004). FE is most common on sites in the north west of Lincolnshire, and a large group of FE came from Cherry Willingham (CW80) and it is found on cremation sites in the north of the county (Young 1996). A large group of FE vessels was found at Quarrington, near Sleaford in Lincolnshire (Young 1996). Geographically, this is the closest group to the material from SLLR06, though only chemical analysis of the FE vessels from assemblages in Lincolnshire will reveal if these vessels all originate from the same source. Two of the FE vessels from SLLR06 are internally burnished; external burnishing is also present.

ERRA contains metamorphic rock fragments (Vince 2003a); it is not common in assemblages from Lincolnshire, perhaps suggesting it originates from outside the area. The example from context **140** features externally burnished surfaces.

Many of these handmade Saxon fabrics include a variety of sub-inclusions in their fabrics, suggesting they were

sourced from different places or were purchased at different times.

Twenty-seven of the Early Saxon sherds featured burnishing. This most frequently features on the outsides of vessels, though some vessels are internally burnished. The fragmentary nature of many of the vessels resulted in few of their forms being identified, though jars and bowls are known to be common forms. Anglo-Saxon handmade pottery is suspected to have had a variety of functions (Young, Vince and Nailor 2005: 28) though the sooting and thick internal carbonised deposits on several of the Handmade Early Saxon vessels suggest their use as lamps or in cooking.

5.2 MIDDLE SAXON

The paucity of Middle Saxon pottery in the assemblage is striking in contrast to the amount of Early Saxon pottery that is present. However, there is a chronological overlap between the Middle Saxon pottery and the Early Saxon wares discussed above. The totals of Middle Saxon to Saxo-Norman pottery are shown in Table 4.

Table 4. Totals of Middle Saxon to Saxo-Norman Pottery

Cname	Total sherds	Total vessels	Total weight
LSH	1	1	1
MAX	9	9	63
MAXQ	2	2	66
MSAXLOC	4	4	10
RMAX	8	8	47
TOTAL:	**24**	**24**	**187**

One local Middle Saxon sherd, with an as yet unclassified fabric (MSAXLOC) is present. A range of Maxey-type wares also occur within the assemblage; the Northern Lincolnshire Maxey-type (MAX), and the South Lincolnshire Maxey-types (MAXQ) and Southern Maxey-Types (RMAX) are all represented.

Eight RMAX vessels, which are characterised by having sparse bryozoa in the fabric, are present. These include one lugged vessel (context **042**), along with possible jars and bowls. RMAX tends to appear in Bedfordshire, Northamptonshire, North Cambridgeshire and South Lincolnshire.

Nine Maxey-type vessels are present; where fabrics could be defined, fabric B was most common (as defined in Vince and Young forthcoming). This is the more common fabric type and is found throughout the life of Maxey-type ware. The main distribution for Northern Maxey-Type ware is in central and northern Lincolnshire, with vessels also appearing in assemblages in Yorkshire, Nottinghamshire and Derbyshire. However, a small amount of MAX appeared at Quarrington (Young 1996) and recent excavations at Fishtoft have also produced quantities of this type.

A third Maxey-type ware, MAXQ, also occurs in the assemblage from the site. This type was first defined at the nearby site of Quarrington (Young 1996); it contains fine, dense fragments of Brachiopod shell. Its distribution is yet to be fully understood, with examples known from Quarrington, Newark Castle and the Sleaford area.

Two sherds dating to the Late Saxon period suggest that there may have been more limited activity on the site or that the focus of the earlier activity had moved in the late 9th century onwards.

5.2 MEDIEVAL

A small number of vessels, dating from mid 11th to the 16th century, are present in the assemblage. The totals for each Medieval ware type are shown in Table 5.

The earliest medieval pottery on the site is represented by two Stamford ware vessels (ST) in fabrics B and B/C suggest activity on the site was limited. Fabric B is associated with deposits of the third quarter of the 11th century onwards, and fabric B/C develops after the mid 12th century. An import, Blau-Grau (BLGR) which occurs in deposits of the mid 11th to the 13th century is present. This probably entered the country via Boston, where imports of this type are known. Several vessels dating to the 12th to 13th centuries are present, though some continue into the 14th and 15th centuries. These include wares from Nottingham (Splashed Ware NSP, Glazed Early NOTGE, Glazed Iron NOTGI, Coarse Sandy NCSW, and Glazed Light Firing NOTGL), Lincoln (Sandy ware fabric A, LSWA; 13th to 14th century Lincoln Glazed Ware, LSW2), South Lincolnshire (Shell Tempered SLST, Shell and Quartz SLSQ,

Bourne Medieval ware BOUA) and beyond (East Lincolnshire Glazed Quartz and Chalk ELQC Peterborough Shelly ware PSHW and Grimston-Type wares GRIMT). The ubiquitous medieval Toynton ware is also present.

The prevalence of pottery from Nottingham is not surprising given the frequency with which pottery from the city occurs in assemblages in South Lincolnshire. Of note is the fact that a wide range of Nottingham fabrics are present, including some that have a short life span. Two vessels of the LSWA (**098** and **194**) have under-fired glaze. The number of vessels represented by each of these ware types is very limited; only South Lincolnshire Shell Tempered ware has a strong presence with fourteen vessels.

Table 5. Totals of Medieval Pottery

cname	Total sherds	Total vessels	Total weight
BLGR	1	1	1
BOUA	1	1	13
ELGQC	1	1	10
GRIMT	1	1	3
LEMS	6	3	66
LSW2	1	1	7
LSWA	3	3	12
MEDX	1	1	2
NCSW	2	1	13
NOTGE	1	1	3
NOTGI	1	1	7
NOTGL	7	6	50
NSP	5	4	70
POTT	2	2	32
PSHW	2	2	10
SLSQ	1	1	1
SLST	28	14	243
ST	2	2	5
TOY	3	3	15
TOTAL:	**69**	**49**	**563**

5.4 LATE POST MEDIEVAL TO EARLY MODERN

Only two vessels dating to this period are present. These, a Post Medieval Bourne (BOU) ware and a Nottingham Stoneware (NOTS) vessel indicated extremely limited post medieval and modern activity in the area.

6. THE POTTERY BY TRENCH

The Post Roman pottery and fired clay from the site came from sixty-four contexts from eighteen trenches. These are shown in Table 6 below, with the total number of vessels for each ceramic period.

The majority of the pottery was recovered from deposits in Trenches C, S, N and J. None of the vessels occurred in more than one trench. The Early to Middle Saxon pottery appears to concentrate in trenches C and N, and shows some signs of being concentrated in the north end of the site; this may have been the focus for occupation in this period. The Medieval material is concentrated in Trench S.

Table 6. Total number of vessels be period and trench

CERAMIC PERIOD	TRENCH																		TOTAL BY PERIOD
	A	B	C	D	E	F	G	H	I	J	L	M	N	O	P	Q	R	S	
1	2	3	46	13	1	10	10	7	3	16	4	8	21	1	3		1	1	**150**
2	7		1			3				5				1	1	1		5	**24**
3			1							3	1	3	4		2	3	2	30	**49**
4													1		1				**2**
M	1																	2	**3**
	10	**3**	**48**	**13**	**1**	**13**	**10**	**7**	**3**	**24**	**5**	**11**	**26**	**2**	**7**	**4**	**3**	**38**	**228**
TOTAL BY TRENCH																			

Ceramic Periods (as presented in text):
1. Early to Middle Saxon; 2. Middle Saxon to Saxo-Norman; 3. Medieval; 4. Late to Post Medieval; M – MISC (period unknown)

Trench A
A small amount of pottery was recovered (ten sherds), with an average weight of fourteen grams. The pottery in Trench A consists of handmade Early Anglo Saxon ware and Middle Saxon pottery. All the pottery from Trench A comes from stratified deposits.

Trench B
Only three sherds are present in Trench B; all are handmade Early Anglo Saxon wares with an average weight of ten grams. All the sherds come from a single context (**015**).

Trench C
Sixty-nine sherds, representing forty-eight vessels and weighing five hundred and twenty-eight grams was came from Trench C. This represents the largest assemblage from any of the trenches. Handmade Anglo-Saxon and Middle Saxon ware types are present. A series of postholes contain pottery of a 5th to 8th century date. One of these postholes overlays a pit with pottery dating to the 5th to 7th century. The contemporary pottery within the postholes suggests they may relate to the same building episode which occurred sometime during the Anglo-Saxon period. The occurrence of seven Middle Saxon sherds in the assemblage from Trench C suggests this area may have witnessed activity in this period, possibly once the building went out of use.

Trench D
Trench D produced thirteen vessels weighing two hundred and fifty-one grams (average sherd weight of fourteen grams). The pottery includes a diagnostic vessel that dates to the late 6th century and two other decorated sherds in contexts from this trench suggests activity dating to the 6th century.

Trench E
A single sherd of handmade Anglo Saxon pottery came from an unstratified deposit trench E.

Trench F
Thirteen vessels, weighing seventy-six grams. The assemblage is more fragmentary than in other trenches, with an average sherd weight of five grams, perhaps suggesting this is not the primary deposition of this material. The pottery dated mainly to the Early Saxon period, though at least one of the ware types present in this assemblage (LIM) is thought to continue into the Middle Saxon period.

Trench G
The pottery from Trench G comes from two contexts. Most of the ten sherds, weighing one hundred and twenty grams, are in an abraded state. The pottery dates to the early Anglo Saxon period, possibly into the Middle Saxon period.

Trench H
The pottery from Trench H comes from three contexts. Seven vessels are present, all wares that belong to the early and middle Saxon periods. The average sherd weight is five grams, again suggesting this material has been deposited from elsewhere.

Trench I
Only four vessels came from Trench I, and one of these is a possible Iron Age vessel. The Saxon types that are present are early, though an average sherd weight of three grams suggests this is re-deposited material.

Trench J
Twenty-one vessels from Trench J are mainly Early and Middle Saxon types, though some Medieval pottery is also present. All of the material is fragmentary and most is noted as being abraded and flaked. The average sherd weight of the group is four grams. That the medieval material is also in poor condition suggests this material has been plough damaged and may not represent primary deposits.

Trench L
Five vessels came from Trench L, this material is also abraded and flaked. The material dates from the Early Saxon to the Medieval period.

Trench M
The pottery from Trench M is mixed, with several periods being represented. Eleven vessels cross span the Early Saxon to the Medieval period. The average sherd weight is five grams. The appearance of medieval material in gullies and subsoil deposits may have been deposited by manuring practices.

Trench N
Twenty-six vessels from four contexts, weighing two hundred and twenty-one grams (average sherd weight seven grams) was recovered from Trench N. The pottery spans the Early Saxon to Post Medieval Periods. The inclusion of medieval and post medieval pottery in the sub-soil may have been deposited by medieval manuring practices.

Trench O
Two vessels in Trench O date to the Early and Middle Saxon periods.

Trench P
Eight vessels, weighing forty-eight grams (average weight six grams) span the early Saxon to the Modern period.

Trench Q
Four Medieval and one Bronze Age vessel came from Trench Q. The Medieval pottery comes from two contexts: **270** and **273**. The pottery is fragmentary, having an average sherd weight of nine grams. The majority of the pottery comes from the subsoil.

Trench R
A small number of sherds (three, with an average weight of under two grams) came from Trench R. One of these is an imported vessel dating to the early medieval period. The other two vessels (from context **224**) span the Early Saxon to Early Medieval period.

Trench S
Thirty-eight vessels from Trench S weigh four hundred and eighty-three grams, with an average sherd weight of nine grams. The vast majority of the pottery is Medieval in date, and represent the most comprehensive Medieval deposits on the site. Some earlier pottery, in the forms of Middle to Late Saxon pottery is also present in the deposits from Trench S, though are probably residual.

7. DISCUSSION

The nature of the assemblage suggests that there was much activity in the area during the Early Saxon period, which continued in a more limited form into the Middle and Late Saxon periods.

The nature of handmade Early Saxon pottery makes it difficult to conclude the status or the function of the site: the presence of sooted vessels with carbonised deposits may hint at domestic activity.

The range of the Saxon pottery suggests the settlement in this area was obtaining its pottery from a number of different sources, though chemical analysis of the pottery will allow a clearer picture of the provenance and movements of these ware types to emerge. The Early Saxon imported vessel (ESAXIMP context **076**) in this assemblage may be paralleled with other sites where 'the scarcity of imported pottery in the rural context implies that the sites which produce such pots could be of some status, although this could be as much economic as social' (Blinkhorn 2004: 3).

It is possible to suggest that the area was inhabited between the late 6th until at least the 8th century, though it may have been occupied earlier and into the 9th century. The Saxon material is fragmentary and suggests the dispersal of this material through medieval ploughing. Trench C, which contained a possible structure may have been the focus of Saxon occupation on the site. Evidence from other Anglo-Saxon and medieval sites in the region suggest that pottery was discarded into middens and periodically levelled into a localised spread of material; it is possible some of this pottery may have ended up on the fields after being incorporated into later manuring events.

The lack of material dating to the late 9th to late 10th century suggests a hiatus in activity.

Equally, there is little activity discernible during the Medieval and Post Medieval to Modern periods; the medieval activity that is discernible concentrates in Trench S, with manuring practices perhaps accounting for the rest of the Medieval material on the site. An earlier watching brief (SLH01, Vince and Young Forthcoming a) at Holdingham roundabout, immediately to the west of SLLR06, revealed evidence for activity on the site starting no later than the 6th century, with occupation continuing into the 8th or 9th century; a hiatus on the site in the late 9th, 10th and 11th centuries was suggested by the pottery, with activity resuming on the site after this time. The same pattern is discernible at Quarrington, a large Saxon site less than two miles away, where the site sees little or no activity between the second half of the 8th century to possibly the 12th century (Young 1996). The less intensive occupation at SLH01 between the 8th to 9th centuries was attributed to either less intensive occupation or to less pottery being used, though the very small amount of pottery for the later Saxon periods at both SLH01 and SLLR06 is so low the former possibility is the most likely. The total absence of Ipswich ware in the assemblage from SLLR06, and the presence of a single vessel at SLH01 may suggest that the majority of the Saxon assemblage pre-dates the mid 8th century. However, the groups from these sites are too small to be conclusive.

7. SUMMARY AND RECOMMENDATIONS

The possible prehistoric sherds should be examined by the relevant pottery specialist.

The pottery from the site should be retained and three vessels are recommended for illustration. Thin section and chemical analysis of the Saxon pottery in the assemblage should be carried out. This will allow these vessels to be compared with material from SLH01 and elsewhere in Lincolnshire and Yorkshire. Such analysis would help to define these wares and reveal how closely related they are to visually identical fabrics found at other sites.

8. FUTURE WORK

Further work should be carried out on some of the handmade Anglo-Saxon wares in the assemblage and the inclusion of these in future scientific analysis would provide valuable information allowing comparison with wares found in South Lincolnshire and Lincolnshire.

BIBLIOGRAPHY

~ Lincolnshire Archaeological Handbook 2003 edition [internet]. Available from <http://www.lincolnshire.gov.uk/section.asp?catId=3155>

Blinkhorn, P. 2005, 'The Pottery' in A. Crowson, T. Lane, K. Penn and D. Trimble (eds.) *Anglo-Saxon settlement on the Siltland of Eastern England.* Lincolnshire Archaeology and Heritage Reports Series, no. 7.

Briscoe, D. no date, *The Archive of Saxon Pot Stamps*. Unpublished.

Gibson, A. and Woods, A. 1997, *Prehistoric Pottery for the Archaeologist*. London: Leicester

University Press.

Slowikowski, A.M., Nenk, B. and Pearce, J. 2001, *Minimum standards for the processing, recording, analysis and publication of post-Roman ceramics*. Occasional paper **2**. London: Medieval Pottery Research Group

Vince, A. 2003a, Characterisation of Anglo-Saxon pottery from the Hatton to Silk Willoughby Pipeline (HAT00).

Vince, A. 2003b, Characterisation studies of the Anglo-Saxon pottery from Glebe Farm, Brough (GLF02). AVAC report no. **2003/121**.

Vince, A. and Young, J. Forthcoming a, The Anglo-Saxon pottery from the Holdingham Roundabout site, Sleaford (SLH01).

Vince, A.G. and Young, J. Forthcoming b, 'The Anglo-Saxon Pottery' in C. Loveluck, *Flixborough: A high-status, Middle to Late Saxon settlement in North Lincolnshire, AD 600-1000*.

Vince, A.G. Forthcoming, 'Petrological and Chemical Analysis of Anglo-Saxon and medieval pottery from St. Peter's Church, Barton upon Humber' in W. Rodwell and C. Atkins, *Excavations at St Peter's Church, Barton Upon Humber*

Young, J. 1996, Report on the pottery from excavations at Quarrington 1993 in '*An early and middle Saxon settlement at Quarrington, Lincolnshire, Vol III*'. Archaeological Project Services, report no. **49/96**.

Young, J. 2000, Anglo-Saxon and later pottery from excavations at Fillingham, Lincolnshire (FCR00) in *Fieldwork in Fillingham, Lincolnshire* vol. **2**. Department of Archaeology and Prehistory. Sheffield: University of Sheffield.

Young, J. 2003, *Anglo-Saxon pottery from archaeological investigations at Glebe Farm, Brough, Nottinghamshire (GLF02)*. Nottingham: Trent and Peak Archaeology.

Young, J. and Boyle, A. Forthcoming, *The pottery from West Halton* (WHA05), University of Sheffield.

Young, J. and Vince, A.G. and Nailor, V. 2005, *A corpus of Saxon and Medieval pottery from Lincoln*. Oxford: Oxbow.

Young, J., Didsbury, P. and Boyle, A. Forthcoming, 'The Pottery' in W. Rodwell and C. Atkins, *Excavations at St Peter's Church, Barton Upon Humber.*

context	cname	sub fabric	form type	sherds	vessels	weight	decoration	part	description	date
001	RQCL	+ oolite + grog + fe + round to sub-round quartz	jar	2	1	28		rim + UHJ/lug	flared rim; horizontal external burnishing; one sherd from sample	
001	SSTMG	+ coarse aggregated sandstone + ca + muscovite	large jar ?	1	1	59		BS	wiped / burnished exterior; exterior soot	
001	LIM	+ sst	jar ?	2	1	14		BS		
001	LIM	+ sst	jar ?	1	1	9		BS	external burnishing	
001	CHARN		jar ?	1	1	5	horizontal combing	BS	soot	
001	LIM	+ sst	jar ?	1	1	3		BS		
001	RQCL		jar / bowl	1	1	2		rim ?	? ID; very abraded	
015	SSTCL	F	jar / bowl	1	1	14		rim	inward sloping rim; soot from rim extends 25mm down body	
015	RQCL	+ oolite	large vessel	1	1	17		BS	thick walled; internal surfaces missing	
017	SSTMG	coarse; sst + very occasional shell + fe + carbonised vegetation	small biconical jar	1	1	19	incised pendant and horizontal lines	BS	soot	late 6th
017	SSTCL	F	jar	1	1	14	combed multiple horizontal lines with stamped in between;	BS		
021	SSTMG	+ coarse quartz	?	1	1	1		BS	external soot	
027	SSTMG	+ coarse quartz + oolite	jar ?	1	1	3		BS		
027	RQCL		jar	1	1	2	incised horizontal line	neck	external burnishing	
027	SSTCL	F + oolite + very occasional shell + very occasional grog	large vessel	1	1	20		BS	thick walled; soot	
027	RQCL	+ oolite	?	1	1	11		BS	external soot; shell on inner surface leached	
039	ECHAF		?	1	1	4		BS	abraded; internal soot and over broken edge	
039	FE		bowl ?	1	1	6		BS	internal burnishing	
042	RMAX		jar ?	1	1	7		BS	internal soot	
042	RMAX		lugged vessel	1	1	27		lug	teardrop shaped piercing; soot; triangular lug	
045	SSTMG	+ coarse sst	jar / bowl	1	1	3		BS	external burnishing; internal soot	
045	CHARN		jar	1	1	12		BS	internal and external burnishing	
047	SSTCL	M + oolite	jar	1	1	18		BS	internal and external burnishing	
047	SSTCL	F	jar	1	1	8		BS	external burnishing	
050	RQCL		jar	5	1	100		rim + BS	upright rounded rim; soot on upper part of vessel; rounded ca inclusions only on lower vessel - post deposition deposit ?; slightly necked; analyse	
050	CHARN	+ ca + grey limestone	jar	1	1	26		neck	external burnishing; external soot; analyse	
053	RQCL	+ oolite	jar / bowl	1	1	1		BS		
053	MSAXLOC	A	jar / bowl	1	1	1		BS	? ID	
053	MSAXLOC	A	jar / bowl	1	1	1		BS	? ID	
058	FE	+ ca + occasional shell	?	2	1	5		BS ?	flake; burnishing	
060	CHARN	OX/R/OX; black surfaces; abundant	jar	1	1	6		BS		
076	IMP	fine sub-round quartz	bowl ?	1	1	15	combed / incised horizontal groove	rim	abraded inner surface; external horizontal burnishing; flared rounded rim; analys	anglo saxon
084	SSTCL	M	jar / bowl	1	1	1		BS	internal soot and over break; external burnishing	
084	SSTMG		jar / bowl	1	1	1		base	internal burnishing	
086	SSTCL	M	jar	17	1	287		BS + neck	same vessel ?; abraded internally; external soot	
086	RQCL	+ oolite	rounded jar ?	1	1	3		rim	CHECK need rim description	
086	SSTCL	M	jar / bowl	1	1	3		BS		
086	SSTCL	M	?	1	1	3		BS	external burnishing	
086	SSTCL	M	?	1	1	3		BS	inclusions leached on outer surface	
086	FE	+ sst + ca	jar ?	1	1	6		BS	external soot	
086	SSTCL	F	?	1	1	1		BS	flake	
088	FE	+ oolite + sst	jar / bowl	1	1	6		BS	internal and external burnishing; soot over break	
092	SSTCL	M + millstone grit	jar	2	1	6		BS	external burnishing; soot patch	
092	SSTCL	M	jar	1	1	5		BS	patchy soot	
092	CHARN		jar ?	1	1	3		BS	horizontal wipe / burnishing marks; patchy soot	
092	SSTCL	M	jar ?	1	1	3		BS	internal and external burnishing	
096	SSTCL	M	jar / bowl	1	1	5		BS	abraded; external soot	
100	SSTCL	M	jar / bowl	1	1	18		rim	round upright rim; patchy soot; abraded inner surface	
098	SSTCL	M	jar / bowl	1	1	5		BS		
098	SSTCL	M	?	1	1	1		BS	abraded	
101	RQCL		?	4	1	6		BS	flakes; same vessel ?	
101	SSTCL	M	?	1	1	3		BS	external burnishing	
101	SSTMG		?	1	1	5		BS	internal soot	
101	RMAX		jar	1	1	6		BS	abraded inner surface	
101	RMAX		jar / bowl	1	1	6		BS	external soot	
101	SSTCL	F	jar / bowl	1	1	1		rim	upright rounded rim	
101	SSTMG	+ acid igneous	?	1	1	7		BS	external burnishing ?; inner soot	
101	SSTCL	M	jar	1	1	2		neck		
103	SSTCL	M + moderate biotite	large vessel	1	1	35		base	abraded; leached; vessel ?; unusual light firing colour	
103	SSTCL	M + chaff + millstone grit + shell	jar	1	1	58		BS	internal and external soot including over break; visible coil marks	
103	SSTCL	F + abundant aggregate sst	jar / bowl	1	1	4		BS		
103	RQCL		small jar / bowl	1	1	3		rim	round slightly everted	
103	SSTCL	M	?	1	1	1		BS	abraded	
103	SSTCL	M	?	1	1	2		BS	abraded	
103	FE	+ ca + oolite	?	1	1	1		BS	flake	

107	LIM	+ rounded quartz	?	1	1	3		BS		
107	CHARN	+ rounded quartz + common acid igneous and biotite		1	1	4		BS	? ID or SSTCL	
111	SSTCL	F + moderate greensand	jar ?	1	1	25		BS	internal carbonised deposit; patchy external soot; ? ID or odd SSTCL	
111	SSTCL	M + greensand	?	1	1	7		BS		
127	SSTCL	M + abundant aggregate sst	?	1	1	10		BS	same vessel as (086) ?; abraded internal surfaces	
127	MSAXLOC	A	?	1	1	7		BS	? ID or odd MAX or IA	anglo saxon or iron age
127	MISC	OX/R; medium to coarse shelly; common mixed shell + some oolite	jar / bowl	1	1	7		BS	average weight	anglo saxon ?
133	MAXQ		jar ?	1	1	65		base	thick walled; internal soot and carbonised deposit and over break; external soot; part leached ?; ? ID; analyse	
140	SSTCL	M	small jar	1	1	6		rim	flared rim	
140	LIM		?	1	1	5		BS		
140	LIM		?	1	1	10		BS	leached inner surface	
140	ERRA		jar ?	1	1	4		BS	external horizontal burnishing	
142	SSTCL	M	?	1	1	7		BS		
144	SSTMG		?	1	1	5		BS	external burnishing	
154	SSTCL	M + oolite + carbonised vegetation	?	1	1	3	horizontal incised line ?	BS	external soot	
160	SSTCL	M	?	1	1	13		BS	abraded	
160	LIM	+ sst	?	1	1	2		BS	flake	
160	LSW2		jug	1	1	7	neck cordon	BS	slightly abraded	
161	SSTMG		?	1	1	1		BS		
161	SSTCL	M	?	1	1	7		BS		
165	RQCL	+ oolite	?	1	1	4		BS	abraded; ? ID	
178	IA	coarse shell	?	1	1	3		BS	leached; abraded	iron age
180	SSTMG		bowl ?	1	1	7		rim	upright flat topped rim; external soot	
186	SSTCL	M + acid igneous	large jar	1	1	39		BS	external wipe marks	
191	SSTCL	F + fine quartz	?	1	1	1		BS		
192	SSTCL	M	?	1	1	1		BS		
192	SSTCL	M	jar ?	1	1	6		BS	heat affected; possible salt bleaching	
192	NOTGL			1	1	3		jug	ridged body; cu glaze	
192	BOUA	A/B	jar	1	1	13		base	abraded	
192	RQCL		large vessel	1	1	13		BS	abraded	
194	LIM		?	1	1	2	stamped horizontally and vertically with type A1ai	BS	abraded; flake	
194	SSTCL	M + acid igneous + millstone grit	?	1	1	5		BS	abraded; soot	
194	LIM		?	1	1	1		BS	abraded; flake	
194	SSTCL	F + fine common aggregate + cemented fe	?	1	1	1		base	abraded	
194	FE		?	1	1	1		BS	very abraded	
194	LIM		?	1	1	1		BS	abraded	
194	SSTCL	F + fine common aggregated sst	?	1	1	3		BS	abraded	
194	MSAXLOC		?	1	1	1		BS	? ID or odd MAX; abraded	
194	LSWA		jug	1	1	1		BS	? ID; abraded	13th
194	ELGQC		jug / jar	1	1	10		base	heat affected / burnt white internal deposit ?; abraded; external soot; degraded external glaze; abraded	
198	RQCL	+ ca	?	1	1	10		BS	abraded	
208	ST	B / C	jar / pitcher	1	1	2		BS	thin yellow-green glaze	
212	SSTCL	M	jar	1	1	20		rim	rounded flared rim; vertically brushed exterior; external soot	
212	SSTCL	M + acid igneous	?	1	1	7		BS	external soot and over break	
212	SSTCL	M	?	1	1	7		BS	external soot	
212	RQCL	+ oolite	large vessel	1	1	39		BS	thick fabric; external soot	
212	SSTCL	M	?	1	1	1		BS	flake; abraded	
212	SSTCL	F + fine common aggregate sst	?	1	1	3		base	abraded	
212	SSTCL	M	jar ?	1	1	1		BS	abraded	
212	SSTCL	M	?	1	1	1		BS		
212	NOTGL		jug	2	1	3		BS	cu glaze	
212	NOTGL		jug	1	1	27		base	? ID or NOTGE	
212	BOU	slightly sandy + ca oxidised; medium coarse sandy + common mixed quartz	?	1	1	7		BS		
212	MEDX	+ moderate to common fe	jug	1	1	2		BS	abraded; amber pocked glaze	
212	NCSW	orange	jar ?	2	1	13		base	abraded	
213	RQCL	+ erratics	?	1	1	3		BS		
213	SSTMG	+ ca	?	1	1	7		BS	slightly abraded	
215	GRIMT		jug / jar	1	1	3		BS	abraded; ? ID	13th to 15th
215	SSTMG	+ carbonised vegetation	?	1	1	3		BS	flake	5th to 8th
215	SSTCL	F + common fine aggregated sst	bowl ?	1	1	12		rim	horizontal brushing / wiping; flat topped rim; external soot; ? ID or SSTCL	5th to 8th
224	ST	C	jar / bowl	1	1	3		BS	external soot; no glaze	
226	BLGR		jar	1	1	1		neck		
229	RQCL	+ oolite	jar ?	3	1	6		BS	same vessel ?	

235	CHARN	+ ca	large vessel	1	1	10		BS		
235	SSTCL	M	jar	1	1	10		rim	internal soot; leached outer surfaces; internal burnishing; rounded upright rim	
235	SSTCL	M	small vessel	1	1	3		BS		
235	LIM		?	1	1	3		BS		
235	LIM		?	1	1	1		BS		
246	SSTCL	M	?	1	1	9		base ?	very abraded	
246	RQCL		?	1	1	13		BS	very abraded	
246	BA	light firing	?	1	1	10		base	patchy soot; very abraded	bronze age
248	NOTS		bowl	1	1	9		rim	? ID or DERBS	18th to 19th
248	TOY		jug / jar	1	1	3		BS		late 13th to 15th
248	TOY		jug / jar	1	1	2		BS		late 13th to 15th
251	SSTCL	M	jar ?	1	1	9		BS	external soot	
251	SSTCL	M	large vessel	1	1	13		BS	external deposit / salt surfacing ?; internal soot	
251	SSTCL	M + acid igneous	?	1	1	7		BS		
251	SSTCL	M	jar / bowl	1	1	4		rim	rounded rim	
253	NOTGI		jug	1	1	7		BS		
254	NSP	sandy	jug ?	1	1	13		base	external soot; ? ID	
254	NOTGL		jug	1	1	3		neck		
254	NOTGL		jug	1	1	6		BS		
254	NOTGE		jug	1	1	3		BS	? ID or NOTGL	
254	TOY		jar ?	1	1	10		base	untrimmed	
254	NOTGL		jug	1	1	8		BS	cu glaze; ? ID	
254	NSP	sandy	jug	1	1	26		base		
254	SLST		jar / bowl	7	1	27		BS	external soot; same vessel ?	
254	SLST		large jar	1	1	20		rim	? ID or POTT	
254	POTT		jar	1	1	19		BS	external soot	
254	PSHW		jar	1	1	3		BS	external soot	
254	PSHW		jar	1	1	7		BS	external soot; internal deposit	
254	SLST		jar	1	1	3		BS	leached internally; ? ID	
254	SLST		?	1	1	3		BS	flake; ? ID	
254	SLST		?	2	2	1		BS	flake; ? ID	
254	SLST		jar	1	1	6		BS	external soot; ? ID	
254	SLST		jar	1	1	13		base	external soot; abraded	
254	SLSQ		?	1	1	1		BS		
255	SLST		jar	3	1	20		BS	external soot; same vessel ?	
255	SLST		jar	5	1	97		rim + BS	abraded; leached internally; internal soot	
255	LEMS		small jar	4	1	43		rim + BS	ridged shoulder; external soot	
255	LEMS		small jar	1	1	5		rim	abraded; ? ID	
255	LIM		jar / bowl	1	1	4		BS	internal and external soot	
255	NSP	sandy	jug	1	1	13		BS		
255	MAX	B	jar	1	1	8		BS	internally abraded; external soot	
255	MAX	B	jar	1	1	13		BS	external soot	
255	MAX	B	jar	1	1	8		BS		
255	LSH		jar	1	1	1		BS	external soot; ? ID	
255	SLST		jar	2	1	12		BS	external soot; internal fe slip ?; same vessel ?	
255	SLST		jar	2	1	13		BS	external sot	
255	LEMS		jar ?	1	1	18		base	abraded; ? ID	
255	SLST		jar	1	1	23		rim	external soot	
258	MAX	B	?	1	1	20		base	external soot	
258	SLST		?	1	1	5		BS	abraded	
270	BA	+ grog ? + chaff ?	?	1	1	7	circular stamp ?	BS	soot; very abraded	
270	MAX	B	?	1	1	10		base	internal carbonised deposit	
270	POTT		?	1	1	13		base		
273	NSP	sandy	jug	2	1	18		handle		
273	LSWA		jug / jar	1	1	10		BS	unmatured glaze	
120	MAX		?	1	1	1		BS	? ID	
140	SSTCL	M	?	2	1	1		BS		
178	RQCL		?	1	1	1		BS	? ID	
178	RQCL	+ shell	?	2	1	4		BS	? ID	
202	MAXQ		?	1	1	1		BS		
202	FE	+ ca + quartz	?	1	1	10		BS	semi burnished exterior; ? ID	
194	RMAX		?	4	4	1		BS	? ID or MAX	
194	SSTCL	M	?	1	1	2		BS		
194	RQCL		?	1	1	1		BS	? ID	
194	SSTCL	F	?	1	1	1		BS		
194	SSTCL	M	?	1	1	1		BS		
194	RQCL		?	1	1	1		BS	? ID	
210	RQCL		?	1	1	1		BS		
224	LIM		?	1	1	1		BS		
101	MAX		?	1	1	1		BS	? ID or RMAX	
096	SSTCL	F	?	1	1	1		BS		

096	MAX		?	1	1	1		BS	? ID	Anglo-Saxon or Roman
096	SSTCL	M	?	1	1	1		BS	? ID	
096	SSTCL	M	?	1	1	6		BS		
103	CHARN		?	1	1	2		BS		
103	LIM	+ angular quartz + muscovite + feldspar	jar	1	1	10		BS	soot; white internal deposit; odd fabric	
086	RQCL		small jar / bowl	1	1	1		BS	burnished; ? ID	
086	SSTCL	M	?	1	1	1		BS		
086	SSTCL	M	?	1	1	6		BS		
086	SSTCL	M + acid igneous	?	1	1	4		BS		
086	LIM	+ quartz	?	1	1	2		BS		
086	ESGS		?	1	1	1		BS	? ID	
086	SSTMG		small jar	1	1	3		rim	rounded rim	
092	RQCL	+ ca	?	1	1	3		BS		
092	RQCL		?	1	1	2		BS		
092	RQCL		?	1	1	3		BS	? ID	
098	SSTCL	F	?	1	1	5		BS		
098	SSTCL	M	?	1	1	1		BS		
098	SSTCL	M	?	1	1	1		BS	burnished surfaces	
098	LSWA		?	1	1	1		BS	unmatured glaze	
098	SSTCL	M	?	2	1	1		BS		
246	MAX		?	1	1	1		BS	? ID or RMAX	
246	SSTMG		?	1	1	1		BS		
264	MISC	oxid; medium sandy	?	2	2	1		BS	very abraded	date ?
235	SSTCL	M	?	1	1	1		BS	internal soot	
229	SSTCL	M	small jar / bowl	1	1	22		BS	internal and external soot	
229	CHARN		?	1	1	1		BS		
			015	SSTCL	M	?	1	1	BS	

Appendix 5

THE OTHER FINDS

by Paul Cope-Faulkner, Hilary Healey, Steve Malone and Gary Taylor

A quantity of other artefacts, metal, brick/tile, stone and industrial residue, comprising 67 items weighing a total of 3076g, was retrieved. Faunal remains were also recovered.

The excavated faunal remains assemblage comprises 10 stratified fragments weighing 25g. The faunal remains were identified by reference to published catalogues.

Provenance

The material was recovered from topsoil (049), subsoil deposits (212, 192, 194, 221 and 283), pit fills (001, 015, 017, 086, 146, 178 and 186), the fills of postholes (021, 030, 047 and 084), ditch fills (027, 053, 092, 101, 103, 163, 180, 198 and 246), the fill of a gully (133), from a ploughmark (160), the fill of a quarry pit (233), a demolition deposit (254) and a buried soil (255).

Range

The range of material is detailed in the tables.

Table 1: The Coins

Context	Ruler/Denomination	Cat			Date of issue
049	George II, farthing		Wt: 3.0g	Copper; 'young bust' coinage of 1730-39	1736
212	Constantius II	as LRBCII 201	Diam: 18mm Wt: 2.0g Axis: 7 Wear: SW/W Pierced	Obv: DN] CONSTAN-[TI]VS PF AVG Rev: FEL TE[MP REP]AR[ATIO Mint: SLG (Lyon)	346-50

A single late Roman bronze of Constantius II. Very common. Pierced, and therefore probably in decorative use long beyond its original circulation.

Table 2: Other Artefacts

Context	Material	Description	No.	Wt (g)	Context Date
001	Charcoal	Charcoal	3	1	
	Mortar	Mortar	1	1	
015	CBM	Fired clay	1	6	
	Stone	Burnt stone	2	35	
017	Stone	Burnt stone	1	278	
021	CBM	Fired clay	1	2	
027	Industrial residue	Iron smithing slag	2	44	
	Stone	Burnt stone	1	13	
030	Charcoal	Charcoal	1	1	
047	Fired clay	Loomweight, annular?	1	31	Saxon
053	Charcoal	Charcoal	3	1	
084	Industrial residue	Iron smithing slag	1	1	
086	CBM	Fired clay	1	7	
092	Fired clay	Loomweight, annular?, Saxon	2	15	Saxon
	Stone	Burnt stone	1	2	

Context	Material	Description	No.	Wt (g)	Context Date
101	Industrial residue	Iron smithing slag	1	7	
	Stone	Coal/jet	1	37	
103	Fired clay	Loomweight, annular, Saxon	1	135	Saxon
	Stone	Burnt stone	1	45	
133	CBM	Fired clay	1	5	
146	Stone	Lava quern	4	192	
160	CBM	Tile, post-medieval	1	7	Post-medieval
	Iron	Indeterminate sheet	1	6	
163	CBM	Pantile, post-medieval	2	160	Post-medieval
	CBM	Brick/thick tile, Roman?	4	242	
	Iron	Nail	1	8	
178	Stone	Burnt stone	2	294	
180	Stone	Lava quern	1	48	
186	Stone	Burnt stone	1	186	
192	CBM	Tile	1	95	
	Iron	Nail?	1	5	
198	Iron	Double spiked loop? Roman?	1	4	Roman?
	Iron	Indeterminate	1	4	
212	CBM	Tile	1	85	
	Industrial residue	Fuel ash slag	5	7	
221	CBM	Brick	1	252	Roman?
233	Stone	Burnt stone	1	4	
246	Iron	Nail	1	7	
	Iron	Scale tang handle, rivet hole	1	42	
254	CBM	Tile	1	30	
255	Stone	Burnt stone	1	695	
	Iron	Nail	1	7	
	Iron	Indeterminate	1	5	
	Iron	Nail	1	10	
283	Flint	Scraper, steep retouch, broken	1	6	Bronze Age
TOTAL			65	3071	

Note: CBM = Ceramic Building Material

Fragments of a few loomweights were recovered. These were used with warp-weight looms and indicate weaving took place on site. One of the pieces is annular, a form typical of the Early Saxon period (Mann 1982, 25). The others fragments are too small for the form to be definitely identified, though they are annular or bun-shaped, the latter generally found on Middle-Late Saxon sites (*ibid.*).

Several pieces of vesicular lava, probably fragments of quern stones, were retrieved. Querns in this material were imported into England from the Roman period until the Middle Ages.

Table 3: The Faunal Remains

Context	Species	Bone	No.	Wt (g)	Comments
101	Mussel	Shell	5	4	
163	Garden snail	Shells	4	20	Substantially complete
194	Cockle	Shell	1	1	

A group of shells of the garden snail, *Helix aspersa*, was recovered from (163). This group is typical of a cluster that has died in hibernation, and sometimes found in cavities in dry-stone walls or similar. However, garden snails are

widespread, usually synanthropic (associated with man) and, apart from indicating terrestrial conditions are not useful as an environmental indicator (McMillan 1973, 125).

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

Documentation
There have been previous archaeological investigations in the Sleaford/Holdingham area, including in immediate proximity to the current site. In particular, investigations directly adjacent to the current site yielded a comparable assemblage of Saxon artefacts. Details of archaeological sites and discoveries in the area are maintained in the files of the North Kesteven Heritage Officer and the Lincolnshire County Council Sites and Monuments Record.

Potential
In general, much of the assemblage is of low-moderate local potential and significance, and some of the pieces could be components of manuring scatter. However, there are a few Roman artefacts and a group of Saxon material that point to occupation of these periods nearby. It is possible that the Roman material, particularly the perforated coin, was used by Saxon settlers in the area. Fragments of loomweights provide the Saxon artefacts and constitute functional evidence of weaving and are of moderate local significance. Further functional evidence is provided by the pieces of lava quern and a small amount of industrial debris. These items signify food grinding and iron smithing respectively, but they have only local potential as their dating is uncertain.

The dearth of medieval and post-medieval material is informative and suggests that the site was abandoned and that archaeological deposits dating from these periods are absent from the area, or were of a nature that did not involve artefact deposition.

References
Brickstock, R.J., 2004, *The Production, Analysis and Standardisation of Romano-British Coin Reports*, English Heritage

Mann, J. E., 1982, *Early Medieval Finds from Flaxengate I: Objects of antler, bone, stone, ivory, amber, and jet*, The Archaeology of Lincoln XIV-1 (Lincoln Archaeological Trust and the Council for British Archaeology)

McMillan, N. F., 1973, *British Shells*

Reece, R., 1970, *Roman Coins*, London

LRBCII = Late Roman Bronze Coinage II, Carson and Kent 1960

Appendix 6

SLEAFORD LINCOLN ROAD, HOLDINGHAM -ENVIRONMENTAL ARCHAEOLOGY ASSESSMENT

By Gemma Martin and James Rackham

Introduction

Evaluation excavations conducted by Archaeological Project Services on a proposed development site at Lincoln Road, Holdingham, Sleaford, revealed evidence for Anglo-Saxon activity in the form of a series of pit, ditch and posthole features, as well as a medieval posthole and a deposit identified as a medieval subsoil. Four of the samples are from as yet undated features. Thirty-two environmental soil samples were taken from a range of features. All were submitted for processing to the Environmental Archaeology Consultancy (Table 1), but only sixteen samples were selected for preliminary analysis and assessment.

Table 1: Sleaford, Lincoln Road – SLLR06. Samples taken for environmental analysis

Sample no.	Context	Trench	Sample vol. in l.	Sample wt. in kg	Description	Date
1*	001	C	10	12	Fill of pit [002]	mid-Saxon
2*	015	B	8	9	Fill of pit [014]	mid-Saxon
3*	017	D	9	9	Fill of pit [018]	mid-Saxon
4	025	D	5.5	7	Fill of pit [026]	mid-Saxon
5	086	C	10	11	Fill of pit [087]	mid-Saxon
6*	101	F	9	10	Fill of ditch [102]	Anglo-mid Saxon
7*	103	G	9	9	Fill of ditch [104]	mid-Saxon
8*	092	C	10	11	Fill of ditch [093]	mid-Saxon
9	096	C	9	9	Fill of ditch [097]	early-Saxon
10	098	C	10	12	Fill of ditch [099]	mid-Saxon
11*	120	A	8	6.5	Fill of pit [121]	mid-Saxon
12*	140	H	8	8	Fill of pit [141]	Anglo-mid Saxon
13	142	H	9	9	Fill of ditch [143]	early-Saxon
14	146	H	8	8	Fill of pit [147]	Undated
15	150	C	10	11	Fill of pit [151]	mid-Saxon
16*	186	J	9	9	Fill of pit [187]	early-Saxon
17	176	I	24	25	Fill of posthole [175]	mid-Saxon
18*	178	I	24	25	Fill of posthole [177]	early-Saxon
19	194	J	29	30	Subsoil	Medieval
20*	198	M	8	9	Fill of gully [199]	early-Saxon
21	210	M	4	5	Fill of posthole [211]	Undated
22	202	O	10	9.5	Fill of posthole [201]	mid-Saxon
23	224	R	8	8	Fill of posthole [?]	Medieval
24*	229	N	11	13	Fill of ditch [230]	early-Saxon
25	235	N	11	13	Fill of ditch [236]	early-Saxon
26*	246	P	13	14	Fill of ditch [248]	Anglo-Saxon
27	251	N	11	14	Fill of ditch [252]	early-Saxon
28*	264	S	8	9	Fill of pit [265]	mid-Saxon
29	216	N	10	11	Fill of posthole [217]	Undated
30	239	N	10	11	Fill of posthole [240]	Undated
31*	037	C	2	3	Fill of posthole [038]	Anglo-Saxon
32*	039	C	2	3	Fill of posthole [040]	mid-Saxon

*Samples selected for assessment

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 the residues and flots were dried and the residues subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flots was measured and the volume and weight of the residue recorded. A total of 326.5 litres of soil was processed in this way.

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 and a count made of the number of flakes or spheroids of hammerscale

collected. The residue was then discarded. The flot of each sample was studied using x10 magnifications and the presence of environmental finds (i.e. snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The flots were then bagged and along with the 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

The entire sample group was processed and a total of sixteen samples were selected for assessment on the basis of feature type, datable evidence and sample richness. On processing the samples washed down to produce residues ranging in volume between 20 and 1200 millilitres with the composition of the residues consisting of limestone gravel, mixed stones, pebbles, ironstone and limestone/sediment crumb, along with occasional flints. Inclusions of charcoal, fossils, fragmented bone and worm granules also occur. The finds recovered from the residues include fifty-nine sherds of pottery, several pieces of iron, fired earth/daub and hammerscale, as well as occasional occurrences of slag and flint (Table 2). The range of environmental remains consists of bone, including mammal, small vertebrate and fish bone, marine shell, snails, charcoal and charred plant remains. The charcoal is ubiquitous in varying quantities and the other charred botanical remains include cereal grain, weed seeds and a small quantity of cereal chaff (Table 3).

An equal number of samples were taken from the pits and ditches (eleven each), nine from a series of postholes and a single sample from a deposit identified as a potential medieval subsoil. Eight of these samples have been assigned to the early Saxon period (Table 1), fourteen to the middle Saxon, two to the Anglo-mid Saxon, two more generally Anglo-Saxon, two medieval and four undated. In terms of the pot, preliminary patterns in the general distribution of the pot assemblages indicates that pottery sherds appear to occur with greatest frequency in the ditches (twenty-seven sherds from eight ditch features), followed by pits (fourteen sherds from five pit features) and then postholes (eight sherds from five postholes) as well as nine sherds from the medieval subsoil. The majority of the pottery (81%) originates from Anglo-Saxon phased deposits whilst 17% is derived from the two medieval deposits (predominantly the subsoil), with the remaining 2% originating from undated features. Furthermore, almost half of the entire pottery assemblage originates from features within Trench C, notably from the ditch fills and mainly of middle Saxon date. The three iron objects were also retrieved from Anglo-Saxon phased ditch fills within Trenches F and N.

A total of 84.5g of magnetic material has been recovered from the entire sample group, with every sample yielding some magnetic material. The magnetic components consist of magnetised stone, including ironstone and sediment crumb, with occasional occurrences of plate hammerscale, prill and spheroidal hammerscale. The magnetic components from all the samples were checked for hammerscale. Most produced a few flakes of hammerscale and occasional spheroids with a concentration in adjacent Trenches N, M and J and two other higher than average foci in Trenches C and G. The results from M, N and J suggest that a contemporary smithy was located around this area although none of the samples produced a concentration high enough to be indicative of the smithy itself. Most of these samples are early Saxon in date (although the sample in Trench J is phased to the medieval period) while the few samples with a higher than average hammerscale count from Trenches C and G are dated to the middle Saxon period. These may indicate movement of the smithy around the settlement with time but a much larger spatial sample base is needed to confirm this suggestion. The small amounts of slag occur in disparate samples, with the greatest amount associated with the horizon identified as the medieval subsoil within Trench J, and which also contains the largest quantity of magnetised material. The small quantities of fired earth are concentrated in Trench C, particularly posthole [038] and pit [002], aside from a small amount retrieved from the fill of pit [014], within Trench A, but it is not particularly associated with the hammerscale.

Varying quantities of bone are present in all of the samples, amounting to 543.5g, which is mostly derived from the ditch fills (totalling 295g). Further provisional patterns are emerging, with much of the bone (62%) having been recovered from Trenches C and N, and more specifically from Trench N. The greatest concentrations of bone have been recovered from the pits in Trench C, whilst the majority of the bone within Trench N is associated with the ditch fills. The species provisionally identified include remains of horse, cattle, sheep/goat, pig, possible dog and goose. Remains of smaller vertebrates are present with weasel, field vole, wood mouse and frog/toad. The fish bone assemblages are small and largely undiagnostic, aside from a small number of eel bone vertebrae. The tiny quantities of eggshell, including probable chicken eggshell, are recorded in four samples.

Snail shells are present in all of the sixteen assessed samples and are dominated by the blind burrowing snails *Cecilioides acicula*. This is an introduced species that burrows deeply and is almost certainly intrusive in all these deposits. Several other snail taxa have been identified in eleven of the samples and illustrate a consistent picture across the whole site. The identified taxa are *Vallonia excentrica*, *Vallonia costata*, *Pupilla muscorum*, *Vertigo pygmaea* and *Helicella itala* all of which are typical of open country grassland habitats, with *Pupilla, Helicella* and *V. costata* suggesting quite dry conditions (Kerney and Cameron 1979; Evans 1972). Three other taxa of more catholic habit, *Trichia hispida*, *Cochlicopa* sp. and *Trichia striolata*, also occur but these are not inconsistent with grasslands, although *T. striolata* is generally associated with man-made habitats such as arable, hedges, gardens and waste ground. Not a single shell of a taxa more typically associated with woodland or shaded habitats occurs in the sixteen samples assessed, not even in the ditch samples.

Charred botanical remains are present in all sixteen of the assessment samples, although the overall preservation is generally poor, with the cereal grains being particularly abraded and distorted in appearance, which has prevented positive identification to species in most instances. On occasions where identifications could be taken beyond genus, grains sharing similar morphological characteristics to those of bread wheat (*Triticum aestivum sl.*) were recovered from samples 1 and 18, and also spelt wheat (*T. spelta*) from samples 6 and 18. Small numbers of barley (*Hordeum* spp.), including hulled barley (*H.* sp. var *vulgare*) are also present, along with one or two grains of oat (*Avena* sp(p).). The identifiable wheat grain is distributed between pit and posthole features and one ditch fill within Trenches, A, B, C, F and I, with the greatest diversity originating from sample 18 (posthole [177] within Trench I). Remains of surviving cereal chaff are confined to three fragments in total in three separate trenches (Trenches C, F and G), and consist of two small fragments of glume bases of a glume wheat, which potentially supports the presence of spelt wheat, as well as a fragment of barley rachis node which is too poorly preserved to determine if it belongs to a two-row (*Hordeum distichon*) or six-row (*H. vulgare* var *vulgare*) variety. The lack of chaff in these assemblages suggests that most of the charred cereal debris probably derives from discard or accidents during food preparation.

Other charred botanical remains include weed seeds, which are present in fifteen of the sixteen flots and seem to occur more frequently in the pit fills. The weed assemblages include species that are not particularly habitat specific and are generally represented by very small numbers of seeds and are therefore poor ecological indicators. Members of the goosefoot family (Chenopodiaceae), notably goosefoot (*Chenopodium* spp.), occur with the greatest frequency (being present in twelve of the sixteen flots), followed by members of the legume family (Leguminosae) including very small numbers of cabbage/mustard type (*Brassica* spp.), medick/trefoil (*Medicago/Trefolium* spp.) and other poorly preserved small leguminous seeds. Other species preliminarily identified are dock (*Rumex* spp.), ribwort plantain (*Plantago lanceolata*), stinking mayweed (*Anthemis cotula*), spike-rush (*Eleocharis* sp.), sedge (*Carex* sp.) and grass family (Gramineae). The two samples with the greatest species diversity (samples 1 and 6) also contain several thorns of rose-type (Rosaceae, in sample1) and blackthorn/hawthorn (*Spinosa/Crataegus* spp., in sample 6). Mineralised 'nodes' as described in Carruthers (1989) have been noted in sample 2, as well as one or two possible hollow mineralised seeds in samples 1 and 7, and require confirmation of their identification.

In addition, varying numbers of worm capsules, worm granules and uncharred plant remains including root material and seeds of *Silene* sp. (campion), *Chenopodium* spp. (goosefoots), *Polygonum aviculare* (knotgrass), *Urtica* spp. (nettles), Solanaceae (nightshade family), *Lamium* spp. (dead-nettles), *Sambucus nigra* (elder), *Sonchus* spp. (sow-thistles), *Carex* sp. (sedge) and Gramineae (grass family), have been recorded in the samples. These remains, together with the blind burrowing snail *Cecilioides acicula*, which can burrow up to a depth of two metres, are viewed as intrusive in these deposits.

Discussion

Broadly speaking much of the archaeological and environmental evidence for anthropogenic activity appears to be associated with features exposed in the northern extent of the site, notably those within Trench C, as well as further south in Trench N, although only single samples were taken from trenches in the southern extent of the site which may be biasing this general trend. Trench C contains the majority of the pot, fired earth, fish bone and much of the mammal bone and may reflect the proximity of the trench to a potential focus of domestic activity. Domestic waste, including food residues appear to have been incorporated into the fills of features within Trench C, notably pits [002] and [087], ditches [093] and [099], as well as posthole [038].

Low levels of bone occur consistently in a range of features across the site, but seem to be particularly concentrated in ditches [230] and [252] within Trench N and to a lesser degree to pits [002] and [087] within Trench C and could indicate the disposal of domestic residues into these features. The faunal remains provide potential economic evidence with the consumption and probable husbandry of cow, sheep/goat and pig, whilst

other potential dietary elements are fish, eel, goose, chicken and chicken eggs. The small vertebrate assemblages indicate damp or wet grassland and ditches with six of the nine samples containing frog/toad originating from ditch fills. Also, of the seven samples containing remains of rodents, four are associated with pits or postholes and the animals may have been attracted to possible domestic dwellings or stores for sources of food and shelter. On the basis of the environmental evidence yielded by the assessment group, the presence of species such as weasel, wood mouse, field vole and the terrestrial snails that are typically associated with open country and grassland suggests a dry, grassy open habitat across most of the site, perhaps with areas of scrub as tenuously indicated by the presence of rose-type and blackthorn/hawthorn thorns, as well as areas of disturbed ground due to human activity.

The extensive occurrence of hammerscale across most of the site but with concentrations around Trenches N, M, C and G indicates that iron smithing was being undertaken on the early and middle Saxon settlements. The distribution of hammerscale tends to match the higher densities of occupation debris and suggests that domestic and industrial buildings are likely to be located near these trenches.

The greatest concentrations of grain seem to be derived from the pit fills, particularly pit [002] within Trench C, with the exception of the fill of ditch [102], Trench F. The provisional identifications of bread-type wheat, hulled barley and oats constitute cereal crops typical of the Anglo-Saxon and Medieval periods (Greig 1991), where free-threshing bread wheat and rivet wheat, hulled barley, oats and rye were typically grown. In terms of potential economic evidence, the assemblages are limited due to the poor state of preservation and small quantities of grain, although barley does seem to occur with the greatest frequency, followed by wheat and then oat. Whether these patterns are an accurate reflection of the relative importance of a particular crop is difficult to ascertain and it is unlikely that further analysis of these assemblages will be able to elucidate this, although extensive sampling during any future excavation will.

It is evident from the presence of the burrowing snail *Cecilioides acicula* as well as worm capsules and worm granules in the majority of the samples that the deposits have been subject to varying degrees of bioturbation but there is little reason to suppose that this will have impacted appreciably upon the Saxon environmental assemblages since there is limited evidence for later activity on the site. The occurrence of spelt wheat, and the chaff of a glume wheat, is interesting because this species generally ceases to be cultivated by the middle Saxon period in Britain. Its occurrence in an early Saxon context might suggest some continuity of the use of the crop into the Saxon period or perhaps a relic contaminant in the bread wheat crop. The resolution of questions as to whether these occurrences of spelt represent continuity, residual charred cereals from earlier Roman activity or contamination of the new crop being grown can only be made when a larger number of samples from the site have been studied.

Conclusion

The environmental evidence gained from this assessment suggests an early and middle Anglo-Saxon settlement situated within a predominantly open grassland environment, with some disturbed ground and perhaps local areas of scrub, although the complete absence of woodland snail taxa suggests little real cover. The discarded domestic rubbish indicates a mix of pastoral activity with cattle, pigs and sheep/goat, and some domestic chickens and geese, and arable, with charred spelt wheat, bread wheat, barley and oats indicating the cultivation of cereals. A low incidence of chaff suggests that most of this cereal evidence probably derives from food preparation rather than crop processing and the assemblages suggest a consumer context. Other consumables include small (probably freshwater) fish and eel, which are likely to have been available locally, as well as mussel, which represents imported goods from the coast.

Despite a number of the cereal grains being identified to species and reflecting the crops typically grown during the Anglo-Saxon and Medieval periods, the remains of the cereal grain and chaff in all of the samples do not occur in sufficient quantity to constitute assemblages suitable for detailed statistical study. Collectively they would nevertheless allow some consideration of the importance of different crops, the ranges of weed taxa associated with the crops and the evidence, or lack of it, for agricultural crop processing and any further work on the site and the unassessed samples from this site and the McDonalds excavation can be expected to produce a good enough sample to tackle these questions.

The charcoal assemblages provide only limited scope for further analysis, samples 1 and 11 (the fills of pit [002], Trench C and pit [121], Trench A respectively) contain the greatest quantities of charcoal and further analysis may provide information relating to potential sources of fuel. In addition, small quantities of charcoal >6.7mm are present in samples 3, 20 and 26 (the fills of pit [018], Trench D, gully [199], Trench M and ditch [248], Trench P respectively) and may provide further evidence for exploited fuel resources as well as highlight

possible differences in the composition of the charcoal assemblages between feature types. Unfortunately the charcoal recovered from the postholes is not suitable for identification and so species selected for structural purposes cannot be determined on this occasion.

The assessed samples have shown that environmental evidence is present in all the samples and that it has the potential for illustrating spatial patterns on the site, environmental conditions, diet and aspects of the agricultural economy and possibly local trading in shellfish and perhaps sea fish. The site has also produced deposits that have been confidently dated to the early and middle Saxon period and therefore afford the opportunity for investigating potential changes in the local economy during this period. The fact that there appears to be little pre- and post-Saxon activity on the site is important since it reduces the complications that can arise through contamination when a site is multiperiod. If further archaeological work is undertaken on this site it is clear that the environmental evidence has considerable potential and could contribute significantly to the interpretation of the archaeology as well as the palaeo-economy and palaeo-environment of the site. The environmental evidence from the site at Quarrington (Taylor 2003) suggested some changes in the site economy between the early and middle Saxon periods and the Holdingham site affords a much better opportunity for looking for such evidence and testing it. There are already 54 processed samples from the adjacent McDonalds site, the sixteen assessed here and the additional sixteen not yet assessed, and any further excavation of the site can be expected to generate at least as much again. These collectively would constitute an extremely important early and middle Saxon environmental assemblage of at least regional importance and any future work should take account of all the Saxon samples from this evaluation and the previous excavation at the McDonalds site.

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Bibliography

Clapham, A.R, Tutin, T.G and Warburg, E.F 1962 *Flora of the British Isles* 2nd ed. Cambridge University Press

Carruthers, W. 1989 for 1988 Mystery object number 2 – animal, mineral or vegetable? *Circaea* 6(1)

Evans, J.G. 1972 *Lands Snails in Archaeology*, Academic Press

Greig, J.R.A 1991 The Britsh Isles. In Van Zeist, W., Wasylikowa, K. and Behre, K.E (eds) *Progress in Old World Archaeology, A retrospective view on the occasion of 20 years of the International Work Group for Palaeoethnobotany*, A.A.Balkema, Rotterdam

Kerney, M.P. and Cameron, R.A.D. *1979 A Field guide to the Land Snails of Britain and North-west Europe.* Collins

Taylor, G. 2003 An early to middle Saxon settlement at Quarrington, Lincolnshire. *The Antiquaries Journal*, 83, 231-80

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

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Table 2: Sleaford, Lincoln Road – SLLR06. Finds from the processed samples arranged by phase.

Date	Trench	Sample no.	Cont. no.	Samp. vol. (L)	Resi-due vol. (ml)	Pot £/#	Fe £/#	Coal wt. g.	Mag. wt. g.	H'scale no.	Slag wt. g	Fired earth/ daub wt. g.*	Bone wt g.	Comment
E-Sax	C	9	096	9	160	5/4.5			2	7			4	2x flint
E-Sax	H	13	142	9	130				2	2			17.5	pig, sheep/goat, eel
E-Sax	I	18^	178	24	150	3/4			3.5	10		+	8	
E-Sax	J	16^	186	9	600				2	2			1.5	
E-Sax	M	20^	198	8	300				2.5	18 (+2s)			8.5	
E-Sax	N	24^	229	11	1000	3/5			2.5	16 (+1s)			44	
E-Sax	N	25	235	11	300	1/1			3	15 (+1s)	3		26	3x flint, sheep/goat, pig, frog/toad
E-Sax	N	27	251	11	850		2/5.5		4	38 (+4s)			106	horse, cattle, sheep/goat
M-Sax	A	11^	120	8	180	1/<1			2	11 (+1s)		+	3.5	
M-Sax	B	2^	015	8	75	1/1			4	8 (+3s)		16	16	
M-Sax	C	1^	001	10	100	1/10			3	1		14	42	
M-Sax	C	10	098	10	250	9/10			2	5 (+1s)			10	cattle
M-Sax	C	15	150	10	100				2	5			8	pig, sheep/goat
M-Sax	C	32^	039	2	20				1	1 (+2s)			2.5	
M-Sax	C	5	086	10	200	8/14			2	13		<1	49	cattle, sheep/goat
M-Sax	C	8^	092	10	160	5/7.5			4	25 (+3s)	<1		29	11x flint.
M-Sax	D	3^	017	9	130				1	4 (+1s)		4.5	25	
M-Sax	D	4	025	5.5	200				1				<1	
M-Sax	G	7^	103	9	200	2/11.5			4	97 (+18s)		<1	29	
M-Sax	I	17	176	24	80				3	10		<1	<1	1x flint
M-Sax	O	22	202	10	50	2/11.5			2	6			8.5	sheep/goat
M-Sax	S	28^	264	8	1200	1/<1			2	1			1.5	
A M-Sax	F	6^	101	9	160	1/<1	1/2		3	3			17	1x Iron nail?
A M-Sax	H	12^	140	8	80	3/1.5			2	(1s)			22	
A-S	C	31^	037	2	25				2	2		27.5	3	Tile?
A-S?	P	26^	246	13	1000	2/3		3	3.5	9 (+2s)	3		4	
Med	J	19	194	29	700	9/5			9	57 (+2s)	7.5		29	2x flint, 1x burnt stone, 16.5, pig, sheep/goat
Med	R	23	224	8	350	1/<1			2	2			11.5	1x flint, cattle, sheep/goat
undated	H	14	146	8	30				2	1			2	frog/toad
undated	M	21	210	4	200	1/2			2	21			1	
undated	N	29	216	10	300				2	20			10	pig, sheep/goat, mouse, frog/toad
undated	N	30	239	10	400				2	12			2.5	1x flint, sheep/goat

^ - samples selected for assessment; £/# - sherd no/weight in g.; * frequency – +=1-10;++=11-50; +++=51=150; ++++=151-250; +++++=>250 items

Table 3: Sleaford, Lincoln Road - SLLR06. Environmental finds from the processed samples arranged by phase.

Date	Trench	Sample no.	Cont. no.	Samp. vol. in l.	Flot vol. (ml)	Char-coal */$	Charr'd grain *	Cereal chaff*	Charr'd seed *	Miner-alised seed*	Egg shell wt. g	Marine Shell */#	Fish bone wt. g	Snails */#	Comment
E-Sax	I	18	178	24	7.5	3/5	2		2					5/2	Bread wheat?, spelt wheat, barley, oat, goosefoot, goosefoot family; *Cecilioides acicula, Vallonia excentrica, Helicella itala, Pupilla muscorum, Vertigo pygmaea*; pig, rodent.
E-Sax	J	16	186	9	6	3/5	1		2					5/2	Indet. cereal, goosefoot, goosefoot family, dock, grass family; *C. acicula, P. muscorum, T. hispida, V. excentrica, V. pygmaea*; indet. bone.
E-Sax	M	20	198	8	3.5	2/3	1		2					4/2	Barley?, goosefoot, goosefoot family, dock, ?sedge; *C. acicula, V. pygmaea, V. excentrica, Cochlicopa sp., T. hispida, P. muscorum*; pig, frog/toad.
E-Sax	N	24	229	11	5	2/4			2					4/2	Goosefoot, goosefoot family, ?dock; *C. acicula, T. hispida, Cochlicopa* sp., *V. excentrica, P. muscorum, Trichia striolata*; cow, pig, sheep/goat, goose, frog/toad, wood mouse.
M-Sax	A	11	120	8	800	5/5	2~		2~					3/1	Wheat?, barley, goosefoot, dock, sedge; *C. acicula, T. hispida*; indet. bone.
M-Sax	B	2	015	8	6	3/5	2		2	1	<1			2/1	Barley, indet. legumes, sedge, grass family; mineralised 'nodes'?; *C. acicula*; cow, sheep/goat, weasel; ?chicken egg shell
M-Sax	C	1	001	10	160	5/5	3		3	1			<1	5/1	Bread wheat?, barley, oat, cabbage/mustard type, leguminous seed, goosefoot, goosefoot family, dock, plantain, daisy family, spike-rush, grass family, rose type thorn, mineralised seed?; *C. acicula*; pig, sheep/goat, rodent, indet. fish, eel.
M-Sax	C	8	092	10	15	5/5	2		1		<1			2/1	Wheat, barley, oat, goosefoot, medick/trefoil, ribwort plantain, daisy family, grass family; *C. acicula*; cow, sheep/goat (some burnt), frog/toad; thick indet. egg shell.
M-Sax	C	32	039	2	1.5	2/5	1		1					1/1	Indet. cereal, grass family; *C. acicula*; ?dog.
M-Sax	D	3	017	9	8.5	3/4	2		1					5/2	Wheat?, barley?, goosefoot, orache, leguminous seed; mineralised nodes; *C. acicula*;, *P. muscorum, Vallonia costata, T. hispida*, cow, sheep/goat, some burnt bone.
M-Sax	G	7	103	9	3.5	3/5	1	1	1	1				5/2	Barley, barley chaff, goosefoot; mineralised seed?; *C. acicula, V. excentrica, V. pygmaea, T. hispida*; cow, sheep/goat, frog/toad, eel.
M-Sax	S	28	264	8	1.5	2/3	1		1			<1		3/2	Barley?, goosefoot; *C. acicula, T. hispida, V. excentrica, P. muscorum*; mussel; indet. bone, frog/toad.
A M-Sax	F	6	101	9	8	3/5	3	1	2		<1	8		5/2	Wheat, spelt wheat, barley, oat, wheat chaff, goosefoot, medick/trefoil, stinking mayweed, blackthorn/hawthorn thorn; *C. acicula, H. itala, V.costata, V. excentrica, T. hispida, P. muscorum*; mussel; cow, sheep/goat, frog/toad, field vole, indet. fish.
A M-Sax	H	12	140	8	5	3/5	1		1					5/2	*C. acicula, P. muscorum, V. excentrica, T. hispida;* sheep/goat, frog/toad.
A-S	P	26	246	13	6	2/3	1							5/2	Indet. cereal; *C. acicula,V. excentrica, T. hispida, H.* cf. *itala, Helix* sp., *P. muscorum;* indet. bone, frog/toad, rodent.
A-S?	C	31	037	2	4	2/5	1	1	1				<1	2/1	Wheat?, wheat chaff, goosefoot, medick/trefoil; *C. acicula;* indet. bone (incl. fish), frog/toad, rodent.

frequency – 1=1-10; 2=11-50; 3=51=150; 4=151-250; 5=>250 items; */$ frequency - charcoal >2mm/<2mm; ~ - estimated abundance/diversity; */# frequency/species diversity – 1= 1-3, 2= 4-10, 3= 11-25, 4= 26-50, 5=>50 species, types, etc

Appendix 7

THE ANIMAL BONE

By Jennifer Kitch

Introduction

A total of 497 (6887g) fragments of animal bone were recovered by hand, during archaeological evaluation works undertaken on land at Lincoln Road, Holdingham, Sleaford, Lincolnshire.

Methodology

Identification of the bone was undertaken with access to a reference collection and published guides. All the animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present. Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (mouse size), small (rabbit size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was done using the criteria of Boessneck (1969) and Prummel and Frisch (1986). Where distinctions could not be made, the bone was recorded as sheep/goat (s/g).

The condition of the bone was graded using the criteria stipulated by Lyman (1996). Grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable.

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated for each taxon. Where fresh breaks were noted, fragments were refitted and counted as one.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982) and Levine (1982), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

Results

Condition

The overall condition of the bone was quite uniform within the assemblage. The majority of the assemblage occurs almost equally within grades 2 (46%) and 3 (51%) of the Lyman Criteria (1996), which is generalised to a good to moderate overall condition.

Butchery

A total of 15 fragments of bone displayed evidence of butchery. All but one of these fragments are from the early Saxon phase. All of the butchery marks are consistent with disarticulation, meat and marrow removal. The skeletal element representation for the main domestic species suggests that the entire carcass was initially present on site, indicating the butchery and utilisation was taking place in the locality rather than being transported on and off site as joints as a result of trade.

Burning

A total of 13 fragments of bone (77% from the early Saxon phase), displayed evidence of burning. Nine fragments from the total (69%) were recovered from trench C and probably represent hearth sweepings and incidental burning.

Gnawing

A total of 13 fragments of bone were recovered with signs of gnawing. In the most part this was carnivore gnawing, there was one fragment that displayed rodent gnawing. The presence of gnawing suggests the remains were left open to scavengers as part of or after the disposal process.

Species Representation
Table 2 below summarises the identified taxa for the hand collected assemblage by the phases of activity identified at Lincoln Road.

	Phase						
Taxon	**Early Saxon**	**Early-Middle Saxon**	**Medieval**	**Post-Medieval**	**Recent Deposits**	**Undated**	**Total**
Equid (Horse Family)	5		1			1	7
Cattle	46	4	3		4	5	62
Sheep/Goat	47	5	6	2	2	8	70
Pig	12	2				2	16
Goose	2						2
Duck						1	1
Bird	5	1				1	7
Large Mammal	96	11	2	2	6	9	126
Medium Mammal	88	15	1	3		14	121
Unidentified	57	9			8	11	85
Total	358	47	13	7	20	52	497

Sheep/goat were the most predominant species within the assemblage, closely followed by cattle. Pig and equid (horse family) are present in much smaller numbers. Goose and duck (Mallard) remains have also been identified within the assemblage.

Cattle, sheep/goat and pig were both present as skeletally mature and very young individuals within the assemblage, suggesting the breeding and utilisation of the animals were taking place on site. This also suggests, in the case of cattle and sheep/goat, that a mixed economy of dairy and wool farming was also taking place rather than just raising animals for meat.

Two fragments of *Equid* bone from pit [002] and from ditch [179] displayed evidence of cut marks and marrow extraction, indicating equids were processed for consumption as well as used for riding and traction. However it would be reasonable to assume that consumption of these animals would have only occurred after natural death or slaughtered when no longer useful.

Duck and goose are present in the assemblage in small numbers and often occur as a supplement to the diet.

The animal remains recovered from the environmental bulk samples (See appendix 6) generally reflect the same make-up of domestic species identified within the hand collected assemblage. In addition, smaller remains often too small to be collected by hand, have been recovered from the sieved assemblage. These are represented by small numbers of fish, eel, egg shell and further bird remains, such as goose and fowl which would have probably supplemented the diet of the settlement. Further to these animals micro species such as frog/toad, wood mouse, field vole and weasel have been identified within the sieved assemblage, these species are often associated with grassland scrub and are not unusual within rural settlement contexts.

Discussion
The main period of interest within the assemblage is the early and middle Saxon periods. The assemblage appears relatively typical of a producer settlement. Within these phases the largest number of animal bone was mainly recovered from trenches B, C and G, all occurring within the more northern aspects of the site. This may suggest a concentration of activity/settlement within this area.

The assemblage is too small at this stage to provide detailed data on the dietary economy, animal utilisation or husbandry practices taking place on site. However, any further excavation is liable to

yield much more bone of a good to moderate condition, with very good potential for establishing further detailed information on animal husbandry and utilisation on this site.

References

Baker, J, and Brothwell, D, 1980 *Animal Diseases in Archaeology*, Academic Press

Binford, L., 1981, *Ancient Men and Modern Myths*, New York: Academic Press.

Boessneck, J, 1969 Osteological Differences in Sheep (*Ovis aries* Linné) and Goat (*Capra hircus* Linné), in D Brothwell and E Higgs (eds) *Science in Archaeology*, Thames and Hudson, 331-358

von den Driesch, A, 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum

Grant, A, 1982 'The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates', in B Wilson *et al. Ageing and Sexing Animal Bones from Archaeological Sites*, BAR British Series 109, 91-108, Oxford

Halstead, P, 1985 A Study of Mandibular Teeth from Romano-British Contexts at Maxey, in F Pryor, *Archaeology and Environment in the Lower Welland Valley*, East Anglian Archaeology Report 27:219-224

Levine, M A, 1982 The Use of Crown Height Measurements and Eruption-Wear Sequences to Age Horse Teeth. In Wilson, B et al. *Ageing and Sexing Animal Bones from Archaeological Sites*. BAR British Series 109. 223 - 250

Lyman, R L, 1996 *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

Prummel, W and Frisch, H-J, 1986 A Guide for the distinction of species, sex and body size in bones of sheep and goat, *Journal of Archaeological Science* XIII., 567–77

Serjeantson, D, 1996 The Animal Bones, in *Refuse and Disposal at Area 16, East Runnymede: Runnymede Bridge Research Excavations,* Vol. 2, (eds) E S Needham and T Spence, British Museum Press, London

Silver, I, A, 1969, The Ageing of Domestic Animals, in D. Brothwell and E.S. Higgs, *Science in Archaeology*, Thames and Hudson.

SLLR 06
Key:

Codes and references used in cataloguing animal bone

Taxon: Species, family group or size category.
Non-species specific codes: -
: Equid- Horse Family
: Gadidae- Cod Family
: Passer- *Passerine,* Small songbirds i.e. Sparrow or Finches
: Turdid- *Turdidae,* Blackbird/Thrush family
: Corvid- *Covidae*, Crow family i.e. Crow, Rook or Jackdaw
: Galliform- Fowl or Pheasant
: Large Mammal – Cattle, Horse, Red Deer size
: Medium Mammal- Sheep/Goat, Pig, Dog, Roe Deer size
: Small Mammal- Cat, Rabbit size
: Micro Mammal- Mouse sized
: Unidentified- Not identified to species

Element: Skeletal element represented.
: Unidentified- Not identified to element

Side: L-Left, R- Right, B- Both

Zones: Records presence/absence of individual areas of the bone.
Based on Zone illustrations in Serjeantson, D, 1996 The Animal Bones, in *Refuse and Disposal at Area 16, East Runnymede: Runnymede Bridge Research Excavations,* Vol. 2, (eds) E S Needham and T Spence, British Museum Press, London.

Prox & Dist: Fusion of proximal and distal epiphyses
: X- Not present, F- Fused, U- Unfused, B- Unfused diaphysis and epiphysis present, V- Fusion Line visible.

Age Range: Age range based on age at fusion. Based on
Silver, I, A, 1969, The Ageing of Domestic Animals, in D. Brothwell and E.S. Higgs, *Science in Archaeology*, Thames and Hudson.

Path: Presence of pathology, details in notes column.

Butch: Presence of butchery, details in notes column.

Burnt: Presence of burning, details in notes column.

Gnaw: Presence of gnawing, details in notes column.

Worked: Fragment shows evidence of working, details in the notes column.

Fresh Break: Fresh break noted, fragments re-fitted as one bone.

Associated: Articulating or adjoining bones.

Measured: Measurements taken as according to Von den Driesch, A, 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum.

Tooth Wear: Tooth wear score for aging data, taken as according to:

- Grant, A, 1982 'The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates', in B Wilson *et al. Ageing and Sexing Animal Bones from Archaeological Sites*, BAR British Series 109, 91-108, Oxford
- Halstead, P, 1985 A Study of Mandibular Teeth from Romano-British Contexts at Maxey, in F Pryor, *Archaeology and Environment in the Lower Welland Valley*, East Anglian Archaeology Report 27:219-224
- Levine, M A, 1982 The Use of Crown Height Measurements and Eruption-Wear Sequences to Age Horse Teeth. In Wilson, B et al. *Ageing and Sexing Animal Bones from Archaeological Sites*. BAR British Series 109. 223 – 250

Surface: Taphonomies noted on the bone surface:
W- Weathered
A- Abraded
R- Rootlet etched
D- Chemical etching from digestion

Condition: Grades 0-5, where 0 = pristine and 5= indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. Based on Lyman, R L, 1996 *Vertebrate Taphonomy*, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

No.: Number of individual bones/fragments

(g): Weight in grams

Notes: Notes on observed taphonomies, differences and associations.

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
15	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	9	67	
15	Medium Mammal	Thoracic	B	N	N	N	N	N	N	N	N	U	U	N	N	N	N	N	N	N	N	X	2	1	3	
15	Medium Mammal	Lumbar	B	N	N	N	N	N	N	N	N	U	U	N	N	N	N	N	N	N	N	X	2	1	3	
15	Cattle	Phalanx (I)	R	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	Y	N	X	2	1	29	
15	Large Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	3	30	
15	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	4	37	
15	Cattle	Femur	R	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	22	
15	Cattle	Humerus	L	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	1	1	10	
15	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	X	3	1	5	Possible carnivore gnawing on the shaft
15	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	3	6	
15	Cattle	Carpal/Tarsal	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	7	
15	Cattle	Femur	R	N	N	N	N	Y	Y	N	N	X	U	N	N	N	N	Y	N	N	N	X	3	1	21	
15	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	6	Upper M3
15	Goose	Sternum	B	Y	Y	Y	Y	Y	Y	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	13	
15	Bird	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	Goose sized
15	Bird	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
15	Bird	Radius	X	N	N	N	N	Y	Y	N	Y	X	F	N	N	N	N	N	N	N	N	X	3	1	0	
15	Cattle	Skull- maxilla	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	21	Upper PM only
15	Large Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	9	
15	Sheep/Goat	Tibia	L	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	4	
15	Sheep/Goat	Humerus	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	4	
15	Sheep/Goat	Innominate	R	N	Y	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	6	
15	Medium Mammal	Innominate	L	N	N	N	N	N	Y	N	N	X	X	N	Y	N	N	N	N	N	N	X	2	1	4	Chopped through the pubis
15	Medium Mammal	Femur	L	Y	N	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	A	3	1	2	
15	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	6	11	
15	Cattle	Femur	L	Y	N	N	N	N	N	N	N	U	X	N	N	N	N	N	N	N	N	X	2	1	8	
15	Medium Mammal	Innominate	X	Y	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	15	
15	Large Mammal	Innominate	X	Y	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	27	
15	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	18	20	
15	Pig	Humerus	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	26	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
15	Cattle	Femur	L	N	N	Y	Y	Y	Y	N	N	X	X	N	Y	N	N	N	N	N	N	X	3	1	502	Large Possible chop on the posterior midshaft
15	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	93	
15	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	4	
15	Pig	Femur	R	N	N	Y	Y	Y	Y	N	N	U	X	N	N	N	N	N	N	N	N	X	2	1	53	quite large
15	Medium Mammal	Femur	L	N	N	N	N	N	N	N	Y	X	U	N	N	N	Y	N	N	N	N	X	2	1	14	Carnivore tooth puncture marks in the condyles
15	Cattle	Atlas	B	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	Y	N	N	N	N	Y	N	X	2	1	144	cuts across the dorsal surface
15	Pig	Femur	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	Y	N	N	N	N	X	2	1	8	possible carnivore gnawing on the distal end, v porous juv
15	Sheep/Goat	Metatarsal	L	Y	Y	Y	Y	Y	Y	N	N	F	U	N	N	N	N	N	N	N	N	X	2	1	10	
15	Sheep/Goat	Tibia	L	N	N	N	N	Y	Y	N	N	X	U	N	N	N	N	N	N	N	N	X	2	1	11	
15	Cattle	Innominate	L	N	N	N	N	N	N	Y	Y	U	X	N	N	N	N	N	N	N	N	X	2	1	24	
15	Large Mammal	Carpal/Tarsal	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	20	
15	Cattle	Skull- frontal	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	181	+ Both horncores
15	Cattle	Axis	B	Y	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	X	2	1	70	
15	Large Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	10	
15	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	30	
15	Equid	Mandible	R	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	53	
15	Large Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	24	
15	Large Mammal	Caudal	B	N	N	N	N	N	N	N	N	F	F	N	N	N	N	N	N	N	N	X	2	1	15	
15	Large Mammal	Sacrum	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	24	
15	Cattle	Mandible	L	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	Y	N	N	Y	X	3	1	135	
15	Goose	Humerus	L	Y	Y	Y	Y	N	N	N	N	F	X	N	N	N	N	N	N	Y	N	X	2	1	12	
54	Cattle	Skull	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	722	
1	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	6	
1	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	
1	Cattle	Metatarsal	R	Y	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	Y	N	X	2	1	31	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
1	Equid	Radius	R	Y	Y	N	N	N	N	N	N	F	X	N	Y	N	N	N	N	Y	N	X	2	1	121	Chop mark on the medial side of the shaft
1	Pig	Radius	L	Y	Y	N	Y	N	N	N	N	F	X	N	Y	N	N	N	N	Y	N	X	1	1	9	Single cut on the anterior shaft
1	Sheep/Goat	Radius	R	N	N	N	Y	N	Y	N	N	X	X	N	N	N	Y	N	N	N	N	X	2	1	7	Carnivore gnawing along the shaft
1	Sheep/Goat	Humerus	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	X	2	1	9	Carnivore gnawing on the shaft
1	Cattle	Innominate	L	N	N	N	Y	N	N	Y	N	F	X	N	N	N	N	Y	N	N	N	X	3	1	78	
1	Equid	Phalanx (I)	L	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	Y	N	X	1	1	58	
1	Medium Mammal	Lumbar	B	N	N	N	N	N	N	N	N	X	U	N	Y	N	N	N	N	N	N	X	3	1	11	porous juv, chopped diagonally through the body
1	Large Mammal	Scapula	X	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	47	
1	Cattle	Mandible	R	Y	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	42	
1	Cattle	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	19	Upper Molar
1	Sheep/Goat	Mandible	L	N	Y	N	N	N	N	N	N	X	X	N	N	Y	Y	N	N	N	N	X	2	1	7	Partially charred black. Possible rodent gnawing on the diastama
1	Sheep/Goat	Mandible	X	N	N	Y	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	2	Small fragment charred black
1	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	2	
1	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	2	
1	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	0	burnt grey/white
1	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	4	Burnt black/white
1	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	13	
1	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	3	9	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
101	Cattle	Metatarsal	L	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	Y	N	X	2	1	123	
101	Cattle	Metatarsal	R	Y	Y	Y	Y	Y	Y	N	N	F	X	N	N	N	N	Y	N	Y	N	X	3	1	121	
101	Sheep/Goat	Humerus	L	N	N	Y	Y	Y	Y	Y	Y	X	F	N	N	N	N	N	N	Y	N	X	3	1	24	
101	Sheep/Goat	Humerus	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	Neo/infant
101	Sheep/Goat	Tibia	L	N	N	N	Y	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	X	4	1	8	
101	Pig	Tibia	R	N	N	N	Y	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	13	
101	Sheep/Goat	Metatarsal	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	7	
101	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	2	
101	Medium Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	11	
101	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	5	37	
101	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	R	4	1	17	
101	Medium Mammal	Femur	L	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	
101	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	6	
101	Large Mammal	Hyoid	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
101	Cattle	Mandible	L	N	Y	Y	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	60	
101	Large Mammal	Scapula	X	N	N	Y	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	13	
101	Sheep/Goat	Radius	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	
101	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	2	
101	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	8	14	
43	Cattle	Phalanx (I)	L	Y	Y	Y	Y	Y	Y	Y	Y	F	F	Y	N	N	N	N	N	Y	N	X	2	1	23	Slight osteophytic growth on the medial side, possible originally joined with adjacent
43	Cattle	Radius	R	N	N	N	N	N	N	Y	Y	X	U	N	N	N	N	N	N	N	N	X	2	1	30	
43	Cattle	Scapula	R	N	Y	Y	N	N	N	N	N	F	X	N	N	N	N	Y	N	N	N	X	2	1	71	
43	Cattle	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	34	Upper Molar
43	Cattle	Innominate	L	N	N	N	N	N	N	Y	N	X	X	N	N	N	N	N	N	N	N	X	3	1	34	
43	Pig	Mandible	L	N	N	Y	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	2	1	34	
42	Cattle	Metatarsal	R	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	Y	Y	N	N	N	X	3	1	60	Possible carnivore gnawing on the proximal end
42	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	12	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
42	Medium Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	Juv/neo
42	Cattle	Phalanx (III)	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	Y	N	X	2	1	19	Complete
42	Cattle	Innominate	L	N	N	N	N	N	N	Y	Y	U	X	N	N	N	Y	N	N	N	N	X	3	1	19	Carnivore gnawing on the acetabulum
42	Large Mammal	Mandible	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	2	1	10	Partially charred black
42	Sheep/Goat	Mandible	R	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	
84	Cattle	Femur	R	N	N	N	Y	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	53	
84	Large Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	Y	N	N	N	N	N	N	X	3	1	11	Chopped on the articular facet
84	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	5	
84	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
84	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	0	Burnt grey
51	Cattle	Scapula	L	N	N	Y	N	Y	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	42	
51	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	1	
27	Sheep/Goat	Radius	R	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	10	
27	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	1	1	2	
27	Sheep/Goat	Tibia	R	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	12	
27	Sheep/Goat	Radius	R	N	N	Y	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	
27	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	X	3	1	4	Carnivore gnawing on the proximal end
27	Large Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	31	
27	Large Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	5	Transverse process
27	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	5	Upper molar
27	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	4	
27	Bird	Tarso-metatarsus	X	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	Small fowl?
92	Sheep/Goat	Skull	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	12	
92	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	17	
92	Cattle	Metapodial	R	N	N	N	N	N	N	Y	Y	X	F	N	Y	N	N	N	N	N	N	X	2	1	69	Chopped through distal shaft
92	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	
92	Cattle	Mandible	L	Y	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	36	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
92	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	0	Burnt white
92	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	3	
92	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	
86	Sheep/Goat	Radius	L	N	N	Y	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	
86	Cattle	Radius	L	Y	N	Y	Y	N	N	N	N	F	X	N	N	N	N	N	N	N	N	X	2	1	76	
86	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	5	11	
86	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	0	
86	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	7	
86	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	4	Burnt grey/white
86	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	1	Burnt grey
86	Medium Mammal	Hyoid	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	
86	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	3	1	7	Lower M3=h
86	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	3	1	2	Lower dpm4= h
86	Cattle	Mandible	R	N	N	N	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	23	
86	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	3	
17	Cattle	Scapula	R	N	N	Y	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	59	
17	Sheep/Goat	Mandible	L	N	N	N	N	N	N	Y	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
17	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	
88	Large Mammal	Radius	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	42	
53	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	0	
60	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	
60	Sheep/Goat	Ulna	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	Y	N	N	N	N	X	2	1	2	carnivore gnawing on the articulation
30	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	1	1	2	
30	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	1	
37	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
37	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	3	Upper M2
21	Cattle	Carpal/Tarsal	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	12	
58	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	
82	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
19	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	0	
98	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	
98	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	3	Burnt brown
98	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	3	1	5	Lower M1=f
103	Cattle	Metacarpal	L	Y	Y	Y	Y	N	N	N	N	F	X	N	Y	N	N	N	N	N	N	X	2	1	131	Chopped/smashed midshaft
103	Pig	Innominate	L	Y	Y	Y	Y	Y	Y	Y	Y	F	X	N	N	N	N	Y	N	N	N	X	2	1	60	
103	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	23	
103	Cattle	Mandible	L	N	N	N	N	N	Y	Y	Y	X	X	N	N	N	N	Y	N	N	N	X	3	1	56	
103	Pig	Skull- maxilla	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	45	Juv
103	Pig	Skull- maxilla	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	7	Juv
103	Medium Mammal	skull- palatine	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	12	
103	Large Mammal	Thoracic	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	34	Spinous processes
103	Medium Mammal	Thoracic	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	4	Spinous process
103	Cattle	Phalanx (III)	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	Y	N	X	2	1	20	Complete
103	Sheep/Goat	Humerus	L	N	N	Y	Y	Y	Y	Y	Y	X	F	N	Y	N	N	N	N	Y	N	X	2	1	30	Cut on the medial shaft abover the condyle
103	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	12	
103	Sheep/Goat	Tibia	L	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	8	
103	Sheep/Goat	Metacarpal	X	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	5	Posterior shaft
103	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	6	
103	Sheep/Goat	Mandible	L	N	Y	Y	Y	N	N	N	N	X	X	N	N	N	N	Y	N	N	Y	X	2	1	48	
103	Sheep/Goat	Scapula	L	Y	Y	Y	Y	Y	Y	Y	Y	F	X	N	N	N	N	Y	N	Y	N	X	2	1	23	
103	Sheep/Goat	Scapula	L	Y	Y	Y	Y	Y	Y	N	Y	F	X	N	N	N	N	N	N	Y	N	X	3	1	13	
103	Sheep/Goat	Femur	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	4	
103	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	13	
103	Medium Mammal	Hyoid	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	
103	Medium Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
103	Sheep/Goat	Innominate	L	N	Y	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	X	2	1	10	Carnivore gnawing on the illum

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
103	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	9	24	
103	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	73	
103	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	Y	N	N	N	N	N	N	X	2	1	4	Three cuts on the lateral side of the blade
103	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	Y	N	N	N	N	N	N	X	2	1	12	Cut on the medial side of the neck
103	Cattle	Ulna	L	N	N	N	N	N	N	Y	N	X	X	N	N	N	N	N	N	N	N	X	3	1	6	
103	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	6	28	
103	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	
103	Sheep/Goat	Humerus	L	N	Y	N	N	N	N	N	N	F	X	N	N	N	N	Y	N	N	N	X	2	1	9	
103	Pig	Humerus	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	12	
103	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	8	
142	Pig	Skull	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	166	
142	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
142	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	3	
142	Medium Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
142	Large Mammal	Skull- temporal	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	41	
142	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	
142	Bird	Tarso-metatarsus	X	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	Fowl size
150	Cattle	Scapula	R	Y	Y	N	Y	Y	N	N	N	F	X	N	Y	N	N	N	N	N	N	X	3	1	84	Chopped and trimmed along the spinous process
150	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	X	2	1	29	Carnivore gnawing on one end
150	Large Mammal	Scapula	L	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	27	
180	Cattle	Axis	B	N	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	22	
180	Equid	Metatarsal	L	Y	Y	Y	Y	N	N	N	N	F	X	N	Y	N	N	N	N	Y	N	X	3	1	80	Smashed midshaft, two cuts on the anterior shaft, below lip of articulation

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
180	Cattle	Innominate	L	N	N	N	N	N	N	Y	N	X	X	N	N	N	N	N	N	N	N	X	2	1	48	
180	Cattle	Metacarpal	L	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	33	
180	Equid	Tibia	R	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	59	
180	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	5	8	
180	Sheep/Goat	Tibia	R	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	8	
180	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	6	
180	Sheep/Goat	Scapula	R	N	N	N	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	11	
180	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	3	8	
180	Pig	Tooth	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	3	Broken molar
180	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	4	1	1	Burnt white/grey
180	Medium Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	
180	Sheep/Goat	Skull- premaxilla	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
180	Cattle	Radius	R	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	14	
180	Medium Mammal	Atlas	X	Y	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	6	
180	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	6	22	
198	Sheep/Goat	Phalanx (I)	L	N	N	Y	Y	Y	Y	Y	Y	U	F	N	N	N	N	N	N	N	N	X	2	1	2	
198	Sheep/Goat	Tibia	R	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	
198	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	10	
198	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	9	
198	Cattle	Radius	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	18	
198	Sheep/Goat	Innominate	R	N	Y	Y	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	9	
198	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	4	
198	Medium Mammal	Scapula	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	3	Blade fragment
198	Large Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	4	
231	Sheep/Goat	Mandible	L	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	17	
231	Large Mammal	Cervical	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	17	
231	Duck	Tibio-tarsus	L	N	N	N	N	Y	Y	Y	Y	X	F	N	N	N	N	N	N	Y	N	X	2	1	1	
208	Cattle	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	7	Broken upper PM/M
208	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	2	1	3	Lower M1=d
140	Cattle	Mandible	L	N	N	N	N	Y	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	3	1	63	
140	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	7	
140	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	
140	Large Mammal	Skull- nasal	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	3	
140	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	Y	N	N	N	N	N	X	3	1	1	Burnt black

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
255	Sheep/Goat	Ulna	R	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	2	
255	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	
255	Sheep/Goat	Metapodial	X	N	N	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	X	2	1	1	Shaft fragment
255	Cattle	Innominate	R	N	N	N	N	N	N	Y	N	F	X	N	Y	N	N	N	N	N	N	X	2	1	51	Chopped through the acetabulum
251	Sheep/Goat	Calcaneus	R	N	Y	N	N	Y	Y	Y	Y	F	X	N	N	N	N	N	N	N	N	X	3	1	5	
251	Cattle	Phalanx (II)	L	N	N	Y	Y	Y	Y	Y	Y	X	F	N	N	N	N	N	N	N	N	X	3	1	14	
251	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	6	
251	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	R	3	6	31	
251	Large Mammal	Mandible	X	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	
251	Sheep/Goat	Metatarsal	L	N	Y	N	N	N	N	N	N	F	X	N	N	N	N	N	N	N	N	X	3	1	2	
251	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	3	
229	Sheep/Goat	Tibia	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	R	3	1	14	
229	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	3	16	
229	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	3	5	
229	Cattle	Phalanx (II)	R	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	N	N	R	2	1	10	
229	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	2	1	5	Lower M2=e
229	Sheep/Goat	Femur	L	N	N	Y	Y	N	N	N	N	U	X	N	N	N	N	N	N	N	N	X	3	1	9	
229	Sheep/Goat	Mandible	X	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	5	No teeth in occlusion
229	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	3	
186	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	1	1	5	
186	Cattle	Scapula	R	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	21	
186	Cattle	Scapula	L	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	24	
186	Sheep/Goat	Tibia	L	N	N	N	N	Y	Y	Y	Y	X	F	N	N	N	N	N	N	Y	N	X	3	1	17	
186	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	0	
202	Pig	Axis	B	Y	Y	Y	Y	Y	Y	N	N	U	U	N	N	N	N	N	N	N	N	X	2	1	7	Highly porous
202	Cattle	Innominate	L	N	N	N	N	N	N	Y	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	37	
202	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	
241	Cattle	Skull	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	52	
133	Large Mammal	Thoracic	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	1	1	41	
133	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	3	
133	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	2	
133	Sheep/Goat	Radius	R	N	N	Y	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	3	
165	Large Mammal	Scapula	X	N	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	21	
165	Large Mammal	Scapula	X	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	
192	Cattle	Mandible	L	N	Y	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	3	1	24	

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
192	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	5	
192	Cattle	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	Lower insicor
192	Cattle	Tooth	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	7	Lower broken molar
192	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	5	
213	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	17	
213	Pig	Femur	L	N	N	N	N	N	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	3	
213	Medium Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	0	
213	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	4	1	0	
213	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	3	5	
213	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
188	Sheep/Goat	Humerus	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
136	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	5	
176	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	4	1	0	
184	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	4	1	1	
233	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	0	
122	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	2	
122	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	0	
154	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
226	Cattle	Mandible	R	N	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	11	
130	Pig	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	Upper Male canine
107	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	4	2	2	
127	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	2	
127	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	4	
235	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	3	6	
235	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	10	
235	Medium Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
235	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	Upper M3
235	Pig	Metapodial	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	4	Shaft fragment
235	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	Lower incisor
235	Sheep/Goat	Tooth	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	2	Broken upper molar

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
235	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
235	Bird	Phalanx (I)	R	Y	Y	Y	Y	Y	Y	Y	Y	F	F	N	N	N	N	N	N	N	N	R	2	1	1	
235	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	10	
160	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	2	1	2	Lower M1= h
160	Cattle	Scapula	L	N	N	N	Y	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	24	
146	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	4	Upper molar
146	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	7	
237	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
246	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
212	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	13	
212	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	
135	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	Y	N	N	N	N	X	3	1	14	Possible carnivre gnawing on the shaft
135	Equid	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	9	Upper incisor
254	Equid	Metapodial	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	8	Broken residual metapod
254	Sheep/Goat	Metacarpal	R	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	7	
254	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	7	
254	Sheep/Goat	Radius	L	N	N	N	N	Y	Y	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
254	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	Y	X	2	1	8	Lower M3=e
216	Sheep/Goat	Phalanx (I)	L	N	N	Y	Y	Y	Y	Y	Y	U	F	N	N	N	N	N	N	N	N	X	2	1	2	
216	Sheep/Goat	Tooth	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	Molar fragment
216	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	3	
216	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	3	3	
215	Cattle	Metapodial	R	N	N	N	N	N	Y	N	N	X	F	N	N	N	N	N	N	N	N	X	2	1	17	
215	Sheep/Goat	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	0	Lower incisor
215	Sheep/Goat	Tooth	R	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	Broken lower M1
215	Medium Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	1	Transverse process
215	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	2	2	
215	Bird	Coracoid	X	Y	Y	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	1	1	Goose size? Further ident?

Ctxt No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Burnt	Gnaw	Fresh Break	Assoc'd	Measur'd	Tooth Wear	Surface	Condition	No	(g)	Notes
163	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	4	
239	Sheep/Goat	Mandible	R	N	Y	Y	Y	N	N	N	N	X	X	N	N	N	N	Y	N	N	Y	X	3	1	14	
249	Medium Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	2	2	4	
249	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	0	
172	Medium Mammal	Skull	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	1	2	
194	Large Mammal	Long Bone	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	3	2	
194	Sheep/Goat	Tooth	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	Y	N	N	N	X	2	1	2	Fragmentary molar
194	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	X	3	4	3	

Appendix 8

GLOSSARY

Bronze Age — A period characterised by the introduction of bronze into the country for tools, between 2250 and 800 BC.

Chapel of Ease — A chapel provided for those that lived at some distance from the main parish church.

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.

Dumped deposits — These are deposits, often laid down intentionally, that raise a land surface. They may be the result of casual waste disposal or may be deliberate attempts to raise the ground surface.

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).

Geophysical Survey — Essentially non-invasive methods of examining below the ground surface by measuring deviations in the physical properties and characteristics of the earth. Techniques include magnetometry and resistivity survey.

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.

Redeposited — An artefact that is redeposited is one that has been removed in the past from its original place of deposition. Redeposition can introduce earlier artefacts into later deposits, ie. medieval or post-medieval ditch or pit digging may have invaded Roman levels, bringing Roman artefacts to the surface. When the medieval/post-medieval features are infilled the Roman artefacts become incorporated with those deposits; these Roman artefacts are said to be redeposited. If the age differences within an assemblage are not great it is sometimes difficult to determine if an artefact is redeposited or residual (*q.v.*).

Residual	Artefacts that are noticeably earlier than others in an assemblage are often described as residual. Residual artefacts may be ones that were used for a very long time, or items that were maintained as heirlooms/antiques. If the dates of artefacts within a group do not exhibit major differences it can be difficult to determine if an artefact is residual or redeposited (*q.v.*)
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.
Saxon	Pertaining to the period dating from AD 410-1066 when England was largely settled by tribes from northern Germany.

Appendix 9

THE ARCHIVE

The archive consists of:

284	Context records
8	Photographic record sheets
52	Scale drawings: plans
28	Scale drawings: sections
1	Stratigraphic matrix
32	Environmental sample sheets
3	Boxes 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:

The Collection
Art and Archaeology in Lincolnshire
Danes Terrace
Lincoln
LN2 1LP

Accession Number: 2006.68

Archaeological Project Services Site Code: SLLR 06

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.