PROPOSED POTATO STORE, EASTFIELD FARM, WINTERINGHAM, NORTH LINCOLNSHIRE

ARCHAEOLOGICAL EVALUATION REPORT

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NLCC Planning Ref.:	PA/2011/1186
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Prepared for

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by

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Summary

An archaeological evaluation consisting of five trial trenches was undertaken on land at Eastfield Farm, Winteringham, North Lincolnshire, to inform the planning process associated with the demolition of existing farm buildings and the construction of a new potato store.

The proposed development lies within the former Roman settlement of Old Winteringham, part of which is a Scheduled Ancient Monument (NMR Ref: 1005243, formerly NL8). The town was located at the terminus of Roman Ermine Street and the Humber crossing point. The extensive town surrounds Eastfield Farm on all sides.

Two of the trenches revealed a series of deposits interpreted as the construction layers of a road dating to the early Roman period. Two linear features encountered in Trench 5 were tentatively interpreted as possible roadside ditches. Other Roman features and deposits were also identified, but were too severely truncated or insufficiently exposed to be interpreted; however, specialist study of the finds and palaeobotanical analysis of soil samples indicates habitation (cooking and eating) and the possible keeping of domestic animals.

The Roman remains were sealed below layers of buried subsoil, buried topsoil and modern made ground associated with the construction of the existing farmyard surface that covers the excavation area. The made ground deposits were relatively shallow above the Roman road, but became much deeper towards the north of the evaluation area.

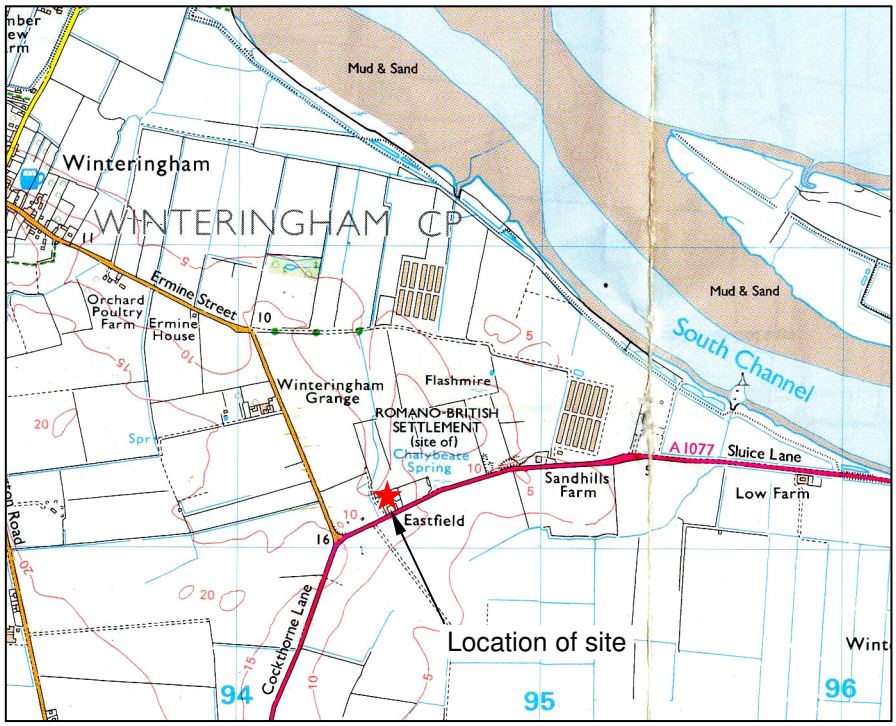


Figure 1: Location of Eastfield Farm at scale 1:25,000; the proposed development site is marked in red. OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278.

1.0 Introduction

Pre-Construct Archaeological Services Ltd (PCAS) was commissioned by A.F. Dowson & Sons Ltd. to undertake an archaeological evaluation of land at Eastfield Farm, Winteringham. Five trial trenches, between 8m and 24m in length, were investigated over the proposed footprint of a new potato store. The location of some of the trenches was slightly altered from that proposed in the specification due to the proximity of modern services and buildings, but still within the proposed development area.

2.0 Location and description (figs. 1 and 2)

The village of Winteringham is situated on the south bank of the River Humber c. 11km northeast of Scunthorpe, where the Lincoln Edge meets the Humber Estuary.

Winteringham parish was established at the northern section of Roman Ermine Street where it approached the River Humber. Eastfield Farm is located in the centre of the parish on the north side of the A1077, Sluice Lane.

The proposed development area (the 'site') occupies the north-eastern corner of the farmyard complex. It covers an L-shaped area measuring c. 66m by 64m, which covers an area of c. 0.25 ha and is centred on NGR SE 9446 2118. The site is bounded to the north by the existing farm compound, comprising compacted ground supporting temporary piles of sand and gravel. Immediately to the south-west and west are large modern store buildings. Open areas of compacted ground lie to the immediate east and south-east of the proposed development area. Three older farm buildings within the footprint are to be demolished to make way for the new development. An area of the farm c. 60m to the west has previously been quarried and landscaped and now forms an established wildlife pond. The A1077, Sluice Lane lies c. 50m to the south of the proposed building, beyond the Grade II listed farmhouse, which is a 20th century rebuild.

3.0 Geology and topography

The drift geology of the Winteringham area is mapped as glacial sand and gravel. The underlying solid geology is limestone, which belongs to the Hibaldstow Formation of the Jurassic era (BGS, 1983). The limestone geology of the Winteringham area is complicated by overlays of glacial boulder clays and alluvial silts from the river estuaries (NLC, 2005).

Eastfield Farm occupies a roadside location on the lower, eastern slopes of the Lincoln Edge on land between c. 11.00m and 11.95m AOD (Harrison and Co. dwg no. AD/011/03). The farm lies approximately 1km south of the Humber foreshore. To the south and east, the land falls gently to the Ancholme river valley. Aerial photographic plots, combined with 18th century observations made by the antiquarian William Stukeley have shown that the Roman town of Old Winteringham stood on a peninsula of high ground overlooking the marshes of the River Ancholme (Whitwell, 1983, p.103).

The site lies on or close to a spring line: a chalybeate spring (one whose water contains natural iron salts) appears on both old and current OS mapping to the east of the farm. The presence of a high level of iron salts within the local groundwater explains the heavily mineralised condition of a number of the archaeological deposits encountered during the evaluation.

4.0 Planning background

In October 2011, A.F. Dowson & Sons applied to North Lincolnshire Council for planning consent to construct a new 1900 tonne potato store at Eastfield Farm, Winteringham (Planning Ref: (PA/2011/1186). The proposed building would have covered an area of 0.11ha and measured 22.6m wide, 48.8m long and 8m high to the eaves (10.2m ridge height). This application was subsequently withdrawn and proposals for the current, larger development were prepared.

The revised proposals involve the demolition of three 20th century buildings and the construction of an L-shaped structure, 66m long, 63.81m wide and 8m high to the eaves, covering a total area of 0.255ha. The proposed L-shaped development consists of two elements. The first is a roughly east to west aligned potato store located to the north of an existing cement-clad store and a plastic-clad store built in 2008. The second is a roughly north to south aligned grading store with a small 10m x 6m office at the south-western end constructed by means of strip footings 600mm wide and 400mm deep. The construction of this half of the store would require the demolition of three existing single-storey farm buildings comprising a dilapidated tin, timber and asbestos building built in the mid 1960's, a stone and timber barn with brick quoins dating to the late19th – early 20th century, and a brick store/stable of a similar date.

The construction will require 45 foundation pits that will impact an area of c. 0.007ha and will be dug from existing ground level to a maximum depth of 400mm.

On the basis of a detailed Heritage Assessment of the site conducted by PCAS in March 2012, the Historic Environment Officer stipulated that an archaeological evaluation of the site should take place to inform an appropriate mitigation strategy.

5.0 Archaeological and historical background

A detailed archaeological assessment of the proposed development site and the surrounding 500m study radius has been provided in the form of a recent Heritage Statement and Impact Assessment, conducted in March 2012 (Francis, PCAS). For the purposes of this document, the following archaeological background is site-specific to the proposed development area only.

The extensive former Roman settlement of Old Winteringham (MLS2068), which extends over an area of c. 70 acres and is partly designated as a Scheduled Ancient Monument (SAM No. NL8; NMR Ref: 1005243), is located immediately adjacent (north-east) to the proposed development site. Parts of the complex were excavated in 1964-5 by Ian Stead (1976) who interpreted the site as a pre-Flavian fort and found evidence for the early construction of the two branches of Ermine Street.

A large number of archaeological interventions and investigations have taken place on and around the proposed development site over the past c. 50 years. The most recent include a geophysical survey (ELS2999) conducted in 2001 to the northwest of the farmyard, which identified a series of pits and ditches, suggesting a dense concentration of archaeological remains (Rylatt & Bunn 2001). In 2004, an archaeological watching brief was carried out to the south of Sluice Lane at SE 94570 21090 (c.110m southeast of the proposed development), ahead of gravel extraction. Evidence of a Late Bronze Age field system and two four-post structures was recorded (Rowlandson 2004).

A second phase of monitoring was carried out by PCA Lincoln in 2008, during the excavation of a further 37, 2-metre square foundation pits for a new grain store (ELS2917), (planning ref. PA/2007/1258) located to the immediate southwest of the proposed potato store. The pit excavations revealed deep deposits of modern made ground that extended down beyond the

1.0m depth limit of the pits. No archaeological features or deposits were encountered, although a number of residual Romano-British pottery sherds were recovered from the site (MLS20715). These were probably derived from topsoil stripping for mineral extraction to the west (Rowe, February 2008).

In 2010, an archaeological desk-based impact appraisal (ELS3585) was carried out by Pre-Construct Archaeological Services Ltd (PCAS), in advance of the construction of a new secure farm store on the very eastern edge of the farmyard, centred on NGR: SE 9452 2118. No archaeological impact was anticipated for the proposed 200mm ground reduction (Tann, November 2010).

In 1965, when archaeological excavations were being carried out on the adjacent Roman settlement, the construction of a Dutch barn (shown as Building 1 on fig. 2) on the proposed development site itself, revealed the remains of a Roman road – probably part of Roman Ermine Street (ELS2647). The road, located at NGR SE 9447 2118 - within the footprint of the proposed development - was examined by archaeologists in 1965 in both the yard and further to the northeast (ELS2648). In 1997 another section of Roman road metalling was observed during a watching brief less than 10m northeast of the current site (ELS2997). This almost certainly represents the same section of NNE/SSW-aligned road as that identified within the footprint of the proposed development.

6.0 Methodology

The evaluation comprised five trial trenches measuring between 8m and 24m long, situated within the footprint of the proposed potato store. Due to the presence of numerous buried services within the farmyard, Trenches 1-3 had to be shortened and moved slightly from their proposed positions, while Trench 4 had to be shortened to allow tractor access to Building 1. Trench 5 had to be repositioned because a temporary building had been sited at the west end of Buildings 2 and 3 (fig. 2; plate 10). All variations to the trenching plan were discussed and agreed with the North Lincolnshire HER Officer on site.

The trenches were mechanically excavated with a JS130 JCB tracked excavator fitted with a 1.2m toothless bucket under constant archaeological supervision to the first archaeological horizon or natural deposits, whichever was encountered first. Archaeological features were then hand excavated.

All deposits were cleaned and recorded. Trenches were drawn in plan at scales of 1:100 and 1:50, and sections were drawn at a scale of 1:20. The drawings were supplemented by a colour slide and black and white photographic record, with additional digital photographs, a selection of which are reproduced in Appendix 1. Deposits were recorded on standard PCAS recording sheets and an excavation site diary was also kept. Finds were stored in labelled plastic bags prior to their removal to PCAS offices for initial processing. Environmental samples were taken where appropriate and sent to the University of Durham Archaeological Services for processing and assessment (Appendix 6)

Following the completion of the fieldwork, ceramic finds recovered from the site were submitted to Ian Rowlandson and Jane Young for identification and assessment, while animal bone was submitted to Jennifer Wood. A single metal find was assessed by Gary Taylor (Appendices 3-5).

The fieldwork was carried out by Simon and Rachel Savage between 11th and 19th June 2012.

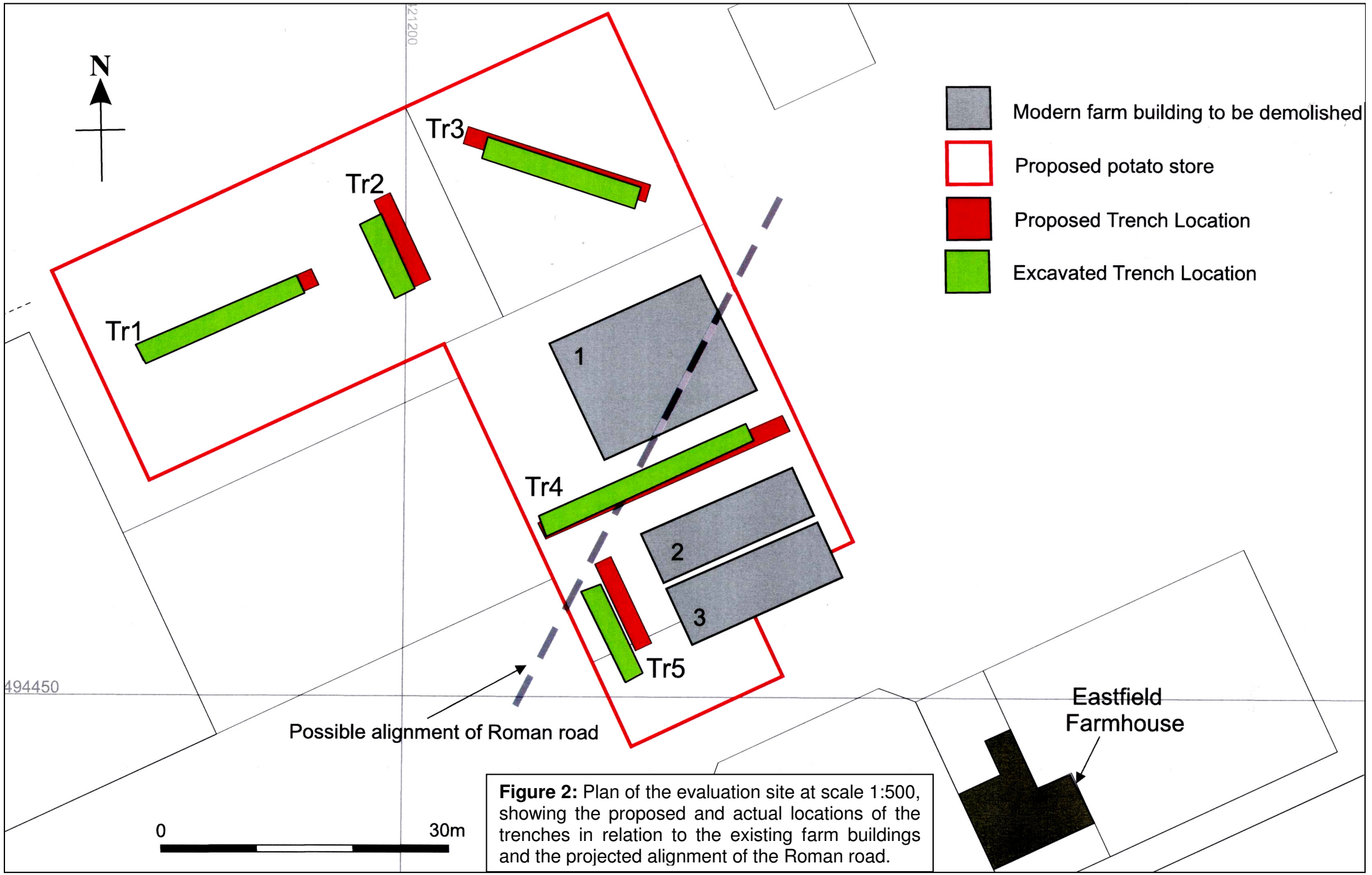


Figure 2: Plan of the evaluation site at scale 1:500, showing the proposed and actual locations of the trenches in relation to the existing farm buildings and the projected alignment of the Roman road.

7.0 Results

7.1 Trench 1 (fig. 3)

Natural silty sand 108 was exposed in a sondage at the north-east end of the trench at a depth of approximately 1.5m below existing ground level. Overlying this, within the sondage, was a shallow sandy silt layer 107, only a small portion of which was exposed. A small assemblage of late Neronian pottery was recovered from this layer, and an environmental sample produced charred grains of emmer or spelt wheat (Appendices 3 and 6). Above layer 107, also within the sondage, was a mineralised silt, sand and gravel layer 106, from which a sherd of early 3rd-century pottery was retrieved (Appendix 3). Both these layers appeared to fill a shallow depression in the north-western end of the trench, as neither extended to the south-eastern edge of the sondage (fig. 3a).

Overlying layer 106 and forming the base of the north-west end of the trench was a sandy silty clay deposit 105, up to 1.12m deep. A small assemblage of 3rd- to 4th-century pottery and a fragment of Roman brick was retrieved from this layer. To the south-east, layer 105 became shallower, and was overlain by a dark grey sandy clay 102. This increased in depth to a maximum of 1.16m towards the south-east, suggesting a deposit of made ground, but no artefactual material was observed within it.

The edge of layer 102 was cut by a shallow, bowl-shaped pit **104**: charcoal and small fragments of ceramic building material (CBM) were seen within its fill, but no datable material was retrieved.

A clayey sand layer 101, which overlay and slightly overlapped layer 102, contained modern rubble, and was probably a ground levelling deposit. It was overlain, and the trench sealed, by modern overburden 100, up to 1.06m deep, whose compacted upper surface formed the existing yard.

7.2 Trench 2 (fig. 3)

Trench 2 was excavated to 1.2m below existing ground level without encountering the natural substrate. The earliest layer exposed was a clay sand 202; excavated to a depth of 0.30m without penetrating the base of the deposit. This material was tentatively interpreted as a buried subsoil, which produced no dating evidence.

The apparent buried subsoil was overlain by a darker clayey sand layer 201, 0.26m deep, which may have been an associated buried topsoil, representing a former ground surface. Occasional flecks of CBM were seen in layer 201, but no fragments big enough to retrieve for identification were present, nor was any other datable material retrieved.

Trench 2 was sealed by modern overburden 100, up to 0.95m deep; as with layer 100 in Trench 1, this deposit contained quantities of modern rubble and refuse, and its compacted upper surface formed the existing yard (plate 4).

As no deposits or features of archaeological significance were encountered in Trench 2, it was drawn in section only (fig. 3d).

7.3 Trench 3 (fig. 4)

Natural sand 303 was encountered at approximately 1.5m below existing ground level, but was not exposed across the full length of the trench, as the deposits exposed sloped down towards the north-west (fig. 4c). A single small feature, pit **305**, was cut into natural 303 at the south-east end of the trench. The shallow, oval pit measured 0.50m x 0.46m and was no more than 0.08m deep (fig. 4b; plate 6). No finds were retrieved from its single fill 304, and

an environmental sample produced only a few charred seeds of wild species, possibly representing weeds of cultivation (the trench became flooded due to rainfall during recording, and the condition of the sample is noted in the environmental report (Appendix 6) as being poor).

As in Trench 2, two layers apparently representing a buried subsoil and topsoil were encountered. A possible buried subsoil 302, sealing pit **305** and overlying the natural sand, produced a small assemblage of Roman pottery datable to the Neronian period (AD 54-68) or later (Appendix 3); no finds were retrieved from a possible buried topsoil 301.

The trench was sealed by 300, a deposit of modern rubble and refuse up to 1.20m deep and displaying prominent tip lines, the compacted upper surface of which formed the existing yard (fig. 4a; plate 5).

7.4 Trench 4 (fig. 5)

Natural gravelly sand 415 was encountered at the south-western end of Trench 4 at approximately 0.85m below current ground level. This was stained reddish-brown by locally occurring iron salts, and mineralised in places.

Two layers were observed overlying the natural sand towards the centre of the trench. The lower deposit, a dark greyish-brown silty sand 410, could be equated to similar deposit 525 in Trench 5. In spite of the relatively small area exposed, eight sherds of mid-1st to early 2nd-century pottery were retrieved from this layer, with fragments of animal bone including cattle and sheep or goat (Appendices 3 and 4). Silty sand deposit 409, above 410, was mid-yellowish-brown in colour, mottled yellow and dark grey, seemingly corresponding to similar deposit 524 in Trench 5; no dating evidence was retrieved from it. A small sondage was excavated through layer 409, showing it to be approximately 0.2m deep; the base of underlying layer 410 was not reached. Both layers appeared to extend below the overlying deposits 411 and 412: 409 was exposed again at the north-eastern end of the trench, where it was described as context 413, while 410 was encountered in a second small sondage through 409, at the north-eastern end of the north-west facing section, where it was recorded as context 414 (fig. 5a; plate 7). A small fragment of CBM retrieved from the latter could not be identified with absolute certainty, but is most likely to be Roman (Appendix 3). These layers were tentatively interpreted as *agger* material, forming a raised causeway for the construction of a Roman road.

Towards the north-eastern end of the trench, layer 409 was overlain by 411, a compact patch of pebbles and cobbles in a matrix of sand. This deposit resembled road metalling, possibly representing part of the known Roman road. Sherds of pottery dating to AD 120 or later, including a sherd of samian ware, were retrieved from the surface of layer 411, which was not excavated. The apparent road construction layer was overlain by 412, a patchy spread of light yellow material, either crushed, degraded limestone or decayed lime mortar, which was also interpreted as part of the make-up of the road. These two deposits were noticeably raised above the level of the surrounding layers. Disturbed areas on the north-eastern side of the putative road construction deposits, filled with loose soil, were interpreted as being caused by plough damage, due to ploughs hitting the compacted stones of layer 411, bouncing up over it and then digging in on the other side (fig. 5a; plate 7).

At the exposed south-western edge of deposit 410, towards the centre of the trench, was a shallow pit **408**, which appeared to cut the edge of 410, although the dark colour of both the layer and the pit fill made this interpretation uncertain. Pit **408** was not fully exposed in plan, but appeared to be sub-circular: the exposed portion was c. 2m in diameter, but no more than 0.09m deep (fig. 5b; plate 8). Pottery from its fill 407 could be dated AD40-110, and included both native tradition and decorated samian ware (Appendix 3).

The south-western edge of pit **408** intersected the shallow, north to south aligned linear feature **406**, which cut the exposed natural sand and gravel at the south-western end of the trench. Both features had dark silty sand fills, and a section excavated at their junction failed to ascertain their stratigraphic relationship (plate 9). The pottery from ditch fill 405, which included a fragment of amphora, was identified as Neronian (AD 54-68), which falls within the date range of the finds from pit **408**, but may indicate that **406** was the earlier feature (Appendix 3). Due to the oblique angle at which the latter crossed the trench, a full profile could not be obtained, but it was at least 2.45m wide, and was 0.21m deep at the deepest excavated point (figs. 5c-e). The fills of both features were sampled for palaeoenvironmental assessment: the results were limited, but a small quantity of charred emmer or spelt wheat was retrieved from ditch fill 405, and a small quantity of charred barley from pit fill 407 (Appendix 6).

The pit and ditch were sealed by a possible buried subsoil layer 403, which covered the south-west end and the centre of the trench to a length of 19m and a depth of 0.30m (fig. 5e). A heterogeneous assemblage, 22 sherds, of Roman pottery retrieved from this layer during machining, included fragments of a cheese press and an unusual necked beaker with suspension loops, dated to the late 2nd century or later (Appendix 3). A possible former yard surface overlay layer 403 at the south-west end of the trench, layer 402, which consisted of limestone fragments in a sand matrix. This was seen only in the south-east facing section, where it extended for 5.5m and was 0.18m deep.

The possible buried topsoil 401 overlay the limestone surface, the buried subsoil and the possible road construction deposits to a depth of 0.40m. It was cut at the south-west end of the trench by a modern path, comprising a compacted hardcore surface on a bedding of sand and gravel within a flat-based, vertical-sided cut **404**. The trench was sealed by the modern yard surface, 0.34m deep compacted hardcore and rubble deposit 400.

7.5 Trench 5 (figs. 6 and 7)

Natural sand 526, stained mid-reddish-brown by mineral deposits, was encountered in Trench 5 at roughly 1m below existing ground level: it was not exposed in the trench base, but observed in the sides and bases of deeper features following excavation.

The natural sand was overlain by a sequence of deposits that appeared to represent the layered construction of a Roman road. The lowest deposit exposed, 523, was observed in a small sondage at the western trench edge and in the north side of adjoining ditch **509**. It consisted of a compacted bed of pebbles and small limestone fragments, with individual rounded cobbles and larger, worn-looking limestone fragments overlying it (plate 11). This layer was not excavated, but a sherd of Samian ware found lying on its surface was dated to the 2nd century AD (Appendix 3). It was sealed by a 0.11m deep silty sand layer 522, above which was a possible later surface, 521, made of flat limestone fragments lying 0.10m deep in a matrix that appeared to consist of either crushed limestone and sand or decayed lime mortar. The possible surface was covered by a further 0.10m deep silty sand layer, 520 (fig. 6a). No dating evidence was retrieved from any of these three layers, which were all excavated by sondage only and further identified in the north side of ditch **509**, but a small assemblage of animal bone, including cattle and sheep or goat, was retrieved from silty sand layer 522 (Appendix 4).

None of the layers seen in the sondage could be identified to the south of ditch **509** or to the north of linear feature **511**. In these areas, the natural sand was overlain by the dark greyish-brown silty sand 525, seen in the sides of cut features to a depth of 0.40m. This deposit may have corresponded to the similar layer recorded as 410 in Trench 4, and interpreted as possible *agger* material for the Roman road. Above layer 525, silty sand layer 524 had the same mid-yellowish-brown colouring, mottled yellow and dark grey, as layer 409 in Trench 4, also interpreted as possible *agger* material; this deposit was exposed by machining across much of the trench base (fig. 6b), but no finds were retrieved from it.

Sand layer 520 and part of the possible *agger* material 524 were overlain by deposit 518, a layer of small to medium-sized limestone fragments in a silty sand matrix. This layer was 5.94m long, but had been partially removed by machining, leaving only a portion between features **509** and **511** visible in plan (figs. 6a and 6b). As with the supposed road metalling layer in Trench 4, layer 518 was partially covered by patches of light yellow material, either crushed, degraded limestone or decayed lime mortar, here recorded as 519.

The south side of layer 518 appeared to be cut by a north-east to south-west aligned ditch **509**, although the depth of the layer tapered off to the south, and it is possible that it came to an end at the edge of the ditch (fig. 6a; plate 12). The ditch was1.56m wide and 0.70m deep, and was seen on excavation to contain three fills, although only two could be distinguished when the ditch section came to be recorded after a dry weekend (figs. 6a and 7a). The basal fill, 508, produced late 1st- to 2nd-century pottery, two animal bones, one of which could be identified as domestic dog, and a very well-preserved tinned copper alloy spoon, of a type commensurate with the pottery dating (Appendices 3, 4 and 5). Fill 507, which occupied the greater part of the ditch, produced an assemblage of 2nd-century pottery, with two animal bones, one of which could be identified as bovine; a few grains of charred spelt wheat were observed in an environmental sample (Appendices 3, 4 and 6). Although the final fill, 506, could not be identified when the feature was recorded, two sherds of late 2nd-century or later pottery and one of 15th- to 16th-century Humber ware, with a fragment of CBM that might have been either Roman or post-medieval, were retrieved from it during machining, suggesting that this ditch was not wholly infilled until the post-medieval period; a small animal bone assemblage included pig and sheep or goat (Appendices 3 and 4).

A second feature of probable Roman derivation, ditch **517**, ran on an east to west alignment across the north end of the trench, cutting layer 524. This was shallower than **509**, with a more regular profile; a small assemblage of Flavian pottery (c. 69-96 AD), including fragments from two Gaulish amphorae, was retrieved from its fill, which also contained bones of domestic animals including cattle, sheep/goat, pig and dog (Appendices 3 and 4). Its position at the northern edge of deposit 518 suggests that it might have been the opposite flanking ditch of the Roman road, although the alignment of the short section exposed within the trench does not coincide with that of ditch **509** or with the projected alignment of the road itself.

At the centre of the trench, layer 518 was cut by the narrower, east to west aligned linear feature **511**. This feature was only 0.70m wide and 0.33m deep, with a flat, even base (figs. 6a and 6b; plate 14). No dating evidence was retrieved from its fill. Its proximity to post-holes **513** and **515** initially suggested a beam-slot from a post-medieval structure, but its spatial and stratigraphic position, dug down the middle of the putative uppermost metalling layer of the Roman road but sealed by layer 505, suggests that, although it post-dates the road, it is not recent. It is possible that feature **511** represents a central drainage channel from a later period, when the road was still in use but was not regularly maintained.

Two large post-holes, **513** and **515**, were positioned close together between linear features **511** and **517**. These features were interpreted as being post-medieval in date, although their position towards the centre of the trench did not allow their upper stratigraphic relationships to be ascertained. The fills of both produced Roman pottery, but fill 512 in post-hole **513** also contained clay tobacco pipe, a fragment of brick provisionally identified as post-medieval, and a remnant of a wooden post (fig. 7b; plate 15).

Apart from the discrete features **513** and **515**, whose upper stratigraphic relationships were not ascertained, all features encountered in Trench 5 were sealed by buried topsoil 505. This layer was up to 0.44m deep, and produced a sherd of mid-16th- to 17th-century pottery as well as 3rd- to 4th-century material (Appendix 3). Above ditch **517** in the trench sections, layer 505 was overlain by 504, a deposit of rubble and limestone with a shallow, V-shaped profile (fig. 6a; plate 13). This was initially interpreted as the fill of a later ditch directly above **517** and

following the same course, but it seems more likely that it is a much later dump of levelling material filling in the hollow left by the subsidence of layer 505 into ditch **517**.

8.0 Discussion and conclusion

The deposits identified in Trenches 4 and 5 could confidently be identified as representing part of the structure of a Roman road, probably associated with at least one flanking ditch. Both trenches demonstrated what appeared to be a raised *agger*, built up from two discrete layers of material, with a metalled surface above it, on the same alignment as the section of road encountered by previous archaeological intervention on the site. In addition, Trench 5 displayed an earlier sequence of construction layers, with what appeared to be a further, well-worn metalled surface at the base; the *agger* of the later, larger road appeared to form an extension to the earlier road, widening it on the north side (where the agger of Ermine Street remains as a visible earthwork in the neighbourhood of Broughton and Appleby, it has been recorded as 45' wide and 4-5' high (Margary, 1973)). The dating evidence retrieved from these trenches indicates that the construction of the road was roughly contemporary with the period of use of the Roman fort in Lincoln, suggesting that the remains encountered here date back to the first extension of Roman rule north of the Lincoln frontier.

The datable archaeological deposits identified in Trench 1 were slighter and at greater depth than those in Trenches 4 and 5; no indication of a structure was encountered, nor could any interpretation be made of the small areas of Roman deposits exposed within a machined sondage. However, the dating evidence retrieved was contemporary with the earliest phases of the Roman road, and, as with Trenches 4 and 5, environmental evidence suggested that cereals were being prepared and consumed in the vicinity (the palaeoenvironmental assessment notes that the assemblages of charred cereal grains are likely to derive from cooking spills, rather than from the primary processing of harvested grain).

Towards the north of the evaluated area, the earlier ground surface declined markedly, and the trenches demonstrated an increasing depth of modern made ground. Although the former ground surface, in the form of a buried topsoil and subsoil, was exposed in Trenches 2 and 3, only a small portion of the underlying archaeological horizon, with a single small, undatable feature, was encountered in Trench 3, and none at all in Trench 2.

9.0 Effectiveness of methodology

The methodology applied was successful in demonstrating the presence of significant Roman remains in the south-eastern portion of the proposed development area. While archaeological remains have also been encountered, to a lesser extent, in the north-western portion, the depth of made ground, overlying buried topsoil and subsoil deposits, suggests that construction groundworks are unlikely to endanger any remains in this area.

The body of data produced by the archaeological evaluation is sufficient to inform the planning and development processes to follow.

10.0 Project archive

The project archive, currently in the custody of PCAS, will be deposited with two printed and bound copies of this report at North Lincolnshire Museum within 6 months of the completion of the report. It may be consulted there by citing the North Lincolnshire Museums accession code WGMDE.

11.0 Acknowledgements

Pre-Construct Archaeological Services Ltd. would like to thank A. F. Dowson and Sons Ltd. for this commission and for their co-operation during the groundworks. Thanks are also due to Alison Williams and Mike Hemblade, North Lincolnshire Historic Environment Record, for their advice during the project.

12.0 References

British Geological Survey (BGS), 1982, *Kingston upon Hull: England and Wales Sheet 80, Drift Edition, 1:50,000 Series*. BGS, Keyworth.

Francis, K. D., 2012, *Heritage Statement and Impact Assessment: Proposed Potato Store at Eastfield Farm, Winteringham, North Lincolnshire, DN15 9LZ*. Unpublished client report for Pre-Construct Archaeological Services Ltd.

Margary, I. D., 1973, *Roman Roads in Britain (3rd Edition)*, John Baker, London.

North Lincolnshire Council (NLC), 2005, *Winteringham Conservation Area Appraisal*.

Ordnance Survey, 2000, *Ancholme Valley, Barton-on-Humber, Brigg, Scunthorpe and Kirton in Lindsey: Explorer Series Sheet 281, scale 1:25 000*. The Ordnance Survey, Southampton.

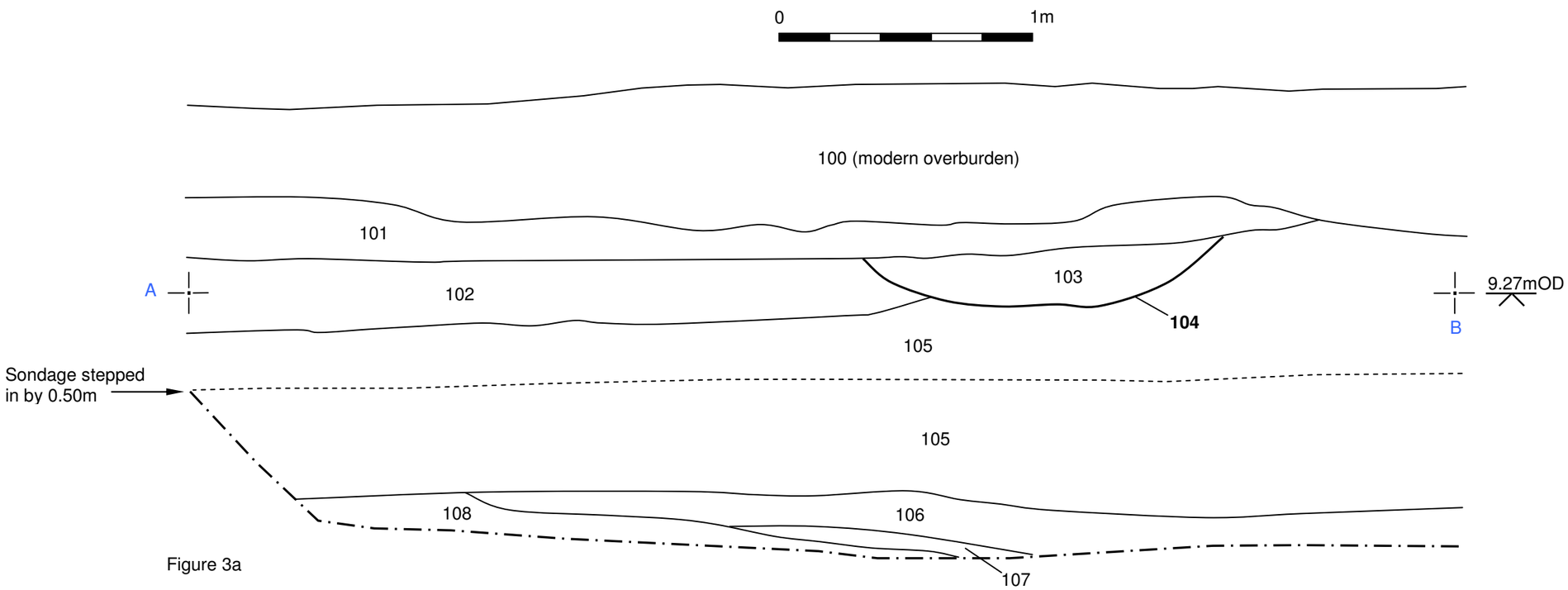
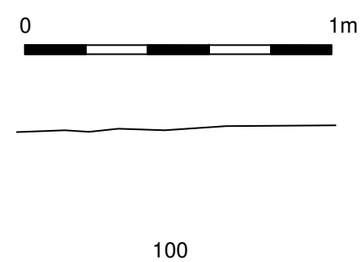


Figure 3a



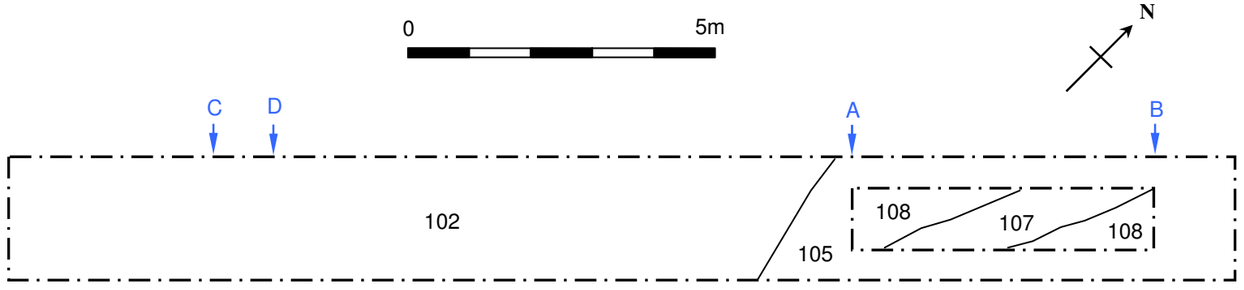


Figure 3c

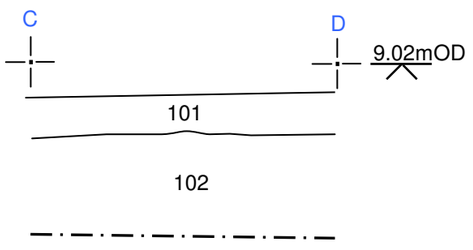


Figure 3b

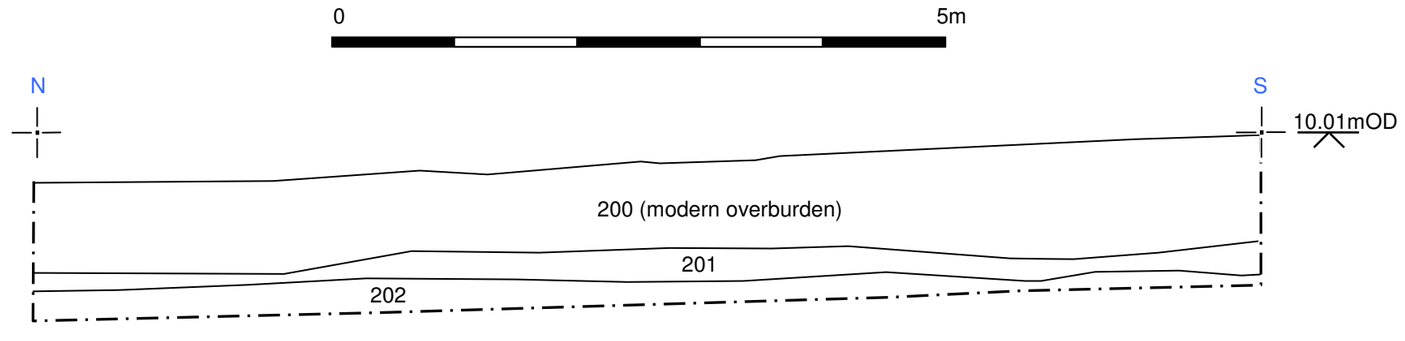


Figure 3d

Figure 3: Plan and section drawings in Trenches 1 and 2.

Figure 3a: Section of the Trench 1 sondage at scale 1:20

Figure 3b: Sample section in Trench 1 at scale 1:20

Figure 3c: Plan of Trench 1 at scale 1:50

Figure 3d: Full section of Trench 2 at scale 1:50.

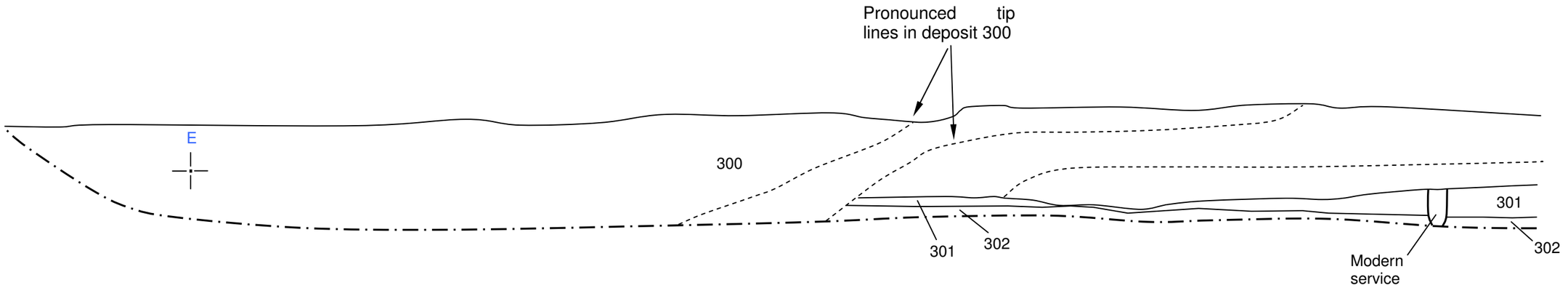
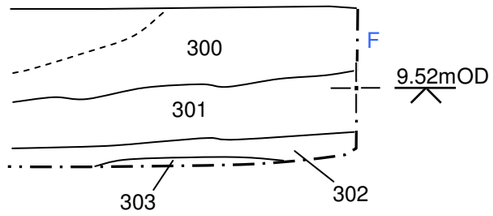


Figure 4a



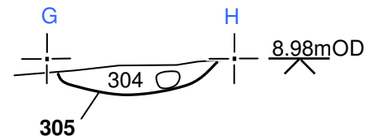


Figure 4b

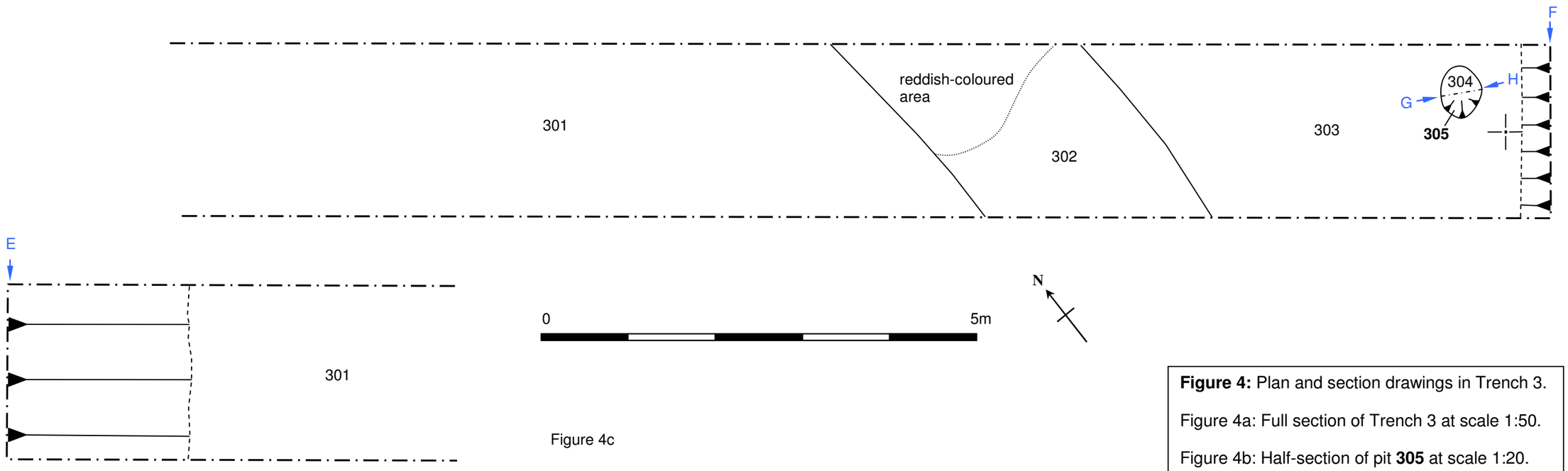


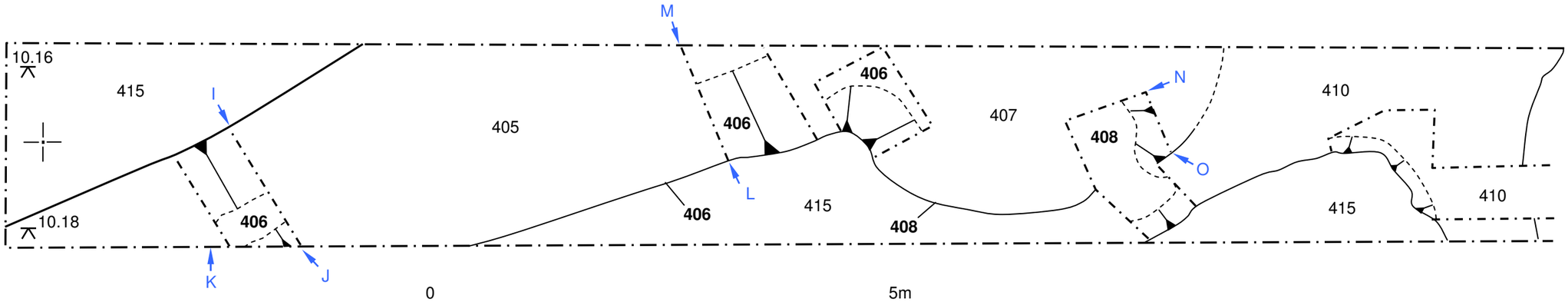
Figure 4c

Figure 4: Plan and section drawings in Trench 3.

Figure 4a: Full section of Trench 3 at scale 1:50.

Figure 4b: Half-section of pit **305** at scale 1:20.

Figure 4c: Plan of Trench 3 at scale 1:50.



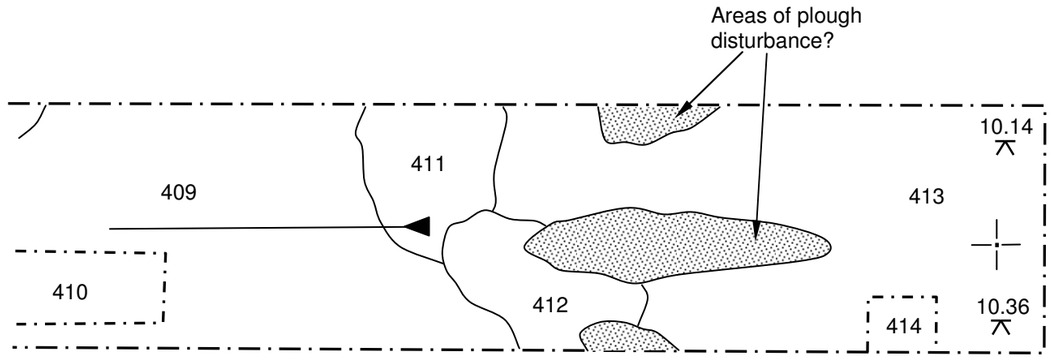


Figure 5a

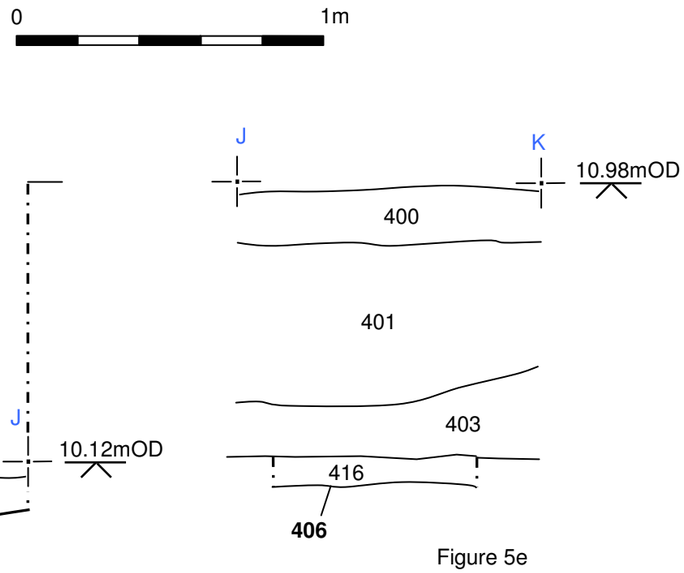


Figure 5d

Figure 5e

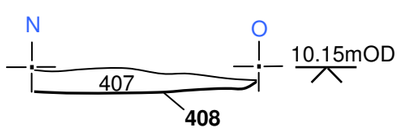


Figure 5b

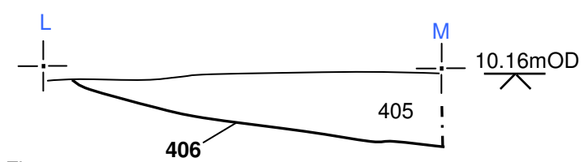


Figure 5c

Figure 5: Plan and section drawings in Trench 4.

Figure 5a: Plan of Trench 4 at scale 1:50.

Figure 5b: Section through pit **408** at scale 1:20.

Figure 5c: Section through linear feature **406** at scale 1:20.

Figure 5d: Section through linear feature **406** at scale 1:20.

Figure 5e: Section through linear feature **406** at scale 1:20.

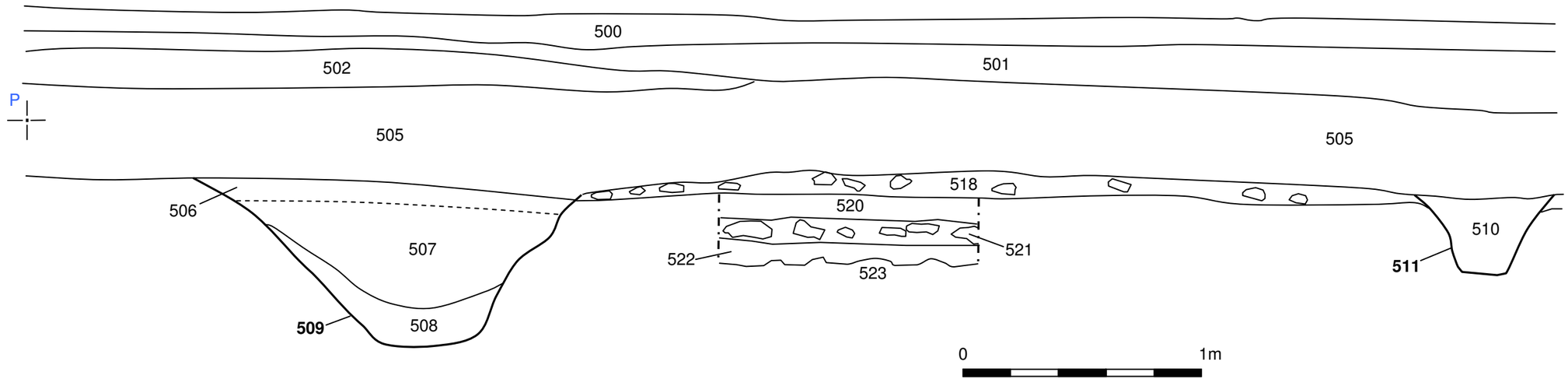


Figure 6a

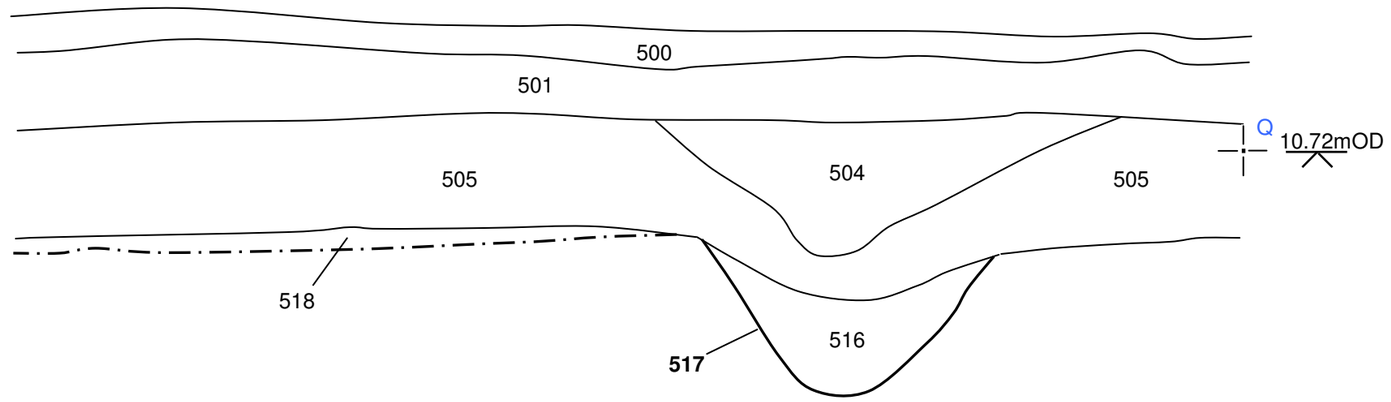


Figure 6b

Figure 6: Plan and section drawings in Trench 5.

Figure 6a: Full section drawing of Trench 5 at scale 1:20.

Figure 6b: Plan of Trench 5 at scale 1:50.

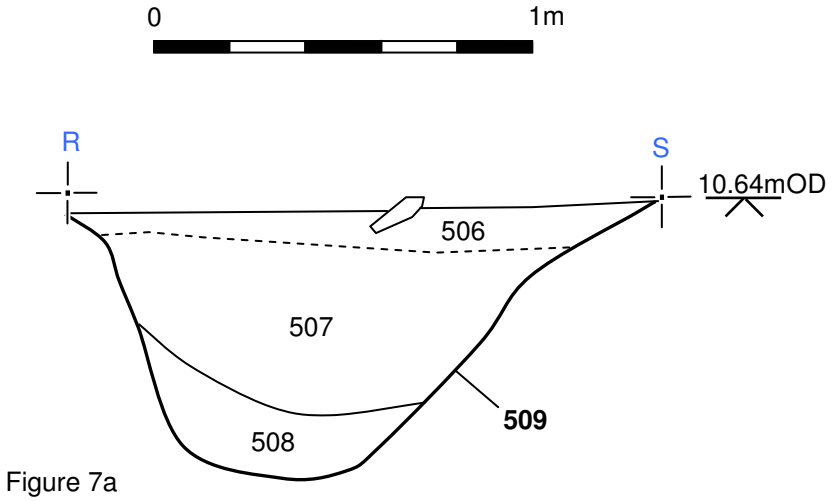


Figure 7a

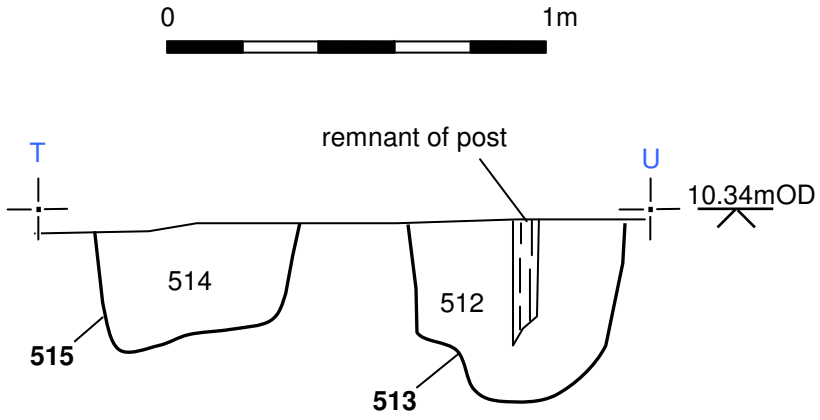


Figure 7b

Figure 7: Section drawings of individual features in Trench 5 at scale 1:20.

Figure 7a: Roman roadside ditch **509**

Figure 7b: Large post-medieval post-holes **513** and **515**

Appendix 1: Colour Plates

Plate 1: General view of the stackyard area before machining, looking SW.

Plate 2: General view of the stackyard area before machining, looking NE.

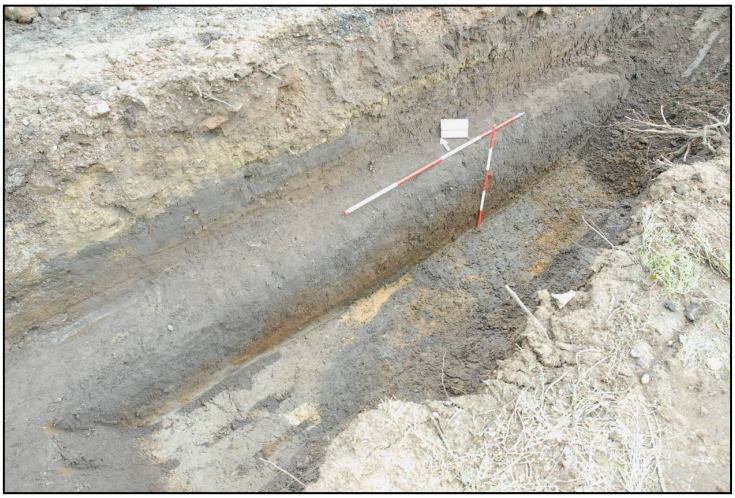


Plate 3: The SE facing section of the NE end of Trench 1, showing pit **104** in the upper portion of the trench and deposits 106 and 107 in the sondage.

Plate 4: Post-excavation shot of Trench 2, looking SE, showing the drawn section.

Plate 5: Post-excavation shot of Trench 3, looking SE, showing the N-facing section.

Plate 6: Remnant of small pit **305** in Trench 3.

Plate 7: General post-excavation shot of Trench 4, looking SW. The raised area possibly representing the metalling of a Roman road is towards the centre of the trench, while the disturbed areas interpreted as being caused by ploughing can be seen on the far side of the photographic scale.

Plate 8: Section excavated into shallow pit **408** in Trench 4, looking NW, showing natural 415 in the pit base and the uncertain relationship between the pit fill and dark layer 410 at the right-hand edge.

Plate 9: Two sections excavated into shallow ditch **406** in Trench 4, looking NE: its relationship with pit **408** (beyond) could not be ascertained.

Plate 10: General shot of Trench 5 post-excavation, looking S, showing its position relative to the temporary farmyard building.

Plate 11: Possible road surface 523 exposed in a sondage within Trench 5, looking E.

Plate 12: Section through Roman roadside ditch **509**, looking SW; the sequence of stony and sandy layers interpreted as road construction can be seen in the N side of the ditch, and the two layers of possible *agger* material in the S side.

Plate 13: Possible Roman roadside ditch **517**, looking W; deposit 504 can be seen above the ditch fill and layer 505.

Plate 14: Small, flat-based linear feature 511 in Trench 5, looking W.

Plate 15: Probable post-medieval post-holes **513** and **515** in half-section, looking NE; the remnant of a wooden post can be seen in post-hole **513** (on the right).

Appendix 2: Context Summary

Context no.	Type	Description	Finds/samples/dating
Trench 1			
100	Layer	Modern overburden: mid-brownish-grey friable clayey sand with quantities of modern rubble, 1.06m deep	Modern
101	Layer	Mottled mid-grey/yellowish-grey friable clayey sand containing pebbles, CBM fragments and pieces of asphalt; below overburden 100; 0.25m deep	Modern
102	Layer	Dark grey plastic sandy clay with moderate small pebbles and flint fragments; below layer 101; 1.16m deep	
103	Fill	Dark brownish-grey soft plastic sandy clay, mottled mid-brown, with frequent small limestone fragments and charcoal and CBM fragments; fill of pit **104**; 1.44m wide, 0.24m deep	
104	Cut	Possible shallow pit cutting layer 102; seen in SE facing section of trench; 1.44m wide, 0.24m deep	
105	Layer	Dark brownish-grey friable sandy silty clay with moderate small limestone and flint fragments; below layer 102; 1.12m deep	3rd- to 4th-century pottery; Roman brick
106	Layer	Mixture of silt, sand and gravel, mid-grey mottled dark reddish-brown (mineralization); below layer 105 in sondage; 0.20m deep	Early 3rd-century pottery
107	Layer	Mid-grey plastic sandy silt with occasional small pebbles; below layer 106 in sondage; 0.09m deep	Late Neronian pottery; sample <1>
108	Layer	Natural silty sand at base of sondage: light grey mottled yellow to mid-orange-brown, containing frequent small pebbles and flint fragments	
Trench 2			
200	Layer	Modern overburden: mid-brownish-grey friable clayey sand containing quantities of modern rubble and refuse, 0.95m deep	Modern
201	Layer	Dark brownish-grey friable clayey sand with moderate small pebbles and flint fragments and occasional CBM flecks, 0.26m deep. Possible buried topsoil below layer 200.	
202	Layer	Mid-brownish-grey friable clayey sand with moderate small limestone and flint fragments, below layer 201; excavated to a depth of 0.30m without being penetrated. Possible buried subsoil.	
Trench 3			
300	Layer	Modern rubble, max. depth 1.20m, displaying prominent tip lines and containing modern refuse, with a compacted surface	Modern
301	Layer	Dark brown friable clayey sand with occasional small flint fragments, probable buried topsoil below deposit 300, max depth 0.35m	
302	Layer	Probable buried subsoil below layer 301: similar to 301, but with mid-reddish-brown mottling and patches	Neronian or later pottery
303	Layer	Friable mid-reddish-brown natural sand	

Context no.	Type	Description	Finds/samples/dating
304	Fill	Fill of pit remnant **305**: 0.50m x 0.46m x 0.08m; dark greyish-brown friable silty fine sand with moderate small to medium pebbles and occasional charcoal flecks; layer of pea-gravel at base.	Sample <2>
305	Cut	Shallow pit base containing fill 304; 0.50m x 0.46m x 0.08m; heavily truncated and further disturbed by flooding of trench	
Trench 4			
400	Layer	Hardcore and rubble surface, up to 0.34m deep	Modern
401	Layer	Buried topsoil below 400: dark greyish-brown friable silty fine sand with occasional flint gravel, 0.40m deep	Mid-1st- to early 2nd-century pottery
402	Layer	Possible former surface below 401 in SE facing section at SW trench end only; 5.50m long x 0.18m deep	
403	Layer	Possible buried subsoil below 401 and 402 at SW trench end: friable silty medium sand, mid greyish-brown mottled dark yellow, with occasional small to medium limestone fragments; 19m long x 0.30m deep	Late 2nd-century or later pottery
404	Cut	Cut of modern track at SW trench end, cutting layer 401, filled by track bedding 417	
405	Fill	Dark brownish-grey friable silty fine sand containing occasional small flint fragments and gravel, filling ditch **406**; 0.21m deep	Neronian pottery, bone; sample <4>
406	Cut	Very shallow linear feature oriented roughly N-S, filled by 406 and 416 in different sections, c. 9m long x c.2.45m wide x 0.21m deep	
407	Fill	Fill of pit **408**: mottled mid greyish-brown/dark blackish-grey friable silty fine sand with moderate small pebbles and flint fragments, 0.09m deep	Pottery dating from AD40 to AD110; sample <5>
408	Cut	Very shallow pit, probably sub-circular but not fully exposed, cutting layer 410 and filled by 407; c. 2m in diameter x 0.09m deep	
409	Layer	Friable silty fine sand, mid-yellowish-brown mottled yellow and dark grey, with moderate charcoal flecks, moderate small pebbles and flint fragments and occasional medium limestone fragments, seen in a small sondage at NE trench end only. Possibly the same as deposit 524 in trench 5.	
410	Layer	Dark greyish-brown friable silty fine sand with occasional small pebbles and flint fragments, seen in a small sondage at NE trench end below layer 409. Not excavated.	Mid-1st to early 2nd-century pottery, bone, shell
411	Layer	Compact spread of pebbles and cobbles in a matrix of mid-brownish-grey medium sand: pebbles mostly small, but some up to 150mm x 80mm. Not excavated. Possibly part of Roman road.	Pottery of AD120 or later, shell
412	Layer	Patchy spread of light yellow material, either crushed limestone or decayed lime mortar. 1.2m long x 0.9m wide; not excavated.	
413	Layer	Same as 409: separated from it in plan by unexcavated deposits 411 and 412	

Context no.	Type	Description	Finds/samples/dating
414	Layer	Same as 410: separated from it in plan by unexcavated deposits 411 and 412	Bone, brick/tile probably Roman but possibly post-medieval
415	Layer	Natural mid-reddish-brown friable medium sand, becoming coarse and gravelly at SW end of trench	
416	Fill	Fill in a further section through ditch **406**: dark brownish-grey friable silty medium sand with bands of mineralised fine gravel, 0.18m deep	
417	Fill	Modern fill of cut **404**: compacted hardcore over a bedding layer of sand and gravel	
Trench 5			
500	Layer	Modern yard surface: compacted hardcore up to 0.20m deep	
501	Layer	Bedding layer for yard surface 500: stone and rubble in a matrix of mid-grey sandy clay and gravel, up to 0.25m deep	
502	Layer	Possible remnant of earlier yard surface below layer 501: pebbles and flint gravel in a matrix of dark brownish-grey clayey sand. 3.04m long, trench width+ wide, 0.27m deep	
503	Cut	Initially believed to be a cut containing deposit 504, later voided	
504	Fill	Deposit of limestone and CBM rubble in a matrix of dark brownish-grey silty sand, 2.10m wide x 0.40m deep; initially interpreted as a ditch fill, but seems more likely to be a later dump of material filling in a depression above ditch **517**	
505	Layer	Buried topsoil below deposit 504 and yard surface 502: dark brownish-grey friable clayey fine sand with occasional small pebbles and flint fragments, 0.44m deep	3rd- to 4th-century pottery with 1 sherd mid-16th- to 17th-century pottery, bone, shell
506	Fill	Upper fill in ditch **509**: could not confidently be distinguished from 507 after weathering	2 sherds late 2nd century+ pottery with 1 sherd 15th- to mid-16th-century pottery, brick/tile probably Roman but possibly post-medieval, bone
507	Fill	Mid-greyish-brown friable silty fine sand with moderate small and medium limestone fragments and occasional charcoal flecks, c. 0.44m deep: principal fill in ditch **509**	2nd century pottery, bone; sample <3>
508	Fill	Primary fill in ditch **509**: mid-brown friable to loose silty fine sand with no inclusions	Late 1st- to 2nd-century pottery, bone; metal spoon SF 1
509	Cut	NE-SW aligned linear feature, 1.56m wide x 0.70m deep, cutting layer 520, filled by 506, 507 and 508	
510	Fill	Mid-greyish-brown friable to loose fine sand with occasional small gravel and charcoal flecks, filling linear feature **511**	Bone
511	Cut	Narrow trench with very steep sides, cutting layer 518, 0.70m wide x 0.33m deep, aligned E-W; possible beam slot	
512	Fill	Mid-greyish-brown friable fine sand with moderate small limestone and flint fragments and the remains of a wooden post, filling post-hole **513**	Roman pottery, brick/tile possibly Roman but probably post-medieval, bone, shell, clay tobacco pipe
513	Cut	Circular post-hole with vertical sides, containing fill 512, cuts layer 524, 0.58m diameter x 0.48m deep	

Context no.	Type	Description	Finds/samples/dating
514	Fill	Mid-greyish-brown mottled mid-reddish-brown friable fine sand, with moderate small flint fragments and occasional charcoal flecks, filling post-hole **515**	Roman pottery
515	Cut	Circular post-hole with vertical sides, containing fill 514, cuts layer 524	
516	Fill	Mid-greyish-brown friable silty medium sand with moderate small flint and limestone fragments and occasional medium flint chunks and pebbles, 0.22m deep, not entirely filling ditch **517**	Flavian pottery
517	Cut	E-W running linear feature, 1.00m wide x 0.47m deep, filled by 516,cutting layer 524	
518	Layer	Small to medium limestone fragments in a matrix of dark greyish-brown friable silty fine sand, 5.94m long, trench+ wide, 0.12m deep, underlying layer 505	Bone
519	Layer	Deposit comprising discrete patches of crushed limestone or decayed lime mortar, 0.03m deep; may correspond to layer 412 in trench 4	
520	Layer	Dark greyish-brown friable silty fine sand with no inclusions, below layer 518 in sondage: possible bedding or levelling layer below road deposits 518-9	
521	Layer	Small to medium flat limestone fragments (largest 85mm x 30mm) in a matrix of either crushed limestone and sand or decayed lime mortar, 0.10m deep, below layer 520 in sondage	
522	Layer	Dark greyish-brown friable silty fine sand with occasional small pebbles and flint fragments, 0.11m deep, in sondage below layer 521	Roman pottery, bone, shell
523	Layer	Possible road surface: rounded cobbles (sample size 110mm x 110mm) and worn-looking limestone fragments (sample size 170mm x 110mm) overlying a compact bed of smaller pebbles and limestone fragments. No matrix visible. Seen only at base of sondage; not excavated.	2nd-century pottery
524	Layer	friable silty fine sand, mid-yellowish-brown mottled yellow and dark grey, containing moderate small pebbles and flint fragments and occasional medium limestone fragments, 0.21m deep (not excavated), cut by Roman ditch **509**. May equate to possible agger material 409 in trench 4.	
525	Layer	Dark greyish-brown friable silty fine sand with occasional small pebbles and flint fragments, seen in sides of deeper features below layer 524, up to 0.40m deep (not excavated): may equate to possible agger material 410 in trench 4	
526	Layer	Natural friable mid-reddish-brown medium sand	

Appendix 3: The Ceramic Assessment

by Ian Rowlandson with Jane Young

Introduction

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* (Darling 2004) using the codes developed by the City of Lincoln Archaeological Unit CLAU (see Darling and Precious *forthcoming*) and the fabric series under development for North Lincolnshire Museum (Rowlandson *forthcoming*). An attempt at a 'maximum' vessel estimate has been made following Orton (1975, 31). The pottery has been bagged by fabric and vessels selected as suitable for illustration have been bagged separately for ease of future reference. The archive record (tabulated below) is an integral part of this report and will be curated in an Access database, available from the author in a digital format. The post-Roman pottery and ceramic building materials have been archived by Jane Young (see below). The report was produced on the basis of context information by PCAS Ltd.

Condition

The Late Iron Age and Roman pottery presented for assessment totalled 131 sherds, weighing 2.681kg, from 19 contexts from a scheme of archaeological evaluation. The post-Roman pottery and ceramic building material archives are included below.

The assemblage is of significance as it provides an interesting assemblage of pottery predominantly from the late Neronian period to the 2nd century. The difficulties of establishing both the function and the start of settlement at Old Winteringham have been rehearsed by this author elsewhere (Rowlandson 2010, 2012). The group has a similar range to the earliest groups illustrated by Rigby and Stead from Old Winteringham (1976) and the site is located nearby to those interventions. It is an important group with a significant number of imports and a range of pottery fabrics not commonly found amongst pottery groups from other sites in North Lincolnshire. In date range it is later than the material from Composition Lane recently reported on by this author (Rowlandson 2012).

Dating

The dating summary is tabulated below. The detailed sherd archive is presented as below. There are also a small number of post-Roman sherds. Although noted in this dating table they are not included in the quantification (see archive below).

Dating summary				
Context	**Spot date**	**Comments**	**Sherd**	**Weight (g)**
105	3-4C	A small group including a fragment from a wide-mouthed bowl and a colour coated beaker.	2	94
106	E3	A dish with a flared lip (form as Rigby and Stead 1976 Fig. 85.123) with burnished lattice decoration.	1	85
107	LNERO+	A small group including a fragment from a greyware jar and a fragment from an imported Terra Nigra Pedestal beaker with a sharp carination (cf. Cam 74A or other forms 75 or 77).	2	56
302	NERO+	A small group of greyware Iron Age tradition gritty ware including a jar base.	8	241
401	M1-E2	A small group including greyware. Also present a fragment from a bead rimmed jar in an Iron Age shell gritted fabric.	5	54

Dating summary				
Context	**Spot date**	**Comments**	**Sherd**	**Weight (g)**
403	L2+	A small slightly mixed group including fragments from: a cheese press, an unusual necked beaker with suspension loops, a bowl with a flared lip and a folded greyware beaker as Rigby and Stead 1976 Fig. 78.83.	22	548
405	NERO	A small group including a fragment from a Terra Nigra platter (Cam 16), a Dressel 20 amphora sherd and a fragment from a large native tradition bowl.	11	137
407	AD40-110	Includes fragments from a decorated samian bowl and native tradition wares including a fragment from a native tradition cooking pot and a butt beaker.	5	130
410	M1-E2	A small group including a fragment from a native tradition cook pot and a rusticated greyware sherd.	8	143
411	AD120+	A fragment from a samian bowl and a group of greywares incuding a small base sherd trimmed to a disc.	8	245
505	17th-m16th/3-4C	The group contains a single sherd of Brown glazed earthenware (Young, archive below) and a small group of late Roman pottery.	16	235
506	15th-M16th/L2+	The group includes a single sherd of Humber ware (see archive below) and two small Roman sherds.	2	4
507	2C	A small group including samian, a native tradition large bowl and a rim from a large handmade lid with a worn rim in a native tradition shell gritted fabric.	13	339
508	L1-2	A small group including a fragment from a Dressel 20 amphora and a sherd from a white ware bowl with a segmental flange possibly from the Verulamium region (London form 4B.1 eg. Tyers 1996 Fig. 255).	14	166
512	ROM	A small group including greyware.	3	19
514	ROM	A single greyware sherd.	1	5
516	FLAV	A small group including fragments from two amphorae probably from Gaul and a small group of greyware.	6	155
522	ROM	A single greyware sherd	1	6
523	2C	A small fragment from a samian bowl.	3	19

Fabrics and forms

Fabric summary						
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**
SAMCG	Samian	Central Gaulish	5	3.82%	106	3.95%
SAMSG	Samian	South Gaulish	4	3.05%	29	1.08%
AMPH?	Amphora	Miscellaneous amphorae	2	1.53%	70	2.61%
DR20	Amphora	Dr 20 amphorae	1	0.76%	64	2.39%
GAU	Amphora	Undifferentiated Gaulish amphorae	1	0.76%	8	0.30%
TN	Import	Terra Nigra	4	3.05%	72	2.69%
CC	Fine	Other colour-coated wares	2	1.53%	6	0.22%
NVCC1	Fine	Nene Valley Colour-coat- light firing fabric	2	1.53%	4	0.15%
CR	Oxidised	Roman cream wares (various)	1	0.76%	5	0.19%
OX	Oxidised	Misc. oxidized wares	4	3.05%	24	0.90%
OX?	Oxidised	Misc. oxidised wares	1	0.76%	14	0.52%

Fabric summary						
Fabric code	**Fabric group**	**Fabric details**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**
OXL	Oxidised	Light oxidised fabrics	1	0.76%	4	0.15%
VRW?	Oxidised	Verulamium region white ware	1	0.76%	17	0.63%
GREY	Reduced	Miscellaneous grey wares	61	46.56%	1146	42.75%
GYMS	Reduced	Grey wheel-made with minimal fine shell	1	0.76%	14	0.52%
IAGR	Reduced	Native tradition/transitional grit-tempered wares	24	18.32%	782	29.17%
IASA	Reduced	IA type sandy wares	7	5.34%	83	3.10%
NWLGR	Reduced	NW Lincs Greyware	2	1.53%	76	2.83%
PART	Reduced	Parisian type wares	1	0.76%	3	0.11%
SFGR	Reduced	South Ferriby Greyware	1	0.76%	85	3.17%
DWSH	Calcareous	Dales ware; lid-seated jars	1	0.76%	6	0.22%
IASH	Calcareous	Native tradition shell-tempered	4	3.05%	63	2.35%

Form summary						
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**
A	Amph	Unclassified form	4	3.05%	142	5.30%
BK	Beaker	Unclassified form	5	3.82%	28	1.04%
BK120	Beaker	Necked jar/beaker as D&P corpus 1076-1086	1	0.76%	36	1.34%
BKBB	Beaker	Butt beaker	2	1.53%	19	0.71%
BKFOC	Beaker	Folded; with curved rim	1	0.76%	75	2.80%
30	Bowl	Samian form- see Webster 1996	3	2.29%	28	1.04%
37	Bowl	Samian form- see Webster 1996	3	2.29%	83	3.10%
B318	Bowl	Flared rim as Petch 1962 Fig 7.23	1	0.76%	30	1.12%
BFL	Bowl	Flange rimmed	1	0.76%	85	3.17%
BSEG	Bowl	Segmental Gillam 294-5	1	0.76%	17	0.63%
BNAT	Bowl- large	Native tradition bowl eg. D&P No.700	3	2.29%	225	8.39%
BWM	Bowl- large	Wide-mouthed; D&P No 1225-30	1	0.76%	91	3.39%
BD	Bowl/dish	-	2	1.53%	42	1.57%
CLSD	Closed	Form	29	22.14%	346	12.91%
DPR	Dish	Plain rim	2	1.53%	47	1.75%
CPN	Jar	Native tradition	6	4.58%	165	6.15%
J	Jar	Unclassified form	13	9.92%	312	11.64%
JBR	Jar	Bead rimmed	1	0.76%	24	0.90%
JEV	Jar	Everted rim	5	3.82%	96	3.58%
JFO	Jar	Folded	1	0.76%	13	0.48%
JL	Jar	Large	5	3.82%	254	9.47%
JLS	Jar	Lid-seated	1	0.76%	5	0.19%
JRUST	Jar	Rusticated	1	0.76%	6	0.22%
JBK	Jar/Beaker	Small jar or beaker	1	0.76%	26	0.97%
JB	Jar/Bowl	Unclassified form	1	0.76%	17	0.63%
JBL	Jar/Bowl	Large	4	3.05%	99	3.69%
L	Lid	Unclassifed form	1	0.76%	14	0.52%
LD	Lid/dish	Unclassified	2	1.53%	33	1.23%
CHP	Misc	Cheese press	1	0.76%	42	1.57%
OPEN	Open	Form	4	3.05%	35	1.31%

Form summary						
Form	**Form Type**	**Form Description**	**Sherd**	**Sherd %**	**Weight (g)**	**Weight %**
P	Plate	Form	1	0.76%	38	1.42%
PD	Plate/Dish	Form	2	1.53%	16	0.60%
-	Unknown	Form uncertain	22	16.79%	192	7.16%

The main point of note with this assemblage is the later date range than the pottery from the nearby Composition Lane site (Rowlandson 2012). Whilst the other site has largely been dated to the 1st century AD, the majority of the activity on that site probably relates to the time of Nero or earlier; the groups from this site appear to date from the later Neronian period into the second century AD, with a few sherds that may be either curated or residual from before the conquest (mostly in the IASH category). The pottery from this site has a stronger late Neronian to Flavian bias.

Both sites produced imported Terra Nigra but from this site sherds from up to three vessels including a platter (Cam 16) and a carinated pedestal beaker (probably as Cam 74A). Steve Willis has already highlighted the presence of quantities of Terra Nigra from Winteringham site and discussed the significance of this in relation to other groups from Yorkshire and the East Midlands (Willis 1996, 1993) Also present is are fragments from a decorated samian bowl (Drag 30) and also a small quantity of 2nd century material.

A white ware bowl with a segmental flange, perhaps similar to the London form 4B.1 (cf. Tyres 1996) was present in context 508. The sandy fabric of this fabric appears similar to the products of the Verulamium industries to the south of the modern town of St. Albans. This is a rare occurrence for northern Lincolnshire although it should be noted that whilst mortaria from this industry have been found in this area other coarseware forms are rarely found. This author has seen a few sherds of Highgate Wood C from groups from South Ferriby but few other vessels that might be from the south-east (Rowlandson forthcoming). The proximity both of these sites to the coast must be significant in the distribution of such wares. Also present in this assemblage are Dressel 20 and Gauloise type amphorae fragments and sherds either from a large flagon or flat bottomed amphora from context 516.

The main difference from the Composition Lane site that evident amongst the fabrics present is the much higher amount of wheel-made vessels: these include fragments from jars with heavy 'web' rustication, the bowl form B318 with a flared lip and flagons. Small quantises of the local NWLGR and SFGR fabrics have been recognised amongst the wheel thrown greywares although it should be noted that some of the fabrics attributed to GREY could not be attributed to a production source with certainty and may not be local. Although wheelmade tablewares and finewares are present a copy of a butt-beaker in local Iron Age tradition sand gritted wares was retrieved from context 401.

The noteworthy difference is the presence of a greater proportion of the Iron Age tradition gritty ware group (IAGR). It appears that a greater quantity of grog or 'mixed gritted wares' were in use later during the conquest and into the Flavian period. This shift has also been noted by Darling in groups from Lincoln (1988).

Of note amongst the vessels present are necked beaker or jar broadly similar found in Lincoln (D1, BK120, cf. Darling and Precious forthcoming No. 1076-1086). The sherd that is present has a slightly everted rim with a groove beneath; on the sherd present there is a single small lug handle or suspension loop that was probably used for a cord or a ceramic or metal ring to suspend the vessel by as can be seen surviving on some of the vessels from Lincoln or with applied loops of clay mimicking these handles. This vessel probably had a specialist function and is an unusual occurrence. Also present in the same context is a bowl with flared rim probably dating to the 1st to early 2nd century (B318) and a folded curve

rimmed beaker. A sherd from a beakers or flask in a fine grey 'Parisian ware' fabric is also significant. This sherd has a zone of rouletting, a simple stamped roundel and a roundel with a fine lattice pattern (D2). This neatly cut stamp impression is not a common type amongst those published by Elsdon and is perhaps similar to the roundel part of the stamp she illustrates from Lincoln (1982 Fig. 7.118).

A small number of later sherds are also present including a fragment of a greyware wide mouthed bowl form context 105. A small quantity of later colour-coated and Dalesware sherds are also present amongst the assemblage.

Discussion

This group is similar to those found by Stead and suggests that this site is close to the main focus of occupation during the Conquest period and soon after. It appears likely that this settlement acted as a trading point in the 1st century AD and the imported pottery in this assemblage probably testify to a much larger movement of resources through the settlement of Old Winteringham utilising the River Humber. This assemblage presents no further clear evidence of a fort on the site although further investigations may yet produce evidence of a more formal fortress (Rowlandson 2010). The majority of the groups suggest some limited activity on the site during the conquest with good evidence for later Neronian to Flavian activity at the time one might expect a fort on the site to be in use.

Recommendations

This site has the potential to produce further important Conquest period groups that may inform both our understanding of pottery supply and usage to the site and region but may also help to resolve issues about the site highlighted above. All of the pottery should be retained and deposited in the relevant museum. Upon deposition the sherd of TN from context 405 should be included in the North Lincolnshire Museum Fabric series.

Further investigations on this site may produce more substantial groups. If these groups are to be published the recommendations for this group as follows-

1. Inclusion of this assemblage in the final report on further excavations on this site.

2. Illustration of the 2 unusual vessels from context 403 (archive D1 and D2). D1 should be illustrated with a traditional pottery line drawing but D2 could be illustrated by a line drawing or a rubbing of the sherd (available from the author) at 1:1 to clearly show the decoration.

3. All of the samian (plain and decorated) should be sent to a samian specialist to confirm identifications and report on the decorated sherds.

4. Further research should be undertaken to confirm the identification of the possible amphora fragments from context 516 and the segmentally flanged bowl in a light firing ware from context 508.

Bibliography

Darling, M.J., 2004, Guidelines for the archiving of Roman Pottery. *Journal of Roman Pottery Studies* 11, 67-74.

Darling, M. J., 1988, The pottery, in Darling, M .J. & Jones, M. J., Early Settlement in Lincoln, *Britannia* 19, 9-37

Darling, M.J. and Precious, B.J., *forthcoming*, *Corpus of Roman Pottery from Lincoln*, Lincoln Archaeological Studies No. 6, Oxbow Books, Oxford

Elsdon, S.M., 1982, *Parisian ware: a study of stamped wares of the Roman period in Lincolnshire, Humberside and South Yorkshire*, Vorda research series, 4, Vorda, Highworth.

Gillam, J. P., 1970, *Types of Coarse Roman Pottery Vessels Found in Northern Britain*, 3rd ed, University of Newcastle upon Tyne, Newcastle upon Tyne

Hawkes, C. F. C. & Hull, M. R., 1947, *Camulodunum.*, Report of the Research Committee of the Society of Antiquaries 14, London

Orton, C. R., 1975, Quantitative pottery studies, some progress, problems and prospects. Science and Archaeology 17, 30-5

Petch, D. F., 1962, Excavations at Lincoln, 1955-58, *Archaeol J*, 117, 40-70

Rigby, V. & Stead, I.M., 1976, Coarse pottery, in Stead, I M, 1976, *Excavations at Winterton Roman Villa and other Roman sites in North Lincolnshire, 1958-1967,* 136-190

Rowlandson, I.M., 2012, *An Assessment of the Iron Age and Roman ceramics from an archaeological evaluation at Composition Lane, Winteringham, North Lincolnshire, CLWE12*, Unpublished developer report for PCASL

Rowlandson, I.M., 2010*,* Crossing over: Old Winteringham in the First Century AD*,* in Malone, S and Williams, M.. (ed), *Rumours of Roman Finds,* Heritage Trust For Lincolnshire, Heckington

Rowlandson, I.M., *forthcoming*, A Fabric Series for Late Iron Age and Roman Pottery in North Lincolnshire, Unpublished research report for North Lincolnshire Museum

Stead, I. M., 1976, *Excavations at Winterton Roman Villa and other Roman sites in North Lincolnshire 1958-1967*, Department of the Environment Archaeological Reports No 9, HMSO, London

Tomber, R. and Dore, J., 1998, *The National Roman Fabric Reference Collection: A Handbook*, MoLAS Monograph 2, Museum Of London

Tyres, P.A., 1996, *Roman Pottery* in Britain, Batsford, London

Webster, P., 1996, *Roman Samian Pottery in Britain*, Practical Handbook in Archaeology 13, Council for British Archaeology, York

Willis, S., 1996, The Romanization of Pottery Assemblages in the East and North-East of England during the First Century A.D.: A Comparative Analysis, *Britannia* 27, 179-221

Willis, S.H., 1993, *Aspects of Pottery Assemblages of the Late Iron Age/ First Century A.D. in the East and North-east of England*, Unpublished P.h.D. University of Durham

The Post-Roman Pottery Archive- J. Young

trench	context	cname	full name	sub fabric	form type	sherds	vessels	weight	part	description	date
Trench 5	**505**	**BERTH**	**Brown glazed earthenware**	**Humber type**	**jar**	**1**	**1**	**16**	**rim**	**unusual wedge-shaped rim; int & ext glaze**	**17th to mid 18th**
Trench 5	**506**	**HUM**	**Humberware**		**large jug/jar**	**1**	**1**	**23**	**BS**	**int & ext glaze**	**15th to mid 16th**

The Ceramic Building Materials Archive- J. Young

trench	context	cname	full name	fabric	frags	weight	description	date
Trench 1	105	RBRK	Roman brick	coarse orange fabric	1	21	flake; fabric contains moderate clay pellets	Roman
Trench 4	414	RTMISC	Roman or post-Roman tile	med-coarse red-brown sandy	1	21	flake; fabric contains moderate coarse shell inclusions; probably from a Roman tile/brick	Roman/post-medieval
Trench 5	506	RTMISC	Roman or post-Roman tile	fine orange sandy	1	9	flake; post-med handmade brick or Roman	Roman/post-medieval
Trench 5	512	RTMISC	Roman or post-Roman tile	fine orange sandy	1	10	flake; probably post-med handmade brick	Post medieval ?

The Prehistoric and Roman Pottery Archive- EFWE11										
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Join**	**Sherd**	**Weight**
105	GREY	BWM		1			RIM		1	91
105	NVCC1	BK	BARB	1			BS		1	3
106	SFGR	BFL	LA	1			RIM BASE CHAMFER; AS R&S 1976 FIG 85 .123		1	85
107	GREY	JEV		1			RIM SHLDR		1	38
107	TN	BK		1			BS CARINATION PEDESTAL BEAKER AS CAM 73-77; SHARPE CARINATION PROBABLY AS CAM 74A		1	18
302	GREY	J	SHG	1			BS		3	12
302	IAGR	J		1			BASE		1	190
302	IAGR	J		1	SOOT EXT		BS		2	19
302	IAGR	J	STAB	1			BS; STABBED 'WHEATSHEAF'		2	20
401	GREY	-		1	ABR		BS		1	7
401	IASA	BKBB	ROUZ	1			BS FRAGMENT FROM A BUTT BEAKER COPY		1	5
401	IASH	JBR	HM	1	SOOT EXT		RIM		1	24
401	NWLGR	CLSD		1			BS		1	4
401	OX?	CLSD		1			BS; ?ID ?POST ROM		1	14
403	CC	BK		1			BS		1	5
403	GREY	-		1			BS		1	3
403	GREY	B318		1			RIM		1	30
403	GREY	BD		1			BASE		1	22
403	GREY	BK120	STAB	1		D1	RIM DIAM 12; APPLIED SUSPENSION LUG BENEATH RIM LINES OF VERTICAL STABBED DECORATION ON NECK		1	36
403	GREY	BKFOC		1			RIM SHLDR AS R&S 1976 FIG78.63		1	75
403	GREY	CHP		1			BASE		1	42
403	GREY	CLSD		1			BASE; FTM		1	31
403	GREY	CLSD		1	ABR		BASE		1	53
403	GREY	JL	COMB	1			BS SHLDR; LATE LA TENE TYPE COMBING BUT ROMANIZED GREYWARE		1	27
403	GREY	JL	LA	1			BS		1	34
403	GREY	L		1			RIM		1	14
403	IAGR	-		2			BS		2	37

The Prehistoric and Roman Pottery Archive- EFWE11										
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Join**	**Sherd**	**Weight**
403	IAGR	CPN		1	SOOT EXT		RIM BS; SOOT BELOW RIM		4	88
403	IAGR	J		1			BS SHLDR		1	31
403	IASA	CPN		1			RIM SHLDR		1	12
403	PART	-	STAMP; ROUZ	1			BS; SIMPLE ROUNDEL AND ONE WITH A FINE LATTICE		1	3
403	SAMSG	30		1			BS; SAME VESSEL AS 403		1	5
405	GREY	CLSD		1			BS		1	9
405	GREY	JFO		1			BS		1	13
405	IAGR	-		2			BS		2	8
405	IAGR	BNAT		1			RIM		1	17
405	IAGR	J	RILL	1			BS		1	16
405	IAGR	JBL		1			BS		1	31
405	NVCC1	BK		1			BS		1	1
405	OX	-		1	BURNT		BS		2	4
405	TN	P		1		FTS	RIM; AS CAM 16		1	38
407	GYMS	BKBB	HM/WF	1			RIM; SPARSE FINE SHELL AND SAND LATE IA COPY OF GALLO BELGIC TYPE		1	14
407	IAGR	BNAT		1			RIM SHLDR		1	48
407	IASA	CLSD	B EXT; COMB	1			BS; FINE HANDMADE ?WHEEL FINISHED; LATE LAT TENE COMBING		1	45
407	SAMSG	30	MOULD	1			RIM OVOLO AND LEAF DECORATION; SAME VESSEL AS 403?	403?	2	23
410	GREY	-		1	ABR		BS		1	19
410	GREY	JBL		1			BS		1	12
410	GREY	JRUST	RWEB	1	ABR		BS		1	6
410	IAGR	CLSD	WM; RILL	1			BS		1	27
410	IAGR	CPN		1			RIM SHLDR		1	65
410	IASA	CLSD	B EXT; HM/WF?	1			BS;		2	8
410	IASH	-	HM	1			BS; HANDMADE 'RED CHALK' AND MICA MATRIX AS IASFSA WITH SPARSE COARSE SHELL VESIC.		1	6
411	GREY	BD		1			BASE		1	20

The Prehistoric and Roman Pottery Archive- EFWE11										
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Join**	**Sherd**	**Weight**
411	GREY	J	BL	1			BS		1	8
411	GREY	JB		1	ABR		BS		1	17
411	GREY	JBK		1	DISC		BASE, FTM; TRIMMED TO A DISC 4.5CM DIAM		1	26
411	GREY	JBL		1			RIM		1	32
411	GREY	JEV		1	ABR		RIM		1	13
411	GREY	JL		1			BS		1	59
411	SAMCG	37		1			BASE FTR		1	70
505	GAU	A		1			BS		1	8
505	GREY	-		3			BS		3	25
505	GREY	-		1			BASE		1	13
505	GREY	CLSD		1			BS; HIGH FIRED VITRIFIED SURFACES		4	46
505	GREY	CLSD		1	ABR		BFS		1	4
505	GREY	CLSD		1			BS		1	14
505	GREY	CLSD		1			BS		1	10
505	GREY	DPR		1			RIM; HIGH FIRED		1	32
505	GREY	JEV		1	VAB		RIM		1	6
505	GREY	JL		1			RIM SHLDR		1	62
505	OX	DPR		1	BURNT?		RIM		1	15
506	CC	BK		1	ABR		BS		1	1
506	GREY	-		1	ABR		BS		1	3
507	GREY	-		1	ABR		BASE		1	17
507	GREY	-		5			BS		1	31
507	GREY	-		2			BS		2	9
507	GREY	CLSD		1			BASE		1	9
507	GREY	JBL		1			BS		1	24
507	GREY	JEV		1			RIM SHLDR		1	26
507	GREY	OPEN		1			BS		1	11
507	IAGR	BNAT		1			RIM		1	160
507	IASH	LD	HM	1	WORN RIM		RIM; UNUSUAL HANDMADE LID OR ?DISH; WEAR PATTERN ALONG RIM SUGGESTS USE AS A LID OR COVER NO		1	28

The Prehistoric and Roman Pottery Archive- EFWE11										
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Join**	**Sherd**	**Weight**
							SOOTING EVIDENT; PERHAPS SEE LARGE EXAMPLES IN LATE LA TENE ASSEMBALAGES FROM NORTHAMPTONSHIRE			
507	SAMCG	OPEN		2	ABR		BS ?SAME VESSEL		2	23
507	SAMSG	OPEN		1			BS FLAKE		1	1
508	CR	CLSD		1			BS PROB FLAGON		1	5
508	DR20	A		1	BURNT POST BREAK		BS		1	64
508	GREY	J		1			BS SHLDR		1	8
508	GREY	JEV		1			RIM		1	13
508	GREY	JLS		1			RIM		1	5
508	IAGR	CLSD		1			BASE; OXID;SOME SHELL		3	25
508	IASA	CLSD		1			BS		1	4
508	IASH	LD	HM	1			RIM; FINE SHELL FINE BURNISHING HANDMADE		1	5
508	OXL	CLSD		1			BS; ?FLAGON		1	4
508	TN	PD		1	ABR		BS		2	16
508	VRW?	BSEG		1			RIM BROKEN FLANGE; FABRIC LOOKS VERY SIMILAR TO VRW LONDON FORM 4B.1 NO OTHER LOCAL FABRICS ARE SIMILAR TO THIS- IMPORTED NATIONAL OR INTERNATIONAL		1	17
512	GREY	-		1			BS		1	2
512	GREY	J	LA	1			BS		1	8
512	IASA	CLSD	B EXT	1			BS		1	9
514	GREY	CLSD		1			BS		1	5
516	AMPH?	A		1			BS; GAULOISE TYPE WITH WHITE SLIP OR PERHAPS LARGE FLAGON?		1	40
516	AMPH?	A		1			BASE; FTR; FOOTRING GAULOISE TYPE AMPHORA LIGHT ORANGE FABRIC OR LARGE FLAGON?		1	30
516	GREY	-		1	BURNT		BS		1	5
516	GREY	CLSD		1			BS		1	3
516	NWLGR	JL		1			BASE		1	72
516	OX	CLSD		1	CONCRETION		BS		1	5
522	GREY	CLSD		1	ABR		BS		1	6

The Prehistoric and Roman Pottery Archive- EFWE11										
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Join**	**Sherd**	**Weight**
523	DWSH	CLSD		1			BS		1	6
523	SAMCG	37		1	VAB		RIM		1	3
523	SAMCG	37		1	VAB		BASE; FTR		1	10

Appendix 4: The Faunal Remains

By Jennifer Wood

Introduction

A total of 45 (957g) fragments of animal bone were recovered by hand during trial trench excavation undertaken by Pre-Construct Archaeology Services Ltd at East Field Rise, Winteringham, North Lincolnshire.

The remains were recovered from features and deposits within trenches 4 and 5, dated from the Roman and undated periods. Comprising of Trench 4 Neronian ditch [406], Mid 1st -Early 2nd Century layers (410) and (414) and Trench 5 3rd-4th Century buried topsoil (505), Late 1st - 2nd century ditch [509], Late 2nd Century + trench [511], Roman post-hole [513] and layer (522) and undated post-hole [515] and ditch [517].

Methodology

The entire assemblage has been fully recorded into a database archive. Identification of the bone was undertaken with access to a reference collection and published guides. All animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (rodent 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) in addition to the use of the reference material. Where distinctions could not be made the bone was recorded as sheep/goat (S/G).

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. The data produced the basic NISP (Number of Identified Specimen) counts.

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. Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982), Levine (1982) and Payne (1973), 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

The remains were generally of a moderate overall condition, averaging at grade 3 on the Lyman criteria (1996).

A single fragment of cattle mandible recovered from 3rd-4th century buried topsoil (505) displayed cuts and chop marks which were consistent with disarticulation of the carcass.

Carnivore gnawing was noted on a total of two fragments of bone: a single fragment recovered from Neronian ditch [406] and a further fragment recovered from mid 1st- early 2nd century layer (414). The lack of gnawing on the majority of the assemblage may suggest the remains were rapidly buried after disposal, limiting the access of scavengers to the remains.

A single fragment of unidentifiable burnt bone was recovered from late 1st-2nd century ditch [509].

No evidence of pathological change or working was noted on any of the remains.

As can be seen from table 1 (below), the majority of the remains were identified as sheep/goat, followed by cattle with single fragments of pig and dog remains also identified. The assemblage was relatively small although relatively cohesively dated. The assemblage intensity suggests the main settlement activity is within close proximity of trenches 4 and 5.

The assemblage is too small to provide meaningful information on animal husbandry and utilisation on site, however, the general abundances of each species represented suggests the site was probably supported by a mixed economy with a slight emphasis on sheep/goat. The skeletal elements represented suggest the remains were probably a mixture of butchery and domestic food waste.

In the possible event of further archaeological works, the site would be liable to produce further remains of a similar condition and nature, with good/moderate potential to provide further information on dietary economies and underlying husbandry practices for the 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.

Table 1, Summary of Identified Bone (NISP) by feature.

	Trench 4			**Trench 5**			
Taxon	**Shallow Ditch [406] Neronian**	**Layer (410) Mid 1st -Early 2nd Century**	**Layer (414), Same As (410) Mid 1st –Early 2nd Century**	**Buried topsoil (505) 3rd-4th Century**	**Ditch [509] Late 1st - 2nd Century**	**Narrow trench [511] Late 2nd Century +**	**Post-Hole [513] Roman**
Cattle		4		1	1		1
Sheep/Goat	2	4	2	1	1		
Pig					1		
Dog *(Canis Sp.)*					1		
Medium Mammal					4		
Large Mammal	3	4		2	1	1	
Unidentified					2		
N=	5	12	2	4	11	1	1

Appendix 5: Small-Finds Assessment

by Gary Taylor

Introduction

A single metal spoon weighing c. 6g was recovered.

Condition

Although moderately corroded the spoon is in very good condition, being near complete and retaining areas of plating.

Results

Context	Material	Description	NoF	W (g)	Date
508 SF 1	**Copper alloy, tinned**	**Spoon, near-complete, 121mm total surviving length; circular-sectioned shaft 100mm long, 2.5mm thick, terminating in a gradual conical point; thin, sheet-like circular bowl 22mm diameter, 5mm deep.**	**1**	**6.2**	**Mid 1st-2nd centuries**

Provenance

The spoon was retrieved from the primary fill of a ditch at Winteringham. Ceramic dating for the context is late 1st-2nd century, which is perfectly in accordance with the date of the spoon.

Range

A copper alloy spoon, with tin or white metal plating, was recovered. This is an example of Crummy's Type 1 spoons, with a round bowl. This type dates from the later 1st and 2nd centuries and a near-identical example, though less complete, has been found at Colchester in a mid-late 1st century context (Crummy 1995, 69; fig 73, no. 2008). The Roman-era poet Martial, who died in the early 2nd century, wrote of spoons of this type in his Epigrams. Referring to them as *cochleare* (from *cochlea*, a shell, in reference to their shape), he wrote that they were suitable for shell-fish and not less so for eggs (Epigrams 14, no. 121). Thus, the bowl was used for eating eggs and the pointed terminal of the handle for extracting shell-fish (or snails) from their shells.

Potential

The single spoon is of moderate potential. In addition to providing functional evidence of highly Romanised dining, the object is also near complete and suggests the presence of intact undisturbed early Roman deposits at the site.

References

Crummy, N., 1995 The Roman Small Finds from Excavations in Colchester 1971-9, Colchester Archaeology Report 2

Plate 1: The Roman spoon as excavated, before conservation. Scale 100mm.

Appendix 6: Palaeoenvironmental Assessment

by Anita Radini

Introduction

During an archaeological evaluation at Eastfield Farm, Winteringham, Lincolnshire, conducted by Pre-Construct Archaeological Services, five environmental samples were taken for the recovery of plant and animal remains and with the potential to provide evidence of domestic and other activities on the site, as well as evidence of food consumption and disposal. According to the pottery spot-dating evidence, the samples are dated to the Early Roman period.

Materials and Methods

The bulk samples were wet-sieved in a sieving tank with 0.5mm mesh and with flotation into a 0.3mm mesh sieve. Residues were all air-dried and separated on a 4mm mesh riddle. The coarse fractions (CF), over 4mm, were sorted for all remains and finds, which are included in the relevant sections (see results) of this report. The fine fractions (FF), below 4mm, were reserved for sorting during the analysis stage if required. The flotation fractions (flots) were transferred from the sieve into plastic boxes and air-dried.

All flots from the samples were scanned under magnifications between 20x and 40x. Small sub-samples of un-processed soil were 'squashed' over a slide and examined under high magnification (400x) to assess the presence of human and animal parasite ova, which would indicate that cess material was being disposed of. All remains were noted according to the species present, whilst giving an indication of abundance of each category. The quantification method was based on the minimum number of characteristic plant parts, while for their identification, morphological criteria, modern reference material and seed identification manuals (e.g. Cappers *et al*. 2006) were employed. Plant names follow Stace (1997). An overall table (Table 1) is presented with the report, where volume of soil processed and finds are recorded, together with contextual information.

Results

Charcoal and charcoal flecks

Overall, the samples appeared very rich in fine charcoal fragments, very small in size, almost in form of 'dust'. A few charcoal fragments were large enough to be identified as oak (*Quercus* sp.) and hazel (*Corylus avellana* L.); both species burn to high and steady temperatures. Sample **2** was the smallest and the one with the lowest amount of archaeobotanical remains; it also appeared more sandy and less rich in charcoal.

Cereals

Cereal remains were found in low numbers. Charred grains of glume wheat were found in samples **1**, **3** and **4** and were identified as *Triticum* cf. *spelta* (spelt wheat) on the basis of their morphology in sample **3**, and, where the morphology of the grains was not distinctive, and they appeared a mixture of emmer (*T. dicoccum* Schrank) and spelt wheat, they were identified as *T. dicoccum/spelta* (emmer/spelt wheat). The only way to be sure of the species identification is when the chaff is preserved, but none was recovered in the flots or the fine fractions. The grains of glume wheats, such as emmer and spelt, remain in husks after

threshing and require parching and pounding before consumption by humans (e.g. Hillman 1981). Charred grains of *Hordeum vulgare* L. (barley) were recovered in sample **5**.

Cultivated and collected

Un-charred seeds of *Sambucus nigra* L. (elder) were encountered in low numbers in samples **1**, **4** and **5**. Elder is a hedgerow plant, common in waste ground but also edible and possibly useful as wood. The un-charred state of preservation casts doubt on the archaeological veracity of these remains, and they will not be discussed further.

Wild species

A low number of wild taxa (possibly weeds of crop cultivation) were recovered, consisting of large and small seeds of grasses (Poaceae), goosefoots seeds (*Chenopodium* sp.), docks (*Rumex* sp.), and a couple of indeterminate seeds, possibly Brassicaceae. See table 1 for their distribution across the samples.

Other finds

Two fragments of mammal bones were also present: one in sample **1** and one in sample **3**; the only finds recovered from the scanning of the coarse fractions. Significantly, a low number of *Trichuris* sp. ova (whipworm eggs) were also recovered from these two samples when examined under high magnification (400x).

Some root and rootlet fragments were also found in all the samples, suggesting a degree of soil disturbance.

Discussion

Overall, the samples had similar characteristics, being rich in very fine fragments of charcoal and containing low numbers of charred seeds. The absence of chaff possibly suggests that the threshing of grain was taking place elsewhere.

The low numbers of charred cereal grains do not allow an accurate comparison of the of relative importance of wheat and barley but glume wheat grains seem to be more abundant. Barley is a more resilient crop compared to wheat and can withstand poorer soils, drier conditions, and has a greater tolerance to salinity (Zohary and Hopf: 59; Smartt and Simmonds 1995: 140). Both barley and spelt wheat have been commonly found on Roman sites, while barley and emmer were common in the Iron Age. It is therefore possible that the remains identified as glume wheat (*T. dicoccum/spelta*) could be a mixture of both cereal types, with emmer still growing in fields cultivated with spelt wheat. The charred cereal remains represented here are most likely to have resulted from cooking spillage.

The charred wild species may have entered the contexts in several ways. Wild taxa could have been weeds cleaned off the crop as grasses, goosefoots and some dock species are commonly associated with cultivated ground. Alternatively, they may represent wild species growing nearby that were accidentally burnt, or were specifically used as kindling material and floor bedding. Additionally, several species of goosefoots and docks have young edible leaves and edible seeds, and could represent wild food.

The presence of parasite ova of the genus *Trichuris* suggests that human and/or animal cess material was disposed of in ditches. The genus has two common species: *T. trichiura*, which is parasite of the human large intestine known as round worm or whipworm, and *T. suis*, which is a parasite normally found in pigs known as swine whipworm and which can affect humans as well.

The overall character of the assemblage points to rubbish deriving from domestic fires being disposed of in pits and ditches. Specifically, the ditches were also used for the disposal of cessy and organic material, as parasite ova and mammal bones were not recovered in any of the pit fills.

Conclusions

Despite the low density of remains, the analysis has provided evidence of domestic activities, food consumption and disposal. It has also highlighted the possibility that a mixture of emmer and spelt wheat may have been grown in the region during the Early Roman occupation; and issued which could be clarified with further sampling of the site.

Most importantly, the recovery of charred and un-charred plant remains, together with mammal bones and parasite ova, demonstrates the potential for the good survival of environmental evidence on site, should further work take place, and the need for an appropriate sampling strategy to be adopted if it does.

Bibliography

Cappers, R.T.J., Bekker, R.M. and Jans, J.E.A. 2006. *Digital Seed Atlas of the Netherlands*. Groningen Archaeological Studies 4. Eelde, Barkhuis Publishing.

Hillman, G. 1981. 'Reconstructing crop husbandry practices from charred remains of crops'. In Mercer, R. (ed.), *Farming practice in British prehistory*. Edinburgh, Edinburgh University Press, 123-162.

Smartt, J. and Simmonds, N.W. (eds.) 1995. *Evolution of Crop Plants*. 2nd edition. Harlow, Longman.

Stace, C. 1997. *New Flora of the British Isles*. Cambridge, Cambridge University Press.

Zohary, D. and Hopf, M. 2000. *Domestication of Plants in the Old World*. 3rd edition. Oxford, Oxford University Press.

Table 1: Environmental finds

Sample	Trench	Context	Date	Feature	V	Ch. Cereal Grain	Ch. Weed Seed	ABone	Chl	Others
1	1	107	1stC. AD	layer	9	Glume wheat (*T. dicoccum/spelta*) x8	Poaceae Lx3	1	xxx	Uncharred elder seeds (*Sambucus nigra L.*), root fragments, *Trichuris* sp. eggsx3
2	3	304	undated	pit fill	2		*Chenopodium* sp.x3 *Rumex* sp.x1		x	root fragments, very sandy and poor sample
3	5	507	2ndC. AD	ditch fill	8	Spelt wheat (*T.* cf. *spelta*) x3	Poaceae Lx2, *Rumex* sp. x1	1	xxx	root fragments, *Trichuris* sp. eggsx2
4	4	405	1stC. AD	ditch fill	9	Glume wheat (*T. dicoccum/spelta*) x6	Poaceae Lx2,un-identifiedx2		xxx	Uncharred elder seeds (*Sambucus nigra L.*), root fragments
5	4	407	1stC. AD	pit fill	8	*Hordeum vulgare L.* (hulled barley)x5	Poaceae Sx1, Poaceae Lx2		xxx	Uncharred elder seeds (*Sambucus nigra L.*), root fragments

Key to abbreviations

Ch. = charred

ABone=animal bones

Chl=charcoal

L=large

S=small

Appendix 7: OASIS summary