NAA

ARCHAEOLOGICAL EVALUATION REPORT

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BURTREE LANE, DARLINGTON CO. DURHAM

prepared for
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on behalf of
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Summary

This document presents a final report of the results of an archaeological evaluation carried out at Burtree Lane, Darlington, Co. Durham (NZ 28624 17993). The work comprised the excavation of thirty trial trenches and was undertaken by Northern Archaeological Associates Ltd (NAA) for Nathaniel Lichfield and Partners, on behalf of Theakston Estates Ltd in March and April 2016. The evaluation was undertaken to support a planning application for residential development. This report incorporates the results of the archaeological evaluation and specialist analysis of the artefact assemblage recovered.

The site was located to the immediate south-east of the Burtree Lane and Whessoe Road junction, approximately 3km north of central Darlington. The western part of the site was the location of the short-lived 19th-century Drinkfield Iron Company ironworks. Sub-surface remains of a variety of structures including wall foundations and a large brick-lined well were identified underneath thick deposits of industrial waste. The results from the evaluation suggested that the ironworks had been thoroughly demolished and the debris largely removed. Due to the limited size of the investigation, the relationships between individual structural features and their original purpose remained unclear.

Evidence of a late prehistoric to Roman period settlement was unearthed in the western part of the site. The features comprised ditches and the remains of possible roundhouses, some of which had been disturbed by the later industrial activity.

Medieval plough furrows were encountered throughout most of the site. The scarcity of medieval artefacts found within the excavated deposits suggested that the site lay at some distance from any major settlement and most likely comprised part of the arable hinterland of the deserted medieval village of Whessoe.

A modest assemblage of artefacts including pottery, metal and construction materials was recovered. The pottery assemblage comprised fragments of handmade late prehistoric to Roman period vessels from two contexts, four fragments of post-medieval Delftware, and one sherd of pottery dateable to the medieval period. Remains of two horseshoes, one medieval and one of a post-medieval date were recovered from ditches running parallel with the current

Burtree Lane. The remainder of artefacts consisted of glass fragments, construction material and industrial waste related to the 19th-century ironworks.

1.0 INTRODUCTION

1.1 This document presents a report on the results of an archaeological evaluation carried out on land at Burtree Lane, Darlington, Co. Durham, centred at NGR NZ 28624 17993 (Fig. 1). The evaluation was conducted in support of an outline planning application for a residential development extending some 17.05ha and comprised the excavation of thirty archaeological trial trenches, representing a sample of approximately 2% of the development area.

1.2 The archaeological evaluation was undertaken by Northern Archaeological Associates Ltd (NAA) for Nathaniel Lichfield and Partners, on behalf of Theakston Estates Ltd. between 30th of March and 22nd of April 2016. The work was carried out to inform the planning process by characterising features identified by the geophysical survey (Phase SI 2015); to determine the presence or absence of any other archaeological remains within the site, and to ascertain the extent, condition, character and date of any such remains. This information will be used by Durham County Council Archaeology Section to assess the significance of those remains that may be affected by the proposal and to inform on the need for further archaeological mitigation, either before or during construction.

1.3 The evaluation was conducted in accordance with the Written Scheme of Investigation (NAA 2016) and completed to relevant standards and guidance published by English Heritage (2008); Historic England (2015) and the Chartered Institute for Archaeologists (2014a; 2014b).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1 The archaeological evaluation was conducted in support of an outline planning application for a residential development, with land reserved for a primary school and nursery, associated access arrangements and landscaping. The site was located on the northern outskirts of Darlington, within the parish of Whessoe. The application area encompassed land to the immediate south-east of the Burtree Lane and Whessoe Road junction, approximately 3km north of the centre of the town (Fig. 1). Covering approximately 17.05ha, the proposed development area was centred at NGR 428624 517993 and comprised an irregular shaped parcel of undeveloped mixed grass and scrubland, interspersed with immature and mature tree cover. The development area was bounded to the south and south-east by modern industrial and residential developments; to the west by Whessoe Road; and to the north and north-east by

Burtree Lane. The proposed development was situated at approximately 75m AOD at the northern end of the site, decreasing in elevation to 91m AOD to the south.

Geology and soils

2.2 The solid geology of the site is comprised of Dolostone of the Ford Formation, overlain by superficial deposits of Devensian glaciofluvial-derived tills (BGS Sheet 33 - Stockton).

3.0 SUMMARY ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 The site has been subject to a Desk-Based Assessment (NAA 2015), and a geophysical survey (Phase SI 2015), and only a summary of information relevant to the archaeological evaluation is given here.

Prehistoric to Roman

3.2 Excavations at Rise Carr, approximately 820m to the south-west of the Site, revealed evidence for a mid-late Iron Age enclosed settlement, typical of a number of small 'farmstead' sites recently identified across County Durham, although no evidence for continuous occupation into the Romano-British period could be identified (Petts and Gerrard 2006). The principal evidence for Roman/Romano-British occupation was uncovered during a series of archaeological investigations ahead of the proposed extension of Faverdale Business Park (PCA 2012). The first phase of permanent settlement occupation at the Faverdale site originated in the Late Iron Age, with evidence of an unenclosed settlement, including nine identifiable roundhouses and an associated field system. This field system gradually evolved, with the extensive reorganisation of the surrounding landscape, and by the 2nd century AD, a laddered, rectilinear, enclosure system had been established. Multiple structures were found associated with the system, including an inhumation cemetery, possible shrine, stone structures comprising a putative farmstead/villa and Roman style bathhouse, complete with underfloor hypocaust, as well as a Roman cobbled road surface.

Medieval

3.3 The deserted medieval village of Whessoe is believed to be situated approximately 250m to the south of Whessoe Grange Farm, c. 750m west of the Site. All that survives of the site today are heavily truncated cropmarks, suggestive of a regular plan settlement and associated field system. The extent of the village is not clear, but the

presence of a former 12th century chapel at Whessoe Grange Farm, suggests that the settlement extended further north than indicated by the cropmark evidence.

3.4 Putative medieval ridge and furrow has been identified across land to the immediate north-east and west of the proposed development site. Much of it has been identified from post-war aerial photographs, and in most cases any surface evidence has since been destroyed by agriculture or development, with geophysical survey providing evidence for the survival of sub-surface remains. Very ephemeral traces of surviving ridge and furrow were identified within the central and southern extent of the development boundary through examination of LIDAR mapping data.

Post-medieval and Modern

3.5 Micheson's plan of the *Manor of Whessoe and Drynge feilde* dated 1601 is the earliest plan to show the study area in great detail. The plan reflects elements of the existing field system, with the route of Whessoe Road and Burtree Lane already well defined and indicates that partial private enclosure was already occurring by the 17th century.

3.6 On the western side of the site was the location of an ironworks, operated by the Drinkfield Iron Company. The ironworks was established in 1868. However, the venture was short lived and the site was closed and all plant and machinery sold at auction by 1879. No illustrations or architectural plans for the works could be identified during the course of the desk-based assessment; however, it is believed that the works comprised 36 puddling furnaces, 2 forges and 3 rolling mills.

Geophysical survey

3.7 A geophysical survey of the proposed development area was undertaken by Phase SI in 2015 (Phase SI 2015; fig. 3). To the north and north-east of the ironworks, against the southern field boundaries, were spreads of magnetic material, probably related to the ironworks itself (this was not surveyed, as the disturbance from the ironworks would render geophysics unusable in this area). Most of the fields had varying responses related to agricultural regimes, with suggestions of ridge and furrow, particularly in the southern fields. The main response that stood out as having archaeological potential was a curving response in the south-east corner, which could have earlier archaeological origins. There were also a large number of services, which corresponded with those shown on the utility plans.

3.8 There was a general absence of 'clear' archaeological features across the site, though a number of weak curvilinear features were of possible archaeological origin. The trenching was positioned to test some of the earthworks related to the ironworks and the identified geophysical anomalies.

4.0 AIMS AND OBJECTIVES

4.1 The main aim of the evaluation was to confirm the nature, extent and significance of archaeological remains within the proposed development area. Where remains were present, the trial trenching aimed to confirm their location, extent, nature, date and importance in order that an informed assessment of the impact could be undertaken and an appropriate mitigation strategy agreed.

4.2 The principal objectives of the archaeological evaluation were:

- To characterise archaeological features identified by the geophysical survey;
- To establish the presence, nature, extent, preservation and significance of any other archaeological remains within the site;
- To provide a detailed record of any such archaeological remains;
- To recover and assess any associated structural, artefactual and environmental evidence;
- to test apparently 'blank' areas on the geophysical survey for the presence/absence of archaeological features;
- to determine which areas within the footprint of the proposed scheme require archaeological mitigation in the form of preservation in situ, open area investigation in advance of construction, or monitoring of soil stripping during construction works;
- to prepare an illustrated report on the results of the evaluation to be deposited with the Historic Environment Record (HER) held by Durham County Council Archaeology Section and the National Monuments Record (NMR); and
- to evaluate the potential for further unrecorded significant archaeological remains to be present within the site.

The requirement for further mitigation will be agreed through consultation between Nathaniel Lichfield and Partners and Durham County Council Archaeology Section.

5.0 METHODOLOGY

Trench location

5.1 Twenty seven trial trenches were proposed to be excavated in six modern fields (F. 1-6) within the development area (Fig. 2). In accordance with the Written Scheme of Investigation (NAA 2016), the trenches were located to sample geophysical anomalies or 'blank' areas of the site; four trenches were proposed for the area of the former ironworks. The trenches measured approximately 50m by 1.9m (100m^2), and it was considered that they provided an appropriately targeted excavation sample reflecting the potential and possible significance of any surviving archaeological remains. However, due to parts of Field 3 being flooded and unsuitable for excavation during the time of the evaluation, the proposed location of one trench had to be abandoned. In order to compensate for this, four smaller trenches with more irregular proportions were excavated within Field 2. Durham County Council Archaeology Section was consulted regarding the change in trench arrangement. This brought the total number of trenches up to 30; their location is shown in Figure 2.

Machine excavation

5.2 The trenches were set out using a Topcon GRS1 GPS and the information was transferred to AutoCAD software and reproduced for incorporation within the report. All levels were tied in to Ordnance Datum.

5.3 The initial site works comprised the stripping of topsoil and non-archaeological subsoils within each trench. The removal of overburden (topsoil and any subsoil) was undertaken using a mechanical excavator fitted with a toothless or ditching bucket only.

5.4 The mechanical excavator removed overburden under archaeological supervision down to a level at which significant archaeological deposits were identified or down to natural subsoil deposits, whichever was encountered first. Thereafter all archaeological work was undertaken by hand.

Hand excavation

5.5 The identified archaeological remains were cleaned, assessed, excavated by hand, sampled and recorded as appropriate. Hand-excavation of archaeological features was undertaken in order to characterise the site's archaeology and ensure recovery of artefactual and environmental evidence. In particular, hand excavation was focused on examining a representative sample of the different types of features encountered.

5.6 Written descriptions of all archaeological features and deposits were recorded on pro forma sheets using the NAA context recording system.

5.7 Drawn records of all archaeological features were produced at a scale of 1:10 for sections and elevations and 1:20 or 1:50 for plans. Information was transferred to AutoCAD software and reproduced for incorporation within this report. All levels were tied in to Ordnance Datum.

5.8 A photographic record of the site was taken comprising colour digital images and 35mm monochrome prints.

5.9 Archaeological artefacts were collected as bulk finds; no artefacts of special significance requiring three-dimensional recording were encountered. Finds were appropriately recorded, processed and submitted for post-excavation assessment. All recovered finds were appropriately packaged and stored under optimum conditions. Finds recovery and storage strategies were in accordance with published guidelines (English Heritage 1995; Watkinson and Neal 2001).

5.10 Bulk palaeoenvironmental samples were taken from appropriate deposits. These were processed by NAA and submitted to the environmental specialist for assessment of their environmental potential, including charcoal, small bones, cereal grains, pollen, mollusca and macro-environmental material. Recovery and sampling of environmental remains was carried out in accordance with published guidelines (English Heritage 2002; 2003).

5.11 All archaeological works were undertaken in accordance with relevant standards, guidance and best practice published by English Heritage (2008), Historic England (2015) and the Chartered Institute for Archaeologists (2014a; 2014b).

6.0 RESULTS

6.1 The results of the evaluation are described in trench order and are discussed in Section 7. Trenches devoid of archaeology or containing only plough furrows have been described summarily, and the location and orientation of the observed features are shown in Figure 3, in relation to the geophysical survey results.

Field 1 (Fig. 2)

6.2 Field 1 was a rectangular enclosure of managed grassland occupying the north-western area of the Site. A total of three trial trenches were excavated within the field, numbered 1-3.

Trench 1 (Fig.4)

6.3 The trench measured 50m by 1.9m and was orientated east-northeast to west-southwest. It was located within the southernmost part of Field 1, and its location was chosen to investigate spreads of magnetic material identified during the geophysical survey.

6.4 The natural subsoil comprised a yellow-orange boulder clay (008). This was observed at an average depth of 0.35m.

6.5 Cutting the natural boulder clay at the west-south-western end of the trench were three curving gullies, all aligned north-east to south-west and with an individual spacing of c. 0.5m (Plate 1). The inner gully (019) had a steep U-shaped profile, a width of 0.6m, a depth of 0.22m, and an observed length of 1.7m. It contained a single fill of brown-grey silty clay (020). The central gully (021) had a shallow U-shaped profile, a width of 0.45m, a depth of 0.12m, and an observed length of 3m. Its fill comprised a deposit of brown-grey sandy/silty clay (022). The outer gully (025) had a steep U-shaped profile, a width of 0.65m, a depth of 0.27m and an observed length of 3.5m. It contained a single fill of brown-grey silty clay (026) with frequent stone inclusions. The north-eastern part of the feature had been truncated by a modern field drain (023).

6.6 Sealing the gullies was a deposit of light brown-grey clayey silt (018). It had a maximum depth of 0.2m at the western end of the trench, then gradually decreased and was absent throughout the eastern half of the trench.

6.7 A north to south orientated ditch was encountered 10m east of the middle of the trench (031). It had a steep U-shaped profile, a width of 0.65m, a depth of 0.38m, and was observed to a length of 2m within the trench (Plate 2). The primary fill (032) consisted of a dark brown-black silty clay with frequent charcoal inclusions and a depth of 0.15m. This was covered by a mottled brown-grey silty clay deposit with moderate charcoal content (035).

6.8 Five north-northwest to south-southeast orientated furrows were observed within the trench, spaced c. 4m apart. One was excavated (009) and shown to be 1.25m wide and 0.13m deep, with a shallow U-shaped profile and a single fill of grey-brown clayey silt (010).

6.9 At the eastern end of the trench was an additional linear feature on the same alignment as the furrows (033). It measured 0.7m wide and 0.06m deep, and was filled by an orange-brown clayey silt (034). The shallow, irregular depression might have represented another plough furrow but is more likely to have resulted from a removed hedge row.

6.10 Sealing all features was a layer of orange-brown silty clay subsoil (007), with a typical thickness of 0.10m. This was in turn overlain by a 0.25m thick dark grey-brown silty loam topsoil (006). The magnetic anomalies identified by the geophysical survey were shown to have been caused by the frequent inclusions of clinker and ash found within the topsoil.

Trench 2 (Fig. 4)

6.11 Trench 2 was located centrally within Field 1, and its purpose was to investigate an area identified as 'blank' during the geophysical survey. The trench was orientated north-northwest to south-southeast and measured 50m in length and 1.9m in width.

6.12 The natural subsoil comprised a yellow orange boulder clay (003), which was encountered at an average depth of 0.35m.

6.13 Cutting the natural clay was a single circular feature (004), located near the western limit of excavation towards the northern end of the trench (Plate 3). The small pit had steep sides, a flat base and measured 0.32m in diameter and 0.12m deep. It was filled with a grey-brown silty clay deposit containing c. 50% burnt stone (005). The sides of the pit showed no sign of *in situ* burning (Plate 3).

6.14 Overlying the natural boulder clay and small pit was a thin layer of orange-brown silty clay subsoil (002) with a maximum depth of 0.15m.

6.15 The most recent deposit was a dark brown-grey clayey silt topsoil (001), covering the entire trench and with an average depth of 0.2m.

Trench 3 (Fig. 5)

6.16 Trench 3 was located toward the north-eastern corner of Field 1 and was targeted upon linear trends identified by the geophysical survey. The trench was aligned north-east to south-west and measured 51m in length, 1.9m in width and had an excavated maximum depth of 0.95m.

6.17 The natural subsoil was a mottled yellow orange boulder clay (017); this was encountered at an average depth of 0.65m below the current ground level.

6.18 A series of linear features were observed cutting the natural boulder clay. Two north to south orientated ditches, spaced 11.5m apart, were investigated toward the south-western end of the trench (013, 029). They both had a shallow U-shaped profile, a width of c. 0.8m, a depth of 0.2m and were observed up to a length of 2.4m within the trench. The ditch fills comprised a single deposit of grey-brown silty clay; 014 and 030 respectively. One fragment of handmade tile was found within deposit 014, and four fragments of post-medieval pottery and three fragments of handmade tile were recovered from fill 030. Located between the two ditches was a third north to south orientated feature (027), with a flat base and measuring 0.98m in width and 0.1m in depth. It was filled by a stony deposit of dark grey-brown silty clay (028) and most likely represented the base of a hedgerow.

6.19 The north-eastern part of Trench 3 was characterised by linear features on a north-west to south east alignment. The most prominent was a 3.5m wide and 0.4m deep feature, with gently sloping sides and a flat base (211) (Plate 4). It contained a single fill of dark purple-brown sandy silt (212) with occasional large stones and measured 2.6m in length within the limits of excavation. The feature was observed running parallel with Burtree Lane and was interpreted as a possible boundary ditch or, due to its width, a possible routeway pre-dating the present line of the road. The feature had been cut by a modern field drain.

6.20 A total of three north-west to south-east aligned plough furrows were identified on either side of ditch 211. Two were excavated, (209, 213) and were both shown to have

a wide U-shaped profile, a width of 1.3m and a depth of 0.15m. The excavated fills (210, 214) comprised grey-brown silty clay deposits and the furrows were spaced c. 10m apart.

6.21 Sealing the above mentioned features was a layer of firm yellow brown silty clay subsoil (016). This deposit was present across the entire trench and had an average thickness of 0.25m.

6.22 Overlying the whole length of Trench 3 was a dark brown gray silty clay topsoil (015), with an average thickness of 0.3m.

Field 2 (Fig. 2)

6.23 Field 2 was a sub-rectangular enclosure located in the central-western area of the site, and the location of the short-lived 19-century Drinkfield Iron Company ironworks. The eastern half of the field was covered in dense vegetation, whereas the western half was composed of mainly open grassland. A total of eight trenches were excavated within the field, numbered 4-11. This was a deviation from the proposed number of four and was carried out to compensate for the reduced number of trenches within Field 3. Due to the large quantities of metalworking debris within the field, this area had been deemed unsuitable for geophysical survey.

6.24 Trenches 4 and 5 contained no archaeological features. They were both 50m by 1.9m and excavated to a maximum depth of c.1m, with a stratigraphic sequence entirely made from a series of mixed ash/clinker/slag dumps and demolition deposits. The ground surface in the area where Trench 4 was excavated had been compacted to create a hard standing for farm-vehicles, some of which were still present in the field.

Trench 6 (Fig. 5)

6.25 The trench was orientated north-northwest to south-southeast and located within the central area of Field 2.

6.26 The natural subsoil consisted of a grey-yellow boulder clay (056) which was encountered at a typical depth of 0.65m.

6.27 A north-west to south-east aligned ditch (049) was found cutting the natural clay 2.4m from the northernmost corner of the trench (Plate 5). Excavation revealed that the ditch had a steep U-shaped profile, a width of 1.54m and a depth of 0.65m. It was filled by 5 distinct deposits, suggesting that the ditch had been backfilled gradually.

The primary deposit (050) was a 0.1m thick brown-grey silty clay, which was overlain by a pale grey silty clay (051) with moderate stone inclusions and a similar thickness to the preceding deposit. The tertiary deposit comprised a friable grey-brown silty clay, with a thickness of 0.15m. This was covered by a thin lens of silt and charcoal (053), which yielded one fragment of handmade pottery and most likely represented a deliberate deposit. The uppermost fill of the ditch consisted of a friable dark brown-grey silty clay (054), which had a thickness of 0.1m and contained occasional small stones.

6.28 A sub-oval feature (047) containing a dark brown clayey silt deposit (048) was encountered 18m from the southernmost edge of the trench. The feature was excavated and shown to have been caused by tree roots.

6.29 The trench was sealed by two layers of subsoil; the earliest was a c. 0.2m thick grey-brown silty clay (056), which was overlain by a c. 0.15m thick deposit of yellow-grey silty clay (066). Occasional clinker and coal fragments were observed within the later deposit, and it was interpreted as resulting from a levelling event associated with the Drinkfield Ironworks.

6.30 The most recent deposit was black-brown silty loam topsoil (057), with an average thickness of 0.15m and frequent inclusions of coal and clinker.

Trench 7 (Fig. 6)

6.31 Trench 7 was aligned east-northeast to west-southwest and located near the northern limit of Field 2. It measured 50m by 1.9m and was centred on an area of possible structural remains, represented by a markedly uneven ground surface.

6.32 The natural subsoil comprised a mottled grey-orange clay (060) which was observed at a depth of 0.36m at the easternmost end of the trench, with a gradual increase to a depth of 1m at the westernmost end.

6.33 The only archaeological feature present within Trench 7 was a north to south orientated ditch (045). It had a shallow U-shaped profile, was 1.33m wide and 0.2m deep, and was filled by a single deposit of grey-brown clayey silt (046) (Plate 6).

6.34 Sealing the ditch was an orange-brown silty clay subsoil (059), with a depth of 0.2m at the eastern edge of the trench. This deposit gradually decreased in thickness and was absent throughout the westernmost half of the trench.

6.35 All observed irregularities in ground level were shown to have been caused by a series of demolition deposits and dumps of industrial waste associated with the ironworks. Directly overlying the natural subsoil in the western end of the trench was a black-brown layer of silty clay (072). It contained a moderate amount of coal and clinker and had an irregular thickness of 0.1m to 0.32m. Abutting and slightly overlapping this deposit was a layer of brown-orange gritty clay (071). It measured 3m wide and 0.1m deep, and was in turn overlain by a 0.2m thick deposit of dark orange gritty sand and heat-affected stone (070). Next was a sloping deposit of white-grey crushed mortar (069), varying in depth from 0.1m to 0.3m west to east. The sequence of dumps ended with two sloping layers of clinker and ash (067, 068), each with a thickness of c. 0.15m.

6.36 Covering the entire trench was a dark black-brown silty loam topsoil (058), which measured 0.15m in depth at the western end of the trench and increased to a depth of 0.3m towards the relatively undisturbed eastern end.

Trench 8 (Fig. 6)

6.37 Trench 8 was located near the western limit of Field 2 and excavated in an L-shape, with a north-northwest to south-southeast orientated leg measuring 9.5m by 2m and an east-northeast to west-southwest leg which measured 9.5m by 4m.

6.38 The natural subsoil comprised a mottled orange grey clay (128) which was observed at a typical depth of 0.85m.

6.39 Cutting the natural clay in the north to south leg of the trench was a curving gully (120). It formed a crescent, with its terminal end aligned north-west to south-east and continued beyond the eastern limit of excavation on a north-east to south-west alignment (Plate 7). The gully had a steep U-shaped profile, a width of 0.57m and a depth of 0.18m. It was observed for a length of c. 5m within the limits of excavation, and was filled by a grey-brown silty clay, containing occasional small stones (121, 122, 123). Deposit 121 was sampled for palaeoenvironmental analysis and was shown to contain a small fragment of industrial waste.

6.40 Three intercutting north-west to south-east orientated ditches were observed running through the east to west leg of the trench, the southernmost and middle ditch extended beyond the western limit of excavation, the northernmost must have terminated within the unexcavated area between both legs of the trench (Plate 8).

Both the northern (118) and southern (087) ditch were cut by the central one (116), suggesting that they were re-cuts of the same boundary/enclosure ditch. Excavation showed that all three ditches had U-shaped profiles and a depth of 0.25m, with the middle, un-truncated ditch measuring 0.9m in width. The excavated fills showed great similarities; each ditch contained a single deposit of brown-grey silty clay. Nine sherds from a late prehistoric or Roman period pottery vessel were recovered from the fill of the southernmost ditch (088).

6.41 At the northern edge of the east to west leg of the trench were two gullies (114, 166) forming a right angle. Both gullies measured 0.55m in width and were c. 0.15m deep. No relationship could be discerned between them, as they contained identical fills of brown-grey silty clay, so they were assumed to be contemporary and interpreted as part of a small enclosure or possible structure. The fill of gully 114 (115) was sampled for palaeoenvironmental analysis and was shown to be sterile. The corner of the gullies was observed cutting ditch 118, with gully 114 continuing north-northeast beyond the northern limit of excavation. Gully 166 was observed cutting ditch 118 on a north-west to south east alignment, but due to the similarities in soil colour and composition, its trajectory could be traced no further.

6.42 Another north-west to south-east orientated ditch was observed running for 7.6m through the south-western corner of the trench (147). It was c. 0.8m wide and 0.4m deep, with one surviving mottled orange-grey silty clay fill (148). The ditch and the surrounding area of natural subsoil had been truncated by an up to 0.3m deep intrusion, affecting most of the central area of the trench. This was in all likelihood related to ground improvements prior to the 1868 construction of the Drinkfield Iron Company ironworks.

6.43 The reduced ground level had been backfilled with a brown yellow slightly silty clay (127). Directly on top of this deposit was a structure of square red brick slabs (073), each slab measured 0.2m by 0.2m with a thickness of 0.06m. The slabs had been stacked unbonded directly on top of each other, with a maximum of three courses that measured 0.2m high. The structure had a maximum width of 0.87m and a visible length of 1.4m within the trench.

6.44 The trench was sealed by a c. 0.35m thick deposit of black ash and clinker (126), overlain by a 0.15m thick layer of grey brown silty loam topsoil (125).

Trench 9 (Fig. 7)

6.45 Trench 9 was aligned east-northeast to west-southwest, was located towards the western limit of Field 2 and measured 11m by 1.9m.

6.46 The natural subsoil comprised a mottled orange boulder clay (078), which was recorded at a typical depth of 0.75m below the ground surface.

6.47 The earliest deposit consisted of a layer of ash and clinker (080), which had a maximum depth of 0.2m. This was overlain at both ends of the trench by two contemporary dumps of burnt stone, brick and slag, mixed with clay (076, 085). The deposits measured between 0.08m to 0.2m in depth. They were covered by another deposit of ash and clinker (077), which did not measure over 0.1m in thickness.

6.48 At the western end of the trench, a brick plinth was found to have been constructed over the deposits of industrial waste (079). It was a square brick structure measuring 0.58m wide by 0.35m high, constructed in stretcher bond with crumbling lime mortar visible horizontally between the bricks. On the top surface of the plinth were two bricks forming a collar. It is likely that the structure once formed a post-pad, as a couple of the bricks showed signs of having buckled under pressure (Plate 9).

6.49 The plinth and underlying deposits of industrial waste was covered by a c. 0.3m thick dark brown layer of silty clay mixed with clinker and ash (075), which was sealed by a 0.05m thick layer of silty loam and turf (074).

Trench 10 (Fig. 9)

6.50 This trench was located towards the western limit of Field 2. It was excavated in an L-shape; with one north-northwest to south-southeast leg that measured 11.4m by 2m and one leg aligned west-southwest to east-northeast measuring 4.6m by 3.5m.

6.51 The natural subsoil was composed of a mottled yellow-grey boulder clay (059), which was encountered at a typical depth of 0.7m. Overlying the natural clay was a 0.26m thick layer of recent subsoil comprising a yellow-brown sandy/clayey silt (158). This deposit was only present in the northernmost end of the trench, as it had been truncated by features elsewhere.

6.52 Located centrally within the trench was an east to west orientated brick wall foundation (092). It was constructed from re-used bricks laid as headers, with rubble infill between the faces. The wall was set in a 1.38m wide and 0.5m deep foundation

trench (091) which had been filled with clay and rubble deposits (093, 094, 095) to support the structure. Excavation of these deposits exposed the full dimensions of the wall foundation: it stood at a height of 0.48m and was 0.7m wide (Plate 10).

6.53 The wall which foundation 092 would have supported had been demolished: a large quantity of bricks were found within the sandy silt backfill (097) of a sub-oval pit (096) which was seen truncating the foundation trench immediately north of the wall. The pit was 2m long and 1.4m wide within the limits of excavation, with a U-shaped profile and a depth of 0.43m (Plate 11).

6.54 The southernmost part of Trench 10 was dominated by a brick lined well and associated construction/demolition features (Plate 10). In the south-eastern corner was a rectangular feature (102) with a vertical northern edge and a sloping western edge. It was 2.3m long and 1.7m wide, continuing to an unknown extent outside the trench. The earliest recorded fill was a smooth orange-yellow sand (103). A 0.5m deep sondage was excavated into this deposit; neither a change in soil composition nor base of feature was encountered. Overlying the sand was a yellow-grey sandy clay (104) with a thickness of 0.18m. This deposit was in turn covered by a 0.2m thick layer of dark grey sandy silt (105).

6.55 Cutting the northern edge of the rectangular feature (102) was a large circular brick-lined well (098). It had vertical sides and a diameter of 2.8m, total depth could not be ascertained due to safety concerns. The well was lined with header bonded bricks (099), of which five courses were exposed, and a silty sand mixed with brick rubble (100) had been used as packing material between the well cut and brick lining. A deliberate deposit of clinker, bricks and slag (101) overlay and infilled the well down to a maximum excavated depth of 0.86m.

6.56 The most recent feature encountered within Trench 10 was an east to west orientated ditch (106), cutting into the industrial debris overlying the well. It had a U-shaped profile, was 0.5m wide and 0.37m deep and was observed for a length of 3.3m within the trench. A single deposit of dark brown-grey sandy silt (107), similar to topsoil, was removed from within the ditch. This feature was of recent date and had most likely been excavated for drainage purposes.

6.57 The entire trench was sealed by an up to 0.3m thick sandy silt topsoil (157) which contained frequent demolition rubble and clinker.

Trench 11 (Fig. 9)

6.58 Trench 11 was orientated north-northwest to south-southeast along the western limit of Area 2. It measured 10m by 1.9m and its location was chosen to investigate brick structures visible at ground level.

6.59 The natural subsoil comprised a mottled orange-grey clay (084) which was encountered at a typical depth of 0.65m.

6.60 Overlying the natural clay was a 0.15m thick layer of orange-grey stony clay subsoil (156), which was covered by a deposit of crushed mortar (155), varying between 0.1m to 0.3m in depth.

6.61 Two brick walls orientated east to west were found cut into these deposits. The first wall (081) was found at the northern end of the trench and stood 6 courses (0.57m high) and was 0.5m wide. The bricks were laid in stretcher bond, with a header-bonded foundation. It had been constructed in a vertical-sided foundation trench (082), 0.7m wide and 0.2m deep, with a deposit of sand and demolition rubble (083) used as infill between the foundation trench and wall (Plate 12).

6.62 The second wall (089) was located 2.7m from the southernmost end of the trench. It had 4 surviving courses, with a height of 0.40m and a width of 0.36m. The bricks were laid in stretcher bond, with a stepped header-bonded foundation. It had been constructed in a vertical-sided foundation trench (090), 0.65m wide and 0.2m deep, with a deposit of silty demolition rubble (239) used as infill between the foundation trench and wall (Plate 13).

6.63 Sealing the trench was a clayey silt topsoil (154). It was heavily mixed with industrial waste and varied between 0.25m to 0.5m in thickness.

Field 3 (Fig.2)

6.64 Field 3 was a sub-triangular enclosure, and occupied the northern and central areas of the Site. A total number of five trenches were excavated within Field 3, numbered 12-16. This was a slight reduction from the proposed number of six outlined in the Written Scheme of Investigation (NAA 2016) due to the southern part of the field being flooded at the time of investigation.

6.65 Trench 13 was located in an area of strong magnetic responses, identified by the geophysical survey. This was shown to have been caused by a spread of clinker from

the nearby ironworks (062) and no archaeological features, deposits or finds were present within the trench. Trench 14 was located centrally within Field 3, an area where linear trends were identified during the geophysical survey. The anomalies were shown to have been caused by six north-west to south-east orientated plough furrows, located in the northern half of the trench and spaced c. 3m apart. One was excavated (135) and shown to have a characteristic shallow U-shaped profile with a width of 1.05m and a depth of 0.12m. Trench 15 was entirely devoid of archaeology. One small north-west to south-east aligned linear feature was excavated (218), and was found to have been caused by modern ploughing. The trench was excavated to a maximum depth of 0.3m, and the natural subsoil (222) had been frequently cut by plough scars.

Trench 12 (Fig. 8)

6.66 Trench 12 was located in the western corner of Field 3 on a west-northwest to east-southeast alignment. It measured 50m by 1.9m with an average excavated depth of 0.65m and was centred on magnetic anomalies identified during the geophysical survey.

6.67 The natural subsoil comprised a mottled purple-brown boulder clay (196), which was encountered at a typical depth of 0.65m.

6.68 Cutting the natural clay was a north-east to south-west orientated ditch (190). It was observed for a length of 6.65m in the eastern end on the trench, and was shown to be 1.1m wide and 0.2m deep. The ditch contained a single deposit of grey-brown silty clay with minor stone inclusions (191). It seemed to follow the contour of Burtree Lane, located c. 10m north of the trench and most likely represented a roadside- or field boundary ditch (Plate 14).

6.69 Sealing the ditch and natural clay was a series of recent subsoils. The earliest was a grey-brown silty clay colluvium (195) with an average depth of 0.18m. Overlying this was a 0.05m thick lens of orange-red sand (194), which was covered by a light yellow-brown silty clay subsoil (193) with a typical thickness of 0.15m. The most recent deposit was a c. 0.25m thick dark grey-brown clayey silt topsoil (192). It was 0.25m thick with moderate to frequent inclusions of clinker and ash, which corresponded with the spread of magnetic material identified by the geophysical survey.

Trench 16 (Fig. 8)

6.70 Trench 16 was aligned west-northwest to east-southeast and located in the eastern corner of Field 3. It measured 50m by 1.9m and its location was chosen in order to investigate linear anomalies identified during the geophysical survey. Adverse weather led to flooding of the eastern corner of Field 3. As a result one third of Trench 16 remained under water for the duration of the evaluation.

6.71 The natural subsoil consisted of a mottled orange-grey boulder clay (231), which was encountered at a depth of 0.5m.

6.72 One north-west to south-east orientated ditch (204) was observed cutting the natural clay c. 20m from the easternmost end of the trench. A 2.5m by 1.9m extension was excavated at the northern edge of the trench in order to record the full width of the ditch. It was shown to have a U-shaped profile with a steeper northern edge, and measured 1.6m in width, 0.22m in depth and contained a single fill of orange-brown clayey silt (205). The ditch could be observed for a length of 10m within the trench and appeared to follow the contour of Burtree Lane; it was therefore interpreted as a roadside- or field boundary ditch (Plate 15).

6.73 A single north-northwest to south-southeast orientated plough furrow was located 6m from the westernmost end of the trench (177). It was excavated and shown to be 1.1m wide, 0.05m deep and filled by a deposit of orange-brown clayey silt (178).

6.74 Covering the ditch and furrow was a 0.25m thick orange brown clayey silt subsoil (230). The most recent deposit within Trench 16 was a layer of dark grey brown silty loam topsoil (229)

Field 4 (Fig. 2)

6.75 Field 4 was a large pentagonal field occupying the central and eastern areas of the Site. It was covered entirely by grass and sloped towards the north and west. A total of six trial trenches were excavated within Field 4, numbered 17-22. All measured c. 50m by 1.9m, with the exception of Trench 22 which had to be shortened by c. 5m due to its proposed north-eastern end extending into an area of standing water.

6.76 Trench 22 was also the only trench within Field 4 where there was a slight deviation in soil depth and composition. The magnetic anomalies identified by the geophysical survey were shown to be caused by a spread of ash and clinker within the topsoil

(215). The depth of recent subsoil (216) increased from a consistent field-average of 0.15m to c. 0.3m at the north-eastern end of the trench. Moderate peat inclusions were noted within the soil, a result of this low-lying corner of Field 4 having been waterlogged for an extended period of time.

6.77 Whereas Trench 17 contained no archaeological features or deposits, the other five contained a large number of medieval plough furrows. Apart from a north-east to south-west aligned ditch identified within Trench 19, which has been treated separately below, furrows were the only type of archaeological feature present within Field 4. The plough furrows showed a uniform north-northwest to south-southeast alignment and were spaced 4m apart. One furrow within each trench was investigated and shown to measure 0.85-1m in width and 0.1m in depth.

Trench 19 (Fig. 8)

6.78 The trench was aligned north-west to south east and located in the north-eastern area of Field 4. Its location was chosen to investigate parallel linear trends identified during the geophysical survey.

6.79 The natural subsoil was a mottled yellow-orange boulder clay (181), this was encountered at an average depth of 0.65m below the level of the current topsoil.

6.80 A north-east to south-west orientated ditch (131) was found cutting the natural clay 16m from the south-eastern end of the trench (Plate 16). Investigations revealed that it had a U-shaped profile with a steeper south-eastern side, a width of 1.55m and a depth of 0.37m. Its single fill consisted of a smooth yellow-brown silty clay (132). The southern edge of the feature had been cut by a modern field drain.

6.81 Six north-northwest to south-southeast orientated plough furrows were identified within the trench. The one chosen for investigation (133) measured 0.89m in width and 0.11m in depth, with a friable grey-brown clayey silt fill (134). A hiatus in the otherwise regular 4 m interval between furrows was observed in the area around ditch 131.

6.82 The ditch and plough furrows were sealed by a layer of grey-brown silty clay subsoil (182), with an average depth of 0.15m.

6.83 The most recent deposit was a c. 0.25m thick layer of dark grey-brown clayey silt (183), covering the entirety of Trench 19.

Field 5 (Fig. 2)

6.84 Field 5 was the easternmost field on the site and comprised a triangular enclosure, sloping from north to south. A total of five trial trenches were excavated within the field, three of which were centred on a curvilinear response picked up by the geophysical survey.

6.85 Trench 24 measured 50m by 1.9m, was orientated north-east to south-west and located towards the centre of Field 5. Its location was chosen to investigate parallel linear trends identified by the geophysical survey. The anomaly was shown to have been caused by six north-northwest to south-southeast orientated plough furrows, spaced c. 4m apart. One of the furrows was excavated (137) and shown to have a shallow U-shaped profile, flat base and measured 0.8m in width and 0.05m in depth.

6.86 Trench 26 was aligned north-northwest to south-southeast and located towards the southern limit of Field 5. It measured 48m by 1.9m and was centred on a curvilinear geophysical anomaly. A deposit of blue-grey alluvial clay with moderate peat inclusions (235) was found covering a 12m wide area located centrally within the trench, filling a natural depression. The deposit was mechanically excavated and shown to reach a maximum depth of 0.15m.

Trench 23 (Fig. 9)

6.87 The trench measured 47m by 1.9m and was excavated on a north-west to south-east orientation in the northern corner of Field 5. Its location was chosen to investigate discreet magnetic responses identified by the geophysical survey.

6.88 The natural subsoil was formed by a yellow-orange mottled grey boulder clay (184), this was encountered at an average depth of 0.55m below the level of the current topsoil.

6.89 A 6m wide and 0.15m deep palaeochannel was bisected approximately 20m from the northern end of the trench. It was aligned north-east to south-west and filled with a blue-grey alluvial clay.

6.90 Cutting the palaeochannel was a north-west to south-east orientated ditch (141) (Plate 17). The ditch was observed running along the edge of the trench for just over 30m, and a 2.5m by 2m trench-extension was made in order to determine the full width of the feature. It was shown to be 2m wide and 0.6 m deep, with a steeper south-western

edge and a flat base, and filled by a single deposit of yellow-brown silty clay (142). Two fragments of an iron horseshoe were recovered from the fill.

6.91 An additional ditch (143) was observed following the same alignment as ditch 141 and terminating 15m from the south-eastern end of Trench 23. The ditch terminus was excavated and shown to be 1.2m wide and 0.23 m deep, containing a dark purple-brown clayey silt deposit (144) which produced a near complete iron horseshoe. The alignment and proximity of ditches 141 and 143 to Burtree Lane suggest that they represented disused roadside ditches.

6.92 The above features were sealed by a grey-brown silty clay subsoil (185), with an average depth of 0.2m. This was in turn covered by a c.0.3 m thick deposit of dark grey-brown sandy/clayey silt topsoil (186).

Trench 25 (Fig. 9)

6.93 Trench 25 measured 50m by 1.9m and was located on a north-northeast to south-southwest alignment towards the eastern corner of Field 5. The location was chosen in order to investigate a number of curvilinear responses identified during the geophysical survey.

6.94 The natural subsoil comprised an orange-yellow boulder clay (153) and was observed at a depth of 0.45m at the north-eastern end of the trench and at c. 0.65m towards the low-lying south-western end.

6.95 A deposit of blue-grey alluvial clay (240) with minor peat inclusions was found covering an area of 12.5m in width toward the south-western end of the trench. The deposit was mechanically excavated and shown to reach a maximum depth of 0.2m. It had accumulated naturally as a result of the area being liable to flooding and was the cause of the curvilinear response identified during the geophysical survey.

6.96 A square-ended east to west orientated ditch terminus (139) was investigated at the north-eastern end of the trench (Plate 18). It had a steep V-shaped profile and was 0.8m wide and 0.33m deep. The ditch measured 1.50m in length within the trench, and continued westward beyond the limit of excavation. It contained a single deposit of mottled orange-grey silty clay (140), with occasional smaller stones at its base. The fill was sampled for palaeoenvironmental analysis and was proven to be sterile.

6.97 Two very faint north-northwest to south-south-east orientated plough furrows were observed centrally within Trench 25, spaced c. 4m apart. They were tested and proven to be 0.9m wide and less than 0.05m deep.

6.98 The ditch and furrows were sealed by a layer of orange brown silty clay subsoil (152), which varied in depth from 0.15m to 0.3m. This was in turn covered by a dark grey-brown clayey silt topsoil (151), with a thickness of c. 0.3m.

Trench 27 (Fig. 10)

6.99 The trench was orientated east-northeast to west-southwest and located towards the southern corner of Field 5. Its dimensions were 50m by 1.9m and its location was chosen to investigate linear and discreet responses identified during the geophysical survey.

6.100 The natural subsoil consisted of a mottled orange-yellow boulder clay (203) and was encountered at a typical depth of 0.4m.

6.101 Cutting the natural clay was a north-west to south-east orientated ditch (145) (Plate 19). It had an observed length of 3m within the limits of excavation and was located c. 6m from the eastern end of the trench. It had a steep, symmetrical U-shaped profile, with a width of 1.1m and a depth of 0.3m. The single deposit within comprised a blue-grey silty clay (146).

6.102 Four plough furrows were observed in the western half of the trench, and were aligned north-west to south-east, which was a slight deviation from the north-northwest to south-southeast orientation of previously recorded furrows. They were spaced c. 3m apart, and the one excavated furrow (237) showed a shallow U-shaped profile with a width of 0.9m and a depth of 0.1m. The fill within was a grey-brown sandy silt (238).

6.103 The entire length of the trench was sealed by an orange-brown layer of clayey silt subsoil (202), with a typical depth of 0.15m. This was in turn covered by a dark-grey brown deposit of clayey silt topsoil (201).

Field 6 (Fig. 2)

6.104 Field 6 represented the southernmost field of the Site and comprised a trapezoidal enclosure used for grazing horses. A total of three trial trenches were excavated within Field 6, numbered 28-30.

6.105 Trenches 29 and 30 had to be shortened to a length of 45m due to their proximity to an area of standing water. Both trenches were located to investigate a spread of magnetic material and linear trends identified during the geophysical survey. The magnetic spread was shown to consist of ash and clinker which derived from the nearby Drinkfield Ironworks, and had been mixed with the topsoil.

6.106 The linear trends were caused by north-northwest to south-southeast orientated plough furrows; one was identified and excavated within Trench 29 (171), and two were found within Trench 30, spaced c. 4m apart. Excavation of one of them (173) revealed a characteristic shallow U-shaped profile, with a width of 1.1m and a depth of 0.15m. It was filled by a deposit of dark grey brown clayey silt (174), which contained a single fragment of medieval pottery.

6.107 Composition of top- and recent subsoil was consistent throughout the western part of Field 6. The subsoil comprised an orange-brown silty clay, and the topsoil consisted of a dark grey-brown clayey silt with moderate inclusions of industrial debris. The recorded soil depth varied from north to south, with a typical topsoil depth of 0.2m to 0.3m and a subsoil depth varying between 0.15m to 0.3m.

Trench 28 (Fig. 10)

6.108 Trench 28 was orientated east to west and located towards the northern limit of Field 6. Its position was chosen to investigate linear geophysical trends and the excavated length was 50m by 1.9m.

6.109 The natural subsoil consisted of a mottled orange-yellow boulder clay (200) and was encountered at a typical depth of 0.4m.

6.110 A north-west to south-east orientated ditch (179) was found cutting the natural clay 6m from the western end of the trench, and was observed for a length of 2.3m within the limits of excavation (Plate 20). Investigation revealed that it had a U-shaped profile with a steeper eastern edge, a width of 1.7m and a depth of 0.45m. The primary fill (197) was a 0.15m thick grey-yellow smooth clay, derived from erosion of the ditch edges. A secondary deposit of brown-grey silty clay (180) occupied the remaining depth of the ditch and appeared to be the result of a deliberate levelling event.

6.111 The first of three plough furrows was encountered 10m east of ditch 179. As with the furrows recorded within Trench 27, they were aligned north-west to south-east and

spaced 3m apart. One was excavated (177) and shown to measure 0.8m in width and 0.05m in depth. It was filled by a deposit of dark grey-brown clayey silt (178).

6.112 All features were sealed by an orange-brown silty clay subsoil (199), with an average depth of 0.1m. The most recent deposit was a c. 0.2m thick dark grey-brown clayey silt topsoil (198), covering the entire length of the trench.

7.0 THE FINDS

7.1 All archaeological artefacts were subject to expert analysis; the individually appended finds reports are here summarised according to material.

Pottery (Chris Cumberpatch, Elizabeth Foulds)

7.2 The handmade pottery assemblage consisted of the base of a jar and a small abraded body sherd from two contexts, both ditch fills.

Context 053, Trench 6

7.3 One heavily abraded 5g fragment of hand-made pottery in a dark grey to buff sandy fabric was recovered from a thin, charcoal rich deposit within ditch 049 in Trench 6. Due to the poor condition of the sherd, it was not possible to determine whether anything of the original surface survived and there was no indication of the form of the vessel.

Context 088, Trench 8

7.4 The single surviving fill of ditch 087 contained nine sherds from the base of a jar, with a total weight of 489g. The vessel had a flat base, and had been crafted from a hard, black coarse sandy fabric which was finely finished and unburnished, with small variations in surface thickness. Small external traces of a black carbonaceous deposit were observed.

7.5 It is suggested that the vessel fragments are of a later prehistoric or Roman period date, which is consistent with the type of features recorded in that particular area; enclosure ditches and ring gullies.

7.6 The medieval and post-medieval pottery assemblage consisted of one sherd of medieval pottery found within the fill of a plough furrow and four fragments of a post-medieval Delftware vessel recovered from a ditch fill.

Context 030, Trench 3

7.7 Four fragments of polychromatic floral design Delftware with a total weight of 2g were found within the single fill of ditch 029. Three of the fragments refitted, and the fourth was likely to come from the same vessel.

Context 174, Trench 30

7.8 The single unglazed medieval pottery fragment weighed 4g and was recovered from the fill of plough furrow 173. This is consistent with the putative age of this type of feature.

Metal, glass, industrial material (Elizabeth Foulds)

7.9 Three iron objects from two contexts were examined and found to be one nearly complete horseshoe and two fragments of a second, incomplete horseshoe.

Context 142, Trench 23

7.10 Two joining fragments of an incomplete iron horseshoe, with a combined weight of 56g were recovered from the single fill of ditch 141. One attachment perforation remained and a concretion of corrosion on the surface was believed to be the remains of a nail. The horseshoe was similar to Clark's (1995) Type 3 or 4, which suggests a 13th-15th century date for the context.

Context 144, Trench 23

7.11 A near complete iron horseshoe weighing 152g was found within the single fill of ditch terminus 143. No attachment perforations were visible due to corrosion. The width and thickness of the iron bar were variable, in part due in part to damage, but also a likely result of the shoe having been hand-forged. The form suggests it is post-medieval in date.

Ceramic building material (Chrystal Antink)

Eight fragments of ceramic building material were recovered during the evaluation. Four of these came from the fill of the well in Trench 10 and were post-medieval, the remainder were recovered from ditch fills in Trench 3 and appeared to be handmade but were too fragmentary to definitively determine form.

Context 014, Trench 3

7.12 One fragment of tile with a nail hole, weighing 8g, was found within the fill of ditch 013. It was very thin and unlikely to have been suitable for roofing.

Context 030, Trench 3

7.13 Three fragments of ceramic building material were recovered from the fill of ditch 029. Two of these were remains of tile, weighing 24g and 12g respectively. One small fragment was undiagnostic.

Context 101, Trench 10

7.14 Four bricks in varying states of fragmentation were found within the fill of well 098. Three of the fragments were modern bricks of standardised manufacture, two of which were stamped. One read [...BUTT], possibly J. H. Garbutt, a Darlington maker, and the other [F&D], possibly Fletcher & Davidson. A fourth brick may have been fabric moulded and fired in place, as it shows no signs of standardised manufacture. It is more rounded and lips over in areas as if installed around other materials when wet.

7.15 Two of the bricks were covered in ferrous and vitrified material and a third showed signs of partial vitrification, suggesting they may have been furnace/kiln linings.

7.16 The fragmentary state of the handmade ceramic building material made any close dating impossible. The fragments were also unsuitable for dating the contexts within which they were found, as they were likely to have been residual.

8.0 DISCUSSION

8.1 The trial-trench excavation achieved all of the principle objectives for the evaluation phase of works. Remains of the short-lived ironworks were identified within Field 2, together with evidence of late prehistoric settlement in the form of ditches and possible roundhouses within Fields 1 and 2. In addition, widespread evidence of medieval to early post-medieval agricultural activity was encountered throughout the Site, represented by plough furrows and boundary ditches.

8.2 The anomalies and trends identified by the geophysical survey were tested and explained. Spreads of magnetic material over certain areas of the site were in all instances proven to have been caused by ash and clinker derived from the 19th-century ironworks, and linear trends were shown to result from occasional boundary ditches from an earlier phase of land division and an abundance of plough furrows. Three trenches (25, 26, 27) were centred on a strong curving response in Field 5, the feature was however proven to be of natural origin.

8.3 Remains of a probable small late prehistoric to Roman period settlement were identified in three trenches. The recorded features were located in the southern part of Field 1 and northern part of Field 2 and consisted of ditches and the remains of two possible roundhouses. Heavy truncation caused by the 19th-century industrial activity was observed within Trench 8, whereas the features within Trenches 1 and 6 were found in a better state of preservation due to their location on the periphery of the ironworks. No dateable artefacts were recovered from the putative ring gullies in Trench 1, but as they were sealed by a deposit which had subsequently been cut by a plough furrow, a pre-medieval date has been assumed. None of the recorded features were identified during the course of the geophysical survey, as they were located in the area of the former ironworks or had been masked by spreads of magnetic material. The presence of later prehistoric or Roman period features was not completely unexpected due to the site's relatively close proximity to the Iron Age enclosed settlement at Rise Carr and Roman period settlement and field systems unearthed at Faverdale Business Park.

8.4 The majority of earthworks identified within Field 2 during the walkover survey were shown to consist of industrial debris. Any actual structural remains survived mainly on a sub-surface level, such as the wall foundations and well. This, along with relatively sparse inclusions of building material such as bricks or roof tiles within the surrounding soils indicate that the ironworks had been thoroughly demolished and the

debris largely removed. Due to the limited total area excavated, the relationships between individual recorded structural features and their original purpose remained unclear.

8.5 With the exception of Field 2, plough furrows were identified throughout the site. The only piece of artefactual dating evidence encountered during the investigation of these features was a fragment of medieval pottery, which is consistent with the assumed date of this agricultural regime. The scarcity of medieval artefacts suggested that the site lay at some distance from any major settlement and most likely comprised part of the arable hinterland of the deserted medieval village of Whessoe.

8.6 Shallow ditches were found in Trenches 3, 12, 16 and 23 and were observed running parallel with Burtree Lane. They most likely served a dual purpose as drainage channels and as a boundary between the lane and the agricultural land. The horseshoes recovered from the fills of closely spaced ditches 141 and 143 in Trench 23 tell an interesting story in that one was of a medieval type, and the other was post-medieval in appearance. This suggests that the roadside boundary had been maintained over the centuries and corresponds well with cartographic evidence showing the current line of Burtree Lane as a well established route by 1601. The wide, shallow feature (211) encountered in Trench 3 could potentially represent an earlier routeway, this is however a tenuous interpretation due to the limited size of the excavation.

8.7 The archaeological features and deposits encountered during the course of this evaluation contribute to the knowledge of the local area, with the potential for the later prehistoric-Roman period settlement to be of regional importance. It is recommended that the site should be the subject of further archaeological mitigation through an archaeological strip and record exercise prior to development, particularly in order to establish and record the full extent of the late prehistoric to Roman period settlement, gain additional knowledge regarding the extent and function of the 19th-century industrial remains and explore the possibility of a routeway pre-dating the current route of Burtree Lane.

9.0 ARCHIVE DEPOSITION

9.1 The full archive from the archaeological investigations, including paperwork, drawings, photographs, digital data and the finds assemblage, is to be deposited internally.

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APPENDIX A

CONTEXT AND FINDS CATALOGUE

Context	Phase	Interpretative description	Relationships	Trench	Notes	Finds and sample information
001		Topsoil		2		
002		Subsoil		2		
003		Natural		2		
004		Cut of pit		2		
005		Fill of pit 004		2		
006		Topsoil		1		
007		Subsoil		1		
008		Natural		1		
009	Med	Cut of furrow		1		
010	Med	Fill of furrow 009		1		
011	Modern	Cut of drain		1	Same as 023	
012	Modern	Fill of drain 011		1		
013		Cut of ditch		3		
014		Fill of ditch 013		3		CBM x1
015		Topsoil		3		
016		Subsoil		3		
017		Natural		3		
018		Subsoil		1		
019	IA/RB	Cut of gully		1		
020	IA/RB	Fill of gully 019		1		
021	IA/RB	Cut of gully		1		
022	IA/RB	Fill of gully 021		1		
023	Modern	Cut of drain		1	Same as 011	
024	Modern	Fill of drain 023		1		
025	IA/RB	Cut of gully		1		
026	IA/RB	Fill of gully 025		1		
027	PM	Hedgerow base		3		
028	PM	Fill of hedgerow base 027		3		
029	PM	Cut of ditch		3		
030	PM	Fill of ditch 029		3		Pottery x4, CBM x3
031		Cut of ditch		1		
032		Primary fill of ditch 031		1		
033	PM	Hedgerow base		1		
034	PM	Fill of hedgerow base 033		1		
035		Secondary fill of ditch 031		1		
036		Topsoil		4		
037	Modern	Clinker		4		
038	Modern	Re-deposited natural		4		
039		Topsoil		5		
040	Modern	Clinker		5		
041		Subsoil		5		
042		Levelling deposit		5		
043		Clay deposit		5		

Context	Phase	Interpretative description	Relationships	Trench	Notes	Finds and sample information
044		Redeposited natural		5		
045		Cut of ditch		7		
046		Fill of ditch 045		7		
047		Tree bole		6		
048		Fill of tree bole		6		
049	IA/RB	Cut of ditch		6		
050	IA/RB	Primary fill of ditch 049		6		
051	IA/RB	Secondary fill of ditch 049		6		
052	IA/RB	Tertiary fill of ditch 049		6		
053	IA/RB	Quarternary fill of ditch 049		6		Pottery x1
054	IA/RB	Quintary fill of ditch 049		6		
055		Topsoil		6		
056		Subsoil		6		
057		Natural		6		
058		Topsoil		7		
059		Subsoil		7		
060		Natural		7		
061		Topsoil		13		
062	Modern	Clinker		13		
063		Subsoil		13		
064		Alluvial clay		13		
065		Natural		13		
066		Subsoil		6		
067	Modern	Clinker		7		
068	Modern	Clinker		7		
069	Modern	Crushed mortar		7		
070	Modern	Sandy deposit		7		
071	Modern	Gritty deposit		7		
072	Modern	Clay deposit		7		
073	Modern	In-situ brickwork		8		
074		Topsoil		9		
075		Subsoil		9		
076	Modern	Slag deposit		9		
077	Modern	Clinker		9		
078		Natural		9		
079	Modern	In-situ brickwork		9		
080	Modern	Clinker		9		
081	Modern	Wall		11		
082	Modern	Foundation cut		11		
083	Modern	Fill of foundation cut 082		11		
084		Natural		11		
085		Clay deposit		9		
086		Topsoil		11		
087	IA/RB	Cut of ditch	Cuts 116, 118	8		
088	IA/RB	Fill of ditch 087		8		Pottery x9
089	Modern	Wall		11		
090	Modern	Foundation cut		11		

Context	Phase	Interpretative description	Relationships	Trench	Notes	Finds and sample information
091	Modern	Foundation cut		10		
092	Modern	Wall		10		
093	Modern	Fill of construction cut 091		10		
094	Modern	Fill of construction cut 091		10		
095	Modern	Fill of construction cut 091		10		
096	Modern	Cut of pit	Cuts 091	10		
097	Modern	Fill of pit 096		10		
098	Modern	Construction cut; well	Cuts 102	10		
099	Modern	In-situ brickwork; well		10		
100	Modern	Fill of construction cut 098		10		
101	Modern	Fill of well		10		Glass x3, CBM x4, metal working waste x3
102	Modern	Demolition cut	Cut by 098	10		
103	Modern	Fill of demolition cut 102		10		
104	Modern	Levelling deposit		10		
105	Modern	Levelling deposit		10		
106	Modern	Cut of ditch	Cuts 098	10		
107	Modern	Fill of ditch 106		10		
108	Med	Cut of furrow		21		
109	Med	Fill of furrow 108		21		
110	Med	Cut of furrow		20		
111	Med	Fill of furrow 110		20		
112	Med	Cut of furrow		18		
113	Med	Fill of furrow 112		18		
114	IA/RB	Cut of gully	Cuts 118	8		
115	IA/RB	Fill of gully 114		8		AAx1
116	IA/RB	Cut of ditch	Cut by 087	8		
117	IA/RB	Fill of ditch 116		8		
118	IA/RB	Cut of ditch	Cut by 087, 114	8		
119	IA/RB	Fill of ditch 118		8		
120	IA/RB	Cut of ring gully		8		
121	IA/RB	Fill of ring gully 120		8		AAx1
122	IA/RB	Fill of ring gully 120		8		
123	IA/RB	Fill of ring gully 120		8		
124	IA/RB	Fill of ditch 116		8		
125		Topsoil		8		
126	Modern	Clinker		8		
127		Subsoil		8		
128		Natural		8		
129	Med	Cut of furrow		22		
130	Med	Fill of furrow 129		22		
131		Cut of ditch		19		
132		Fill of ditch 131		19		
133	Med	Cut of furrow		19		
134	Med	Fill of furrow 133		19		
135	Med	Cut of furrow		14		

Context	Phase	Interpretative description	Relationships	Trench	Notes	Finds and sample information
136	Med	Fill of furrow 135		14		
137	Med	Cut of furrow		24		
138	Med	Fill of furrow 137		24		
139		Cut of ditch terminus		25		
140		Fill of ditch terminus 139		25		AAx2
141	Med	Cut of ditch		23		
142	Med	Fill of ditch 141		23		Horseshoe, incomplete
143	PM	Cut of ditch terminus		23		
144	PM	Fill of ditch terminus 143		23		Horseshoe
145		Cut of ditch		27		
146		Fill of ditch 145		27		
147	IA/RB	Cut of ditch		8		
148	IA/RB	Fill of ditch 147		8		
149		VOID				
150		VOID				
151		Topsoil		25		
152		Subsoil		25		
153		Natural		25		
154	Modern	Clinker		11		
155	Modern	Crushed mortar		11		
156		Subsoil		11		
157		Topsoil		10		
158		Subsoil		10		
159		Natural		10		
160		Topsoil		14		
161		Subsoil		14		
162		Natural		14		
163		Topsoil		24		
164		Subsoil		24		
165		Natural		24		
166	IA/RB	Cut of gully		8		
167	IA/RB	Fill of gully 166		8		
168		Topsoil		29		
169		Subsoil		29		
170		Natural		29		
171	Med	Cut of furrow		29		
172	Med	Fill of furrow 171		29		
173	Med	Cut of furrow		30		
174	Med	Fill of furrow 173		30		Pottery x1
175		Topsoil		30		
176		Subsoil		30		
177	Med	Cut of furrow		28		
178	Med	Fill of furrow 177		28		
179		Cut of ditch		28		
180		Secondary fill of ditch 179		28		
181		Natural		19		
182		Subsoil		19		
183		Topsoil		19		

Context	Phase	Interpretative description	Relationships	Trench	Notes	Finds and sample information
184		Natural		23		
185		Subsoil		23		
186		Topsoil		23		
187		Natural		30		
188	Med	Cut of furrow		16		
189	Med	Fill of furrow 188		16		
190		Cut of ditch		12		
191		Fill of ditch 190		12		
192		Topsoil		12		
193		Subsoil		12		
194		Sand lens		12		
195		Subsoil		12		
196		Natural		12		
197		Primary fill of ditch 179		28		
198		Topsoil		28		
199		Subsoil		28		
200		Natural		28		
201		Topsoil		27		
202		Subsoil		27		
203		Natural		27		
204		Cut of ditch		16		
205		Fill of ditch 204		16		
206		Topsoil		21		
207		Subsoil		21		
208		Natural		21		
209	Med	Cut of furrow		3		
210	Med	Fill of furrow 209		3		
211		Cut of ditch		3		
212		Fill of ditch 211		3		
213		Cut of ditch		3		
214		Fill of ditch 213		3		
215		Topsoil		20		
216		Subsoil		20		
217		Natural		20		
218		Plough scar		15		
219		Fill of plough scar 218		15		
220		Topsoil		15		
221		Subsoil		15		
222		Natural		15		
223		Topsoil		18		
224		Subsoil		18		
225		Natural		18		
226		Topsoil		22		
227		Subsoil		22		
228		Natural		22		
229		Topsoil		16		
230		Subsoil		16		
231		Natural		16		
232		Topsoil		26		

Context	Phase	Interpretative description	Relationships	Trench	Notes	Finds and sample information
233		Subsoil		26		
234		Natural		26		
235		Alluvial clay		26		
236		Levelling cut		8		
237		Cut of furrow		27		
238		Fill of furrow 237		27		
239		Fill of foundation cut 090		11		
240		Alluvial clay		25		

APPENDIX B

HANDMADE POTTERY REPORT

Dr Chris G Cumberpatch

INTRODUCTION

The pottery assemblage from Burtree Lane, Darlington was examined by the author on 15th June 2016. It consisted of the base of a jar and a small abraded body sherd from two contexts. The details are given in the catalogue below.

CATALOGUE

Context 053

A heavily abraded sherd of hand-made pottery (5 grams) in a dark grey to buff sandy fabric containing abundant fine quartz grains (<0.2mm), moderate angular white quartz up to 1.2mm and sparse angular white quartz up to 5mm with possible fine muscovite visible on the buff surface. The sherd was so heavily abraded that it was not possible to determine whether anything of the original surface survived and there was no indication of the form of the vessel.

Context 088

Context 088 contained nine sherds from the base of a jar (489 grams) in a hard, black coarse sandy fabric which contained abundant, well-sorted sub-angular quartz up to 2mm with larger grains up to 4mm particularly prominent on the surfaces. The base was flat and the vessel was finely finished despite the relatively coarse fabric which precluded burnishing. There were small traces of a black carbonaceous deposit externally.

The finish of the vessel was good and although it appeared to be hand-made (rather than wheel-thrown) this was not obvious as the surfaces and thickness varied little.

DISCUSSION

Dating handmade pottery from Yorkshire and the north-east of England poses a number of problems as the evidence suggests that the strength of the local ceramic tradition ensured that there was relatively little change from the early Iron Age through to the later Roman period while recent work has suggested that the distinction between Roman period and post-Roman pottery is far less clear than could be desired (Cumberpatch unpublished; Perry pers. comm.). In the absence of a distinctive rim or features on the body, the principal distinction between pre-Roman to Roman and post-Roman vessels seems to be a change in the pattern of burnishing on the external surface of some vessels although this is, at present, little more than a 'rule of thumb' and is in any case irrelevant to vessels which were not burnished, as is the case here. The vessels are therefore suggested to be of later prehistoric or Roman period date but a post-Roman date cannot be entirely ruled out.

CURATION AND ARCHIVING

Given the uncertainty over the dating and the importance of handmade pottery in our understanding of later prehistoric, Roman and post-Roman society and the potential for further work on this subject in the future, it is recommended that this assemblage be deposited in the appropriate local museum or finds repository where it will be available for further research in the future.

APPENDIX C

FINDS REPORT

Dr Elizabeth M Foulds

INTRODUCTION

A collection of 14 artefacts were recovered from archaeological excavations. The results of quantification and analysis are presented below.

THE ASSEMBLAGE

The finds recovered from excavations cover a wide range of artefact materials (Table C1). The majority are post-medieval in date, although there are a small number of medieval and undiagnostic finds (Table C2).

Table C1: summary of material quantities.

	Context					
Material	**030**	**101**	**142**	**144**	**174**	**TOTAL**
Glass	-	3	-	-	-	3
Pottery	4	-	-	-	1	5
Industrial material	-	3	-	-	-	3
Iron	-	-	2	1	-	3
TOTAL	4	6	2	1	1	14

Table C2: Summary of quantities by period.

	Context					
Material	**030**	**101**	**142**	**144**	**174**	**TOTAL**
Medieval	-	-	2	-	1	3
Post-medieval	4	3	-	1	-	8
Undiagnostic	-	3	-	-	-	3
TOTAL	4	6	2	1	1	14

The only finds from Trench 3 were the four fragments of Delftware from the fill of ditch 029 (context 030). This suggests a post-medieval date for this fill.

Finds from the well (Trench 10 context 101) included three fragments of post-medieval vessel glass and large pieces of ferrous slag. Although not closely datable, these finds coincide well with the previously known 19th-century ironworks activity at Burtree Lane.

An incomplete horseshoe in two fragments was recovered from the fill of ditch 141 (Trench 23 context 142). It is very similar to Clark's (1995) Type 3/4 horseshoes, which are medieval in date and suggest a medieval date for the context.

Another, but complete, horseshoe was found in the fill of the ditch terminus 143 (Trench 23 context 144). It is likely post-medieval in date.

A single fragment of medieval pottery was recovered from the fill of furrow 173 (Trench 30 context 174).

DISCUSSION & RECOMENDATIONS

Artefacts recovered during excavation represent the medieval and post-medieval periods. The majority of the finds were post-medieval, which is not unexpected given that there was a known 19th century ironworks at the site. The sherd of medieval pottery and possible medieval horseshoe are interesting, but does little to inform us of the nature of any medieval activity at the site.

It is recommended that the artefacts should be discarded.

CATALOGUE BY CONTEXT

Trench 3

Context 030 (fill of ditch 029)

Four fragments of polychromatic Delftware pottery with floral design. Three of the fragments refit, although the fourth is likely from the same vessel. Post-medieval. 2 grams

Trench 10

Context 101 (Fill of well)

Three large fragments of ferrous slag. Undiagnostic. 2036 grams

Two pale green translucent fragments of non-refitting glass bottle bases, or other small vessel. They both have significant abraded wear on the bottom surface. Although the two fragments do not refit, they are from similarly sized and shaped vessels. A third body sherd fragment is also similar in colour, although it does not refit with either base fragment. All three pieces exhibit a medium level of surface weathering and have iridescent surfaces and some patchy areas of weathered crust. Post-medieval. Combined weight 305 grams

Trench 23

Context 142 (Fill of ditch 141)

Two joining fragments of iron horseshoe. One perforation used to attach the shoe to the horse remains. There is a concretion of iron and corrosion on the surface, which is probably a nail. Probably Clark (1995) Type 3 or 4. 13th/14th-14/15th century. Combined weight 56 grams

Context 144 (Fill of ditch terminus 143)

Nearly complete iron horseshoe, although none of the perforations are visible. Width and thickness of the iron bar are variable, which is probably due in part to damage, but also suggests that the shoe was hand-forged. Post-medieval. 152 grams

Trench 30

Context 174 (Fill of furrow 173)

One unglazed body sherd vessel fragment. Medieval. 4 grams

REFERENCES

Clark, J. (1995) 'Horseshoes', in Clark, J. (ed.), *The medieval Horse and its Equipment c. 1150-c.1450* , London: Medieval Finds from Excavations in London 5, 75-123.

APPENDIX D

CERAMIC BUILDING MATERIALS (CBM) REPORT

Chrystal ML Antink

INTRODUCTION

Eight fragments of ceramic building material (CBM) were recovered from Trenches 3 and 10, ranging in weight from 1 to 3262 grams. Of these, four are post-medieval and the remainder appear handmade (where diagnostic), but are too fragmentary to definitively determine form.

METHODS

Fragments were recorded by weight, form, and any complete dimensions in a Microsoft Access database. The assemblage was examined under a x10 hand magnifying lens to aid a compilation of a fabric series (section 5.0). Any unusual firing characteristics, stamps, and external effects were noted.

HANDMADE FRAGMENTS

All handmade fragments were recovered from Trench 3. One fragment of tile, with a partial nail hole was recovered from context 14. It is very thin (6.8mm) and unlikely to be good for roofing. None of the other fragments, from context 30, could be described more completely than as 'tile'. There was one wholly undiagnostic fragment.

POST-MEDIEVAL FRAGMENTS

All of the post-medieval material was recovered from Trench 10, context 101, the fill of a well. Three of the fragments were modern bricks, two of which were stamped [...BUTT] (possibly J. H. Garbutt, a Darlington maker) and [F&D] (possibly Fletcher & Davidson). The third brick was of a similar size, but was not stamped.

The fourth 'brick' from trench 10, context 101 may have been fabric moulded and fired in place, as it shows no signs of standardised manufacture. It is more rounded and lumpen and lips over in areas as if installed around other materials when wet.

Two of the bricks are covered in ferrous and vitrified material and a third shows signs of partial vitrification, suggesting these may have been furnace/kiln linings.

FABRIC SERIES

0	Fragment too small to break for checking
1	Frequent coarse to very coarse quartz; sparse fine mica; occasional coarse red-firing pellets; sparse coarse chalk; frequent white-firing lenses
2	Moderate fine to coarse quartz; occasional fine mica; occasional fine to coarse black flecks
3	Modern material; frequent very coarse rounded pebbles

4 Modern material; frequent angular quartz fragments

5 Modern material; frequent coarse rounded pebbles; frequent coarse subangular quartz; occasional coarse black flecks; occasional coarse red flecks

CATALOGUE

Only complete measurements given.

Trench 3

Context 014 (fill of a ditch 013)

One fragment of tile, 8g, 6.8mm thick with a nail hole.

Context 030 (fill of a ditch 029)

One fragment undiagnostic, 1g;

one fragment of ?tile, 12g;

one fragment of tile, 24g, 16mm thick.

Trench 10

Context 101 (fill of well)

Four fragments, all post-Medieval;

One fragmentary brick, 1843g, 111mm wide x 72mm high with partial stamp [...BUTT];

One fragmentary ?brick, 3262g, 98mm high;

One fragmentary brick, 2007g, 80mm high;

One fragmentary brick, 2528g, 241mm long x 112mm wide x 64mm high, with stamp [F&D].

DISCUSSION & RECOMMENDATIONS

As the handmade CBM was so fragmentary, little can be learned about the Medieval or earlier activity on the site from it. The four post-Medieval examples would not be unexpected features of a 19th Century ironworks; the vitrified material especially helps confirm its presence.

It is recommended that the artefacts should be retained and deposited with the site archive.

REFERENCES

Davison, Peter J. (1986) *Brickworks of the North East*. Portcullis Press: Gateshead Libraries and Arts Services.

APPENDIX E

PALAEOENVIRONMENTAL ASSESSMENT

Lynne F Gardiner

SUMMARY

Four samples were taken from features at Burtree Lane, Darlington. All had sediments of very silty clay with sample 235 AA being particularly difficult to work and was abandoned. The remaining samples and their resulting flots did not yield any charred plant remains or charcoal. The sample from the fill of ring gully 120 (121 AA) contained a small fragments of fuel/industrial waste along with a single spherical hammerscale.

However, if further work is to be undertaken in this area then environmental samples should still be taken as the sediment/soil types would allow for the preservation of charred plant remains and charcoal.

No material was present that was suitable for radiocarbon AMS dating.

INTRODUCTION

Four bulk environmental samples were taken during the course of an archaeological evaluation at Burtree Lane, Darlington, Co. Durham (centred at NGR NZ 28624 17993).

The preliminary results of the evaluation are presented above. This report presents the results of the assessment of palaeoenvironmental works in accordance with Campbell et al. (2011) and English Heritage (2008).

METHODOLOGY

The bulk environmental samples were processed at NAA. The colour, lithology, weight and volume of each sample was recorded using standard NAA pro forma recording sheets. cf. Table E1. The samples were processed with 500 micron retention and flotation meshes using the Siraf method of flotation (Williams 1973). Once dried, the residues from the retention mesh were sieved to 4mm in order to sort for artefacts and ecofacts, with any removed from the larger fraction whilst the finer fraction (<4mm) was scanned with any artefacts and ecofacts being, for the most part only recorded, with only significant material being removed. The fine fractions were also scanned with a magnet in order to retrieve any micro-slags. Once both elements have been sorted they were discarded.

The flots were scanned using a stereo microscope (up to x45 magnification) cf. Table E2. Once sorted, they were discarded, the exception being 121 AA.

RESULTS

The heavy silty clay sediments made the processing of the samples very difficult. Sample 235 AA refused to yield and was subsequently abandoned after consultation with the excavator.

From the remaining samples, 121 AA and 140 AA, some magnetic matter was recovered. A single spherical hammerscale was observed in 121 AA; all other magnetic matter was naturally occurring stone. Sample 115 AA yielded nothing.

The flots were sterile with the exception of 121 AA where a small fragment of fuel/industrial waste was observed.

DISCUSSION

The paucity of palaeoenvironmental remains prohibited discussion.

STATEMENT OF POTENTIAL AND RECOMMENDATIONS

The flot from sample 121 AA has been retained, as has the magnetic matter, in case the small fuel/industrial fragment is to be sent to the industrial specialist.

No material was present that would allow for a radiocarbon AMS date to be taken.

Whilst the samples from this evaluation were almost sterile it should be noted that if future archaeological interventions were to occur in the area then a coherent sampling strategy should be employed as charred plant material and charcoal can exist in the soil/sediment conditions presented at Burtree Lane.

ACKNOWLEDGEMENTS

Megan Lowrie and Freddie Sisson processed and sorted the samples.

REFERENCES

Campbell, G., Moffett, L. and Straker, V. (2011) *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (second edition), English Heritage, Portsmouth

English Heritage (2008) MoRPHE Project Planning Note 3 Archaeological Excavations

Williams, D. (1973) 'Flotation at Siraf', *Antiquity*, 47: 198-202

Table E1: Sample processing data

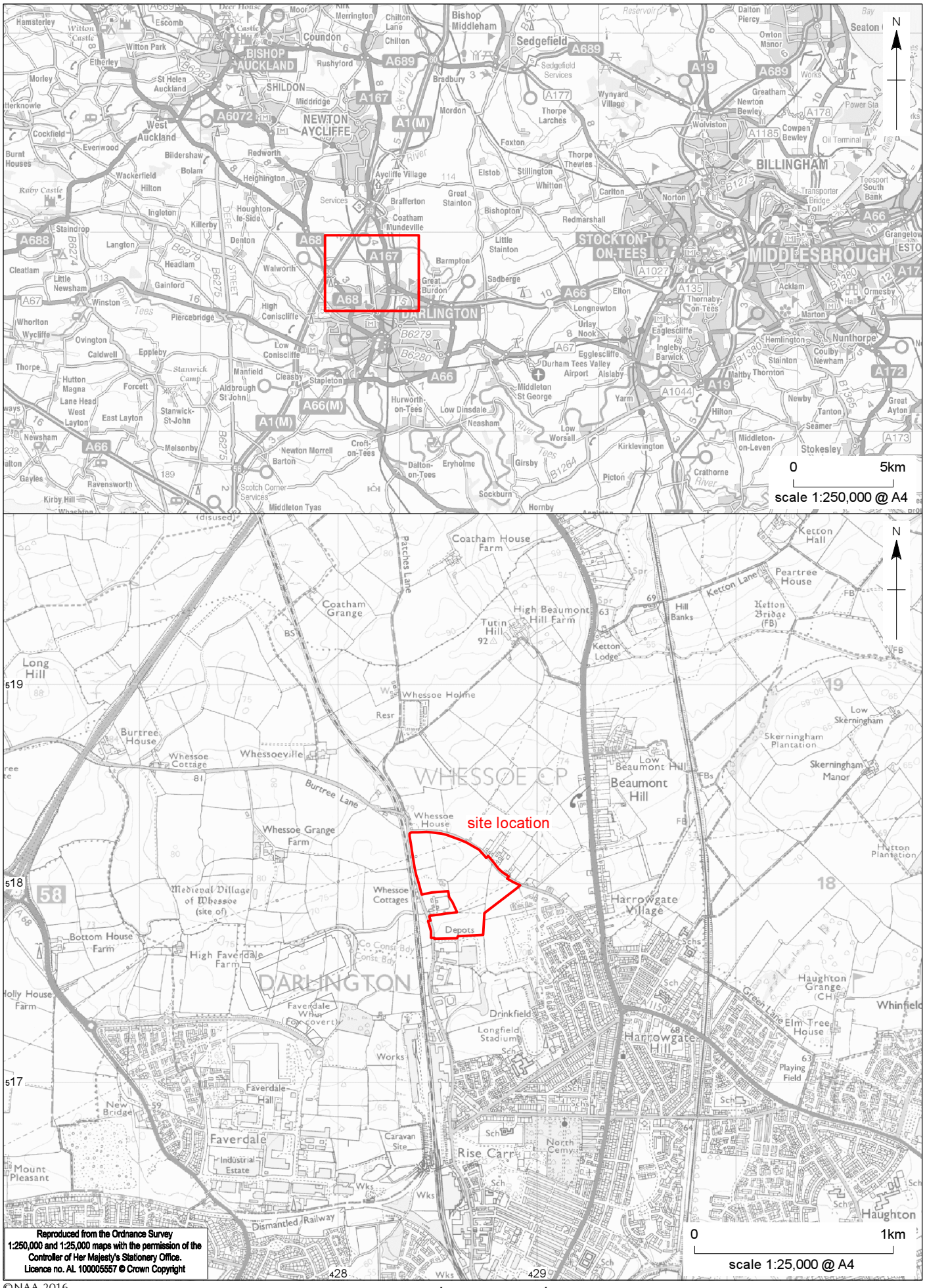
C	SC	CP	TP	MP	PW	PV	CS	TS	Components (sorting)	A	SA	SR	R	SW	SV	>SW	>SV	<4mm checked	Comments
115	AA	Dark reddish brown	Compressed	Silty clay	8	8	Pale yellowish brown	Loose	Stone>1cm 20%: stone<1cm 70%: sand 10%	yes	-	-	-	797	500	294	200	yes	
121	AA	Dark yellowish brown	Compressed	Silty clay	10	10	Pale yellowish grey	Loose	Stone>1cm 20%: stone<1cm 40%: sand 40%	-	yes	-	-	815	500	412	200	yes	
140	AA	Dark yellowish brown	Compressed	Silty clay	17	15	Pale yellowish grey	Loose	Stone>1cm 50%: stone<1cm 20%: sand 30%	-	yes	-	-	693	400	257	100	yes	
235	AA	Dark yellowish black	Compressed	Silty clay	16	16	-	-	-	-	-	-	-	0	0	0	0	-	Discarded due to being un-wieldy

Key: **C**= context, **SC**= sample code, **CP**=colour of pre-processed sediment, **TP**= texture of pre-processed sediment, **MP**= matrix of pre-processed sediment, **PW**=weight (kg) of pre-processed sediments, **PV**= volume (l) of pre-processed sediment, **CS**= colour of dried residues, **TS**= texture of dried residues, **A**, **SA**, **SR** and **R**= angularity of stone in dried residues **A**=angular, **SA**= sub-angular, **SR**= sub-rounded, **R**=rounded, **SW**= weight (g) of dried residues, **SV**= volume (ml) of dried residues, **>SW**= weight (g) of >4mm fraction of dried residues, **>SV**= volume (ml) of >4mm dried residues, **<4mm checked**= fine fractions (<4mm) checked?

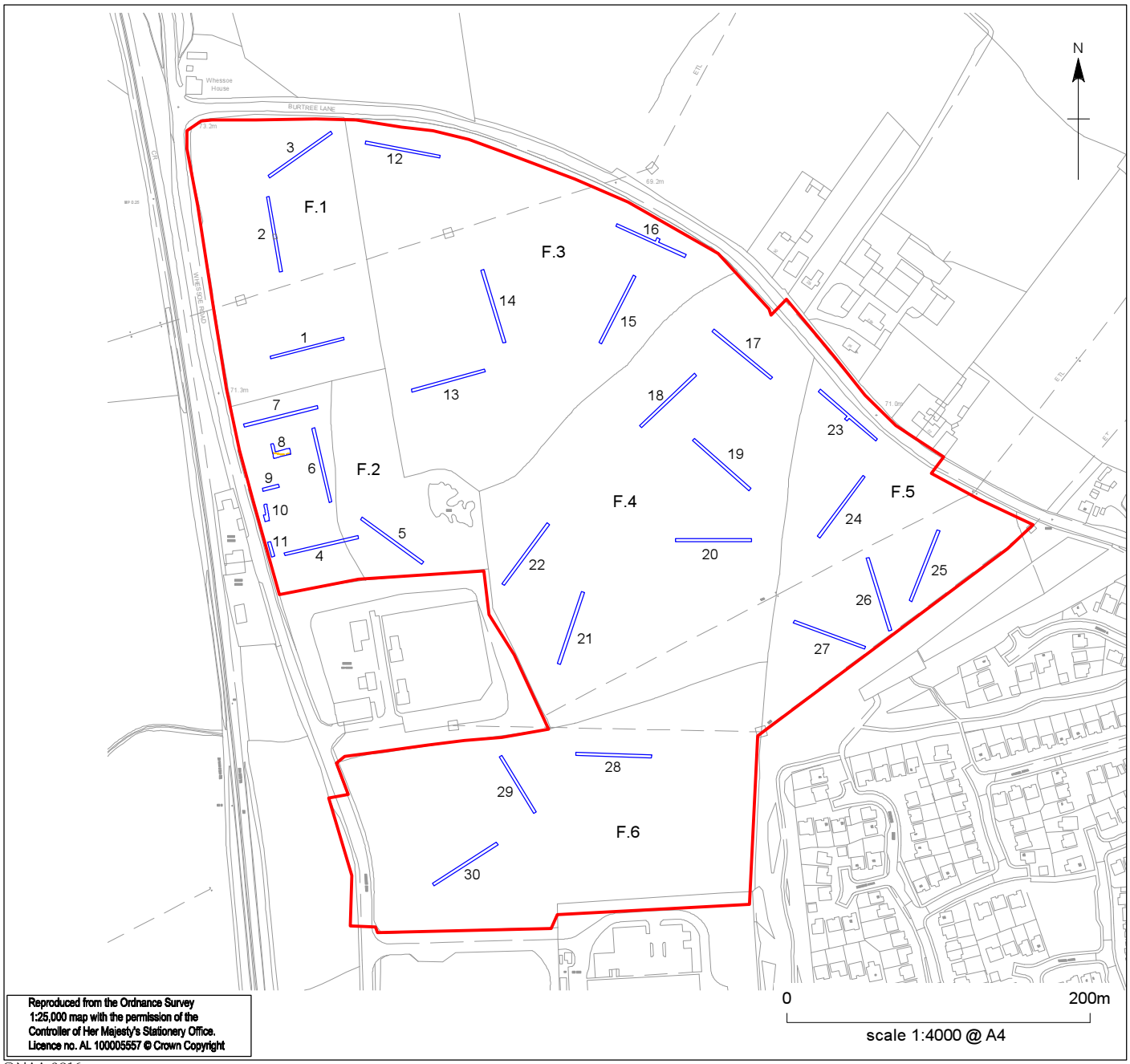
Table E2: Flot data

C	SC	CD	WF	PR	AMS?	CH	Components	EWC	Flot discarded?
115	AA	Fill of gully 114	<1	no	no	no	Very fine rootlets 100%	-	yes
121	AA	Fill of ring gully 120	1.12	no	no	no	Fuel/industrial waste 20%: rhizomes 40%: very fine rootlets 40%	-	no
140	AA	Fill of ditch terminus 139	1.46	no	no	no	Very fine rootlets 100%	-	yes

Key: **C**= context, **SC**=sample code, **CD**= context description, **WF**= weight (g) of flot, **PR**= any plant remains?, **AMS**= any suitable material for AMS dating?, **CH**= any charcoal?, **EWC**= earthworm capsules

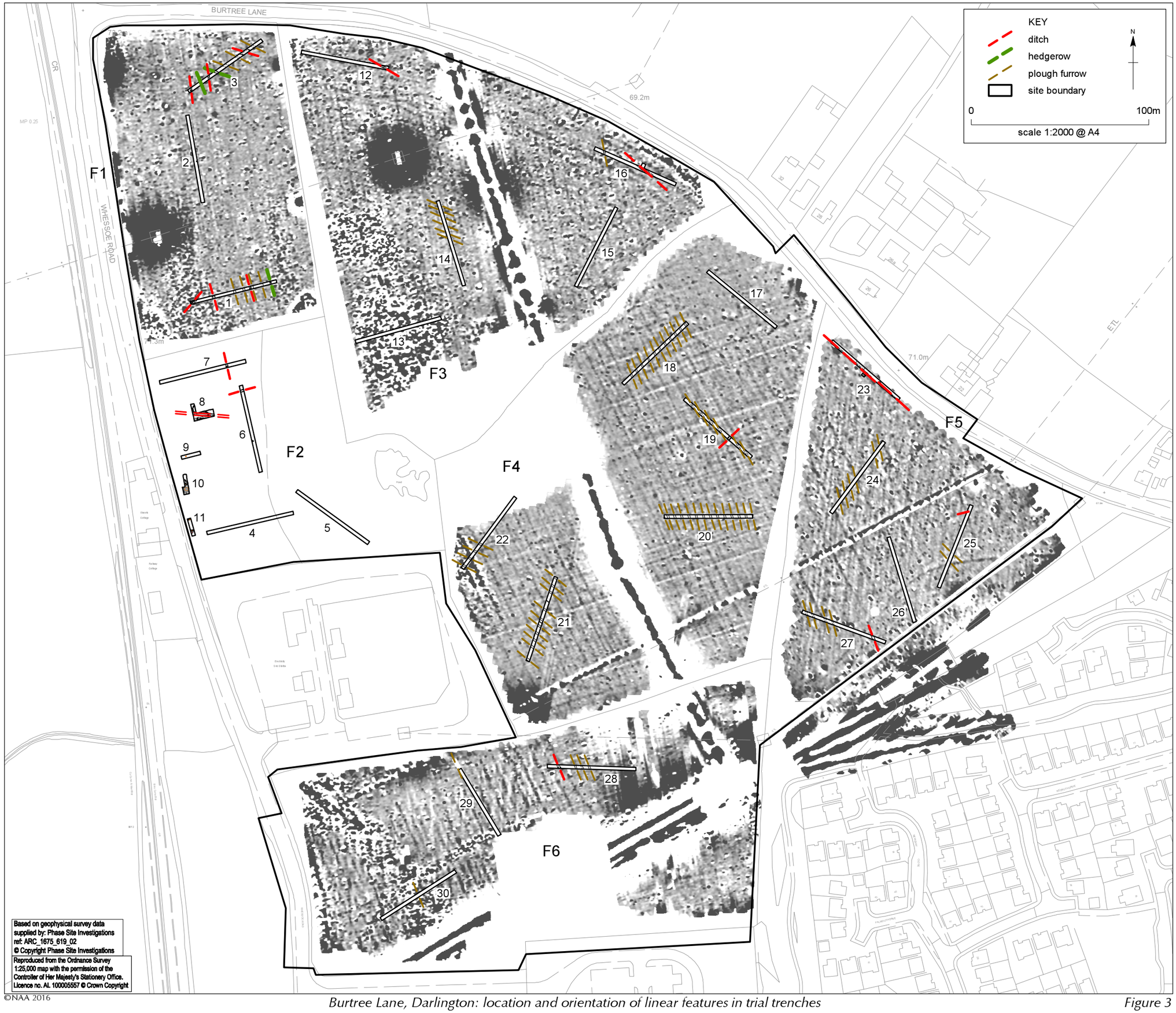


Burtree Lane, Darlington: site location *Figure 1*



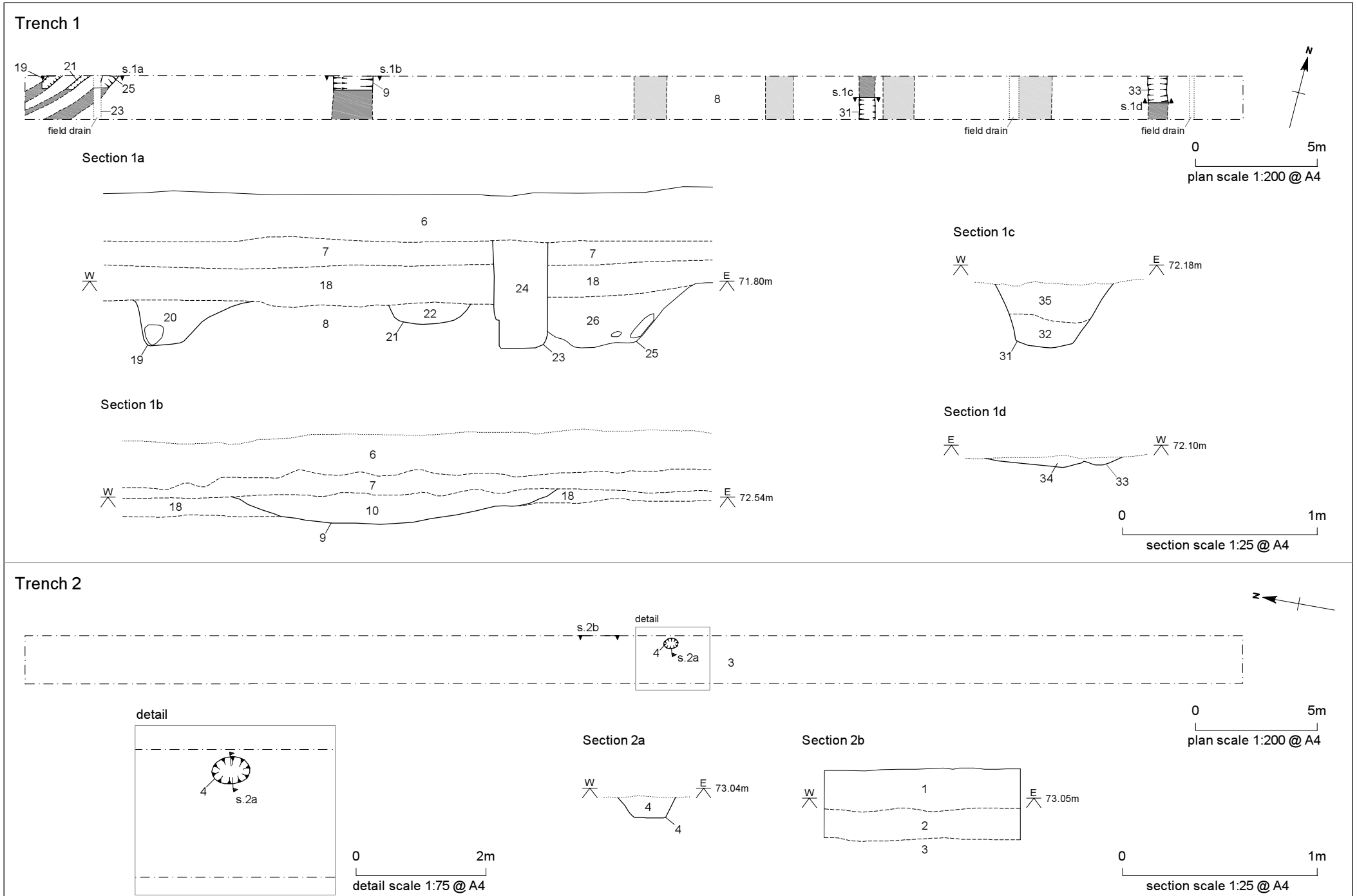
Burtree Lane, Darlington: trench locations

Figure 2



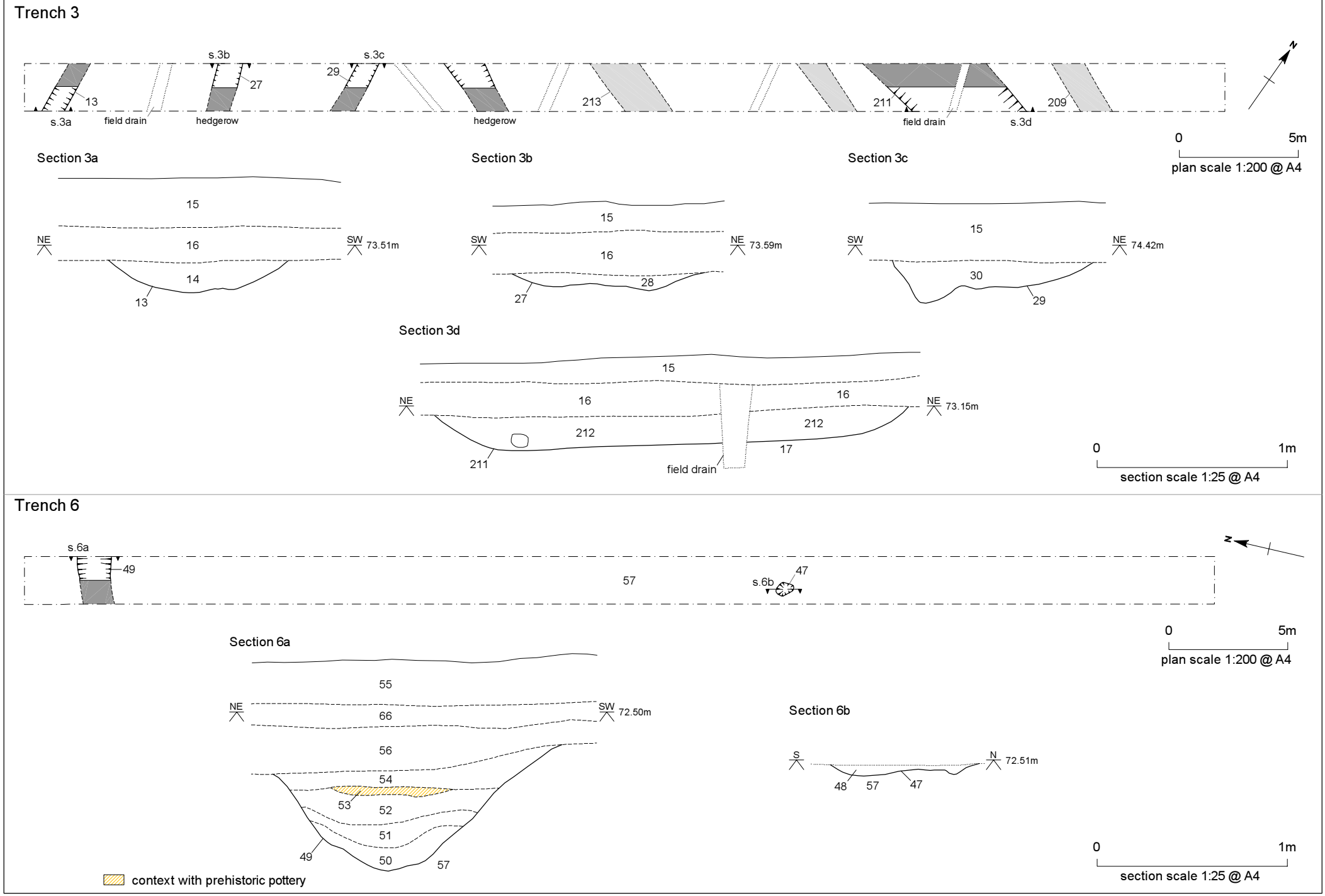
Burtree Lane, Darlington: location and orientation of linear features in trial trenches

Figure 3



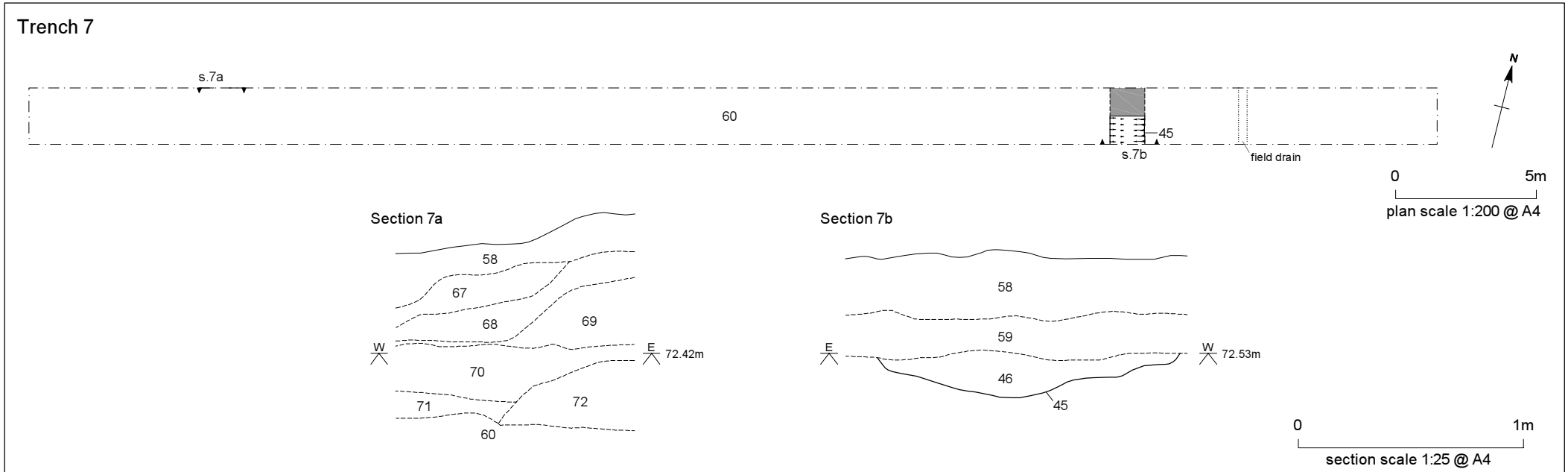
Burtree Lane, Darlington: Trenches 1 and 2, plans and sections

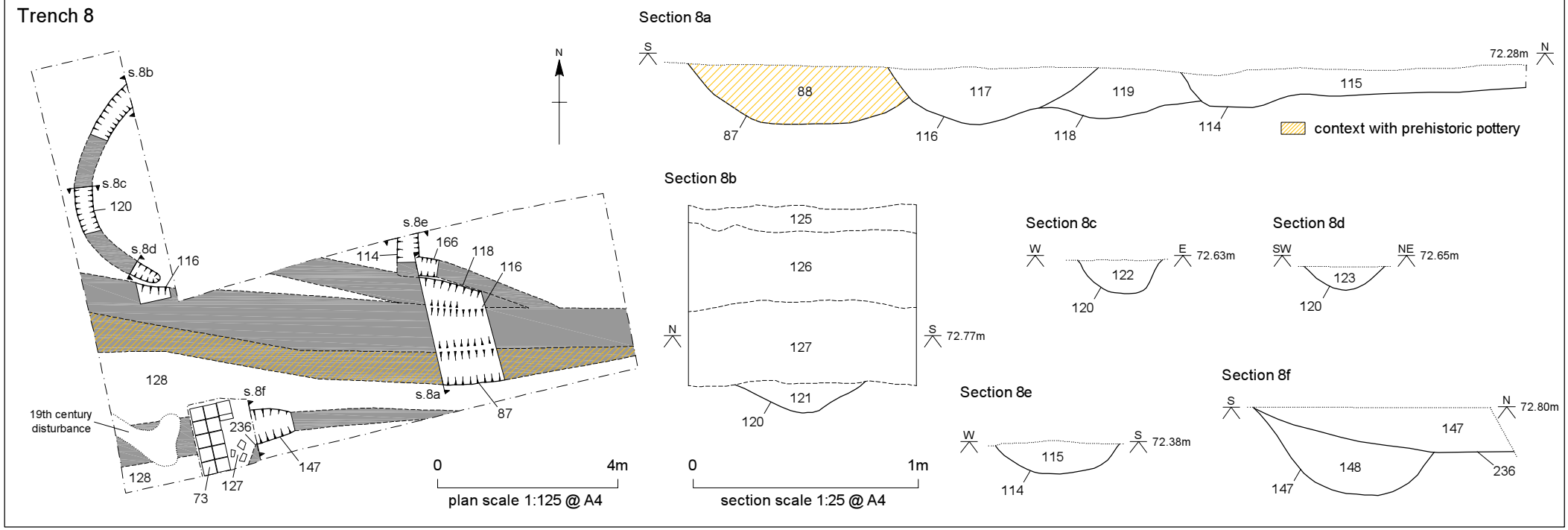
Figure 4



Burtree Lane, Darlington: Trenches 3 and 6, plans and sections

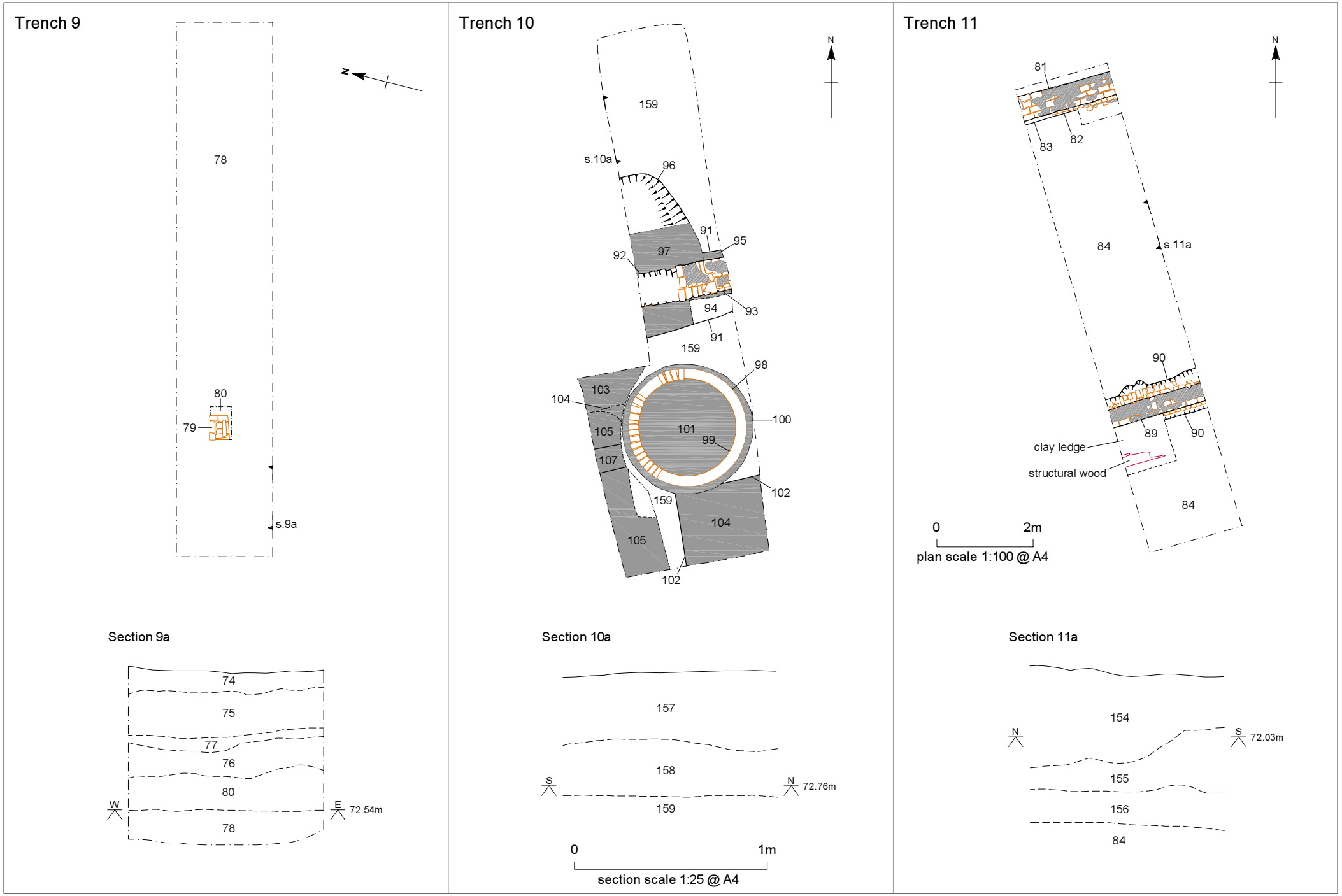
Figure 5





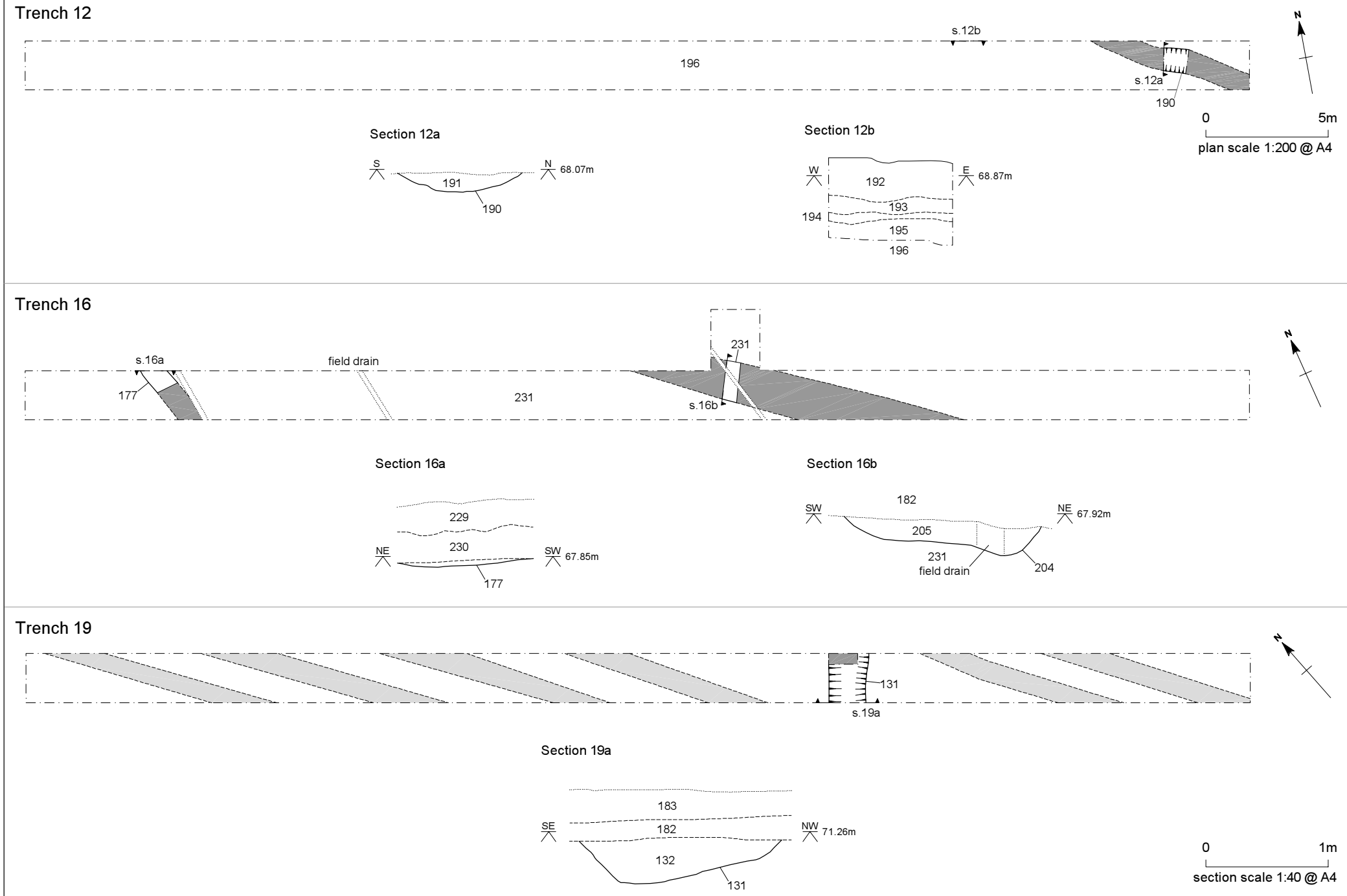
Burtree Lane, Darlington: Trenches 7 and 8, plans and sections

Figure 6



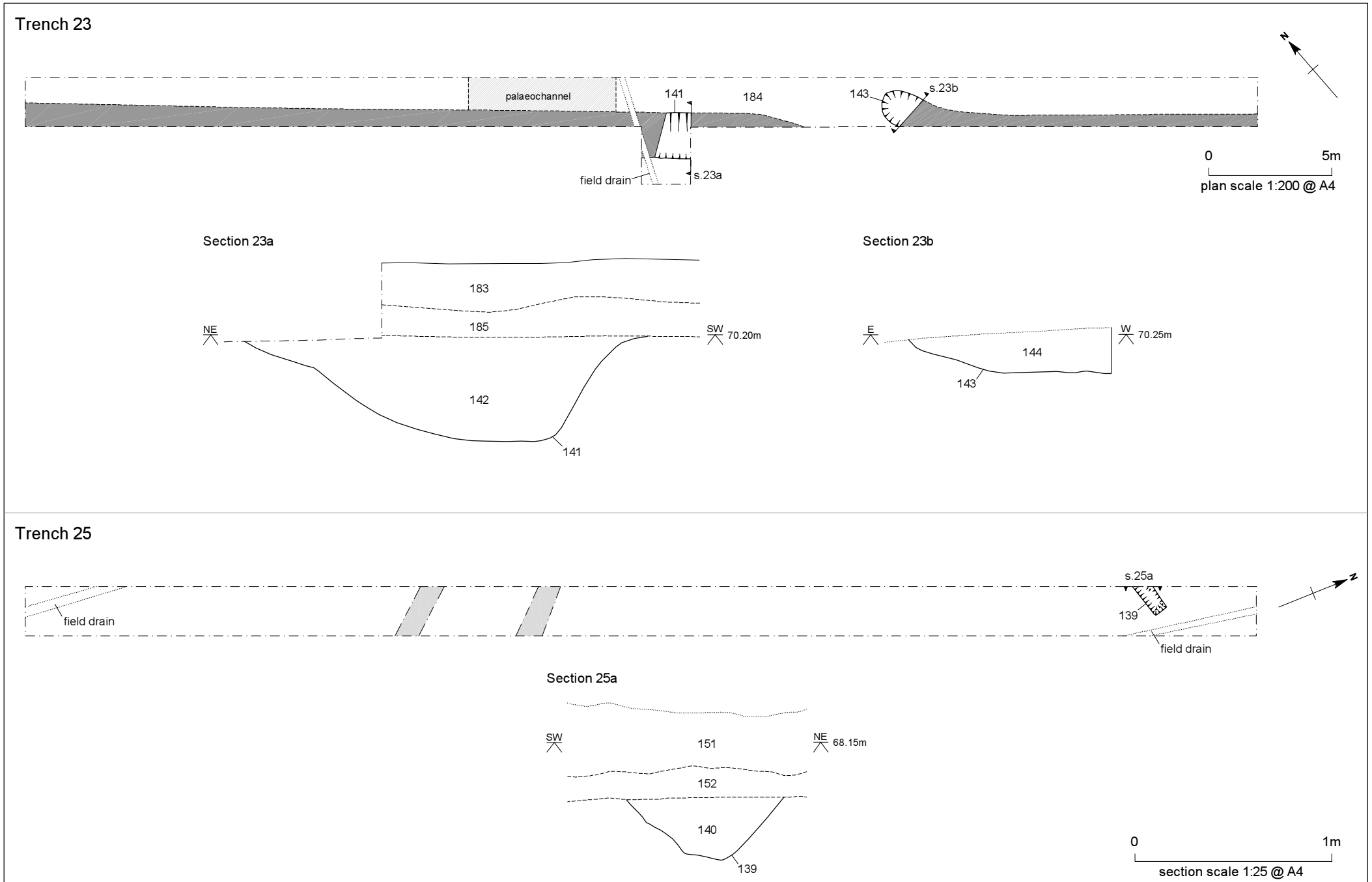
Burtree Lane, Darlington: Trenches 9, 10 and 11, plans and sections

Figure 7



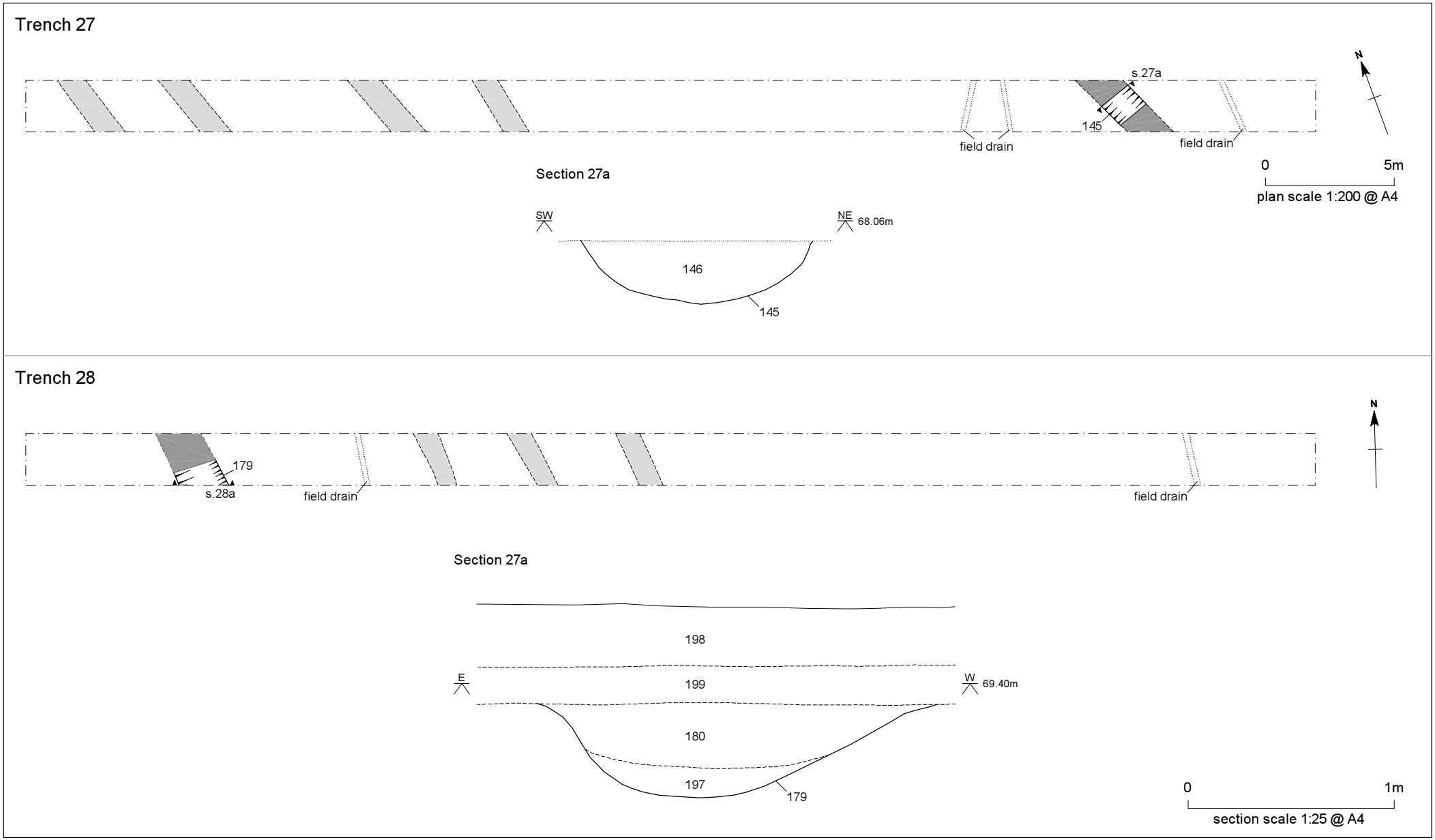
Burtree Lane, Darlington: Trenches 12, 16 and 19, plans and sections

Figure 8



Burtree Lane, Darlington: Trenches 23 and 25, plans and sections

Figure 9



Burtree Lane, Darlington: Trenches 27 and 28, plans and sections

Figure 10

Burtree Lane, Darlington: Trench 1, curvilinear features *Plate 1*

Burtree Lane, Darlington: Trench 1, section of ditch 031 *Plate 2*

Burtree Lane, Darlington: Trench 2, section of pit 004 *Plate 3*

Burtree Lane, Darlington: Trench3, section of feature 211 *Plate 4*

Burtree Lane, Darlington: Trench 6, section of ditch 049 *Plate 5*

Burtree Lane, Darlington: Trench 7, section of ditch 045 *Plate 6*

Plate 7

Burtree Lane, Darlington: Trench 8, gully 120 in foreground, looking south

Plate 8

Burtree Lane, Darlington: Trench 8, ditch intersection, looking west

Burtree Lane, Darlington: Trench 9, plinth structure 079 *Plate 9*

Burtree Lane, Darlington: Trench10, well 098 and wall 091 *Plate 10*

Burtree Lane, Darlington: Trench 10, section of pit 096 with demolition rubble

Plate 11

Burtree Lane, Darlington: Trench 11, elevation of wall 081

Plate 12

Burtree Lane, Darlington: Trench 11, elevation of wall 089 *Plate 13*

Burtree Lane, Darlington: Trench 12, section of ditch 190 *Plate 14*

Burtree Lane, Darlington: Trench 16, section of ditch 204 *Plate 15*

Burtree Lane, Darlington: Trench 19, section of ditch 131 *Plate 16*

Burtree Lane, Darlington: Trench 23, section of ditch 141 *Plate 17*

Burtree Lane, Darlington: Trench 25, ditch terminus 139 *Plate 18*

Burtree Lane, Darlington: Trench 27, section of ditch 145

Plate 19

Burtree Lane, Darlington: Trench 28, ditch 179

Plate 20