

355

YORK



ARCHAEOLOGICAL
TRUST

**FORMER D.C. COOK SITE,
LAWRENCE STREET,
YORK**

**REPORT ON AN
ARCHAEOLOGICAL
EVALUATION**



**2001 FIELD REPORT
NUMBER 32**

PLANNING
- 3 JUL 2002
DESIGN

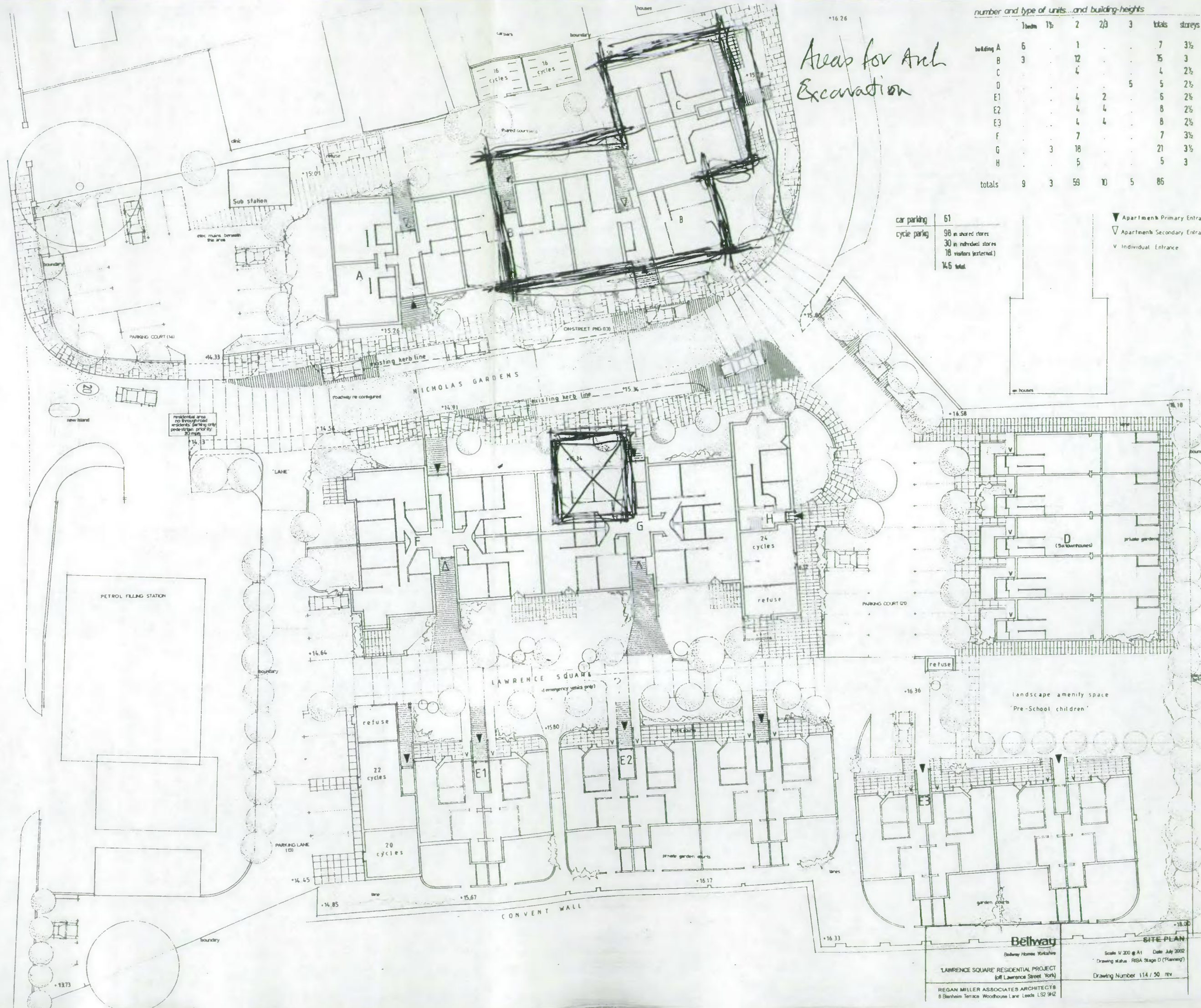
Areas for Arch
Excavation

number and type of units and building heights

	1bed	1½	2	2½	3	totals	storeys
building A	6		1			7	3½
B	3		12			15	3
C			4			4	2½
D					5	5	2½
E1			4	2		6	2½
E2			4	4		8	2½
E3			4	4		8	2½
F			7			7	3½
G		3	18			21	3½
H			5			5	3
totals	9	3	58	10	5	85	

car parking 61
cycle parking 98 in shared stores
30 in individual stores
18 visitors (external)
146 total

▼ Apartments Primary Entrance
▽ Apartments Secondary Entrance
V Individual Entrance



Bellway
Bellway Homes Yorkshire
Scale 1/200 @ A1 Date July 2002
Drawing status: RBA Stage D (Planning)
Drawing Number 114/50 rev
LAWRENCE SQUARE RESIDENTIAL PROJECT
(off Lawrence Street, York)
REGAN MILLER ASSOCIATES ARCHITECTS
8 Blenheim Terrace Woodhouse Lane Leeds LS2 9JZ

**FORMER D.C. COOK SITE,
LAWRENCE STREET,
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REPORT ON AN ARCHAEOLOGICAL
EVALUATION**

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ABSTRACT

An evaluation excavation on land at the Former D.C.Cook Site, Lawrence Street, York produced a variety of archaeological evidence from the ten trenches excavated. Although no Roman occupation deposits could be confirmed a number of features of definite or probable Roman date were identified in the eastern half of the site. These included a ditch and postholes providing convincing evidence for Roman occupation in the area. The eastern part of the site also produced definite or probable medieval features such as a pit and postholes while a medieval plough soil was tentatively identified in the western part of the site. A medieval pit contained three probable sherds of Ipswich ware pottery of the 8th century. Other definite medieval activity took the form of postholes and other structural elements in the north-west corner of the site immediately adjacent to Lawrence Street. A large but quite shallow feature partly excavated in Trench 3 may have been a medieval or post-medieval pond. The southern part of the site demonstrated that large scale earth moving or landscaping had taken place in the relatively recent past and had removed any significant archaeology in this part of the site.

1. INTRODUCTION

Between May 14th and June 1st 2001 York Archaeological Trust carried out an archaeological evaluation on land at the former D.C.Cook site, Lawrence Street, York (NGR SE 6157 5126, Figure 1).

All records of the evaluation are currently stored with the York Archaeological Trust under the Yorkshire Museum accession code YORYM:2001.9444

The aim of the evaluation was to record the character, date and state of preservation of any archaeological deposits, structures, or features which would be vulnerable to disturbance or destruction should the proposed development proceed. The work was carried out in accordance with a specification prepared by York Archaeological Trust and approved by John Oxley, Archaeologist for the City of York Council.

The work was undertaken on behalf of Bellway Homes Ltd and Legal & General Investment Management Limited as Trustee of the Legal & General Property Fund.

2. METHODOLOGY

The field work was originally to consist of the excavation of nine trenches, varying in size from 3m by 3m to 15m by 2m. The proposed site of Trench 6 was, however, traversed by a live electric cable from the adjacent sub-station so this trench was split into two parts, one termed Trench 6A, and the other Trench 6B resulting in 10 trenches (Figure 2) being excavated. Trenches 3, 7, and 9 were moved slightly from their proposed locations in order to avoid modern services. The specification called for the excavation of all trenches to a maximum depth of 1.5m below the prevailing modern ground level or to the natural sub-soil whichever was reached first. Prior to any machining the area of each trench was examined thoroughly with a cable detector and service plans for gas, water, electricity and telephone cables were checked for any underground services. After this obviously modern deposits were removed by machine and then

each trench was cleaned and examined for any features. From this point all excavation was by hand. The dimensions of the individual trenches were as follows; Trench 1, 5m by 2m, Trench 2, 5m by 2m, Trench 3, 10m by 2m, Trench 4, 10m by 2m, Trench 5, 3m by 3m, Trench 6A, 5m by 2m, Trench 6B, 10m by 2m, Trench 7, 3m by 3m, Trench 8, 5m by 3m, and Trench 9, 5m by 2m.

Recording followed the procedures laid down in the York Archaeological Trust *Context Recording Manual* (1996). At least one standing section of each trench was drawn at a scale of 1:10 or 1:20 and deposits and features within the trenches were normally recorded as single context plans at a scale of 1:20. Colour photographs were taken of any significant features and standing trench sections. A number of general record photographs of the site were also taken.

A programme of environmental sampling was agreed with the Environmental Archaeology Unit, University of York, and English Heritage prior to commencement of the archaeological evaluation although this was to be subject to modification dependent on the nature of the deposits encountered.

3. GEOLOGY AND TOPOGRAPHY

The underlying drift geology of the site is Boulder clay over lacustrine clays with deposits of sand, known in places to be waterlogged, lying within and over the clay in places. Beneath this the solid geology is of Bunter and Keuper sandstones laid down in the Triassic period some 225 million years ago (Geological Survey 1967).

The site lies c.450m east of Walmgate Bar outside the walled medieval city north-east of the River Ouse and partly abuts the A1079 Hull Road known here as Lawrence Street. To the east the site is bounded by a mixture of older and new structures, principally domestic dwellings. South of the site is the playing field for St Lawrence's Primary School and to the west lies the Convent of the Poor Clares. At the time of the evaluation roughly half the area of proposed development was occupied by two large car showrooms and the other half was open ground surfaced with tarmac for the parking and storage of motor vehicles although at the time of the evaluation this function had almost entirely ceased. The ground surface at the time of the works sloped fairly evenly upwards from Lawrence Street although it was apparent that part of the car parking area to the south-west had been terraced into the slope. The north end of the site lay at c.13.4m Above Ordnance Datum (AOD) and the southern at c.17.7m AOD. The area investigated was roughly rectangular in shape and measured c.130m north to south and c.100m west to east.

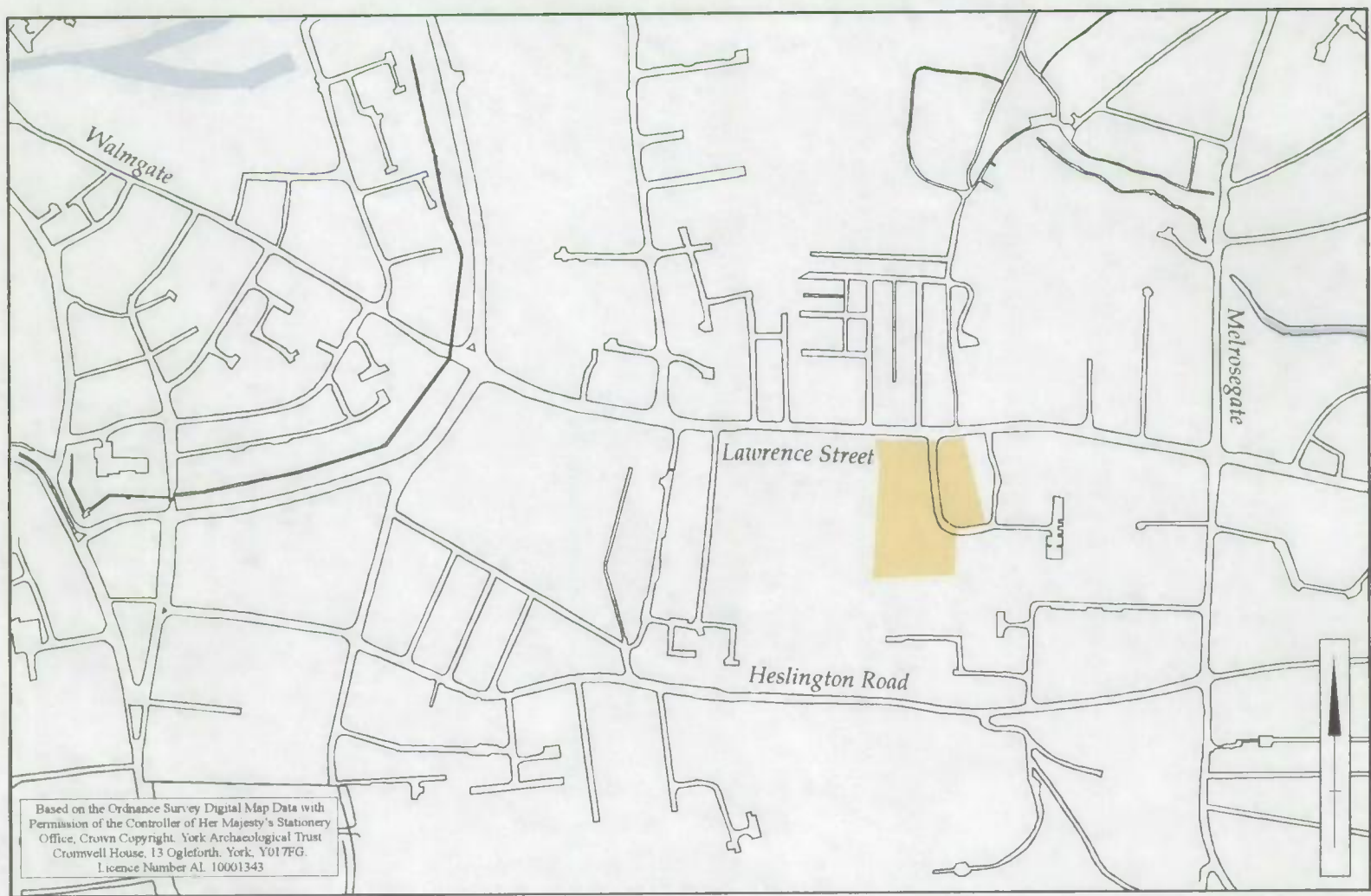


Figure 1 Site location plan

KEY:-
Extent of site



0 500 metres



A horizontal scale bar with alternating red and white segments, indicating a distance of 500 metres.



Figure 2 Trench location plan

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

4.1 The site lies approximately 0.5km outside the eastern defences of the medieval walled city north-east of the River Ouse adjacent to the main Roman and medieval route to Beverley, Brough and the Humber. There have been quite a number of archaeological investigations (Figure 3) in the general area of the site including watching briefs, accession numbers 1973.16, 1977.1009, 1979.1021, 1985.1015, 1985.1031, 1985.1047, 1989.1006, 1989.1027, 1991.1007, 1991.1018, 1993.3, 1994.152, 1995.0285, 1995.0361, 1996.171 carried out by the York Archaeological Trust (YAT 1997). A number of more formal archaeological investigations by YAT have taken place in the vicinity including sites with accession numbers 1983.31, 1989.8, 1989.13, 1992.13, 1993.9, and 1993.11. Evidence from these investigations and an examination of the documentary and cartographic evidence for the site is discussed below period by period.

4.2 Prehistoric and Roman period (pre 1st to 5th centuries AD)

No finds or activity dating to the prehistoric period have been discovered in the immediate vicinity of the development site. The site lies adjacent to the main Roman road (RCHME 1, Road 2) to the east. This road has been seen as a soil mark south of the Hull road at NGR SE 6310.5130 and in the vicinity of the site it is believed to run under the northern part of Lawrence Street. In 1954 (RCHME 1, 1) it was seen c.1.8m below the modern road some 90m east of Walmgate Bar where it was of cobbles set in clay. A Roman carved tombstone drawn by Francis Drake was known to be built into the wall of St Lawrence's churchyard in the 18th century and probably came from a nearby burial. In 1906 a tile tomb covering a skeleton and accompanied by a vessel described as Samian was discovered on premises belonging to Shafto's Brickworks in James Street (RCHME 1, 70). More recent discoveries include a Roman pit, ditch, and dump deposit at Lawrence Street/Foss Islands Road (YAT 1989.8) and a possible Roman drain at 148 Lawrence Street (YAT 1993.9). Excavations at Lamel Hill (YAT 1983.31), some 250m south of the present site, produced a Roman gritstone coffin lid.

4.3 Anglo-Saxon and Anglo-Scandinavian periods (5th-11th centuries)

To date there is some evidence from excavations or chance discoveries to indicate activity dating to either period in the immediate area. The excavations at Lawrence Street/Foss Islands Road (YAT 1989.8) did uncover what is believed to be a palisade of Anglo-Scandinavian date. In 1847 investigations by John Thurnam at Lamel Hill yielded 20 to 30 skeletons and a number of metal finds considered to be coffin fittings. He decided eventually that he had found a cemetery of the 7th or 8th century. More recently, in 1983, an excavation (YAT 1983.31) at the site in advance of a proposed development produced at least 38 more inhumation burials. A distinctive type of knife found with one of the burials and the recovery of a single sherd of Anglian pottery suggested that Thurnam's dating was probably correct and that an extensive Anglian cemetery was present here.

4.4 Medieval period (11th-16th centuries)

Material of this period has been found in quite large quantities in a number of investigations over the last 30 years. Medieval pottery was recovered from a site at the junction of Lawrence Street and James Street (YAT 1979.1021) and a medieval building, pit and hearth were investigated at the Lawrence Street/Foss Islands Road site (YAT 1989.8). An evaluation at 130-148 Lawrence Street recovered part of a medieval building with occupation deposits (YAT

1992.13) believed to be associated with St Nicholas Hospital and a watching brief at Nicholas Gardens (YAT 1993.3) recorded medieval deposits. Architectural fragments from a garden at 136 Lawrence Street (YAT 1994.152) may have come from the hospital of St Nicholas. An investigation at the Rose and Crown pub (YAT 1995.0361) discovered two inhumations possibly of this period and believed to be associated with the lost church of St Edward. Work at 32 Lansdowne Terrace (YAT 1996.171) revealed four burials which may have belonged to this period and medieval plough soils were noted at a site off James Street (YAT 1995.0285). A major excavation to the rear of 148 Lawrence Street (YAT 1993.11) recorded buildings, occupation deposits, a yard, and a ditch belonging to the 11th - 16th centuries, which were part of the hospital of St Nicholas.

4.5 Post-medieval period (16th-19th centuries)

Evidence for this period is quite abundant in the area and includes a burial of the period from the Rose and Crown pub, 13 Lawrence Street (YAT 1977.1009), post-medieval deposits from 132 Lawrence Street (YAT 1989.1006) and 130-148 Lawrence Street (YAT 1992.13), a cobble surface, pit and demolition deposits from 148 Lawrence Street (YAT 1993.9), and a pit and demolition, dump, and garden deposits also from 148 Lawrence Street (YAT 1993.11).

4.6 Modern (19th-21st centuries)

The whole of the area of proposed development is probably a creation of the 20th century and buried remains of this period have been found on a number of sites in the vicinity. Modern build-ups were found at 68 Lawrence Street (YAT 1985.1015) and Victorian construction deposits at 115 Lawrence Street (YAT 1985.1031). A modern wall and drain were recorded at St Lawrence's Church Hall (YAT 1989.1027) and modern deposits at 130 Lawrence Street (YAT 1991.1007) and at the junction of Lawrence Street and Barbican Road (YAT 1991.1018). To the north of Lawrence Street an investigation at 42 Milton Street (YAT 1985.1047) produced Victorian build-up deposits as did work at 32 Lansdowne Terrace (YAT 1996.171). A site at the Eclipse Copper Works in James Street (YAT 1989.13) produced evidence of Victorian housing and at 148 Lawrence Street an excavation found evidence for modern dumps, demolition deposits, garden soils, and a yard.

4.7 Cartographic and Historical Evidence.

The earliest map of the area is one drawn by John Speed and published in 1610. This shows that the area was mainly open ground or fields but a house at the street front may be within the bounds of the present site. Adjacent and to the east the church of St Nicholas is shown. Horsley's map of 1694 is very similar but the house on the street front seems to have gone. By 1736, when Drake published his map of York, the area seems to still be open ground but there is some evidence to suggest that at least part of the church of St Nicholas had been demolished, possibly just leaving the tower. Lund's drawing of 1772 is not very detailed and the area is depicted as open with the caption "Grounds Not Common". The Ordnance Survey (OS) first edition map of 1853 shows a few buildings in the general area but where previous maps had shown the church of St Nicholas it indicates the site of the church. The OS map of 1909 shows the site as small enclosed fields with apparently no buildings on the street front. Later maps of the 20th century show various buildings on the street front and a garage set back from the front in the eastern part of the site. It would appear from these maps that some of the western part of the site was an

orchard within the Convent of the Poor Clares up to at least 1970. Since then the garage in the eastern part of the site has been demolished and a new garage built on the street front with car showrooms across much of the central part of the site.

It appears that Lawrence Street, named after the church of St Lawrence c.350m to the west of the present site, was in the medieval period normally referred to as Walmgate or "Walmgate without the bar" (RCHME 4). The area was the location of four churches, those of St Lawrence, St Michael, St Edward, and St Nicholas. The church of St Edward was first mentioned in the 13th century but had become redundant and was demolished in the reign of Edward VI, possibly by 1586 when it was united with St Nicholas. It is thought that the site of this church lies close to the junction of Lawrence Street and Lansdowne Terrace. The church of St Michael is reputed to have stood close to Walmgate Bar on the south side of Lawrence Street as depicted on Skaife's map of 1864. Little is known of its history but there is documentary evidence that it was in existence by 1277 and that it was united with St Lawrence in 1365. The earliest documentary evidence for St Lawrence is dated c.1194, a date supported by architectural evidence. It underwent repairs and rebuilding in the 13th, 14th, and 15th centuries but was subsequently badly damaged, as was much of the surrounding area, during the siege of York in 1644. It was repaired in 1669 but dismantled, except for the tower, when it was replaced by the present church in 1881-3. A number of views of the church before demolition still exist (Wilson and Mee 1998). The church of the hospital of St Nicholas (YAT 1992) may have been founded c.1142 and by 1280 served as a parish church with the choir being used as the chapel for the hospital. The hospital was the largest and richest of York's four medieval leper hospitals but did not survive the Reformation although the church apparently continued in use. Masonry from the site is said to have been used to repair Walmgate Bar in 1648 and in 1717 more stone was used to repair the church at Dunnington. The church ruins were used as cover for sniping during the civil war and as a result appear to have attracted return fire which caused large scale destruction. (VCH 1961). Remains of the church were still standing in 1730 but it appears that by 1736 any surviving parts had been removed probably in 1730 when it is recorded that stone from the site was used to make a pavement along Lawrence Street. Some architectural details, however, are available from Speeds map of 1610 and a watercolour of 1718 attributed to Francis Place. The parish retained its identity for secular purposes until 1900. Development of the eastern part of Lawrence Street did not begin in earnest until the middle of the 19th century (Pevsner 1972) when terraced housing began to occupy much of the area to the north of the site and Lawrence Street. Some terraced housing was constructed to the west of the site but most of this area became St Joseph's Convent of Poor Clares Colettines often known simply as the Poor Clares. The principal buildings of the convent were erected in 1872-5 but some of the street front properties now used were built earlier in the 19th century. Part of the site was apparently at one time occupied by a confectionery firm (per's comm). A review of York Trade Directories indicated that Lazenby and Son, Chocolate Manufacturers, had been based in Lawrence Street from the 1930's until at least 1959 but the exact location of the works and the subsequent history of the firm remains unclear. Russell's Garage, which was situated in the eastern part of the site was in existence by 1931 and was still there in 1953 but by 1959 had apparently moved to the Stonebow. The garage business appears to have been continued as Parishes Garage throughout the 1960s and 70s until the site was taken over by DC Cook. The land to the south, currently a school playing field seems to have always been open ground or fields. To the east of the present site was the church and hospital of St Nicholas, more recently an autowreckers yard and today occupied by 1990's housing.

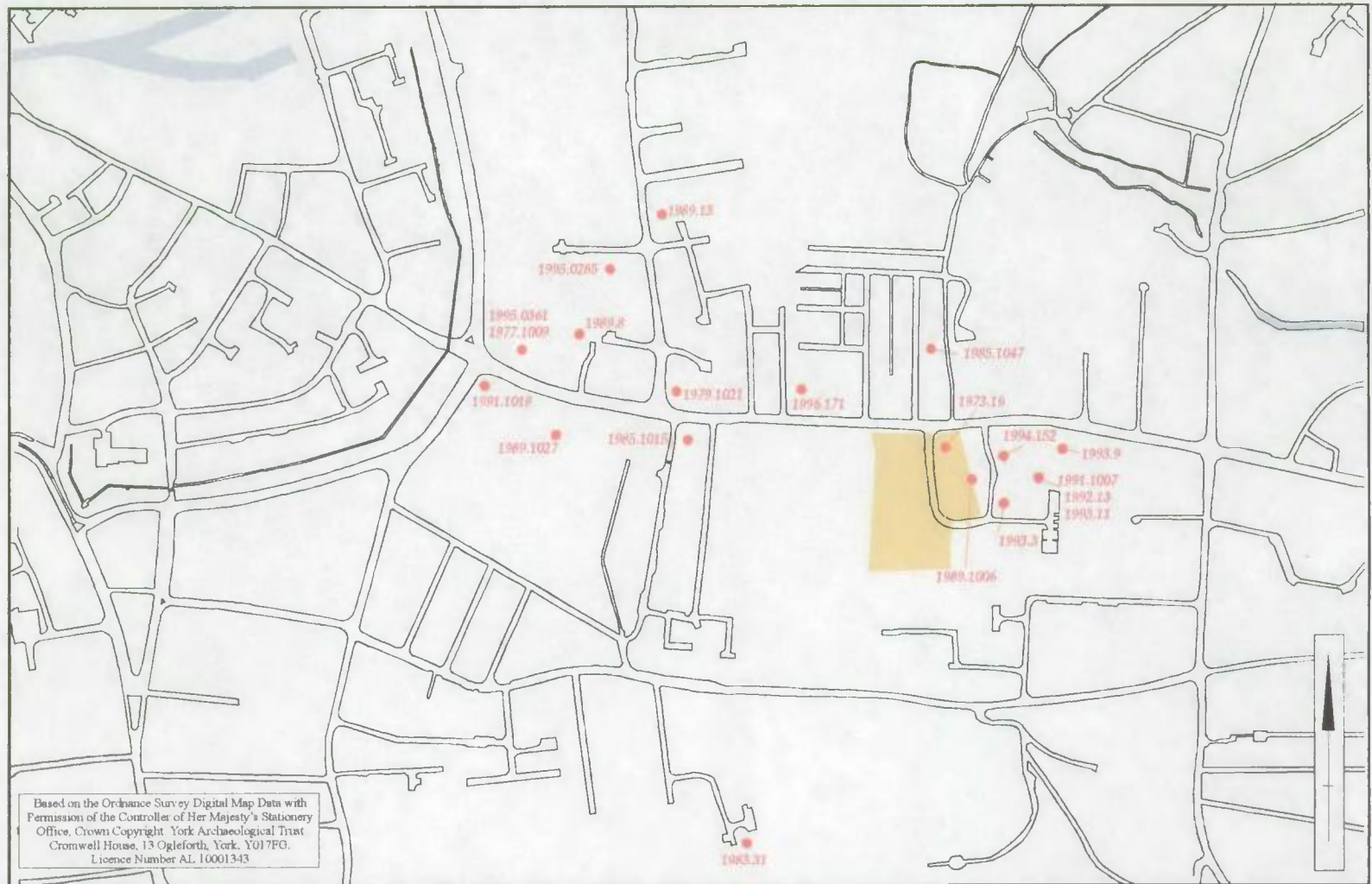


Figure 3 Archaeological evidence in the vicinity

KEY:-
Observed site
(with site reference number)

5. THE EXCAVATIONS

5.1 Trench 1 (Figure 4)

5.1.1 The earliest deposit recorded in this trench, at c.17m AOD, 0.8m BGL (below ground level), was a mixture of light brown pebbly clay and slightly reddish-brown sand (1007) which was part of the natural subsoil in this area. A piece of Roman brick appears to have been pressed into the surface of the subsoil. Overlying this was a dump of friable mid greyish-brown clayey silt (1006) up to 0.3m thick. Above it was a dump or levelling deposit of compact light to mid brown clayey silt mixed with reddish-brown silty clay and greyish-brown sandy silt (1005).

5.1.2 Cut into 1005 was a modern land drain (1004) aligned approximately north-south. This was 0.74m across at its top tapering to c.0.2m at the base. It was c.0.5m deep with quite steeply sloping sides. In the base was a small circular ceramic pipe with an overall diameter of c.0.14m. The backfill was mainly crushed limestone (1003) with a little very dark grey loam. The uppermost layer in the east part of the trench was a build-up deposit of friable mid brown clayey silt (1002). To the west, and possibly overlying part of 1002, there was a dump or levelling deposit of weedy gravel (1001). These two layers both lay at c.17.7m AOD. The context number 1000 was used for any unstratified finds recovered during machine clearance and constitutes an amalgamation of contexts 1001-1005. A small amount of pottery assigned to context 1000 was dated to the 19th century.

5.2 Trench 2 (Figure 5)

5.2.1 The earliest layer recorded in this trench at c.1.1m BGL, c.16.35m AOD, was a friable yellowish-brown silty sand (2005) believed to be natural. Over this was a mixed deposit of light brown clayey pebbly sand and reddish-brown slightly clayey sand (2004) also believed to be a natural deposit.

5.2.2 Sealing 2004 was a dump of mixed light brown slightly clayey sand and mid greyish-brown loam (2003). Overlying it was a very mixed dump of dark greyish-brown silty clay and greyish-brown sandy silty clay (2002) containing much modern debris. At the top of the trench was a friable mid greyish-brown sandy silt (2001) forming the modern ground surface at c.17.5m AOD. Context 2000 was used for any unstratified finds from the initial trench clearance which amounted to four sherds of pottery dating from the Roman period and to the 11th / 12th century.

5.3 Trench 3 (Figure 6)

5.3.1 The earliest deposit recorded in this trench, at c.0.8m BGL, c.15.15m AOD in the north end of the trench, and c.1.9m BGL, c.14.25m AOD in the south end of the trench, was a crumbly mid yellowish-brown silty clay (3038) containing many small cobbles. This was believed to be undisturbed natural. Sealing 3038 at the north end of the trench was a build-up or dump of compact mid to dark grey silty clay loam (3022) containing pot dated to the 14th century. Above 3022 was a compact friable mid to dark silty clay loam (3021) which was probably the same as 3022. Context 3021 produced Roman, 12th - 14th century and 19th century pottery as well as tile of the 13th - 16th century.

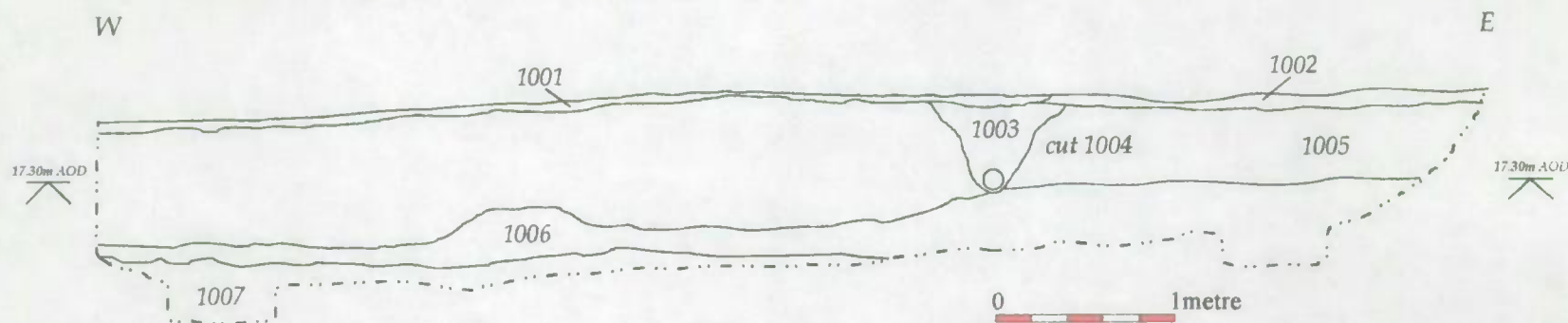


Figure 4 Trench 1 south facing section

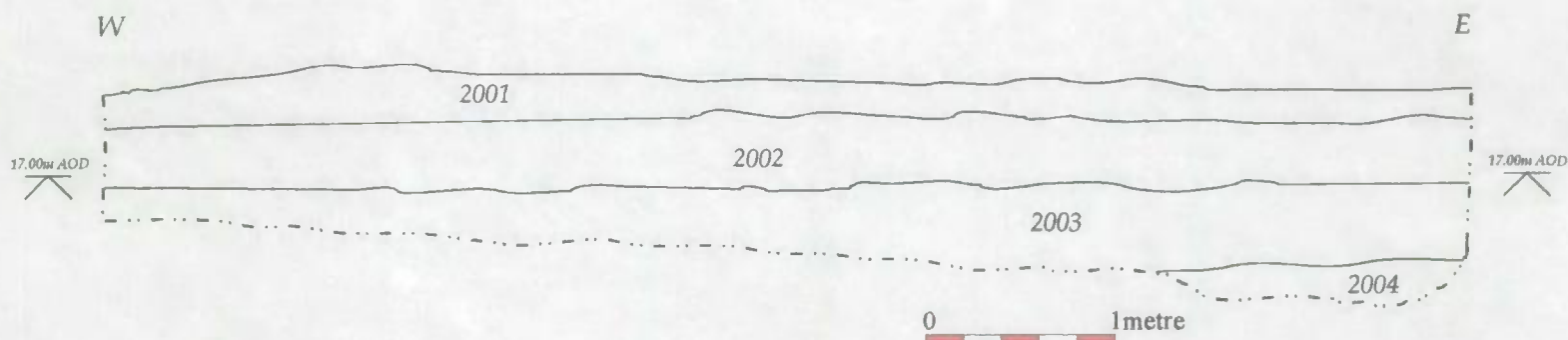


Figure 5 Trench 2 south facing section

5.3.2 Cut into 3021 was a very large feature (3023). The exact dimensions of this are uncertain as an unknown amount of it lay beyond the eastern and southern edges of the trench. It was, however, at least 4.3m long, 1.6m wide, and 1.2m deep with very steeply sloping north and west edges. The lowest fill within it was a moist black silty loam (3043) containing much charcoal and some small twigs. Above this was a light greyish-brown sandy silt (3041) which contained brick of the 16th - probably 18th century. Above this was very dark grey soft, damp, sandy silt (3040) containing much charcoal and pottery of the Roman period and the 19th century. It also produced one piece of tile believed to be 19th or 20th century in date. Later than 3040 were two more backfills. To the south of the feature was a soft dark greyish-brown sandy silt (3039) containing pot of the 19th century and brick and tile of the 16th - 19th century or later. To the north there was a friable dark greyish-brown sandy silt (3042) which contained 19th or early 20th century pottery and tile of the 17th - 19th century or possibly later. Although separated by an unexcavated portion of the trench it seems that these two contexts are the same.

5.3.3 Cut into the top of 3039 was a series of postholes on an east-west alignment apparently continuing beyond the east and west sides of the trench. The most westerly of these postholes (3035) was circular with a diameter of c.0.09m and a depth of 0.1m with very steep sides and a rounded base. It had been backfilled with a friable light to mid grey slightly silty sand (3024). This context yielded three scraps of Roman pot. The next posthole (3031) lay c.0.35m to the east and was roughly circular with a diameter of c.0.11m, a depth of 0.16m, and had very steeply sloping sides. The base was rounded and the feature had a backfill of friable light to mid grey clayey silt (3030) containing a fragment of tile of the 13th - 16th century. The next posthole (3037) lay just east of and adjacent to 3031. It was oval in shape, measuring c.0.07m by 0.04m, up to 0.15m deep and had near vertical sides. It had a tapered base and the backfill was a friable light to mid grey silty sand (3036). East of and adjacent to 3037 was a roughly square posthole (3033) which was c.0.24m by 0.21m and 0.2m deep with very steeply sloping sides and a rounded base. It had been backfilled with a friable light to mid greyish-brown sand (3032). This posthole was recut in the same place but with an oval shape measuring c.0.16 by 0.12m. It was c.0.13m deep and had very steeply sloping sides and a rounded base. The backfill was friable light to mid grey sand (3024). The next posthole (3027) lay c.0.65m to the east and was sub-rectangular measuring c.0.24m by 0.14m with steeply sloping sides and a rounded base. It was up to 0.31m deep and had been backfilled with a friable light to mid grey sand (3026) which produced a few pieces of 18th century pot and tile of the 17th century or later. The last feature identified (3029) lay c.0.5m east of 3027 and may not have been a posthole. It was roughly rectangular and measured c.0.46m by 0.2m. It was c.0.14m deep with nearly vertical sides and a backfill of friable light to mid grey sand (3028). This context yielded two scraps of unidentified pottery and a small fragment of tile dated to the 13th - 16th century.

5.3.4 Sealing all these postholes was a dump or more probably a levelling deposit of compact but friable yellowish-brown silty sand (3020) containing pot of the 19th century. This context also contained brick and tile of the 13th to 18th century. At this stratigraphic horizon a number of possible postholes forming a north-south alignment was identified. The southernmost of these (3010) was roughly square, measuring c.0.22m by 0.2m, and was c.0.22m deep with nearly vertical sides and a flat base. It had been backfilled with friable dark grey silty clay (3009). Approximately 1m to the north was a roughly rectangular cut (3016), c.0.3m by 0.1m and 0.08m deep with moderately steeply sloping sides and an irregular base. It had a backfill of mid grey silty clay (3015). The next feature (3014) lay c.1.3m to the north. It was roughly rectangular and

measured c.0.32m by 0.24m and had a depth of 0.08m. The sides were nearly vertical and it had a flat base. It had been backfilled with mid to dark grey silty clay (3013). Approximately 4.9m north of 3014 was another roughly rectangular feature (3019). It was c.0.2m by 0.24m and 0.07m deep. It had nearly vertical sides and a flat base and a backfill of dark grey silty clay (3018). This backfill produced a quantity of brick, some of it covered with glass deposits, which was dated to the 19th century or later.

5.3.5 At a similar, but slightly later stratigraphic level, a linear feature (3017) was identified running east-west c.2.3m from the north end of the trench. It was between 0.24m and 0.34m wide but the full depth was not ascertained. It was, however, at least c.0.33m deep with vertical sides. In the base was a drain (3012) composed of square box tiles each c.0.1m square and 0.34m long. This drain was left in situ. The trench was backfilled with a friable mid brown clayey silt (3011) which contained Roman pot and pot of the 19th century.

5.3.6 Sealing posthole 3010 was a dump of mid grey friable silty sandy clay (3008) which contained pottery only of the 19th century. Cut into this was a linear feature (3007), probably a robbed out modern drain, aligned east-west. It was c.0.32m wide and no more than c.0.05m deep with gently sloping edges and a backfill of friable dark grey silty clay (3006). Above this drain, and occupying the whole trench was a build-up deposit of compact dark grey slightly sandy loam (3005). This was cut by a modern drain trench (3004) aligned east-west. It was c.0.48m wide and 0.38m deep with nearly vertical sides and a flat base. It contained a ceramic pipe, c.0.14m in diameter, and had been backfilled with a dark grey loam (3003). Sealing the drain was a levelling deposit of crushed limestone above which was the modern car park surface of tarmac (3001). The context 3000 was assigned to unstratified finds recovered during machine clearance and cleaning of the trench. In the area of this trench the modern ground level was at c.16.1m AOD.

5.4 Trench 4 (Figure 7)

5.4.1 The earliest context recorded in this trench was a mid orange-brown slightly sandy clay (4006) containing many small cobbles. This was the natural subsoil and lay at c.14.7m AOD, 0.8m BGL, at the southern end of the trench and at c.14.5m AOD, 0.5m BGL, towards the northern end of the trench. Overlying the natural throughout the trench was a build-up deposit of mid brown slightly sandy loam (4005) up to c.0.3m thick. Context 4005 produced 70 sherds of pottery ranging in date from the Roman period to the 11th-14th century and tile dating to the 13th - 16th century. Cutting the southern part of this deposit was a linear field drain (4004) aligned approximately east-west. It was c.0.4m wide and c.0.45m deep with vertical sides and a flat base. Along the base of this cut was a series of contiguous ceramic pipes each c.0.1m square and c.0.33m. The cut had been backfilled with a mixture of mid brown clay, mid brown loam, and dark grey clay loam (4003). Pottery of the 18th century was recovered from this backfill.

5.4.2 Overlying the backfilled drain was an overall build-up deposit of compact very dark grey loam (4002). Above this was a levelling deposit of fine crushed limestone (4001) forming the bedding for the modern tarmac (4000) car park surface. At the south end of the trench this lay at c.15.5m AOD and to the north at 14.9m AOD. A moderate amount of unstratified pottery from the machine clearance of this trench dated to the 11th-12th century and to the 18th century and tile to the 13th - 16th century.

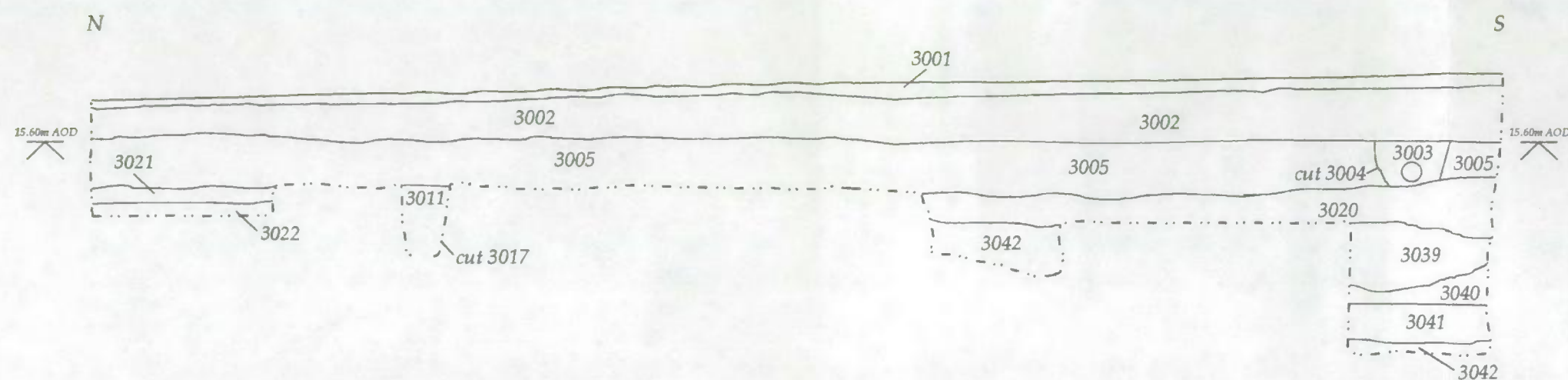


Figure 6 Trench 3 west facing section

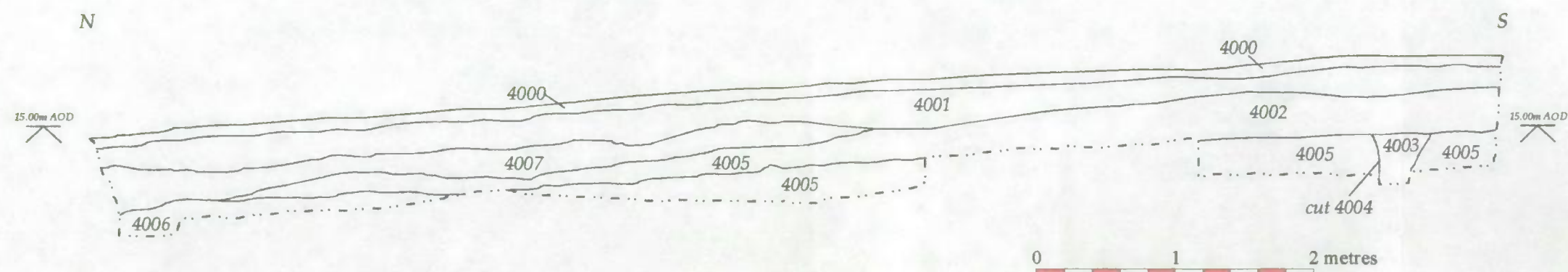


Figure 7 Trench 4 west facing section

5.5 Trench 5 (Figure 8)

5.5.1 The earliest deposit observed in this trench, at c.13.150m AOD, 0.6m BGL, was a compact friable mid reddish-brown sand (5026) which was believed to be natural. A large number of features were cut into 5026. It was possible to place these into two groups depending on whether or not they had been cut by a later feature. The earlier group consisted of just two features. The first was a sub-rectangular pit (5025) which was c.0.7m wide, at least 0.85m long, and up to 0.46m deep with near vertical edges and an uneven rounded base. It had been backfilled with a moderately compact dark brown sandy silt (5020) which yielded pottery of the 11th - 13th century, Roman brick, and a piece of brick with a patch of glaze possibly belonging to the 18th century or later. The second feature (5015) was a posthole which appeared in the base of 5012 and may be associated with it. This posthole extended beyond the northern limit of excavation but the feature may have been roughly square. It measured c.0.42m by at least 0.22m and was a minimum of 0.11m deep. The backfill was a moderately compact slightly reddish-brown sandy silt (5014). This backfill produced one tiny scrap of unidentified pot.

5.5.2 The features in this group either cut features in 5.5.1 or appear to be related by form, fill, or function. Not all of them need be contemporary. Running east-west across the northern part of the trench and partly below the northern limit of excavation was a possible ditch or construction cut (5012). It was at least 0.54m across and 0.4m deep with a moderately sloping south edge and a flattish base. Only one backfill was identified, a moderately compact slightly reddish dark brown sandy silt (5006) containing an assemblage of pottery dating to the 11th-16th century and brick and tile of the 13th-16th century. In the south-west corner of the trench was part of a feature (5016) of uncertain shape, size, and function but possibly the remains of a shallow posthole. It was at least 0.25m across and 0.11m deep with steeply sloping north and east edges. The backfill was moderately compact slightly reddish dark brown sandy silt (5009). Immediately south of 5012 was a sub-rectangular feature (5013) interpreted as a posthole. It was 0.66m long, 0.32m wide, and c.0.35m deep with nearly vertical sides and a nearly flat base. It had been backfilled with a moderately compact slightly reddish mid to dark brown slightly clayey sandy silt (5008) containing many cobbles which were probably disturbed packing. This backfill produced one piece of Roman pot and seven of 11th century date. Against and beyond the east side of the trench was part of a feature (5017) which may possibly have been a shallow posthole. It was 0.36m across and 0.1m deep with a steeply sloping east side. The backfill was a moderately compact slightly reddish dark brown sandy silt (5009) which contained one piece of 9th/10th century pot. North-east of 5017 was an oval feature (5021) thought to be a posthole. It was c.0.56m long, 0.32m wide, and at least 0.22m deep with very steeply sloping sides and a gently rounded base. It was backfilled with a moderately compact brown sandy silt (5010) which contained one sherd of 11th/12th century pot. Immediately south of 5017 and 5013 was an irregular oval shaped feature (5022) which may have been a posthole. It was 0.9m long, 0.44m wide, and at least 0.11m deep with moderately to steeply sloping sides and a rounded base. The backfill was a moderately compact slightly reddish dark brown sandy silt (5011) which contained pottery of the 10th/11th century. Against and beyond the east section was a shallow U-shaped feature (5023) of uncertain function although it may be a shallow posthole. It was at least 0.66m across and 0.11m deep with a moderately steeply sloping west edge. It had been backfilled with moderately compact slightly reddish-brown sandy silt (5018). West of 5023 was a roughly oval feature (5024), possibly a posthole, which was 0.48m long, 0.36m wide, and 0.17m deep. It had quite steeply sloping sides and an uneven rounded base and was backfilled

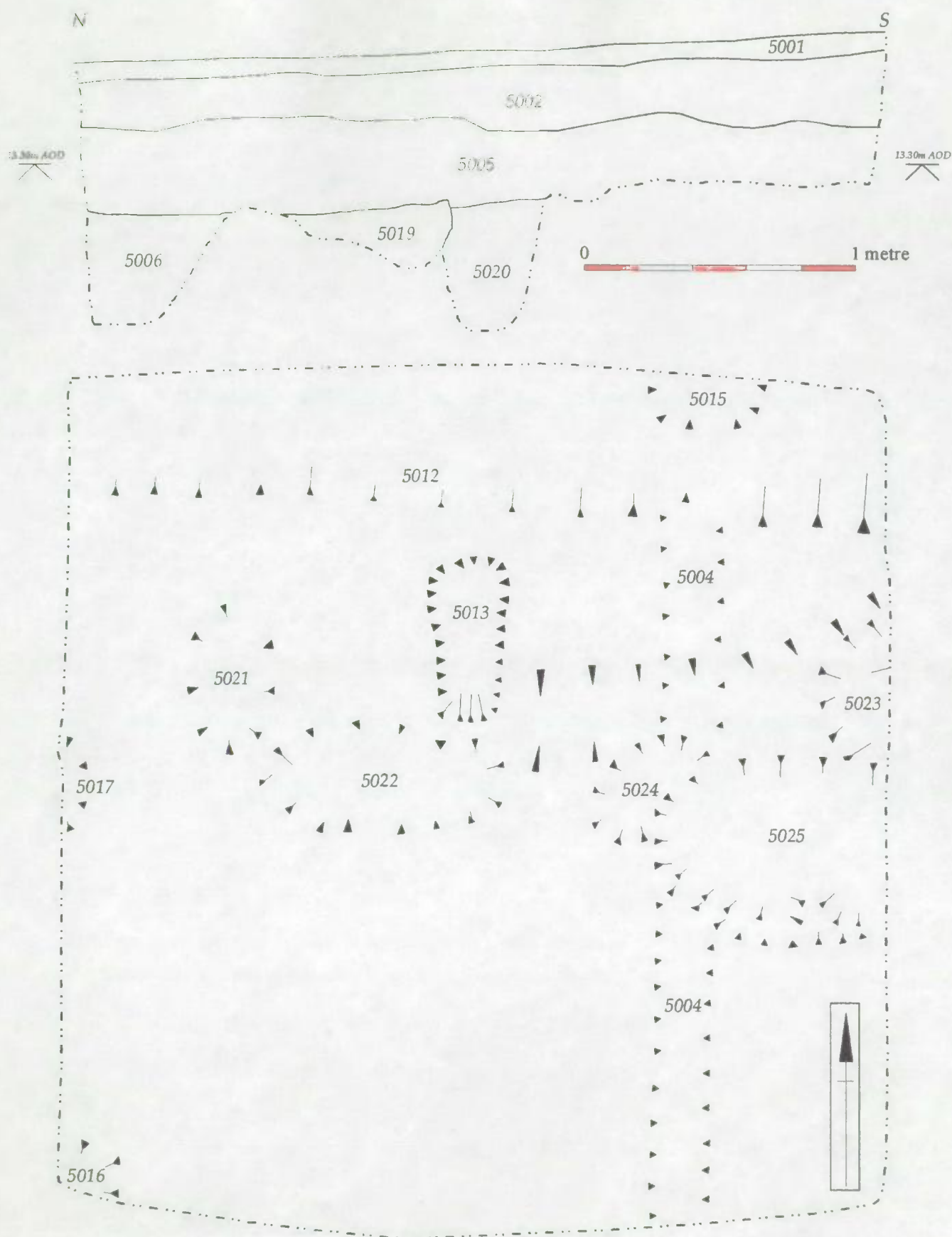


Figure 8 Trench 5 west facing section and plan on completion of excavations

with moderately compact slightly reddish dark brown sandy silt (5019). This backfill contained a small quantity of pottery dated to the 11th/12th century and tile of the 13th - 16th century.

5.5.3 All features in 5.5.2 were apparently sealed by a trench wide build-up deposit of loose slightly reddish dark brown very slightly clayey sandy silt (5005) which was up to 0.35m thick. Cut into the top of 5005 was a linear feature (5004) aligned north-south, probably a robbed out field drain. It was c.0.22m wide, no more than c.0.09m deep, and had nearly vertical sides and a flat base. It had been backfilled with moderately compact very dark brown slightly clayey sandy silt (5003). This backfill contained three sherds of pot of the 11th-14th century and tile of the 13th-16th century. Above it was a levelling deposit of limestone hardcore (5002) which was the bedding for the modern tarmac (5001) which formed the present ground surface at c.13.7m AOD. Context 5000 was used for any unstratified finds recovered during machining and initial cleaning of the trench and the small amount of pottery recovered was dated Roman-14th century. A small amount of tile from the machining was dated to the 13th - 16th century.

5.6 Trench 6A (Figure 9)

5.6.1 In this trench the earliest deposit recorded, at c.13.7m AOD, was a compact greyish-brown sandy silty clay (6002A) with moderate quantities of small cobbles. This was believed to be natural. Overlying it was a levelling deposit of crushed limestone (6001A) which was the bedding for the modern tarmac (6000A) car park surface which lay at c.14.05m AOD in this area.

5.7 Trench 6B (Figure 10)

5.7.1 The earliest context recorded in this trench, at c.14.3m AOD, c.0.5m BGL, was a compact mid greyish-brown silty clay (6008B) which was thought to be natural. Two features were identified cut into 6008B. One of these (6007B) in the north-east corner of the trench was of uncertain shape, size, and function. It was at least 0.54m long, 0.27m wide, and 0.1m deep with gently sloping sides and a rounded base. It was backfilled with compact mid to dark grey silty clay (6002B). The second feature identified (6006B) was also mainly beyond the trench edge, close to the north-west corner, was also of uncertain, shape, size, and function. It was at least 1.45m by 0.2m and 0.13m deep with a moderately steeply sloping east edge and, apparently, a flat base. The backfill was a compact mid to dark grey silty clay (6001B).

5.7.2 Above these features was a horizon of light grey concrete (6005B) with occasional pieces of steel girder, clearly the result of demolition. Overlying this was a levelling deposit of crushed limestone (6004B) which formed the bedding for the modern car park tarmac surface (6003B) which lay at c.14.9m AOD. Context 6000B was used for any unstratified finds found during machining and cleaning of the trench.

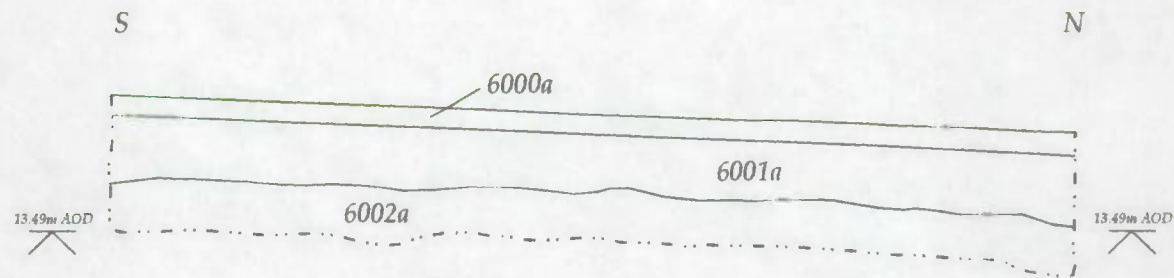


Figure 9 Trench 6a east facing section

0 1 metre

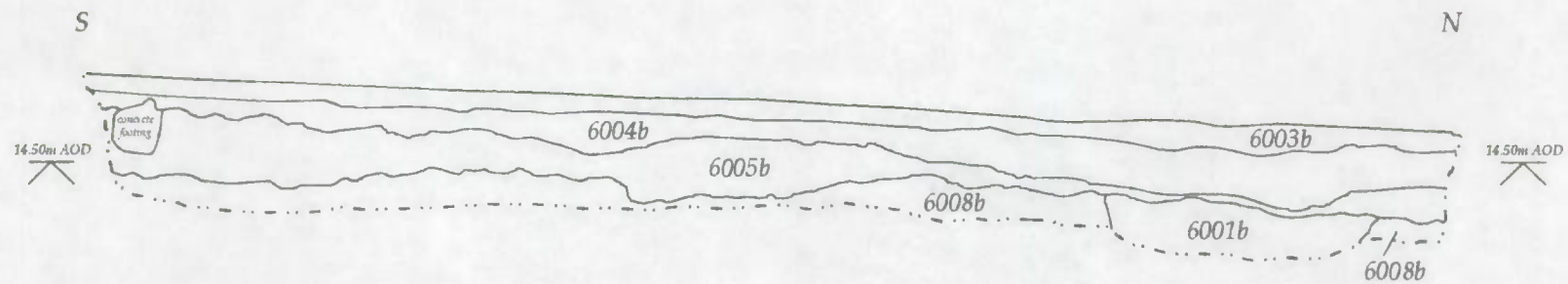


Figure 10 Trench 6b east facing section

0 1 metre

5.8 Trench 7 (Figure 11)

5.8.1 The earliest deposit recorded in this trench, at c.15.05m AOD, c.0.45m BGL, was compact orange-yellow sandy silty clay (7007) containing many small cobbles. Into this was cut a large number of features which on stratigraphic grounds or by their function, ie: modern service trench, could be assigned tentatively to one of three groups. The earliest group comprised two features. The earliest was a possible pit (7019) much of which lay beyond the southern and eastern limits of excavation. It was at least 1.4m long, 0.44m wide, and 0.11m deep with moderately sloping sides. Only one backfill was identified, a compact mid bluish-greyish-green slightly sandy silty clay (7017). The second feature, which truncated the top of 7019, was a linear cut (7018) which appeared to widen considerably at the southern end of the trench. As with 7019 much of 7018 lay beyond the east and south trench limits. At the north end of the trench it was at least 0.18m wide, in the middle of the trench at least 0.4m wide and where it entered the southern edge of the trench it had suddenly widened to at least 0.86m. It was c.0.18m deep with a moderate to steeply sloping west edge and had been backfilled with a compact dark greenish-grey slightly sandy silty clay (7016). This backfill produced one scrap of unidentifiable pottery and tile of the 13th - 16th century.

5.8.2 Known or believed to be later than 7018 and 7019 was a group of features which appeared to be mainly postholes. Just cutting part of 7018 was a roughly circular feature (7015) which was c.0.34m across, 0.1m deep, and had quite steeply sloping sides and a rounded base. It had a backfill of moderately compact friable reddish-brown slightly sandy silty clay (7008) with mid olive-green mottling. Pottery from this fill belonged to the Roman period and to the 11th - 12th century and tile to the 13th - 16th century. Approximately 1m north of 7015 was a highly irregular feature (7012) of uncertain function. It was c.1m long, up to 0.6m wide, and 0.13m deep with quite steeply sloping sides and an uneven base. It had been backfilled with compact very dark greyish-brown clayey silt (7011) containing a small amount of Roman and 11th - 12th century pottery. In the north-east corner of the trench part of a posthole (7014) was recognised and excavated. An unknown amount of it lay beyond the limit of excavation but it was at least 0.16m across and 0.19m deep with nearly vertical sides and a flat base. The backfill was soft very dark grey-black sandy silt (7013). Against the northern edge of the trench was a possible linear slot (7010) aligned east-west. Too little of it was seen to be sure that it was a slot and it could have been a pit base or similar feature. The portion excavated was c.1.05m long and at least 0.16m wide with a steeply sloping south edge. The base of this cut was not reached within the limited area available for investigation but 7010 was at least 0.12m deep. The backfill was compact dark grey slightly sandy silty clay (7009) which produced two sherds of 11th/12th century pottery. Towards the western section there was a roughly circular feature (7006) interpreted as a posthole. It was c.0.42m across and 0.2m deep with steeply sloping sides and a rounded base. It had a backfill of compact mid greyish-brown sandy silt (7005) containing many small cobbles which may have been packing in the posthole. This backfill contained Roman pot and pot of the 11th century.

5.8.3 Roughly bisecting the trench was a modern service trench (7004) aligned north-south. It was between 0.8m and 0.6m wide but was not fully excavated since it had running down its centre a cable enclosed in a ceramic pipe. Where defined, the edges were seen to be vertical. The only backfill seen was a mixture of pebbles, disturbed natural, and possibly concrete fragments (7003). Overlying it and covering the whole trench was a levelling or make-up deposit of light

yellow crushed limestone and brick rubble (7002). This was capped by the modern tarmac surface (7001) for the area which lay at c.15.6m AOD. The context number 7000 was used for any unstratified finds recovered during machine clearance and cleaning of the trench.

5.9 Trench 8 (Figure 12)

5.9.1 The lowest deposit in this trench, at c.15.2m AOD, 0.25m BGL, was a compact yellow-orange-light brown silty sandy clay (8011) containing many small cobbles. It was thought to be the natural subsoil in this area. Running roughly across the centre of the trench, and cut into the natural, was a ditch (8010) aligned very roughly north-north-east to south-south-west. It may have been truncated by later activity but where recognised it was c.1.7m wide and 0.7m deep with moderately sloping sides and a gently rounded base. Only one fill was observed, moderately compact slightly orangey-grey mid brown clayey silty sand (8009) which became noticeably more silty towards the base of the ditch. This contained brick, tile and possible stone roofing tile of Roman date and a large quantity of pottery dated to the 2nd and mid 3rd century AD.

5.9.2 Two features appeared to be cut into the backfilled ditch. The first was a linear cut, probably a robbed out land drain, (8005) aligned approximately east-west. It was an average of c.0.3m wide and c.0.09m deep with a flat base and vertical sides. The backfill was compact but friable mid to dark brown sandy silt (8004) containing drain pipe fragments. The second feature (8008), a definite field drain, lay c.0.7m north of and was parallel to 8005. It was in a cut which was c.0.3m wide and c.0.09m deep with vertical sides. Within the cut was a series of regularly laid partly crushed and broken tiles (8007) forming the base, sides, and capping of the drain. Where measurable these tiles were c.0.3m long, 0.16m wider, and up to 0.03m thick. Tiles from this drain appeared to belong to two distinct groups, one dating to the 13th - 16th century and the other to the early 19th century. The drain cut had been backfilled with a compact mid orange-brown clayey silty sand (8006) with frequent lumps of orange-brown clay. One piece of Roman pottery came from 8006.

5.9.3 Sealing these drains was a build-up deposit of moderately compact light to mid brown slightly clayey sandy silt (8003). Above this was a levelling deposit of light yellow crushed limestone (8002) which formed the bedding for the modern tarmac (8001) car park surface. This lay at c.15.5m AOD in the general area of this trench. Context 8000 was used for unstratified finds recovered during machine clearance and cleaning of the trench.

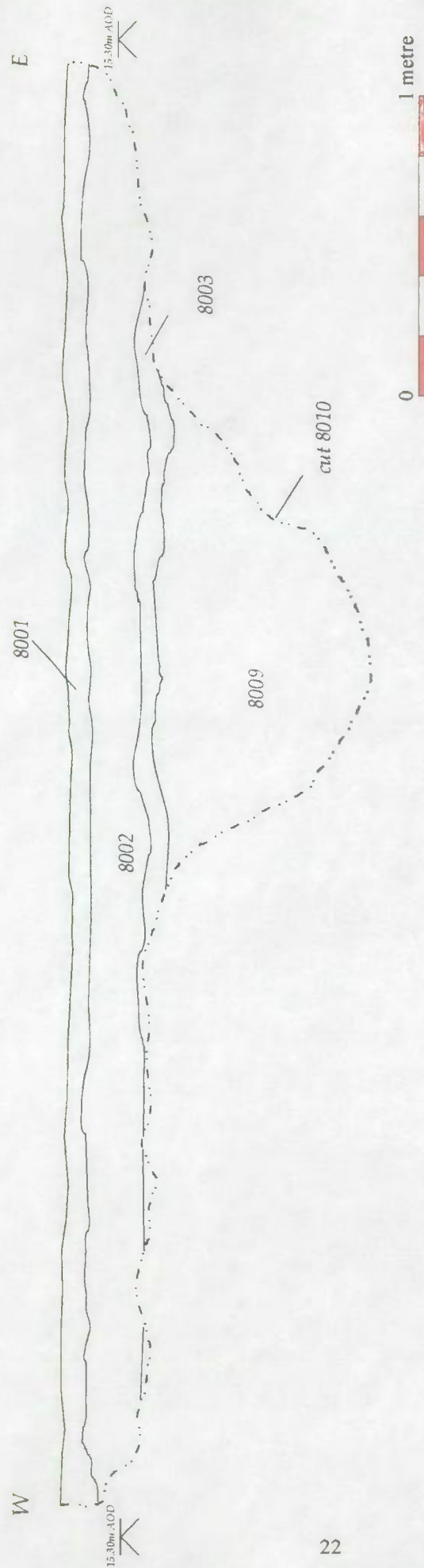


Figure 12 Trench 8 south facing section

5.10 Trench 9 (Figures 13 and 14)

5.10.1 The earliest deposit in this trench was a compact mid orange-yellow sandy clay (9012) with many small cobbles and pebbles. This was believed to be the natural subsoil and lay c.0.5m below modern ground level at c.15.3m AOD. Cut into the natural was a possible posthole (9011). Although truncated by a later feature it appeared to have been originally roughly oval. It was c.0.64m across, c.0.35m deep and at least c.0.72m long with vertical sides and a flat base. The backfill was very compact pale to mid brownish-grey silty sandy clay (9010) containing a moderate quantity of large cobbles which may have been packing for the posthole. A moderate amount of pot from this backfill was possibly Roman.

5.10.2 The posthole had been cut by a very large feature (9009) much of which lay outside the limits of the trench. Much of the south-east quadrant of this cut, possibly a quarry pit, was excavated and suggested that this pit may have been roughly circular with a diameter of c.4m. The depth of 9009 was not established within the area of the trench but was at least c.1.1m. The south-east edge sloped quite moderately overall but seemed to descend in three rough steps towards the south. The only backfill positively identified was quite loose friable mid greyish-brown slightly clayey silty sand (9008). The latest pottery from this backfill was of the 11th/12th century but tile from this context was dated to the 13th - 16th century. A deposit above 9008 may have been another backfill or possibly a levelling deposit. It was compact mid to dark greyish-brown silty sandy clay (9007) containing moderate quantities of small to medium sized cobbles and tile of the 13th - 16th century plus some Roman brick. Pottery from this context was dated to the 2nd/3rd century, the 11th - 12th century, and to the 14th century.

5.10.3 Slightly later than 9009 and situated towards the south-east corner of the trench was feature (9006) of uncertain size and shape since it had been truncated by a modern drain and also lay partly outside the excavated area. It was at least 2.4m east to west and c.0.7m north to south. It was no more than c.0.13m deep but had quite steeply sloping sides and a flat base. It had been backfilled with compact pale to mid brownish-grey silty sandy clay (9005). Pottery from this backfill was Roman and of the 11th - 12th century. Possibly contemporary with 9006 was a pit like feature (9004) in the north-east corner of the trench. Much of this lay beyond the edges of the trench but it is possible that it may have been roughly circular with a diameter of c.2m and quite steeply sloping sides. The full depth was not determined but was at least 0.65m. It had been backfilled with compact mid to dark greyish-brown silty sandy clay (9003) containing moderate quantities of small cobbles. This backfill contained some Roman brick and tile of the 13th - 16th century and a fairly large amount of pot. Some of this was Roman, some possibly of the 8th century (three sherds of possible Ipswich ware), and much of it 14th century.

5.10.4 Stratigraphically later than the above features was a modern drain (9002) aligned approximately east-west. No attempt was made to excavate this since the trench it was in was filled with solid concrete (9001) so this feature was left to form the southern limit of excavation after machine clearance. Above 9001 was a levelling deposit of crushed limestone (9013) up to c.0.45m thick. This formed the bedding for the modern tarmac (9014) car park surface which lay at c.15.8m AOD in this area. Deposits removed during machine clearance (9000) contained tile of the 13th - 16th century and pot belonging to the Roman period and to the 14th century.

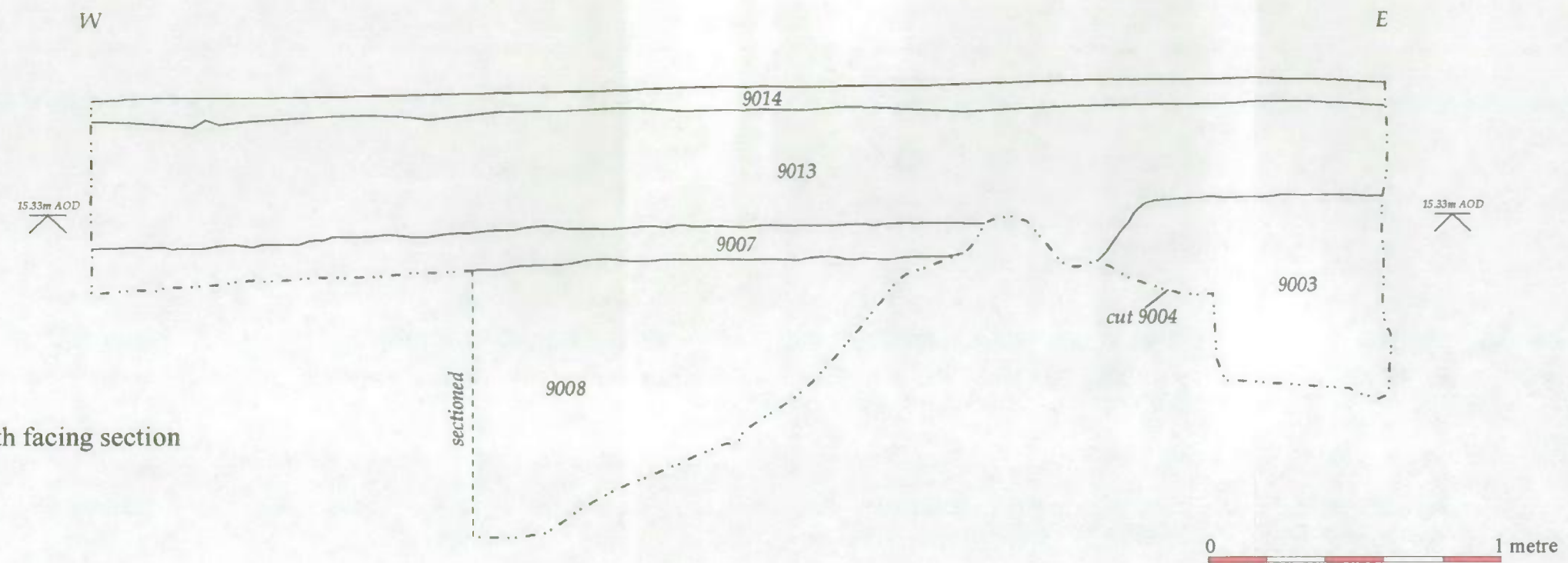


Figure 13 Trench 9 south facing section

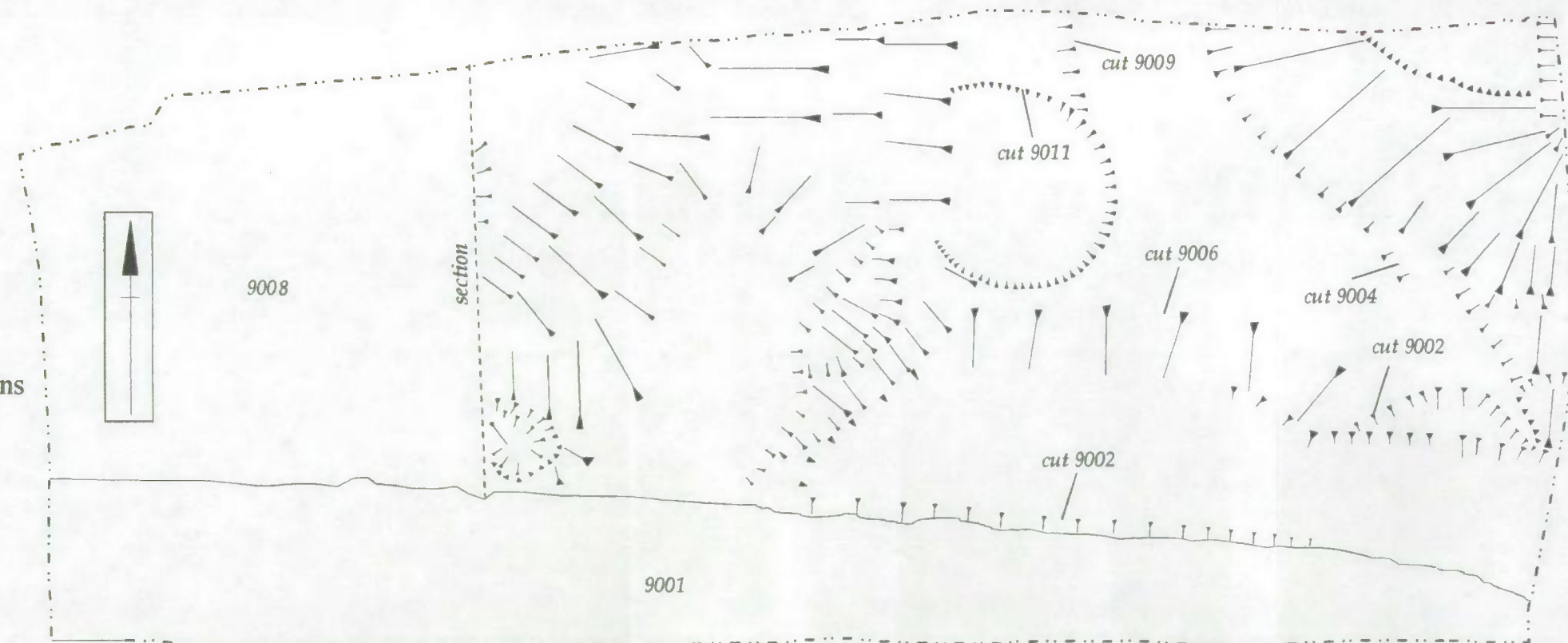


Figure 14 Trench 9 plan on completion of excavations

6. FINDS ASSESSMENT

6.1 The Pottery

6.1.1 Spot Dates

Context	No of sherds	Date	Description
1000	5	19 th	tin glazed earthenwares and abraded medieval sherds
2000	4	R-11/12 th	R; gritty, splashed
3008	11	19 th	slip wares, black wares, tin-glazed earthenwares, porcelain and Walmgate type
3011	8	R- 19 th	R; gritty wares, tin-glazed earthenware, Walmgate
3020	19	19 th	post-med earthenwares, tin-glazed earthenwares
3021	20	R; 12 th -14 th ; 19 th	Samian; very abraded gritty wares and 14 th century types; slip wares and post-medieval earthenwares
3022	3	14 th	gritty wares and Brandsby-type
3024	3	Roman	Scraps
3026	2	18 th	tin-glazed earthenware, scrap
3028	2	?	Scraps
3038	14	?R; 14 th	oxidized ? Roman; gritty ware and abraded 14 th century types
3039	8	19 th	post-medieval, earthenwares, tin-glazed earthenwares
3040	15	R-19 th	Roman. tin-glazed earthenwares, small splashed ware and gritty wares sherds
3042	93	19 th /early 20 th	Cistercian, post medieval red earthen wares and tin-glazed earthenwares
4000	20	11 th -12 th ; 18 th	gritty ware, splashed ware, 1 brown-glazed wares, 1 tin-glazed earthenwares
4003	7	18 th	Cistercian, splashed wares, 1 porcelain
4005	70	R, 11 th -14 th	1R; 46 gritty wares, 23 13 th /14 th century types - all very small and abraded
5000	7	R- 14 th	grey wares, gritty ware, Brandsby-type
5003	3	11 th -14 th	splashed, 14 th century type
5006	23	11 th -16 th	gritty, Humber, Purple glazed wares, Hambleton-type
5008	8	R; 11 th	1R; 7 GW
5009	1	9 th /10 th	York ware
5010	1	11/12 th	gritty ware
5011	7	10/11 th	Torksey-type ware and gritty ware
5014	1	? scrap	
5019	3	11 th /12 th	gritty wares, splashed wares
5020	27	R; 11 th -13 th	splashed and gritty wares, Brandsby-type
6001	1	? scrap	
7005	4	R; 11 th	Samian, gritty ware
7008	6	R; 11 th -12 th	Roman; splashed wares and gritty ware

7009	2	11/12 th	gritty wares
7011	3	R; 11 th -12 th	gritty ware
7016	1	?scrap	
8006	1	Roman	Roman grey ware
8009	54	2 nd /mid 3 rd	Grey wares, BB2, colour-coated wares, Dales ware, Samian and Ebor wares
9000	19	R; 14 th	R grey wares, Ebor wares, Brandsby ware, Yorkshire red ware
9003	38	2 nd /3 rd , 7 th , 10 th , 14 th	R colour coat; ? Ipswich ware; Torksey-type; gritty ware; Brandsby ware
9005	2	R; 11 th /12 th	splashed wares
9007		2 nd /mid 3 rd , 11 th - 12 th , 14 th	R amphora, R grey wares, shelly ware, gritty wares, splashed wares and Brandsby-type wares
9008	11	R; 11/12 th	R; Torksey-ware; gritty ware; splashed ware
9010	11	?R	all part of one unglazed oxidized vessel - possibly Roman

6.1.2 Summary

The assemblage of pottery is fairly scrappy and contains mainly small and very abraded sherds. The exception is the 8000 and 9000 contexts where there are larger groups. For the most part the material has been churned up several times, a process which accounts for the mixed character of many of the contexts. There is Roman material of 2nd and 3rd century date in some contexts and more mixed with later material. There is some possible Ipswich ware (three sherds) from context 9003 together with a sherd of Torksey-type ware. Apart from this there is then a blank period from the Roman to the 11th century, a common feature on many sites on the outskirts of the historic core of the city. There is a considerable quantity of 11th and 12th century material although only as small, abraded sherds; the same is true of the 13th and 14th century sherds. There is then little further material until the post-medieval and recent periods where again the sherds are quite small. The types and forms found are typical of a domestic assemblage from York.

6.2 The Small Finds

6.2.1 Introduction

A total of 29 small finds was assessed.

6.2.2 Ironwork

Eleven iron objects were found including sf1, c.8009, a possible socketed arrowhead, and two possible knife blade fragments sfs4, c.9008 and sf29, c.3020. Sf5, c.9008 is an object of uncertain identity and sf8, c.3028 is a sheet – both may be more clearly identified after conservation treatment. The remaining ironwork comprises nails (sfs2, c.8009; 7, c.9008; 10, c.6002; 26, c.3021), and unidentifiable fragments (sfs3, c.4005; 18, c.50110).

6.2.3 Lead alloy

Sf6, c.5008 is a fragment of spillage.

6.2.4 Glass

Of the seven glass finds, several appear molten (sfs13, c.3040; 16, c.3013; 19, c.3018; 22, c.4005). The remainder comprise a ?modern vessel fragment (sf9, c.3026), a piece of colourless window glass (sf12, c.3008) and an unidentified fragment (sf23, c.3040).

6.2.5 Fired clay

All seven fired clay finds are post-medieval tobacco pipe fragments (sfs15, c.5003; 20, c.9000; 21, c.3041; 24, c.3011; 25, c.3039; 27, c.3021; 28, c.3020).

6.2.6 Slag

This was found in the following contexts: 7005, 3013, 5006. Some of this appeared to be glass slag.

6.2.7 Material unknown

Sf14, c.3040 is of unknown material.

6.2.8 Summary

This small but largely uninspiring assemblage has three interesting iron objects, namely the arrowhead and the knife blade fragments, although the dates of all of these are unclear. The remaining finds are the undistinguished types of finds commonly recovered in York. The few fragments of molten glass and glassy slag suggest possible glass working here at some time in the past.

6.3 Ceramic Building Materials

6.3.1 Introduction

Two boxes of ceramic building materials (CBM) were submitted for examination. The material ranged in date from the Roman to the post-medieval periods.

6.3.2 Roman material

Roman material constitutes a small proportion of the sample. It consists of brick, roofing tile (imbrex and tegula) and a possible fragment of flue tile. The tegula flange (context 8009) height is noticeably smaller than the typical large, perhaps military, York product. This might be indicative of perhaps a later date than the larger products, or a civilian brick and tile industry. This tile also has possible imprints of raindrops where the still wet clay tile was left out in the open to dry. From context 8009 there is a fragment of thrown ceramic which could be from a pot, but has very straight sides and might be a fragment of water or vaulting pipe. The fabric appears to be Roman. The possible fragment of flue tile is small and abraded, but seems to be Roman and appears to be finger smoothed, which is a known method of providing keying for

flue tiles in Roman York.

6.3.3 Medieval material

Medieval material consists of roofing material in the form of peg tile. Where the fragment does not have any indication of a method of suspension it has been called 'plain' as it could be a nib tile, rather than a peg tile. One of the plain tiles has finger or animal marks on its surface. There is also one example of a brick with indented borders, sanded edges and measurements that point to a medieval date. These types of brick may be 'wall tiles' which could have been used as infilling for timber-framed buildings

6.3.4 Post-medieval material

Pan tile, field drain and brick represent post-medieval material. The pan tile is probably not earlier than 17th century in date. The field drain present is the early form of field drain which took the form of a 'horseshoe' shaped tile that sat on a flat sole plate. The brick present has manufacturing methods more often associated with a post-medieval date: slop moulding (where the brick mould is only wetted and no sand used) and a turning mark on the base, where the brick was turned off the maker's table. Some of the measurements associated with a couple of fragments with these traits are within medieval parameters, so they might be earlier than the date given.

6.3.5 Other material

Fine-grained sandstone was found in several contexts. Of note, in context 8009, the flaggy sandstone was found with Roman material. These might be fragments of roof tile.

The fragments of glass on the high density, possibly refractive bricks from context 3018 seem to point to glass working in the area.

6.3.6 Conclusion

This sample has a good range of material from a range of dates. Its proximity to known brick kilns of varied dates gives a valuable opportunity to see the possible products of these kilns.

The sample should be retained until such time as it can be thoroughly recorded by a recognised ceramic building materials specialist. Full consideration of context and site information should enable the sample to contribute to the study of the archaeology and ceramic building materials of York.

6.3.7 Context Listing Table

Key**Cxt** = Context **L** = Complete length **B** = Complete breadth**T** = Complete Thickness **FH** = Complete Flange Height**Date range** = date range of form **Date** = estimated date of context

* = only minimum measurement available

NB: This list indicates only forms present and any variations (such as slag attached, or paw prints). It does not list every fragment of CBM

Cxt	Form	L	B	T	FH	Comments	Date range	Date
1007	Rbrick			29			Roman	Roman
3018	Brick					With glass deposits,. Could be crucible fragments; high density fabrics	19 th +	19 th +
3018	Brick?						19 th +	
3020	Brick		115	58		Slop moulded, turning mark on base	16-18 th	16-18 th
3020	Brick			58		Blown, re-used	16-16 th	
3020	Peg					Square peghole	13-16 th	
3020	Plain						13-16 th	
3021	Plain						13-16 th	13-16 th
3026	Pan?						17 th +	17 th +
3028	Plain					Small fragment	13-16 th	13-16 th
3030	Plain					Small fragment	13-16 th	13-16 th
3030	Plain					Mortar	13-16 th	
3039	Brick						19 th +	19 th +
3039	Brick			52		Slop moulded	16-18 th	
3039	Pan						17 th +	
3039	Pan?						17 th +	
3040	Imbrex?					Could be modern	?	19 th +
3041	Brick			45		Turning mark, straw marks on base, slop moulded	16-18 th ?	16-18 th ?
3041	Brick			47		Slop moulded	16-18 th ?	
3042	Pan						17 th +	17 th +
3042	Plain						19 th +	
4000	Plain						13-16 th	13-16 th
4005	Plain						13-16 th	13-16 th
5000	Plain					Overfired; indented border	13-16 th	13-16 th
5000	Plain						13-16 th	
5003	Peg					Square peghole	13-16 th	13-16 th
5003	Plain						13-16 th	
5006	Brick					Burnt	14 th +	14-16 th
5006	Brick		127	42		Indented border, sanded mould	14-15 th	
5006	Peg					Diamond peghole	13-16 th	
5006	Plain					Indented border	13-16 th	
5006	Plain						13-16 th	
5006	Plain					Mortar	13-16 th	
5006	Plain					Burnt	13-16 th	
5006	Stone			26		Fine grained sandstone, mortar	?	
5008	Stone			31		Fine grained sandstone	?	?
5019	Plain						13-16 th	13-16 th
5020	Brick					Patch of glaze	18 th +	18 th +
5020	Rbrick					Very small fragment	Roman	
7008	Plain					Very fine fabric	13 th +	13 th +
7008	Plain						13-16 th	
7016	Plain						13-16 th	13-16 th
8007	Field drain					Horseshoe	E19th	E19th
8007	Field drain	320	203	18		Complete, Sole plate from horseshoe field drain	E19th	

8007	Peg				Square peghole, tally mark?	13-16 th	
8007	Peg				Circular peghole, abraded	13-16 th	
8007	Peg				Square peghole	13-16 th	
8007	Plain					13-16 th	
8009	Imbren					Roman	Roman
8009	Pot				Possibly pipe	Roman	
8009	Rbrick			34		Roman	
8009	Stone			14	Possible roof tile: Fine grained sandstone	?	
8009	Stone			16	Possible roof tile: Fine grained sandstone	?	
8009	Stone			21	Possible roof tile: Fine grained sandstone	?	
8009	Stone			22	Possible roof tile: Fine grained sandstone	?	
8009	Tegula			18 38	Small tegula height. raindrop impressions	Roman	
9000	Plain				Finger or animal marks	13-16 th	
9000	Plain					13-16 th	
9003	Flue?			13	Finger smoothed	Roman?	
9003	Plain				Reused	13-16 th	
9003	Plain					13-16 th	
9003	Pot				Amphora	Roman	
9003	Rbrick				Corner fragment	Roman	
9003	Rbrick			29		Roman	
9007	Peg				Square peghole	13-16 th	
9007	Plain					13-16 th	
9007	Rbrick			27		Roman	
9007	Rbrick			35		Roman	
9007	Ridge					13-16 th	
9008	Plain					13-16 th	
9008	Plain				Abraded	13-16 th	
9008	Pot					Roman?	
9008	Rbrick				Small fragments	Roman	

7. Conservation Assessment

7.1 Objectives

This report aims to meet the requirements of MAP2, Phase 3, Assessment of Potential for Analysis, (English Heritage, 1991). The work carried out has involved an X-radiographic investigation of selected finds, and an assessment of their condition, stability and packaging. This report includes an evaluation of the potential of each group of material for further investigative conservation and research. There are recommendations for long term stabilisation, packaging and analytical or specialist support required.

7.2 Procedures

All metal finds were X-rayed using standard Y.A.T. procedures and equipment. Two sheets of film were placed in the cassette to produce duplicates for archive purposes. The plates were laid out in small find number order as far as possible. The X-ray plate number was written on each bag. Each image on the X-ray was labelled with its small find number. The plates were packaged in an acid-free archival envelope and given a reference number in the Online Photo Archive. This was linked through to the CIFR record for each find. The archival copy is stored in Conservation and the duplicate is with the Finds Administration at the ARC (please note that the duplicate plate was faulty and detail of finds 1,8,10,11,18,26, and 29 are not clear).

All categories of material were examined under a binocular microscope at X20 magnification. The material identifications were checked and observations made about the condition and stability of the finds. The wet-packed finds were dried out, and repacked. Any technological information deduced from the X-rays and/or microscope examination and details of treatment were recorded on CIFR in the Work Record area, and printed below in section 5.

7.3 Quantification

A total of 29 finds were assessed and 1 duplicated X-ray plate produced. The number of objects in each material category is listed below:

Original list

Iron	12
Lead alloy	1
Slag (Glass),	1
(Iron)	1
Fired clay	8
Glass (Wet packed)	2
Glass (Dry)	4

7.4 Condition

7.4.1 Iron

The ironwork was generally covered in silt, sand and bulky mixed orange-brown iron corrosion with inclusions. Radiography showed that many of the objects had very little metal core surviving. There was little sign of active corrosion, and as long as the RH is maintained below 15% the objects should remain stable for the long term.

The sheet fragment, sf8 (context 3028), had a small area of blue corrosion, resembling vivianite. This corrosion product often forms in anaerobic conditions where high phosphate levels are present (eg. from cess or bone). Because it is only a small and localised patch of vivianite, and

the rest of the sheet appears to have been well aerated during burial, it does not in this case indicate special conditions for preservation of organic material.

7.4.2 Non-ferrous Metals

7.4.2.1 Lead alloy: the once molten sheet was covered with a thin layer of soil/silt overlying pale buff corrosion products, it should remain stable if held below 35% RH.

7.4.3 Slag

There was a small collection of 'slag' in this assemblage, all sent unwashed. Sf11, originally sent as iron slag is a small fragment, but probably not related to ironworking. Sf16, originally sent as glass slag, looks like once-molten blue-green glass, and is not related to metalworking. Both of these are the products of a high temperature process, either deliberate or accidental. Sf17 comprises 5 lumps of iron slag, one of the lumps has some metallic iron content. There was no hammerscale present. The iron slag should be stored with the iron; the others are robust and stable.

7.4.4 Fired Clay

The fired clay consisted of tobacco pipe fragments, most of them retaining the original soil deposits in the interior. Three of the bowl fragments were decorated. Two stem fragments were unusual: sf28 had a pale green glazed exterior, and sf14 exhibited minute cracks, had an unusual fibrous structure, and was made from a different material (possibly organic?). This needs to be identified.

7.4.5 Glass

Two fragments were sent wet, with silt/soil adhering, and with water in the bag. Four fragments were sent dry and unwashed. Objects were rinsed in tap water to remove external bulky silt/soil deposits. They were then gently brushed in reverse osmosis water, under binocular microscope at x10 magnification. Controlled air-drying was carried out over 24 hours, unless consolidation was required. All treatment was recorded on CIFR and is printed in section 5 below.

The finds were packed in perforated mini-grip bags with jiffy foam support, within a cardboard box. They are now clean, dry, stable and ready for long-term storage.

7.5 Assessment

N. Rogers, J. Jones, and K. Bearcock viewed the finds to determine the potential for further research and investigative conservation in the light of the microscope examination and X-radiographic results. Some were selected for further investigation; details of these are highlighted in bold.

7.5.1 IRON Store dry at less than 15%RH.

FIND	CONTEXT	MATERIAL	ASSESSMENT
SF00001	8009	;IRON;	<p>Assessment: Fe object in one piece. Covered in silt and sand and bulky mixed iron corrosion. X-ray shows: a socketed implement, perhaps arrowhead ? Small fragment of non-ferrous metal incorporated in corrosion. No sign of active corrosion.</p> <p>Proposed Treatment: Partial Investigative cleaning to clarify tip, shoulder and socket shape, and to expose any MPO in socket.</p> <p>(estimate 3 hours)</p>
SF00002	8009	;IRON;	<p>Assessment: Fe object in two pieces that do not join; broken faces show probable circular cross-section. Both fragments are tapering, possibly nail shank? Covered in silt and sand and bulky mixed pale orange iron corrosion. X-ray shows: very little remaining iron core. No sign of active corrosion. Proposed Treatment: none.</p>
SF00003	4005	;IRON;	<p>Assessment: Fe fragment in one piece, with a few areas of the surface corrosion broken off and missing. Covered in silt and sand and very bulky mixed iron corrosion. X-ray shows: an L-shaped area of pale metal core, non-diagnostic. No sign of active corrosion. Proposed Treatment: none.</p>
SF00004	9008	;IRON;	<p>Assessment: Fe object in one piece, tapering, looks like possible blade tip. Covered in silt and sand and bulky mixed pale orange iron corrosion. X-ray shows: heavy corrosion, especially at tip. Some metal core. No sign of active corrosion.</p> <p>Proposed Treatment: Partial investigative cleaning to expose cross-section. (estimate 2 hours)</p>
SF00005	9008	;IRON;	<p>Assessment: Fe object in one piece. Covered in silt and sand and bulky mixed iron corrosion. X-ray shows: Fe bar or strip with solid metal core. No sign of active corrosion.</p> <p>Proposed Treatment: Partial investigative cleaning to expose shape of both ends. (NR) (estimate 2 hours)</p>
SF00007	9008	;IRON;	<p>Assessment: Two nails, both with tips broken in antiquity and missing; the head of the smaller nail has a fresh break and part is missing. Covered in silt and sand and bulky mixed iron corrosion. X-ray shows: very little metal core. No sign of active corrosion. Proposed Treatment: none.</p>

SF00008 3028	;IRON;	Assessment: Fe sheet in one piece, bent and cracked, incomplete but with two opposing straight edges surviving. Covered in silt and sand and bulky mixed iron corrosion, with one small patch of blue (vivianite?) on the corner of the bent area. Presumably this area was adjacent to or sealed by something in burial to create a micro-environment which favoured formation of this localised corrosion. X-ray shows: extensive corrosion, cracking, and a possible square perforation. Some small pustules of weeping iron visible at cracked and bent area. Potentially unstable, ensure dry storage. Proposed Treatment: Partial investigative cleaning of possible perforation. (estimate 2 hours)
SF00010 6002	;IRON;	Assessment: Fe object, nail head and part of shank, in one piece, the rest broken in antiquity and missing. Covered in silt and sand and bulky mixed iron corrosion. The corrosion has laminated on the nail head, exposing a thin whitish corrosion product on one half. X-ray shows: this is a nail. No sign of active corrosion.. Proposed Treatment: none.
SF00017 5006	;IRON;	Assessment: See SLAG, section 5.3.
SF00018 5011	;IRON;	Assessment: Fe object in one piece. Covered in silt and sand and bulky mixed iron corrosion. Weakly magnetic. X-ray shows: some iron core, with a non-ferrous globule incorporated in the corrosion (indicates molten metal in the area). No sign of active corrosion.. Proposed Treatment: none.
SF00026 3021	;IRON;	Assessment: Fe object in one piece. Covered in silt and sand and bulky mixed iron corrosion with charcoal and mineral inclusions. X-ray shows: nail with good metal core. No sign of active corrosion Proposed Treatment: none.
SF00029 3020	;IRON;	Assessment: Fe object in one piece. Covered in silt and sand and bulky mixed iron corrosion. X-ray shows: probably the tip of a blade, heavily corroded at the tip and cutting edge. No sign of active corrosion. Proposed Treatment: Partial investigative cleaning to reveal cross-section. (estimate 2 hours)

7.5.2 LEAD ALLOY Store dry at less than 35%RH.

FIND	CONTEXT	MATERIAL	ASSESSMENT
SF00006 5008		;LEAD ALLOY;	Assessment: One piece, Pb alloy, once molten, now solidified into an irregularly shaped flat sheet. Covered in soil and pale cream-coloured corrosion shading to pale orange in some areas. Several warty deposits disrupt the otherwise flat surface. Probable evidence of high temperature process on site, but as lead has a low melting point (327C) this does not necessarily mean lead working, and could result from fire. Ensure that Lead is not in contact with any source of organic acids (eg. acetic acid, a breakdown product emitted from wood, card, paper, some finished textiles, PVA adhesives, etc.)

7.5.3 SLAG sf17 requires <15%RH.

FIND	CONTEXT	MATERIAL	ASSESSMENT
SF00011	7005	;SLAG;	Assessment: Slag fragment, one piece, fresh break at one end, the rest is missing. Covered in silt and sand, with black, white, grey, olive and orange colours exposed, there is no magnetic response (although the colours indicate probable iron content). Although label says iron slag, there are white mineral/granular inclusions (fused silica?). These are not characteristic of ironworking slags, this may be the result of a non-metallurgical high temperature process. X-ray shows: this is porous and slag-like. This is stable, store below 65%RH. Proposed Treatment: Refer to archaeometallurgist or similar specialist on industrial waste.
SF00016	3013	;SLAG; GLASS;	Assessment: One piece, a fragment of pale blue-green bubbly glassy material with three sides broken sharply, the rest is missing. Covered in silt/soil, with charcoal and white mineral inclusions. The fractures show layers of opaque pale glass and transparent blue-green glass. This could be the result of an accidental high temperature event, or part of a deliberate industrial process. Stable, store at <65% RH. Proposed treatment: Refer to archaeometallurgist or glass specialist.
SF00017	5006	;IRON; SLAG	Assessment: Five irregularly shaped lumps, covered in silt and sand. Four of these fragments show the dark colour of iron-rich slags and give no magnetic response. There is no sign of hammerscale. The flat smooth fragment is magnetic, and contains iron metal. X-ray shows: Four are porous and slag-like. The fifth has a metal core but porous slag-like regions towards each side. No sign of active corrosion. Store at <15%RH. Proposed Treatment: Refer to archaeometallurgist.

7.5.4 FIRED CLAY

FIND	CONTEXT	MATERIAL	ASSESSMENT
SF00014	3040	;FIRED CLAY;	Assessment: One piece labelled clay tobacco pipe fragment, worn, scratched, centre hole still contains soil. Incomplete: one end broken and missing. When examined under binocular microscope at x10 micro-cracks were visible around both ends and along the shank. This object was packed with the iron finds and perhaps dried out too quickly. The broken end is smooth and rounded on one side, is this wear or a deliberate shaping? The fabric of this piece is puzzling: it is unusual for fired clay to laminate in this way. The surface appears to have a rather fibrous appearance, with dark and light wavy striations running along the length. This looks like an organic material. Possibly osseous, but there is no cancellous tissue. There are a few small circular smooth areas that resemble knot-holes. Proposed treatment: Refer to specialists for material identification (EAU?). (estimate 1 hour admin)
SF00015	5003	;FIRED CLAY;	Assessment: One piece of clay tobacco pipe stem, incomplete, both ends broken and missing. Central hole contains soil. Stable and robust. Proposed treatment: none

SF00020 9000	;FIRED CLAY;	Assessment: One piece of clay tobacco pipe, incomplete. bowl and fragment of stem only, still with soil in interior. There is a grey colouration to inside of bowl and areas of exterior, possibly differential oxidation during manufacture? The edge of the bowl is chipped and a single row of rouletted decoration is present. Stable and robust. Proposed treatment: none
SF00021 3041	;FIRED CLAY;	Assessment: One piece of clay tobacco pipe stem, incomplete, both ends broken and missing. Interior still retains soil. One end is stained with patches of black and pale red. Stable and robust. Proposed treatment: none.
SF00024 3011	;FIRED CLAY;	Assessment: One piece of clay tobacco pipe bowl, incomplete, with small area of rim, other edges fractured. Exterior with ribbed decoration, rim with tool marks. Stable and robust. Proposed treatment: wash and air dry. Treatment: Rinsed in tap water. Brushed with purified water (reverse osmosis process) under binocular microscope at x10. The clay is iron stained. Air-dried. Stable and robust. Proposed treatment: none
SF00025 3039	;FIRED CLAY;	Assessment: Three pieces of clay tobacco pipe (1 bowl, 2 stem), incomplete and unwashed. The bowl fragment has all edges fractured and cast decoration on the exterior (wheat grain?). The stem fragments are iron-stained. Stable and robust. Proposed treatment: none.
SF00027 3021	;FIRED CLAY;	Assessment: One piece of unwashed clay tobacco pipe stem, incomplete, both ends broken and missing. Soil in interior, iron-stained and with a patchy dark deposit (iron corrosion) on exterior. Stable and robust. Proposed treatment: none.
SF00028 3020	;FIRED CLAY;	Assessment: One piece of unwashed clay tobacco pipe stem, incomplete, both ends broken and missing. This fragment has a crackled green glaze. Proposed treatment: wash, consolidate glaze if necessary, and air dry. Treatment: Rinsed in tap water. Brushed with purified water (reverse osmosis process) under binocular microscope at x10. There is an area of pale concreted soil attached to the surface, removed this with scalpel. Removed the loose soil from the interior using forceps and brush. The clay is iron stained at both ends. The glaze is well attached and does not need consolidation. Air-dried.

7.5.5 GLASS Store at 50-55%RH, and maximum of 150 lux.

FIND	CONTEXT	MATERIAL	ASSESSMENT
SF00009 3026		;GLASS;	Assessment: One piece of green translucent vessel glass, body shard, incomplete, 5 fractured edges, unwashed. Stable. Caution: SHARP EDGES. Proposed treatment: wash, air dry. Treatment: Rinsed in tap water. Brushed in purified water (reverse osmosis process) under binocular microscope at x10. The edges are shiny, the exterior face is scratched and chipped and the interior has a few scratches and small spots all over it. Bubbles are visible trapped inside. Air-dried under observation. An iridescent crust is forming, but appears to be well attached after 1/2 an hour.
SF00012 3008		;GLASS;	Assessment: One piece of flat transparent window glass, incomplete, cracked at one corner, all edges fractured, unwashed. Stable. Proposed treatment: wash, air dry.

- Treatment: Rinsed in tap water. Brushed in purified water (reverse osmosis process) under binocular microscope at x10. There is a deposit of iron corrosion on one face. Air-dried under observation. Surface clouding slightly but stable. Caution: SHARP EDGES.
- SF00013 3040 ;GLASS; Assessment: One trailed lump of translucent emerald green glass, incomplete, conchoidal fractures at one end, unwashed. Stable. Caution: SHARP EDGES. Proposed treatment: wash, air dry. Treatment: Rinsed in tap water. Brushed in purified water (reverse osmosis process) under binocular microscope at x10. Air dried under observation.
- SF00016 3013 ;SLAG; Assessment: see Slag, 5.3 above.
- SF00019 3018 ;GLASS; Assessment: 7 pieces of glass, unwashed. Four are translucent green glass with fractured edges: three of these have irregular surfaces (once molten, one with clear flow lines); the fourth is a small flat emerald green fragment. Three are transparent glass: one is a small flat fragment of window glass, two others have irregular surfaces (once molten). Stable. Caution: SHARP EDGES. Proposed treatment: wash, air dry. Treatment: Rinsed in tap water. Brushed in purified water (reverse osmosis process) under binocular microscope at x10. Air-dried under observation.
- SF00022 4005 ;GLASS; Assessment: Vessel base fragment. One piece of translucent green glass sent damp and unwashed in mini-grip bag with jiffy foam and a small amount of water. Proposed treatment: wash, assess condition, controlled air drying if possible. Repack. Treatment: Rinsed in tap water. Brushed in purified water (reverse osmosis process) under binocular microscope at x10. The surface is pitted and scratched, but the core looks robust. Air-dried under observation. An iridescent surface is forming, but appears well attached after 1/2 hour. After 1 hour this surface was starting to lift, so immersed the fragment in 7% Primal WS-24 (acrylic colloidal dispersion) overnight. Air-dried. Packed in rinsed and dried bag, perforated for ventilation.
- SF00023 3040 ;GLASS; Assessment: Vessel body shard fragment. One piece of translucent green glass sent damp and unwashed in mini-grip bag with jiffy foam and a small amount of water. Proposed treatment: wash, assess condition, controlled air-drying if possible. Repack. Treatment: Rinsed in tap water. Brushed in purified water (reverse osmosis process) under binocular microscope at x10. On washing, it became apparent that the surface had degraded but the core of this thick shard was robust. Consolidated the fragment overnight in 7% solution of Primal WS-24 (acrylic dispersion). On air drying, the iridescent layer on the concave surface began to crack and lift. Painted on the 7% solution of Primal WS-24, which was absorbed by capillary action underneath the flakes. Used the brush to gently tap the flakes down into place. Air-dried. Packed in its rinsed and dried bag, perforated and with jiffy foam added.

7.6 Statement of Potential

7.6.1 *The finds are now stable for the long term. Investigative conservation can proceed as required to meet the research objectives in the analysis phase.*

7.6.2 *Indicators of preservation: although vivianite was noted (see 4.1 above) it does not indicate widespread anaerobic deposits in the areas excavated, but suggests these conditions nearby.*

7.6.3 *Slag: the slag should be referred to an archaeometallurgist. It is only a very small quantity, and diverse in type. There was no hammerscale (smithing debris). The iron slag could have been imported to this site as hardcore. The other slag and the molten lead alloy and glass may not represent industrial waste, but could be the result of a domestic or accidental high temperature process.*

7.6.4 *Glass: Fragments of translucent green vessel glass, transparent clear window glass and irregular-shaped once-molten fragments were recovered.*

7.6.5 *Fired clay: unusual green-glazed pipe stem.*

7.7 Recommendations

Recommendations for further work are highlighted in bold in the tables. These are summarised below:

7.7.1 Further investigative conservation

I have recommended further investigative cleaning of 4 iron objects and material identification of 1 fragment. The investigative work on the metals would involve selective, partial removal of corrosion crusts for the purposes of research. Total removal of the corrosion crusts should be undertaken if illustration/photography is required for publication, but is not budgeted for at this stage.

7.7.2 Analysis and specialist support

In line with the research requirements, suggestions for further analysis and specialist support have been made, but the costs are not included below. This should be arranged after conservation has been completed.

7.7.2.1 MPO: These were not evident, but the remains of a shaft may be present on sf1, and if so will require identification.

7.7.2.2 Industrial Processes: refer to specialist, see 6.3

7.7.3 Storage

7.7.3.1 Packaging:

The finds have been packaged appropriately for long-term storage. All materials used are archive stable and acid-free. Plastic bags have been pierced to allow airflow within microclimates, reducing the risk of condensation and mould growth. 'Jiffy', (polythene) foam inserts have been added to the bags to provide additional support and protect against mechanical damage during transit. Any replacement of packaging materials should be carried out in consultation with a conservator.

7.7.3.2 Storage environment: Metals are packaged in a polythene 'Stewart' box with silica gel to provide a dry microclimate of less than 15% Relative Humidity which will halt any further corrosion (Knight 1990). The box of metalwork contained 2x100g silica gel bags and an indicator strip; it is necessary to monitor the indicator strips; **if any part of the strip turns pink the gel will need to be regenerated.**

8. ENVIRONMENTAL ASSESSMENT

8.1 Summary

Five sediment samples and a single box of hand-collected animal bone from deposits revealed by excavations at the D. C. Cook site, Lawrence Street, York, were submitted for an evaluation of their bioarchaeological potential.

The few ancient plant remains recovered from the two sediment samples examined were of little interpretative value. Although mostly well preserved, the vertebrate assemblage was too small and, on the whole, too poorly dated to provide useful information.

No further work is recommended on the current material. Further excavation at this site seems unlikely to yield valuable material.

8.2 Introduction

An archaeological evaluation excavation was carried out by York Archaeological Trust at the former D. C. Cook site, Lawrence Street, York (NGR: SE 6157 5126), during May 2001. Ten trenches were excavated, revealing ditches, pits and postholes of Roman to post-medieval and early modern date.

Five sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992) from separate contexts were recovered from the deposits. A single box of animal bone (approximately 20 litres) was also collected.

All of the samples and the bone were submitted to the EAU for an evaluation of their bioarchaeological potential.

8.3 Methods

The sediment samples were inspected in the laboratory and two were selected for assessment. The lithologies of the selected samples were recorded, using a standard *pro forma*, prior to processing, following the procedures of Kenward *et al.* (1980; 1986), for recovery of plant and invertebrate macrofossils.

The washovers and residues from the processed subsamples were examined for plant remains. The washovers were also scanned for invertebrate remains, and the residues for other biological and artefactual remains.

Table 1 shows a list of the submitted samples and notes on their treatment.

For the hand-collected vertebrate remains that were recorded, subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Additionally, for the larger assemblages, notes were made concerning fragment size, dog gnawing, burning, butchery and fresh breaks.

Where possible, fragments were identified to species or species group, using the reference collection at the Environmental Archaeology Unit, University of York. Fragments not identifiable to species were described as the 'unidentified' fraction.

8.4 Results

The results are presented in context number order. Archaeological information, provided by the excavator, is presented in square brackets. N.B. This information arrived subsequent to the selection of the samples.

8.4.1 Sediment samples

Context 5006 [backfill of possible ditch/construction trench; pottery dating from 11-16th C was recovered]

Sample 1/T (5 kg sieved to 300 microns, with washover)

Moist, dark olive brown, soft and crumbly (working sticky and almost plastic when wet), slightly clay sand, with small stones (6-20 mm) and rotted limestone fragments present. Pieces of brick/tile were common.

There was large residue of about 800 cm³ of sand, gravel and brick/tile (the last to about 55 mm in maximum dimension) with a little clinker (also to 55 mm), bone (to 80 mm) and coal (10 mm). The tiny washover of a few cm³ in volume consisted of roots (probably ancient) and charcoal (to 10 mm) with cinders and a few plant remains. These comprised some very decayed uncharred greater celandine (*Chelidonium majus* L.) seeds (mostly in a fragmentary state), a single charred ?wheat (*Triticum*) grain and a single charred shore-weed (*Littorella uniflora* (L.) Ascherson) seed. The celandine seeds are typical of deposits forming around buildings in an urban setting, but the shore-weed seed is rather unexpected. As its vernacular name suggests, this plant grows in shallow water at the margins of lakes and ponds, flowering only when exposed. Its significance as an isolated charred specimen in the current context is difficult to assess.

Vertebrate remains recovered from this sample were few in number and largely unidentified. Both large and medium-sized mammal fragments were represented, additionally several fish bones were noted.

Context 5011 [fill of posthole; pottery of 10/11th C date was recovered]

Sample 3 (5 kg sieved to 300 microns, with washover)

Moist, mid to dark grey-brown, crumbly and soft (unconsolidated and working somewhat sticky when wet), slightly silty sand, with medium-sized stones present.

The moderate-sized residue of about 550 cm³ comprised sand and gravel, with a little bone (to 55 mm) and traces of charcoal and brick/tile (both to 10 mm). The very small washover of about 20 cm³ was of charcoal, roots (probably ancient), charred amorphous material (perhaps peat, to 10 mm), charred herbaceous stems (perhaps from grass or rush) and some tiny charred ?heather (*Calluna vulgaris* (L.) Hull) root/basal twig fragments. Other remains included some probably cereals (oats, *Avena*, and perhaps also wheat) and a small range of weed seeds (mostly charred).

Some of this material perhaps suggests the presence of burnt peat or turves, but all the remains were extremely sparse.

This sample produced a small assemblage of bone, mainly large mammal rib and shaft fragments. A single eel (*Anguilla anguilla* (L.)) vertebra was also identified.

8.4.2 Hand-collected vertebrate remains

A single box of vertebrate remains was recovered from these excavations, representing nine of the ten excavated areas. Most of the assemblage was recovered from Trenches 3, 5 and 9, although the deposits which produced the bones from Trench 3 were mostly 19th Century in date or very broadly dated. Additionally, the bulk of the material from Trenches 1, 2 and 4 was recovered from machine clearance layers and was, therefore, unstratified. The remaining bones from Trenches 5 to 9 were mainly of medieval date, although again some of the deposits had rather broad pottery spot dates, spanning approximately 400 years in some cases, which greatly limits the usefulness of the assemblages. All of the vertebrate remains were rapidly scanned and those with tighter dating were recorded in more detail.

Preservation overall was mostly quite good, with few fragments that were battered or eroded in appearance. Material from Trenches 7 and 9 were particularly well preserved, with less well preserved material from Trench 3, whilst bones from Trench 5 were more varied in their appearance. Fragmentation was not great and dog gnawing and fresh breakage were minimal.

The recorded remains included the main domesticates - cattle, caprovids and pigs - with dog being the only other domestic species identified. Unidentified bones mainly represented large mammals, but several bird shaft bones were also noted. Very few measurable bones were recorded and only a single mandible (cow) of use for providing age-at-death data was present.

8.5 Discussion and statement of potential

These samples produced extremely low concentrations of plant remains, mainly preserved by charring. They offer rather little interpretative information and processing of large subsamples seems unlikely to provide useful assemblages.

Although reasonably well preserved, the vertebrate remains from this site were too broadly dated and insufficiently numerous for detailed analysis. They do demonstrate, however, the potential for the survival of these remains within certain deposits.

8.6 Recommendations

It is recommended that no further work is carried out either on these samples or those from the evaluation which were not examined bioarchaeologically. The animal bones do not warrant further examination.

Further excavation at this site seems unlikely to yield valuable material, though the possibility of moderate or high concentrations of charred remains and the recovery of a small vertebrate assemblage should be allowed for.

8.7 Retention and disposal

The current material may be discarded.

8.8 Archive

All material is currently stored in the Environmental Archaeology Unit, University of York, along with paper and electronic records pertaining to the work described here.

8.9 Acknowledgements

The authors are grateful to Dave Evans and David Brinklow of York Archaeological Trust for providing the material and the archaeological information, and to English Heritage for allowing AH to contribute to this report.

Table 1. List of sediment samples from excavations at the former D. C. Cook site, Lawrence Street, York, with notes on their treatment.

Context	Sample	Notes
3041	8	Inspected in tub
5006	1	5 kg sieved to 300 microns with washover
5011	3	5 kg sieved to 300 microns with washover
8009	6	Inspected in tub
9008	9	Inspected in tub

9. CONCLUSIONS (including period by period analysis)

There was no evidence at all for any prehistoric activity in the immediate area but the site is in a part of York where remains of the prehistoric period might occur. Although certain areas of the site, particularly to the south and east, have been subject to much modern disturbance there is considerable evidence that there was some activity in or around the site in the Roman period. The detailed nature of this activity is as yet uncertain.

There was some evidence forthcoming from this site for the Anglo-Saxon era and the proximity of the site to the principal road to the east, and in particular the Humber, suggests that some activity of the period might be encountered. There was also slight evidence for activity in the area in the Anglo-Scandinavian period but again the details of this activity are unclear.

Evidence for medieval activity on the site came from at least six of the trenches excavated and there is dating evidence to suggest that this activity was concentrated in the 11th/12th century. It took the form of deposits, features, and structural remains and was not restricted to any closely defined area but was widespread across and potentially beyond the immediate site. It is tempting to associate this activity with the foundation of the church and hospital of St Nicholas which lay only a very short distance to the east of the present site.

Evidence for post-medieval activity on the site was ambiguous. Although a small amount of pottery of the period was recovered from two of the trenches pottery of this period was noticeably rare compared to pottery of the medieval period and of the modern period suggesting that either activity in the vicinity was minimal or that any such evidence has been destroyed by some form of later activity.

The modern period was well represented and evidence of some form for the period was forthcoming from all of the trenches excavated. In a number of the trenches all contexts above natural were thought to be modern. Since some of the trenches did have surviving stratigraphy of archaeological interest this clearly demonstrates that at some point or points in 20th century there has been a considerable amount of disturbance and levelling across parts of the site.

9.1 Prehistoric and Roman (pre 1st - 5th centuries AD)

No features, deposits, or finds recorded from this site were assigned to the pre-historic period. Although a certain amount of the Roman pottery recovered from this site was well abraded and therefore not in-situ some had clean sharp edges and came from features which had remained relatively undisturbed since their backfilling. It is therefore fairly clear that there was Roman activity on site. The ditch in Trench 8 is certainly believed to be Roman and a number of other features in Trenches 7 and 9 are thought on stratigraphic grounds to be Roman although there was no direct dating evidence.

9.2 Anglo-Saxon and Anglo-Scandinavian (5th - 11th centuries AD)

Anglo-Saxon material in the form of possible 8th century Ipswich-type ware was identified from the site but since it was found as residual material within a medieval pit it is not possible to speculate on the nature of the activity it represents. This type of pottery is, however, quite rare in

York and the discovery of three sherds from a single feature may be of some significance. A very few pieces of pottery dating to the 9th - 11th century were recorded. In two instances they came from the backfill of features of uncertain function cut directly into natural in Trench 5. It is therefore considered quite possible that the front of the site, adjacent to Lawrence Street, may have seen some activity in the Anglo-Scandinavian era and this activity may have been of a structural nature representing occupation of the area in the later pre-conquest period.

9.3 Medieval (11th - 16th centuries AD)

The evidence for this period is quite plentiful, if not absolutely clear, and includes possible agricultural soils in Trenches 3 and 4, probable structural elements, such as postholes, in Trenches 5, 7 and possibly 9, and pits in Trench 7 and 9 all dated by pottery mainly to the 11th/12th century. A large pit in Trench 9, interpreted on site as a quarry pit due to its size, was also dated to the 11th/12th century.

9.4 Post-medieval (16th - 19th centuries AD)

Firm evidence for this period was very sparse and consisted mainly of the recovery of a small quantity of 18th century pottery from Trenches 3 and 4. No features or deposits in any of the trenches could be assigned to this period according to the pottery dating although there is documentary evidence to suggest activity in the general area between the 16th and 19th centuries.

9.5 Modern (19th - 21st centuries)

Evidence for this period was abundant and in Trenches 1, 2, 6A, and 6B it was the only archaeological evidence encountered. All trenches produced evidence of the period mainly in the form of surfaces, levelling deposits, and demolition deposits.

10. ARCHAEOLOGICAL IMPLICATIONS

It is clear that much of the site has been subject to a considerable amount of levelling and landscaping during the 20th century which in places has led to modern deposits immediately overlying the natural subsoil. However, archaeological deposits and features do survive in most parts of the site and their proximity to the modern surface makes them extremely vulnerable to any form of development in the area. The presence of archaeology of some significance over much of the site would make it difficult to avoid damage or destruction by the relocation of the proposed structures. It would therefore be appropriate to recommend further archaeological work in advance of, or during, any development in order to excavate and record any archaeology that would be damaged or destroyed by the proposed development.

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