Shire Hall Car Park, Bury St Edmunds, Suffolk

Archaeological Monitoring and Excavation Report

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Prepared by:	Steve Graham (Field Supervisor)
Checked by:	James Drummond-Murray (Senior Project Manager)
Edited by:	Rachel Clarke (Post-excavation Editor)
Approved for Issue by:	Paul Spoerry (OA East Regional Manager)
Signature:	

.....

OA South
Janus House
Osney Mead
Oxford
OX2 0ES

t. +44 (0)1865 263 800

OA East
15 Trafalgar Way
Bar Hill
Cambridge
CB23 8SG

t. +44 (0)1223 850 500

OA North
Mill 3
Moor Lane Mills
Moor Lane
Lancaster
LA1 1QD
t. +44 (0)1524 880 250

e. info@oxfordarch.co.uk
w. oxfordarchaeology.com
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Shire Hall Car Park, Bury St Edmunds

Archaeological Monitoring and Excavation Report

Written by Steve Graham BA ACIfA and Nicholas Cox BSc, with Rachel Clarke BA MCIfA

With contributions from Sue Anderson MPhil MCIfA FSA, Rachel Fosberry ACIfA, Hayley Foster BA MA PhD, Denis Sami PhD

Illustrations by Séverine Bézie BA MA and Emily Abrehart BSc

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Summary

Between the 21st of June and the 14th July 2017 Oxford Archaeology East carried out archaeological monitoring, excavation and recording along the route of a new sewer pipeline within the car park adjacent to the former Shire Hall, Bury St Edmunds (TL 8588 6396). The sewer was being redirected in advance of a new housing development to the east of the pipeline and the 92m long and 2m wide trench passed under the remains of the extant medieval Abbey precinct wall.

Previous work carried out by Suffolk County Council Archaeology Service in 2011 and Oxford Archaeology in 2016 had identified prehistoric alluvial deposits and a sequence of levelling layers dating to the 13th-15th century onwards. A hitherto unknown buttress on the southern side of the precinct wall was also discovered during the evaluation.

The excavation for the new pipeline revealed a similar sequence of alluvial deposits but also identified a possible early cut feature which produced a single sherd of Middle Saxon pottery along with animal bone and charred cereal remains. Two later parallel ditches were located to the north possibly extending eastwards down to the river, with a third positioned at right angles to the north of the (later) precinct wall. These were sealed by a medieval buried soil which was in turn cut by a large pond, above the infill of which a series of dumped layers of clay, sand and silt had been laid to provide a foundation for the medieval precinct wall. Part of a wall foundation and a possible robbed out buttress were found on the north side of the wall, within the interior of the Abbey precinct.

Extending to the south of the precinct wall, the sequence of imported gravels identified by the previous evaluation was also recorded. These appear to represent episodes of ground raising within the floodplain linked to the creation of the Abbey's fishponds and grazing meadows, when the precinct wall was also extended. Two pits or ditches were located outside the precinct wall, cutting into the uppermost compacted gravel layer or surface. Post-medieval activity was represented by further imported soils probably associated with the gardens of St Margaret's House.

Few finds were recovered, reflecting the limited nature of the investigation and including a small collection of Middle Saxon to post-medieval pottery, medieval and post-medieval tile and brick, crucible fragments, daub and animal bone. Environmental samples produced a fairly diverse assemblage of waterlogged remains and a more limited assemblage of charred plant remains.

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The project was managed for Oxford Archaeology by James Drummond-Murray. The fieldwork was carried out by Nicholas Cox and Steve Graham. Survey and digitising was carried out by Dave Brown, with additional digitising and illustration preparation by Emily Abrehart and Séverine Bézie. Thanks are also extended to the teams of OA staff that cleaned and packaged the finds under the management of Natasha Dodwell, processed the environmental remains under the management of Rachel Fosberry, and prepared the archive under the direction of Katherine Hamilton.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) was commissioned by the Enterprise Property Group to undertake a programme of archaeological monitoring and recording within the former Shire Hall car park, on Raingate Street, Bury St Edmunds (TL 8588 6396; Fig. 1). The north part of the car park is bounded by the precinct wall of Bury St Edmunds Benedictine Abbey, a Scheduled Monument (SM 35536). The site lies within the Area of Archaeological Importance as defined in the Local Plan. The archaeological works were carried out during the re-routing of a section of the existing sewer main in advance of the construction of six new town houses to the east.

1.1.2 From its northernmost point, the new pipeline extended beneath the upstanding southern precinct wall of the medieval Abbey (Scheduled Monument consent ref: S00143688), continuing to the south of the wall through an area of ground levelling and raising dumps.

1.1.3 The work was undertaken as a condition of Planning Permission (planning ref. SE/12/0450/FUL). A brief/specification was set by Dr Abby Antrobus of Suffolk County Council and a written scheme of investigation (WSI; Drummond-Murray 2016) was produced by OA East detailing the Local Authority's requirements for work necessary to inform the planning process/discharge the planning condition.

1.1.4 This document outlines how OA implemented the specified requirements.

1.2 Topography and geology

1.2.1 The Site is located in the historic centre of Bury St Edmunds on the southern edge of the Benedictine Abbey precinct. The Shire Hall car park is bordered on its east side by a channel of the River Lark and to the north by the 12th century and later precinct wall, which is largely constructed from flint and survives to a height of *c.* 3m. The site is separated from the former council offices by several mature trees which are protected as part of the site's status in a conservation area.

1.2.2 Prior to the works, the site was flat and laid mainly to tarmac and lawn. Once the former car park surface had been removed (*c*. 32m OD), the land was found to drop off to the east towards the River Lark. The surface geology is made up of sand and gravels of the river terrace with the addition of alluvial clay silt occurring in the lower floodplain, and the underlying solid geology is chalk (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

1.3 Archaeological and historical background

1.3.1 The following is a summary of the archaeological and historical background of the site, based on the WSI (in turn drawn from a previous evaluation (BSE 375; Gill 2011)), with additions from the Suffolk Historic Environment Record (SHER) and the Historic

England list entry summary for the precinct wall (Historic England List Entry No. 1021450). Pertinent records are shown on Fig. 1.

1.3.2 On current evidence it is thought that the original Anglo-Saxon settlement developed along the river valley, with its centre perhaps focused somewhere within the area later occupied by the Abbey precinct complex. In *c.* AD 633 a small religious community was founded here by the Anglian king, Sigebert, in a settlement then known as *Bedericsworth* (BSE 241). In the later Saxon period this developed into an important place of pilgrimage to the Shrine of St Edmund who was killed by the Danes in *c.* 869 and his body moved here in AD 903. The town consequently changed its name to Bury St Edmunds at some point in the 10th century. Scattered finds of Middle Saxon (mainly Ipswich ware) and Late Saxon (mainly Thetford ware) pottery are recorded in the SHER, along with posthole buildings and other features (BSE 010). The presence of Ipswich and Thetford-ware pottery found during trial hole excavations on the Shire Hall site in 2007 confirms that this part of the town lay within the Middle and Late Saxon settlement area (BSE 219). Significant discoveries of Middle and Late Saxon features and finds have previously been made at Raingate Street (BSE 144), St Mary's Square (BSE 044, 117, 127, 201; not illustrated), the Record Office (BSE 084) and at the nearby Weymed Centre (BSE 376). In the medieval to post-medieval periods the River Lark was a focus for the tanning industry, with evidence found at Eastgate Street to the north-east of the site (BSE 292). Northgate Street, Southgate Street and the irregular streets to the south of the Abbey are likely to be relics of the early settlement.

The Abbey

1.3.3 During the early 11th century Cnut founded the Benedictine monastery, and the first stone church was built. After the Norman Conquest, during the time of Abbot Baldwin, a grid pattern of streets was laid out to the west of the Abbey church, and the church and claustral ranges were rebuilt. This work was continued by Abbott Anselm in the early 12th century when the precinct was formalised by an enclosing wall (bounded to the east by the rivers Lark and Linnet), extending the area further west and interrupting the alignment of Northgate and Southgate Street.

1.3.4 The Abbey became one the wealthiest and powerful Benedictine monasteries in England. Its high officials administered almost all aspects of life in the town and the Abbey's influence over the townsfolk was almost total. Many of the high officials held properties outside the precinct walls, including in the area of the current site. In 2007 an archaeological assessment (BSE 219), comprising documentary research, geophysical survey and the excavation of trial holes, was undertaken for the area occupied by the Shire Hall offices. This identified the site of the Sacrist yard in the area outside the southern precinct wall, within which part of the gatehouse into the yard was recognised in the fabric of the standing monument. Evidence of a return wall on the east side of the precinct and a possible ditch alongside the south wall were also found. Within the precinct human burials were found that formed part of the monks' cemetery. Finds recovered from the test pits included a considerable assemblage of medieval pottery and tile (mid-12th to mid-13th century); glazed roof tiles probably originated from buildings associated with the Abbey.

1.3.5 After the Reformation the Abbey was dissolved in 1539 and many of the buildings were plundered for building stone and hard-core rubble for use around the town, although the main gates and much of the precinct wall survived.

1.3.6 The earliest map of the town published by Thomas Warren in 1746 (Fig. 2) shows the area of the site as gardens and they remained as such until the early 20th century. The Shire hall site was the garden of St Margaret's House, which was purchased by West Suffolk County Council in March 1932, originally to accommodate the Registrar's office and County Library. The area to the north of the precinct wall was acquired in 1957 and the medieval properties that fronted Raingate Street (School Hall Street) were purchased and demolished between 1958 and 1966 to make way for the new Shire Hall offices.

1.4 Previous evaluation

1.4.1 An archaeological evaluation (BSE 375) took place on the site in 2011, conducted by Suffolk County Council Archaeology Service (Gill 2011). The evaluation showed that the landscape was an engineered one and the product of at least two campaigns to raise the ground level. The first of these probably occurred in the 15th century with the dumping of gravels over marsh-land and river silts and was part of a wider scheme to create the fishponds, a mill leat within the Abbey complex and enhanced grazing meadows. The dumping of gravel and the creation of a narrower floodplain required the precinct wall to be extended and this can be seen in the fabric of the wall. A trench excavated at the base of the original phase of the 12th century wall discovered the remains of a hitherto unknown buttress with indications of possible render on the wall face. The second ground raising event occurred after the Reformation during the 18th century when topsoil was brought in to create the garden for St Margaret's House (see above).

1.5 Geoarchaeological borehole survey

1.5.1 In July 2016 a borehole survey was carried out across the car park by Oxford Archaeology (Benysek and Stafford 2016; locations shown on Fig. 3). This revealed a similar sequence across the site to that identified by the 2011 evaluation, comprising land raising deposits overlying alluvial river deposits. The survey also indicated that the western part of the car park lay on natural sand and gravel deposits that dropped off to the east towards the river, with deepening alluvial layers overlying peat deposits. A possible gravel layer or surface was identified above the peat. Radiocarbon dating of charcoal and seeds from the peat deposits produced dates of later Neolithic (2830-2485 cal BC; BETA-444683, 4050 ± 30 BP) at the base and early 11th to early 13th century (1030-1210 cal AD; BETA-444685, 910 ± 30 BP) at the top. The boreholes also indicated the presence of possible backfilled features cut into the upper alluvial layers. Pottery dated to the 11th to 12th centuries was recovered from the alluvial deposits.

2 PROJECT AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The project aims and objectives were as follows:

i. To determine or confirm the general nature of any remains present.
ii. To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence.
iii. Archaeological monitoring was required on the aspects of the project impacting upon the historic environments such as the proposed tunnel underneath the historic precinct wall.
iv. To understand the development of the site during the medieval and post-medieval periods.
v. To further understand the dumping episodes to the south of the precinct wall.
vi. To examine the construction and development of the precinct wall.

2.2 Methodology

2.2.1 The area of investigation comprised a continuous trench measuring 92m long by 2m wide with a uniform depth of 3m, excavated for the provision of a new sewer service pipe. The area was stripped by a 360 tracked excavator operated under close and continuous supervision by a suitably qualified and experienced archaeologist. Overburden was removed in a controlled manner using a toothless ditching bucket (1.5m wide) to the top of the first geological horizon or to the upper interface of archaeological features or deposits, whichever was encountered first. Overburden was excavated in spits not greater than 100mm thick and was removed by dumper truck to pre-agreed spoil storage areas within the site.

2.2.2 Due to health and safety considerations and to minimise the impact of ground water seepage, the trench was excavated in sections between 3m to 6m long at a time, with wider sections for the five manholes. At its northern end the pipeline had to be tunnelled beneath the Abbey's precinct wall foundation. Each section was individually monitored, all deposits within the section were recorded and all potential archaeological features were hand excavated and recorded. A safety cradle was then inserted into the trench to allow further excavation into the undisturbed natural sands and gravels to a depth of 3m.

3 RESULTS OF MONITORING AND EXCAVATION

3.1 Introduction and presentation of results

3.1.1 The investigation consisted of the excavation of a 92m-long trench for a new sewer pipe, with wider sections for the manholes (Fig. 3). An overview of the stratigraphic sequence across the trench is given below, with detailed sections and levels (m OD) illustrated in Fig. 4 and individual features in Fig. 5. Detailed stratigraphic descriptions of each of the 14 separate trench blocks or sections (Sections A-N, each measuring 3m to 5m long, 2m wide and 3m deep) is provided as Appendix A.1 and a general context inventory as Appendix A.2. Finds and environmental reports are included as Appendices B and C.

3.1.2 Section A formed the only part of the trench located to the north of the precinct wall. To the south of this the pipeline route was tunnelled underneath the wall's foundations before extending southwards (Sections B-N; Fig. 3).

3.1.3 As this was a single continuous trench the context numbers were allocated sequentially, starting at 50, in order to avoid multiple numbers of the same archaeological layers. Because of the length of the trench, often single continuous layers were found to have been interrupted by features. In those instances, where there was a clear break, the layers have been assigned separate context numbers with their equivalent context stated.

3.1 Overview of the pipeline trench

3.1.1 At the northern end of the pipeline (Fig. 3), the trench (Section A) began at the first manhole location (Manhole 1), extending 6.97m north-east to south-west to the edge of the precinct wall before tunnelling beneath it and continuing a further 6.58m south-west to the location of the second manhole box (Manhole 2). From this point the trench extended in a southerly direction for 41.65m to the location of the third manhole (Manhole 3) at the southern perimeter of the development area. At this point the trench branched off into two separate lines, one towards the south-east where Manhole 4 was located and the other towards the south-west to another manhole location (Manhole 5). These latter two are not illustrated. Because these two trench lines extended beneath a modern road, modern surfaces and directly adjacent to modern buildings, the archaeological investigation ended at the location of Manhole 3 as beyond this point any archaeological remains would have been severely disturbed by modern services and other intrusions. In total 59m of the trench was archaeologically investigated, with the remainder being under the road.

3.2 General description of features and deposits

3.2.1 This section includes a description of the stratigraphic sequence of deposits and features from the natural geology to the modern car park surface along the length of the trench, starting from the south (Figs 3-5). It includes the average depths and thicknesses for deposits across the trench as a whole, with specific dimensions within each section of the trench being given in App. A.1.

3.2.2 The natural undisturbed geology revealed in the trench was a bright yellow brown mixture of poorly sorted sands and gravels; most probably associated with the river terrace deposits.

Alluvial deposits

3.2.3 A series of probably equivalent dark blue grey alluvial clay silts (89, 102 and 114; Fig. 4) was revealed along the base of the southern half of the trench to a point where they were cut by a large pond (**76**, see below). Measuring between 0.10m to 0.30m thick, the alluvial layers were exposed at a depth of between 0.90m to 2.10m below the surface of the trench. They correspond to the sequence of floodplain deposits noted during the borehole survey (Benysek and Stafford 2016) which contained interbedded peats (spongy moderately to well humified wood peat), organic silts and alluvium probably originating in the later Neolithic period. The only find was a small chip of intrusive post-medieval ceramic building material (CBM).

3.2.4 These layers were overlain by an upper dark grey brown clay silt (96), the thickness of which ranged from 0.12m to 0.43m. This was exposed on average 1.40m below the surface of the trench. Although undated, this deposit may have been part of the upper alluvial sequence identified in the borehole survey and dated to the earlier medieval period (see Discussion, Section 4.3).

?Middle Saxon to medieval features

3.2.5 At the southern end of the trench (Sections M and N; Fig. 4 S. 78-9) the natural sands and gravels were cut by a large probable feature (**119**) that was only partly revealed. The exposed area indicated it was at least 1.20m wide, 5m long and 0.50m deep with a steep-sided U-shaped profile. Its base was 2.88m below the surface of the trench. This possible pit (or ditch terminal) contained three sandy silt and clayey silt fills (120, 122 and 123). The only finds came from middle fill 122 and comprise a single sherd of Middle Saxon (AD650-850) pottery (6g) and animal bone, including two sheep horncores. A sample taken from fill 122 also produced a large assemblage of charred plant remains, including wheat and rye grains along with abundant untransformed elderberry seeds and other remains.

3.2.6 Cutting the upper northern edge of pit **119** was a linear probable ditch (**131**) aligned east-north-east to west-south-west (Section K; Fig. 4 S.77; Plate 1). It measured in excess of 3m wide and 0.7m deep with a steep-sided U-shaped profile. Four fills were identified (121, 132, 133, 134) and whilst no datable pottery was recovered, traces of flint and mortar in the upper fills, and its stratigraphic position below a thick soil layer (95, see below) suggests that this feature was relatively early in date.

3.2.7 Located *c*. 5.5m to the north of pit **119** was a parallel ditch (**105**), which was slightly narrower at 2.50m wide but deeper at 1.10m, with a U-shaped profile (Plate 2). No finds were recovered from its series of clay silt and silt sand fills (106, 107, 108, 109, 110, 111) although a clear line of chalk/clunch was visible and its upper fills contained traces of mortar and nodules of medium-sized angular chalk. This might indicate contemporaneity with the construction or modification of the precinct wall to the north (see below). A sample taken from the third fill (108) produced an assemblage of

waterlogged seeds with good density and diversity including an abundance of henbane, stinging nettles, chickweed and pondweed. Egg cases of the water flea and fragments of roundwood were also noted.

3.2.8 Located to the north of the precinct wall, 5.75m from the northern end of the trench, a ditch on a north-west to south-west alignment was partly revealed at the base of the sequence cutting the natural. Ditch **63** was a steep sided feature with a U shaped profile, measuring 1.4m wide and excavated to a depth of 0.3m (after which ground water conditions did not allow further excavation). Although its single fill contained a small quantity of animal bone and no datable finds, the ditch was cut by a pond (**76**, see below) indicating that it could be medieval or earlier.

Layer 95/124: possible medieval ploughsoil

3.2.9 Extending across most of the trench and overlying the earlier features was a layer of mid green grey sandy clay silt with frequent small to medium stones (95/124). Sloping slightly down from the south, this undulating layer was on average between 0.20m and 0.40m thick, with a maximum thickness of 0.60m (Plate 3). It was revealed at a depth of between 0.80m (north) and 1.40m (south) below the surface of the trench. Finds recovered comprise small amounts of animal bone (including horse and sheep/goat), charcoal, daub with a withie impression, an intrusive piece of 19th century stoneware drainpipe and fragments of mortar. A single sherd of Middle Saxon Ipswich ware pottery dating from AD650 to 850 was also recovered (from 124) that is likely to be residual. A sample from 95 contained charred oat, wheat and barley grains along with fragments of sheep and goat bones.

Buried soil/make-up layers in the southern part of the trench

3.2.10 In the southern part of the trench the possible former ploughsoil was overlain by a sequence of layers, the earliest of which was a thin (0.06m thick) deposit of light grey brown sand silt (113).

3.2.11 Above this was a thick layer of undulating mid grey brown sand silt (125) with occasional small to medium stones, its thickness varying from 0.20m to 0.50m (Plate 3). This deposit produced a moderately large assemblage of animal bone (0.6kg) representing sheep/goat, cattle and pig. Other finds include a small quantity of slag, a mixture of (residual) Roman roof tile and (intrusive) post-medieval tile and two sherds of 11th-12th century pottery.

*Pond **76***

3.2.12 A large infilled pond (**76**/**87**) was identified in the central and northern parts of the trench, possibly extending underneath the precinct wall. The pond, recorded over a maximum area of 33m, was steep sided on its southern (exposed) edge with a wide shallow profile that extended to a depth of 1.10m (Plate 4). It contained a number of peaty organic clay silt fills (?59, 77, 82, 83, 86 and 94), the earliest of which was a 0.30m thick dark red brown clay silt (94) which may have continued northwards as 83 (0.10m thick). This was overlain by fill 86, which was a 0.6m-thick very dark blue grey peaty clay silt. A sample from this produced degraded waterlogged plant material with

occasional arthropod remains and seeds of henbane and small-seeded goosefoot. Fills 77 and 82 formed the uppermost 0.2m-thick fill (or slumped layer) comprising soft dark grey brown clay silt with occasional stones (Plate 5). Finds from the fills (82 and 86) comprise CBM (0.13kg, mostly medieval tile) and mortar.

3.2.13 Fill/layer 59 was a wet dark grey-brown organic clay that may have been equivalent to fill 82 but contained a very mixed finds assemblage, including Middle Saxon and modern pottery (101g) along with a late post-medieval brick (0.34kg); the latter two presumably intrusive elements. Animal bone (0.23kg) was also recovered from layer 59, while an environmental sample from it contained a diverse assemblage of waterlogged plant remains that include seeds of henbane, hemlock and hemp.

Medieval levelling layers and construction deposits

3.2.14 Sealing the pond fills (notably layer 59) at the northern end of the trench were two levelling layers that appear to have been preparation for the construction of the precinct wall. The earliest of these was a 0.6m thick layer of mid blue grey clay (58), above which was a layer of mid grey clayey silt (57), 0.26m thick. Neither produced finds.

3.2.15 To the north of the precinct wall, these were cut by a foundation trench (**50**) measuring at least 1m wide and 0.2m deep. Aligned approximately east to west, the northern edge of the cut was roughly 2m to the north of the extant wall. Constructed on the base of the cut (Fig. 5, S. 50; Plate 6) was a flint and mortar wall foundation (72), against which was a packing material of mid grey sandy clay with abundant gravel (51) and containing medieval tile fragments (0.2kg).

3.2.16 A deposit of mid orange brown gravelly sand (55), 0.68m thick, sealed wall foundation 72, this also contained medieval tiles (101g).

External levelling layers/surface

3.2.17 Overlying the infilled pond **76** and overlapping layer 125 to the south were two gravelly layers (81/104 and 75/80/103) extending northwards up to the precinct wall. Layer 81 was a 0.24m-thick dark red brown silt sand containing tightly packed gravel and medium angular stones and unworked flint. This may have been laid as the base for layer 80, a compact horizontal deposit, measuring 0.16m thick, of tightly packed small to medium stones and gravel within a mid grey brown sand silt matrix (Plate 7).

3.2.18 Located 1.30m below ground level, this layer was probably an external surface possibly post-dating the precinct wall. Few finds were recovered from these deposits: layer 75 produced a single sherd of abraded Late Saxon pottery while layer 81 contained small amounts of medieval tile, some glazed. A sample taken from this layer produced organic plant material (mainly rootlets and leaf fragments) and occasional charred grains and seeds.

Features cutting the gravel layer/surface

3.2.19 In the southern part of the trench were two linear or possibly rectangular cuts (**99** and **92**), partly revealed against the western edge of the trench, that cut the gravel surface

80/103 (Sections G and H, Fig. 3; Fig. 5 S. 60 and 70; Plate 8). Aligned approximately north to south, the possible pits may have been related although they had different profiles. Feature **99** had a rounded V-shaped profile with steep sides, was at least 0.8m wide and 0.4m deep, and contained two fills: a dark organic basal deposit (98) and a dark red brown clay silt (93 and 100). Fill 98 produced a small quantity of bone, Late Saxon or medieval pottery (30g), a tiny piece of slag (2g) and a fragment of ceramic crucible. A sample from the same fill contained occasional charred cereal grains and seeds along with frequent charcoal fragments. Feature/pit **92** to the immediate north had a shallower profile and contained a single fill that produced no finds.

3.2.20 A few metres to the south of the precinct wall was a NNW-SSE aligned ditch (**73**) that also cut the gravel surface. The ditch was 1.00m wide and 0.22m deep, steep sided with a U-shaped profile. It contained a single fill (74) of dark grey clay silt from which a small amount of animal bone was recovered.

Late medieval to early post-medieval features and build up/levelling layers

3.2.21 On the northern side of the precinct wall, layer 55 (see above) was cut by an approximately north-south aligned ditch or trench (**60**; not on plan; see Plate 9), 1.44m wide and 1.2m deep. This extended at right angles from the wall and was cut to the top of wall foundation 72, suggesting that it might have been a robber trench. Its northern extent was not discerned, suggesting that it may have only continued for short distance. It was filled by a dark brown sandy silt (61) which produced a fragment of mortared flint from its surface which had presumably fallen from the outer face of the upstanding wall.

3.2.22 To the south of the precinct wall the features (**92**, **99** and **73**) cutting the probable gravel surface were overlain by a horizontal layer (69/79), 0.40m thick, of dark green brown sand silt containing frequent small to medium stones throughout. This produced a small quantity of finds comprising a handle/body sherd from a sandy orange ware jug of 13th-15th century date, along with fragments of medieval tile (170g) and animal bone including cattle and bird/fowl (57g).

3.2.23 Running parallel to and extending 0.8m to the north of the precinct wall was a thin layer of yellow sandy mortar (65; Plate 9) that overlay layer 69. Above this was a mid grey brown silty sand (68), 0.33m thick which contained part of a cattle mandible.

3.2.24 Slightly to the south, layer 69/79 was sealed by a fairly thin (0.22m) layer of dark grey brown clay silt (78) containing frequent amounts of randomly distributed small to medium stones and chalk nodules. No finds were recovered from this layer.

Post-medieval to modern layers and features

3.2.25 A thick layer of garden subsoil (67) was present above layer 78, comprising mid brown clay silt with an average thickness of 0.50m, from which no finds were recovered.

3.2.26 Overlying subsoil 67 in the southern part of the trench was a 0.06m thick lens of sand silt (126) which in turn was overlain by a layer of clay silt with small stones (127) that

slumped down from 0.40m thick at the southern end of the trench to 0.12m to the north.

3.2.27 The subsoil layer (56/67/128) and layer 127 were overlain by a remnant sand silt topsoil (66/129), a mid grey brown sand silt 0.20-0.30m thick. At the southern end of the trench the final layer was vegetation rooting (130) reaching a maximum thickness of 0.50m.

3.2.28 Overlying the topsoil elsewhere was the modern car park layer, consisting of a base of light brown sand and gravel (85), 0.10m thick, and lenses of sand and cement (84), 0.20m thick. To the north of the precinct wall, overlying layer 55, the layer of mid grey brown sandy silt garden/subsoil (56, equivalent to 67) was cut at a distance of 3.1m away from the wall by the foundation cut **54** (Fig. 4, S. 51) for the modern car park. This was 1.04m deep and extended through to the north-eastern end of the trench, running parallel to the wall. It was filled by a very dark grey-brown silt (53).

3.3 Finds and environmental summary

3.3.1 Sixteen sherds of pottery weighing 508g were collected from nine contexts spanning the Middle Saxon to post-medieval periods. Of these five sherds weighing a total of 64g were recovered from the fills of two features: ditch **99** and pit **199**. Four sherds weighing a total of 287g were from the topsoil (52) whilst the remainder were recovered from buried soils, build up layers and other deposits (59, 75, 79, 124, 125).

3.3.2 Twenty-six fragments of predominantly medieval and post-medieval CBM weighing 1484g were collected from eleven contexts. Of these, ten sherds weighing a total of 436g were recovered from features: a ditch (**50**) and the pond (**76**). The rest of the CBM came from buried soils, build up layers and other deposits (55, 59, 69, 79, 81 ,89, 95, 125).

3.3.3 Two fragments of fired clay (38g) were recovered from the fill of ditch **99** and a buried soil (124). Two pieces of a ceramic crucible, possibly from the same vessel, were recovered from the fill of ditch **99**.

3.3.4 A small animal bone assemblage comprising 56 fragments (2.29kg) was recovered, most of which came from buried soils or build up layers along with three ditches (**63**, **73**, **99**) and a pit (**119**).

3.3.5 Ten bulk environmental samples taken from feature fills and layers produced a diverse assemblage of waterlogged seeds and a more limited assemblage of charred plant remains. The latter includes cereals types that were all commonly cultivated in the medieval period, while the waterlogged plant assemblages are also broadly unremarkable in terms of their taxa, density and diversity, apart from the presence of hemp seed. Hemp was widely cultivated in the medieval period, mainly for the plant rather than the seed as the stems can be 'retted' (in a similar way to flax) in order to strip the fibres for use in rope and cloth making.

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 The investigation was confined to a single trench which was partially interrupted by a tunnel excavated beneath the existing medieval (scheduled) precinct wall. As such, whilst the long section (nearly 59m) has allowed a greater understanding of the stratigraphic sequence across the site, along with some investigation of the development of the precinct wall, the narrow width of the trench has limited the interpretation of the features identified. Despite hand excavation of these features, in some instances only their presence and occasionally their approximate shape and dimensions could be recorded. Further to this, the lack of datable finds from the fills of some of the ditches and pits in particular means that the dating and interpretation of these features remains provisional, being based largely upon stratigraphic relationships.

4.2 Project objectives and results

4.2.1 In addition to the monitoring of the pipeline and its impact upon the existing precinct wall, a number of broad project aims and objectives were devised (Section 2.1.1).

- To determine or confirm the general nature of any remains present.
- To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence.
- Archaeological monitoring was required on the aspects of the project impacting upon the historic environments such as the proposed tunnel underneath the historic precinct wall.
- To understand the development of the site during the medieval and post-medieval periods.
- To further understand the dumping episodes to the south of the precinct wall.
- To examine the construction and development of the precinct wall.

4.2.2 In terms of establishing the general nature of any remains, the fieldwork has identified a clear sequence comprising alluvial deposits, ditches, pits and at least one large pond, along with make-up/levelling deposits, a possible external surface and cultivation layers that span the prehistoric to modern periods. Whilst datable pottery and CBM is relatively sparse, an approximate date range and stratigraphic sequence has been established, with the earliest cut feature (pit **119**) possibly dating to the Middle or Late Saxon period and the latest being associated with the construction of the modern car park.

4.2.3 The majority of features and deposits appear to relate to medieval and post-medieval land use and can be broadly associated with the river (alluvial deposits along with drainage/reclamation), the Abbey (both within and outside the precinct) and post-Dissolution activity (see below). The tunnel beneath the wall and the trench excavated either side has shed some light on the construction of and subsequent modification to the precinct boundary.

4.2.4 The main sequence of events appears to have been:

- Later Neolithic (*c*.2800-2500 BC): lower alluvial deposits
- Middle Saxon-early medieval (c. 7th – 10th/11th century): pit, upper alluvial deposits and ditches
- Medieval (10th to 13th century): buried soil/cultivation layer, pond, precinct wall

4.3 Interpretation

Alluvial deposits

4.3.1 The base deposits revealed within the trench broadly correspond to the findings of the geoarchaeological borehole survey (Benysek and Stafford 2016), comprising a deep sequence of organic silts, peats and alluvium. Whilst no datable finds were retrieved from these layers during this phase of investigation, associated radiocarbon determinations obtained during the geoarchaeological survey indicates that these deposits date from the later Neolithic to the medieval periods (see this report Section 1.5.1).

4.3.2 The sequence can be broadly divided into lower and upper alluvium, with the lower deposits (102 followed by 89 in this trench) representing peat formation as a result of overbank alluviation during the later Neolithic period. The upper alluvial sequence (probably represented by layer 96) appears to have formed from the early medieval period (10th to 13th century), and the only environmental samples to produce evidence for human activity came from these higher deposits. The floodplain was clearly much more extensive prior to the ground-raising campaigns undertaken in the later medieval period (Gill 2011, 57).

Middle to Late Saxon/early medieval features

4.3.3 The earliest feature appears to have been a large pit or hollow (**119**) partially revealed at the southern end of the trench, cutting the natural sands and gravels. Not enough of the feature was exposed to determine its shape and function, while some of its fills were similar to the alluvial deposits described above. Measuring at least 5m long, 1.20m wide and 0.50m deep with a steep-sided U-shaped profile, it is possible that this feature represents the western edge of a sunken-featured building (SFB). The middle fill produced a single small Middle Saxon pottery sherd (AD650-850) along with two sheep horn cores and a fragment of mammal vertebra. In addition, the environmental sample from this fill produced the largest assemblage of charred plant remains from the site and is possibly the only sample to suggest deliberate deposition. If the interpretation and tentative dating of this feature is correct it may conceivably have been related to activity associated with the original Anglo-Saxon settlement, known as Bedericsworth (see this report Section 1.3)

4.3.4 Located to the north of pit **119** were two roughly parallel ditches (**131** and **105**) aligned east-north-east to west-south-west that may have been designed at least in part to

drain this part of the floodplain. A sample from ditch **105** contained evidence that it had been waterlogged. Although undated, the more southerly ditch (**131**) cut the edge of pit **119**, and both ditches truncated alluvial layer 96 and were overlain by medieval ploughsoil or levelling layer 95 (see below). This may suggest that the upper alluvial layer formed in the earlier part of the radiocarbon date range (see this report Section 1.5), perhaps in the earlier 11th century, which in turn tentatively indicates a Late Saxon or early medieval date for the ditches. Although the ditches clearly pre-date the construction of the extant precinct wall (see below), the presence of traces of flint and mortar in the upper fills of ditch **131** and chalk nodules with mortar on the northern side of ditch **105** is of note. The ditches may have been associated with earlier boundaries, or been receptacles for debris associated with nearby construction. Another ditch (**63**) was identified to the north of the (later) precinct wall, which may have been broadly contemporary with those to the south as it was cut by pond **76** (see below). This was on a different (north-west to south-east) alignment and which, if projected eastwards, may have formed a right angle with ditch **105** to the south.

4.3.5 These features may possibly represent part of the Late Saxon settlement, or activity associated with the Benedictine monastery founded by Cnut during the early 11th century (see this report Section 1.3), although a later date is also feasible.

Medieval buried soil/plough soil and possible fish pond

4.3.6 A thick layer of greenish grey clay silt (95) identified along the entire length of the trench to the south of the later precinct wall marks a clear change in use in this area; possibly broadly contemporary with the cutting of pond **76**. An environmental sample from this layer produced charred oat, wheat, barley and rye, while other finds include occasional fragments of sheep, goat and horse bones, mortar and daub. The layer is not well dated (producing a single sherd of residual Middle Saxon pottery and a fragment of intrusive 19th century ceramic drain) but on stratigraphic grounds is likely to represent a medieval (post-Conquest) cultivation or levelling layer. This might suggest that the ground level had been raised sufficiently to have enabled some cultivation adjacent to the river, where low levels of settlement debris appear to have been disposed of.

4.3.7 In this period at least one large pond (**76**) occupied the northern extent of the site, possibly forming part the Abbey's early fishponds. A pond had been previously noted during the 2011 evaluation (Trench 3, Gill 2011) at the southern-eastern corner of the car park and was surmised to have extended northwards. This produced a mixed assemblage of (residual) Late Saxon, and 13th century pottery along with late medieval tile fragments.

4.3.8 The presence of more than one pond or hollow may explain why the seed content from the base context environmental sample north of the (later) precinct wall (sample 50) in pond **76** differs from that within the samples (samples 51 and 53) taken from the base of the pond to the south of the wall. It is possible that the northern deposit (59) may represent alluvial material that accumulated within a hollow during episodes of flooding in the early medieval period. However, in the trench section only the

southern edge of the pond was clear (Fig. 4, S. 62) in profile with no apparent break of slope or obvious edges to hint at an additional pond here. Therefore, it is considered to be the remains of a single large feature extending northwards beneath the precinct wall. Although the lower fill contained a high degree of peat and degraded wood, there was no evidence for wood lining at the base of the pond. The samples from the pond fill reflect species that would have been growing in close proximity to the pond and a disturbed damp habitat. No fish bone was noted in the samples, which may perhaps suggest that this was a stock pond rather than a fishpond. Few finds were recovered, although the tile fragments found in the base of the pond are predominantly medieval. A mixed assemblage from a possibly associated deposit (59) may represent modern disturbance.

Ground raising/levelling layers

4.3.9 Evidence for ground raising to reduce the floodplain was found at the southern end of the trench, in the form of a series of sand silt layers (113, 125) overlying the thick layer/former ploughsoil (95). This material was presumably imported from elsewhere in the town and it is possible that the finds (including 13th century pottery sherds) are residual. To the north, two undated levelling layers were laid down over the infilled pond apparently to form a base for the construction of the precinct wall.

The precinct wall

4.3.10 Cutting the base layers was an east to west aligned cut (**50**) that may represent the foundation trench for the precinct wall, or possibly an earlier version. This trench and the stub of wall foundation (72) within it were aligned WNW to ESE, while the extant wall is on a SSW to NNE axis. In addition the northern edge of the cut was positioned approximately 2m to the north of the wall. Combined this might suggest that this was a separate wall foundation on a different alignment to the extant boundary. Mortar layer 65, which was partly exposed parallel and to the north of the boundary may represent part of the wall's original construction.

4.3.11 Investigation of the southern side of the precinct wall during the evaluation demonstrated that the base of the wall and the 12th century ground surface was 1.4m below current ground level, while wall foundation 72 was revealed at 1.85m below the ground surface (albeit within the precinct). However, when the levels are compared they are very similar: 30.52m OD on the south side and 30.50m OD on the north. The wall on the south side was found to have a wider foundation that stepped a further 0.5m from the pilaster buttress (Gill 2011, 11; fig. 5), although no foundation trench was identified. The wall had originally been faced with large cobbles and then covered by a thick mortar or lime render which had survived to a height of *c*. 0.6m where it had been protected by soil build-up. A significant discovery was the remains of the buttress, constructed from coarse limestone blocks keyed into the wall, as these are a rare find on the south side of the wall. It is possible that foundation 72 represents the edge of the wider flint and mortar foundation for the precinct wall, surrounded by a gravelly backfill containing broken medieval tile fragments and subsequently covered by a thick sandy gravel layer which protected it. At some point this was cut by a

perpendicular north-south ditch or robber trench (**60**) that may have removed a buttress or wall stub abutting the northern side of the precinct wall, probably in the post-Dissolution period.

Further ground raising and external surface

4.3.12 Evidence for the successive dumping of gravel layers to raise the ground level and create a usable external surface was found extending to the south of the precinct wall. Whilst the gravel layers (75, 81, 80) over the pond were broadly horizontal, those further south (103 and 104) appear to have been tipped in from the south. A similar development was noted during the earlier evaluation (Gill 2011) and suggests that the latter may represent distinct but broadly contemporary episodes of dumping gravel in the effort to raise the ground level and move the edge of the flood plain further to the east and away from the Abbey precinct. This would also have effected greater control of the water levels with the floodplain and increased the depth of the water for the Crankles and the bigger fishponds located nearer to the centre of the valley (Fig. 2; Gill 2011, 57-8).

4.3.13 Few datable finds were recovered from these layers, comprising residual pottery and small amounts of medieval tile, some glazed. The presumably equivalent gravel layers identified during the evaluation were interleaved with peat deposits indicative of periodic flooding along with some rubbish dumping. Associated finds suggest that this process may have begun sometime after the 13th century, although the final ground raising may have been achieved in the 15th century. This land modification had culminated in the formalisation of the course of the channel marking the eastern boundary to the site, at which point the precinct wall was extended eastwards to join the channel to maintain the Abbey enclosure. The construction and fabric of the buttress at the end of this extension is indicative of a 15th to 16th century data (Gill 2011, 58), although the ground raising may have begun much earlier.

4.3.14 The buttress on the external south side of the precinct wall was identified (during the evaluation) at a point where there is a change in direction and fabric of the wall. This indicated the limit of the 12th century wall, which originally stopped at the water's edge, before being extended in the 15th century (Gill 2011, 58). Whilst no evidence for structures or buildings was found on the reclaimed ground, the two pits or ditches (**73** and **92**) found in the pipeline trench to the south of the precinct wall appear to represent activity in this area after the levelling episodes.

Economy and environment

4.3.15 The environmental samples from the site produced remains that are typical for medieval sites in the area, with the charred plant remains including the staples of wheat, oats, barley and rye. The small animal bone assemblage is dominated by domestic food species, with cattle and pig being slaughtered for their meat. There is some indication that marrow was being extracted, possibly for stews and soups (to counteract the taste of tainted meat and reduce the salty flavour and leathery texture

of preserved beef and mutton (Sykes 2006)), or grease rendering suggesting the possible use of tallow in candles.

4.3.16 This former floodplain would have been a marginal area of the town, lying largely outside the Abbey precinct boundary, although it is thought that the offices and yards of the Sacrist, including possibly the town's mint, may have been located in this area (see this report Section 1.3). The presence of disturbed damp soils is indicated in the waterlogged plant remains, especially those from the large pond. The hemp found associated with the base fill of the pond may suggest that retting was being undertaken in the vicinity (or possibly within the pond), which similar to flax involved processing of the stems to strip the fibres for rope and cloth making. Other activities are suggested by the presence of crucible fragments found in one of pits (**99**), indicative of small scale metal working being undertaken nearby following the reclamation of the floodplain.

Post-Dissolution activity

4.3.17 Following the dissolution, the Abbey buildings were utilised for the stone and hard-core rubble and these episodes are possibly reflected in possible robber trench (**60**, see above) and perhaps the thin lens of rubble and mortar (126) seen in the post-medieval levels. To the south of the precinct wall a mixed stony layer developed over the gravel surface and features cutting it.

4.3.18 From at least the 18th century onwards the site lay within the garden of St Margaret's House and the upper soil layers (*e.g*. 67) reflect a post-medieval campaign to raise the round level with imported soil for the gardens. The modern layers above these represent the change of use to county council offices, when the former gardens were replaced by a car park.

4.4 Significance

4.4.1 Despite the narrow area investigated, the trench revealed a stratified sequence representing a wide chronological span, much of which can be related to activities associated with the Abbey and in particular land reclamation and water management. Whilst much of the evidence from the investigation builds upon and confirms the findings from previous work at the site -- particularly the alluvial and dumping episodes – there are clearly some additional points of interest. There are hints of Middle and Late Saxon activity prior to the construction of the precinct wall and later medieval activity outside the Abbey boundary following the land raising in the 15th century.

APPENDIX A STRATIGRAPHIC DESCRIPTIONS

A.1 Trench Section Descriptions

Section A (north of the precinct wall)

A.1.1 This trench section extended 6.97m north-east from the edge of medieval wall and was 2m wide and 3.5m deep, cutting into the top of natural sands and gravels (Fig. 4, S. 51 and 52 and Plate 9). At the northern end a 2.5×2.5m square trench was dug for the location of a manhole.

A.1.2 Cutting into the natural was the remains of a shallow north-west to south-east aligned ditch (**63**) (Fig. 4, S. 52,). Measuring 1.4m wide and 0.3m deep this feature was aligned approximately east to west and was filled by a dark reddish brown clayey silt (64), which contained no finds.

A.1.3 Overlying the ditch and possibly truncating it was a large wide pond or hollow (**76**) which extended on both sides of the wall line and was 0.7m deep. The pond was filled by a wet dark grey-brown organic clay (59), which contained animal bone and was sampled for preserved organic remains. Overlying this was a layer of mid blue grey clayey (58) 0.6m thick. Above this was a layer of mid grey clayey silt (57) 0.26m thick.

A.1.4 Cutting layer 57 was linear foundation cut **50** (Fig. 5, S. 50, Plate 6), 0.15m wide and 0.2m deep. This ditch was aligned approximately east-west on a slightly different axis to standing section of the medieval wall (although its base was more parallel). It contained a flint and mortar foundation (72) packed around with a mid grey sandy clay with abundant gravel (51), from which fragments of tile were recovered.

A.1.5 A deposit of mid orange brown gravelly sand (55), 0.68m thick, sealed the foundation cut.

A.1.6 The layer was cut by a just off north-south aligned ditch or trench (**60** Plate 6), 1.44m wide and 1.2m deep. This extended from the wall on a perpendicular alignment and was cut to the top of wall foundation **50**. It was filled by a dark brown sandy silt (61) which produced one fragment of CBM, and in its top a fragment of mortared flint which had presumably fallen from the outer face of the wall.

A.1.7 Overlying the end of the trench closest to the wall was a layer of mid grey brown sandy silt garden soil (56), 0.3m thick.

A.1.8 The garden soil was then truncated 3.1m away from the wall by the foundation cut **54** (Fig. 4, S. 51) for the modern car park. This was 1.04m deep and extended through to the north-eastern end of the trench, running parallel to the wall. It was filled by a very dark grey-brown silt (53).

A.1.9 The car park surface consisted of a layer of hard-core followed by the tarmac surface butting up against a brick and concrete curb: a total thickness of 0.6m. A modern topsoil (52) 0.6m thick filled the gap between the curb and the northern wall face. This contained post-medieval pottery and glass.

A.1.10 The area of the new manhole was over the line of the existing sewer and was disturbed by both construction of the car park and the laying of the existing sewer pipe. None of the deposits identified in the rest of the trench were visible in this area.

Section B (south of the Precinct wall)

A.1.11 This section (Fig. 4, S. 53, Plate 2) was located directly south of the precinct wall, extending north-east to south-west for 6.58m before reaching the location of the second manhole, where a 3.5×3.7m box was dug out. The section was machined to a depth of 3m and natural undisturbed geology was reached 2.40m below the surface of the trench.

A.1.12 The pond or hollow **76** continued on this side of the wall being a maximum of 0.7m deep. It contained the same peaty clay silt 77 (previously noted as 59 and equivalent to 82).

A.1.13 This was overlain by a horizontal mid brown sandy gravel deposit (75), which was 0.23m thick.

A.1.14 Cutting into the gravel deposit was a ditch (**73**) on a broad east to west alignment. The ditch was 1.00m wide and 0.22m deep, steep-sided with a U-shaped profile. It contained a single fill (74) of dark grey clay silt from which bone was recovered.

A.1.15 Overlying ditch **73** was a dark greenish brown sandy silt (69), 0.5m thick.

A.1.16 A thin layer of yellow sandy mortar (65) ran parallel to the edge of the wall, extending 0.8m from the wall (Plate 9).

A.1.17 Above mortar 65 was a mid grey brown silty sand (68), 0.33m thick which contained no finds.

A.1.18 Overlying layer 68 was a mid brown clayey silt subsoil (67), 0.39m thick. Above this was a mid grey brown silt topsoil (66), 0.24m thick.

Section C

A.1.19 This square section (Fig. 4, S. 58) was located 7.10m south of the precinct wall. It corresponded to the location of the second manhole and comprised a 3.5 x 3.7m box, covering an area of 16.37m with a north-east to south-west orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 2.00m below the surface of the trench.

A.1.20 The natural gravel was overlain by a horizontal layer of dark red brown sand silt (83), 0.10m thick. Above this was a horizontal layer of 0.20m thick dark grey brown clay silt (82). These deposits were probably equivalent to the fills of pond **76** (also recorded as 87 and 59) identified in Sections A and B.

A.1.21 Overlying layer 82 was another horizontal 0.24m thick layer of dark red brown silt sand (81) containing tightly packed gravel and medium angular stones and unworked flint. This may have been the base layer for a 0.16m-thick horizontal layer (80) of mid grey brown sand silt with tightly packed small to medium stones and gravel. Iidentified

1.30m below the surface of the trench (Plate 7), this layer may represent an external surface and was a continuation of the layer previously identified as 75.

A.1.22 Above this was a horizontal layer (79), 0.40m thick, of dark green brown sand silt containing frequent small to medium stones throughout. Equivalent to layer 69, this was possibly a build-up of material from the (late) medieval period onwards.

A.1.23 Overlying layer 79 was a 0.22m thick horizontal layer of dark grey brown clay silt (78) containing frequent amounts of randomly distributed small to medium stones and chalk nodules.

A.1.24 This was overlain by a 0.50m thick layer of mid brown clay silt (67) representing the garden subsoil layer. Above this was the remains of the topsoil (66), a 0.20m thick mid grey brown sand silt. Overlying this was the modern car park layer, consisting of a base (85) of light brown sand and gravel 0.10m thick and lenses of sand and cement (84) 0.20m thick.

Section D

A.1.25 This rectangular section (Fig. 4, S. 59) was located 8.50m south of the precinct wall and was 3.60m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.78m below the surface of the trench.

A.1.26 The lower layers of this section (76, 86, 82) represent the continuation of the fills of pond **76**. At this point, 3m to the south of the section, the edge of the pond sharply dropped down a further 0.60m.

A.1.27 The natural soil was overlain by a sand silt (83) at 0.06m thick. Above this was a very dark blue grey peaty clay silt (86) at the level where the feature sharply drops; this layer may have represented extensive silting up at the base of the feature or the remains of some form of lining. Above this was a deposit of clay silt (82) at 0.28m thick.

A.1.28 The pond was overlain by a silt sand (81) with gravel, medium angular stones and flint, 0.28m thick, above which was a 0.30m thick layer (80) of sand silt and gravel. This layer was overlain by 0.20m thick layer of sand silt (79), above which was a clay silt layer (78), 0.18m thick, containing stones and chalk nodules. This was overlain by the 0.20m thick clay silt subsoil (67) and the remains of the topsoil (66), 0.10m thick. Above this was the modern car park base layer (85), 0.10m thick, and the lenses of sand and cement (84), 0.30m thick.

Section E

A.1.29 This rectangular section (Fig. 4, S. 61) was located 14.40m south of the precinct wall and was 4.00m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 2.32m below the surface of the trench.

A.1.30 Pond **76** was predominantly revealed in this section (its fills (82 and 86) as previously described), with upper fill 82 being 1.40m below the surface of the trench.

A.1.31 As in the previous section, the pond was overlain by a horizontal layer of medium gravel and flint (81) and then a layer of smaller gavel and flint (80), both of these layers dipping downwards following the slope of the pond. Above these were the layers of sand silt (79) and clay silt (78), 0.20m thick, containing stones and chalk nodules. The latter was overlain by the horizontal deposit of clay silt subsoil (67), 0.26m thick. Above this was the remains of the modern car park base layer (85), 0.22m thick, and lenses of sand and cement (84), 0.30m thick.

Section F

A.1.32 This section (Fig. 4, S. 62, Plate 4) was located 19.85m south of the precinct wall and was 3.50m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.66m below the surface of the trench.

A.1.33 Above the undisturbed geology was a layer of dark red brown spongy moderately to well humified wood peat, 0.20m thick (89, corresponding to unit 5 of the 2016 borehole survey). This context was overlain by three deposits slumping down from the south. Above layer 89 was a mid grey brown deposit (96) comprising of organic silts, peats and clay silts (corresponding to unit 6 of the 2016 borehole survey), 0.30m thick. Overlying this was a layer of mid green grey sand silt (95) which was 0.20m thick. This was in turn overlain by a layer of dark red brown clay silt (94), 0.30m thick, which was cut by the southern edge of pit/pond **76**.

A.1.34 As in previous sections the pond fills consisted of dark blue grey peaty silt (86) and dark grey brown clay silt (82).

A.1.35 At a depth of 1.20m below the surface of the trench, the pond and its fills were overlain by the same horizontal layers (81 and 80) of gravel and flint with chalk nodules, both of these layers petering out 2.30m southwards along the trench. These were overlain by the 0.30m thick horizontal clay silt subsoil (67). Above this was the remains of the modern car park base layer (85), 0.18m thick, and the lenses of sand and cement (84), 0.20m thick.

Section G

A.1.36 This rectangular trench section (Fig. 4, S. 66) was located 23.70m south of the precinct wall and was 3.60m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.50m below the surface of the trench.

A.1.37 Above the layer of undisturbed geology was the layer of dark red brown peat (89), 0.20m thick. This was overlain by the continuing layer of organic and clay silt (96), 0.18m thick. Above this was the green grey sand silt (95), 0.36m thick, and mid grey brown clay silt (104) containing moderately compacted medium angular stones. This 0.14m thick layer was most probably another patch of the construction layer for an external surface and is equivalent of layer 81. Above this was the hard gravel surface of mid grey brown clay silt (103), 0.20m thick and equivalent to layer 80.

A.1.38 Cutting into this layer along the western side of the trench was what appeared to be a linear feature (**92**; Fig. 5, S. 60; Plate 8) aligned approximately north to south orientation. This may have been the same feature as feature 99, although they had different profiles: combined they measured 6m long. Feature/pit **92** to the north had a shallower profile and contained a single fill that produced no finds. Feature **99** had a rounded V-shaped profile with steep sides, was at least 0.8m wide and 0.4m deep, and contained two fills: a 0.22m thick dark organic basal deposit (98) and a dark red brown clay silt (93 and 100) containing small stones and occasional chalk nodules. Fill 98 produced a small quantity of bone, Late Saxon or medieval pottery (30g), a tiny piece of slag (2g) and a fragment of ceramic crucible. A sample from the same fill contained occasional charred cereal grains and seeds along with frequent charcoal fragments.

A.1.39 This feature was sealed by clay silt subsoil (67), 0.30m thick, and the combined modern car park surfaces (84/85), 0.40m thick.

Section H

A.1.40 This trench section (Fig. 4, S. 67) was located 25.20m south of the precinct wall and was 4m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.60m below the surface of the trench.

A.1.41 The natural geology was overlain by a dark peaty silt (102; identical to context 89), 0.10m thick. This was sealed by the clay silt (96), 0.40m thick, and this was overlain by the extensive layer of mid green grey sand silt (95), 0.30m thick. Above this was the 0.34m thick layer of medium stones and clay silt (104), overlain by the compact gravel and stone surface (103). Of note was that both gravel layers became thicker, increasing from 0.20m to 0.40m, rising towards the surface of the trench towards the south. This layer was again cut by the continuation of ditch/pit **92** (cut 99, two fills 98 and 100); 1.30m wide and 0.68m deep.

A.1.42 The linear feature was again overlain by the 0.10m thick clay silt subsoil (67) and the combined modern car park surfaces (84/85), 0.34m thick.

Section I

A.1.43 This rectangular section (Fig. 4, S. 72, Plate 7) was located 29.20m south of the precinct wall and was 3m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.54m below the surface of the trench.

A.1.44 The natural sands and gravels were overlain by the blue grey clay silt (102), 0.10m thick, and the mid grey brown clay silt (96), 0.38m thick. The latter was cut by a linear feature (**105**) on a north-east to south-west orientation with a U-shaped profile and steep sides. It had a width of 2.70m and a depth of 1.45m. Along its northern side was a deposit of medium sized chalk pieces (97). The feature contained six fills, the earliest of which (106) was a dark brown grey clay silt, 0.20m thick. This was overlain by a

0.14m thick dark reddish brown silt sand (107). Above this was a layer of mid grey brown sand silt (108), 0.18m thick. Slumping in from the northern side was a 0.14m thick dark blue grey clay silt (109), followed by a 0.18m thick band of mid green grey sand silt (110) that has been tipped in from the south. The final disuse fill (111) was 0.60m thick, consisting of a mid blue grey clay silt.

A.1.45 Overlying the ditch was the layer of mid green grey sand silt (95) which was 0.14m thick. This was overlain by the layer of medium stones and clay silt (104), 0.22m thick above which was the 0.20m thick layer of small stones, gravel and clay silt (103). Overlying this was the 0.30m thick clay silt subsoil (67) and the car park surface (85), 0.25m thick.

Section J

4.4.2 This part of the trench section (Fig. 4, S. 73) was located 33.20m south of the precinct wall and was 2.5m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.40m below the surface of the trench.

4.4.3 The natural sands and gravels were overlain by a 0.22m thick layer of dark blue grey clay silt (114) with organic detritus (corresponding to Unit 4 of the 2016 survey). Above this was the continuing layer of clay silt (96) measuring from 0.14m to 0.30m thick. This was overlain by the 0.24m thick sand silt layer (95) and a thin lens of light grey brown sand silt (113) containing fragments of chalk and traces of mortar. Beginning above this was a 0.28m thick mid grey brown sand silt (125). This was overlain by the layers of gravel and small/medium stones (103, 0.14m thick) which seemed to begin to narrow from a combined thickness of 0.42m to 0.20m. Above this was the former subsoil (67) that was 0.50m thick and the car park surface (85/86), measuring 0.20m thick.

Section K

4.4.4 This part of the trench section (Fig. 4, S. 74) was located 35.86m south of the precinct wall and was 3m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.60m below the surface of the trench.

4.4.5 The natural sands and gravels were overlain by the continuation of the layer of undulating clay silt (114), the thickness of which varied from 0.06m to 0.14m. Above this was layer 96 measuring 0.26m thick, overlain by the sand silt layer (95), the thickness of which increased from 0.24m at the north to 0.38m to the south. This was overlain by the lens of sand silt (113), above which was the sand silt (125) that was 0.40m thick at the southern end. The external surface of gravel and small stones (103) seemingly petered out here, extend for just 0.40m north to south. The thickness of the buried subsoil (67) notably reduced from 0.40m to 0.08m from north to south. Another thin lens (0.05m thick) of light brown grey sand silt (126) sloped sharply down from the north. Above this, also sharply sloping down from north to south, was a 0.18m thick layer of light brown grey clay silt (127) containing frequent redeposited

small stones and gravel, possibly representing another external surface layer. Its stratigraphic position suggests that this event occurred later than the previous dumps of gravel and flint encountered previously within the trench. Above this was the layer of light brown grey sand silt topsoil (129) measuring 1.30m thick.

Section L

4.4.6 This trench section (Fig. 4, S. 77, Plate 8) was located 38m south of the precinct wall and was 3m in length with a north to south orientation. The section was machined to a depth of 3m and natural undisturbed geology was reached at 1.90m below the surface of the trench.

4.4.7 The undisturbed geology was overlain by the peaty silt clay (114), being 0.20m thick at this point. Above this was by a mid red brown sand silt (113), 0.30m thick, containing small stones and gravel. This was cut by a pit or hollow (**131**) that measured 0.80m deep and 2.60m wide on a north-east to south-west orientation. The feature was steep-sided with a U-shaped profile and contained four fills. The earliest fill (132) was a 0.06m thick dark green grey silt sand, above which was a 0.28m thick dark grey brown sand silt (121). Sloping down from its northern side was a 0.28m thick dark blue grey clay silt (133) above which was the final fill: a light green grey clay silt (134) measuring 0.28m thick. This pit was sealed by the layer of mid green grey clay silt 95, (also recorded as 124), above which was the 0.80m-thick layer of sand silt (125). This was overlain by the thin deposit of grey sand silt (126, 0.04m thick) and above this was the 0.20m thick light brown clay silt (127) containing a notable content of small stones. The final layer in this section was the mid brown grey sand silt subsoil (128) which measured 0.30m thick.

Sections M and N

4.4.8 These two (combined) trench sections (Fig. 4, S. 78 and 79; Plate 1) were located 41m south of the precinct wall and combined were 7.40m in length with a north to south orientation, terminating at the location of the third manhole. This section was machined to a depth of 3m and natural undisturbed geology was reached at 2.50m below the surface of the southern end of the trench.

4.4.9 The natural sands and gravels were cut into by a pit (**119**), extending beyond the eastern side of the trench. The visible part of the feature indicated a U-shaped profile with very steep sides. Its width to the baulk was 1.20m with a depth of 0.50m. Its base was 2.88m below the surface of the trench. The pit contained three fills: a dark green grey silt sand (120) that was 0.20m thick, above which was a 0.20m thick dark blue grey clay silt (122), and the upper fill was a 0.06m-thick light green grey clay silt (123).

4.4.10 This pit was cut on its northern side by linear feature **131** noted in Section L above. Both of these features were overlain by the layer of green grey clay silt and in turn this was overlain by the undulating mid grey brown sand silt (125), the thickness of which varied from 0.20m to 0.50m. Above this was the 0.04m-thick lens of sand silt (126) which was overlain by the layer of small stones and clay silt (127) slumping down from the southern end of the trench, narrowing from 0.40m to 0.12m in thickness. Above

this was the 0.50m thick subsoil (128) and this was overlain by the 0.30m thick sand silt topsoil (129). The final layer was vegetation rooting (130) reaching a maximum thickness of 0.50m at the end of the trench.

A.2 Context Inventory

Context	Category	Type	Function	Filled By	Same As	Width	Depth	Component	Cut By	Shape in Plan	Side	Base	Profile
50	cut	ditch	wall foundation	51		0.15	0.2			linear	steep	flat	flat based U
51	fill	ditch	use/backfill				0.2	sand clay	60				
52	layer		Topsoil		66 129		0.6	sand silt					
53	fill	construction	use/backfill				1.04	sand silt					
54	cut	pit/scoop	construction cut	53		2.4	1.04			sub-rectangular	steep	concave	
55	layer	deposit	construction/build up layer				0.68	sand gravel					
56	layer		subsoil		67 128		0.3	sandy silt					
57	layer	alluvial	disuse				0.26	sand clay	50				
58	layer	alluvial	disuse				0.6	clay					
59	layer	peat deposit	disuse		86		0.7	silt peat					
60	cut	ditch	wall foundation	61,62			0.7			linear	steep	concave	U
61	fill	ditch	use/backfill	60			1.2	sand silt					
62	fill	ditch	disuse		89		0.58	clay silt					
63	cut	ditch	use	64		1.4	0.3			linear	shallow	concave	U
64	fill	ditch	disuse				0.3	clay silt					

Context	Category	Type	Function	Filled By	Same As	Width	Depth	Component	Cut By	Shape in Plan	Side	Base	Profile
65	layer	wall ?	construction/use?				0.04	sand mortar					
66	layer		Topsoil		52 129			sand silt					
67	layer		subsoil		56 128		0.39	clay silt					
68	layer		build up				0.33	silt sand	71				
69	layer		build up				0.5	sand silt					
71	fill	pit	slump/backfill				0.3	sand silt					
72	masonry	wall	foundation				0.36	mortar	60				
73	cut	ditch	enclosure	74		1	0.22			linear	shallow	concave	U
74	fill	ditch	use/backfill disuse				0.22	clay silt					
75	layer		build up				0.23	sand					
76	cut	hollow/ pond	pond		87	2.5	0.7			sub-circular	shallow	concave	U
77	fill	hollow/pond	disuse				0.7	clay silt					
78	layer		build up layer				0.24	clay silt					
79	layer	soil	medieval buried soil ?		68 ?		0.5	sand silt					
80	layer	surface (external)	medieval ground surface		103		0.18	sand silt					
81	layer		build up/buried soil?		104		0.28	silt sand					
82	fill	pond	redeposited		59		0.22	clay silt					

Context	Category	Type	Function	Filled By	Same As	Width	Depth	Component	Cut By	Shape in Plan	Side	Base	Profile
83	layer		primary build up				0.18	sand silt					
84	layer		modern car park surface				0.34	sand and mortar					
85	layer		base for car park surface				0.16	clay sands and gravel					
86	fill	pit/pond	lining/silting up		59		0.7	clay silt					
87	cut	pit	pond/hollow		76	8	1.4			sub-circular	steep	concave	U
89	layer	natural	flood plain		102 ? 114 ?		0.5	clay silt	87				
90	fill	pit/pond	disuse/slump		81		0.14	clay silt					
91	fill	pit/pond	disuse/slump		82		0.28	sandy silt					
92	cut	ditch	enclosure	93	99		0.2			linear	steep	concave	U
93	fill	ditch	disuse		100		0.2	sand silt					
94	layer	pit/pond	slump/levelling				0.7	clay silt					
95	layer	plough soil	buried medieval soil ?		124		0.4	sand silt					
96	layer	natural ?	buried soil ?				0.48	clay silt					
97	fill	ditch	construction material				0.1						
98	fill	ditch	disuse/lining ???				0.3	clay silt					
99	cut	ditch	enclosure	100	92	0.8	0.19			linear	steep	concave	U
100	fill	ditch	disuse		93		0.19	clay silt					
102	layer	natural	flood plain		89 ? 114 ?		0.19	clay-silt					

Context	Category	Type	Function	Filled By	Same As	Width	Depth	Component	Cut By	Shape in Plan	Side	Base	Profile
103	layer	surface (external)	medieval gravel surface		80 ?		0.3	clay silt					
104	layer	surface (external)	construction layer		81 ?		0.38	clay silt					
105	cut	ditch	construction cut	97, 106, 107, 108, 109, 110, 111		2.44	1			linear	steep	concave	U
106	fill	ditch	initial silting				0.12	clay silt					
107	fill	ditch	silting up				0.18	silt sand					
108	fill	ditch	disuse				0.12	sand silt					
109	fill	ditch	disuse				0.3	clay silt					
110	fill	ditch	disuse				0.22	sandy silt					
111	fill	ditch	disuse				0.45	clay silt					
113	layer	natural	disuse				0.24	clay silt					
114	layer	natural	initial silting- lining ?		89 ? 102 ?		0.3	sand silt					
116	fill	ditch	initial silting				0.12	clay silt					

Context	Category	Type	Function	Filled By	Same As	Width	Depth	Component	Cut By	Shape in Plan	Side	Base	Profile
117	fill	ditch	dump/slump of sand				0.08	clay sand					
118	fill	ditch	disuse				0.3	sand silt					
119	cut	Ditch/pit	unknown	120 122 123		1.2	0.54		131	linear	steep	concave	U
120	fill	Ditch/pit	disuse				0.26	silt sand					
121	fill	Ditch/pit	disuse				0.38	sand silt					
122	fill	Ditch/pit	disuse				0.14	clay silt					
123	fill	ditch	disuse				0.18	clay silt					
124	layer	soil	buried medieval soil ?		95		0.4	clay silt					
125	layer		buried soil				0.7	sand silt					
126	layer	surface (external)	dump, build up layers				0.06	sand silt					
127	layer	surface (external)	late med, early post med surface ???				0.38	sand silt					
128	layer	soil	sub soil		56,67		0.5	sand silt					
129	layer		Top soil		52 66		0.5	sand silt					
130	layer	natural	rooting				0.6						

Context	Category	Type	Function	Filled By	Same As	Width	Depth	Component	Cut By	Shape in Plan	Side	Base	Profile
131	cut	pit, ditch	enclosure ?	132 121 133 134		3	0.7			linear ?	steep	concave	U
132	fill	ditch ?	initial silting				0.06	silt sand					
133	fill	ditch ?	disuse				0.16	clay silt					
134	fill	ditch	disuse /slump ?				0.1	clay silt					

APPENDIX B FINDS REPORTS

B.1 Pottery

By Sue Anderson

Introduction

B.1.1 Sixteen sherds of pottery weighing 508g were collected from nine contexts. Table 1 shows the quantification by fabric; a summary catalogue by context is included as Appendix 1.

Description	Fabric	Date range	No	Wt(g)	Eve	MNV
Sandy Ipswich ware	SIPS	650-850	1	20		1
Gritty Ipswich ware	GIPS	650-850	1	97		1
Middle Saxon import	MSIM	650-850	1	6		1
Thetford-type ware	THET	L.9th-11th c.	3	53	0.25	2
Total Middle to Late Saxon			*6*	*176*	*0.25*	*5*
Early medieval ware	EMW	11th-12th c.	2	13		2
Bury medieval coarseware	BMCW	12th-14th c.	2	9		2
Essex-type sandy orange wares	ESOW	13th–15th c.	1	19		1
Total medieval			*5*	*41*		*5*
Refined white earthenwares	REFW	L.18th-20th c.	2	104	0.10	2
Late post-medieval unglazed earthenwares	LPME	18th-20th c.	3	187		3
Total post-medieval			*5*	*291*	*0.10*	*5*
Totals			**16**	**508**	**0.35**	**15**

Table 1. Pottery quantification by fabric.

Methodology

B.1.2 Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. A full quantification by fabric, context and feature is available in archive. All fabric codes were assigned from the author's post-Roman fabric series, which includes East Anglian and Midlands fabrics, as well as imported wares; full descriptions will be provided in the final report. Form terminology for medieval pottery is based on MPRG (1998). Recording uses a system of letters for fabric codes together with number codes for ease of sorting in database format. The results were input directly onto an Access database, which forms the archive catalogue.

Pottery by Period

Middle and Late Saxon

B.1.3 Two body sherds of Ipswich Ware were recovered from (59) and (124), both abraded. Another fragment from (122) is likely to be of Middle Saxon date although the origin is uncertain – it is comparable with so-called 'wavy line ware' identified at the Middle Saxon site of Staunch Meadow, Brandon (Blinkhorn 2014, 158–9).

B.1.4 A small, abraded sherd of Thetford-type ware was recovered from (75). Two rim fragments of a greyware jar from (100) have been tentatively identified as Thetford-type ware due to the clear girth-grooving on the shoulder. The rim can be paralleled in the Thetford type series (Dallas 1984), but could equally be a north Essex or south Suffolk medieval rim form. The fabric is not diagnostic, being simply a fine sandy greyware which could occur in either period. The sherds were found in association with a body sherd of Bury-type medieval coarseware, but as this fabric is very similar to some of the coarser Thetford wares from the town, it is equally possible that this sherd could be Late Saxon. Another sherd from (98) is similarly difficult to assign to one or other of these types.

Medieval

B.1.5 Two body sherds of hand-made sandy thin-walled early medieval ware were recovered from (125). Two body sherds from (98) and (100) have been identified as Bury medieval coarseware, but as noted above, either or both could be Thetford-type ware.

B.1.6 A handle/body sherd from a sandy orange ware jug with sparse clear/green glaze was found in (79). It is in a medium sandy fabric comparable with pottery from the Colchester and NE Essex area, although it is not a Colchester product.

Modern

B.1.7 A base fragment and two body sherds in unglazed redware fabrics were collected from (52) and (59). The base fragment is certainly part of a plantpot with a pierced centre. The body sherds show clear throwing lines and could both be pieces of plant pot or possibly drainpipes or other utilitarian vessels, although the walls are thinner than would be typical for drainpipes

B.1.8 A fragment of a refined whiteware dinner plate with a flat base and everted rim was found in (52), along with a green-glazed whiteware fragment which may be part of a square vessel such as a vase or jug of late 19th to early 20th-century date.

Pottery by context

Feature	Context	Feature Type	Fabrics	Spotdate
-	52	Topsoil	LPME REFW	L.19th-E.20th c.
-	59	peat layer	GIPS LPME	19th-20th c.
-	75	build-up layer	THET	L.9th-11th c.+
-	79	buried soil	ESOW	13th-15th c.
99	98	ditch fill	BMCW?	12th-14th (or L.9th-11th) c.
99	100	ditch fill	THET? BMCW?	12th-14th (or L.9th-11th) c.
119	122	pit fill	MSIM	M.7th-M.9th c.
-	124	buried soil	SIPS	M.7th-M.9th c.
-	125	buried soil	EMW	11th-12th c.

Table 2. Pottery types present by feature

B.1.9 The small quantity of pottery from the lowest levels (124, 125) appear to suggest an early medieval date for this layer, although one fragment of roof tile from (125) was later. The ditches and pit may be of Saxon or medieval date, and there appears to be some redeposition of Saxon pottery in layers further up the sequence.

Discussion

B.1.10 Like the material recovered from the evaluation of this site (Anderson 2011), this is a small assemblage with a broad date range spanning the 8th to 19th/20th centuries. Middle and Late Saxon wares are present, but most or all appear to be residual in medieval contexts. Much of the pottery was recovered from medieval and post-medieval layers, but a few Saxon/medieval features appear to be present. Most of the fabrics and forms are common types which are not unusual in the town. The exception is the possible Middle Saxon import which is of interest as 'wavy line ware' has not been found outside Brandon previously.

Context	Fabric	Form	Rim	No	Wt/g	Spot date	Fabric date range
52	LPME	plantpot		1	138		18th-20th c.
52	LPME	plantpot?		1	45		18th-20th c.
52	REFW			1	34	1930s?	L.18th-20th c.
52	REFW	plate	everted	1	70		L.18th-20th c.
59	LPME	plantpot?		1	4		18th-20th c.
59	GIPS			1	97		650-850
75	THET			1	4		10th-11th c.
79	ESOW	jug		1	91	13-15	L.12th-14th c.
98	BMCW			1	4		L.12th-14th c.
100	BMCW			1	5		L.12th-14th c.
100	THET	large AC jar	Anderson type 7	2	49		10th-11th c.
122	MSIM			1	6		L.7th-9th c.

124	SIPS			1	20		650-850
125	EMW			2	13		11th-12th c.

Table 3. Pottery Catalogue

B.2 Ceramic Building Materials

By Sue Anderson

Introduction

B.2.1 Twenty-six fragments of CBM weighing 1484g were collected from eleven contexts (Appendix 1). Two fragments of fired clay (38g) and two fragments of stone (197g) were also recovered (Appendices 2 and 3).

Methodology

B.2.2 The assemblage was quantified (count and weight) by fabric and form. Fabrics were identified on the basis of macroscopic appearance and main inclusions. The width, length and thickness of bricks and floor tiles were measured, but roof tile thicknesses were only measured when another dimension was available. Forms were identified from work in Norwich (Drury 1993), based on measurements. Other form terminology follows Brunskill's glossary (1990).

The CBM assemblage

Description	**fabric**	**RBT**	**RT med**	**RT pmed**	**PAN**	**LB/B**	**DP**
Estuarine clays	est		1				
Estuarine clays with coarse sand	est(cs)		4				
Fine sandy	fs	5	10	2		1	
Fine sandy, fine calcareous	fsc				1		
Stoneware	sw						1
Compressed modern fabrics	comp					1	
Total fragments		**5**	**15**	**2**	**1**	**2**	**1**
Total weight (g)		*257*	*613*	*169*	*4*	*431*	*10*

Table 4. Quantification of CBM by fabric and form.

B.2.3 Five fragments of one Roman tile (RBT) were found in buried soil (125). It is in a fine sandy fabric. The tile measures 39mm thick and is probably a wall or floor tile. There is a thin grey deposit, probably the remains of mortar, all over the tile and broken edges, suggesting re-use.

B.2.4 The majority of fragments in this assemblage are pieces of plain roof tile (RT). Fifteen fragments are probably or certainly of medieval date based on their fabrics, presence

of glaze, and/or firing techniques. Those in red-firing fabrics are distinguished on the basis of a reduced core and/or surfaces. None of the fragments in estuarine clay fabrics have any trace of glaze in this group, but three fragments in fine sandy fabrics have spots of clear or green glaze. Two tiles have circular peg holes. Medieval tiles were recovered from ditch fill (51), pond fill (82), and make-up layers (55), (69), (79), (81) and (86).

B.2.5 Only two of the plain tile fragments are post-medieval and both are in the typical fine sandy red-firing fabric of the area; these were recovered from pond fill (82) and buried soil (125). A few fragments have traces of lime mortar on their surfaces, probably indicating re-use of the fragments as hard-core in walls.

B.2.6 A small chip of a? pantile (or possibly chimney pot – the underside is sooted) in a dense fabric with common fine calcareous inclusions was found in natural layer (89), where it was probably intrusive.

B.2.7 One fragment of late brick (LB) in a fine sandy fabric was found in peat layer (59). It has thin surface reduction and measures 70mm thick. There are traces of medium sandy white/grey/buff mortar on each surface. The fragment is likely to be of 19th-century or later date. A fragment of compressed shale brick (B) was recovered from pond fill (82); there is a partial maker's mark in the frog, but only two letters are legible (…U [or O] R…). Bricks of this type were made from the 19th century onwards.

B.2.8 A fragment of drainpipe in a dry-bodied stoneware was found in buried soil (95) and is likely to be of 19th/20th-century date.

Fired clay

B.2.9 A fragment of fired clay was collected from ditch fill (100). The piece is in a fine sandy fabric with coarse rounded chalk inclusions. The surfaces are buff and the internal core is red, with the convex surface apparently forming a corner to the object. The fragment is small and its function is uncertain, but fired clay of this type is usually related to oven furniture or domes.

B.2.10 A piece of buff-pink daub was recovered from buried soil (124). It is in a fine sandy micaceous fabric with some coarse quartz and chalk inclusions and has a possible withy impression.

Stone

B.2.11 Two fragments of a dense? sandstone with a grey (possibly degraded mortar) deposit on the surface were collected from topsoil (129). The fragments are burnt to a deep red colour.

Discussion

B.2.12 The assemblage includes a fairly high proportion of medieval tile, and in six contexts these were the only type of CBM. Roman tile is present, and has been found on this site previously (Anderson 2011), but is not evidence for Roman occupation in the area as tile was often brought into the town for re-use in the Saxon period.

B.2.13 The assemblage is small and contains nothing particularly unusual for the town. The finds were probably incorporated into these deposits accidentally following demolition of one or more structures in the vicinity.

Context	Fabric	Form	No	Wt	Abr	L	W	T	Mortar	Peg	Glaze	Notes	Date
51	est(cs)	RTM	3	141						1 x R			med
51	fs	RTM	1	67					thin white ms		SG	reduced core	med
55	fs	RTM	1	103	+						?	reduced core	med
59	fs	LB	1	341	+			70	ms white/grey/buff			surfaces reduced	pmed
69	fs	RTM	2	8					thin			flakes, reduced core	med
79	est	RTM	1	54					cs patch & thin				med
79	fs	RTM	2	108	+						1 SC	reduced core	med
81	fs	RTM	1	38							SG		med
82	est(cs)	RTM	1	37						1 x R			med
82	fs	RTM	1	31								reduced core	med
82	fs	RTP	1	44									pmed
82	comp	B	1	90					ms grey on break			frog with part of maker's mark ...U (or O) R…	19-20
86	fs	RTM	1	15	+							buff, red core	med
86	fs	RTM	1	11	+						G		med
89	fsc	PAN?	1	4								sooted underside, flake	pmed
95	sw	DP	1	10								v fine purple with dk grey core	19+
125	fs	RBT	5	257				39	thin grey all over			joining frags	Rom
125	fs	RTP	1	125					fsc white all over				pmed

Table 5. CBM Catalogue

Context	Fabric	Type	No	Wt/g	Colour	Surface	Impressions	Abr	Notes
100	fsc		1	21	buff-red	convex ?corner		+	poss kiln furniture/oven dome or object?
124	fsmcq	daub?	1	17	pink-buff		withy?		

Table 6. Fired Clay Catalogue

Context	Find type	No	Wt	Description	Date
129	stone	2	197	dense fine red ?sandstone frags covered in grey deposit, burnt?	

Table 7. Stone Catalogue

B.3 Metalwork

By Dennis Sami

B.3.1 Two fragments of a ceramic crucible, possibly from the same vessel, were collected from post-medieval fill of ditch **99**. The vessel is a small hand-made crucible of approximately 3 cm in diameter. Vitrification is evident in the external surface of one fragment, while possible metal residue is cemented in the second fragment.

B.3.2 Ceramic crucibles used to hold melted metals generally indicate industrial activity in the area. The two fragments can only be broadly dated to the medieval or possibly to the early post-medieval period.

B.3.3 The crucible fragments are packaged in a plastic finds bag and stored in box no: 24688.

B.3.4 A single undiagnostic and incomplete iron nail was also recovered from the same context.

Recommendations

B.3.5 No specific recommendations are required for the crucible and the iron nail can be discarded.

Catalogue

Context 98, Environmental Sample 57. Fragmented. Greyish, highly fired refractory fabric. The external surface of the rim and body fragment has been subject to verification leaving a greenish-grey glaze. A thick very dark reddish-brown vitrified deposit is evident in the second fragment that is possibly part of the base of the vessel. The high temperature altered the original texture of the fabric leaving a spongy texture. Little reddish-brown droplets cemented on the internal surface may suggest the crucible held melted copper alloy. Diameter: c. 3 cm. Chronology: medieval to early post-medieval.

Context 98, Environmental Sample 57. Nail, Fe, incomplete. Flat circular head with tapered square stem. Width 17mm. Thickness (stem) 5.7mm.

APPENDIX C ENVIRONMENTAL REPORTS

C.1 Environmental Samples

By Rachel Fosberry

Introduction

C.1.1 Ten bulk samples were taken from features within the excavated area at Shire Hall Car Park, Bury St. Edmonds, Suffolk The purpose of this assessment is to determine whether plant remains are present, their mode of preservation and whether they are of interpretable value with regard to domestic, agricultural and industrial activities, diet, economy and rubbish disposal.

C.1.2 Samples were taken from deposits and alluvial layers that are thought to be mainly medieval in date.

Methodology

C.1.3 A sub-sample of each of the samples was processed by tank flotation using modified Siraff-type equipment for the recovery of preserved plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve.

C.1.4 The waterlogged samples had a portion examined whilst still wet and were then allowed to dry for subsequent assessment and quantification. The dried flots were scanned using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 1. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers et al. 2006) and the authors' own reference collection. Nomenclature is according to Zohary and Hopf (2000) for cereals and Stace (1997) for other plants. Plant remains have been identified to species where possible. The identification of cereals has been based on the characteristic morphology of the grains and chaff as described by Jacomet (2006).

Quantification

C.1.5 For the purpose of this initial assessment, items such as seeds and cereal grains have been scanned and recorded qualitatively according to the following categories:

= 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

C.1.6 Items that cannot be easily quantified such as charcoal has been scored for abundance

+ = rare, ++ = moderate, +++ = abundant

U=untransformed, w=waterlogged

Results

C.1.7 Preservation of plant remains is predominantly by waterlogging with occasional carbonized seeds. The carbonised remains are restricted to charred cereals, a single legume and occasional weed seeds. All four of the main cereal types are represented; free-threshing wheat (Triticum aestivum s.l.), barley (Hordeum vulgare/distichon), rye (Secale cereale) and oats (Avena sp.). Charred seeds are representative of crop weeds such as stinking mayweed (Anthemis cotula). Waterlogged plant remains appear to have differential preservation of seeds that have a tough outer coat (testa) such as elderberry (Sambucus niger), sedges (Carex spp.), dead-nettle (Lamium sp.), henbane (Hysoscyamus niger), hemlock (Conium maculatum) and hemp seed (Cannabis sativa). In some cases, it is unclear whether the plant remains are waterlogged or untransformed. It is possible that some of the tougher seeds such as elderberry may be contemporary.

C.1.8 The samples were taken from sections of excavated slots and the results are discussed by section below:

Sample 50 (Section A)

C.1.9 Sample 50 was taken from fill 59 of large wide pond or hollow (**76** located north of the precinct wall). It contains a diverse assemblage of waterlogged plant remains that include seeds of henbane, hemlock, hemp, gypsywort (*Lycopus europaeus*), goosefoots (*Chenopodium* sp.), stinging nettles (*Urtica dioica*), docks (*Rumex* sp.), dead nettles, chickweed (*Stellaria media*), hemp-nettle (*Galeopsis* sp.), fumitory (*Fumaria officianalis*), a species list that represents plants that would have been growing in close proximity to the feature and reflect a disturbed, damp habitat. Also present are seeds of water-crowfoot (*Ranunculus* subgenus *batrachium*) and pondweed (*Potamogeton* sp.) which are aquatic plants that would have colonized the pond water. Charred plant remains were recovered from the sample residue but were not present within the flot. They include several oat grains, a single barley grains and occasional wheat grains. Molluscs are present within this sample and are well-preserved.

Sample 51 (Section B)

C.1.10 Sample 51 was taken from layer 77 in Section B, south of the precinct wall. It is equivalent to layer 59 from pond **76** but the seed content is dissimilar. Waterlogged seeds are preserved in low numbers and include buttercup (*Ranunculus repens*/*bulbosus*), common sow-thistle (*Sonchus oleraceus*), elderberry and wild mignonette (*Reseda lutea*) in addition to the same species that are present in Sample 51 such as henbane, nettle, dead-nettle and water-crowfoot. A single charred barley grain was also recovered. The pond feature was spread over a large area and these differing taxa represent spatial variation.

Samples 52 and 54 (Section C)

C.1.11 Sample 54 was taken from layer 82 which may have been equivalent to fill 59 in pond **76**. The waterlogged plant material in this sample was very degraded with only occasional nettle seeds noted, although a fragment of leather was recovered and is reasonably well preserved. This deposit was overlain by a stone surface layer 81 (Sample 52) that contains organic plant material (mainly rootlets and leaf fragments) of uncertain preservation. Occasional charred wheat and oat grains are present along with two charred elderberry seeds.

Samples 53 and 55 (Section E)

C.1.12 Pond **76** continued into Section E and Sample 53 was taken from layer 86. It contains degraded waterlogged plant material with occasional arthropod remains and seeds of henbane and small-seeded goosefoots.

C.1.13 The gravel layer 81 was sampled again in this section (Sample 55 equivalent to Sample 52). Molluscs are preserved along with a single seed of henbane and sparse charcoal fragments. Organic matter comprised of leaves and rootlets is preserved in an untransformed state.

Samples 56 and 58 (Section F and J)

C.1.14 Sample 56 was taken from clay silt 89 and contains waterlogged seeds of hemp, dead-nettle, goosefoots and two poorly preserved charred cereal grains. Higher in the sequence, Sample 58 was taken from layer 95 and contains occasional charred grains of oat, wheat, barley and rye, a single charred seeds of stinking mayweed and several untransformed elderberry seeds.

Sample 59 (Section G)

C.1.15 Sample 59 was taken from fill 100 of ditch **92** and contains occasional charred grains of oat, wheat, barley and rye, a small legume (*Fabaceae*) and sparse charcoal.

Samples 57 and 60 (Section I)

C.1.16 Pit **99** may have been associated with pit/ditch **92** and Sample 57 was taken from fill 98. It contains occasional charred grains of oat, wheat, barley and rye, a single charred seeds of stinking mayweed and untransformed seeds of henbane, poppy (*Papaver* cf. *rhoeas*) and elderberry. Charcoal fragments are frequent within this sample and have the potential for species identification.

C.1.17 Sample 60 was taken from the third fill (of six), 108, from ?early medieval linear ditch **105**. It contains an assemblage of waterlogged seeds with good density and diversity including an abundance of henbane, stinging nettles, chickweed and pondweed and smaller quantities of small nettle (*Urtica urens*), corncockle (*Agrostemma githago*), gypsywort, elderberry, mallow (*Malva* sp.), stinking mayweed, common knotgrass (*Polygonum aviculare*), fat hen (*Chenopodium album*), nettle-leaved goosefoot, orache (*Atriplex patula*/*prostrata*) and black bindweed (*Fallopia convolvulus*). Egg cases of the water flea (*Daphnia* sp.) were also noted. Fragments of Roundwood have also been preserved.

Sample 61 (Sections M and N)

C.1.18 Sample 61 was taken from fill 122 in ?Saxon/medieval pit **119**. It produced the largest assemblage of charred plant remains from this site and it is likely to be the only sample that reflects deliberate deposition. Wheat and rye grains are present and untransformed elderberry seeds are abundant. Single rush (*Juncus* sp.) seeds are present in both charred and untransformed state. There is a large component of untransformed rootlets.

Discussion

C.1.19 The environmental samples from this site have produced a diverse assemblage of waterlogged seeds and a more limited assemblage of charred plant remains. The sequence of deposits is thought to date from the prehistoric through to the medieval period. Evidence of human activity is present in the form of charred cereal grains which were recovered from the higher deposits but only with significance in pit **119**. The cereals types were all commonly cultivated in the medieval period and are frequently recovered from archaeological features of this date.

C.1.20 Waterlogging occurs when a deposit has remained wet either as a result of being below the water table or in a sealed organic deposit such as a pit or well. A waterlogged environment is anoxic in that oxygen is excluded which inhibits the decay-causing bacterial leading to the preservation of organic remains such as plants, leather, insects and wood. The waterlogged plant assemblages recovered from this site are not remarkable in their taxa, density and diversity apart from the presence of hemp seed. Hemp was widely cultivated in the medieval period, mainly for the plant rather than the seed as the stems can be 'retted' (in a similar way to flax) in order to strip the fibres for use in rope and cloth making. Hemp cloth was particularly valued for making sails for ships.

Statement of potential

C.1.21 The waterlogged plant remains offer the potential for information on the plants that would have been growing nearby but with the important limitation caused by differential preservation. The deposits are thought to be alluvial in that they were laid down by flooding events, the site being close to the river Lark. The taxa recovered correspond with many of the species found in both pollen and macrofossil studies in the Geoarchaeological Borehole report (Benysek & Stafford, 2016). They represent plants that would be found growing in damp soils including disturbed and nitrogen-enriched soils. Further interpretation of these samples is limited due to the fact that most of the deposits are alluvial and the seeds recovered may have travelled some distance. Similarly, the potential for pollen retrieval is high due to the deposits being waterlogged but the interpretation of the results may be difficult. Further work on these assemblages is therefore not considered to be worthwhile.

Recommendations for further work

C.1.22 No further work is recommended for the plant assemblages however there is suitable material preserved should radiocarbon dating be required.

Retention, dispersal and display

C.1.23 The waterlogged flots have been dried and will be retained for possible future reference. The residues have been sorted and discarded.

Sample no.		50	51	52	53	54	55	56	57	58	59	60	61
Context no.		59	77	81	86	82	81	89	98	95	100	108	122
Feature no			76					88	97		99	105	119
Feature type		Layer	Pond /Hollow	Layer	Fill/layer	Fill/layer	Layer	Ditch	Beam slot	Layer	Ditch	Ditch	Pit
Sample volume (L)		**7**	**9**	16	6	11	14	8	4	9	13	10	9
Flot volume (ml)		**40**	**50**	10	35	40	30	30	40	15	25	60	40
Cereals													
Avena sp. Caryopsis	Oats [wild or cultivated]	##		#					#	#	#		
Hordeum vulgare L. caryopsis	domesticated Barley grain	#	#						#	#	#		#
Secale cereale L. caryopsis	Rye grain					#		#	#	#	#		##
Triticum sp. caryopsis	free-threshing Wheat grain	#		#		#			#	#	#		##
Cereal indet. caryopsis	indeterminate					#		#	#	#	#		#
Other food plants													
Legumes 2-4mm	Pea/small bean										#		
Legumes >4mm	Bean												#
Dry land herbs													
Agrostemma githago L. seed	Corncockle											# w	
Anthemis cotula L. seed	Stinking Chamomile								#	#		# w	
Atriplex prostrata Boucher ex DC./ *patula* L. seed	Spear-leaved/Common Orache											# w	
Cannabis sativa L. achene	Hemp	##w						#w					
Chenopodiaceae indet. seed	Goosefoot Family	# w	#w					#w					
Chenopodium album L. seed	Fat-hen											## w	
Chenopodium murale L. seed	Nettle-leaved goosefoot											# w	
Conium maculatum L. seed	Hemlock	# w										###w	
Fallopia convolvulus L. Á. Löve achene	Black-bindweed											# w	
Fumaria officianalis L. achene	Common Fumitory	# w											
Hyoscyamus niger L. seed	Henbane	# w	#w				#w		#w				#w
Lamium sp. nutlet	Dead-nettles	# w	#w					##w				## w	
Malva sp. nutlet	Mallows											# w	
Polygonaceae indet. achene	Dock Family								#w				
Polygonum aviculare L. achene	Knotgrass											# w	
Ranunculus repens L./*bulbosus* L. achene	Creeping/Bulbous Buttercup		#w			#w							

Reseda lutea L.seed	Wild Mignonette		#w										
Rumex sp. achene	small-seeded Docks	# w	#w			#w		#w					
Sonchus asper L. Hill achene	Prickly sow-thistle	# w											
Stellaria media L. Vill. Seed	Common Chickweed	# w										#	
Urtica dioica L. seed	Common Nettle	# w	#w									###w	
Urtica urens L. seed	Small Nettle					#w						## w	
Wetland/aquatic plants													
Small trigonous *Carex* spp. (<2mm) nut	small triangular-seeded Sedges					#w			#w				
Lycopus europaeus L. nutlet	Gypsywort	# w										# w	
Juncus tenuis Willd. seed	Slender Rush												#/#w
Mentha aquatica L. seed	Water-mint												#w
Potamogeton sp. achene	Pondweed	# w										###w	
Ranunculus subgenus Batrachium L. achene	Water-crowfoot	# w				#w							
Tree/shrub macrofossils													
Sambucus nigra L. seed	Elder	# w	#w	#		#w			##w	##w		###w	
Other plant macrofossils													
Charcoal <2mm							+		+		+		++
Charcoal >2mm									+		+		++
Charcoal >10mm									+				++
Waterlogged plant remains		###w	###w	###w	###w	###w	###w	###w	###w	###w	###w	###w	###w
Other remains													
molluscs							+++						
Cladoceran ephippia	egg cases of water fleas											#	

Table 8: Environmental samples from BSE375

C.2 Animal Bone

By Hayley Foster BA MA PhD

Introduction

C.2.1 The animal bone from Shire Hall, Bury St Edmunds represents faunal remains weighing 2.29kg in total, mostly dating to the Medieval period. There were 56 fragments recovered, detailed in the table below. The remains were fragmentary, therefore many of the fragments could not be assigned to species. The species represented include cattle (Bos taurus), sheep/goat (Ovis/Capra), horse (Equus caballus), pig (Sus sp.) and bird, likely domestic fowl. Those fragments that could not be assigned to a species were categorised based on size. The method used to quantify this assemblage was based on that used for Knowth by McCormick and Murray (2007) which is modified from Albarella and Davis (1996). Identification of the faunal remains was carried out at Oxford Archaeology East. References to Hillson (1992), Schmid (1972), and von den Driesch (1976) were used where applicable.

Results

C.2.2 The faunal remains are mainly from sections located south of the precinct wall, with only contexts 59 and 64 from Section A being on the north side of the wall. Most contexts are probably medieval in date, however context 122 may be early medieval or earlier in date.

C.2.3 The assemblage is dominated by the domestic food species, including cattle, pig and sheep/goat. Horse is represented by only one tooth; however, many fragments could not be identified to species and were classified as either large mammal or medium mammal. Cattle remains all had fused epiphyses, indicating an absence of very young animals, whereas there was an unfused distal radius of a pig, indicating an animal less than 42 months of age at death. Tooth wear data for cattle indicates the presence of an individual of 40-50 months of age at death and another of 50 months of age at death. This would be a typical age for cattle being slaughtered for meat, as they would have reached an optimum weight, near the end of their immaturity. A pig mandible recovered from context 125 is aged to 20-23 months of age at death, which is also around the age when pigs reach optimum weight to be slaughtered as they produce no secondary products and would rarely be kept much beyond this age, unless they were kept as breeding stock.

C.2.4 One fragment has evidence of butchery and that is a medium mammal rib with a sharp cut mark, likely a skinning mark. The pig mandibles were identified as male from the canine morphology and the bird fragments were likely from domestic fowl. Many of the fragments recovered are made up of long bone shafts with absent epiphyses, which may be associated with division of joints of meat or destruction of the epiphyses for marrow extraction or grease rendering. The evidence of carcass processing and disposal of faunal material in ditches highlights activity on the site and suggests much of the faunal material was predominately food waste.

Conclusions and Research Potential

C.2.5 The species found at Shire Hall are typical of the animals that would be represented in the food economy and husbandry practices on medieval sites in the area. While the assemblage is somewhat fragmentary, a small amount of biometric data could be collected to add more detail and the bird remains could be identified to species with the help of a reference collection or specialist. The assemblage overall is small and fragmentation is high in some contexts, therefore the potential for further investigation is somewhat limited unless further remains are recovered.

Context	Species	Element	# of fragments
59	cattle	Scapula	1
59	pig	Humerus	1
64	large mammal	Rib	1
68	cattle	Mandible	1
69	large mammal	Rib	1
69	medium mammal	Rib	4
69	cattle	Loose maxillary tooth	1
69	bird	Humerus	1
74	medium mammal	Tibia	1
89	large mammal	Radius	1
95	sheep/goat	Tibia	1
100	cattle	Pelvis	1
100	sheep/goat	ulna	1
100	medium mammal	unidentifiable long bone	2
122	bird	unidentifiable long bone	1
122	sheep	Horncore	1
122	sheep	Horncore	2
122	large mammal	cervical vertebra	1
124	horse	loose mandibular tooth	1
124	medium mammal	unidentifiable long bone	2
124	medium mammal	Rib	1
124	large mammal	Rib	1
125	sheep/goat	Tibia	1

Context	Species	Element	# of fragments
125	medium mammal	thoracic vertebra	1
125	cattle	Pelvis	1
125	cattle	Mandible	1
125	pig	Radius	1
125	sheep/goat	Metapodial	1
125	large mammal	Rib	6
125	medium mammal	Rib	6
125	large mammal	Scapula	3
125	pig	Mandible	1
125	pig	Mandible	1
125	pig	loose mandibular tooth	1
125	large mammal	unidentifiable long bone	2
125	medium mammal	unidentifiable long bone	1
129	large mammal	Scapula	2

Table 9: Total number of identifiable fragments by species.

Species	NISP
Cattle	6
Sheep/goat	4
Sheep	3
Horse	1
Pig	4
Bird	2
Medium mammal	18
Large mammal	18
Total:	**56**

Table 10: Summary of NISP totals

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APPENDIX E OASIS REPORT FORM

Project Details

OASIS Number	Oxfordar3-292273
Project Name	Shire Hall Car park, Bury St Edmunds

Start of Fieldwork	20-06-2017	End of Fieldwork	24-07-2017
Previous Work	yes	Future Work	no

Project Reference Codes

Site Code	XSFBUS16	Planning App. No.	SE/12/0450/FUL
HER Number	BSE 375	Related Numbers	n/a

Prompt	Scheduled Monument Consent
Development Type	Urban Residential
Place in Planning Process	After full determination (eg. As a condition)

Techniques used (tick all that apply)

☐	Aerial Photography – interpretation	☐	Grab-sampling	☐	Remote Operated Vehicle Survey
☐	Aerial Photography - new	☐	Gravity-core	☐	Sample Trenches
☐	Annotated Sketch	☐	Laser Scanning	☐	Survey/Recording of Fabric/Structure
☐	Augering	☒	Measured Survey	☐	Targeted Trenches
☐	Dendrochonological Survey	☒	Metal Detectors	☐	Test Pits
☒	Documentary Search	☐	Phosphate Survey	☐	Topographic Survey
☒	Environmental Sampling	☐	Photogrammetric Survey	☐	Vibro-core
☐	Fieldwalking	☒	Photographic Survey	☐	Visual Inspection (Initial Site Visit)
☐	Geophysical Survey	☐	Rectified Photography		

Monument	Period	Object	Period
ditches	Medieval (1066 to 1540)	Pottery, CBM	Medieval (1066 to 1540)
ponds	Medieval (1066 to 1540)	Metalwork debris	Medieval (1066 to 1540)
	Choose an item.	Animal bone	Medieval (1066 to 1540)

Insert more lines as appropriate.

Project Location

County	Suffolk
District	Edmundsbury
Parish	Bury St Edmunds
HER office	Suffolk
Size of Study Area	182 Sq m
National Grid Ref	TL 8588 6396

Address (including Postcode)

Raingate Street,
Bury St Edmunds,
Suffolk
IP33 2AR

Project Originators

Organisation	OA East
Project Brief Originator	Abby Antrobus
Project Design Originator	James Drummond-Murray
Project Manager	James Drummond Murray
Project Supervisor	Nicholas Cox and Steve Graham

Project Archives

Location	ID

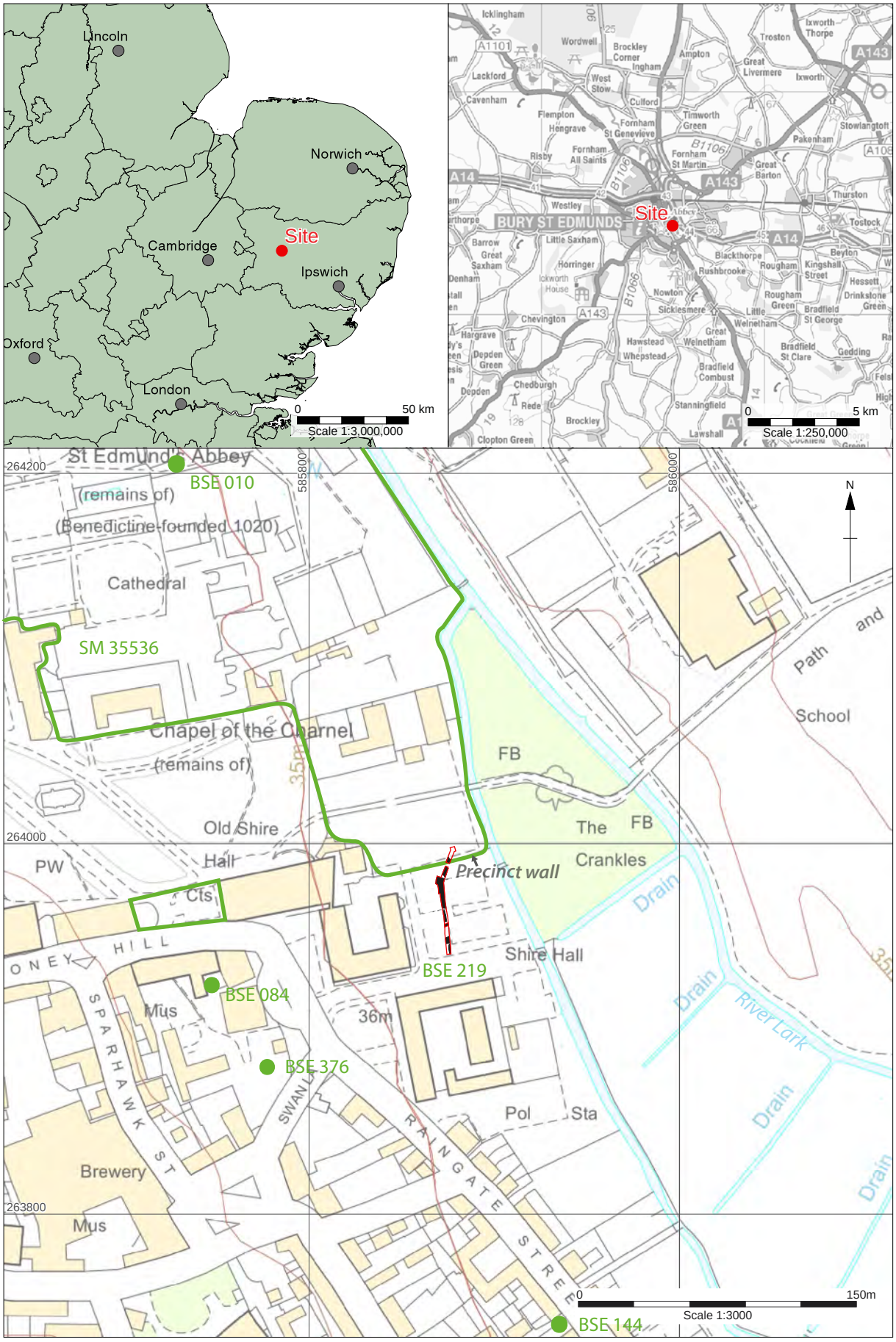

Figure 1: Location of pipeline trench in relation to the Abbey precinct (SM35536) and nearby SHER entries

Figure 2: Extract from Thomas Warren's 1748 map (revised 1776) showing approximate location of the pipeline trench (red)

Figure 3: Plan of the pipeline trench showing location of sections

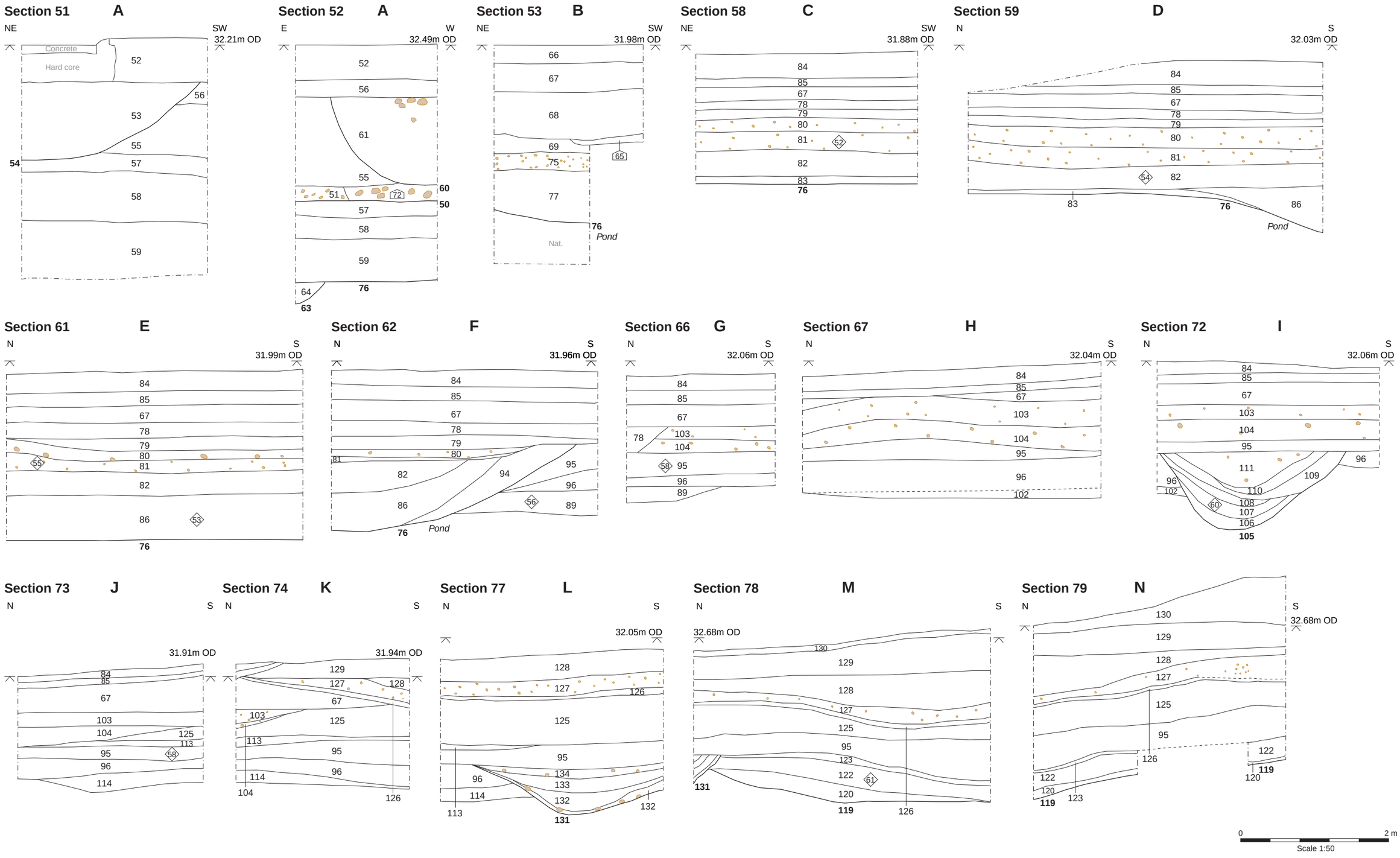

Figure 4: Trench sections

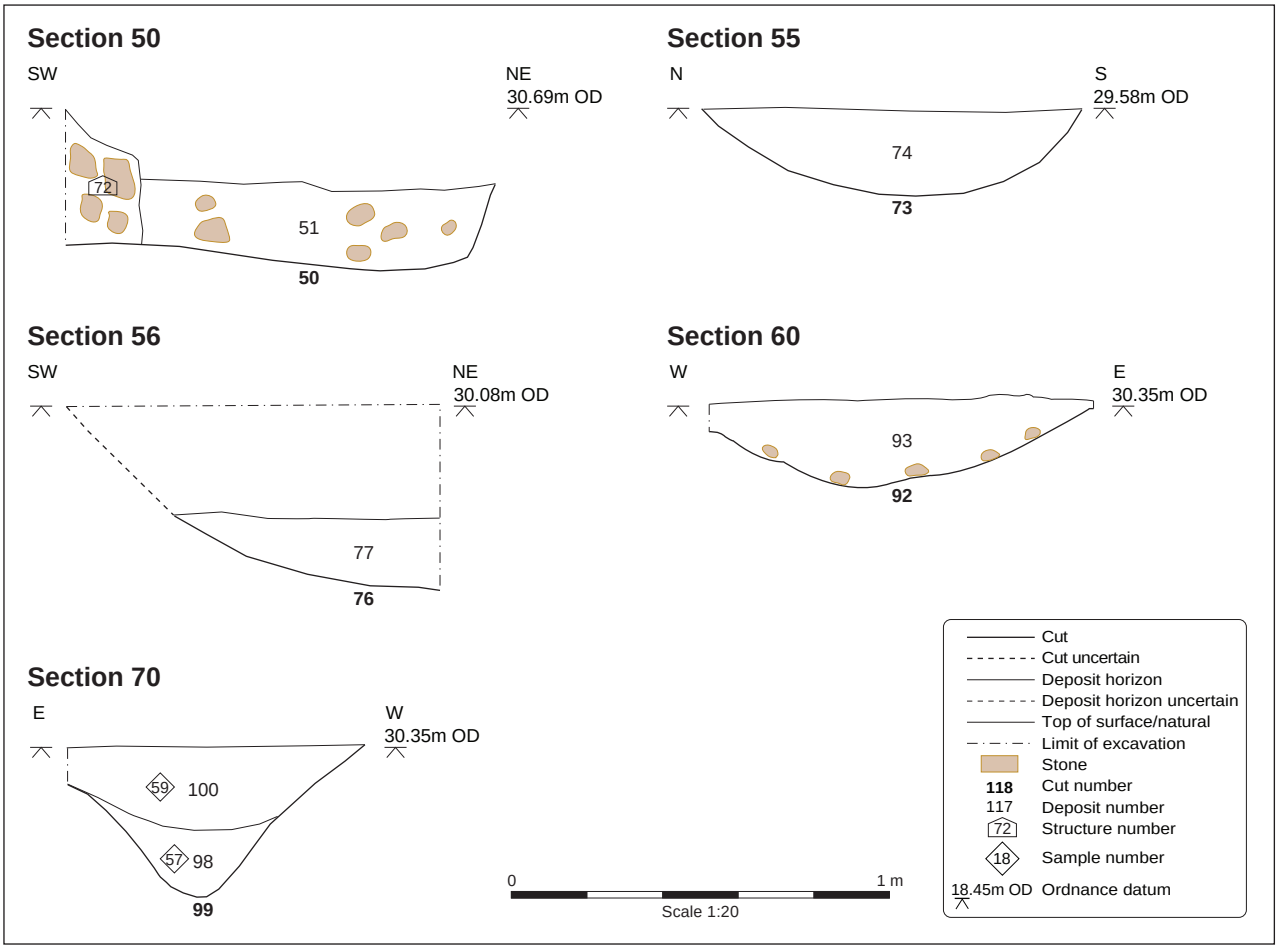

Figure 5: Feature sections

Plate 1: Southern end of trench showing pit **119**, from the south-east

Plate 2: Ditch **105**, with line of clunch/chalk visible on north side of cut, from the west

Plate 3: Ditch **131** cutting through layers 113, 114 and sealed by layer 95, from the south

Plate 4: Eastern edge of pond **76** cutting into peat silt layer (89), from the west

Plate 5: Tunnel through silt clay fills (77 and 82) of pond **76** under precinct wall, from the south

Plate 6: Wall foundation cut **50**, mortar fill 51 and ditch/trench **60** from the north

Plate 7: Gravel surface 80 overlying pond fill 82, from the south-east

Plate 8: Ditch/pit **99** cutting into gravel surface 103, from the south

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Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: oanorth@oxfordarchaeology.com
w: http://oxfordarchaeology.com

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: oaeast@oxfordarchaeology.com
w: http://oxfordarchaeology.com