Lower Brook Street, Ipswich

Archaeological Evaluation Report

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Lower Brook Street Ipswich

Archaeological Evaluation Report

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Summary

Between the 25th of September and the 6th of October 2017, Oxford Archaeology East carried out Phase 2 of an archaeological evaluation at Lower Brook Street, Ipswich, Suffolk. The first phase was conducted in May 2016 and comprised two trenches excavated within the car park at the southern end of the site of what was then the East Anglian Daily Press.

The second phase of evaluation and the subject of this report comprised a further five trenches (numbered 3 to 7).

Trench 3 at the southern end of the site was located close to an area where an ornamental pond was thought to exist in the 18th century. Stratigraphy suggests that trench 3 was located close to this feature.

Trench 4 was located on an area recently occupied by the 1960s print works building. Trench 4 found evidence for massive stanchion blocks that were closely spaced and penetrated into the natural gravels more than 3m BGL. These had caused widespread truncation and had disturbed archaeological deposits to such an extent little useful data could be retrieved.

Trench 5 revealed a possible former water course that was probably open in the mid Saxon through medieval periods. A silver coin of Athelstan and a lead plaque inscribed with runes was found in its fills. Overlying the extinct brook were layers or dumps of soil, possibly associated with a 17th to 18th century orchard and gardens. In the 19th century the area was built on by brick houses, the foundations of which survive.

Trench 6 revealed a Late Saxon feature, possibly a sunken featured building with posts and remnants of possible wooden planks and evidence for good survival of organic materials. Evidence for later layers/dumps of soil were found overlying it although later evidence had been removed by a 19th or 20th century brick cellar.

Trench 7 revealed a complex stratigraphy beginning with early medieval intercutting pits and a buried soil over which was a sequence of soil layers/dumps likely to date to the 17th/18th century. These were built on by a probable malt house in the late 17th century and the walls, yards and floors associated with it survive.

Acknowledgements

Oxford Archaeology would like to thank CgMs Consulting for commissioning this project on behalf of Church Manor Estates. Thanks are also extended to Abby Antrobus (Suffolk County Council Archaeological Service) who monitored the work on behalf of Ipswich Borough Planning Authority and provided advice and guidance.

The project was managed for Oxford Archaeology by Aileen Connor. The fieldwork was directed by James Fairbairn, who was supported by Steve Graham, Lindsey Kemp and Thomas Lucking. Survey and digitizing were carried out by Malgorzata Kwiatkowska and Sarita Louzolo. 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 management of Katherine Hamilton.

1 INTRODUCTION

1.1 Scope of work

1.1.1 Oxford Archaeology (OA) was commissioned by CgMs Consulting to undertake a trial trench evaluation at Lower Brook Street, Ipswich Suffolk.

1.1.2 The work was undertaken in accordance with a Written Scheme of Investigation prepared by OA East, on behalf of the client and approved by the Suffolk County Council Archaeological Service on behalf of the Local Authority Planning Department.

1.1.3 The work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, in accordance with the guidelines set out in *National Planning Policy Framework* (Department of Communities and Local Government March 2012). The results will enable decisions to be made by SCCAS on behalf of the Local Planning Authority with regard to the treatment of archaeological remains found.

1.2 Location, topography and geology

1.2.1 The site is approximately 0.69 hectare in area and is the former location of a print works, associated car parking and outbuildings. The site is bordered by light industrial units to the west, a public car park to the southwest, residential properties to the north, offices to the east, and St Peter's church to the southwest. The River Orwell is located 149m to the south. The site slopes gently from north to south. The route of a former brook may run through the site from North to south on its east side, and mapping shows that a large pond was in existence close to the southern boundary of the site.

1.2.2 Previous development on the site includes buried tanks, services, buildings, cellars and car parks.

1.2.3 The geology of the area is mapped as River Terrace Deposits (sand and gravel) overlying Newhaven Chalk Formation. (British Geological Survey online map viewer http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html).

1.3 Archaeological and historical background

1.3.1 The Archaeological and Historical background for the site was set out in the Desk Based Assessment (Gailey 2015?) and the WSI (Connor 2016).

Neolithic, Bronze Age and Iron Age

1.3.2 The site is located on river terrace deposits close to the alluvial floodplain which would have been favoured for prehistoric occupation. A Neolithic polished axe was found during road widening works approximately 175m north-east of the study site (IPS061 TM16554438). No Bronze Age or Iron Age sites or finds have been recorded on the HER within a 250m radius of the study site.

Roman

1.3.3 No evidence of in-situ Roman settlement has been recorded in the immediate vicinity of the study site, although Roman pottery was found during investigations at Albion's Wharf approximately 175m south-west of the study site (IPS054 TM16614406) and a Roman artefact scatter including a bronze vessel was found in a garden at Wolsey's College approximately 100m south of the study site (IPS055 TM16454405).

Anglo-Saxon/Early Medieval

1.3.4 The site lay within the historic core of the Middle to Late Saxon town of Ipswich. As Lower Brook Street bound the study site to the east during this period evidence of settlement activity is more likely to be anticipated in the eastern part of the site along the street frontage, with evidence of back-land activity to the rear or western part of the site. This would tie in with the discovery of a well in the north-west of the study site. By the Medieval period the site may have lain within the grounds of the Priory of St Peter and St Paul.

1.3.5 The settlement of Ipswich was founded in the late 6th or early 7th century AD on the north bank of the River Orwell. By the middle to late Saxon period the town had developed as a substantial trading and craft production settlement or emporia and covered approximately 50ha. The Saxon town lies within an 'Area of Archaeological Importance' and a number of localised areas have been designated as Scheduled Monuments. These include Scheduled Monuments immediately to the south-east, and south-west and east of the study site, all fronting onto Star Lane and associated with the Middle and Late Saxon town (IPS213 TM16534414 IPS214 TM16434417).

1.3.6 The study site lay within the core of the town approximately 75m north-east of St Peters Church which is thought to have been the site of an early minster. It is possible that the main street system of the Anglo-Saxon town has largely survived and mapping shows an early alignment of Lower Brook Street bounding the site to the east and the brook, from which the street later got its name, crossing the eastern part of the site in a north-south alignment, leading to the river.

1.3.7 During construction of the existing buildings in the north-west of the site in the 1960s, a wood lined well '3 foot square' was found. It was recorded to a 'depth of 11 feet with sherds of Thetford ware, 2 boar's tusks and a horn core' (Owles and Smedley 1965 IPS579 TM16404425). The HER records further Saxon evidence at the same location but the details are unknown (IPS364 TM164442).

1.3.8 An archaeological evaluation undertaken at the former Cardinal Works to the south-west of the study site identified evidence of Saxon occupation (IPS455 TM16424410).

1.3.9 An archaeological monitoring of an extension immediately to the north of the study site uncovered a scatter of residual Saxon pottery (IPS657 TM16454427).

1.3.10 The Augustinian Priory of St Peter and St Paul was established in the 12th century and incorporated St Peter's Church. Archaeological evaluation at Cardinal Works approximately 20m south-west of the study site recorded structural features and burials associated with the Augustinian Priory of St Peter and St Paul (IPS455 TM16424410). It is possible that the Priory may have extended northwards into the study site.

1.3.11 The Medieval town of Ipswich has been defined as an Area of Archaeological Importance in the Local Plan (IPS419). By the Medieval period the urban core was centred on Foundation Street/Smart Street to the east of the study site (IPS212 TM16554422).

1.3.12 The HER records numerous other evidence for Medieval settlement.

Post-Medieval and Modern

1.3.13 During the early Post-Medieval period, the study site lay within the grounds of The Cardinal's College of St Mary constructed in 1528. The College was built on the site of the

former priory of St Peter and St Paul. Following Wolsey's death, the unfinished buildings were demolished and building materials sent to London for use in Whitehall Palace. It was subsequently subject to Post Medieval and later phases of redevelopment.

1.3.14 Fieldwork to the east of St Peter's Church at the former Cardinal Works Site recorded walls and robbed out wall lines thought to relate to the College (IPS455 TM16424410).

1.3.15 Map regression has been carried out for the DBA (Gailey, CgMs Consulting)

1.3.16 Speed's map of 1610 (Fig 5) shows built development occupied the eastern and western boundaries of the study site along the street frontages of Turret Lane and Lower Brook Street. The remainder of the site appeared to comprise backlands and gardens.

1.3.17 Ogilby's map of 1674 (Fig 6) confirms the built-up street frontage onto Lower Brook Street, but of note that the southern boundary did not front onto Star Lane. The buildings in the north-west of the study site may be Malthouses (as shown on later historic maps). Vayshead Orchard occupied the north of the site. A pond was located to the south-west of the study site.

1.3.18 By the late 18th century, Penningtons map of 1778 (Fig 7), the orchard still occupied the north of the site, whilst the pond formed part of a landscaped garden which lay to the south-west of the site boundary possibly associated with 30/32 Lower Brook Street which had been constructed by this date on the site. The Malthouses in the north-west of the site had expanded and additional development constructed in the north of the site, to the north of the orchard.

1.3.19 By the mid-19th century, White's Map 1867 (Fig 8), the orchard and the buildings to the north had been cleared and replaced with terraced housing fronting onto Lower Brook Street with gardens to the rear. To the south, further buildings, possibly commercial or industrial, fronted onto Lower Brook Street whilst the Malthouses in the north-west of the site had been extended eastwards.

1.3.20 The late 19th century (1884) (Fig 9) Ordnance Survey map shows the site in more detail. Malthouses occupied the north-west of the site accessed via Turret Lane, which at this date did not directly bound the site to the west. Terraced houses occupied the northern part of the site whilst further buildings fronted Lower Brook Street.

1.3.21 By the early 20th century there was little change to the study site. Between 1902 (Fig 10) and 1950 (Fig 11) Turret Lane had been widened and subsequently abutted the site to the west. The Malthouses in the north-west of the site and the housing in the north of the site had been demolished and replaced by a substantial Furniture Factory.

1.3.22 Between 1950 and 1966 (Fig 12) all the former buildings on the site had been demolished apart from 30 and 32 Lower Brook Street and the building in the south-eastern corner of the study site fronting Lower Brook Street. The north of the site comprised a Press Works building.

1.3.23 By the 1980s (Fig 13) the building fronting Lower Brook Street was demolished and Star Lane/Foundation Street was expanded to bound the site to the south and south-east. A car park occupied the south of the site. There has been no subsequent change to the study site.

1.3.24 A newspaper article dated January 5th 2016 shows a picture dated during the First World war in which the premises were owned by Tibbenhams. The company were founded in 1904 and manufactured high class furniture, but during the first World War built wooden wings and propellers for the Air Flying Core. The photograph is taken from Turret Lane, north west of the site, and shows a fine timbered building that was demolished in 1966, to make way for the present structure (Courtesy of Jim Edwards also ref on line see Appendix D). The

former timber building was possibly of 17th century date, buildings were shown on the 1610 Speed map (Fig 5) and the 1674 Ogilby Map (Fig 6), although was thought to be the one shown on the Ogilby Map. This range of buildings appeared on all maps leading up to 1950 OS Map (Fig 11).

2 EVALUATION 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. To determine the state of preservation of any remains encountered

2.2 Methodology

2.2.1 Machine excavation was carried out under constant archaeological supervision with a 360º tracked excavator using an assortment of toothless ditching buckets, the surface tarmac and concrete layers were broken out with a breaker.

2.2.2 The site survey was carried out using a Leica GPS fitted with smartnet technology.

2.2.3 Spoil, exposed surfaces and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.2.4 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales and colour and monochrome photographs were taken of all relevant features and deposits

2.2.5 A Sony Alpha 5000 camera with a fixed 20mm lens, mounted on a telescopic pole was used for the photogrammetric survey. Geo-rectification targets were located sing a Leica GS08. *Agisoft Photoscan Pro* was used to process the photographs and output scaled ortho-photos of each trench.

2.2.6 Bulk and spot samples were taken from appropriate deposits and fills to test for the potential of environmental and economic indicators on the site.

2.2.7 The site was under concrete and was generally level although there was a slight rise from east to west and from south to north. In two areas (on the west and east sides of the site) the ground level was approximately 0.5m higher where former (1960s print works) buildings were constructed on raised concrete platforms. Areas of excavation were pre-determined by the WSI. Low grade asbestos was encountered at the top of trenches 3, 4 and 6. This was removed by contactors trained in asbestos recognition and removal. The lower reaches of trenches 3, 5, 6 and 7 were subject to water inundation.

2.2.8 All trenches were excavated to reveal the full depth of archaeological deposits and revealed natural sand/gravel. Trenches were between 2m and 4.5m deep and were stepped to allow safe access to investigate basal deposits.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the evaluation are presented below, and include a stratigraphic description of the trenches that contained archaeological remains. The full details of all trenches with dimensions and depths of all deposits can be found in Appendix A. Finds data and spot dates are tabulated in Appendix B.

3.1.2 Context numbers reflect the trench numbers unless otherwise stated e.g. pit 102 is a feature within Trench 1, while ditch 304 is a feature within Trench 3. Trench numbering continued from the Phase 1 evaluation, therefore trenches 3-7 only are described here.

3.2 General soils and ground conditions

3.2.1 The soils toward the top of the sequence were mixed and truncated by modern buildings. These contained asbestos and were removed by a qualified contractor. The lower soils were also mixed. This was possibly to truncation or by the importation of soils, possibly to provide conditions suitable to agriculture and gardening, although it is documented that after work stopped on Wolsey's college the area became a general dumping ground for all of the town's refuse. The water table was reached at approximately 2m below the modern ground level.

3.2.2 Ground conditions throughout the evaluation were generally good, and the trenches remained dry down to a depth of 2m where water inundation occurred. Archaeological features, where present, were at times difficult to identify against the underlying natural geology again mostly due to water inundation.

3.3 General distribution of archaeological deposits

3.3.1 Archaeological features were present in all trenches except Trench 4 where truncation by modern Stanchions had removed evidence for archaeological activity, although some evidence for the presence of large dumps of soil was noted. Truncation by services and modern foundations was recorded across the site but was particularly heavy in Trenches 4 and 6. Nineteenth century buildings had been demolished on parts of the site to ground level in the areas of trenches 3, 5, and 7 these had been sealed under the modern slabs of the more recent phases of construction. Most of the later archaeology recorded can be related to post-medieval buildings depicted on the historic mapping (Figs 3-12). Below these features in trenches 5 and 7 features and contexts of medieval date were present and in Trench 6 of late Saxon date. In Trench 3, dumps of later medieval and post-medieval soil similar to those observed in Trenches 1 and 2 (Phase 1) were present overlying a large former water filled feature – possibly the edge of the pond noted on historic mapping or postulated brook. A large former water filled feature was also observed in Trench 5 and may be the site of the postulated brook.

3.4 Trench 3

3.4.1 This trench (Figs 14 and 15) was located towards the southern boundary of the development area in an area recently utilised as a car park. This Trench had an approximately north to south orientation and measured 7.54m x 5.99m at the top of the trench (4.10m OD). Natural undisturbed geology was reached at a depth of 3.50m to 4.00m (0.10m to 0.60m OD).

3.4.2 The base of the trench consisted of eight fills belonging to a feature **312** overlaid by soil buried beneath demolition/construction debris. The trench was situated within the centre

of the feature and the sides or profile of the feature were not present within the trench section, as a result the width of the feature could not be measured with any accuracy, its fully excavated depth was 1.80m. The trench was situated within the vicinity of a pond noted on Ogilby's map of 1675 and Pennington's map of 1778 and there is a strong probability that the feature recorded within this trench represents the edge of this sub-circular pond, landscaping associated with it, or possibly a filled in stream that may have fed the pond (see also Trench 5).

3.4.3 The basal fill of this feature (314) was a dark green brown silt sand 0.26m thick containing small amounts of animal bone. This was overlaid by a light grey silt sand (315) sloping downwards from the south. Above this was a 0.38m thick mid greenish grey silt clay (302) containing in addition to charcoal flecks and oyster shells, bone and pottery with a date range from the 10th to 11th centuries. Overlying this was a dark grey brown clay silt (313) 0.40m thick. This was overlain by a mid red grey silt sand (303) 0.38m thick slightly slumping down from the south. Above this fill was a mid grey brown silt sand (304) sloping downwards from the south. Overlying this was a band of light grey brown sand silt (305) 0.12m thick and again slumping in from the south containing pottery from the 16th to 17th centuries. Above this was a dark grey clay silt (306) 0.40m thick sharply slopping down from the south. Probably the final fill of this feature (307) was a dark red brown clay sand 0.06m thick sloping downwards from the south.

3.4.4 Directly above 307 was a light greyish brown clay silt (308) containing a line of small stones at its base 0.36m thick. This was overlain by a mid grey brown clay silt (309) 0.45m thick. Above this was a dark grey brown clay silt buried soil layer (310) containing modern CBM and ceramic fragments 0.14m thick. Slumping into this from the south was a dump of light yellow sand (311) 0.40m thick. Directly above these were the 19th century masonry levels.

3.4.5 The masonry remains in trench three consisted of several brick walls: 317 on an east to west orientation, 318 on a north to south orientation and 319 on an east to west orientation. These three walls formed three "rooms", tow on the west side of the trench and one on the east. The easternmost room was further subdivided by a series of brick walls on the same alignment (320) that formed two small rooms or chambers. A building is depicted at this location on White's map (1867) and each subsequent map largely unchanged until the OS 1966 map when it is not shown and is assumed to have been demolished. The demolition layer (301) overlying the building is likely to comprise material directly related to it. Finally, there was a concrete cap (300) forming the surface of a car park.

3.5 Trench 4

3.5.1 Located in the south-eastern quadrant of the development area along the eastern boundary of the site. This Trench (Figs 16 and 17) with a broad east to west orientation measured 7.15m x 10.40m, the top of the trench was at approximately 4.50m OD and the base at between 2.50m and 3.00m below ground level. This trench revealed an area of heavy truncation caused by the presence of two closely spaced and very deeply set concrete stanchions, these could not be removed without causing damage, it was, therefore, only possible to observe one undisturbed section (the west section) in this trench.

3.5.2 At the base of the trench were a series of five dark organic layers that may be fills of a former water filled feature **413** (observed more clearly in Trench 5 to the north). Heavy truncation hampered observation of its overall dimensions although the overall depth of the feature as observed was 0.85m.

3.5.3 The basal fill (400) was a light grey brown silt sand 0.18m thick and containing no finds. This was overlaid by a dark red brown sand silt (401) 0.52m thick containing a sherd of pottery with a date range from the 10th to 13th centuries. Above this was a light grey clay silt (402) 0.22m thick. Slumping into this from the south was a narrow band of dark orange brown sand (403) 0.04m thick. The final fill of the feature being a mid grey brown clay silt (404) 0.60m thick possibly representing a dump.

3.5.4 These fills were sealed over by horizontal layers of soil and rubble/mortar. The first of these (405) was a light grey clay silt 0.30m thick with a sherd of pottery spot dated from the 12th to 14th centuries. Above this was a mid grey sand silt (406) 0.28m thick and producing a sherd of Thetford ware, presumably residual. This was overlain by a light brown sand clay (407) 0.26m thick. Overlying this was a dark grey brown sand silt (408) 0.20m thick. Above this was a narrow band 0.12m thick of dark grey brown sand silt (409). This was overlain by a mid grey brown sand silt (410) 0.10m thick. None of these layers produced finds.

3.5.5 Cutting through layers 406, 407, 408, 409 and 410 were modern brick wall foundations running across the trench from north to south and east to west. These were 0.70m thick and 0.70m deep (at approximately 3.00m OD) consisting of modern machine made red brick and concrete mortar (414) of probable 19th/20th century date. On the 1950 OS map Trench 4 is located on the site of No. 28 Lower Brook Street, this house appears to have occupied the site since at least 1867. Directly atop these was a wall (411) consisting of three courses of machine manufactured modern frogged red brick and concrete mortar 0.50m thick (3.67m at its base) and possibly associated with the furniture factory that preceded the print works. The final layer was a 0.30m thick cap of concrete (412) sealing over everything beneath it.

3.6 Trench 5

3.6.1 Located in the north-eastern quadrant of the development area along the eastern boundary of the site. This Trench (Fig. 19) with a broad east to west orientation measured 9.65m x 7.80m with the top of the trench at approximately 4.03m OD, natural undisturbed geology was reached at between 2.00m and 3.00m below the top of the trench. The trench was moved slightly to the north of its planned location to avoid the raised concrete base associated with the print works which Trench 4 had revealed as having associated stanchions that had severely truncated the whole area.

3.6.2 The trench was machine excavated down in steps until the natural sands and gravels were reached, whereby almost immediately surface water began to ingress rapidly at the base of the trench. At the eastern side of the trench a series of thin interleaving layers of mottled dark orange and brown silts and sands were revealed (523). It is likely that these were naturally laid, possibly the result of running water. No finds were recovered from them. To the west of these bands was a possible cut (**507**), whilst the section drawing (Fig.18) shows this as steep and regular, in reality the interface between the natural deposits and the “cut” was much more irregular and diffuse. 0.04m thick each sharply sloping down from west to east. This feature appeared linear, but, as with its shape in profile, conditions did not allow a high level of confidence. (Fig. 18, Plates 9, 10, 11).

3.6.3 The base of this feature was reached in a small sondage at approximately 1.17m OD. Its basal fill (522) was a dark grey silt sand 0.18m thick, very fine and soft containing virtually no coarse components. This was overlaid by a thin band 0.05m thick of mid orange sand (521). This was overlain by a mixed layer of sands and silts (520) suggesting probable displacement through water activity 0.16m thick. Above this was a dark green grey clay silt (519), very compact, containing a possible organic (cess?) component 0.26m thick with bone, late

medieval to post-medieval CBM and a very mixed assemblage of pottery with a date range from AD650 to the 17th century within it. This was overlain by a narrow band of dark grey green clay silt (518) 0.06m thick again possibly indicating an episode of organic waste dumping into the feature. Above this was a dark grey green silt (517) sand, 0.16m thick with a strong organic component (possibly dumped organic material that included cess). This was overlain by a layer of green grey gritty sand (509) 0.18m thick. Above this was a thick layer of mid grey brown clay silt (506) 0.76m thick. This fill contained 12 sherds (877g) of mixed pottery with a date range from AD850 to the 16th century. The earlier fills of this feature were almost certainly water-lain, probably by running water such as a stream (Fran Green *pers.com*). As well as sherds of Anglo-Saxon pottery mixed in with later material, some significant metal finds were recovered from this feature including a lead plaque with a runic inscription of 8th to 11th century date and a 9th century silver penny.

3.6.4 The feature was sealed over by a horizontal band of mid grey brown sand silt (510) 0.22m thick most probably a buried garden soil. Above this was a layer of dark grey brown clay silt (511) with a thickness ranging from 0.10m to 0.40m.

3.6.5 After this layer there was a deviation in the sequence within the trench. On the eastern facing profile, layer 511 was cut into by a robber trench, (**512**) concave and steep sided, which was 1.24m wide and 0.44m deep. It contained a single fill (513) of redeposited mid yellow brown sand suggesting that the original brickwork had been robbed out.

3.6.6 Overlying robber trench **512** and layer 511 was a layer of light red brown clay silt (514) 0.28m thick. This was overlain by a dark red brown clay silt (515) 0.20m thick. This was sealed over by a layer of mortar and sand (508) 0.40m thick atop of which were in situ brick walls, probably the foundation walls for the 19th century furniture factory.

3.6.7 By contrast in the north facing profile, layer 511 was overlain by a band of dark brown yellow sand (525) 0.30m thick. Above this was a dark reddish brown clay silt (516) which was 0.40m thick containing fragments of brick, CBM and mortar. This was overlaid by a light reddish brown silt sand (524) again containing traces of brick, CBM and mortar fragments which was 0.30m thick. Sitting atop of this was the base of two phases of wall structure.

3.6.8 Sitting atop of layer 524 was a possible layer of unworked clunch nodules (Plates 7, 8) probably used as the foundation for wall **503**, on a north to south alignment (Plates 7, 8). This wall consisted of two courses of unfrogged red brick laid in soft white mortar. This was truncated by a modern east to west running drain. Abutting 503, and perpendicular to it was wall 504/505. The lower five courses of this wall (505) were of the same construction as 503, above which were two courses (504) of unfrogged red bricks each 0.18m long, 0.06m high and 0.12m wide laid in a bright yellow sand mortar.

3.6.9 Running parallel to this wall along the entire length of the southern side of the trench on an east to west alignment were two courses of red unfrogged bricks (502). These bricks were each 0.20m long, 0.07m high and 0.19m wide.

3.6.10 Historic maps show buildings as early as 1867 at the location of Trench 5. On the 1867 map, Trench 5 sits over the back half of a property (probably a house) that is set back from Lower Brook Street, a garden sits behind (to the west). This is the end (most southerly) house in what appears to be a terrace was located of five, another building adjoins it to the south but appears too large to be domestic and may be part of one of the malt houses. By 1884 the mapped evidence shows that there has been considerable change at this location, earlier buildings have been replaced or modified and open areas infilled and by 1950 the site has been completely built over by the furniture factory.

3.6.11 Demolition rubble (501) probably derived from the demolished furniture factory overlaid the walls and was in turn capped over by concrete slab (500) associated with the print works.

3.7 Trench 6

3.7.1 Trench 6 (Fig. 19) was located in the north-western corner of the development area along the western boundary of the site. This Trench with a broad east to west orientation measured 9.50m x 11.75m and was 4.58m OD at ground level. Natural undisturbed geology was reached at between 2.50m and 3.00m below the top of the trench, at which point the water table was reached and the base of the trench began to fill up with surface water almost immediately. This location was occupied by the north end of a large, long building shown as a malt house on the 1884 Ordnance Survey map, the building appears unchanged on the 1902 OS map but appears to have been demolished and replaced by an east to west orientated rectangular building on the 1927 OS map. The 1950 OS map shows this building to have been incorporated into a much larger building labelled as Furniture Factory, building for the print works appears not to have directly impacted on this corner of the site.

3.7.2 Cutting into the natural sands and gravels at the base of the trench was pit **606**. This feature (Fig 19.; Plates 2 and 14) was sub-rectangular in plan with a width of 1.40m and a length of 2.10m. This concave feature was steep sided with an elongated U-shaped profile and was 0.28m deep. The feature was initially divided into six segments, three of which were then individually excavated, an attempt was made to fully excavate the feature after recording but rapid ingress of water causing instability to the trench and this was abandoned prior to completing.

3.7.3 The primary fill (608) was a dark red brown silt sand between 0.05m and 0.15m thick and containing animal bone and a sherd of late Saxon pottery. This was overlain by a thin 0.02m narrow band of dark grey sand silt (607) containing a sherd of pottery dated from the 10th to 11th centuries and also three copper alloy small finds (SF14, SF22, SF23) all medieval dress accessories. The fill also contained a very high concentration of degraded organic material suggesting a possible wooden lining. The upper and final fill 605 was a dark grey sand silt between 0.15m to 0.20m thick containing animal bone and pot (15 sherds, 174g) all dated from 850 to the 11th century. A fragment of vitrified hearth lining was also recovered from this layer alongside pottery that appeared to have been burnt. Preservation of insects and seeds by waterlogging was particularly notable in 605 although some was also evident in 608.

3.7.4 The remains of horizontally laid wooden planks were also present, lying across the top of layer 605. On the eastern side of the feature were the remains of three stakes on a broad north to south alignment beyond the extent of the planking layer. Two of the stakes were degraded to the point where they were little more than impressions left in the natural sands, the stake on the south-east corner of the feature however had sufficiently survived to be retrieved (Plate 13). Broadly opposite this stake on the south-western corner of the feature was the remnant of another stake. The stake had not survived enough to enable retrieval but its width (0.20m) and position was recorded. The relationship of the stakes with the earlier fills was difficult to determine, they may have been driven through the fills but it is possible that the fills had accumulated around the stakes

3.7.5 Cutting through **606** on its south-western corner was pit **610**. This steep sided sub-circular pit was 0.96m wide and 0.09m deep with a U shaped concave profile and consisted of two fills (611 and 612). The primary fill 611 was a grey brown silt sand 0.07m thick. Above this

was a dark red brown sandy silt (612) which was 0.14m thick and produced fragments of cattle bone.

3.7.6 Both of these features were overlaid by a 0.08m thick layer of dark grey clay silt (604) containing a cattle metacarpal. This was overlain by a dark grey silt clay (603) which was 0.10m thick, from which was retrieved 26 of pottery with a date range from AD650 to the 11th century, also a lead brooch (AD900 to 1100) and a weight. Animal bones showed evidence for butchery and include cattle horncores, other environmental samples have less potential, showing only limited evidence for waterlogging or charring. Overlying this was a dark grey green sand silt (615) which was 0.40m thick. Above this was a dark grey clay silt (614) 0.18m thick and this in turn was overlaid by a mid grey clay silt (613) which was 0.30m thick and produced a farthing of James 1 (AD613-25).

3.7.7 Sitting atop of this at approximately 2.10m OD was a layer of sandy mortar forming the base for a brick laid cellar floor. The cellar may have been associated with a former malt house, although the bricks were almost certainly 19th century or later. Evidence for later (20th century) brick work was also observed and this is perhaps more likely to be the remains of a later building as shown on the 1927 OS map. Above this brickwork were layers of soil and rubble mix (602), demolition rubble (601) containing two residual sherds of pottery from the 10th to 11th centuries. and sealed over by a concrete flooring (600).

3.8 Trench 7

3.8.1 Trench 7 (Fig. 21) was situated in the western part of the evaluation area. This area had seen construction from at least the 17th century and historic mapping suggests that part of these buildings were associated with the malting industry (3.8.12). The modern concrete slab in this area concealed foundations and walls thought to be associated with a malt house. These in turn sealed over earlier pits cutting into the natural sands and gravels. The trench measured 8.76m x 8.6m and ground level was at 4.62m OD. It was excavated to a depth of 2.80m.

3.8.2 Cutting into the natural sands and gravels was a sub circular pit **751** emerging from under the western side of the trench. This concave steep sided feature with a U-shaped profile was 1.20m long with a visible width of 1.10m. The pit contained two fills, the primary fill 752 was a light red brown silt sand 0.14m thick. This was overlain by a mid grey brown sand silt 750 which was 0.16m thick, from this fill was retrieved two sherds of pottery (174g) with a date range from the 10th to 14th centuries. This feature was truncated on two sides, to the north by pit **753** and to the south by a narrow ditch **755**.

3.8.3 Pit **753** was sub-circular in plan emerging from under the north and western sides of the trench. This steep sided concave pit with its broad U-shaped profile was 0.80m wide to the sides of the trench and 0.22m deep. The pit contained a single fill (754) of dark grey brown silt sand. This feature was overlain by layer 758.

3.8.4 The base of layer 758 was at approximately 1.5m OD, it was a mid grey brown clay silt 0.30m thick from which a 10th or 11th century copper alloy brooch (SF24) was recovered along with fragments of animal bone. The layer sealed pits 7**51** and **753** but it was in turn truncated by ditch **755**.

3.8.5 Ditch **755** was a narrow ditch emerging from under the south and west sides of the trench in a north to south alignment seemingly terminating and truncating at pit **751**. This linear feature was concave with a U-shaped profile, steep sides, a width of 0.30m and was

0.40m deep. Its single fill (757) was a dark brown grey sand silt containing small amounts of oyster shell and charcoal. This feature was overlaid by layer 756.

3.8.6 Layer 756 was a thin band (0.06m thick) of sand silt. This was overlain by layer 759, this was a bright red brown sand clay 0.12m thick

3.8.7 Overlying 759 was a dark brown grey clay silt (760) which was 0.42m thick, containing two sherds of pottery, one with a date range from the 12th to 14th century, whilst the other much larger sherd was probably a 17th century platter. This was overlain by a dark grey clay silt (761) which was 0.20m thick and contained 30% small stones and chalk throughout. Above this was a mid grey sand silt (762) containing fragments of mortar and crushed CBM throughout which was 0.14m thick. Directly above this was a layer of light grey clay silt (763) which was 0.22m thick.

3.8.8 Above these layers was a mixture of mid yellow mortar material (764) with evidence for burning and ash which was 0.12m thick forming the base for masonry structure 748. From this two fragments of architectural stone were recovered, possibly of 16th century date (V. Rowlinson pers.com) and more likely from a grand secular building than an ecclesiastical structure (Plates 27, 28).

3.8.9 Sitting atop of this at approximately 3.30m OD was a layer of large cobbles (748) with compacted sand between the individual cobble stones (Plates 20, 21, 22). This layer extended north to south for 5m with a width of 1.50m. There was no datable material within the surface itself, but It post-dates layer 760 from which 17th century pottery was recovered. The most probable interpretation of this layer being a track or roadway. This surface was overlaid by a layer of dark grey ash and silt which was 0.70m thick (749). This was overlain by the foundations for brick wall 708.

3.8.10 Cutting into the side of the cobbled surface on the northern edge was a possible building foundation stone (765) 0.30m wide and 0.40m high.

3.8.11 Located in the north-eastern corner of the trench area was a small square of brick flooring (764) consisting of a single layer of small unfrogged dark red bricks. This floor area was 0.80m wide and 0.08m deep. These bricks overlaid a layer of dark grey sand silt (733) which was 0.15m thick. This layer overlaid a light grey brown sand silt (732) 0.22m thick. This was above a dark grey sand silt (731) 0.38m thick. No finds were retrieved from any of these fills.

3.8.12 Situated above the cobbled surface, the floor surface 717 and cutting through wall 716 was wall 708 possibly relating to the malt house building that was known to exist on the site in the 17th and later centuries (Figs 7, 8 and 9). This wall consisted of nine courses of unfrogged red bricks, each 0.20m long. This structure with its north to south alignment was 0.40m in height and ran parallel to the eastern side of the trench for 4.59m before being truncated by a 20th century drain pipe (709). The wall (now labelled as 711) continued on the opposite side of the drain trench in the same north to south alignment for 0.46m before going under the northern side of the trench.

3.8.13 Two small walls representing internal divisions from the eastern external wall 708 projected westwards towards the eastern edge of the trench. Wall 743 was a small single line of bricks running for 0.70m from wall 708 to the trench side. Directly to the north was another single line of bricks 739 also running for 1.25m from wall 708 to the eastern trench side. These two walls represented a small internal enclosure within the building. Between these two walls were a series of fills, the earliest of which was a mid grey brown silt sand (744) 0.44m thick. This was overlain by a narrows band of yellow sand (745) which was 0.08m thick. Overlying this was a grey brown silt sand (746) 0.10m thick, whilst above this was a narrow band of yellow sand (747). That these walls cut into the fills was evidenced by the construction cut **738** directly adjacent to wall 739 cutting through layers 744, 745, 746 and 747. The cut was vertical and sharp into which wall 739 was laid and the trench backfilled with mid grey brown silt sand (740).

3.8.14 Cutting into these layers on the side of wall 708, was a posthole **741**. This was a steep sided concave feature with a U-shaped profile which was 0.36m in width and 0.46m deep. Its single fill (742) was a dark grey silt sand.

19th century (Plate 16)

3.8.15 Located in the south-eastern corner of the trench was another floor 717 consisting of a single layer of dark red unfrogged bricks. Sitting atop this floor at the eastern side of the trench was masonry structure 708. Above the brick floor was a layer of light yellow clay sand (727) containing post-medieval CBM, bone, slag and clay pipe which was 0.16m thick. This was overlaid by a narrow 0.06m thick band of sand and mortar (728). Above this was a band of mid yellow mortar and sand (736) which was 0.20m thick. Overlying this was a dark yellow silt sand (729) 0.28m thick containing six fragments of post-medieval CBM.

3.8.16 These layers were truncated by a robber trench **726**, probably cut to access the brickwork of wall 708. This steep sided concave trench was 0.34m wide and 0.50m deep, containing a single fill (725) of light grey brown sand silt. This was then overlain by layer 730 and wall 707.

3.8.17 Located directly to the north-west atop of floor surface 717 was a layer of light grey mortar (735) which was 0.30m thick. Overlying this to the east was a dark brown grey silt (727) containing crushed mortar (0.26m). Above this was a single floor layer of dark red unfrogged bricks (719) each of which were 0.30m x 0.10m. Sitting atop this floor was a dark brown grey silt sand (729) containing CBM and occasional charcoal 0.38m thick. This was overlain by a light yellow redeposited sand (734) 0.16m thick slumping downwards from the south.

3.8.18 Sitting atop of layer 734 was a small wall (716) consisting of two courses of red unfrogged brick. Each brick was 0.40m x 0.10m. The wall was on an east to west alignment running east for 2.39m before terminating at wall 708. Overlying this was a band of mid yellow mortar (720) which was 0.20m thick.

3.8.19 Running alongside and parallel to the northern side of the trench in an east to west orientation was wall 714. This consisted of a single course of red bricks which was overlaid by a layer of concrete 712.

3.8.20 This wall terminated at another masonry structure 713, a wall foundation sitting on a bed of concrete which emerged from the northern side of the trench and then ran in a north to south alignment for 3.95m before being truncated by the 20th century footing 703.

3.8.21 Located in the north–west corner of the trench was a surface (721) comprising of a mixture of sand and ash with a very frequent amount of small rounded stones, possibly cobbles, extending down to 0.25m. This surface was cut into by a pit (722) 0.91m wide and

0,31m deep. The pit was steep sided, concave with a U shaped profile and contained a single fill. This fill 723 was a dark grey sand silt with a high concentration of ash.

3.8.22 The pit was overlain by a layer of grey brown sand silt 724 containing brick and tile fragments with charcoal flecks. Sitting atop of this layer was a possible floor surface 715.

20th Century

3.8.23 Located in the north-west corner of the trench was a possible floor surface 715. This surface 0.20m thick comprised of a mixture of concrete with stone and brick inclusions.

3.8.24 Directly next to the surface and cutting across the site in an east to west orientation across the earlier Victorian brickwork was a concrete drainpipe (710=709).

3.8.25 Located in the south-eastern corner of the site was a masonry structure containing a grooved highly fired glazed surface (704) identified as the remains of a factory urinal.

3.8.26 Directly next to the urinal was wall 705 emerging from the south side of the trench in a north to south orientation for 2.1m before being truncated by modern footing 703. The surviving wall consisting of two courses of machine manufactured red brick sitting atop a bed of concrete containing brick and CBM inclusions.

3.8.27 Directly to the east were the remains of another concrete bedding for a wall (706) which ran towards the north for 2m before being truncated by footing 703.

3.8.28 Situated in the south-eastern corner of the trench was wall 707. This structure emerged from the eastern side of the trench and ran for 4.3m parallel to the southern side of the trench before sharply turning north in a 45 degree angle for further 3.45m. The surviving wall remains consisted of two courses of machined red brick sitting atop a bed of concrete containing brick and CBM inclusion. This in turn was laid over a band of light grey brown silt sand and mortar (730) which was 0.08m thick.

3.8.29 Finally, there was the large modern concrete reinforced footing 703) cutting across walls 705 and 713. This massive concrete structure was 3.2m long and its observable depth was 1.1m, representing the last stage of activity revealed by the trench.

3.8.30 The masonry was overlain with demolition rubble 701 which in turn was sealed over by the concrete surface of the carpark (700)

3.9 Finds summary

3.9.1 Full finds details and quantification appear in Appendix B of this report but are broadly summarized below.

3.9.2 One hundred and two sherds (3639g) of pottery were collected from 16 contexts in test pits 3–7.

3.9.3 Twenty-one fragments (13,279g) of CBM were recovered from six contexts.

3.9.4 A total of 29 metal artefacts was recovered from archaeological features on site, while SF 18, 19, 25, 30 and 33 were unstratified top-soil recoveries.

3.9.5 A total of 0.102kg of stone was recovered from a layer in Test Pit 7.

3.9.6 A total of 0.066kg of fine micaceous oil shale was recovered from a layer in Test Pit 7.

3.9.7 A small assemblage of glass, 15 shards, 0.217kg, was recovered from unstratified deposits (99999) in Test Pit 7.

3.9.8 Six fragments of white ball clay tobacco pipe, weighing 0.028kg, were recovered from Test Pit 7.

3.9.9 The animal bone recovered represents faunal remains weighing 5.7 kg in total, 20g of which is from samples. There were 55 fragments recorded from hand collection and 174 from

environmental samples. Bone was hand collected from trenches 3, 5, 6 and 7. The assemblage was heavily dominated by cattle remains followed by pig remains

3.9.10 A total of 5 wood samples were collected, all from Trench 6, consisting of one item classed as round wood, and four classed as timber. No artefacts or smaller pieces of primary woodworking debris, such as woodchips, were recovered. The material all came from a sub oval feature, possible SFB and Saxon in date, within Trench 6 cut number **606**.

3.9.11 A total of 28 environmental bulk samples were taken from deposits within the site, and show that there is a high potential for recovering remains preserved by both waterlogging and charring. The potential for waterlogged insect remains and seeds id particularly good in Trenches 6 and 7.

3.9.12 A total of 0.179kg of mollusc shells were collected by hand during the evaluation. The shells recovered are all edible examples of oyster *Ostrea edulis*, from estuarine and shallow coastal waters.

4 DISCUSSION

4.1 Reliability of field investigation

4.1.1 Reliability of the evaluation results were compromised in the upper levels by truncation by the foundations of the modern buildings on the site, this was particularly evident in the area of Trench 4 where the large concrete Stanchions had been sunk to a depth of 3m, leaving only a small area available for observation on the eastern side of the trench.

4.1.2 Asbestos was found in layers associated with the modern structures and its presence and necessary non-archaeological removal hindered the investigation in Trenches 3, 4, 5 and 6. Here the demolition material from the buildings that had existed until the mid-20th century had been levelled and used as a sub-base for the 1960s print works, this material contained extensive asbestos. The removal of this material to access Trench 6 entailed excavation to 2m, the majority of this material had been used to backfill a disused cellar and the combination of factors had removed all archaeological evidence to a depth of 2m BGL. In Trenches 3 and 5 building foundations were recorded before asbestos removal took place.

4.1.3 The lower levels of all trenches suffered from flooding. A pump was used to mitigate excess water and the lower levels were recorded as much as possible.

4.2 Evaluation objectives and results

4.2.1 The project aims and objectives were as follows:

iv. To determine or confirm the general nature of any remains present.

v. To determine or confirm the approximate date or date range of any remains, by means of artefactual or other evidence.

vi. To determine the state of preservation of any remains encountered

4.2.2 The evaluation at Lower Brook Street has determined that there are archaeological remains present in all trench areas and that they range in date from the Middle Saxon (residual in Trench 5), Late Saxon (Trenches 3, 4 (possibly residual), 6 and 7), the medieval period (Trenches 4 and 7), later medieval (Trench 5), the 16th-17th centuries (Trenches 3 and 7) and 19th century brick building foundations (Trenches 3, 5, 6 and 7).

4.2.3 The remains are in good condition and earliest remains have been preserved by the presence of a mixed soil layer over one metre thick that has protected the lower layers from all except the heaviest of the modern truncations (e.g as demonstrated in Trench 4). It seems that all truncation is modern in date although 18th and 19th century buildings with cellars are known to have existed on the site and in Trench 6 the cellar had been backfilled with asbestos contaminated materials. These however do not seem to have impacted on the earliest phases of occupation which on average are to be found at greater than 2m below modern ground level.

Trench 3 (Figs 2 and 14)

4.2.4 Trench 3 was situated close to an area that was once a formal garden radiating away from a central pond. The earliest cartographic evidence for this pond can be seen on the Pennington map of 1778 (Fig. 7) where it can be seen that the whole of the western extent of the site is given over to parkland and formal gardens. This is not however the first indication of a pond in the area. Ogilby's map of 1674 (Fig. 6) shows a pond in the same spot almost a century before. It is likely that the pond originated at an even earlier date and may have belonged to the priory of St Peter and St Paul which existed close to the site.

4.2.5 It is likely that the pond remained open into the 18th century and this may account for the presence of post-medieval metalwork alongside sherds of late Saxon pottery.

4.2.6 It is likely that the site was only built on in the 19th century and the wall foundations found in this trench would seem to agree with the map evidence and likely relate to the building on the OS map of 1867 (Fig. 8).

Trench 4 (Figs 2 and 15)

4.2.7 Trench 4 was located in an area of very heavy truncation and contaminated soil. Only the west facing section could be seen and recorded. Here early maps show the trench located in an area of formal gardens or orchards (Figs 6 and 7). The suspected route of a water course (Fig. 3) may be corroborated by the presence of very silty, grey lower deposits. These contained three sherds of pottery dating to the late Saxon and medieval periods.

4.2.8 Again as with Trench 3, 19th and 20th century building foundations were noted below the modern concrete slab. These traversed the trench on an east to west orientation and most probably relate to the structures seen on the OS map of 1884 (Fig. 9).

Trench 5 (Figs 2 and 16)

4.2.9 Trench 5 was located in the proximity of a suspected water course (Fig. 3), by 1610, Speed shows a water course running down the centre of Lower Brook Street (to the east) but this was certainly culverted and had probably been deliberately moved to this location. The presence of a linear feature containing water lain deposits at the base of the Trench is supporting evidence.

4.2.10 Water borne deposits and finds at the base of the trench and the deposits immediately above the water course suggest a Saxon or medieval date with post-medieval and modern deposits sealing the earlier ones. Significant finds of a Saxon date include a silver coin of Athelstan, a Saxon “cog” Brooch and a crude lead plaque with runic inscriptions. (Appendix B3 and plates 24-26).

4.2.11 This water course, a tributary of the River Orwell would have been in existence from the earliest times and would have played an important part in the life of Saxon and medieval Ipswich not only as a rubbish dump and water course leading to the river, it could also have formed a natural eastern boundary to the Priory of St Peter and St Paul.

4.2.12 Although Speed’s map of 1610 indicates a possible channel running down the middle of Brook street it is not unsafe to assume that the course of the brook would have been altered or canalised to suit the occupation at the time.

4.2.13 At some point before the end of the 17th century the brook seems to have disappeared from the maps. By this time, it could have been reduced to a drain running under the street and built over.

4.2.14 As with the other trenches on the eastern side of the site brick foundations were recorded just below the modern concrete slab. In the case of those seen in Trench 5 they probably relate to the 19th century buildings that were incorporated into the early 20th century furniture factory and finally demolished to make way for the 1960s print works.

Trench 6 (Figs 2 and 17)

4.2.15 Trench 6 was located in the north-west corner of the site and within the confines of a former furniture factory and earlier malt house. This trench provided evidence for the survival of late Saxon settlement activity in the form of the base of a pit or sunken featured building.

4.2.16 A small sub circular pit (606), thought to be a small sunken featured building with at least one worked post and possible planking (Appendix C4) was noted at the base of the trench (2.4m). Although small 2.10m x 1.40m, the butchery waste associated with domestic

food species found within the fills of the feature coupled fish bones, and vitrified hearth lining could indicate either domestic or industrial use (Appendix C2).

4.2.17 Finds associated with the sunken featured building date it to the late Saxon period and samples produced evidence for waterlogged seeds and insects indicating good potential for survival of other organic remains. Fish bones were also well represented indicating the potential for analysis of a wide range of economic and environmental indicators. Layers and deposits above this feature were difficult to date. No pottery was recovered from any of the overlying soil layers, and no faunal remains were recovered although their characteristics suggest they may have developed as "garden" soils. Much of the upper sequence has been removed by a 19th century cellar and subsequent building works however.

4.2.18 19th century building foundations were recorded to the west, south and east sides of the trench. It is known that a malt house existed here until the early 20th Century. Map evidence suggests this was demolished (at least partially) in the early 20the century and a smaller rectangular building erected which was then incorporated into a large furniture factory that eventually became the print works.

Trench 7 (Figs 2 and 18)

4.2.19 Despite its stratigraphic complexity Trench 7 produced very few finds, only four sherds of pottery and a brooch to give an indication of date. Two pottery sherds (Late Saxon and medieval) came from one of the earliest pits (**751**) with a residual Late Saxon sherd alongside a 17th century piece from an overlying layer (760), a brooch of probable 10th or 11th century date was also found in a layer (758) the brooch is unlikely to have been lost soon after it was made so is not a good indicator of the date of the deposit, however, it is worth noting that this layer was cut by a small pit that contained animal and fish bone indicating a level of settlement activity continuing into the medieval period. Non-datable finds were more abundant, animal and fish bones in particular from samples were moderately abundant and can be interpreted as evidence for settlement related activity in the late Saxon to early medieval periods.

4.2.20 Overlying the medieval settlement features in this trench was an approximately one metre thick accumulation of soil. The earliest of theses layers (760) produced the central part of a base from a large tin-glazed earthenware platter, similar designs from Norwich are dated as 17th century and it is inferred therefore that this soil was accumulating no earlier than the 17th century. Subsequent layers provided no dating or other settlement evidence perhaps implying that the area was not occupied at this time or that by the 17th century people were not disposing of their rubbish in their gardens. Ogilby's map of 1674 shows the site was built on by a long T-shaped building, possibly a Malthouse but there are orchards to the north, west and east which may have extended across the site before the malt house was built.

4.2.21 The 17th century and later stratigraphy revealed by Trench 7 is complex, comprising walls, yard surfaces and demolition layers from several phases of building, and by reference to the map evidence likely to be associated with the building and alterations associated with malt houses. The maltings industry was a mainstay of Ipswich during the 18th and 19th centuries and maps show that the buildings to the west of the site were also malt houses in the 19th century (Fig. 9). The configuration of these buildings as seen on the 19th century maps had altered little since the 18th century (Fig 7) and it is possible that these buildings may have been constructed for the maltings industry or at least have been constructed on the same ground plan as the earlier buildings.

4.2.22 Two pieces of architectural stone were recovered from the deliberate back fill (763) below a yard surface (748). These are unlikely to be ecclesiastical in origin (Vicky Roulinson pers comm) but would have come from a large grand house that may have stood on or close to the site. Speculatively they may have derived from the college founded (but never completed) by Cardinal Wolsey in 1528.

4.2.23 Evidence is also present of later 19th and 20th century buildings in the area of trench 7. Several large modern walls truncated the 18th and 19th century archaeology. Although not all of these related to the modern print works that recently occupied the site they too were preserved just below the modern concrete slab.

4.3 Interpretation

4.3.1 The archaeological evaluation at Lower Brook Street has identified differential archaeology and preservation on the site.

4.3.2 The eastern side of the site has been subject to the greatest modern truncation and as a result only the north-east and south-east extremities of the site are relatively intact. The archaeological deposits on this side of the site appear to comprise a sequence that begins with a water-course on a north-south orientation that may have been subject to some modification and certainly accumulated rubbish from the mid-Saxon period into the medieval period. The water-course may have been moved deliberately or perhaps because it had become fouled. The date of the diversion is not known but certainly by the early 17th century as it is shown running down Lower Brook Street on Speed's map of 1610. The latest fills of the brook include finds of medieval or early post-medieval date so it must be assumed that by that time the brook was no longer viable as a working water way. The accumulated soil layers above the infilled brook provided no dating or other evidence for habitation. It is possible that the ground was "improved" either with imported soil or vegetable matter to provide compost for the orchard that is shown here on the 1674 map and the gardens on the 1778 map. By 1867 the eastern side of the site is shown as sub-divided for houses and gardens. Walls associated with these or the slightly later configuration shown on the 1884 map survive on the sit in the north-east corner.

4.3.3 On the western side of the site the stratigraphy is more complex and the modern truncation less dramatic. The north-west corner of the site (Trench 6) is the only area where in situ Late Saxon features have been identified, although features at the base of Trench 7 may only be a little later. Both trenches indicate that there is a complex stratigraphic sequence surviving on the west side of the site that has the potential to provide well preserved economic and environmental evidence for the late Saxon through medieval periods. In both cases an accumulation of soil is present that indicates a change in use for the site here from densely occupied pit digging and settlement related activities to activities that would have accumulated soil (such as manuring, cultivation, middening). In both cases there is little evidence for material remains (organic or non-organic) and the only dating evidence for this accumulation seems to suggest a 17th century date. Speed's 1610 map suggests that houses fronted Turret Lane in the early 17th century with open ground behind them. This accumulation of soil may therefore be associated with the food growing activities of the householders, and a change in the disposal of rubbish from the medieval practice of throwing it into local pits to that of removing rubbish to communal dumps in carts. Householders only keeping the waste that would rot down and provide nutrients for the soil.

4.3.4 Maps are very useful for establishing the sequence of development on this area of the site from 1674 (Ogilby) onwards. Ogilby shows a number of large (including one very large) buildings that must be industrial. Only on the 1st Edition OS are similar buildings at this location noted as malt houses but it is very likely that they started out as malt houses as well. There are subtle changes to the structures on each of the successive maps and Trench 7 identified that the foundations for these buildings including associated floors and yards are likely to survive relatively intact in those areas that have not been truncated by the subsequent furniture factory and print works. It appears that much of the area along the extreme west side of the site is relatively untouched by the later buildings and as such there is good potential to understand the sequence of development of the malt house here.

4.3.5 The north-west end of the malt house is unlikely to survive as it appears to have been demolished and replaced with a cellared building in the early 20th century as established by Trench 6.

APPENDIX A CONTEXT REPORTS

Trench 3						
General description					Orientation	N-S
Trench contains potential pond feature cutting into natural soils of sand and gravels. This was in turn overlaid by foundations of modern brickwork, construction/demolition debris and concrete.					Length (m)	7.50
					Width (m)	5.60
					Avg. depth (m)	3.50
Context No.	Type	Width (m)	Depth (m)	Description	Pottery date	SF Date
300	Layer	-	0.10	Concrete	-	-
301	Layer	-	0.50	Debris/Rubble	-	-
302	Fill	-	0.38	Fill Of Pond 312	-10th-11th century	-pmed
303	Fill	-	0.32	Fill Of Pond 312	-	-
304	Fill	-	0.16	Fill Of Pond 312	-	-
305	Fill	-	0.12	Fill Of Pond 312	-16th-17th century	-
306	Fill	--	0.38	Fill Of Pond 312	-	-
307	Fill	-	0.06	Fill Of Pond 312	-	-
308	Layer	-	0.36	Buried Soils	-	-
309	Layer	-	0.44	Buried Soils	-	-
310	Layer	-	0.14	Buried Soils	-	-
311	Fill	-	0.40		-	-
312	Cut	--	1.70	Cut of Pond	--	--
313	Fill	--	0.40	Fill Of Pond 312	--	--
314	Fill	-	0.26	Fill Of Pond 312	-	-
315	Fill	-	0.20	Fill of Pond 312	-	-

Trench 4						
General description					Orientation	E-W
Trench contains organic silt fills possibly part of brook overlaid by buried soils, foundation of modern brickwork, construction/demolition debris and concrete.					Length (m)	10.40
					Width (m)	7.15
					Avg. depth (m)	2.80
Context No.	Type	Width (m)	Depth (m)	Description	Pottery date	SF date
400	Layer	-	Layer	Possible fill of Brook	-	-
401	Layer	-	0.52	Possible fill of Brook	-10th-13th century	-
402	Layer	-	0.22	Possible fill of Brook	-	-
403	Layer	-	0.03	Possible fill of Brook	-	-
404	Layer	-	0.57	Possible fill of Brook	-	-
405	Layer	-	0.30	Buried Soil	-12th-15th century	-
406	Layer	-	0.28	Buried Soil	-10th-11th century	-
407	Layer	-	0.26	Buried Soil	-	-
408	Layer	-	0.20	Buried Soil	-	-
409	Layer	-	0.10	Buried Soil	-	-
410	Layer	-	0.10	Buried Soil	-	-
411	Layer	-	0.50	Modern Brickwork	-	-
412	Layer	-	-	Concrete	-	-
413	Cut ?	-	0.85m	Cut-possible -Brook?	-	-

Trench 5						
General description					Orientation	E-W
Trench contains organic silt fills possibly part of brook overlaid by buried soils, foundation of modern brickwork, construction/demolition debris and concrete.					Length (m)	9.50
					Width (m)	8
					Avg. depth (m)	4.50
Context No.	Type	Width (m)	Depth (m)	Description	Pottery date	SF date
500	Layer	-	0.15	Concrete	-	-
501	Layer	-	0.15	Construction/demolition l	-	-
502	Structure	-	-	Masonry	-	-
503	Structure	-	-	Masonry	-	-
504	Structure	-	-	Masonry	-	-
505	Structure	-	-	Masonry	-	-
506	Fill	-	0.76	Fill of Brook 507	-15th-16th century	pmed
507	Cut	-	1.90	Cut? Brook	-	
508	Fill	-	0.40	Upper mortar fill	-	-
509	Fill	-	0.18	Fill of Brook 507	-	-
510	Layer	-	0.22	Buried soil	-	-
511	Layer	-	0.42	Buried soil	-	-
512	Layer	1.24	0.44	Foundation cut for wall	-	-
513	Fill	-	0.44	Fill of 512	-	-
514	Layer	-	0.28	redeposited soil	-	-
515	Layer	-	0.20	redeposited soil	-	-
516	Layer	-	0.40	Base layer for wall	-	-
517	Fill	-	0.16	Fill of Brook 507	-	-
518	Fill	-	0.06	Fill of Brook 507	-	-
519	Fill	-	0.26	Fill of Brook 507	-15th-16th century	-lmed
520	Fill	-	0.16	Fill of Brook 507	-	-
521	Fill	-	0.04	Fill of Brook 507	-	-
522	Fill	-	0.18	Fill of Brook 507	-	-
523	Layer	-	0.52	Tip lines by brook	-	-
524	Fill	-	0.30	Upper mortar fill	-	-
525	Fill	-	0.30	Mortar fill	-	-

Trench 6						
General description					Orientation	E-W
Trench contains pit [606] cutting into natural sands and gravels This is in turn truncated by pit [610].These are overlaid by buried soils, foundation of modern brickwork, construction/demolition debris and concrete.					Length (m)	11.75
					Width (m)	8.50
					Avg. depth (m)	2.00
Context No.	Type	Width (m)	Depth (m)	Description	Pottery date	SF date
600	Layer	-	0.15	Concrete		-
601	Layer	-	0.15	Construction/demolition	-10th-11th century	-
602	Layer	-	-	Soil and rubble mix	-	-
603	Layer	-	0.10	Buried soil	-10th-11th century	-900-1100
604	Layer	-	0.08	Buried soil	-	-

605	Fill	-	0.30	Fill of pit 606	-10th-11th century	med/pmed
606	Cut	1.40	0.28	Pit Cut (?SFB)	-10th-11th century	-
607	Fill	-	0.06	Fill of pit 606	-10th-11th century	med
608	Fill	-	0.30	Fill of pit 606	-	-
609	fill	-	0.06	Fill of pit 606 wood layer	-	-
610	cut	1.40	0.20	Pit Cut	-	-
611	Fill	-	0.07	Fill of Pit 610	-	-
612	Fill	-	0.14	Fill of pit 610	-	-
613	Layer	-	0.30	Buried soil	-	-
614	Layer	-	0.18	Buried soil	-	-
615	Layer	-	0.40	Buried soil	-	-
616	Layer	-	0.30	Mortar and modern brickwork	-	-
617	Fill	-	0.04	Degraded wood-planking ?		

Trench 7						
General description					Orientation	E-W
Trench contains archaeological features cutting into the natural sands and gravels. These are overlain by a mid grey sand silt containing fragments of mortar and crushed CBM.					Length (m)	8.76m
					Width (m)	8.6m
					Avg. depth (m)	2.8
Context No.	Type	Width (m)	Depth (m)	Description	Pottery/CBM date	SF date
700	Layer	-	-	Concrete	-	-
701	Layer	-	-	Demolition Layer	-	-
702	Structure	-	-	Concrete Footing	-	-
703	Structure	-	-	Wall footing	--	--
704	Structure	-	-	Urinal	-	-
705	Structure	-	-	Wall	-	-
706	Structure	-	-	Wall	-	-
707	Structure	-	-	Wall	-	-
708	Structure	-	-	Wall	pmed	-
709	Structure	-	-	Drain	-	-
710	Structure	-	-	Drain	-	-
711	Structure	0.46	-	Wall	-	-
712	Layer	-	-	Concrete	-	-
713	Masonry	3.95	-	Wall	--	-
714	Masonry	-	-	Wall	-	-
715	Surface	-	0.20	Floor	-	-
716	Masonry	2.39	-	Wall	-	-
717	Surface	-	-	Floor	Pmed	-
718	Surface			Floor	-	-
719	Masonry			Base for Wall	-	-
720	Layer	-	0.20	Mortar Layer	-	-
721	Surface		0.25		-	-
722	Cut	0.91	0.31	Pit	-	-
723	Fill	-	0.31	Fill of 722	-	-
724	Layer	-	-	Backfill layer	-	-
725	Fill	-	0.50	Fill of 726	-	-
726	Cut	0.34	0.50	Robber Ditch	-	-

727	Layer		0.16	Backfill Layer	Pmed	-
728	Layer		0.06	Backfill layer	-	-
729	Layer		0.28	Backfill layer	Pmed	-
730	Layer			Backfill Layer	-	-
731	Layer	-	0.38	Buried Soil	-	-
732	Layer	-	0.22	Buried Soil	-	-
733	Layer	-	0.15	Buried Soil	-	-
734	Layer	-	0.16	Backfill Layer	-	-
735	Layer	-	0.30	Backfill Layer	-	-
736	Layer	-	0.20	Backfill layer	-	-
737	Layer			Mortar layer	-	-
738	Cut	--	-	Construction Cut	-	-
739	Masonry	1.25	-	wall	-	-
740	Fill			Fill of 738	-	-
741	Cut	0.36	0.46	Post-Hole	-	-
742	Fill	-	0.46	Fill of 741	-	-
743	Structure	0.70	-	Wall	-	-
744	Layer	-	0.44	Buried Soil	-	-
745	Layer	-	0.08	Buried Soil	-	-
746	Layer	-	0.10	Buried Soil	-	-
747	Layer	-	-	Lens of sand	-	-
748	Layer	1.50	-	Cobbled Surface	-	-
749	Layer	-	0.70	Buried Soil	-	-
750	Fill	-	0.16	Fill of 751	12^{th}-14^{th} century	-
751	Cut	1.10	0.30	Pit	-	-
752	Fill	-	0.14	Fill of 751	-	-
753	Cut	0.80	0.22	Pit		
754	Fill	-	0.22	Fill of 753		
755	Cut	0.30	0.40	Ditch/Gulley	-	-
756	Layer	-	0.06	Layer of Oyster shells	-	-
757	Fill	-	0.40	Fill of 755	-	--
758	Layer	-	0.30	Buried soil	pmed	10^{th}-11^{th} century
759	Layer	-	0.12	Buried soil	-	-
760	Layer	-	0.42	Buried soil	-16^{th}-18^{th} century	-
761	Layer	-	0.20	Buried soil	-	-
762	Layer	-	0.14	Soil/dumped material	-	-
763	Layer	-	0.22	Soil/dumped material	-	-
764	Layer	-	0.12	Base of wall (748)	-	-
765	Masonry	0.30	0.40	Foundation Stone	-	-
766	layer	-	-	Modern Concrete	-	-
767	Layer	-	-	Base for 766	-	-
768	Layer	-	-	Concrete layer	-	-
769	Layer	-	--	Overburden	-	-

APPENDIX B FINDS REPORTS

B.1 Pottery

By Sue Anderson

Introduction

B.1.1 One hundred and two sherds (3639g) of pottery were collected from 16 contexts in test pits 3–7. Table 1 shows the quantification by fabric and period. A summary by context is included in Appendix 1A.

Description	Fabric	Date range	No	Wt/g	Eve	MNV
Gritty Ipswich ware	GIPS	650-850	2	46	0.07	2
Sandy Ipswich ware	SIPS	650-850	2	49		2
Thetford-type ware	THET	10th-11th c.	53	1396	0.81	51
St. Neots-type ware	STNE	850-1150	3	68	0.05	3
Saxo-Norman wares (general)	SXNO	850-1150	3	72		3
Pingsdorf Ware	PING	10th-13th c.	1	9		1
Medieval coarseware	MCW	L.12th-14th c.	2	26		2
Unprovenanced glazed	UPG	L.12th-14th c.	1	155		1
Late East Anglian redwares	LEAR	L.14th–16th c.	14	1141	0.38	2
Dutch-type redwares	DUTR	15th-17th c.	5	201	0.30	1
Border Wares	BORD	16th-18th c.	3	82	0.27	1
Cologne/Frechen Stoneware	GSW4	16th-17th c.	1	27		1
Tin glazed earthenwares	TGE	16th-18th c.	1	137		1
English Stoneware	ESW	17th-19th c.	2	110		2
Porcelain	PORC	18th-20th c.	3	17	0.31	2
Staffordshire white salt-glazed stonewares	SWSW	18th c.	1	2		1
Refined white earthenwares	REFW	L.18th-20th c.	5	101	0.20	5
Totals			*102*	*3639*	*2.39*	*81*

Table 1- Pottery Quantification

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. Thetford-type ware fabrics are based on Dallas (1984), and forms on Anderson (2004). Form terminology for medieval pottery is based on MPRG (1998). Redwares were identified based on Jennings' Norwich work (Jennings 1981) and Cotter's work in Essex (Cotter 2000). The results were input directly onto an Access database, which forms the archive catalogue.

The assemblage

Middle Saxon (M.7th–M.9th c.)

B.1.3 The earliest pottery is Middle Saxon Ipswich ware, but only four sherds were recovered despite this site being at the centre of the contemporary settlement. All sherds were residual in later contexts. One gritty rim fragment was recovered, a type E (West 1963), from a relatively large jar with a rim diameter of 240mm. It was found in fill (519) of

brook [507], which also produced another sherd of gritty fabric. The other sherds were a base fragment from (603) and an unstratified body sherd, both in the 'smooth' fabric.

Late Saxon (L.9th–11th c.)

B.1.4 Thetford-type wares were the most frequent find, with 53 sherds representing 51 vessels. Also of Late Saxon date were a few fragments of St Neots-type ware and some unprovenanced Saxo-Norman sherds.

B.1.5 Thetford-type wares were recovered from all five test-pits. Rim fragments of six jars were recovered, of which one was a small 'AA' jar, one was a large 'AC' jar and the rest were medium 'AB' jars. Rim forms were all later types (4, 5/6 and 7?), suggesting that much of this assemblage was of later 10th or 11th-century date. A few body sherds had applied thumbed strips and one short wide strap handle was found, suggesting that larger jars and storage vessels were also present in the assemblage. Most body and base fragments were sooted and two contained limescale deposits internally.

B.1.6 St Neots-type ware was also more frequent in East Anglian towns, particularly this far east, in the 11th century. This group comprised a base fragment, a body sherd, and a piece of inturned rim from a bowl. All were found in Test Pit 6.

B.1.7 Saxo-Norman sherds comprised a body sherd in a fabric containing abundant fine sand in (603), a white/pale grey medium sandy body sherd also in (603), and a flat base fragment in a fine/medium sandy fabric with mica and ferrous inclusions in potential brook fill (506).

Medieval (11th–14th c.)

B.1.8 Only two medieval coarseware sherds were identified, a body sherd in layer (760) and a base fragment in brook fill (405). Both were medium sandy types with slightly pimply surfaces. A body sherd of Pingsdorf ware in pond layer (401) probably also belongs to this period, although it was produced from the 9th century onwards. Coutts (1991, 136) states that the majority of Pingsdorf ware in this country dates to the 11th century and later, although it is occasionally found in Ipswich from the second half of the 9th century.

B.1.9 A large fragment of a rod handle was recovered from pit fill (750). It is glazed with a pale greenish glaze and stamped with a small rectangular stamp divided into three small squares. The fabric is fine sandy with few other inclusions, the fabric is light grey and the surfaces are buff. The handle tapers to the point where it is broken, with the wider end attached to the remains of a body sherd. The fragment is unprovenanced, but may be a London product or an import.

Late medieval (L.14th–16th c.)

B.1.10 Thirteen sherds of a large globular jug were recovered from brook fills (519) and (506). The jug is in a relatively fine, hard red fabric with occasional medium sand inclusions and has sparse clear glaze externally. The form is typical of examples from Colchester, but the fabric is finer than normal for the town. Similar pottery was made in Ipswich and elsewhere in Essex, but the provenance of this particular vessel is uncertain. The jug is painted with white slip curving lines and has a slip line around the neck and slip dashes on the rim, comparable with the Colchester ware 'late style' which Cotter (2000) dates to the later 15th and early 16th centuries.

B.1.11 One other sherd in the same fabric was also recovered from brook fill (519) and has a thin all-over white slip externally with spots of yellowish glaze.

B.1.12 Five large sherds of a Dutch-type redware cauldron or pipkin were also found in (519) and (506) and are likely to belong to the same period as the jug. This example has a simple flaring rim, a rod handle with pinched angle, and partial clear glaze sparsely applied internally and externally. Comparable examples are found in Amsterdam in 15th-century contexts (e.g. Gawronski 2012, nos. 216 and 221).

Post-medieval and modern (16th–20th c.)

B.1.13 Three sherds of a Border Ware pipkin with an inturned lid-seated rim and yellow glaze internally were recovered as an unstratified find (99999). Pipkins of this type are common in mid 17th-century contexts in London (Pearce 1992).

B.1.14 A base fragment of a Frechen stoneware vessel with a footstand base, probably a jug or bottle, was recovered from pond fill (305).

B.1.15 The central part of the base of a large tin-glazed earthenware platter or dish was recovered from layer (760). It was white-glazed on both surfaces with a foot ring base, and hand-painted with a blue octofoil motif centrally. Comparable designs from Norwich are dated to the 17th century (Jennings 1981, fig. 86, nos 1391–3, 1395).

B.1.16 All recent pottery was recovered as unstratified finds (99999). Fragments of two English stoneware utilitarian storage vessels/bottles are of 19th-century or later date. Also of this period were two fragments of a porcelain cup and a fragment of saucer with the same gold lining decoration. A small body sherd of white salt-glazed stoneware was probably of 18th-century date. Fragments of five refined whiteware vessels were also recovered, four with transfer-printed blue floral or willow pattern decoration, including rims of a chamber pot and a? cup, and an undecorated base

Table 2-The distribution of pottery by test pit, context and pot period, with suggested spot dates.

Test pit	Context	Feature	MSax	LSax	Med	LMed	PMed+	Spotdate
3	302	pit 312		3				L.9-11
	305	pond 312					1	16-17
4	401	413			1			11-13?
	405	Layer			1			12-14
	406	Layer		1				L.9-11
5	506	pit/brook?		2		12		L.15-E.16
	507	brook	1					MSax+
	519	brook 507	1			7		L.15-E.16
6	601	rubble backfill		2				L.9-11
	603	???	1	25				L.10-11
	605	pit 606		15				11
	608	Pit 606		2				L.9-11
	607	layer		1				L.10-11
	99999	u/s finds		6				L.9-11
7	750	pit 751		1	1			12-13?
	760	layer		1			1	17
u/s	99999	u/s finds	1	1			13	-

B.1.17 The majority of pottery was recovered from Test Pit 6 to the north of the site, and most of this group was of Late Saxon date. Finds from the brook in Test Pit 5 suggest that this was infilled in the late medieval or early post-medieval period. The other test pits

contained only small quantities of pottery of Late Saxon, medieval and post-medieval date.

Table 3-Pottery

Context	Fabric	Form	Rim	No	Wt/g	Notes	Spot date	Fabric date range
302	THET			2	47			10th-11th c.
302	THET	LSV		1	21			10th-11th c.
305	GSW4			1	27			16th-17th c.
401	PING			1	9		11-13?	10th-13th c.
405	MCW			1	13	slightly pimply ms, sparse mica		L.12th-14th c.
406	THET			1	22	black with red core/margins		10th-11th c.
506	DUTR	CA	FLAR	2	75	poss carinated?	15-16	15th-17th c.
506	LEAR	JG		10	808	hard-fired fine redware with occ grits visible, like COLL jugs, but with COHL across body like LMT	L.15-E.16?	L.14th–16th c.
506	SXNO			1	48	brownish red surfaces, red margin, grey core; f/msmfe		850-1150
506	THET			1	21			10th-11th c.
507	GIPS			1	7			650-850
519	DUTR	CA	FLAR	3	126		15-16	15th-17th c.
519	GIPS	JR	E	1	39			650-850
519	LEAR			1	13			L.14th–16th c.
519	LEAR	JG	FLAR	3	320	Colchester late style	L.15-E16?	L.14th–16th c.
601	THET			1	24			10th-11th c.
601	THET			1	52	reduced surfaces, red core. Poss LMT		10th-11th c.
603	SIPS			1	26			650-850
603	STNE			2	31			850-1150
603	SXNO			1	14	abundant fs, texture not typical of THET		850-1150
603	SXNO			1	10	ms white/pale grey, not PING		850-1150
603	THET			15	284			10th-11th c.
603	THET			1	93	part of large thin-walled globular jar		10th-11th c.
603	THET	AA	7?	1	48	poss imported blackware - rim not typical	11?	10th-11th c.
603	THET	AB	4	1	20		L.10-11	10th-11th c.
603	THET	AB	5/6	1	55		L.10-11	10th-11th c.
603	THET	LSV		2	107			10th-11th c.
605	STNE	BL	INT	1	37			850-1150
605	THET			5	41			10th-11th c.
605	THET			4	40	3 look overfired/burnt		10th-11th c.
605	THET			4	41	all look overfired/burnt		10th-11th c.
605	THET	AB	4	1	15			10th-11th c.
608	THET			2	15			10th-11th c.
607	THET	AB	4	1	38		L.10-11	10th-11th c.
750	THET			1	19			10th-11th c.
750	UPG	JG?		1	155	fs lt grey, buff surfaces, poss LOND? Tapering handle is unusual		L.12th-14th c.
760	MCW			1	13	ms, slightly pimply surfaces		L.12th-14th c.
760	TGE			1	137			16th-18th c.
99999	BORD	PK	LS	3	82		M.17	16th-18th c.
99999	ESW	BT		1	32		19+	17th-19th c.
99999	ESW	LSV		1	78		19+	17th-19th c.
99999	PORC	CU?	UPPL	2	10	?kiln scar int	L.19-20	18th-20th c.

Context	Fabric	Form	Rim	No	Wt/g	Notes	Spot date	Fabric date range
99999	PORC	SA?	PL	1	7		L.19-20	18th-20th c.
99999	REFW			3	36			L.18th-20th c.
99999	REFW	CH?	FTEV	1	64	thick	19?	L.18th-20th c.
99999	REFW	CU?	UPPL?	1	1		19+	L.18th-20th c.
99999	SIPS			1	23			650-850
99999	SWSW			1	2			18th c.
99999	THET			5	341			10th-11th c.
99999	THET	AC	4	1	9		L.10-11	10th-11th c.
99999	THET	LSV		1	43			10th-11th c.

B.2 CBM

By Sue Anderson

Introduction

B.2.1 Twenty-one fragments (13,279g) of CBM were recovered from six contexts. A full catalogue by context is included below.

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.

The assemblage

B.2.3 Table 3 shows the quantification by type and form. The majority of fragments fell into the 'roofing' category. Appendix 2 includes a table of quantities for fabrics and forms in this assemblage.

Type	form	No	Wt/g
Plain roof tile (pmed)	RTP	13	1179
Late brick	LB	6	10866
Dutch brick	DUT	2	1234

Table 4. CBM quantification by form

B.2.4 The assemblage is of post-medieval date and includes plain roof tile, later brick and small 'Dutch' bricks (Smith 2001). Most of the bricks were recovered as samples from walls 708 and 717.

B.2.5 All roof tiles are in red-firing fine and medium sandy fabrics, the majority fine sandy micaceous with grog inclusions. Only one fragment, from floor 727 had peg holes, in this case square. A few pieces had traces of white lime mortar on one surface, but otherwise there were no noteworthy features.

B.2.6 Four complete red bricks were recovered from walls 708 and 717, and there was a fragment in layer 729. Two complete or near-complete 'Dutch' bricks were also recovered from wall 708.

B.2.7 The red brick samples from 708 measured 241–246 x 118–120 x 55–56mm, and were in a medium sandy micaceous grogged fabric, similar to many of the roof tiles from this site. The complete 'Dutch' brick measured 162 x 65 x 36mm. The presence of this type of brick in the wall suggests a 17th century or later date, and the size of the red bricks would be consistent with this date. However, one of the 'Dutch' bricks showed considerable wear on one stretcher, as if it had been used in a floor, perhaps suggesting re-use of these bricks in the wall at a later date. The worn surface also had a drilled hole in it, c.7mm in diameter.

B.2.8 Brick samples from wall 717 were of similar length and width to each other, but one was significantly thinner. One medium sandy brick with grog and ferrous inclusions

measured 226 x 108 x 43mm and had a diagonal 'skintling' (stacking) impression on one stretcher, which may indicate a date prior to the late 18th century (cf Rose 2000). The other brick was in a medium sandy micaceous fabric with grog inclusions and measured 228 x 112 x 55mm. Both bricks can be dated broadly to the 16th–18th centuries.

Mortar

B.2.9 One large fragment of lime mortar (326g) was found in layer 729. The piece is an irregular block in a buff-coloured lime mortar with medium-coarse sand and chalk aggregates. It is likely to have been part of a flint or rubble wall.

Fired clay

B.2.10 A small fragment (3g) of vitrified hearth lining was recovered from 605 C. It has coarse sand tempering and a rough, vitrified purple surface with reddish underside.

Table 5-CBM

Context	Fabric	Form	No	Wt	Abr	L	W	T	Peg	Notes	Date
51	ms	RT	1	31						surfaces partly reduced	lmed/pmed
51	fsf	RT	1	83						thin white on upper surface	pmed
70	wf	DB	1	566			64	35		1 edge worn - used on side as paviour? Drilled hole in same edge, 7mm diam. Poss re-used, sooted on other stretcher	pmed
70	ms	LB	1	2809		246	120	56		small patches white	pmed
70	wf	DB	1	668		162	65	36		sooted on one stretcher	pmed
70	ms	LB	1	3151		241	118	55		presumably used with header(s) showing thick white msc at both ends of top and all over base, with some on stretchers	pmed
71	ms	LB	2	2013		226	108	43		diag stacking impression on one stretcher	pmed
71	ms	LB	1	2650		228	112	55		slight wear and some soot on surface? yellowish buff fsc thick on base	pmed
72	fsg	RT	6	656					1 x S(2)	thin white on 2	pmed
72	fs	LB	1	243	+			55		dark brown, occ red grog, coarse Fe thin	lmed?
72	fsf	RT	1	94							pmed
72	fsg	RT	1	161						brownish surfaces	pmed
72	ms	RT	1	48	+						pmed
72	ms	RT	1	73						darker red core	pmed
75	fsg	RT	1	33	+					white ms on surface	pmed

Table 6-CBM fabric totals

Description	Fabric	RTP	LB	DB
fine sandy micaceous with grog	fsgm	8		
medium sandy micaceous with grog	msgm		3	
medium sandy with grog and ferrous inclusions	msgfe		2	
fine sandy with sparse ferrous inclusions	fsfe	2		
fine sandy micaceous with ferrous inclusions	fsmfe		1	

medium sandy	ms	3		
white-firing fine sandy	wfs			2

Context	Fabric	Type	No	Wt/g	Colour	Surface
605 C	cs	VHL	1	3	purple-red	rough, vitrified

Table 7-Fired Clay

Context	Fabric	Type	No	Wt/g	Colour	Notes
729	msc		1	326	buff	large irreg block - flint walling?

Table 8-Mortar

B.3 Metalwork

By Denis Sami

Introduction

B.3.1 A total of 29 metal artefacts was recovered from archaeological features on site, while SF 18,19,25,30 and 33 are unstratified top-soil recoveries. The whole assemblage can be dated to the period spanning from c. 800 AD to 1900 with the predominance of object dating to the period spanning from the 9th to the 16th century.

B.3.2 The general preservation of finds is poor with iron (Fe) artefacts presenting heavy encrustation, mineralization of soil and fragmentation. Lead (Pb), copper-alloy (CuA) and silver (Ag) objects show oxidation, however this does not compromise a precise identification – particularly in the case of coins – of the artefacts. CuA brooch SF 24 and Ag coin SF 6 need professional cleaning, and Fe key SF 33 needs x-ray if drawing for publication is planned.

B.3.3 Non-ferrous artefacts are fairly good condition and all finds are comfortably packet in SF bags stored in sealed steward boxes with silica gel.

Statement of potential

B.3.4 The site is located at the core of the Middle and Late Anglo-Saxon town in the area later occupied by the medieval Augustinian Priory of St Peter and St Paul (founded in 1189 and dissolved in 1528).

B.3.5 The assemblage from Low Brook Street offers therefore an important opportunity for understanding more about the archaeology of old Ipswich and expanding our knowledge of the city between the Middle-Anglo-Saxon and the medieval periods.

B.3.6 SF 2,6,20,24 date between the Middle to Late Anglo-Saxon period and are of particular interest. Inscribed lead plaque SF2, is an uncommon artefact and it is very similar to an inscription found near Fakenham in North Norfolk (PAS: NMS-63179C) dating to the 10th- or early 11th-century. A preliminary translation of the Old English text seems to refer to a charm ‘Against a dwarf' closely reminding the inscription from Fakenham. Of a slightly earlier chronology are the two brooches SF 20 and 24. Lead disc brooch SF20 is a Weetch type 4.A, (2014) dating to the period between the 9th and the 11th century and well documented in East Anglia. The well preserved CuA Cog-wheel type 15 brooch SF 24 (Weetch 2014, Voll. 1: 96-97) may be of a slightly later chronology possibly dating to the 10th or 11th century.

B.3.7 The small finds related to buildings, commerce and domestic life, belong probably to the Priory of St Peter and St Paul or to the College of St Mary that replaced the former monastic foundation after 1528.

B.3.8 Small finds resulting from a full extended excavation of the site will certainly have a regional and national importance.

Methods statement

B.3.9 The aim of this assessment is to provide a preliminary quantification, categorisation and to evaluate the preservation of all small finds from Lower Brook St. evaluation trenches. All SF were measured by length (L), width (W) or diameter (Diam.), thickness

(T), and when necessary weight (Wt), they were briefly described, spot dated and when possible compared with similar type of artefacts.

B.3.10 Finds can be subdivided in four groups, namely dress accessories (Table 1), trade and economy (Table 2), domestic, weapon and devotional (Table 3), building and various (Table 4).

B.3.11 Rosie Weetch (2014) has been used as reference for the Early Medieval brooches, while Naismith (2011), North (1980) and Mitchiner (1988) have been the main references for coins and tokens. The Portable Antiquities Scheme database (PAS) has been the primary reference for the mounts and other artefacts.

Retention, dispersal and display

B.3.12 SF 1, 31,32 can be discarded as they are of no archaeological or historical importance. All the remaining artefact should be considerate for drawing and photograph is publication in planned.

Catalogue

Table 9-Dress accessories

SF	Context	Pit	Description
3	507	5	Ag and CuA incomplete button dating to the post-medieval or modern period. CuA circular domed head covered with a silver foil. The loop is heavily encrusted with iron rust. Diam: 13 mm; T (head): 4 mm; Wt: 3.6 g
9	507	5	A complete double looped CuA buckle of medieval or post-medieval date. The frame has a sub-rectangular cross-section and a flat tapering pin is still attached to the strap bar. L: 17 mm; W: 22 mm; T: 2 mm; Wt: 2.5 g
10	507	5	CuA buckle. A cast D shape medieval or post-medieval in date flattened frame decorated with two knops and stylised vegetal decoration. L: 29 mm; 33 mm; T: 2 mm; Wt: 6 g
14	607	6	A CuA medieval cast belt mount formed by a vertically aligned bar of three half globes and a hanging four lobes loop. The central globe is decorated with transverse horizontal groves while the flanking globes are plain, concave and have a narrow pin. A folded arm terminating with a heart shape end fastens the loop (PAS: LVPL-CA08F1). Bar, L: 7 mm; W:14 mm; T: 5 mm; Loop, L: 16 mm; W: 15 mm; T2 mm; Wt: 3.2 g
16	302	3	CuA fragment of a buckle loop with flat sub-rectangular cross-section. L: 20 mm; W: 24 mm; T: 1.6 mm; Wt: 1.3 g
20	603	6	A lead disc brooch dating to the period spanning from c.900 to 1100 AD. The disk is flat and presents a moulded voided cross decoration encircled by a band of pellets. A central hole may be the result of a hold damage. On the reverse, a catchplate and part of an encrusted pin are preserved. Diam: 33 mm; T: 2.7 mm; Wt: 16 g
22	607	6	CuA rectangular medieval or post-medieval buckle plate with folded and slotted end to clasp the strap bar. L: 21 mm; W: 31 mm; T: 1.5 mm; Wt: 6.7 g
23	607	6	CuA mount dating to the period between 1300-1400 AD. Cast bar with a central boss in the shape of a head flanked by two plain half globes. The revers is flat and presents the remain of two pins. L: 22 mm; W: 9 mm; T: 6 mm; Wt: 3.9 g
24	758	7	A CuA incomplete Cog-wheel type 15 brooch dating to the c. 800 AD, Weetch 2014, Voll. 1: 96-97 and Voll. 2: 157 no: 535, 536, 546). Diam: 28.4 mm; T: 3 mm; Wt: 6.9 g
27	506	5	Fe large D shape buckle with sub-circular cross-section of medieval or post-medieval date. A flattered tapering pin with rectangular cross-section is attached to the strap bar. L: 38 mm; W: 53 mm; T: 6 mm

Table 10- Trade and economy

SF	Context	Pit	Description
6	507	5	A silver penny of Aethelstan I of East Anglia (omega cross type) dating to the period 825-45 AD. Diam: 21.2 mm; T: 1 mm; 1.4 g
7	507	5	A CuA cut quarter of a thin disc with a finely polished surface. W: 10 mm; T: 0.4 mm; Wt: 0.18 g
13	302	3	CuA farthing of James I dating to the period 1613-25. OBV: IACO DG MAG BRI. Crown with 5 jewels on the circlet, crossed scepters through the crown REV: FRA ET HIB REX. Harp with knob ornaments and 7 or 8 strings, crown above with 5 jewels on the circlet. Diam: 17 mm; T: 0.5 mm; Wt:
18	99999	6	A lead token dating to the medieval or post-medieval period. Diam: 23 mm; T: 1.4 mm; Wt: 5 g
21	603	6	A lead subcylindrical weight. Diam: 16 mm; High: 11 mm; Wt: 25 g

SF	Context	Pit	Description
25	99999	6	Copper-alloy Nuremburg jetton of Hans Krauwinckel II (working 1586-1635). Rose and Orb type (PAS: PUBLIC-6790D8). Diam: 25 mm; T: 0.6 mm; Wt: 1.5 g
30	99999	6	A very poorly preserved incomplete lead token dating to the medieval or post-medieval periods. Diam: 21.8 mm; T: 1 mm

Table 11- Domestic, weapon and devotional

SF	Context	Pit	Description
2	507	5	Lead plaque with runic inscription dating to period spanning from the 8th to the 11 centuries. L: 17.5; W: 21 mm; T: 1 mm
4	506	5	A lead musket ball. Diam: 10.7 mm; Wt: 7.5 g
5	506	5	A CuA damaged medieval or post medieval thimble of conical shape. Plain bar base with body decorated with a spiral of pits to the domed top. High: 20 mm; W: 23 mm; Wt: 8 g
12	302	3	A lead musket ball. Diam: 10.8 mm; Wt: 6.5 g
19	99999	6	A CuA tool possibly a fork of late medieval or post-medieval period. The artefact consists of a cast tapering circular socket developing into plain sub-circular stem formed by three globes. Between the first two globes originally where two horizontal prongs. A third smaller bent tapering prong is set on the third globe. The tool terminates with two tapering long spikes with oval cross-section. L: 129 mm; Diam (socket): 9 mm; W; 39 mm; Wt: 34.7 g
33	99999	7	A large iron hand forged key of medieval or post-medieval date. The handle is circular in plan and cross-section. Despite the heavy encrustation the stem appears to be square in cross-section and tapering to the end. A rectangular bit is placed at circa 27 mm from the stem terminal. L: 190 mm; Diam. (Handle): 48 mm; W (Stem): 14 mm

Table 12- Building and various

SF	Context	Pit	Description
1	506		Nine very encrusted fragments of nails of different sizes
8	507	5	CuA furniture stud. A truncated tapering stem with square section and large circular domed head. L: 6 mm; T (stem): 1 mm; Diam: 10 mm; Wt: 0.7
11	507	5	An irregular sub-circular possible lead ingot with a convex face. Diam:51 mm; T: 10 mm; Wt: 124 g
15	302	3	An unidentified lead artefact in the shape of a flat ring with a plate possible hoke. L: 30 mm; W: 20 mm; T: 1.3 mm; Wt: 4.1 g
17	302	3	A fragment of CuA foil. L: 21 mm; W: 18 mm; T: 1 mm; Wt: 1.5 g
26	506	6	An unidentified CuA fragment of irregular in shape plate. L: 44 mm; W: 20 mm; T: 4.5 mm; Wt: 15.6 g
28	506	5	A fragment of Amethyst with a pyramidal shape, it may have been part of a prism since three faces seem to show sign f clear cuts. L; 12 mm; W: 11.5 mm; Wt: 2.3 g
29	605	6	An incomplete and fragmented hand forged iron hinge loop dating to the medieval or post-medieval periods. L: 95 mm; W: 25 mm; T:6 mm
31	605	6	An unidentified irregular lump of lead. Wt: 8.7 g
32	605	6	An unidentified lump of iron, possibly the stem of a nail

B.4 Stone

By Carole Fletcher

Introduction and Methodology

B.4.1 All of the stone from the site was found in Trench 7 this comprised two architectural stone pieces from back fill (763) below a yard surface (748) along with a total of 0.102kg of unworked stone from a layer. Simplified recording only has been undertaken with material type, basic description and weight recorded in the text.

Assemblage and Discussion

B.4.2 Fill 763 produced two large fragments of worked stone (Plates 27 and 28). Both are cut from a fine-grained limestone. One (Plate 28) is a molding and has a recess that may have held a glazing bar for a window (290mm x 300mm x155mm). The second (Plate 27) has been dressed on five sides to form a wedge shape possibly to act as a key stone above a window or door. It has strong cut marks on four of its faces, the fifth is smoothed and the sixth is convex and irregular (260mm x 310mm x 240mm). Both appear to be of late medieval or early post-medieval date and are more likely secular than ecclesiastical in character (V. Rowlinson pers. comm.) and may have originated from or been destined for a large grand house.

B.4.3 Test Pit 7, layer 729, produced an irregular fragment of pale brownish-grey mudstone (0.102kg). It probably originates from the Thames Group mudstones (BGS 2017), which form the underlying solid geology beneath much of the northern part of Ipswich. The mudstone is unworked and cannot be closely dated, however, it was recovered with 17th century clay tobacco pipe.

Retention, dispersal or display

B.4.4 The architectural fragments should be retained and sent to a specialist for full identification and recording. If further work is undertaken on site, architectural fragments should be retained and recorded on site. Significant pieces should be retained for archive.

B.4.5 The mudstone is of little significance, should further work be undertaken, the record of the mudstone might be incorporated into any later archive. If no further work on the site is undertaken, this statement acts as a full record; in either case the mudstone may be deselected prior to archival deposition.

B.5 Fuel and Fuel by-products

By Carole Fletcher

Introduction and Methodology

B.5.1 A total of 0.066kg of fine micaceous oil shale was recovered from a layer in Test Pit 7. Simplified recording only has been undertaken, with material type, basic description and weight recorded in the text.

Assemblage and Discussion

B.5.2 Test Pit 7, layer 729, produced a sub-rectangular, laminar fragment of oil shale (0.066kg). The oil shale has been thoroughly burnt, altering the colour from black to reds, white and grey. The oil shale cannot be closely dated, however, it was recovered with 17th century clay tobacco pipe and may have originated in west Norfolk, where oil shales outcrop.

Retention, dispersal or display

B.5.3 The oil shale has probably been used as a fuel. Although it can be burnt directly as a domestic fuel, it may have been used for industrial purposes, however, if this was the case, more of the material might have been recovered. The fragment alone is of little significance; should further work be undertaken, the record of the oil shale might be incorporated into any later archive. If no further work on the site is undertaken, this statement acts as a full record, in either case the oil shale may be deselected prior to archival deposition.

B.6 Glass

By Carole Fletcher

Introduction and Methodology

B.6.1 A small assemblage of glass, 15 shards, 0.217kg, was recovered from unstratified deposits (99999) in Test Pit 7. The glass was scanned and recorded by form, colour, count and weight, and dated where possible.

Assemblage

B.6.2 The material includes fragments from utility bottles, both wine and soda or sparkling water, a shard of a pharmaceutical bottle, and a partial, plain, conical foot from a stemmed glass, most likely a wineglass of 18th or early 19th century date. A small fragment of flat clear window glass is the only non-vessel glass recovered. These finds are typical of vessel glass of this date found on many urban sites, are probably from a domestic context, and their disposal was part of domestic rubbish deposition. They were subsequently incorporated into what may have been hardcore or levelling layers, prior to new construction. The fragment of wineglass may be slightly earlier in date and was perhaps curated, while the window glass is not closely datable.

Discussion

B.6.3 The presence of domestic occupation and structures within the area evaluated is well-documented, and the glass recovered from unstratified contexts most likely resulted from demolition and clearance of the site.

Retention, dispersal or display

B.6.4 The fragmentary and late nature of the total assemblage means it is of little significance, beyond indicating 18th and 19th century domestic occupation.

B.6.5 Should further work be undertaken, the glass should be incorporated into any later archive. If no further work on the site is undertaken, the following catalogue acts as a full record and the pottery may be deselected prior to archival deposition.

Glass Catalogue

Context	Form and Colour	MNV	No. of Shards	Weight (kg)	Glass Date
99999	Vessel glass. Irregular curved shards of olive glass. Utility bottle, probably a wine bottle. 1.5-5mm thick	1	4	0.022	18th-19th century?
	Vessel glass. Irregular curved shard of very pale bluish-green, clear glass, complex curves. Codd-type bottle. 5mm thick	1	1	0.014	19th century
	Vessel glass. Irregular curved shard of very pale bluish-green, slightly clouded glass, complex curves. Codd-type bottle. 4.5-7mm thick	1	4	0.089	19th century
	Vessel glass. Irregular curved shard of very pale bluish-green, slightly clouded glass, complex curves. Three lines of raised lettering 'R B' 'AKERS' 'ONDON'. Codd-type bottle. 5-7mm thick	1	1	0.013	19th century
	Vessel glass. Irregular curved shard of very pale bluish-green, clear glass, complex curves. A single raised letter 'R' survives on this fragment. Codd-type bottle. 7.5-8.5mm thick	1	1	0.009	19th century
	Vessel glass. Irregular long thin curved shard of very pale bluish-green, clouded glass, with a slight curve. Uncertain of form. 4-4.5mm thick	1	1	0.008	18th-19th century?
	Vessel glass. Sub-rectangular shard with two sides joined by a rounded right-angled corner. Very pale bluish-green, quite clear, glass with swirling patterns on the outer surface. Probably a pharmaceutical bottle. 2-3mm thick	1	1	0.015	18th-19th century?
	Stemware. Partial, plain conical foot from a stemmed glass with stub of stem and roughly finished pontil. Clear glass with slight surface iridescence. 4-5mm thick.	1	1	0.042	18th century?
	Window glass. Near-square shard of clear flat glass. 1.5mm thick	0	1	0.005	18th-19th century?
Total		**8**	**15**	**0.217**	

Table 13: Glass by context

B.7 Clay Tobacco Pipe

By Carole Fletcher

Introduction and Methodology

B.7.1 During the evaluation, six fragments of white ball clay tobacco pipe, weighing 0.028kg, were recovered from Test Pit 7. Terminology used in this report is taken from Oswald's simplified general typology (Oswald 1975, 37–41), and Crummy and Hind (Crummy 1988, 47-66).

Assemblage

B.7.2 From layer 729 in Test Pit 7, described as backfill, a piece of stem, with complete oval heel and fragment of bowl was recovered. The fragment appears to be an Oswald Type 6, *c*.1660-1680 (Oswald 1975, 37–41), and was recovered alongside a plain fragment of stem. Four other pipe stem fragments were found in unstratified deposits.

Discussion

B.7.3 The fragments of clay tobacco pipe recovered represent what were most likely casually discarded pipes. The fragments do little, other than to indicate the consumption of tobacco on or in the vicinity of the site, from the mid to late 17th century.

Retention, dispersal or display

B.7.4 The fragmentary nature of the total assemblage means it is of little significance, beyond indicating the smoking of tobacco in the 17th century.

B.7.5 Should further work be undertaken, the clay tobacco pipe should be incorporated into any later archive. If no further work on the site is undertaken, the following catalogue acts as a full record and the clay tobacco pipe may be deselected prior to archival deposition.

Clay Tobacco Pipe Catalogue

Test Pit	Context	Form	No of pipe stem fragments	No of complete bowls or fragments	Description	Weight (kg)	Date
TP7	729 layer	Pipe stem	1		Fragment of stem 47mm long, 8mm diameter, grey reduced core	0.005	Not closely datable
		Oswald Type 6		1	A fragment of stem, heel and bowl 62mm long. Oval flat heel, very short stub of surviving bowl. Stem poorly finished on lower seam, upper seam smooth, 8-9mm diameter	0.008	*c*.1660-1680
TP7	99999	Pipe stems	4		Four pipe stem fragments: 90mm long 5-6mm in diameter (slightly curved), 71mm long 6mm in diameter, 65mm long 6mm in diameter, and 56mm long 6-7mm in diameter, all circular in section with obvious, but trimmed, mould lines	0.014	Not closely datable
Total			**5**	**1**		**0.028**	

Table 14: Clay Tobacco Pipe by context

APPENDIX C ENVIRONMENTAL REPORTS

C.1 Environmental Remains

By Rachel Fosberry

Introduction

C.1.1 A total of 28 samples were taken from deposits within the evaluated area at Lower Brook Street, Ipswich, Suffolk in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. 8 of the samples were taken for microfossil analysis (see Fran Green, this report) and 3 samples were of waterlogged wood.

C.1.2 Samples were also taken by Fran Green from potentially water lain deposits in Trenches 3, 5 and 6. These were assessed for their potential for diatom and pollen analysis.

Methodology

C.1.3 For the purpose of this rapid assessment, a sub-sample of each of the bulk 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 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).

C.1.5 The sample residues had not dried at the time of writing of this report. It is likely that additional plant material such as fruit stones will be recovered.

C.1.6 Many of the samples contain waterlogged plant remains which should be examined whilst wet to enable accurate identification of species. This is a time-consuming process and the decision was made to assess dried flots in order to examine a larger amount of material and to provide rapid feedback of results.

Quantification

C.1.7 For the purpose of this 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
Items that cannot be easily quantified such as charcoal and molluscs have been scored for abundance: + = rare, ++ = moderate, +++ = abundant

Key to tables: C=charred, w=waterlogged, m=mineralised
Cpr = charred plant remains, wpr = waterlogged plant remains

Results

C.1.8 Preservation of plant remains is predominantly by waterlogging in addition to a smaller assemblage of carbonised remains that is predominantly comprised of cereal grains. All four of the main cereal types are represented; rye (Secale cereale), barley (Hordeum vulgare), wheat (Triticum sp.) and oats (Avena sp.) are found in samples from Trenches 4 and 7. Charred weed seeds are rare with only a single seed of stinking mayweed (Anthemis cotula) and a corn marigold (Chrysanthemum segetum) was noted.

C.1.9 Waterlogged seeds are frequent and include seeds of plants that are likely to have been growing in the surrounding area such as nettles (Urtica dioica and U. urens), buttercups (Ranunculus sp.), elderberry (Sambucus nigra), bramble (Rubus sp.), goosefoots (Chenopodium sp.), cinquefoils (Potentilla sp.), docks (Rumex sp.), dead-nettles (Lamium sp.) and thistles (Carduus/Cirsium sp.). Plants that indicate that the soils were damp/wet include henbane (Hyoscyamus niger), hemlock (Conium maculatum) and wetland plants such as sedges (Carex sp.), rushes (Juncus sp.) and an obligate aquatic, water starwort (Callitriche sp.).

C.1.10 Possible economic plants include hemp (Cannabis sativa) recovered from Trenches 3 and 6 and probable food plants in Trenches 5 and 7 such as plums (Prunus domestica), cherries (P. cerasus), beets/spinach (Beta vulgaris), brassicas (Brassica sp.), which include turnips, swede and cabbages, and tentative identification of a seed of the onion family (Allium sp.), opium poppy (Papaver somniferum) and coriander (Corriandrum sativum) could indicate culinary flavourings.

C.1.11 Insects are well preserved in some of the waterlogged samples, particularly in Sample 15, fill 520 of brook 507 (Trench 5) which contains several fragments of insects with visible hairs, fly pupae and a possible cocoon. There is a hint of preservation by mineralisation, possibly indicating cess deposits, in Trenches 4 and 6.

C.1.12 Molluscs are only preserved in Trench 5 but have good preservation and moderate density and diversity. Other environmental indicators include egg cases of water-fleas (Daphnia sp.), ostracods and algae (Charophytes).

C.1.13 Diatoms are present in samples from Trench 3 (<03> and <04>) and Trench 5 (<12> and <13>) which could be used for pollen or diatom analysis. Diatoms are useful indicators of water lain deposits and can provide an indication of salinity.

C.1.14 Pollen is present in samples from Trench 5 samples (<12> and <13>) and Trench 6. Analysis of pollen will inform on the surrounding vegetation and will help determine the nature of the peat in Trench 6.

Sample No.	Context No.	Feature No.	Feature Type	Area/trench No.	Volume processed (L)	Flot Volume (ml)	Preservation	Cereals	Charred seed	Waterlogged seeds	insects	Snails	Charcoal	Comments	Potential
2	302		Pond?	3	9	1	w	0	0	#	0	0	++	sparse charcoal	none
14	314	312	Pond?	3	8	5	w	0	0	##	+w	0	0	hemp seed	wpr
10	401		River?	4	8+7	20	c, m	##	#	0	+m	0	+++	Charred barley, wheat, rye, oats, hazelnut shell	none
11	402		River	4	9	15	c, m	###	#	0	+m	0	++	Charred barley, rye, oats, mineralised fly pupae	cpr, insects
1	506		Pond?	5	9	30	w	0	0	##	++w	++	0	economic plants – plum, beets, wood	wpr, wood,mmollusccs
15	520	507	Brook	5	8+8	100	w	0	0	###	+++w	++	0	abundant seeds and insects	wpr, insects, mollusccs
20	603		Pit?SF	6	9	20	c,w	0	0	#	+w	0	+	occasional waterlogged seeds	none
19	605a	606	Pit?SF	6	9	110	c,w	0	0	##	0	0	+	occasional waterlogged seeds	none
17	605b	606	Pit?SF	6	8	15	w, m	0	0	#	+m,w	0	0	occasional waterlogged seeds	none
16	605c	606	Pit?SF	6	10	60	w,c	#	0	###	0	0	0	henbane	none
18	608b	606	Pit?SF	6	9	20	c,w	0	0	#	+w	0	+	occasional waterlogged seeds	none
3	723		Pit	7	9+10	25	c	#	0	0	0	0	+v	vitrified charcoal	
28	731		Pit	7	9	10	c,w	0	0	#	0	0	+++v	vitrified charcoal, onion seed, possible corriander seed	none
24	750		Pit	7	9	5	w	0	0	#	0	0	0	Occasional seeds of disturbed/garden soil	low for wpr
27	757		Ditch	7	9	10	c,w	#	0	###	0	0	+	Brassica seeds, seeds of wetland plants	wpr
25	758		Layer	7	2	2	c,w	##	#	#	0	0	+	rye	low for cpr
26	758		Layer	7	8	15	c,w	#	0	##	0	0	++	Brassica seeds	none

Table 15: Environmental samples from IPS865

Discussion

C.1.15 The results of the rapid scan of the flots from these samples indicates that there is excellent potential for the preservation of environmental remains at this site.

C.1.16 Waterlogged plant remains are of particular value for providing information on the surrounding environment of a site whereas carbonised plant remains relate to agriculture and domestic, culinary activities and mineralised remains usually indicate cess. Future excavation has the potential to recover larger, more meaningful assemblages that would contribute to the evidence of diet and economy at this site.

C.1.17 Trench 3 includes a pond **312** beneath formal gardens. Analysis of samples for diatoms and pollen would assist in understanding the character of the pond although it is recommended that analysed deposits should be securely dated. The recovery of hemp seed is likely to represent the cultivation of this plant for the use of its fibres for making rope.

C.1.18 Trench 4 produced carbonised cereal grains with mineralised insects which may indicate the disposal of domestic refuse in this area. Trench 5 contains a brook and garden soils with fruit trees (possible orchard).

C.1.19 Trench 5 exposed a possible stream channel, analysis of samples for pollen and diatoms would help to understand the nature of the stream and whether it was tidal. There is also the opportunity to look for human parasites which are an indicator of effluent.

C.1.20 Trench 6 also produced hemp seeds from a Saxon feature (**606**), possibly an SFB.. The presence of peat in Trench 6 is interesting and even if no further excavation is planned it would be worth carrying out pollen analysis on the evaluation sample to determine its exact nature.

C.1.21 The vitrified charcoal found in a sample in Trench 7 may represent fuel used in the malting process.

C.1.22 If further excavation is planned for this area, it is recommended that environmental sampling is carried out in accordance with Historic England guidelines (2011). Preservation by waterlogging has good potential and there is potential to sample for macro and micro-botanical remains, diatoms, parasites and other insects as well as small bones including fish.

C.1.23 Suitable samples have been collected from the potential stream and pond deposits on the east side of the site. Even if no further fieldwork is undertaken in these areas it is recommended that these samples should be subject to Diatom and Pollen analysis.

C.2 Animal Bone

By Hayley Foster PhD

Introduction and Methodology

C.2.1 The animal bone from Lower Brook Street represents faunal remains weighing 5.7 kg in total, 20g of which is from samples. There were 55 fragments recorded from hand collection and 174 from environmental samples. Bone was hand collected from trenches 3, 5, 6 and 7. The species represented include cattle (Bos taurus), sheep/goat (Ovis/Capra), sheep (Ovis aries), goat (Capra hircus), dog (Canis familiaris), pig (Sus Scrofa), domestic fowl (Gallus gallus) and brent goose (Branta bernicla). Fish and amphibian remains were recovered from the environmental samples, they were not identified to species and element, however a count was recorded. The faunal material dated to the Late Saxon and Medieval period.

C.2.2 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), von den Driesch (1976) were used where necessary.

Results of Analysis

C.2.3 The assemblage was heavily dominated by cattle remains followed by pig remains. Of those fragments identified as sheep/goat one fragment could be positively identified as goat and two as sheep. Trench 6 contains much of bone from the assemblage.

C.2.4 The condition of the bone is good, with only a small number of fragments exhibiting signs of weathering. Fragmentation is low as several complete long bones were recovered. There are no indications of gnawing, only one case of burning on an unidentified fragment and three instances of butchery. Butchery is evident on a sheep horncore (pit 606) that exhibits 7 chop marks on the posterior side indicating attempts to remove the horncore from the skull. A cattle horncore from (context 603) contains a chop to the base, another likely attempt at removal from the skull. The final piece of butchery evidence is on a cattle pelvis (context 507) that is cleanly chopped through at the ilium.

C.2.5 Ageing data was minimal, however dental data shows there was a sheep/goat that was an adult. There were two long bones with unfused epiphyses from a sheep/goat and a cattle indicating the sheep/goat was less than 2.5 years of age and acattle was less than 3.5 years of age at death. None of the long bones recovered were from juvenile animals. A pig first phalanx from environmental samples has an unfused proximal epiphysis, indicating a pig less than 2 years of age.

C.2.6 Trench 6 is particularly significant as it is mainly composed of cranial and foot elements which indicates disposal of primary butchery waste.

C.2.7 The small amount of ageing data does not provide a great deal of insight into husbandry practices; however, the types of species present are those that would be expected at Saxon and Medieval sites in Suffolk. While the volume of bone recovered is minimal, the remains do indicate that there were signs of domestic activity in those trenches where bone was recovered.

C.2.8 The bone recovered from samples was mainly made up of fish vertebrae. Fish were not identified to species or element however the presence of gadiforms are identifiable from vertebral bodies. Fifteen frog elements were also recovered from environmental samples.

Cattle	Pig	Sheep/Goat	Bird	Dog
31	10	9	3	1

Table16: Total number of identifiable fragments (NISP) by species for hand-collected material

Recommendations for Further Work

C.2.9 The assemblage is small therefore no significant interpretations can be made unless further remains are recovered from the site. The recommendation to collect metric data would be suggesting as several large complete long bones were recovered and could assist with comparing sizes of domestic species in Suffolk. Frog element identification would be recommended as would fish identification to species by a fish bone specialist.

Context	Species	Element	Trench
302	Cattle	Humerus	TRENCH 3
302	Cattle	Pelvis	TRENCH 3
302	Cattle	Horncore	TRENCH 3
302	Cattle	Scapula	TRENCH 3
314	Cattle	Metatarsal	TRENCH 3
314	Cattle	Second Phalanx	TRENCH 3
507	Cattle	Pelvis	TRENCH 5
519	Cattle	Loose Tooth	TRENCH 5
519	Cattle	Mandible	TRENCH 5
520	Goat	Horncore	TRENCH 5
603	Pig	Tibia	TRENCH 6
603	Cattle	Horncore	TRENCH 6
603	Cattle	Tibia	TRENCH 6
603	Cattle	Metacarpal	TRENCH 6
603	Cattle	Horncore	TRENCH 6
603	Cattle	Astragalus	TRENCH 6
603	Pig	Loose Tooth	TRENCH 6
603	Cattle	Humerus	TRENCH 6
603	Domestic fowl	Femur	TRENCH 6
603	Domestic Fowl	Metatarsal	TRENCH 6
603	Cattle	Metatarsal	TRENCH 6

Context	Species	Element	Trench
603	Dog	Ulna	TRENCH 6
603	Pig	Humerus	TRENCH 6
603	Dog	Metacarpal	TRENCH 6
604	Cattle	Metacarpal	TRENCH 6
605	Sheep	Horncore	TRENCH 6
605	Cattle	Metacarpal	TRENCH 6
605	Sheep/Goat	Humerus	TRENCH 6
605	Pig	Ulna	TRENCH 6
605	Pig	Cranium	TRENCH 6
605	Pig	Pelvis	TRENCH 6
605	Cattle	Radius	TRENCH 6
605	Cattle	Third Phalanx	TRENCH 6
605	Cattle	First Phalanx	TRENCH 6
605	Brent Goose	Metacarpal	TRENCH 6
605	Cattle	Metacarpal	TRENCH 6
605	Sheep/Goat	Mandible	TRENCH 6
605	Sheep/Goat	Calcaneum	TRENCH 6
605	Pig	Ulna	TRENCH 6
605	Pig	Scapula	TRENCH 6
605	Cattle	Loose Tooth	TRENCH 6
605	Sheep	Humerus	TRENCH 6
608	Pig	Radius	TRENCH 6
608	Cattle	Cranium	TRENCH 6
608	Cattle	Cranium	TRENCH 6
608	Sheep/Goat	Pelvis	TRENCH 6
608	Cattle	Cranium	TRENCH 6
608	Cattle	Cranium	TRENCH 6
608	Cattle	Metatarsal	TRENCH 6
612	Cattle	Femur	TRENCH 6
612	Cattle	Metacarpal	TRENCH 6
729	Sheep/Goat	Mandible	TRENCH 7
750	Sheep/Goat	Metatarsal	TRENCH 7
758	Pig	Ulna	TRENCH 7
758	Cattle	Metatarsal	TRENCH 7

Table 17: Total identifiable fragments (NISP) by species per context from hand-collection faunal material.

Context	Sample #	# of Fragments	Species	Element
302	2	1	Sheep/Goat	Atlas
302	2	1	Pig	Astragalus
302	2	1	Sheep/Goat	Astragalus
302	2	1	Pig	Loose Maxillary Tooth
314	14	1	Pig	Loose Mandibular Tooth
314	14	1	Sheep/Goat	Loose Mandibular Tooth
401	10	7	Fish	Vertebrae
401	10	1	Sheep/Goat	Astragalus
402	11	15	Fish	Vertebrae
402	11	1	Sheep/Goat	Tibia
402	11	1	Cattle	First Phalanx
402	11	1	Sheep/Goat	First Phalanx
402	11	1	Sheep/Goat	Second Phalanx
402	11	1	Pig	Loose Maxillary Tooth
506	1	12	Fish	Vertebrae
506	1	5	Frog	N/A
520	15	18	Fish	N/A
520	15	6	Frog	N/A
520	15	1	Bird	Ulna
520	15	1	Rabbit	First Phalanx
603	20	11	Fish	Vertebrae
603	20	1	Cattle	Second Phalanx
603	20	1	Pig	Loose Maxillary Tooth
605	16	9	Fish	vert, premaxilla
605	17	2	Fish	Gadiform Vertebrae
605	18	13	Fish	Cranial elements and Vertebrae
605	19	14	Fish	Vertebrae & Parasphenoid
605	19	3	Frog	N/A
605	19	1	Cattle	Scapula
605	19	1	Pig	Loose Maxillary Tooth
605	19	1	Cattle	Loose Maxillary Tooth
605	19	1	Pig	First Phalanx
605	16	1	Sheep/Goat	Loose Maxillary Tooth
605	16	1	Pig	Cranium
605	16	1	Sheep/Goat	Loose Maxillary Tooth
605	16	1	Sheep/Goat	Third Phalanx
605	19	1	Sheep/Goat	Third Phalanx
605b	17	1	Cattle	Metapodial
605b	17	1	Pig	Loose Mandibular Tooth
723	3	1	Fish	Vertebrae
723	3	1	Pig	Loose Mandibular Tooth
723	15	1	Pig	First Phalanx

750	24	3	Fish	Vertebrae
750	24	1	Sheep/Goat	Humerus
750	24	1	Sheep/Goat	Loose Mandibular Tooth
757	27	7	Fish	Vertebrae
757	27	1	Sheep/Goat	Loose Mandibular Tooth
757	27	1	Bird	Carpo-Metacarpus
758	25	2	Fish	N/A
758	26	12	Fish	N/A

Table 18: Total identifiable fragments (NISP) by species per context from environmental faunal material.

C.3 Mollusca

By Carole Fletcher

Introduction

C.3.1 A total of 0.179kg of shells were collected by hand during the evaluation. The shells recovered are all edible examples of oyster *Ostrea edulis*, from estuarine and shallow coastal waters. The shell is relatively moderately well preserved and does not appear to have been deliberately broken or crushed.

Methodology

C.3.2 The shells were weighed and recorded by species, with complete or near-complete right and left valves noted, where identification could be made, using Winder (2011) as a guide. Further shells may have been recovered from environmental samples, however, unless these were taken to recover and sample specifically for shell, the material was not examined.

Assemblage

C.3.3 The shells were recovered from layers and pit **606**, identified as a sunken-featured building, where they likely became incorporated into the fills as general rubbish deposition. No context produced enough mollusca shells to indicate a single meal of, for example, oysters alone, however, they may have been combined with other foods. The assemblage is too small a sample to draw any but the broadest conclusions, in that shellfish were reaching the site from the coastal regions, indicating trade with the wider area. No shells show definitive evidence of shucking, in the form of small 'V' or 'U' -shaped hole on the outer edge.

Discussion

C.3.4 The shells are mostly near, or partially, complete and of a moderate size, with a number of older, thicker shells present. The shells recovered probably represent a small number of meals, the oyster being eaten from the left valve. Having mainly left valves present, may indicate that the oysters were being prepared away from the area where they were consumed, the shells being disposed of after eating. The shells indicate the use of easily available local food sources, and shellfish are known to form part of the Late Saxon, early medieval and medieval diets. The shells represent general discarded food waste and, although not closely datable in themselves, the shells may be dated by their association with pottery or other material also recovered from the features.

Retention, dispersal and display

C.3.5 The assemblage indicates that, should further work take place, shell would be found, with the likelihood of recovery of complete shells, however, the evaluation suggests there will be only moderate to low levels of shell deposition. If further work is undertaken, this assemblage should be incorporated into any later catalogue.

C.3.6 If no further work is undertaken the catalogue acts as a full record and the shell may be dispersed or deselected prior to archive deposition.

Mollusca Catalogue

Test Pit	Context	Cut	Species	Common Name	Habitat	No. Shells or frag m	No. left valve	No. right va.	Description/ Comment	Weight (kg)
TP6	3		*Ostrea edulis*	Oyster	Estuarine and shallow coastal water	6	3		Two near complete and two partial left valves from thick shelled older specimens and three fragments, possibly of right valves	0.126
TP6	603		*Ostrea edulis*	Oyster	Estuarine and shallow coastal water	1	1		Near complete left valve from a moderately thick shelled specimen	0.036
TP6	605	**606**	*Ostrea edulis*	Oyster	Estuarine and shallow coastal water	1	1		One near-complete left valve	0.017
Total						**8**	**5**	**3**		**0.179**

Table 19: Mollusca by context

C.4 Wood

By Laura James

INTRODUCTION

C.4.1 This report has been compiled by Laura James on behalf of Oxford Archaeology East (OAE).

C.4.2 This document aims to assess the potential of the waterlogged wood assemblage in terms of woodworking technology, woodland reconstruction, decay analysis, species identification, dendrochronology, and conservation and retention.

C.4.3 This report considers 5 wood records assigned to the Saxon period. The wood was recovered during archaeological evaluation carried out by OAE during September/ October 2017 under Site Code IPS865 at Lower Brook Street, Ipswich.

C.4.4 The material was excavated by site staff during the evaluation and recorded by Laura James (OAE) off site during November 2017.

C.4.5 The material was all situated in a waterlogged deposit which created the anaerobic conditions necessary for organic preservation.

C.4.6 Within a sub oval feature **606** one post was recovered along with 'ghost' posts visible in plan, following the edge of the feature. And four possible split timbers laid horizontally within the deposit (605).

METHODOLOGY

C.4.7 This document has been produced in accordance with Historic England guidelines for the treatment of waterlogged wood (Brunning 2010) and recommendations made by the Society of Museum Archaeologists (1993) for the retention of waterlogged wood.

C.4.8 Each discrete item was recorded individually using an OAE pro forma 'Timber sheet'.

C.4.9 Every effort was made to refit broken or fragmented items. However, due to the nature of the material, the possibility remains that some discrete yet broken items may have been processed as their constituent parts as opposed to as a whole.

C.4.10 The metric data were measured with hand tools including rulers and tapes.

C.4.11 The system of categorisation and interrogation developed by Taylor (1998, 2001) has been adopted within this report. Joints and fixings are described in accordance with the Museum of London archaeological site manual (Spence 1994).

C.4.12 Items identifiable to species by morphological traits visible with a hand lens – oak (Quercus sp.) and ash (Fraxinus excelsior) – were noted.

CONDITION OF MATERIAL

C.4.13 The condition scale developed by the Humber Wetlands Project (Van de Noort et. al. 1995: Table 15.1) will be used throughout this report (Table 1). The condition scale is based primarily on the clarity of surface data. Material is allocated a score dependent on the types of analyses that can be carried out, given the state of preservation. The condition score reflects the possibility of a given type of analysis but does not take into account the suitability of the item for a given process.

C.4.14 If preservation varies within a discrete item, the section that is best preserved is considered when assigning the item, a condition score. Items that were set vertically in the ground often display relatively better preservation lower down and relatively poorer preservation higher up.

CONDITION SCORE	MUSEUM CONSERVATION	TECHNOLOGY ANALYSIS	WOODLAND MANAGEMENT	DENDRO-CHRONOLOGY	SPECIES IDENTIFICATION
5 excellent	+	+	+	+	+
4 good	-	+	+	+	+
3 moderate	-	+/-	+	+	+
2 poor	-	+/-	+/-	+/-	+
1 very poor	-	-	-	-	+/-
0 non-viable	-	-	-	-	-

Table 1: Condition scale

C.4.15	Condition Score	C.4.16	Frequency	C.4.17	% of Assemblage
C.4.18	5 Excellent	C.4.19	0	C.4.20	0
C.4.21	4 Good	C.4.22	0	C.4.23	0
C.4.24	3 Moderate	C.4.25	1	C.4.26	20
C.4.27	2 Poor	C.4.28	1	C.4.29	20
C.4.30	1 Very Poor	C.4.31	3	C.4.32	60
C.4.33	0 Non-viable	C.4.34	0	C.4.35	0
C.4.36	total	C.4.37	5	C.4.38	100

Table 21: Condition of material

C.4.39 Using the above condition scale (Table 1) the material all scores a 1, 2, or 3 describing an assemblage in very poor to moderate condition (Table 2).

C.4.40 Material that scores 1 might be suitable for species identification and may be possible to see the form of the item.

C.4.41 Material that scores 2 could be suitable for species identification. The form of the item will probably be visible, and it may be possible to see some woodworking evidence. The conversion may be apparent, but it is unlikely that clear tool faceting will be visible.

C.4.42 Material that scores 3 will have a clearly visible primary conversion and some tool facets are likely to be visible.

RANGE AND VARIATION

C.4.43 There are a total of 5 wood records, consisting of one item classed as roundwood, and four classed as timber. No artefacts or smaller pieces of primary woodworking debris, such as woodchips, were recovered. The material all came from a sub oval feature, possible SFB and Saxon in date, within Trench 6 cut number [606].

C.4.44 Clearly visible in plan were three circular patches of degraded wood following a line orientated? along and within the edges of the feature. Recovered from the northernmost one was a driven post (617) sample <22>. The post is in moderate

condition. tool marks show the post have been trimmed at the bottom from 3 sides to a tapered point, however the condition degrades further up the post. No identification of the species was possible.

C.4.45 The remaining four timbers, all Sample <23>, all were possibly tangentially split and ranged from poor - very poor condition. They were assigned as planks during evaluation. Though to be some type of flooring within the feature itself. It was not possible to identify species. They were found horizontally within deposit (605) and are all relatively uniform in their size and shape. There does not appear to be any bark present, although the degradation of the timber is such that it is not clear.

Species	Type	Notes	Bark/ Sapwood/ Heartwood	Condition Score	Wood Working	Conversion	Function	Length (mm)	Width (mm)	Thickness (mm)	Original Diameter (mm)
-	RW	some knots present, more degraded towards end	BSH	3	I end trimmed from 3 sides to tapered point	-	Post	395	169	142	-
-	TIM	All sides very degraded. Wet rot	H	1	none visible	Tan	plank?	334	242	48	-
-	TIM	All sides very degraded. Wet rot	H	1	none visible	Tan	plank?	391	239	68	-
-	TIM	All sides very degraded. Wet rot	H	1	none visible	Tan	plank?	237	149	58	>150
-	TIM	All sides degraded. Wet rot/ water damage	S?H	2	none visible	Tan	plank?	219	166	69	>200

Table 22-Material recovered

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APPENDIX E OASIS REPORT FORM

Project Details

OASIS Number	Oxfordar3-299384
Project Name	Archaeological Evaluation at Lower Brook Street, Ipswich

Start of Fieldwork	25.9.17	End of Fieldwork	06.10.17
Previous Work	yes	Future Work	unknown

Project Reference Codes

Site Code	IPS865	Planning App. No.	
HER Number		Related Numbers	Oxfordar3-251508

Prompt	Directions from local planning authority
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	☒ Trenches
☒ 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
Walls	Post Medieval (1540 to 1901)
Layers	Post Medieval (1540 to 1901)
Pits	Early Medieval (410 to 1066)

Object	Period
Lead Charm	Early Medieval (410 to 1066)
Pottery	Early Medieval (410 to 1066)
Pottery	Post Medieval (1540 to 1901)

Insert more lines as appropriate.

Project Location

County	Suffolk
District	Ipswich Borough
Parish	Ipswich
HER office	Suffolk
Size of Study Area	0.68ha
National Grid Ref	TM 1642 4420

Address (including Postcode)

Lower Brook Street
Ipswich
Suffolk
IP4 1AN

Project Originators

Organisation	OA East
Project Brief Originator	
Project Design Originator	Aileen Connor
Project Manager	Aileen Connor

Project Supervisor	James Fairbairn

Project Archives

	Location	ID
Physical Archive (Finds)	Ipswich Museum	IPS 865
Digital Archive	ADS	IPS 865
Paper Archive	Ipswich Museum	IPS 865

Physical Contents	Present?	Digital files associated with Finds	Paperwork associated with Finds
Animal Bones	☒	☒	☒
Ceramics	☒	☒	☒
Environmental	☒	☒	☒
Glass	☒	☐	☐
Human Remains	☐	☐	☐
Industrial	☒	☐	☐
Leather	☐	☐	☐
Metal	☒	☒	☒
Stratigraphic		☐	☐
Survey		☒	☒
Textiles	☐	☐	☐
Wood	☒	☒	☒
Worked Bone	☐	☐	☐
Worked Stone/Lithic	☒	☒	☒
None	☐	☐	☐
Other	☐	☐	☐

Digital Media		Paper Media	
Database	☒	Aerial Photos	☐
GIS	☐	Context Sheets	☒
Geophysics	☐	Correspondence	☐
Images (Digital photos)	☒	Diary	☐
Illustrations (Figures/Plates)	☐	Drawing	☐
Moving Image	☐	Manuscript	☐
Spreadsheets	☐	Map	☒
Survey	☒	Matrices	☐
Text	☒	Microfiche	☐
Virtual Reality	☐	Miscellaneous	☐
		Research/Notes	☐
		Photos (negatives/prints/slides)	☒
		Plans	☒
		Report	☒
		Sections	☐
		Survey	☐

Further Comments

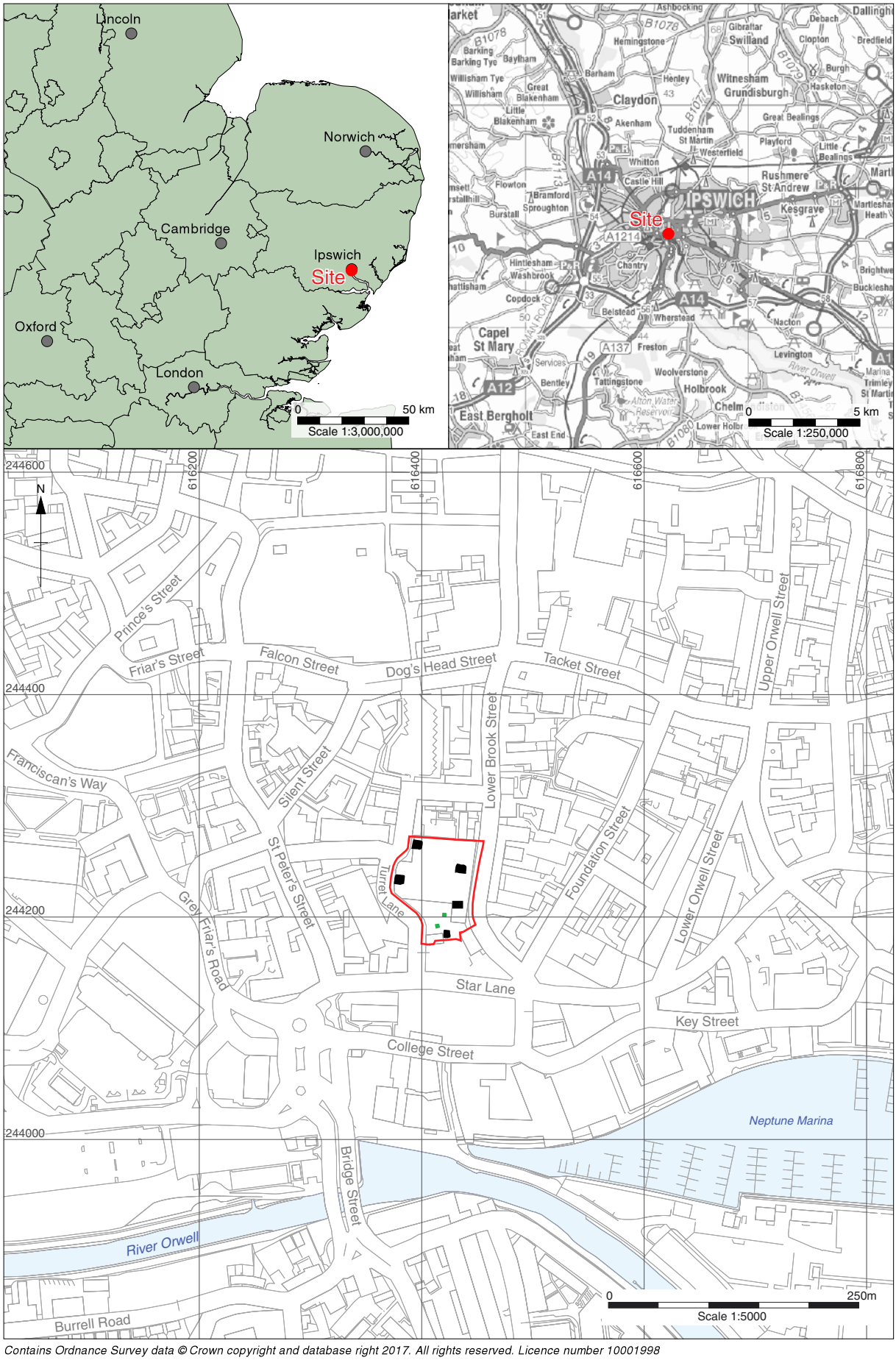


Figure 1: Site location showing trenches (black) and test pits from the first evaluation (green) in development area outlined (red)

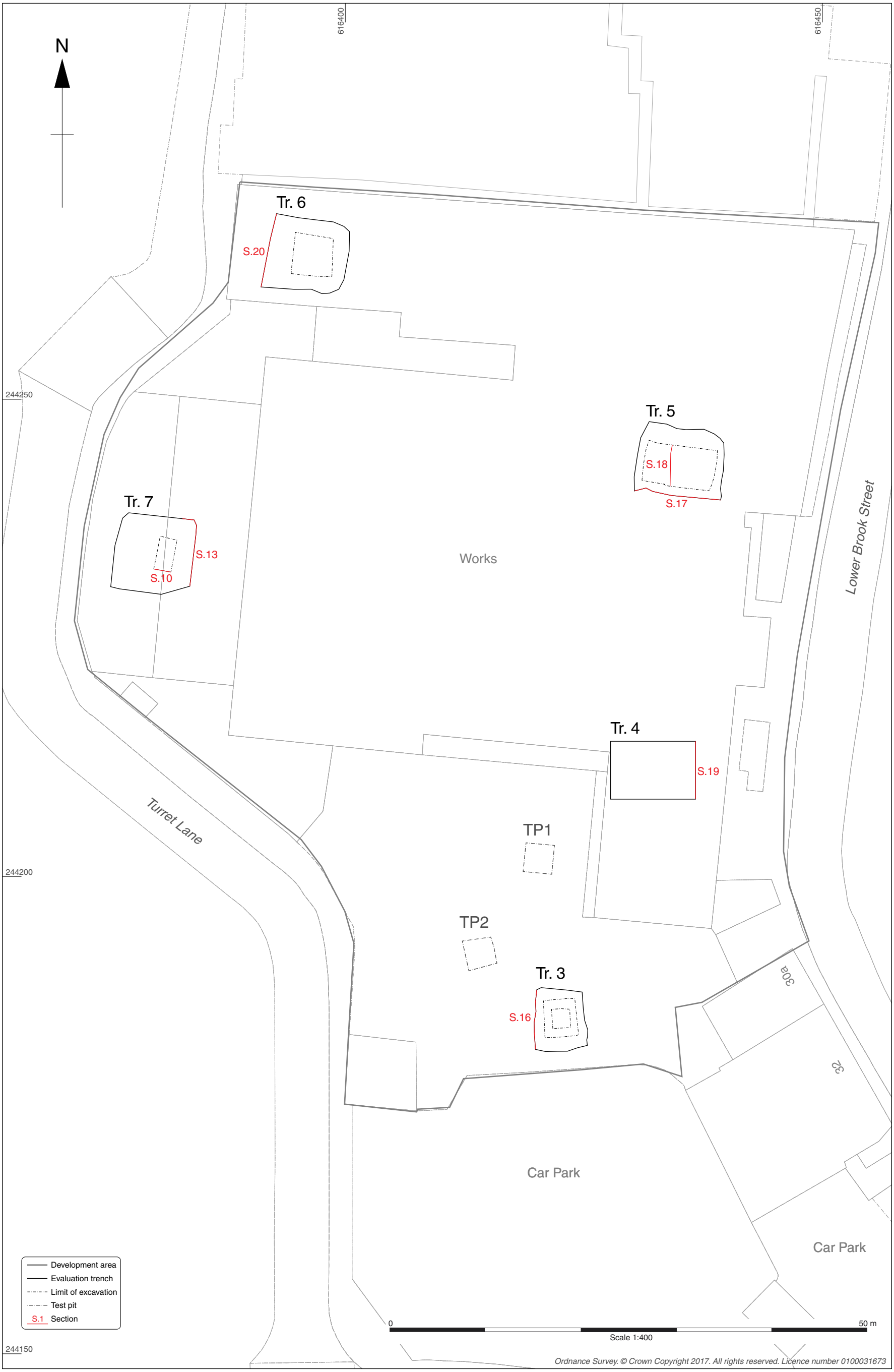


Figure 2: Trenches and Test Pits plan indicating location of sections

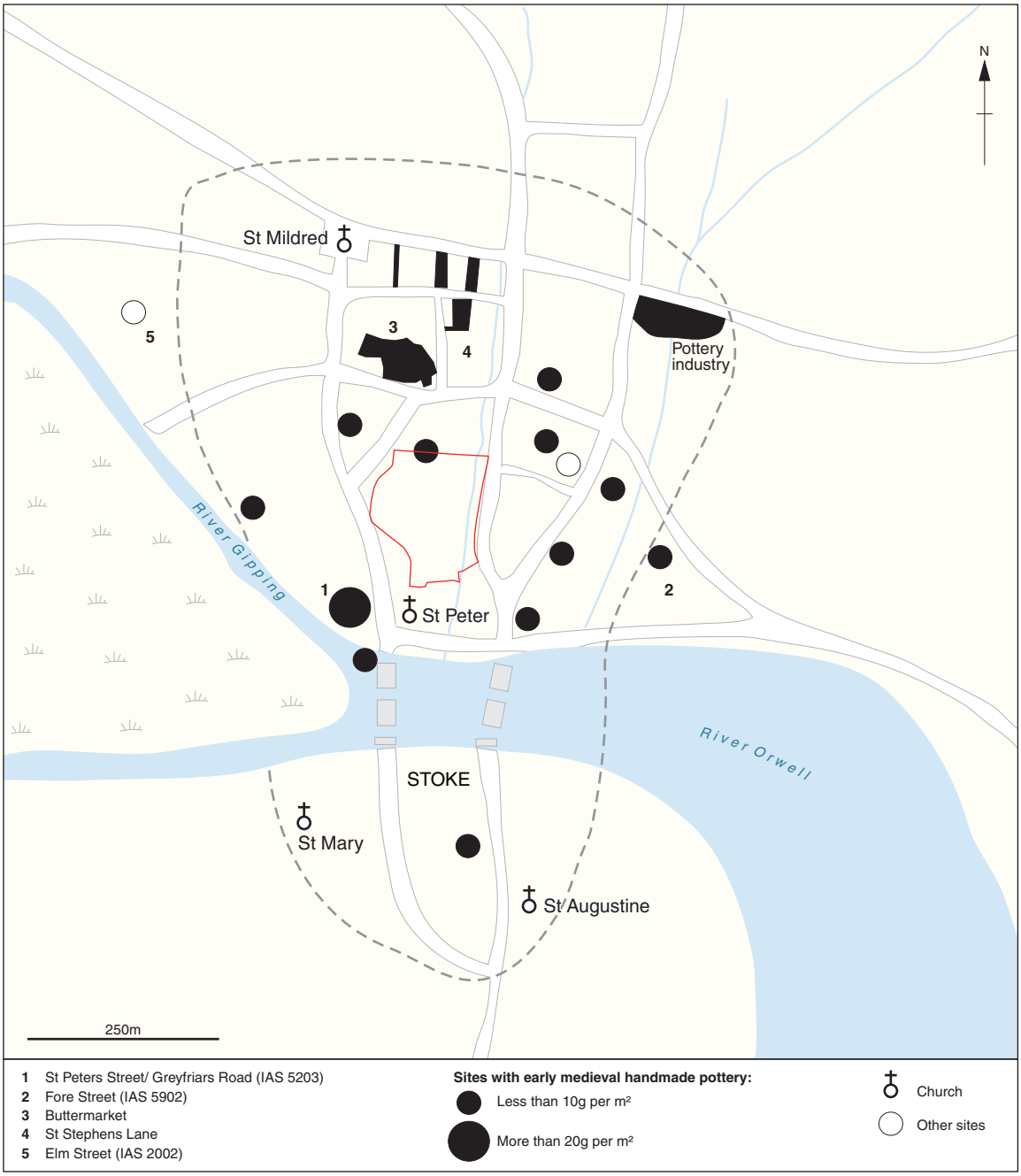
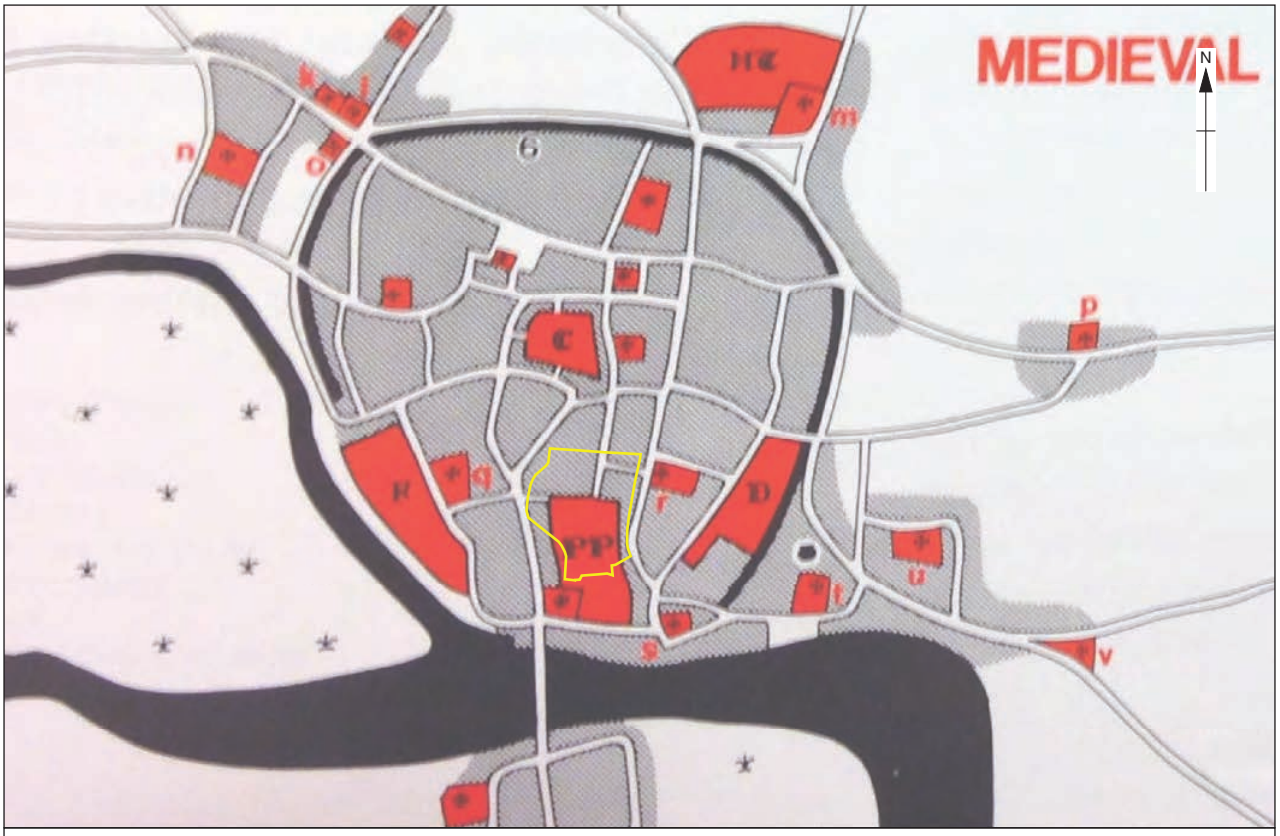


Figure 3: Map of Ipswich 7th-9th Centuries with investigated area located on old maps (Scull 2013)



The early development of Ipswich

1 Meeting Place?
2 Ford
3 First Town Defences
4 Castle (site of ?)
5 Thingstead
6 Later Town Defences

Pottery Kilns

Marsh

Religious Houses

Holy Trinity Priory
Carmelite Friary
Franciscan Friary
Priory of St Peter and St Paul
Dominican Friary

Churches, Chapels and Hospitals

a. St. Mildred's Church
b. St. Peter's Church
c. St Mary's Church (Stoke)
d. St. Augustrine's Church
e. St. George's Church
f. Holy Trinity Church
g. St. Mary Tower Church
h. St. Mary Elms Church
i. St. Lawrence's Church
j. St. Stephen's Church
k. St. John's Hospital (site of?)
l. All Saint's Chapel (site of ?)
m. St. Margaret's Church
n. St. Matthew's Church
o. Chapel of Our Lady
p. St. Helen's Church
q. St. Nicholas's Church
r. St.Edmund de Puontenay's Chapel
s. St. Mary Quay Church
t. Ostibold Church (Site of ?)
u. St. Clement's Church
v. St. James's Hospital
w. St. Leonard's Hospital

Figure 4: Medieval Development of Ipswich (Wade 1988)

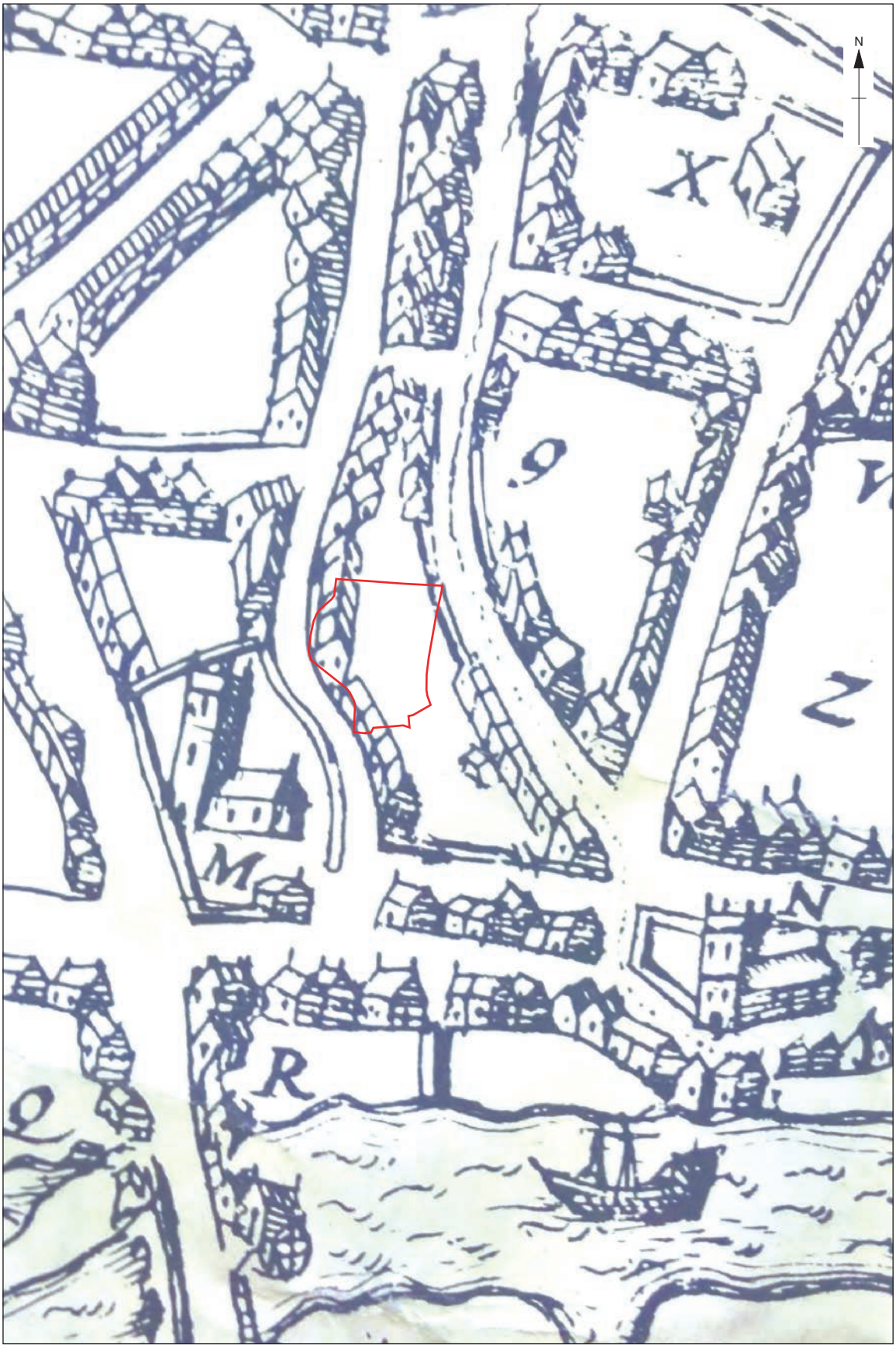


Figure 5: Speed's map of 1610

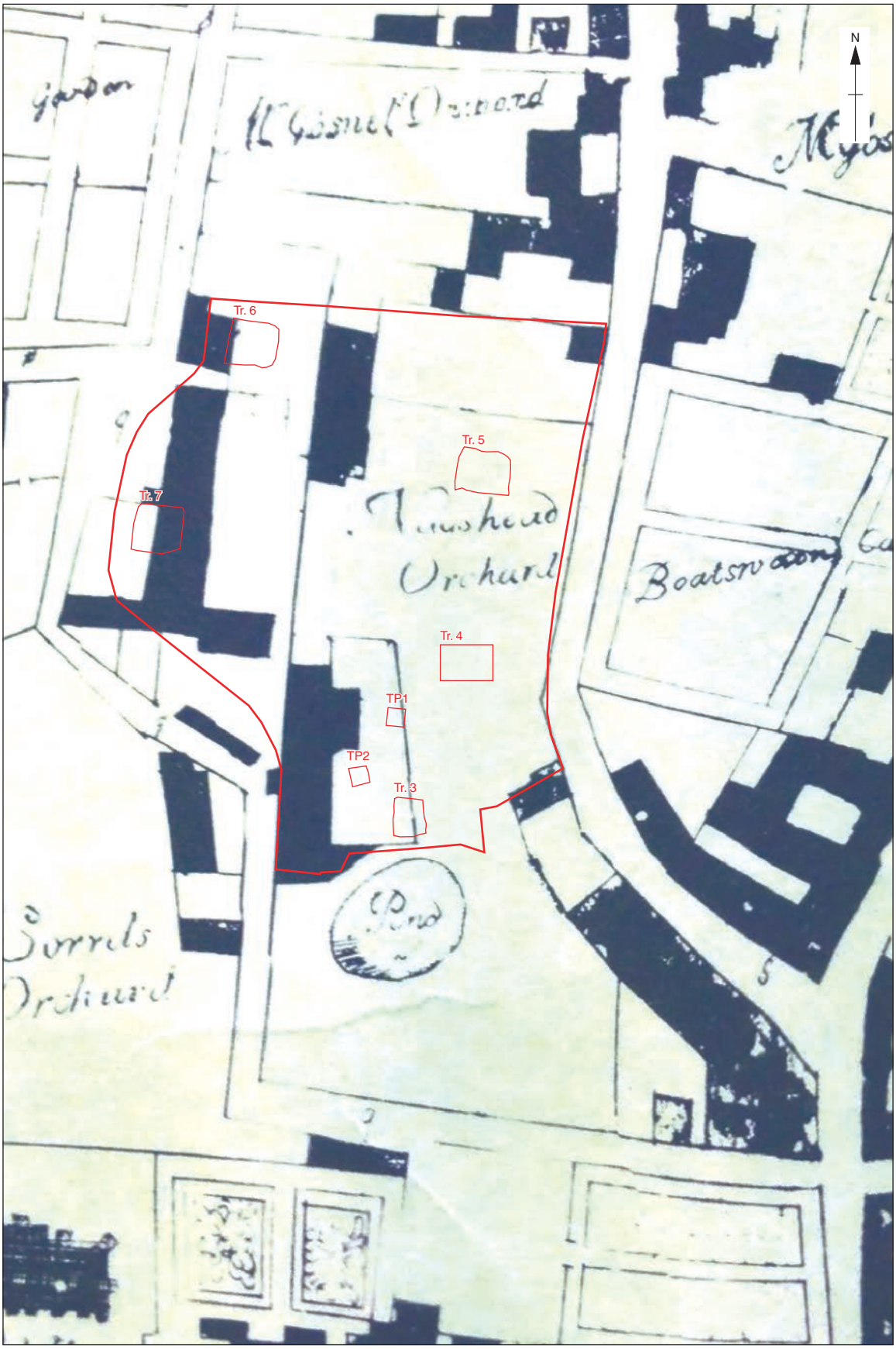


Figure 6: Ogilby's map of 1674

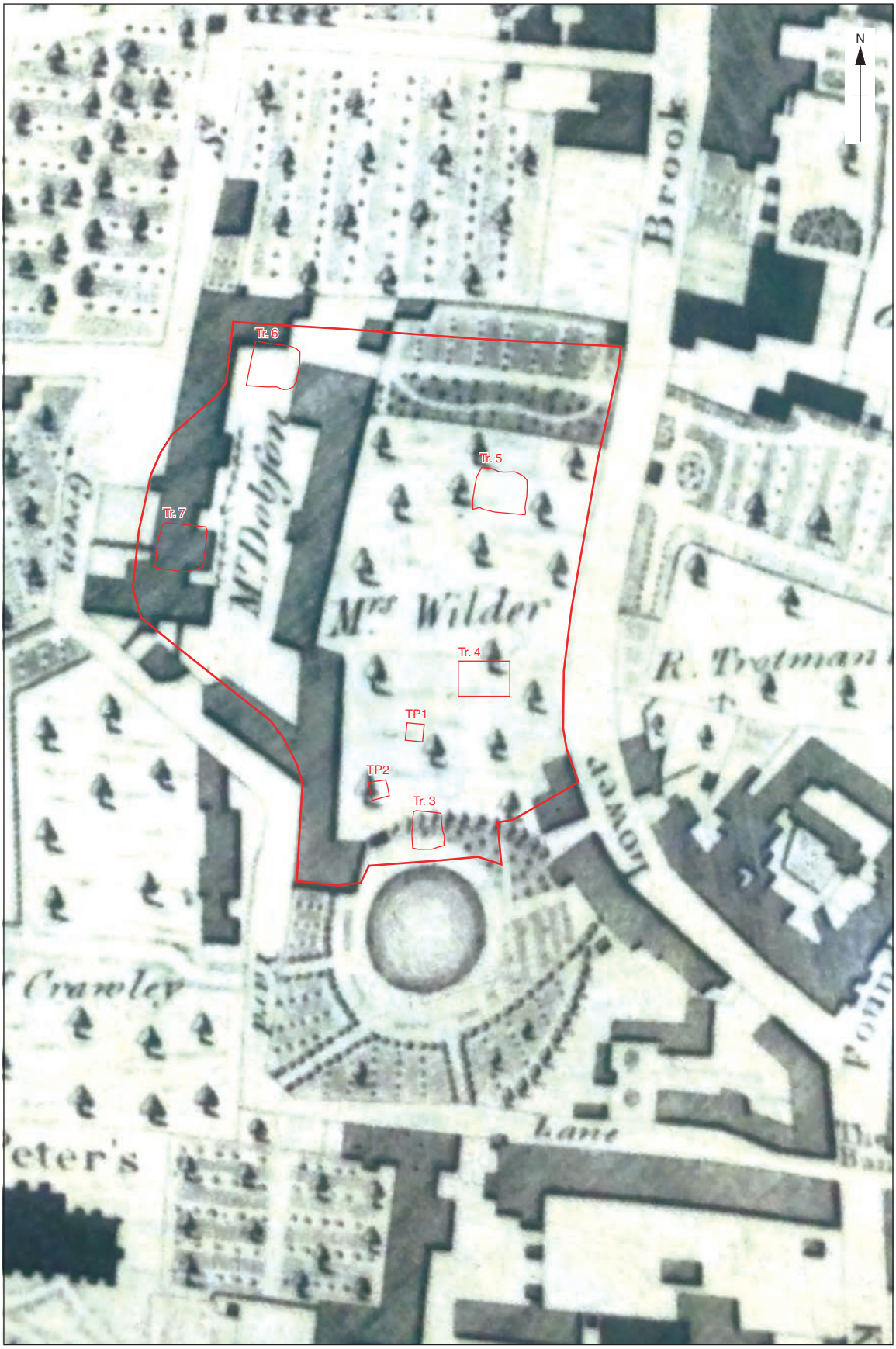


Figure 7: Pennington's map of 1778

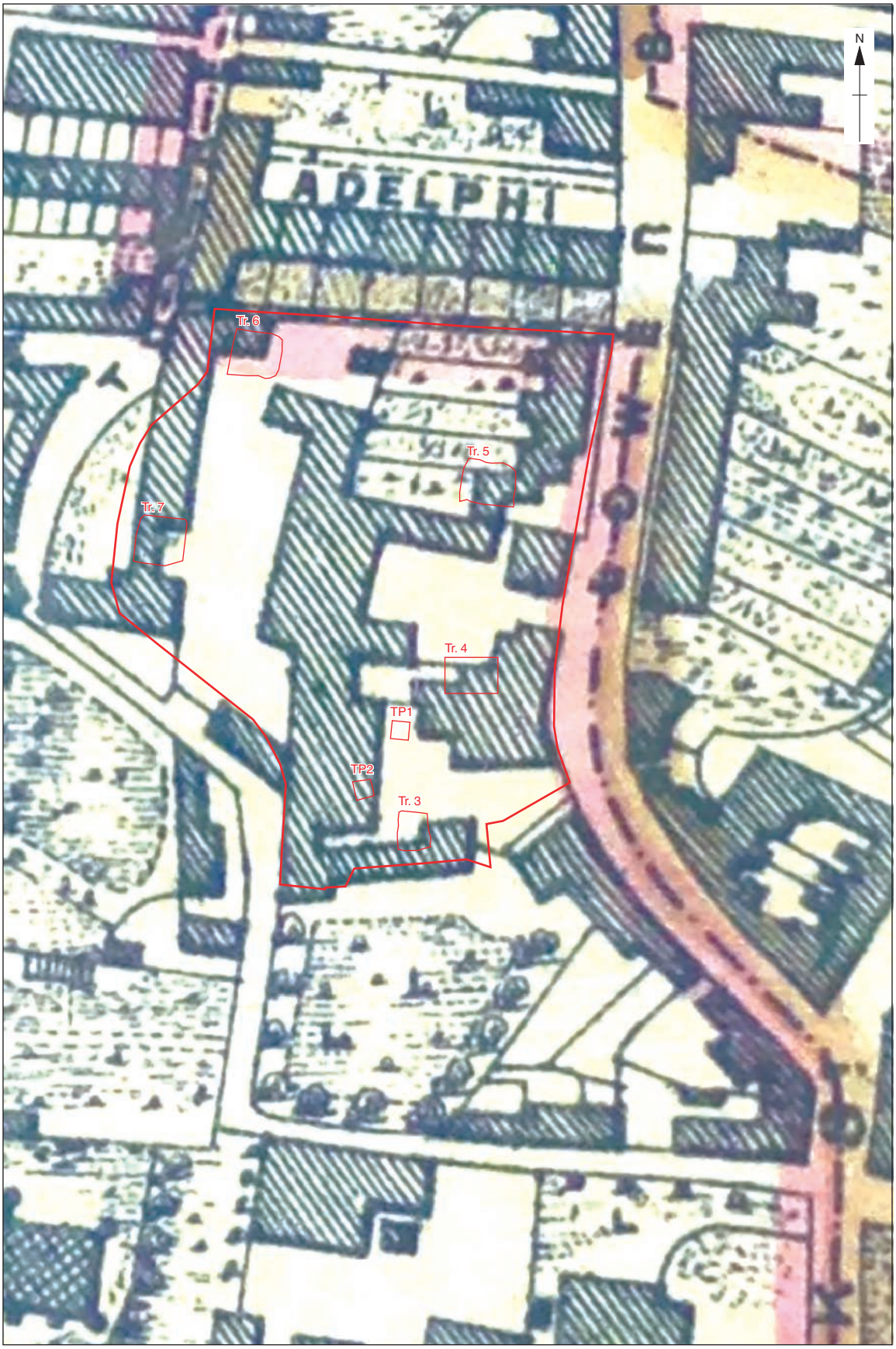


Figure 8: White's map of 1867

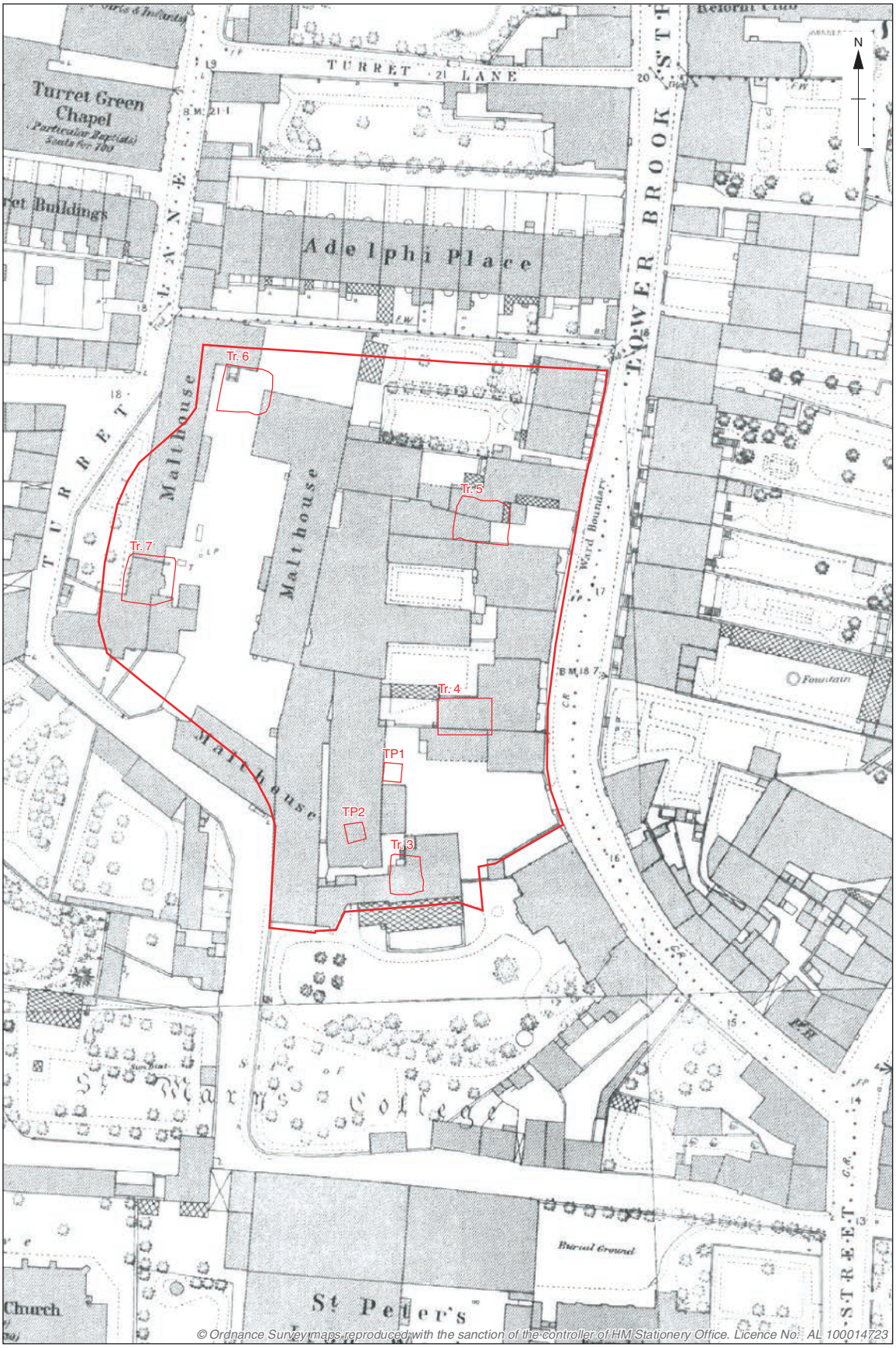


Figure 9: 1884 Ordnance Survey Map

Figure 10: 1902 Ordnance Survey Map

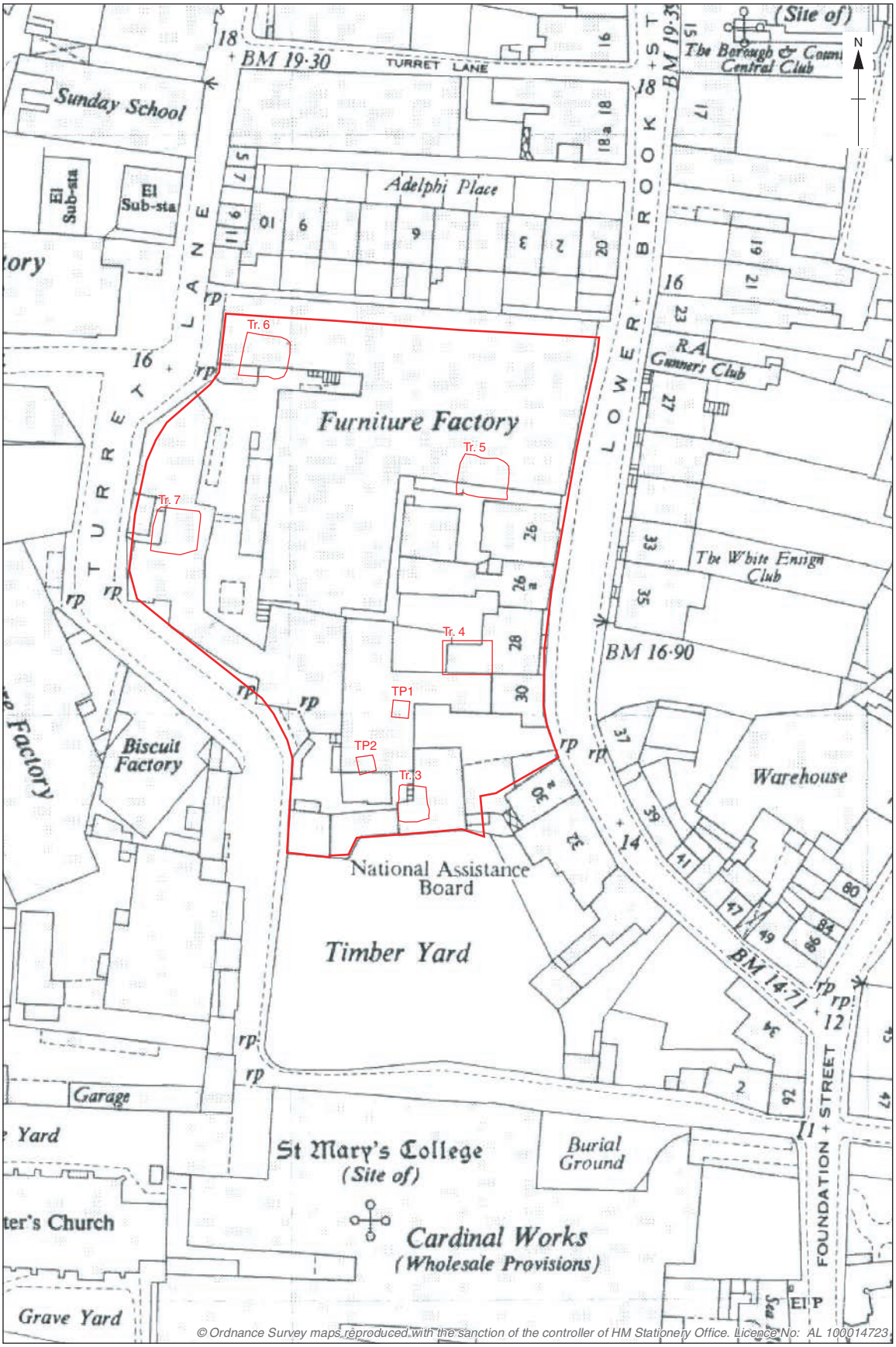


Figure 11: 1950 Ordnance Survey Map

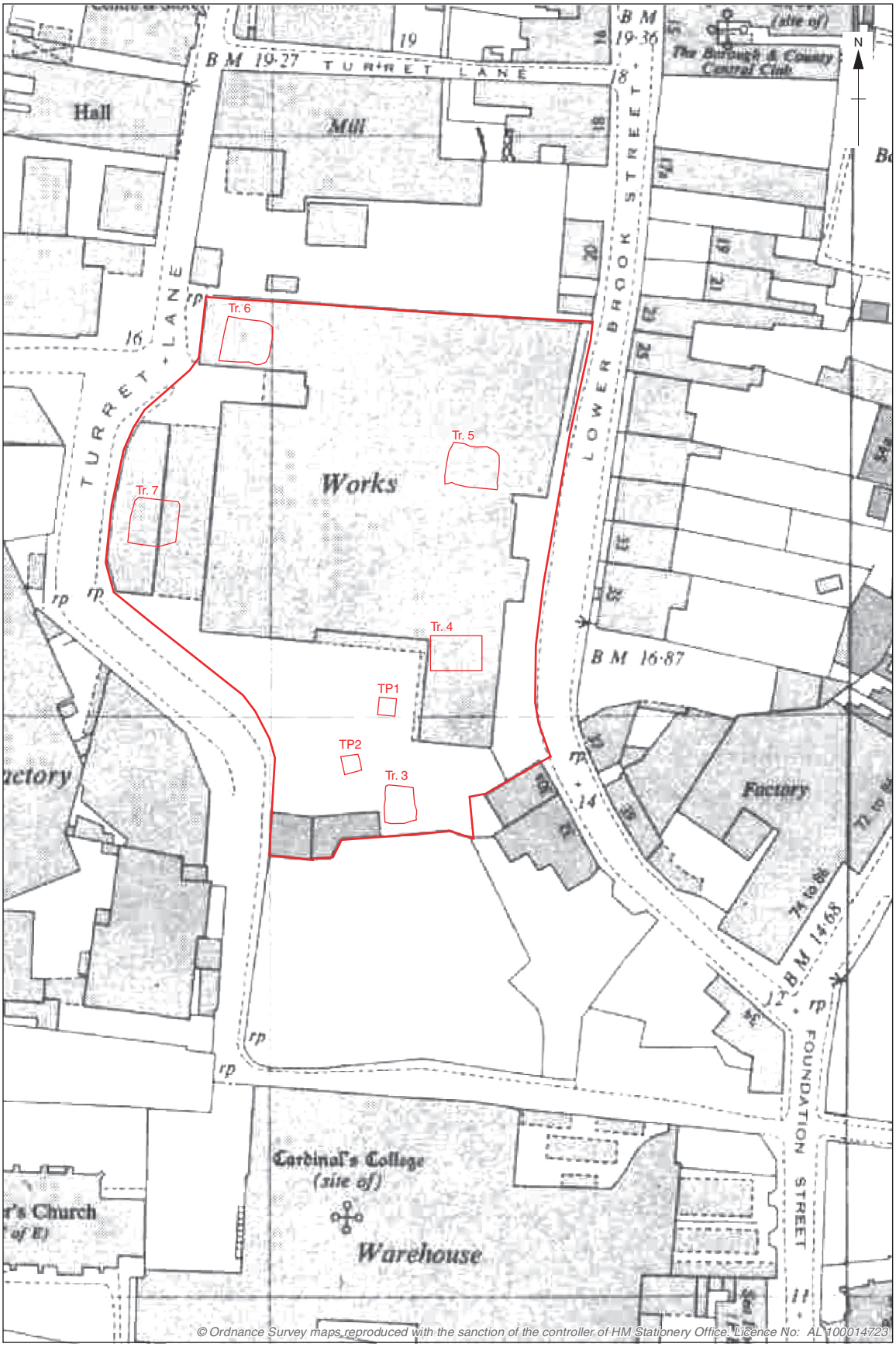


Figure 12: 1966 Ordnance Survey Map

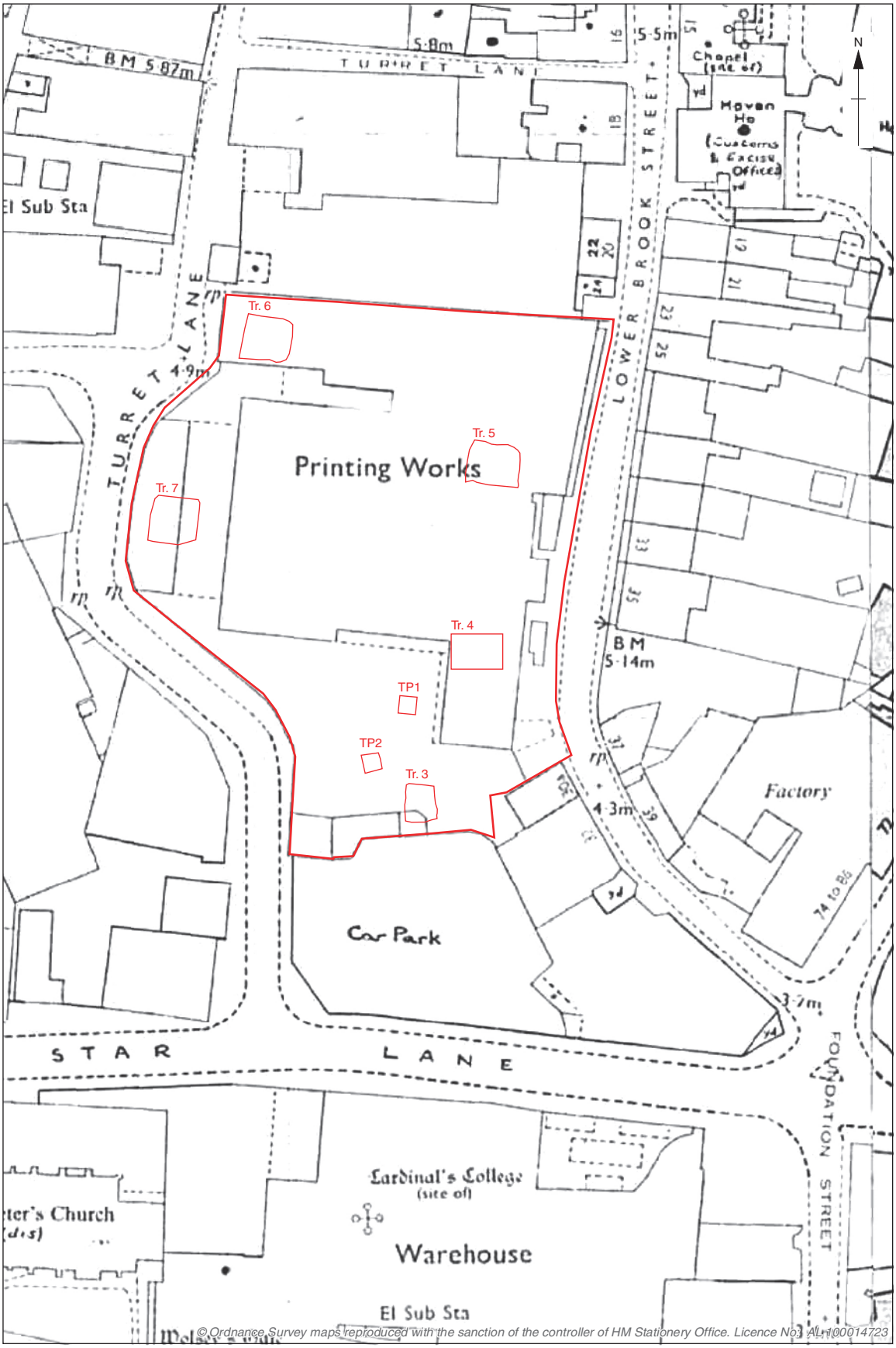


Figure 13: 1980 Ordnance Survey Map

Figure 14: Plans of Trench 3

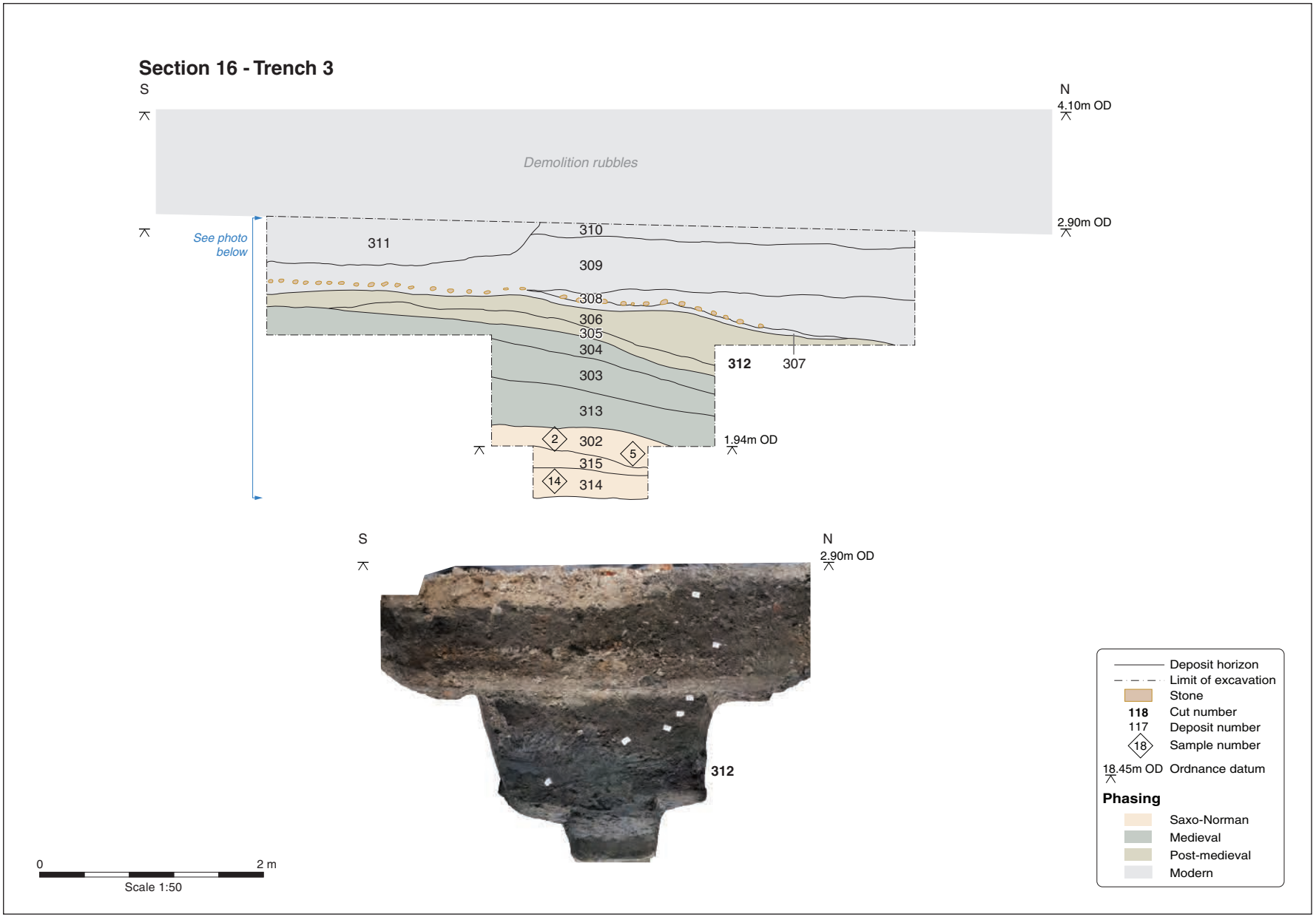


Figure 15: Trench 3 selected section

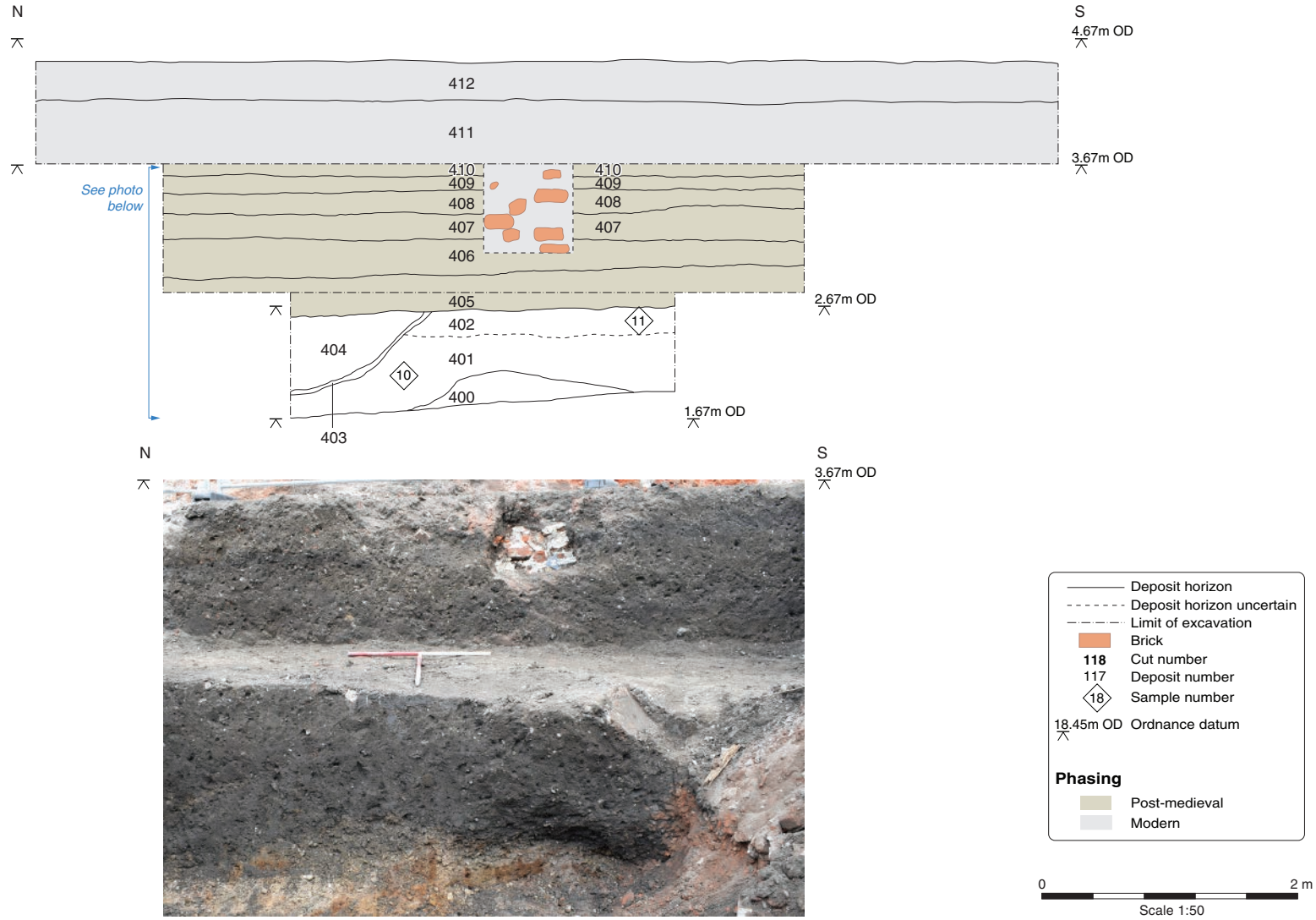


Figure 16: Trench 4 selected section

Figure 17: Plans of Trench 5

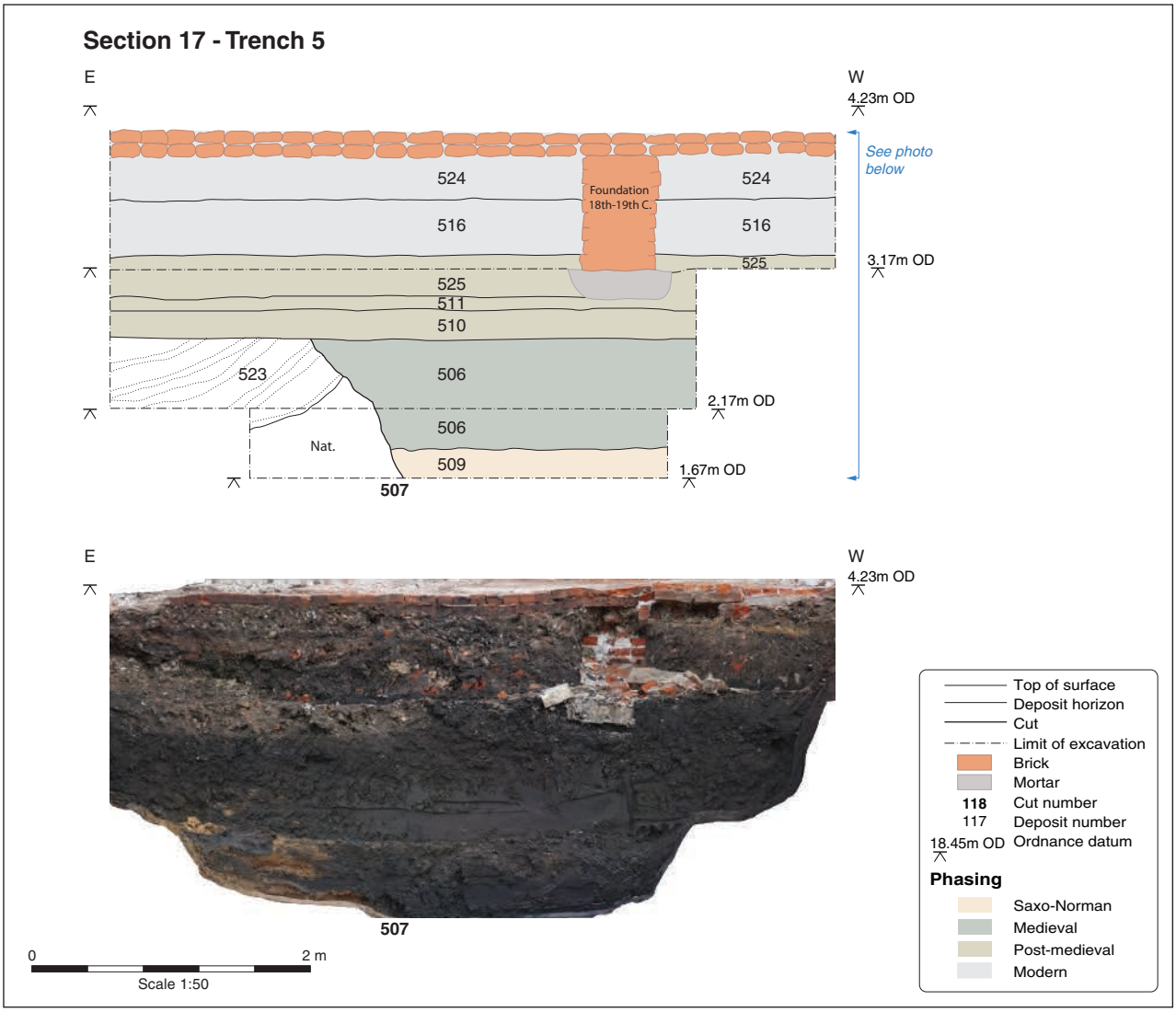


Figure 18: Trench 5 selected section

Figure 19: Plan of Trench 6

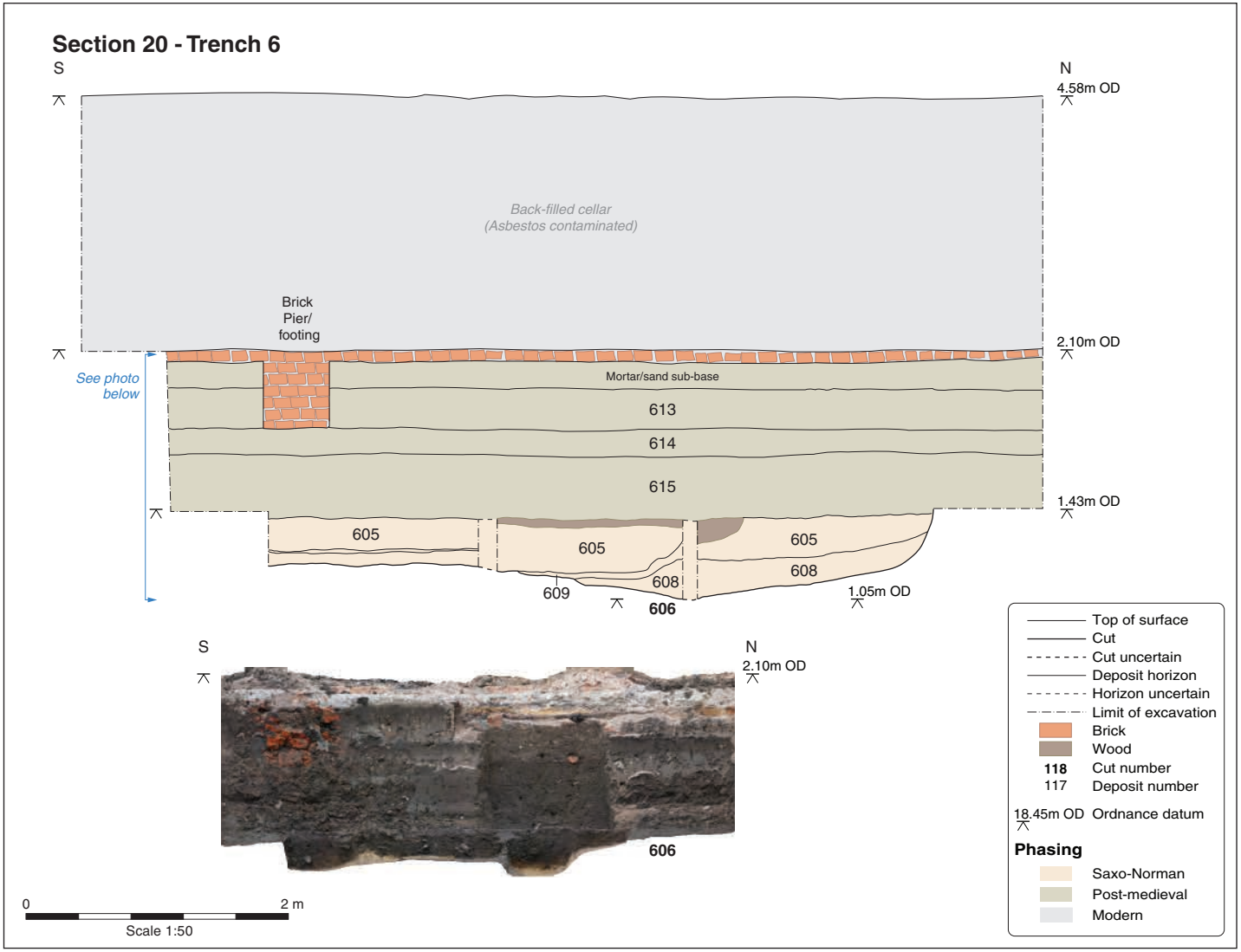


Figure 20: Trench 6 selected section

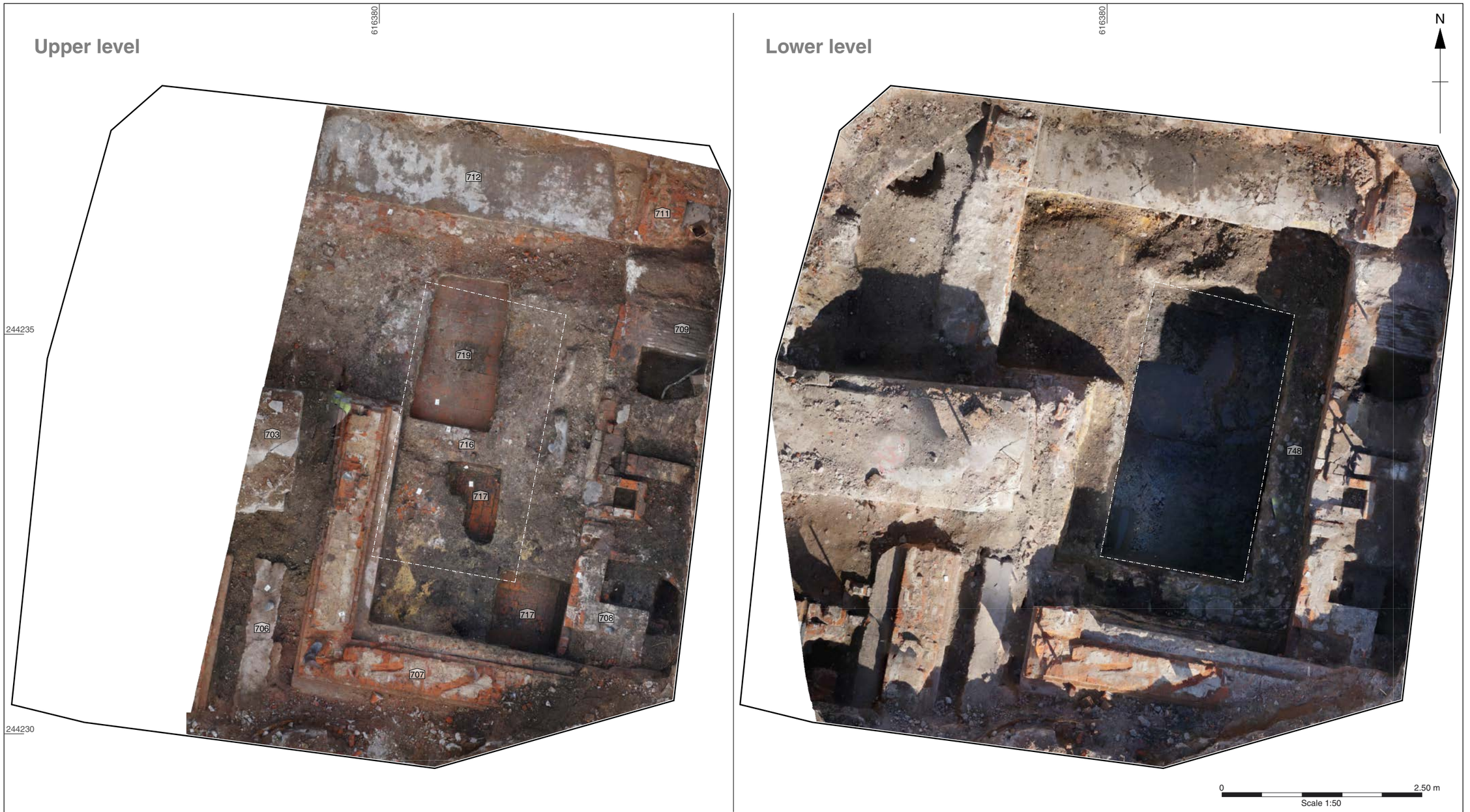


Figure 21: Plans of Trench 7

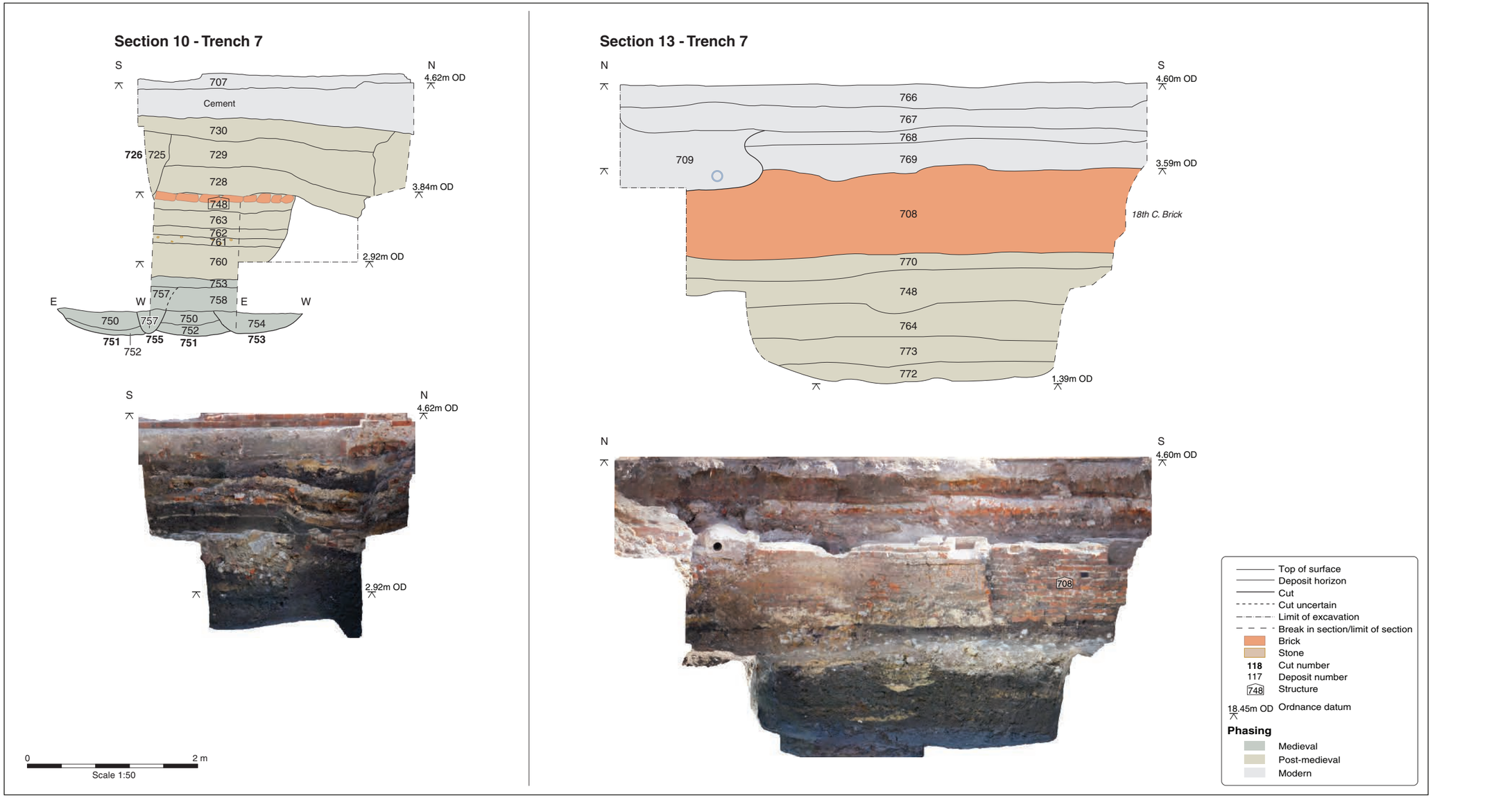


Figure 22: Trench 7 selected sections

Plate 1: Trench 3 viewed from the north

Plate 2: Trench 4 viewed from the east

Plate 3: Upper layers of Trench 5 showing 19th century building foundations

Plate 4: Foundations in Trench 5 viewed from the north

Plate 5: Detail of foundations in Trench 5 viewed from the west

Plate 6: Clunch wall foundations in Trench 5 viewed from the west

Plate 7: Detail of clunch foundations in Trench 5

Plate 8: Possible brook in the base of Trench 5 viewed from the south

Plate 9: Flooding of possible brook in Trench 5 viewed from the north

Plate 10: Layers at the Base of Trench 5 viewed from the south-west

Plate 11: Sunken featured building in the base of Trench 6 viewed from the east

Plate 12: Post in the base of Trench 6

Plate 13: Excavating the sunken featured building in Trench 6

Plate 14: East facing section in Trench 6

Plate 15: 19th century walls and floor surfaces in Trench 7 viewed from the north

Plate 16: Probable malting's in Trench 7 viewed from the north

Plate 17: Detail of malting building in Trench 7 viewed from the north

Plate 18: Layers below malting building in Trench 7 viewed from the south

Plate 19: Detail of malting's wall and cobbled/flint surface in Trench 7 from the west

Plate 20: Detail of wall and floor surface in Trench 7 viewed from the west

Plate 21: Cobbled and flint surface in Trench 7 viewed from the west

Plate 22: Stratigraphy of the south facing section in Trench 7

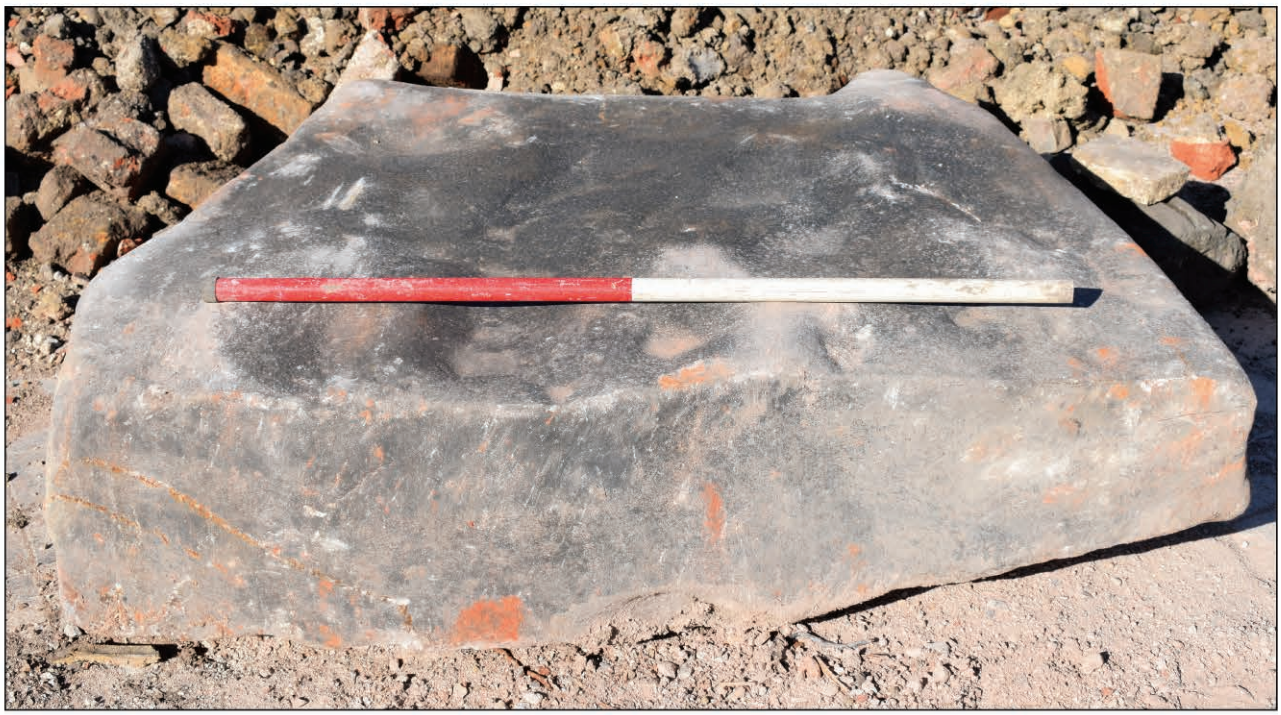


Plate 23: Scarcen stone found in the vicinity of Trench 7

Plate 24: Anglo-Saxon penny retrieved from Trench 5 from brook fill

Plate 25: Lead rectangular disc with runic inscriptions retrieved from Trench 5 from brook fill

Plate 26: Disc Broach (9th century) retrieved from Test pit 7

Plate 27: Architectural stone work from Trench 7

Plate 28: Worked stone from Trench 7

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