



Preston Tithebarn Regeneration Area (PTRA), Preston, Lancashire

Archaeological Evaluation



Oxford Archaeology North

May 2008

**Soil Mechanics, on behalf
of the Preston Tithebarn
Partnership (PTP)**

Issue No: 2008-09/817

OA North Job No: L9990

NGR: SD 541 294

Document Title: PRESTON TITHEBARN REGENERATION AREA (PTRA),
PRESTON, LANCASHIRE

Document Type: Archaeological Evaluation

Client Name: Soil Mechanics, on behalf of the Preston Tithebarn
Partnership (PTP)

Issue Number: 2008-09/817
OA Job Number: L9990
Site Code: PTB08

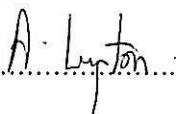
National Grid Reference: centred on SD 541 294

Prepared by: Kelly Clapperton
Position: Supervisor
Date: May 2008

Checked by: Emily Mercer
Position: Project Manager
Date: May 2008

Approved by: Alan Lupton
Position: Operations Manager
Date: May 2008

Signed.....

Signed.....

Oxford Archaeology North

Mill 3
Moor Lane
Lancaster
LA1 1GF
t: (0044) 01524 848666
f: (0044) 01524 848606

w: www.oxfordarch.co.uk
e: info@oxfordarch.co.uk

© Oxford Archaeological Unit Ltd (2008)

Janus House
Osney Mead
Oxford
OX2 0EA
t: (0044) 01865 263800
f: (0044) 01865 793496

Oxford Archaeological Unit Limited is a Registered Charity No: 285627

Disclaimer:

This document has been prepared for the titled project or named part thereof and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authority of Oxford Archaeology being obtained. Oxford Archaeology accepts no responsibility or liability for the consequences of this document being used for a purpose other than the purposes for which it was commissioned. Any person/party using or relying on the document for such other purposes agrees, and will by such use or reliance be taken to confirm their agreement to indemnify Oxford Archaeology for all loss or damage resulting therefrom. Oxford Archaeology accepts no responsibility or liability for this document to any party other than the person/party by whom it was commissioned.

CONTENTS

SUMMARY	2
ACKNOWLEDGEMENTS.....	4
1. INTRODUCTION.....	5
1.1 Circumstances of the Project	5
1.2 Location, Topography and Geology	5
1.3 Historical and Archaeological Background	6
2. METHODOLOGY.....	11
2.1 Project Design.....	11
2.2 Fieldwork	11
2.3 Finds.....	11
2.4 Environmental.....	12
2.5 Archive.....	12
3. FIELDWORK RESULTS	13
3.1 Introduction.....	13
3.2 Fieldwork	13
3.3 Finds.....	16
3.4 Environmental.....	17
4. CONCLUSION.....	18
4.1 Discussion	18
5. BIBLIOGRAPHY	21
5.1 Primary Sources	21
5.2 Secondary Sources	21
6. ILLUSTRATIONS	23
6.1 Figures.....	23
6.2 Plates	23
APPENDIX 1: PROJECT DESIGN.....	24
APPENDIX 2: CONTEXT REGISTER	32
APPENDIX 3: FINDS CATALOGUE.....	40

SUMMARY

Oxford Archaeology North (OA North) undertook an archaeological evaluation at the behest of Soil Mechanics, acting on behalf of their client the Preston Tithebarn Partnership (PTP), on a site to the east of Preston City Centre, Lancashire (centred on NGR SD 541 294, Fig 1). The work was in advance of a proposed redevelopment for commercial, leisure and residential purposes. An archaeological desk-based assessment produced by OA North in November 2007 indicated that the site was within an area of high potential for medieval and post-medieval archaeology. Following consultation with Lancashire County Archaeology Service (LCAS), and in line with the recommended LCAS staged approach, it was agreed that a series of environmental and geotechnical trenches and test-pits that were to be excavated by Soil Mechanics, would be done so in an archaeological manner where they coincided with areas of archaeological potential. The project is currently at a pre-planning stage and an environmental assessment of the site, as part of the EIA process, is being undertaken, to which this evaluation will contribute.

Due to restrictions with access at this pre-determination stage, the number of trial pits and trenches has been limited to those on land belonging to Preston City Council (PCC) Estates, Lancashire County Council (LCC) Highways, and the client. Twelve test pits were excavated in total across the area. Three of the test pits were excavated as archaeological evaluation trenches: Test Pits (TP) 17 and 18 were situated to target the former Lord Street cotton mill, dating to 1841 (Site **04**, OA North 2007); and TP 29 was located to target possible handloom weavers' cottages, located to the west of similar houses still upstanding (Site **36** (*ibid*)). Both the sites are considered important to Preston's early industrial heritage.

Of the 12 test pits excavated, five contained no features or deposits of archaeological interest, TP 2, 3, 4, 15 and 16. They all comprised redeposited material relating to the construction of large modern buildings in the later twentieth century. The remaining seven test pits (TP 6, 9, 10, 11, 17, 18 and 29) contained one or more deposit or feature of archaeological significance.

Test pits 6, 9, 10 and 11 were located in or around the current covered market, in the western area of the development site. The former subsoil, **155**, identified in TP 9 and 10 (in the northern part of the covered market), and the former soil horizon in TP 6, **188**, pre-date much of the development in this area. The medieval pottery recovered from **155** in TP 9 suggests nearby activity dating to this period. During the seventeenth century the area was occupied by open fields to the rear of burgage plots fronting the western end of Lord Street, but had been transformed into gardens, known as Colleys Garden, by the early eighteenth century (*ibid*). This area of the development site remained gardens until the mid 1800s, following expansive urbanisation, when it was bound to the north by the construction of Liverpool Street, Ormskirk Road to the east, and Earl Street to the south. The construction of these roads most likely disturbed the former subsoils and deposits around the edges of the covered market, although there is potential for undisturbed medieval and post-medieval remains to survive internally within the market place.

TP 11, to the south of TP 9 in the southern part of the covered market, contained two walls constructed from handmade bricks, bonded with a cream limestone mortar,

which may indicate a late eighteenth to early nineteenth century date. Structures have been on the site since at least the late seventeenth century, with burgage plots located to the rear, although these buildings had been demolished by the beginning of the twentieth century when the southern covered market was established. As with the covered market to the north, there is potential for medieval and post-medieval remains to survive in the central area.

On the site of the Lord Street Cotton Mill (Site **04**, *ibid*), three substantial brick walls, **109**, **110** and **111**, were observed in TP 18, and formed the basement of a large building. Excavation to depths exceeding 2m, without encountering floor levels, indicated substantial cellars. It could be concluded, from the remains that most of the sub-surface rooms from the former cotton mill survive below the current ground level. However, fuller investigative work is needed to confirm this.

TP 17, located to the north-west of TP 18, produced several phases of activity across the trench. The evaluation revealed a flagged floor, **116**, and cobbled surface, **117**, as well as modern toilet cubicles. Excavations below the cobbled surface, **117**, indicated earlier phases of building. The whole area was occupied by the mill buildings from the mid nineteenth century to the early twentieth century, when an area to the rear of the buildings had been cleared. It was possible that **117** was a cobbled yard that was laid at this time. By the mid twentieth century, the area had been rebuilt, and it is possible that the toilet block was installed at this point. It is likely that in the area of the former mill (Site **04**) several phases of building from the mid nineteenth century onwards may survive below the surface, in varying states of preservation.

TP 29 was located on the site of possible handloom weavers' cottages. The evaluation trench revealed a cellar wall, **101**, complete with fragments of a stone-flagged floor, **104**, and brick structure **102**, that probably dated to the nineteenth century and most likely formed the cellars of the cottages. An earlier phase of activity was observed in the shape of a very large, rough, sandstone wall, **103**, which ran north/south across the test pit, and to over 2m in height. It had been truncated to the south by **102**, and lay on a completely different alignment to the later structures. Until the early half of the nineteenth century this area had been occupied by the formal gardens associated with Patten House (Site **46**, *ibid*), residence of the Earls of Derby, wherein associated structures were incorporated. It is possible that wall **103** is associated with the garden.

Although the development area has been subject to much disturbance over the years, there is still potential for medieval and post-medieval archaeology to survive below existing structures. The internal area of the markets have the highest potential for medieval remains, as the areas have been relatively untouched over the centuries, and the presence of a sealed former soil horizon, **155**, producing medieval pottery enhances this possibility. The results of the evaluation at the Lord Street Mill suggest that there are several phases of activity sealed beneath the site. The site on Derby Street (TP 29) could provide information on Preston's industrial and pre-industrial heritage, with features that may well pre-date the nineteenth and even eighteenth-centuries. An understanding of these phases is very limited, and further investigation is needed to fully comprehend the site.

ACKNOWLEDGEMENTS

OA North would like to thank Soil Mechanics for commissioning the work on behalf of the Preston Tithebarn Partnership, with especial thanks to Paul Fitzsimon, for his assistance during the fieldwork, and Mark Nuttall. Thanks are also extended to Dr Osric Tening Forton of Ramboll Whitbybird for his help during the fieldwork phases.

The fieldwork was undertaken by Kelly Clapperton, with assistance from Steve Tamberello and Joanne Hawkins. The report was compiled by Kelly Clapperton, and the illustrations produced by Marie Rowland. The project was managed by Emily Mercer, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 Oxford Archaeology North (OA North) was commissioned by Soil Mechanics, acting on behalf of their client the Preston Tithebarn Partnership (PTP), to undertake an archaeological evaluation on a site to the east of Preston City Centre, Lancashire (centred on NGR SD 541 294; Fig 1), as part of the process of obtaining information for the purposes of a planning application to redevelop the area for commercial, leisure and residential purposes. An archaeological desk-based assessment produced by OA North in November 2007 indicated that the site was within an area of high potential for medieval and post-medieval archaeology.
- 1.1.2 After consultation with Lancashire County Archaeology Service (LCAS), it was agreed that a series of environmental, geotechnical and structural test pits located across the development area would be excavated, initially, in an archaeological manner, but under the auspices of Soil Mechanics. Twelve test pits were excavated across the area (Fig 2), measuring between 2.1m and 13m in length, and 0.6m and 2.5m in width, depending on restrictions, mostly related to live services. Three of the test pits were excavated as normal archaeological evaluation trenches. Test Pits (TP) 17 and 18 were situated to target the former Lord Street cotton mill (Site **04**), and TP 29 was located to target possible handloom weavers' cottages (Site **36**); both sites being important to Preston's early industrial heritage.
- 1.1.3 The following report details the outcome of the evaluation trenching, providing a discussion of the results within their historical context, and suggests further mitigation of the impact of the proposed development.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 1.1.2 The development site is located to the east of Preston City Centre, centring on Tithebarn Street and the current bus station. It is bound by the Ringway (A59) to the north-east and north-west, Pole Street to the east, and partially by Church Street to the south, although the proposed development area also projects south of Church Street, in an area bound by Manchester Road to the east, and St John's Place to the west. The very southern edge is bound by Oak Street. Along the west side of the site is the nineteenth century civic quarter of Preston, comprising the Preston City Council Offices and Town Hall, the Harris Museum and Library, and the Miller Arcade.
- 1.2.2 Preston is situated within the Lancashire and Amounderness Plain, on the north side of the River Ribble (Countryside Commission 1998). The historic core of the city was laid out along a low undulating plateau above the river. The underlying solid geology of the area comprises Permian and Triassic New Red Sandstones, including Bunter and Keuper sandstones (IGS 1979).

- 1.2.3 The overlying drift geology of the plateau comprises glacial till, mostly heavy clay with overlying sands, which can reach depths of *c* 9m. The clay was suitable for brick-making, and the sand provided good drainage. The numerous brooks that crossed the city were harnessed by the early steam-powered cotton mills (Lancashire County Council (LCC) 2006).

1.3 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND

- 1.3.1 **Introduction:** although it is not the intention to wholly reproduce the archaeological and historical background provided in the desk-based assessment (OA North 2007), a summary of the background is provided below to put the results of the archaeological evaluation into their historical and archaeological context.
- 1.3.2 **Prehistoric Period:** the developing record of pollen and increase in artefact collection is expanding our knowledge of Mesolithic activity in the region, from 6000 BC onwards. In the Preston area evidence includes a mattock fashioned from red deer antler, dating to 5400 BC (Hunt 2003), while numerous finds of Mesolithic and Neolithic date from Walton-le-Dale are indicative of the importance of the River Ribble as a communication route to the prehistoric populations in the area (LCC 2006). The development of Preston Dock in the nineteenth century produced further evidence for activity dating from the prehistoric period to the early medieval. Finds included a Neolithic greenstone axe, a Bronze Age spearhead, and human skulls as well as numerous animal bones. Two prehistoric log canoes were also recovered within the vicinity of the River Ribble (Fishwick 1900; Hunt 2003). To the south of the development area, adjacent to the Ribble, is a putative Iron Age promontory fort, although excavations are required to confirm this (LCC 2006). No sites dating to the prehistoric period have been identified across the development area.
- 1.3.3 **Roman Period:** evidence of Roman occupation in Preston is sparse and restricted to stray finds of coins and pottery, and projected lines of Roman roads (LCC 2006). However, the area of Walton-le-Dale, to the south of the development area, was a focus of industry and settlement during the Romano-British period, and may have been a supply base for the region (Philpott 2006). Activity throughout the remainder of the region, however, is more widespread, for example the sites at Ribchester and Kirkham.
- 1.3.4 The main east/west road that runs from Kirkham to York was located to the north of the River Ribble, situated *c* 2km from the development area (Philpott 2006; Margary 1957). The line of the Wigan-Lancaster road (Site 22, OA North 2007), however, is much less certain, although it is thought that sections of the current A6 follow its course, for example at Fulwood (Margary 1957). Reports from the mid eighteenth century suggested that the road was identified during the development of Lower Bank Road (Knight 1986; Iles 2006), and it has been suggested that the road crosses the Ribble to the north of Walton-le-Dale. If so, it would have to pass through the development area to connect with the Fulwood section (Philpott 2006).

- 1.3.5 **Early Medieval Period:** post-Roman activity is not well understood in Lancashire, and the etymology of local waterways and settlements, such as the River Ribble and Penwortham, suggest a strong, residual native influence (LCC 2006). However, subsequent Anglo-Saxon influence and settlement from the sixth to ninth centuries, is indicated through placenames such as Preston, ‘the town of the priest’, and Fishwick, ‘fish market’ (Hunt 2003, 31).
- 1.3.6 In AD 670, lands beside the River Ribble were granted to Wilfrid’s Abbey in Ripon, and may have included Preston and the surrounding region (Fishwick 1900; Farrer and Brownbill 1912; Hunt 2003). The Ribble was thought to have been an important communication route between the Scandinavian populations of York and Dublin during the tenth century (LCC 2006), and the Cuerdale Hoard from Walton-le-Dale supports this theory (Newman 1996). The largest Scandinavian hoard discovered in North West Europe, it dated to AD 905 and contained a high proportion of coins minted in York.
- 1.3.7 By the time of the Norman Conquest, Preston was documented as the head of the Amounderness Hundred (Farrer and Brownbill 1912), first recorded in 930 in King Aethelstan’s gift of land to St Peter’s Church in York (Fishwick 1900). In the 1086 Domesday Book, the Hundred was registered in Yorkshire, a consequence of its Northumbrian heritage. William the Conqueror subsequently granted the land to Roger de Poitou (*ibid*).
- 1.3.8 **Late Medieval Period:** the earliest settlement in the town appears to have centred on the Church of St John the Divine, which most likely pre-dates the Conquest, although it was not mentioned in the Domesday survey (LCC 2006). The first reference to the church is in 1094, when it was dedicated to St Wilfred. The name later changed after the Reformation. The medieval church was replaced in the sixteenth century, although the eastern side of the original church enclosure may have been preserved by the line of Shepherd Street (*ibid*), which runs into the development site to the south-east.
- 1.3.9 Preston was granted Royal Borough status in the early twelfth century (Knight 1986), and was a free borough run by an elected body rather than under manorial control (LCC 2006). The town was constructed as a planned settlement, comprising double burgage plots focusing on Fishergate and Church Street (Site 54, OA North 2007), part of which is incorporated into the southern boundary of the development. Several other sites dating to the later medieval period are located within the development area: including former burgage plots (Sites 23 and 24, *ibid*); and the eastern town barr or gate (Site 40, *ibid*). Preston relinquished its free borough status by the mid twelfth century when Roger de Poitou rebelled against Henry I, and the town was forfeited to the Crown. It remained under Royal control until the fifteenth century.
- 1.3.10 It is thought that the original market, dating to the twelfth century, was situated at the junction of Fishergate and Church Street, before being relocated north along the eastern side of Cheapside. The town hall stood on the south side of Market Street until 1377, while the Market Place contained the Buttercross and Market Cross (LCC 2006). Documents from the thirteenth to the fifteenth centuries show that the town hosted numerous merchants and

craftsmen, and that the wealth of the borough was supported by the import and export of goods through the growing port on the River Ribble (*ibid*).

- 1.3.11 In the early fourteenth-century Preston was subject to Scottish raids, and was razed in 1322. The town was subsequently ravaged by bouts of bubonic plague in 1349-50, 1361 and 1369 (Hunt 2003). Towards the end of the medieval period the textile industry had become established, and by 1720 cloth production was the largest employer in the town, which was to flourish well into the nineteenth century when it reached its peak (*ibid*).
- 1.3.12 **Post-medieval Period:** the town did not expand much beyond the medieval boundaries in the seventeenth and eighteenth centuries, and development was confined to the areas of Church Street, Fishergate and Friargate, and was restricted by the layout of the medieval burgrave plots (LCC 2006, 22). By the third quarter of the eighteenth century, the area of the town was still essentially medieval in extent and was still largely contained within the bars, with the only areas of development being further up Church Street, Tithe Barn Street and Lord Street (*ibid*). It was a small, aristocratic market town only about one and a half miles across, with three broad streets and a good market square (Burscough 2004, 11). It was populated by lawyers, clergy and gentry and contained most of the public offices for the administration of law in the County and Duchy of Lancaster (*ibid*). The Earl of Derby owned (from 1688) the grandest of the houses, Patten House situated on Church Street (Site **46**, OA North 2007). His presence no doubt attracted other wealthy people to make the town their residence. Contemporary observers such as Daniel Defoe described the town thus ‘this is a fine town full of attorneys, proctors and notaries’ (*ibid*). It is apparent though, that many poorer properties were located in the areas behind the elegant facades with subdivision of the burgrave plots and the infilling with courts which had begun in the medieval period (LCC 2006, 22).
- 1.3.13 By the late eighteenth century the town had become one of the principal corn-milling centres in the region (*ibid*). However, the advent of the Industrial Revolution brought dramatic change to Preston. With the turn of the nineteenth century cotton production and manufacturing was taking over as the principal industry and main employer, and by 1857 Preston was a centre for cotton production, with 75 textile mills having been constructed in the vicinity, including the mill and warehouse on Lord Street (Sites **04** and **11**, OA North 2007). Powered mills were first built in Preston from 1777 aided by the adoption of steam power (LCC 2006), although, as they predated the widespread introduction of mechanical looms (Jones 1996, 233), hand-weaving remained a valued and skilled occupation, as demonstrated by the investment in weavers’ cottages. Textile Manufacturers had begun to build weaving cottages in the late eighteenth century, including houses with cellar loomshops (for example Rose Street, Plate 26) and higher quality accommodation, featuring separate loomshops, was built by the Horrockses (LCC 2006). The role of handloom weaving was so vital to the textile industry that by 1830 around a quarter of the houses in Preston (over 1000) was used for weaving (*op cit*, 29).

- 1.3.14 The rapid expansion in cotton manufacturing in Preston from around the turn of the nineteenth century onwards was aided by the availability of machinery; the first power looms were eventually introduced in 1824 and, by 1856, 37 of the 75 mills in Preston were engaged in both spinning and weaving with a further 23 being used solely for weaving (*ibid*). One of the towns most successful mill owners was John Horrocks, whose company, Horrockses, Miller and Co., owned ten mills by 1862 (*ibid*).
- 1.3.15 The expansion in the cotton industry was also spurred on by the shift from wind, through horse, to steam-powered technology. The opening of the Douglas Navigation assisted in this progress, as coal could be shipped directly to the town (*ibid*). Preston's position close to the sea, via the River Ribble, and canals, together with its crossroads provided uninhibited access to the surrounding country (Burscough 2004 17). Both Manchester and Liverpool were easily accessible and the main roads, both to the north and south, were improved, roads within the town were also improved as a result (*ibid*).
- 1.3.16 An additional reason for the rapid expansion of the textile industry was the large open market waiting for cheap cotton goods. The working classes had worn clothes made of linsey-woolsey, which was a dark, heavy coarse mixture of linen and wool which was difficult to keep clean and so was worn until it fell to pieces (*op cit*, 18). Cotton fabrics were much lighter, easier to keep clean and perhaps most importantly, reasonably priced. Poor people could now afford to have cleaner, more hygienic clothing and bedding that must have improved their lived beyond measure, which in turn lead to insatiable demand (*ibid*).
- 1.3.17 The production of engines and machinery for use in the expanding textile industry also stimulated the growth of the engineering industry in Preston (LCC 2006, 29). By the 1830s foundries had been established in the town, and by 1855 there were 15 iron and brass foundries, including Derby Street (Site 21, OA North 2007) and Union (Site 40, *ibid*), 28 smiths, three bolt works and 20 braziers (LCC 2006). Other knock-on industries included rope and brick-makers.
- 1.3.18 To meet the new demand for labour instigated by this growth in industry, the population of Preston expanded from 5,500 in 1760 to 11,887 in 1801, (Burscough 2004, 20) to 70,000 in 1850, and 110,000 in 1900 (Hunt 2003, 50). Such population trends necessitated unprecedented urban expansion in England's new industrial centres, with slum housing built to accommodate the workers and their families. What had previously been a pleasant market town was, was drastically transformed, with green fields and gardens being rapidly replaced by huge factories and the housing needed to accommodate workers flooding into the town from the surrounding countryside (Burscough 2004, 17, 19-20). Indeed, a prominent attorney Thomas Winkley pronounced that Preston was no longer a fitting place for a gentleman to live, and left the town for Walton-on-the-Hill near Liverpool (*op cit* 20).
- 2.2.14 Quality of life deteriorated as disease manifested in the slums and infant mortality increased. This was matched by hazards in the factory, emanating from dangerous machinery, long working hours and irregular employment. Social deprivation and resentment against such conditions resulted in sporadic

revolts amongst the workers. A Chartist movement was formed in Preston in the 1830s and organised strikes followed (Hunt 2003).

- 2.2.15 By the nineteenth century, Preston had a long-established tradition as a provincial and commercial centre, with a wide range and variety of trades and shops (LCC 2006, 32). By 1855 there were 1600 professional trades people and shops listed in the trade directories (*ibid*). The importance of Preston attracted a wider range and quantity of goods and services than was found in other towns, such as insurance agents, auctioneers, accountants, surveyors and architects to mention but a few (*ibid*).
- 2.2.16 The growing population obviously required the development of the public infrastructure and numerous new public buildings were constructed. The market place was remodelled, and a new town hall (by Gilbert Scott) was constructed in 1867 (Site **51**, OA North 2007), the covered market in 1875 (Site **05**, *ibid*), the Harris Museum begun in 1882 (Site **69**, *ibid*), the Miller Arcade on Church Street in 1899 (Site **53**, *ibid*), and the post office in 1901 (Site **70**, *ibid*) (LCC 2006, 37).
- 3.1.19 Much redevelopment of Preston has been carried out in the twentieth century, including new shopping centres, such as the St George's Centre, and removal of the grid-iron development to the north of the town centre and around the bus station (*op cit* 59). Horrockses' infamous massive mill complex was finally completely removed during the 1960s (where Homebase now stands). The Ringway has also 'cut a swathe through the post-medieval and early nineteenth century' (*ibid*).

2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 In response to a request from the client, OA North issued a project design (*Appendix 1*), the methodology of which was adhered to in full. TP 7 was excluded from the archaeological evaluation as it was not excavated under an archaeological presence due to accessibility issues. The work was consistent with the relevant standards and procedures of the Institute of Field Archaeologists, and generally accepted best practice.

2.2 FIELDWORK

2.2.1 Altogether twelve test pits were excavated across the development site. Six of the test pits (TP 2-4, 6, 9-11, and 16) were excavated as geotechnical pits, measuring between 2m and 4.3m in length, and 0.6m x 1.66m in width, while the remaining three (TP 17-18 and 29) were excavated in the manner of archaeological evaluation trenches, and measured between 8.5m and 13m in length, and 2m to 2.5m in width. Concrete or tarmac was broken by a hydraulic pecker attached to a JCB, the pits were then excavated using a 0.6m toothless ditching bucket under the constant supervision of an archaeologist.

2.2.2 Overburden was removed to the first archaeological deposit or natural geology, depending on what was encountered first. Any test pit excavated to a depth beyond 1.2m, or comprising unsafe overburden, was not deemed accessible for health and safety precautions.

2.2.3 All accessible test pits were manually cleaned either by towel or by shovel scraping, depending on the presence of archaeology, or the make-up of the test pit. All archaeological features or deposits were investigated by hand where possible, and recorded on *pro forma* context and trench record sheets provided by OA North. All section and plan drawings were produced to appropriate scales (1:20 and 1:50), and a photographic archive of the site was compiled, comprising colour-slides and monochrome prints. Digital photographs were produced for presentation purposes, and all photographs were also recorded on *pro forma* sheets.

2.2.4 Environmental bulk samples were taken from sealed and secure archaeological contexts, for the assessment of pollen, seeds and finds.

2.3 FINDS

2.3.1 All finds were exposed, lifted, cleaned and bagged in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid for Finds*, 1998 (new edition). All identified finds and artefacts were retained from all material classes; these were hand collected from stratified deposits for processing and assessment.

2.4 ENVIRONMENTAL

- 2.4.1 A single 40 litre bulk sample (Sample 1) was taken from a buried soil horizon (**155**) in TP 9. A sub-sample (10 litres) was processed to evaluate whether charred or waterlogged plant remains had been preserved. This sub-sample was hand-floated, collected on a 250 micron mesh and air dried. The flot was scanned with a Leica MZ6 stereo microscope and the plant material was recorded and provisionally identified.

2.5 ARCHIVE

- 2.5.1 A full and professional archive has been compiled in accordance with the project design and current English Heritage guidelines (1991). The original record archive will be deposited in the County Record Office (CRO) in Preston, and a copy of the report will be sent to the Historic Environment Records (HER) also in Preston, on completion of the project.

3. FIELDWORK RESULTS

3.1 INTRODUCTION

3.1.1 The following section provides a summary description of each Test Pit (TP) excavated across the study area (Fig 2). Detailed descriptions of all the contexts referred to can be found at the rear of the document in *Appendix 2*.

3.2 FIELDWORK

3.2.1 **TP 2:** located to the north-west of the open air market, TP 2 measured 2m in length, 0.6m in width and was excavated to a maximum depth of 2.1m. Concrete paving slabs were removed to reveal a dark sand bedding layer, **131** (0.2m thick). This sealed a large deposit of redeposited sand, **132** (>1.6m thick), which abutted the concrete foundation of the modern office block, and exceeded 2.1m in depth. The area has been heavily truncated by extensive twentieth century construction, and no finds or features of archaeological interest were identified.

3.2.2 **TP 3:** located within the north-west corner of the basement of the multi-storey car park, and aligned north-west/south-east, the test pit measured 3.15m in length, 1.55m in width and was excavated to a maximum depth of 2m. The test pit consisted of a thick concrete surface (0.38m thick), which sealed a layer of redeposited sand with concrete fragments, **175** (0.4m thick). This overlaid a thick deposit of redeposited pure sand, **176** (1.2m thick), which abutted a large concrete plinth and base, **180** and **181** respectively. These formed part of the foundations of the multi-story car park. These were placed in a third redeposited sand layer, **183** (>0.04m thick), which was identical to **176**. A linear feature formed from brick/concrete conglomerate, **182**, ran north-west/south-east across the north-eastern end of the test pit, and was most likely capping material for a service. No features or finds of archaeological significance were identified.

3.2.3 **TP 4:** located in the north-eastern corner of the multi-storey car park basement, TP 4 was orientated north-east/south-west, and measured 2.8m in length, 1.13m in width and was excavated to a maximum depth of 1.84m. The test pit comprised a concrete layer (0.4m thick), sealing redeposited sand, **175** (0.3m thick). This in turn overlaid redeposited sand **176** (>1.1m thick), which abutted concrete plinth **177**, that formed part of the foundations for the car park. No features or finds of archaeological significance were identified.

3.2.4 **TP 6:** located beside the fish market, TP 6 was aligned north-west/south-east, and measured 2m in length, 0.7m in width and was excavated to a maximum depth of 2.2m. The test pit comprised a concrete surface (0.27m thick), which sealed a levelling layer of redeposited sand, **187** (0.3m thick). This sealed an old ground surface, **188** (0.47m) that had been disturbed by recent development, which sealed natural geology **156**. To the south-east, both the old ground surface and natural geology had been truncated by a foundation

cut, **190**, for the modern concrete wall of the fish market. This was backfilled by redeposited sands and gravels, **189**.

- 3.2.5 **TP 9:** located at the western end of the open market and aligned north-west/south-east, TP 9 measured 3m in length, 1.85m in width and was excavated to a maximum depth of 2m. The test pit consisted of a layer of tarmac (0.05m thick), sealing the original cobbled floor of the market, **151**, which was bedded into a layer of sand, **152** (0.2m thick). This sealed a cinder-rich, rubble levelling deposit, **153** (0.3m thick), which in turn overlaid a layer of redeposited sand and rubble, **154** (0.34m thick). This was underlain by a former soil horizon, **155** (0.74m thick, Fig 3, Plate 1), which produced two small fragments of medieval pottery (see *Section 3.3*). Being a sealed and potentially early context, a 40 litre bulk sample was removed from the deposit (see *Section 3.4*). The former soil horizon, **155**, sealed natural geology **156**.
- 3.2.6 The south-western corner of the test pit was occupied by a concrete plinth, **157**, for the open air market. It measured 1.7m in width and exceeded 1.85m in height, and was constructed from a mixture of concrete, brick and limestone block layers, filling cut **158**. The plinth and its foundation cut truncated deposits **153**, **154**, **155** and **156**, and was backfilled by **159**, a mixture of redeposited subsoil and rubble.
- 3.2.7 **TP 10:** located at the eastern end of the open air market and orientated east/west, TP 10 measured 2.93m in length, 1.66m in width and was excavated to a maximum depth of 2.24m. The test pit consisted of a layer of tarmac (0.03m thick), cobbled surface **151**, and subsequent bedding sand, **152**. This sealed the cinder-overburden, **153** (0.3m thick), which directly overlaid the former soil horizon, **155** (0.13m thick). The lack of redeposited sand and the disturbed nature of the former subsoil, **155**, suggests that the eastern end of the market has been subject to more disturbance than the western end. A single fragment of post-medieval pottery was removed from the former soil horizon, **155** (see *Section 3.3*). No earlier material was observed.
- 3.2.8 Occupying the south-eastern corner of the test pit was plinth **184**. It exceeded 2.1m in height, and had a near identical construction to plinth **157**. It filled foundation cut **185**, which was backfilled by **186**, a mixed deposit similar to **159**, but contained larger quantities of rubble. A sherd of early glass was removed from the deposit, as well as a fragment of clay pipe stem (see *Section 3.3*).
- 3.2.9 **TP 11:** located in the smaller open market to the south-west of the main market, TP 11 was aligned north-west/south-east, and measured 3.5m in length, 1.4m in width and was excavated to a maximum depth of 3.3m (Fig 4). It comprised a concrete surface (0.02m thick), which sealed a levelling layer of crushed-concrete hardcore, **160** (0.19m thick), which overlaid a rubble and cinder-rich overburden, **172** (0.3m thick). A concrete plinth, **161**, projected out into the south-western corner, and formed the base of one of the market's pillars. It had truncated wall **164**, which was constructed from handmade, red bricks and probably pre-dated the mid nineteenth century. To the north-west of wall **164** was an organic deposit, **170**. It was very similar to the fill of the concrete plinth, **163**, a dark organic material resulting from the wooden frame

for the plinth rotting *in situ*, and **170** may have also resulted from such a process. To the south-east of wall **164** was a layer of redeposited rubble and sand, **173** (0.45m thick), which abutted the wall and extended over the test pit, but was truncated by **162**, the foundation cut for plinth **161**. The redeposited sand **173** sealed a substantial layer of former subsoil, **174** (0.72m thick), that had been disturbed towards the top. This sealed the natural geology, **171**. The foundation cut, **165**, for wall **164**, truncated the subsoil **174**, as did wall **167**. This wall ran across the south-eastern end of the trench and was of near identical construction to wall **164**, suggesting that they were contemporary. Wall **167** is more substantial compared to **164**, indicating that it may have been an external or load-bearing wall.

- 3.2.10 **TP 15:** located within the forecourt of the former garage on Old Vicarage Street, the test pit was orientated north/south, and measured 2.8m in length, 1.3m in width, and was excavated to a maximum depth of 2.1m. The test pit comprised a layer of concrete (0.2m thick), that sealed a thin layer of hardcore, **133** (0.12m thick). This sealed a layer of redeposited topsoil and rubble, **134**, which overlaid a layer of redeposited sand and rubble, **139** (0.34m thick), that extended over much of TP 15. Running along the western edge of the trench was modern brick wall **144**, which formed part of the former garage, and sat on concrete base **141**, and within cut **142**, which truncated **134**, **139** and natural geology **140**. Running east/west along the northern end of the test pit was service pipe **135**, which truncated wall **144**, and sat within cut **138**. No finds or features of archaeological significance were observed.
- 3.2.11 **TP 16:** located immediately to the west of TP 15 within the forecourt of the former garage, TP 16 was aligned north/south and measured 4.3m in length, 1.1m in width and was excavated to a maximum depth of 1.6m. It consisted of a layer of tarmac that sealed hardcore **133** (0.12m thick), which in turn sealed redeposited sand and rubble layer **139** (0.2m thick). This was underlain by natural geology **140**. Truncating **140** was foundation cut **149**, for modern brick wall **145**, and service trench **147**. Both of which were related to the former garage. No features or finds of archaeological significance were observed.
- 3.2.12 **TP 17:** located within the greenspace to the west of Tithebarn Street, TP 17 was orientated east/west, and measured 8.5m in length, 2m in width and was excavated to an average depth of 0.5m (Fig 5). The test pit comprised topsoil, **106** (0.2m thick) and 0.3m of overburden. This was removed to reveal walls **119** and **120**, and concrete floor **113**, which was part of the modern toilet cubicles. These abutted brick walls **114**, running north/south across the trench, and **115**, that ran east/west along the northern edge of the trench and was keyed into wall **114**.
- 3.2.13 Abutting wall **115**, extending for 3m by 2m over the eastern side of the trench, was cobbled surface **117** (Fig 5, Plate 2). This comprised small to medium worn, limestone cobbles. Towards the western end of the trench the cobbles have been replaced with a flagged floor, **116**, which extended over an area of 3.3m x 2m and abutted walls **114** and **115** (Plate 3). This was most likely laid following the excavation of service trench, **121**, for an iron gas pipe (Fig 6). The flagged floor, **116**, was bedded into **125**, the backfill of **121**, while the cobbled surface was bedded into sand, **124**. This bedding sand was underlain

by a deposit of crushed building rubble and sand, **123** that extended over the test pit, ranging from 0.15m to 0.6m in thickness, west to east.

- 3.2.14 A sondage excavated through the eastern end of the trench revealed stratigraphy to a depth of 2.8m. Running east-north-east/west-south-west across the trench, sealed by cobbles and bedding sand (**117** and **124**), was brick drain **129**, which truncated demolition layer **123**, and abutted wall **115** (Plate 4). The drain itself was filled with a green/grey organic silt, **130**, indicating that it was a now defunct sewerage pipe. The cut for the drain, **127**, also truncated a former subsoil, **122**, which sealed natural geology, **126**, which was encountered at 2.2m. Both the subsoil, **122**, and the natural geology, **126**, had been truncated by the foundation cut, **178**, for wall **115**, and was the earliest activity recorded in TP 17. No finds were recovered to provide a secure date for any of the contexts identified.
- 3.2.15 **TP 18:** located within the greenspace to the west of Tithebarn Street, and to the south-east of TP 17, TP 18 was aligned north/south, and measured 13m in length, 2.5m in width and was excavated to a maximum depth of 2.3m (Fig 7, Plate 5). The trench comprised topsoil, **106** (0.2m thick), which sealed three brick walls (**109**, **110** and **111**) and two extensive deposits of demolition rubble (**107** and **108**). Walls **109** (Plate 6) and **111** were substantial walls, measuring *c* 0.7m in width, and may have been external, whilst wall **110** was thinner, and was most likely an internal dividing wall. It was likely that the walls formed part of the cellars or basements for the former cotton mill. The thick rubble deposits, **107** and **108**, exceeded 2.3m in depth, but were not excavated further for health and safety precautions.
- 3.2.16 **TP 29:** located within a small area of wasteland to the south-east of the bus station, TP 29 was orientated north-west/south-east, and measured 12m in length, 2m-2.5m in width, and was excavated to a maximum depth of 2.2m (Fig 8, Plate 7). The test pit comprised overburden, **100**, which extended over the trench and sealed brick wall **101**, and brick structure, **102**. At the south-eastern end the overburden was removed to a depth of 2.2m, where a flagged cellar floor, **104**, was encountered. This had been severely disturbed towards the north-west, and only survived the area abutting wall **101**. Brick structure, **102**, situated in the central area of the trench, was probably nineteenth century in date, and the drain running from it suggested a sanitation function. This truncated a sandstone wall, **103**, which projected for *c* 5m, north/south from the north-east corner of the test pit. Abutting this wall was a large area of redeposited sand, **105**, which had also been truncated by activities to the south-east. A sondage excavated through the sand revealed that it exceeded 2m in depth, as did wall **103**. The fabric and substantial nature of the wall, **103**, would indicate that it was either an external or load-bearing wall, pre-dating the nineteenth century buildings.

3.3 FINDS

- 3.3.1 In all, only six fragments of artefacts were recovered during the investigation, coming from the redeposited sand **154** in TP 9, buried soil horizon **155** in TP 9

and 10, and the fill of cut **186** for a concrete market plinth in TP 10. Four of the fragments were pottery, one glass, and one clay tobacco pipe.

- 3.3.2 Although small, the pottery fragments were in good condition and unabraded. Two, both from **155**, were from medieval green-glazed vessels, and both with sandy incompletely reduced fabrics suggesting a date range from the fourteenth to fifteenth century. It must, however, be noted that what was believed to be the same soil horizon in TP 10 produced a fragment of a probably nineteenth century blue and white transfer-printed vessel and thus, presumably, the medieval pottery is either residual or it is not the same soil horizon between TP 9 and 10. The final fragment of pottery was from redeposited sand **154**, was a very small fragment of a relatively thin-walled black-glazed redware vessel, possibly a jug. Although such black-glazed vessels were made over a very long period, the fabric suggests that this fragment can probably be dated to the eighteenth or early nineteenth century.
- 3.3.3 The fragment of pale blue glass from **186** is undiagnostic, but is probably from a mould-blown bottle and unlikely to be earlier than the mid nineteenth century. Similarly, the small fragment of clay tobacco pipe stem is post-medieval, but cannot be more closely dated.

3.4 ENVIRONMENTAL

- 3.4.1 The buried soil horizon **155** in TP9 was found to be very abundant in fragments of coal and cinder with smaller quantities of charcoal. This suggests that ashes had been spread on the soil as a means of refuse disposal. A few charred cereal grains, including cultivated or wild oat (*Avena*) and wheat (*Triticum*), and the occasional charred seed of heath grass (*Danthonia decumbens*) were identified in the sample. There were some plant remains, including stems, wood fragments and seeds, that could either be from modern contamination or had been preserved in waterlogged conditions.
- 3.4.2 The assessment demonstrated that charred and, possibly, waterlogged plant remains were preserved at the site. Material suitable for scientific (radiocarbon) dating could be selected from this sample, and due to the presence of charred plant remains, including cereal grains, it is recommended that a programme of environmental sampling should be included in any future archaeological work. This is particularly significant as the number of archaeobotanical records from the medieval and post-medieval periods in North West England is few (Brennand 2006), and both periods have been highlighted in the Regional Research Framework as being areas where further research was needed (Brennand 2007).

4. CONCLUSION

4.1 DISCUSSION

- 4.1.1 Of the 12 test pits excavated, five contained no features or deposits of archaeological interest; TP 2, 3, 4, 15 and 16. These all comprised redeposited material relating to the construction of large modern buildings in the later twentieth century. The remaining seven test pits, TP 6, 9, 10, 11, 17, 18 and 29, contained one or more deposit or feature of archaeological significance.
- 4.1.2 TP 6, 9, 10 and 11 were located in or around the current covered markets, in the western area of the proposed development site. The former subsoil, **155**, identified in TP 9 and 10 (in the northern covered market), and the former soil horizon in TP 6, **188**, pre-date the majority of the development in the area. The medieval pottery recovered from **155** in TP 9 suggests nearby activity dating to this period. Analysis of Kuerden's map of 1684 (OA North 2007) demonstrates that the area was occupied by a open fields to the rear of the burgage plots fronting the western end of Lord Street. By Carpenter and Wills' map of 1715 (*ibid*) the land had been transformed into gardens, and recorded as 'Collys Gardens' on Lang's map of 1774 (*ibid*). The site remained as gardens until the mid 1800s, when it was bound to the north by the construction of Liverpool Street, Ormskirk Road to the east, and Earl Street to the south (Ordnance Survey (OS) 1849, *ibid*). The gardens were removed and the area comprised an open area of ground. The covered market was constructed in 1875, as the date on the pillars demonstrates, and illustrated as a 'covered market' on the OS second-edition (1893, *ibid*). It was likely that the medieval pottery from TP 9 came from a sealed, former garden soil, **155**, and had not been subject to the same level of disturbance as the same layer in TP 10, which produced a fragment of post-medieval pottery. The construction of Ormskirk Road (now Lancaster Road South) most likely disturbed the former subsoils along the eastern edge of the current covered market. The same theory can be applied to the construction of Liverpool Street and Earl Street, indicating that although the edges of the market have been disturbed, there is potential for undisturbed medieval and post-medieval remains to survive within the centre of the market place. The proximity of the current covered markets to the medieval centre of Church Street, Fishergate and the former Market Place, would also enhance the possibility for the presence of pre-eighteenth century remains.
- 4.1.3 TP 11, to the south of TP 9 in the southern covered market, contained two walls constructed from handmade bricks bonded with a cream limestone mortar, which may indicate a late eighteenth to early nineteenth century date (Ian Miller pers comm). Certainly, by the mid 1850s it was recorded that brick-makers were prominent in the town, and they most likely used machines (LCC 2006), which was becoming common practice by the mid nineteenth century (Brunskill 1997). Reference to Kuerden's and Lang's maps (1684 and 1774, OA North 2007) indicate that structures have been on the site since at least the late seventeenth century; with burgage plots located to the rear. Although some minor alterations to the buildings are illustrated through the

maps dating from the seventeenth to the nineteenth centuries, by the OS edition of 1912 (*ibid*), the buildings situated around the site of TP 11 had been demolished, and the second covered market to the south was established during the early part of the twentieth century (OS 1938, *ibid*). As with the covered market to the north, there is potential for medieval and post-medieval remains to survive in the central area, away from the edges where more development has occurred.

- 4.1.4 TP 6 contained a thin layer of heavily disturbed former ground surface, **188**. Although the level of survival in this area is far less than that to the south and south-east, the presence of a former soil horizon suggests a possibility for the survival of more substantial remains, such as foundations.
- 4.1.5 TP 17 and 18 were located over the site of the former Lord Street Cotton Mill (Site **04**, *ibid*). The mill was quite small, built in 1841 and owned by T Grundy and Company. By the 1960s the mill had been demolished, although it was still extant in the early 1950s (Scott 1952), when it was described as eight bays long and four bays wide (*ibid*).
- 4.1.6 TP 18 contained three substantial brick walls, **109**, **110** and **111**, that formed the basement of a large building. Excavation to depths exceeding 2m, without encountering floor levels, indicated how substantial the cellars were. No machinery or associated bases were identified, although the large iron girders observed in the rubble backfill may have related to the cast iron trusses used to support the wooden floors (*ibid*). It could be concluded, from the remains observed in TP 18, that most of the sub-surface rooms from the former cotton mill survive below the current ground-level. However, fuller investigative work is needed to confirm this.
- 4.1.7 TP 17 produced several phases of activity across the area. The evaluation revealed a flagged floor, **116**, and cobbled surface, **117**, as well as modern toilet cubicles. Excavations below the cobbled surface, **117**, indicate earlier phases of building, with wall **115** proving to be a substantial feature. It is likely that the cobbles, **117**, and flags, **116**, are later additions to the mill buildings, and that the toilet cubicles were probably installed shortly before the area was razed. Analysis of the maps (OA North 2007) indicates that the whole area was occupied by the mill buildings from the mid nineteenth century until the early twentieth century. The OS map of 1912 illustrates that an area to the rear of the building had been cleared, and may relate to surface **117**, suggesting that a cobbled yard was installed between 1893 and 1912. By the issue of the OS map of 1938 the area had been rebuilt, and it is possible that the toilet block was installed at this point. It is likely that in the area of the former mill (Site **04**, *ibid*) several phases of building from the mid nineteenth century onwards may survive, in varying states of preservation, and further investigation is needed to decipher the history of the site from the 1840s to the present day.
- 4.1.8 TP 29 was located on the site of possible handloom weavers' cottages, directly to the west of Site **36** on Derby Street (*ibid*). The evaluation trench revealed a cellar wall, **101**, complete with fragments of a stone-flagged floor, **104**. Although the wall, **101**, and especially the floor, **104**, had been truncated, they

most likely dated to the nineteenth century and relate to buildings identified on the OS maps of 1849 and 1893 (*ibid*), probably handloom weavers' cottages. An earlier phase of activity was observed in the shape of a very large, rough, sandstone wall, **103**, which ran north/south across the test pit, and was prescribed to over 2m in height. It had been truncated to the south by brick structure **102**, which was probably contemporary with the cellar, and lay on a completely different alignment to the later brick structures. The wall most likely belonged to a wholly different building phase. Maps pre-dating 1849 (*ibid*) show this area as being occupied by the formal gardens associated with Patten House (Site **46**, *ibid*), residence of the Earls of Derby, wherein associated structures were incorporated. It is possible that wall **103** is associated with the garden.

- 4.1.9 In conclusion, although the development area has been subject to much disturbance in the past 150 years, there is still potential for medieval and post-medieval archaeology to survive below existing structures. The area around the covered market has the highest potential for medieval remains, as the site has been relatively untouched over the centuries. The foundations for the pillars, though substantial, have only truncated the edges of the site. Therefore, internally the market may be quite undisturbed, and the presence of a sealed former soil horizon, **155**, producing medieval pottery enhances this possibility. The site of the former Lord Street Cotton Mill has been heavily disturbed, but the results of the evaluation do suggest that there are several phases of buildings and activity sealed beneath the rubble over burden covering the site. The site on Derby Street (TP 29) could provide information on Preston's pre-industrial heritage, with features that may well pre-date the nineteenth and even eighteenth century. Understanding of these phases is very limited, and further investigative work is required.

5. BIBLIOGRAPHY

5.1 PRIMARY SOURCES

Kuerden, R, 1684 *Plans of Preston*

Lieutenant General Carpenter and major General Wills, 1715 *An exact plan of ye town of Preston with the barricades and canon of the rebels and disposition of the King's forces*

Lang, G, 1774 *A Copy of the Township of Preston*

Ordnance Survey first edition, 1849 *Lancashire Sheet 61, 6":1 mile*

Ordnance Survey second edition, 1893 *Lancashire Sheet LXI.10, 25":1 mile*

Ordnance survey, 1912 *Lancashire Sheet LXI.10, 25":1 mile*

Ordnance Survey, 1938 *Lancashire Sheet LXI.10, 25":1 mile*

Shakeshaft, W, 1808 *Plan of Preston*

Wales and Co., 1824 *Map of Preston*

5.2 SECONDARY SOURCES

Brennand, M (ed), 2006, *The Archaeology of North West England; an archaeological research framework for North West England, Vol 1*, London

Brennand, M (ed), 2007, *Research and Archaeology of North West England; an archaeological research framework for North West England, Vol 2*, London

Brunskill, RW, 1997 *Houses and Cottages of Britain: Origins and Development of Traditional Buildings*, London

Burscough, M, 2004 *The Horrockses: Cotton Kings of Preston*, Lancaster

Countryside Commission, 1998 *Countryside Character vol 2: the North West*, Cheltenham

English Heritage, 1991 *The Management of Archaeological Projects*, second edition, London

Farrer, W, and Brownbill, J, 1912 *The Victoria History of the County of Lancaster, Vol 7*

Fishwick, H, 1900 *The History of the Parish of Preston; in Amounderness in the County of Lancaster*, London

Hunt, D, 2003 *Preston: Centuries of Change*, Derby

Iles, P, 2006 'Roman roads in Lancashire' <http://www.lancashire.gov.uk/environment/historichighways/roman.asp>

Institute of Geological Sciences (IGS), 1979 Ten Mile Map, Solid Geology: South Sheet

Jones, W, 1996 *Dictionary of Industrial Archaeology*, Stroud

Knight, C, 1986 *Step Back in Time: A History of Fulwood*, Preston

LCC, 2006 *Lancashire historic town survey programme: Preston with Walton-le-Dale and Penwortham, historic town assessment report*, Preston

Margary, ID, 1957 *Roman Roads in Britain*, London

Newman, RM, 1996 'The Dark Ages', in R Newman (ed) *The Archaeology of Lancashire, Present State and Future Priorities*, Lancaster

OA North, 2007 *Preston Tithebarn Regeneration, Preston, Lancashire: Archaeological Desk-Based Assessment*, unpubl client report

Philpott, R, 2006 'The Romano-British period resource assessment', in M Brennan (ed) *An Archaeological Research Framework for North West England: volume 1, resource assessment*, **8**

Scott, KN, 1952 *The Architectural Development of Cotton Mills in Preston District*

UKIC, 1998 *First Aid for Finds* (new edition), London

6. ILLUSTRATIONS

6.1 FIGURES

Figure 1: Site Location

Figure 2: Plan showing location of Test Pits archaeologically excavated

Figure 3: South-west-facing section through TP 9, illustrating former soil horizon **155**

Figure 4: Plan and south-west-facing section of TP 11

Figure 5: Plans of TP 17, illustrating three phases of interventions

Figure 6: TP 17; the northern and western-facing sections through service trench **121**, flagged floor, **116**, and cobbled surface **117**

Figure 7: Plan of TP 18

Figure 8: Plan of TP 29

6.2 PLATES

Plate 1: South-west facing section through TP 9, illustrating cobbles **151**, overburden layers **153** and **154**, and former soil horizon **155**

Plate 2: Trench 17, pre-excavation shot looking west

Plate 3: Trench 17, slot through the western end showing walls **114**, and **115** to the right, looking west

Plate 4: Trench 17, section through the eastern end of the trench showing cobbles **117**; layer of overburden **123** and **128**; brick drain **129**; wall **115**; former soil horizon **122**, and natural geology **126**

Plate 5: Trench 18, general shot looking south

Plate 6: Trench 18, wall **109** looking north-east

Plate 7: Trench 29, general shot looking south-west

Plate 8: Trench 29, detail of wall **103**, looking east

Plate 9: Trench 29, shot of wall **103**, at a depth of 2m, looking east-north-east

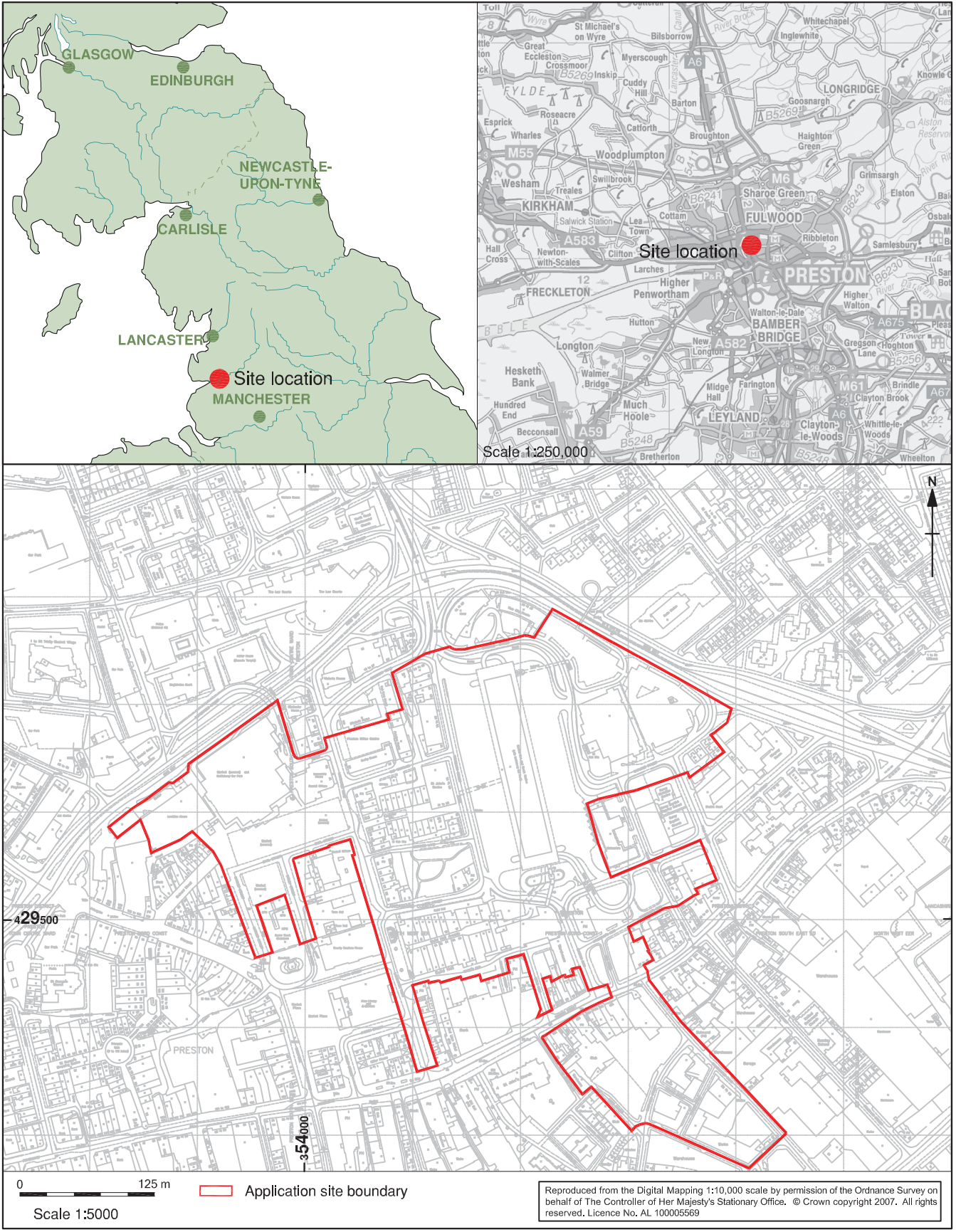


Figure 1: Site location

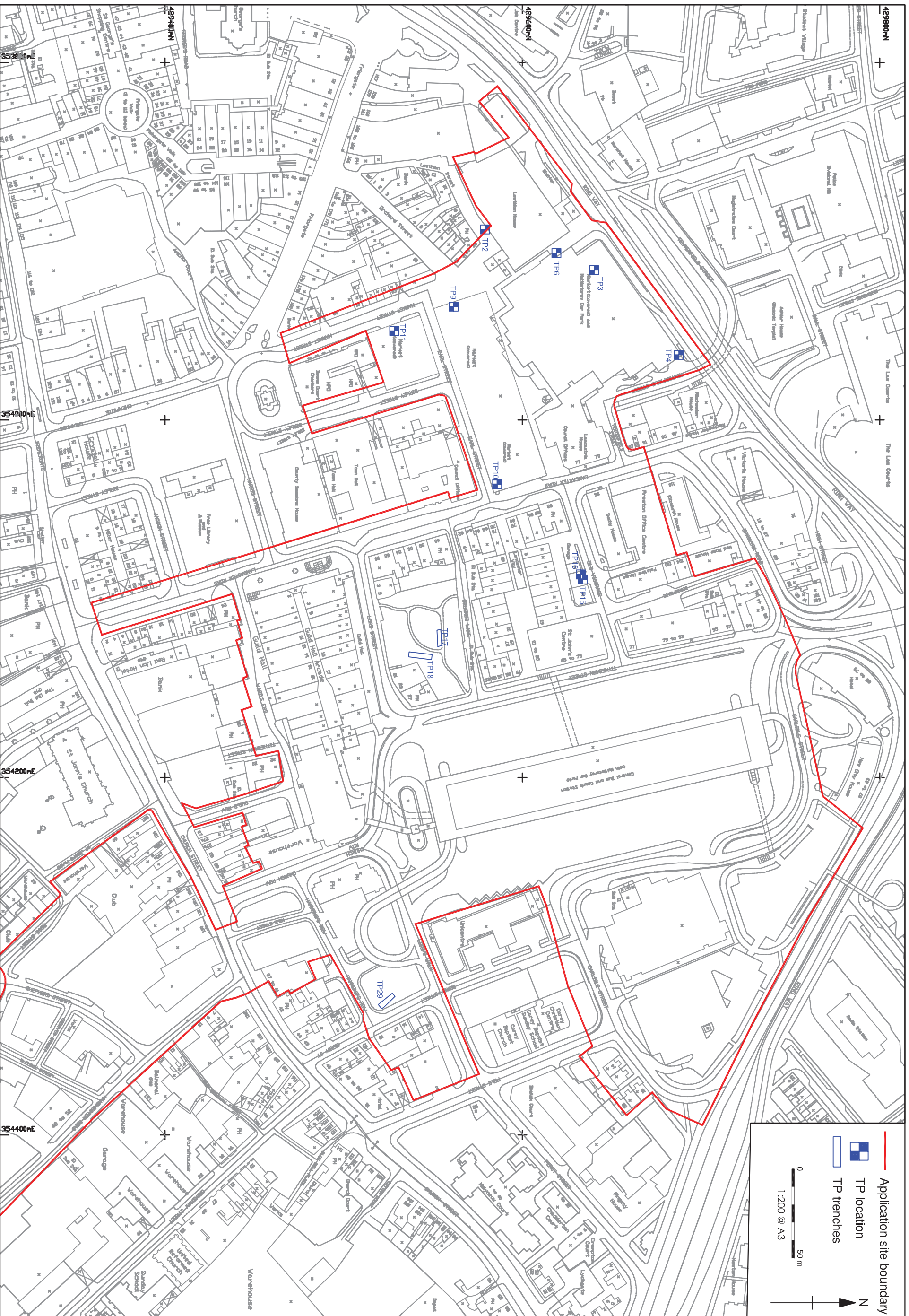


Figure 2: Plan showing location of Test Pits archaeologically excavated

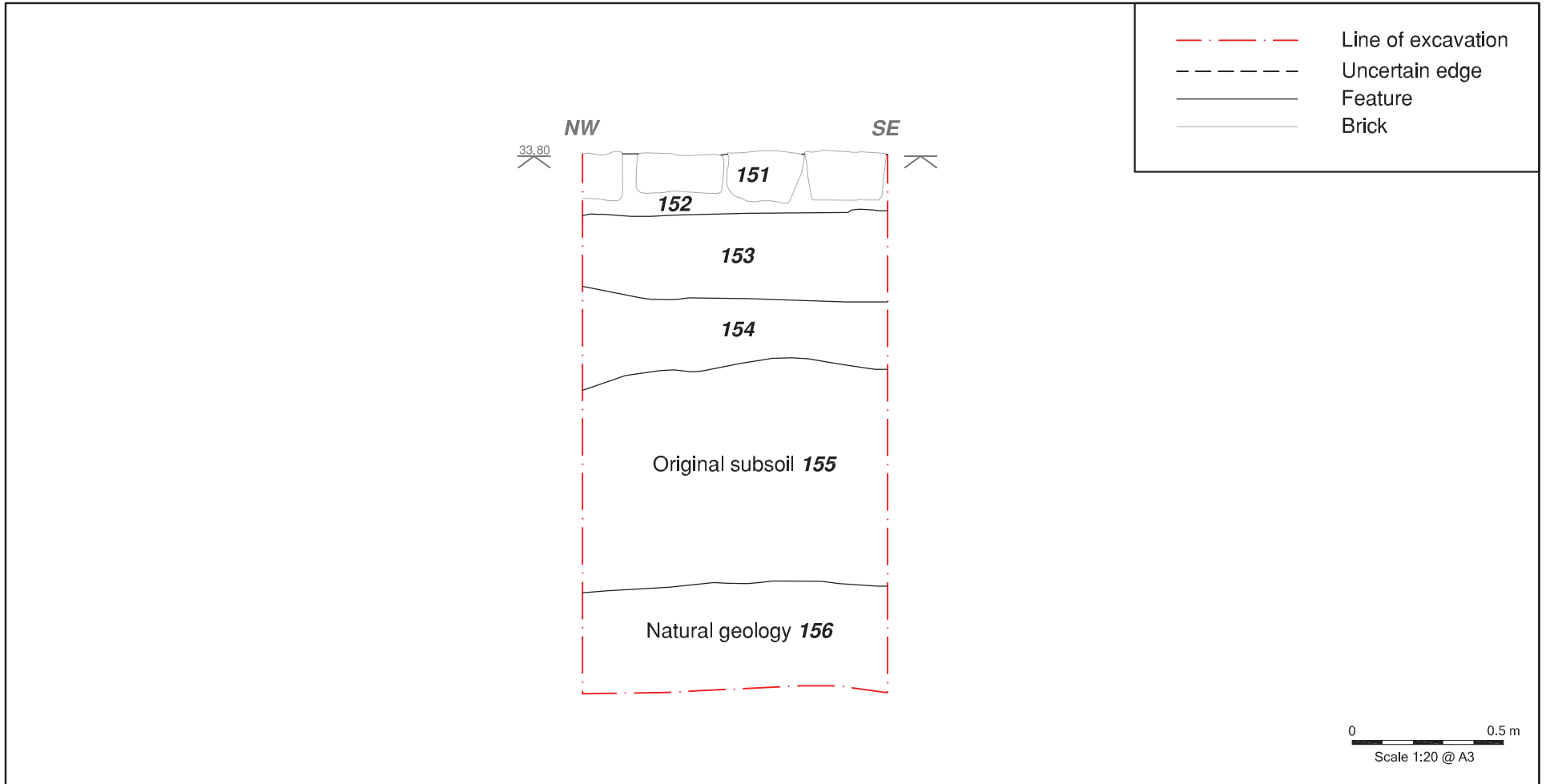


Figure 3: South-west-facing section through TP 9, illustrating the former soil horizon (155)

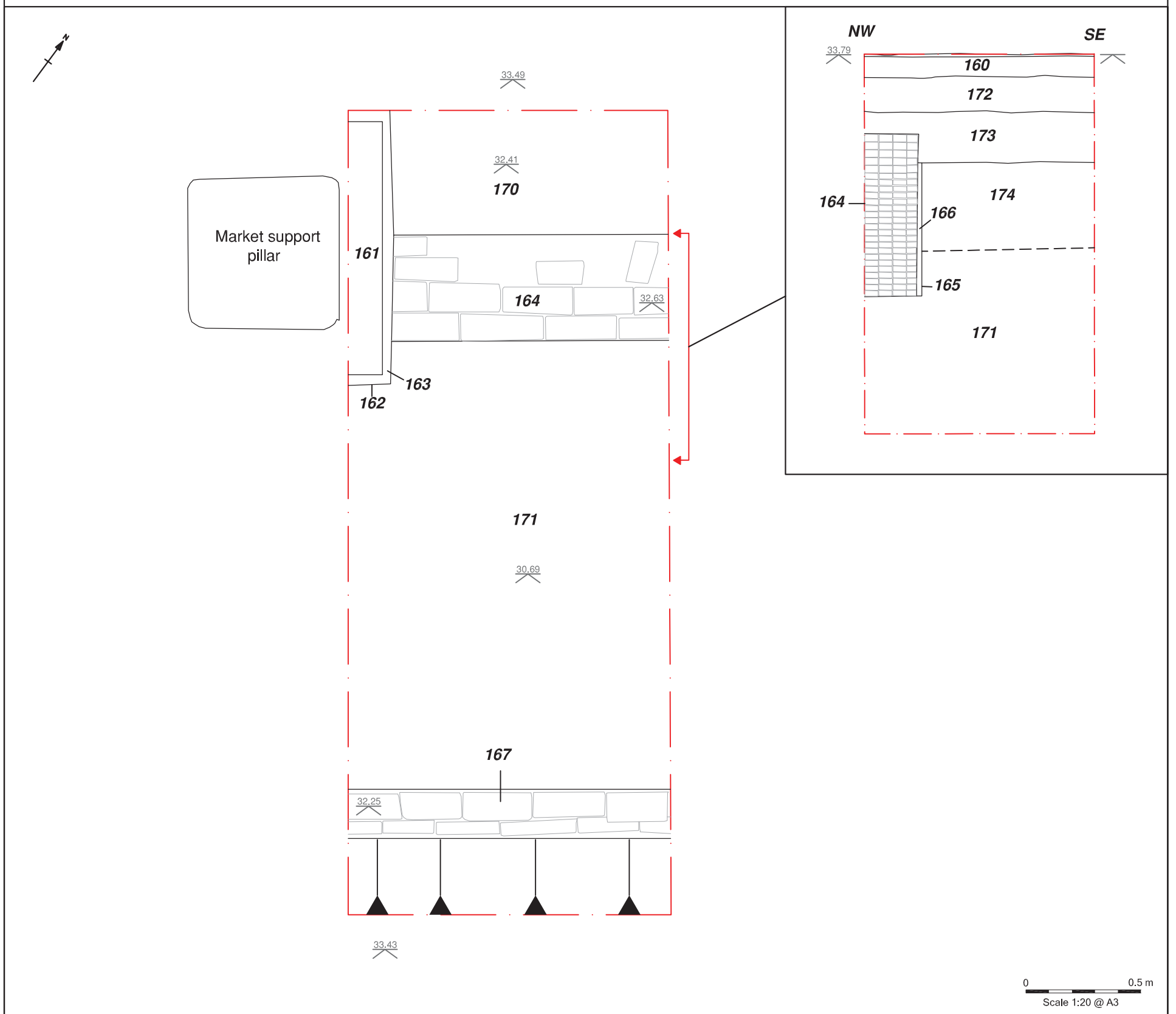


Figure 4: Plan and south-west-facing section of TP 11

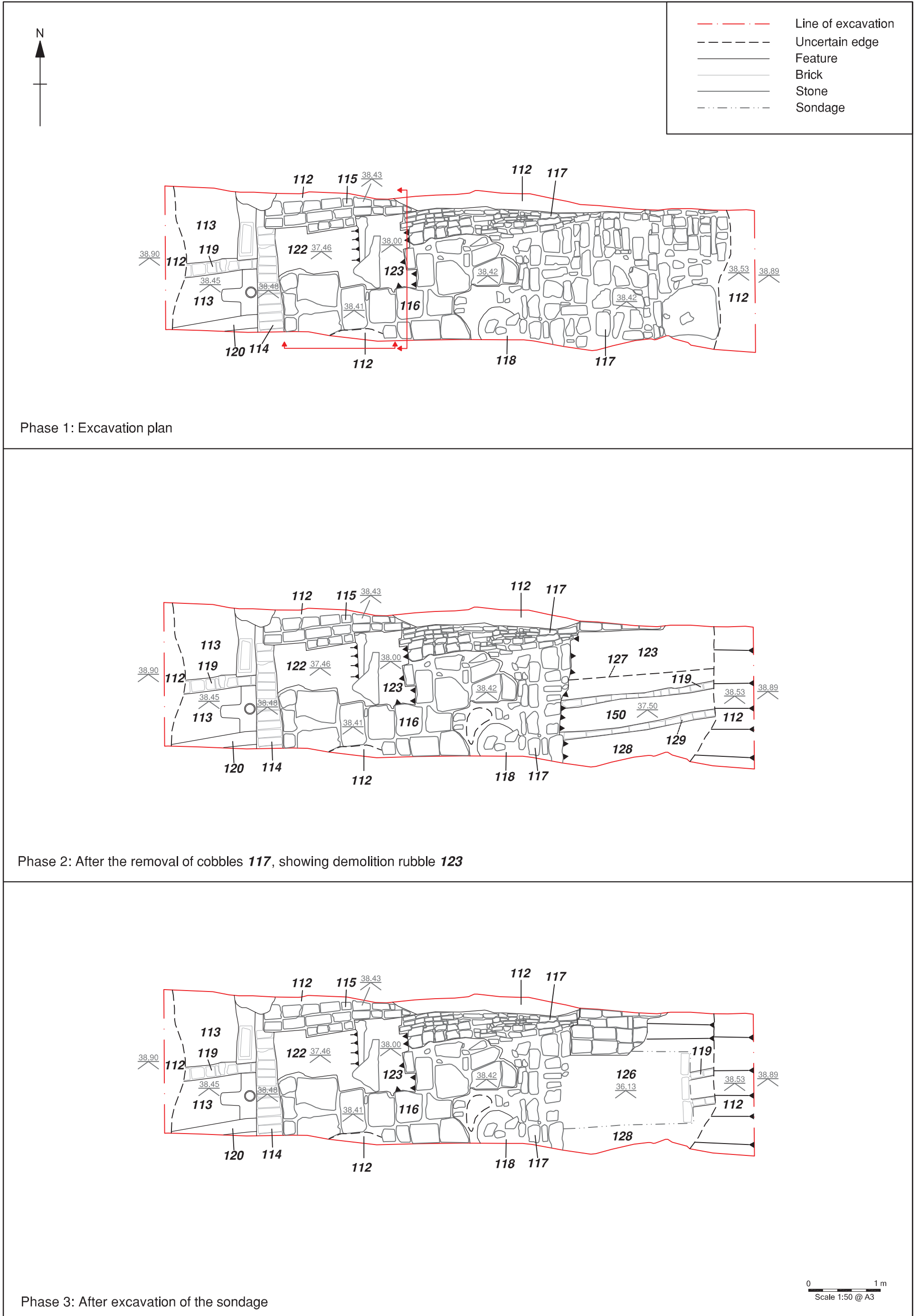


Figure 5: Plans of TP 17, illustrating the three phases of interventions

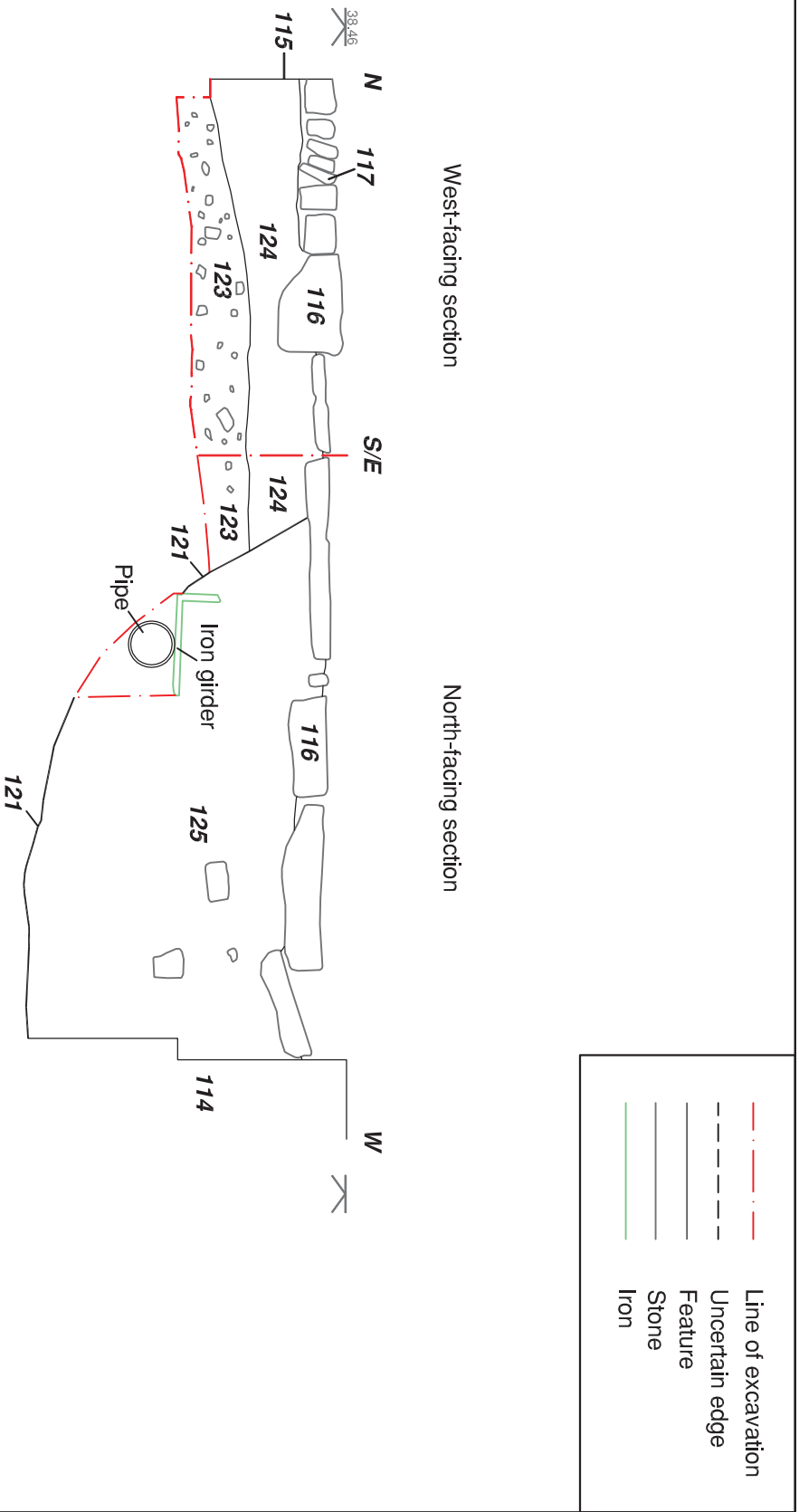


Figure 6: TP 17; the northern and western-facing sections through service trench 121, flagged floor 116, and cobbled surface 117

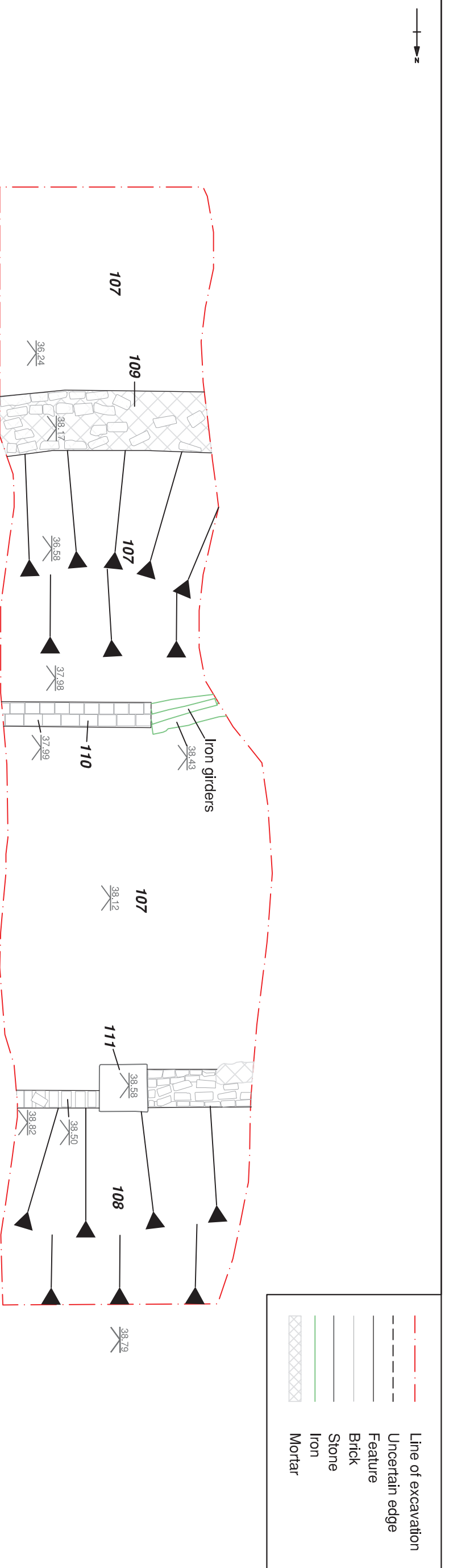


Figure 7: Plan of TP 18

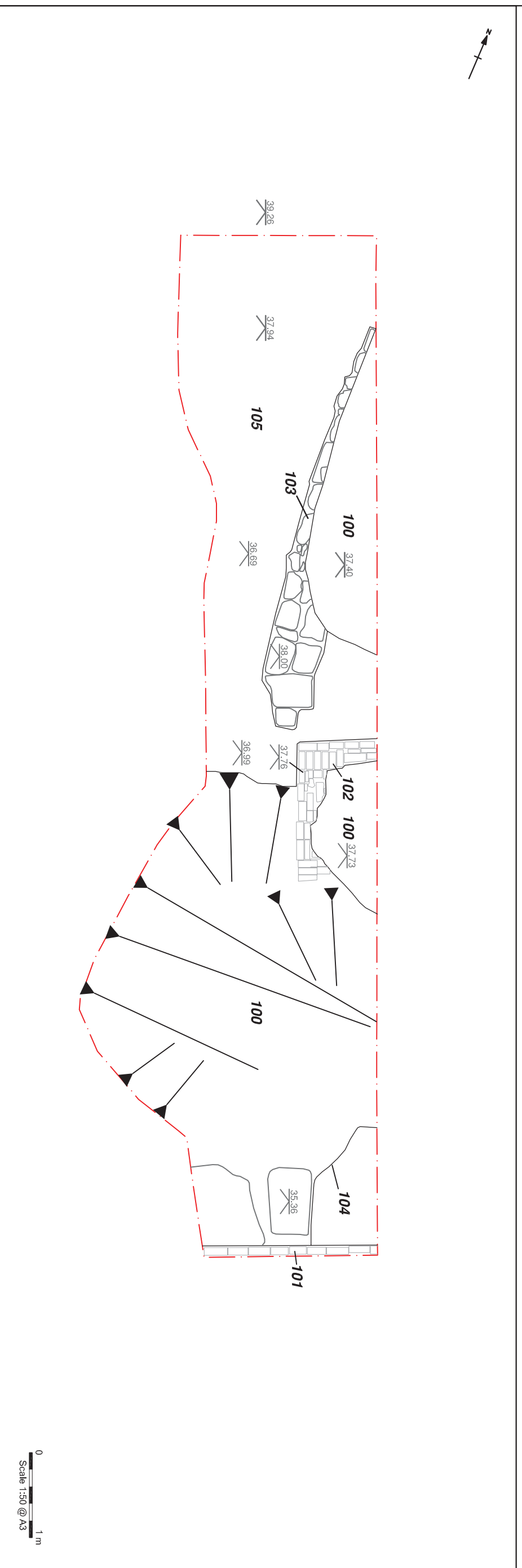


Figure 8: Plan of TP 29





Plate 1: South-west facing section through TP 9, illustrating cobbles *151*, overburden layers *153* and *154*, and former soil horizon *155*



Plate 2: Trench 17, pre-excavation shot looking west



Plate 3: Trench 17, slot through the western end showing walls *114*, and *115* to the right, looking west



Plate 4: Trench 17, section through the eastern end of the trench showing cobbles *117*; layer of overburden *123* and *128*; brick drain *129*; wall *115*; former soil horizon *122*, and natural geology *126*



Plate 5: Trench 18, general shot looking south



Plate 6: Trench 18, wall *109* looking north-east



Plate 7: Trench 29, general shot looking south-west



Plate 8: Trench 29, detail of wall *103*, looking east



Plate 9: Trench 29, shot of wall *103*, at a depth of 2m, looking east-north-east

APPENDIX 1: PROJECT DESIGN

1. INTRODUCTION

1.1 PROJECT BACKGROUND

1.1.1 Soil Mechanics, acting on behalf of their client Preston Tithebarn Partnership (hereafter the 'client'), propose to redevelop an area on the east side of Preston City Centre, Lancashire (NGR centred SD 541 294), centred around Tithebarn Street, for commercial, leisure and residential purposes. The project is currently at the pre-planning stage and an environmental assessment of the site, as part of the EIA process, is being undertaken. In line with the staged approach recommended by Lancashire County Archaeology Service (LCAS), a desk-based assessment was undertaken by Oxford Archaeology North (OA North 2007). The results have been used to inform the next phase of work of field evaluation.

1.1.2 Following consultation with LCAS, it was agreed that a series of environmental and geotechnical trenches and test-pits across the proposed development area will be excavated, initially, in an archaeological manner, but under the auspices of the principal contractor, Soil Mechanics, with a small number of trial pits excavated under an archaeological watching brief. Due to problems with access at this pre-determination stage, the number of trial pits and trenches has been restricted to those located on land belonging to Preston City Council (PCC) Estates, Lancashire County Council (LCC) Highways, and the client. This includes TPs 2-4, 6, 7, 9-11, 15-18 and 29. TP2-4, 6, 7, 9-11, 15 and 16 are 2m x 2m trial pits, with TP3 and 4 to be excavated under an archaeological watching brief. These trial pits will be examining the general archaeological deposits in an area that had been open fields until the nineteenth century (*ibid*). TP7 is also positioned in an area where Tenterfield Street School and Chapel had existed (Sites **14** and **15**), and TP15 is positioned over the site of the Old Vicarage Sawmill (Site **18**). TP17, 18 and 29 are 10m x 2m trenches; TP17 is positioned over the site of the Union Foundry (Site **41**); TP18 will examine the remains of Lord Street Mill (Site **04**); TP29 will investigate the potential for any remains associated with Patten House and Estate (Site **46**) and remains of handloom weavers' cottages similar to those opposite (Site **36**).

1.2 OXFORD ARCHAEOLOGY NORTH

1.2.1 OA North has undertaken a great number of small and large scale projects throughout Northern England during the past 25 years. Evaluations, assessments, watching briefs and excavations have taken place within the planning process, to fulfil the requirements of clients and planning authorities, to very rigorous timetables.

1.2.2 OA North has the professional expertise and resources to undertake the project detailed below to a high level of quality and efficiency. OA North is an Institute of Field Archaeologists (**IFA**) registered organisation, registration number **17**, and all its members of staff operate subject to the IFA Code of Conduct (1994).

2 AIMS AND OBJECTIVES

2.1 The following programme has been designed to investigate the archaeological significance of any surviving archaeological remains in order that any further archaeological work (assessment or mitigation) can be determined. The results of the evaluation will be used during the Environmental Statement to inform the planning process. The aim is to determine the extent, nature, character, survival and date of the remains that may be threatened by the proposed development. The required stages to achieve these ends are as follows:

2.2 **Archaeological Trial Pits:** eight 2m x 2m geotechnical trial pits will be excavated initially under archaeological conditions to determine the quality, extent and importance of any archaeological remains on the site (in accordance with the IFA standards (1999b)). The requirement to excavate these trial pits is in accordance with an LCAS verbal brief.

- 2.3 **Archaeological Trenching:** three 10m x 2m evaluation trenches will be excavated (TP17, 18 and 29) to determine the quality, extent and importance of any archaeological remains on the site (in accordance with the IFA standards (1999b)). Their positions are in accordance with an LCAS verbal brief to investigate Sites **41** (TP17), **04** (TP18), and possible remains associated with Sites **46** and **36** (TP29).
- 2.4 **Archaeological Watching Brief:** two 2m x 2m geotechnical trial pits will be archaeologically monitored during associated ground disturbance, to determine the quality, extent and importance of any archaeological remains on the site. As verbally agreed with LCAS, these will include TP3 and TP4
- 2.5 **Report and Archive:** a report will be produced for the client within eight weeks following completion of all of the fieldwork, and will be produced in a similar format to this project design. An archive will be produced to English Heritage guidelines (MAP 2 (1991)).
- 3 HEALTH AND SAFETY
- 3.1 PRINCIPAL CONTRACTOR
- 3.1.1 It is understood that OA North will be working under the auspices of the principal contractor, Soil Mechanics.
- 3.2 RISK ASSESSMENT
- 3.2.1 OA North provides a Health and Safety Statement for all projects and maintains a Unit Safety policy. All site procedures are in accordance with the guidance set out in the Health and Safety Manual compiled by the Standing Conference of Archaeological Unit Managers (1997). A written risk assessment will be undertaken in advance of project commencement and copies will be made available on request to all interested parties.
- 3.3 SERVICES AND OTHER CONSTRAINTS
- 3.3.1 Services will be located prior to commencement of excavation by a representative of Soil Mechanics. During excavation, an Engineering Supervisor (Soil Mechanics) will be present on site with a cable avoidance tool to locate services in the trial pit excavation areas. They will be able to determine whether a trial pit/trench can be machine excavated or whether it will require hand excavation; this will be judged on a trial pit-by-trial pit basis.
- 3.4 CONTAMINATION
- 3.4.1 Any known contamination issues or any specific health and safety requirements on site should be made known to OA North by the client to ensure all procedures can be met, and that the risk is dealt with appropriately. Should any presently unknown contamination be discovered during excavation, it may be necessary to halt the works and reassess the risk assessment. Should it be necessary to supply additional PPE or other contamination avoidance equipment this will be costed as a variation to the contract.
- 3.5 STAFF ISSUES
- 3.5.1 All project staff will be CSCS qualified, proof of which can be provided in the form of CSCS cards.
- 3.5.2 A portable toilet with hand washing facilities is required together with a messing facility, to include laying out and storage facility.
- 3.6 FENCING
- 3.6.1 Solid hoarding will be provided by the Client, and erected around the test pits and trenches in advance of the archaeologists arriving on site.

4 METHOD STATEMENT

4.1 ARCHAEOLOGICAL EVALUATION EXCAVATION

- 4.1.1 The programme of trial pitting and trenching for TPs 2-4, 6, 7, 9-11, 15-18 and 29 will establish the presence or absence of any archaeological deposits and, if established, will then test their date, nature, depth and quality of preservation, in order to provide an impact assessment.
- 4.1.2 **Trench/trial pit configuration:** three trenches (TP17, 18 and 29) measuring 2m in width and 10m in length, together with eight trial pits (TP2-4, 6, 7, 9-11, 15 and 16) measuring 2m x 2m will be excavated. The position of these trenches, has been agreed in general by LCAS, but will be determined on the ground by the principal contractor, Soil Mechanics. These will be located with the information provided by the client. Altitude information will be established with respect to Ordnance Survey Datum.
- 4.1.3 **Methodology:** the overburden (tarmac, made ground and topsoil) will be removed by machine (fitted with a toothless ditching bucket), where conditions allow (i.e. services present), or by hand-excavation by the client's team under archaeological supervision, and will be removed in successive spits of a maximum 0.2m thickness to the surface of the first significant archaeological deposit. This deposit will then be cleaned by OA North by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and inspected for archaeological features.
- 4.1.4 All trenches/trial pits will be excavated in a stratigraphical manner, whether by machine or by hand.
- 4.1.5 All features of archaeological interest will be investigated and recorded unless otherwise agreed by LCAS. The trenches/trial pits will not be excavated deeper than 1.2m to accommodate health and safety constraints; any requirements to excavate below this depth will involve recosting.
- 4.1.6 Any investigation of intact archaeological deposits will be exclusively manual. Selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal. It is hoped that in terms of the vertical stratigraphy, maximum information retrieval will be achieved through the examination of sections of cut features. All excavation, whether by machine or by hand, will be undertaken with a view to avoiding damage to any archaeological features, which appear worthy of preservation *in situ*.
- 4.1.7 **Recording:** all information identified in the course of the site works will be recorded stratigraphically, regardless of whether any archaeological features have been identified, using a system, adapted from that used by Centre for Archaeology Service of English Heritage, with sufficient pictorial record (plans, sections, and monochrome contacts, with digital photographs for presentation purposes) to identify and illustrate individual features. Primary records will be available for inspection at all times.
- 4.1.8 Results of all field investigations will be recorded on *pro forma* context sheets. The site archive will include both a photographic record and accurate large scale plans and sections at an appropriate scale (1:50, 1:20 and 1:10). All artefacts and ecofacts will be recorded using the same system, and will be handled and stored according to standard practice (following current Institute of Field Archaeologists guidelines) in order to minimise deterioration.
- 4.1.9 Plans will include OD spot heights for all principal strata and any features.
- 4.1.10 In cases where no archaeological deposits have been identified, at least one long section of each trench will be recorded. All sections will contain heights OD.

4.2 WATCHING BRIEF

- 4.2.1 **Methodology:** a programme of field observation is required for TP3 and 4 and will accurately record the location, extent, and character of any surviving archaeological features and/or deposits within the proposed ground disturbance. This work will comprise observation during the excavation for these works, the systematic examination of any subsoil horizons exposed during the course of the groundworks, and the accurate recording of all archaeological features and horizons, and any artefacts, identified during observation.
- 4.2.2 Putative archaeological features and/or deposits identified by the machining process, together with the immediate vicinity of any such features, will be cleaned by hand, using either hoes, shovel scraping, and/or trowels depending on the subsoil conditions, and where appropriate sections will be studied and drawn. Any such features will be sample excavated (i.e. selected pits and postholes will normally only be half-sectioned, linear features will be subject to no more than a 10% sample, and extensive layers will, where possible, be sampled by partial rather than complete removal).
- 4.2.3 During this phase of work, recording will comprise a full description and preliminary classification of features or materials revealed, and their accurate location (either on plan and/or section, and as grid co-ordinates where appropriate). Features will be planned accurately at appropriate scales and annotated on to a large-scale plan. A photographic record will be undertaken simultaneously.
- 4.2.4 A plan will be produced together with one or more dimensioned sections.
- 4.2.5 **Contingency plan:** in the event of significant archaeological features being encountered during the watching brief, discussions will take place with the Planning Archaeologist or his representative, as to the extent of further works to be carried out. All further works would be subject to a variation to this project design. In the event of environmental/organic deposits being present on site, it would be necessary to discuss and agree a programme of palaeoenvironmental sampling and or dating with the Planning Archaeologist.

4.3 GENERAL PROCEDURES

- 4.3.1 **Environmental Sampling:** deposits will be sampled and assessed for their potential for palaeoenvironmental analysis. Environmental samples (bulk samples of 40 litres volume, to be sub-sampled at a later stage) will be collected from stratified undisturbed deposits and will particularly target negative features (gullies, pits and ditches). It may be necessary for OA North's environmental manager to attend site to discuss the sampling strategy, depending on the deposits, and request advice from English Heritage's Regional Science Advisor.
- 4.3.2 An assessment of the environmental potential of the site will be undertaken through the examination of suitable deposits by the in-house palaeoecological specialist, who will examine the potential for further analysis. This will be undertaken in accordance with English Heritage Guidelines (2002).
- 4.3.3 The assessment would include soil pollen analysis and the retrieval of charred plant macrofossils and land molluscs from former dry-land palaeosols and cut features. In addition, the samples would be assessed for plant macrofossils, insect, molluscs and pollen from waterlogged deposits. It will also consider the potential for the dating of peat deposits and requirements for any radiocarbon and archaeomagnetic dating.
- 4.3.4 The costs for the palaeoecological assessment are defined as a contingency and will be called into effect if suitable deposits are identified.
- 4.3.5 **Faunal remains:** if there is found to be the potential for discovery of bones of fish and small mammals a sieving programme will be carried out. These will be assessed as appropriate by OA north's specialist in faunal remains, and subject to the results, there may be a requirement for more detailed analysis. A contingency has been included for the assessment of such faunal remains for analysis.

- 4.3.6 **Human Remains:** any human remains uncovered will be left *in situ*, covered and protected. No further investigation will continue beyond that required to establish the date and character of the burial. LCAS and the local Coroner will be informed immediately. If removal is essential the exhumation of any funerary remains will require the provision of a Home Office license, under section 25 of the Burial Act of 1857. An application will be made by OA North for the study area on discovery of any such remains and the removal will be carried out with due care and sensitivity under the environmental health regulations. The cost of removal or treatment will be agreed with the client as a variation to the contract.
- 4.3.7 **Treatment of finds:** all identified finds and artefacts will be retained, although certain classes of building material can sometimes be discarded after recording if an appropriate sample is retained on advice from the recipient museum's archive curator.
- 4.3.8 All finds will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the United Kingdom Institute for Conservation (UKIC) *First Aid For Finds*, 1998 (new edition) and the recipient museum's guidelines. They will be assessed in terms of the potential for further investigation and preservation needs.
- 4.3.9 Only those finds that are of a quality worthy of display will be fully conserved, but metalwork and coinage from stratified contexts may be X-rayed. Any conservation requirements will be discussed with the client and costed as a variation.
- 4.3.10 **Treasure:** any gold and silver artefacts recovered during the course of the excavation will be removed to a safe place and reported to the local Coroner according to the procedures relating to the Treasure Act, 1996. Where removal cannot take place on the same working day as discovery, suitable security will be employed to protect the finds from theft, which may require costing as a variation in discussion with the client.
- 4.3.11 **Contingency plan:** a contingency costing may also be employed for unseen delays caused by prolonged periods of bad weather, vandalism, discovery of unforeseen complex deposits and/or artefacts which require specialist removal, use of shoring to excavate important features close to the excavation sections etc. This has been included in the Costings document and would be charged in agreement with the client.
- 4.3.12 The evaluation will provide a predictive model of surviving archaeological remains detailing zones of relative importance against known development proposals. In this way, an impact assessment will also be provided.

4.4 REPORT

- 4.4.1 The report will be supplied digitally to the client (hard copies can also be provided if requested) within eight weeks of completion of the fieldwork, subject to any specialist assessment reports. It will present, summarise, and interpret the results of the programme detailed above in order to come to as full an understanding as possible of the archaeology and its significance within these specific areas of the development. A copy of the report will also be provided as a pdf version to LCAS for comment. Once finalised, a copy will be forwarded to the Lancashire Historic HER on CD as a pdf. The report will include;
- a site location plan related to the national grid
 - a front cover to include the planning application number and the NGR
 - the dates on which the fieldwork was undertaken
 - a concise, non-technical summary of the results
 - an explanation to any agreed variations to the brief, including any justification for any analyses not undertaken

- a description of the methodology employed, work undertaken and results obtained
- an historical and archaeological background
- plans and sections at an appropriate scale showing the location and position of deposits and finds located
- a list of and dates for any finds recovered and a description and interpretation of the deposits identified. This artefact analysis will include illustration of finds crucial to dating and interpretation
- a description of any environmental or other specialist work undertaken and the results obtained
- a copy of this project design and indications of any agreed departure from the details
- the report will also include a complete bibliography of sources from which data has been derived.

4.4.2 **Confidentiality:** all internal reports to the client are designed as documents for the specific use of the client, for the particular purpose as defined in the project brief and project design, and should be treated as such. They are not suitable for publication as academic documents or otherwise without amendment or revision.

4.5 ARCHIVE

4.5.1 The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Archaeological Projects*, 2nd edition, 1991). The project archive will include summary processing and analysis of all features, finds, or palaeoenvironmental data recovered during fieldwork, which will be catalogued by context.

4.5.2 The deposition of a properly ordered and indexed project archive in an appropriate repository is essential and archive will be provided in the English Heritage Centre for Archaeology format and a synthesis will be submitted to the Lancashire HER (the index to the archive and a copy of the report). OA North practice is to deposit the original record archive of projects with the County Record Office, Preston.

4.5.3 All artefacts will be processed to MAP2 standards and will be assessed by our in-house finds specialists. The deposition and disposal of any artefacts recovered in the evaluation will be agreed with the legal owner and an appropriate recipient museum, in this case the Museum of Lancashire. LCAS will be notified of the arrangements made.

5. OTHER MATTERS

5.1 ACCESS

5.1.1 Liaison for basic site access will be undertaken through the client.

5.2 REINSTATEMENT

5.2.1 It is understood that there will be no requirement for reinstatement of the ground by OA North, and that the client will be responsible.

5.3 PROJECT MONITORING

5.3.1 Whilst the work is undertaken for the client, LCAS will be kept fully informed of the work and its results.

5.4 INSURANCE

- 5.4.1 OA North has a professional indemnity cover to a value of £2,000,000; proof of which can be supplied as required.

5.5 WORK TIMETABLE

- 5.5.1 **Archaeological Trenching and Trial Pitting:** it is anticipated that this element would require up to seven days for a team of three people.
- 5.5.2 **Archaeological Watching Brief:** the duration of the archaeological presence for the watching brief is as yet unknown, being dictated by the schedule of works.
- 5.5.3 **Report:** the final report will be submitted to the client within eight weeks of completion of the evaluation fieldwork phase.
- 5.5.4 **Written notice:** OA North would require a formal written agreement at least one week before commencement in order to schedule the work as above and provide the appropriate monitoring notice to LCAS.

5.6 STAFFING

- 5.6.1 The project will be under the direct management of **Emily Mercer BA (Hons) MSc AIFA** (OA North Senior Project Manager) to whom all correspondence should be addressed.
- 5.6.2 The fieldwork will be supervised by an OA North project officer or supervisor experienced in this type of project. Due to scheduling requirements it is not possible to provide the staff details at the present time. All OA North project officers and supervisors are experienced field archaeologists capable of carrying out projects of all sizes.
- 5.6.3 Assessment of the finds from the evaluation will be undertaken under the auspices of OA North's in-house finds specialist **Christine Howard-Davis** (OA North finds manager). Christine has extensive knowledge of finds from many periods of the North West.
- 5.6.4 Assessment of any palaeoenvironmental samples will be undertaken by or under the auspices of **Elizabeth Huckerby MSc** (OA North environmental manager). Elizabeth has extensive knowledge of the palaeoecology of the North West through her work on the English Heritage-funded North West Wetlands Survey.

BIBLIOGRAPHY

English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London

English Heritage, 2001 *Environmental Archaeology: a guide to the theory and practice of environmental methods from sampling and recovery to post-excavation*, London

Institute of Field Archaeologists, 1994 *Code of conduct* (revised edition), unpubl

Institute of Field Archaeologists, 1999b *Standard and guidance for archaeological field Evaluations*, unpubl

Oxford Archaeology North, 2007 *Preston Tithebarn Regeneration, Preston, Lancashire, Archaeological Desk-Based Assessment*, unpubl

SCAUM (Standing Conference of Archaeological Unit Managers), 1997 *Health and Safety Manual*, Poole

United Kingdom Institute for Conservation (UKIC), 1990 *Guidelines for the preparation of archives for long-term storage*, London

United Kingdom Institute for Conservation (UKIC), 1998 *First Aid For Finds*, London (new edition)

APPENDIX 2: CONTEXT REGISTER

Context No.	Test Pit No.	Description
100	29	Overburden, 2.1m thick. Grey/brown, loose and coarse sandy-gravel with 70% brick, concrete, mortar and stone inclusions. Material used for levelling after demolition of the former houses.
101	29	Brick wall. Measuring >2m in length, >2.1m in height and aligned east-north-east/west-south-west, the wall was constructed from a mixture of pale grey and red machine-made bricks, average size: 0.22m x 0.12m x 0.07m, in an English bond with an excess of stretchers. It survived to 20 courses in height, and was bonded with a light yellow cement-mortar. The full width of the wall was not exposed. It formed the south-west wall of a cellar, and was abutted by floor 104 .
102	29	Brick structure. Measuring 1.6m in length, 1.2m in width and >1.15m in height, the structure was constructed from a mixture of pale grey and red machine-made bricks, average size: 0.22m x 0.12m x 0.07m, and bonded by a pale yellow cement-mortar. It survives to over 15 courses in height, and built in a stretcher bond. The sewerage pipe extending from the structure suggests a sanitary function. It truncated wall 103 .
103	29	Sandstone wall. Measuring >5m in length, 0.38m in width and >2m in height, the wall was orientated roughly north/south across the trench. It was constructed from roughly worked sandstone blocks, average size: 0.3m x 0.2m x 0.1m, and bonded with a yellow-cream, friable and degraded limestone mortar. The wall survived to over 10 courses in height, and was built in a random-bond. The function of the wall was not easily discernible, and may have been a cellar wall of an earlier building. It has been truncated by structure 102 , and the cellar to the south-east.
104	29	Sandstone flagged floor for cellar. Measuring >2m in length and >2m in width, the floor was constructed from worked, red sandstone flags, average size: 1m x 0.8m x 0.1m. The floor was bedded into sand, and abutted wall 101 . The majority of the floor had been truncated during previous groundworks to the north-west.
105	29	Redeposited sand, >2m thick. Dark yellow/brown, loose sand with <1% brick and stone inclusions. The sand exceeds 2m in depth, and abuts wall 103 . Redeposited sand comprising much of the backfill for the north-west half of the trench. It is not present in the south-eastern area.
106	17/18	Topsoil, c0.2m thick. Dark grey/brown, loose sandy/silt with <10% brick, sub-angular pebble, concrete and mortar inclusions. Redeposited across park for landscaping purposes after the demolition of earlier structures.
107	18	Rubble backfill, >2.m thick. Dark grey/brown, loose sandy/silt with c90% rubble and demolition debris, including brick, iron girders, light fittings and a fridge. The base of the deposit had not been encountered by 2.5m. It was most likely the backfill of a large cellar associated with the former cotton mill.
108	18	Rubble backfill, >2.3m thick Mid grey/brown, loose sand with 30% brick and 20% bands of mortar and plaster. Concentrated between wall III and the northern limit of the

		excavation. The base of the deposit had not been encountered at 2.3m. It was most likely the backfill of a large cellar associated with the former cotton mill.
109	18	Brick wall. Measuring >2.3m in length, 0.7m in width and >2m in height, the wall was orientated east/west. It was constructed from machine-made red bricks, average size: 0.22m x 0.12m x 0.07m, and bonded with a yellow/cream limestone mortar. Exceeding 20 courses in height, the wall was in a stretcher bond, and partially covered in a layer of plaster. A possible doorway was identified on the western side; the wall most likely belonged to a cellar of the former cotton mill.
110	18	Brick wall. Measuring >2.2m in length, 0.24m in width and over four courses in height, the wall was aligned east/west. It was constructed from machine-made, red bricks, average size: 0.22m x 0.12m x 0.07m, and in an English bond. The wall was bonded with yellow/cream limestone mortar, and was most likely a cellar wall associated with the former cotton mill.
111	18	Brick wall. Measuring >2m in length, 0.55m in width and >1m in height, the wall was orientated east/west. It was constructed from machine-made, red bricks, average size: 0.22m x 0.12m x 0.07m, and in an English bond with an excess of stretchers. A large limestone block occupied the central portion of the wall. The wall was bonded with cream limestone mortar, and survived to over 12 courses in height. It is quite a substantial wall and may be the back wall of the former cotton mill.
112	17	Overburden, 0.3m thick. Grey/brown, loose silty/sand with 60% brick, sandstone, mortar and cement inclusions. Redeposited demolition rubble used to level the site.
113	17	Concrete floor. Grey concrete floor for modern toilet block.
114	17	Brick wall. Measuring 1.42m in length, 0.22m width and >0.97m in height, the wall was orientated north/south. It was constructed from machine-made, red bricks, average size: 0.22m x 0.1m x 0.07m, and in an English bond. The wall survived for over 12 courses and was bonded with a pale pink, friable limestone mortar. It was butted to the west by the modern toilet cubicles, and to the east by floor 116 .
115	17	Brick wall. Measuring 2.1m in length, 0.39m in width and >0.91m in height, the wall was orientated east/west. It was constructed from machine-made, red bricks, average size: 0.22m x 0.12m x 0.07m, and in a stretcher bond. The wall exceeded 14 courses in height, and was bonded with a pale pink, friable limestone mortar. It is keyed into wall 114 to the west, and butted to the south by surfaces 116 and 117 . The substantial nature of the wall suggests that it may have been external.
116	17	Flagstone surface. Extending for 3.4m x 1.45m, the surface was created from sub-rectangular sandstone flags, average size: 0.4m x 0.2m x 0.12m, and bedded into 124 to the east and 125 to the west. It was likely that they were laid after the excavation of trench 121 for the iron gas pipe running north/south across the trench.
117	17	Cobbled surface. Extending for 4.2m x 2m, the surface was created from worn, sub-oblong limestone cobbles, average size: 0.3m x 0.1m x 0.1m, and bedded into 124 . The majority of the cobbles have been placed in a random fashion, suggesting disturbance over time, and have been wholly removed to the west and

		replaced by 116 , most likely when the iron gas pipe was installed. At the eastern end part of the floor comprised a large concrete block, probably re-used.
118	17	Mortar deposit. A discrete layer of compact, cream and dark grey mottled mortar, measuring 1.2m x 0.78m and approximately 0.02m thick. It was most likely deposited during the creation of the site into a park in the late twentieth century.
119	17	Brick wall. Measuring >0.7m in length and 0.22m in width, the wall was aligned east/west. It was constructed from machine-made, red bricks, average size: 0.22m x 0.12m x 0.07m, and bonded with a pale pink cement-mortar. Only the top of the wall was visible, but may have been in a header-bond. Modern wall of toilet cubicles. Abutted by 113 .
120	17	Brick wall. Measuring >1m in length and 0.22m in width, the wall was orientated east/west. It was constructed from machine-made, red bricks, average size: 0.22m x 0.12m x 0.07m, and bonded with a pale pink cement-mortar. Only the top of the wall was visible, but may have been in a header-bond. Modern wall of toilet cubicles. Abutted by 113 .
121	17	Cut for service trench. Linear in plan, the cut measured >1.68m in length, 1.1m in width and 0.74m in depth, and with an undulating U-shaped profile. It was aligned north/south, and most likely excavated for the installation of the iron gas pipe.
122	17	Former subsoil, 0.7m thick. Orange/yellow, loose silty/sand with >5% small fragments of brick, mortar and charcoal inclusions. Former subsoil extending over the northern area of the Lord Street greenspace.
123	17	Demolition layer, 0.15m thick. Grey/brown, loose and friable silty/sand with 60% small fragments of brick, stone and mortar. A thin layer of demolition material used as levelling before bedding sand 124 laid down for cobbles 116 .
124	17	Bedding sand for cobbled surface 116 , 0.23m thick. Orange/yellow, loose sand. Extends over the eastern half of the trench, and used to bed cobbles 116 . Truncated to the west by service cut 121 .
125	17	Fill of cut 121 , 0.76m thick. Dark-brown, friable sandy/silt with <5% small sub-rounded pebble inclusions and small fragments of building rubble. Fill of service cut 121 , redeposited material from the surrounding area.
126	17	Natural geology. Mid-cream/yellow, soft sand. Encountered at c2m depth in the trench.
127	17	Cut for brick drain 129 . Linear in plan with a square profile, the cut measured >2.75m in length, 1.3m in width and 0.6m in depth, and was aligned east-north-east/west-south-west.
128	17	Fill of drain cut 127 , 0.6m thick. Dark-grey/brown, friable silty/sand with >5% brick, mortar and ash inclusions. Mixture of redeposited subsoil and demolition material from the surrounding area.
129	17	Brick drain. Circular brick drain measuring >2.75m in length and 0.4m in diameter. It was constructed from machine-made, red brick, average size: 0.22m x 0.12m x 0.07m, and bonded with a yellow/cream, friable limestone mortar. Most likely relates to structures that post-date the cotton mill.
130	17	Fill of drain 129 , 0.2m thick.

		Dark-green/grey, soft silty-sand with <2% small brick, mortar and concrete inclusions. The material has quite a high organic component.
131	2	Bedding sand, 0.2m thick. Dark-brown/black, friable ashy/sand with 10% small brick, mortar and concrete inclusions. Bedding sand for modern concrete paving slabs.
132	2	Redeposited sand, >1.6m thick. Mid-orange, loose sand with 5% small brick, concrete and sub-rounded pebble inclusions. Redeposited sand backfilling the foundation cut for a modern office block.
133	15	Hardcore, 0.12m thick. Grey, coarse and loose gravelly/sand with >25% small-medium sub-angular limestone chippings. Levelling material before concrete poured across the area.
134	15	Redeposited topsoil, 0.3m thick. Dark-grey/brown, loose sandy/silt with 20% rubble inclusions. Layer of topsoil and rubble mix, redeposited after foundation for former garage created.
135	15	Concrete pipe. Grey concrete cap for pipe running into the former garage, aligned east/west and measuring >1.3m in length, 0.62m in width and >1.6m in depth.
136	15	Lower fill of service cut 138 , 0.34m thick. Mid-grey/orange mottled silty/sand with >10% brick, mortar and concrete inclusions. Redeposited sand and rubble from the immediate area.
137	15	Upper fill of pipe cut 138 , 0.2m thick. Dark-brown/grey, friable sandy/silt with >15% small-medium fragments of building rubble inclusions. Layer of redeposited topsoil and rubble backfilling the service cut.
138	15	Cut for concrete pipe 135 . Linear in plan with a stepped-square profile, the cut measured >1.3m in length, 1.8m in width and c0.6m in depth.
139	15	Redeposited sand, 0.34m thick. Red/orange, loose and friable sand with 10% brick and concrete inclusions. redeposited sand probably laid after the main construction of the former garage.
140	15	Natural geology. Mid-yellow/orange, soft and fine sand. It has been truncated towards the top when the former garage was constructed.
141	15	Concrete plinth for wall 144 . Poured grey concrete base, measuring 2.8m in length and >0.5m in width. Formed the concrete foundation for former garage wall 144 .
142	15	Foundation cut for wall 144 . Linear in plan and box-shaped in profile, the cut measured >2.8m in length, c1m in width and >2m in depth. Foundation cut for wall 144 and concrete base 141 .
143	15	Fill of cut 142 , >2m thick. Dark-grey/brown, loose sandy/silt with 20% small rubble inclusions. Mixed backfill for foundation cut 142 .
144	15	Brick wall. Measuring >2.8m in length and 2.1m in height, the wall was aligned east/west. It was constructed from modern, machine-made red bricks, average size: 0.22m x 0.12m x 0.07m, in a stretcher bond, with pale yellow cement mortar bonding. The wall formed the southern wall for the former garage fuel tanks.
145	16	Brick wall.

		Measuring >4.3m in length and 1.6m in height, the wall was orientated east/west. It was constructed from machine-made red bricks, average size: 0.22m x 0.12m x 0.07m, in a stretcher bond, and with pale yellow cement-mortar bonding. It has been truncated to the east by concrete pipe <i>135</i> . Wall forming part of the former garage.
<i>146</i>	16	Concrete cap for pipe. Running east/west along the trench, the cap was created from concrete and covers a metal pipe associated with the former garage. >3m in length, 0.65m in width and 0.23m thick.
<i>147</i>	16	Cut for service pipe. Linear in plan and box-shaped in profile, the cut measured >1.8m in length, 1.1m in width and 0.6m in depth. Cut for pipe capped by <i>146</i> , is possibly part of the main foundation cut <i>149</i> , for wall <i>145</i> .
<i>148</i>	16	Fill of cut <i>147</i> . Dark-grey/orange, loose sand with >10% charcoal, brick, concrete and mortar inclusions. Some possible diesel contamination. Redeposited backfill from the immediate area.
<i>149</i>	16	Foundation cut for wall <i>145</i> . Linear in plan and rectangular in profile, the cut measured >4.3m in length, >0.5m in width and >1.6m in depth. Foundation cut for <i>145</i> , most likely the same cut as <i>142</i> in TP 15.
<i>150</i>	16	Fill of cut <i>149</i> . Mid-orange/brown, friable silty/sand with >15% small brick, concrete, mortar and ash inclusions. Redeposited rubble from the immediate area backfilling foundation trench <i>149</i> .
<i>151</i>	9/10	Cobbled surface. Smoothed, cream limestone cobbles, average size: 0.26m x 0.16m x 0.14m, extending over the area of the open-air market. They were bedded into sand, <i>152</i> , and had some staining from the overlying tarmac. Original floor of the open-air market, constructed in the later nineteenth century.
<i>152</i>	9/10	Bedding sand for cobbles <i>151</i> , 0.2m thick. Pale-orange/yellow, fine and soft sand with <2% small sub-rounded pebble inclusions. Redeposited sand used to bed cobbled surface <i>151</i> .
<i>153</i>	9/10	Levelling layer, 0.3m thick. Dark-brown/grey, friable ashy/sand with >25% ash, cinder, brick and mortar inclusions (including fragments of handmade brick). Redeposited rubble used to level up the site, probably during the construction of the market.
<i>154</i>	9	Redeposited sand, 0.34m thick Dark-orange/brown, friable silty/sand with >10% cinder, brick, mortar and charcoal inclusions. Layer of redeposited sand and rubble, most likely laid during the construction of the market. A fragment of post-medieval pottery was recovered from the deposit.
<i>155</i>	9/10	Former soil horizon, 0.13m-0.74m thick Mid-orange/brown, soft silty/sand with <5% sub-rounded pebbles and <1% charcoal flecks. In TP 9, two fragments of medieval pottery were recovered from the deposit, while in TP 10, one fragment of post-medieval pottery was recovered. There was evidence for disturbance of the deposit in TP 10.
<i>156</i>	9/10	Natural geology. Pale-orange/yellow, soft sand with <1% small sub-rounded pebble inclusions. Natural drift geology extending over the area of the open-air market.
<i>157</i>	9	Plinth for market pillar. Large plinth measuring 1.85m in height and 1.7m in width, and constructed from several materials. From the base: concrete to a thickness of 0.1m; two

		layers of red machine-made brick, 0.1m and 0.2m respectively; two large limestone blocks, both 0.5m thick; a thin concrete block for the iron pins, 0.05m thick; and an iron block, 0.5m thick, which was part of the visible iron pillar.
158	9	Cut for plinth 157 Square in plan, to the limit of excavation, and rectangular in profile, the cut measured c1.7m in width and >1.85m in depth.
159	9	Fill of cut 158 , c1.45m thick. Mottled orange and dark-grey, friable silty/sand with >5% small-medium brick and mortar inclusions. A mixture of redeposited natural, subsoil and rubble backfilling plinth cut 158 .
160	11	Hardcore, 0.19m thick Light-grey/cream, coarse and loose crushed concrete. Used to level the area before the concrete surface was poured.
161	11	Concrete plinth. Measuring 1.1m in length and 2.6m in height, the plinth was constructed from a light-grey poured concrete. The impression of the wooden frame used to mould the plinth is still visible. An iron water hopper with the date '1923' suggests a date for the construction of the market.
162	11	Cut for plinth 161 . Rectangular in plan and box-shaped in profile, the cut measured 1.2m in length and 2.65m in depth. It truncated brick wall 164 .
163	11	Fill of cut 162 , 0.05m thick around concrete plinth. Dark-grey/brown, friable organic silt with 5% mortar, wood and concrete inclusions. A mixture of redeposited material from the immediate area and the decomposed wooden frame for the plinth 161 .
164	11	Brick wall. Measuring >1.4m in length, 0.46m in width and 1.74m in height, the wall was orientated north-east/south-west. It was constructed from handmade red bricks, average size: 0.23m x 0.12m x 0.05m, and in a stretcher bond. It survived for approximately 45 courses, and was bonded by a light-cream, friable limestone mortar with <10% small charcoal inclusions. The handmade bricks suggest a pre-mid-nineteenth century date for the wall.
165	11	Cut for wall 164 . Linear in plan and rectangular in profile, the cut measured >1.4m in length, 0.56m in width and 1.8m in depth and was aligned north-east/south-west. Foundation cut for brick wall 164 .
166	11	Fill of cut 165 . Mid-dark orange/brown, soft silty-sand with <5% small sub-rounded pebbles and <1% charcoal flecks. redeposited subsoil backfilling foundation cut 165 .
167	11	Brick wall. Near identical in form to wall 164 . Located at the south-east end of TP 11, and surviving to over 2.3m in height (approximately 50 courses). The substantial nature of the wall suggests that it may have been external or load-bearing.
168	11	Cut for wall 167 . Near identical to foundation cut 165 , except that it exceeds 2.3m in depth.
169	11	Fill of cut 168 . Near identical to backfill 166 in foundation cut 165 .
170	11	Organic layer, 1.1m thick. Dark-grey/brown, friable silt with c 10% small brick, concrete and mortar inclusions. Organic deposit that might be associated with the drain running along the western edge of the TP.

171	11	Natural geology. Mid-orange, fine and soft clay/sand with some evidence of iron panning.
172	11	Overburden, 0.3m thick. Identical to the material in TP 9/10, 153 . Overburden levelling the area before the construction of the market.
173	11	Redeposited sand, 0.45m thick. Identical to 154 within TP 9/10. Redeposited sand and rubble extending over the area of the open market.
174	11	Former soil horizon, 0.72m thick. Same as 155 in TP 9/10. The interface between this deposit and natural, 171 , is very diffuse.
175	4	Redeposited sand, 0.3m thick. Mid-orange, fine sand with 10% small to large concrete fragments. Levelling material for multi-storey car park.
176	4	Redeposited sand, >1.1m thick. Light-orange, soft and loose sand with no coarse component. The lack of natural banding throughout the deposit suggests that it is redeposited. It is likely to be material brought in from elsewhere to backfill the large foundation cuts for the multi-storey car park.
177	4	Concrete plinth. Grey concrete block forming plinth for pillar in multi-storey car park. It was abutted by sand 176 . It measured >0.66m in length, 0.77m in width and 0.75m in height.
178	17	Cut for wall 115 . Linear in plan and rectangular in profile, the cut measured >7m in length, 0.6m in width and 2m in depth. Foundation cut for wall 115 .
179	17	Fill of cut 178 , 0.05m thick from wall edge Mottled mid-brown and orange, friable silty/sand with <5% small fragments of brick and mortar inclusions. The result of redeposited material from the immediate area.
180	3	Concrete plinth. Measuring >2.05m in length, >0.75m in width and 1.25m in height, the plinth was constructed from grey concrete. It forms a plinth for the multi-storey car park, and sits on base 181 , and abutted by sand 176 .
181	3	Concrete base, 0.04m thick. Coarse, grey poured concrete forming the base for concrete plinth 180 .
182	3	Concrete and brick conglomerate, 0.2m thick. Light-mid grey, solid concrete and brick conglomerate, most likely capping for a service pipe.
183	3	Redeposited sand, >0.1m thick. Mid-orange/brown, soft sand, near identical to 176 . The sand that plinth 180/181 is sitting upon.
184	10	Plinth for open-air market. Near identical to plinth 157 in TP 9. It measured 1.15m->1.45m in length, >0.5m in width and 2.16m in height, and constructed from concrete, brick and limestone as the aforementioned plinth.
185	10	Cut for plinth 184 . Rectangular in plan and squared in profile, the cut measured >1.45m in length, >0.5m in width and 2.16m in depth.
186	10	Fill of cut 185 , 0.2m thick from edge of plinth. Mottled orange and brown, compact silty/sand with 5% small brick and

		mortar inclusions. A fragment of glass and clay pipe was recovered from the deposit. Most likely redeposited subsoil and rubble material from the surrounding area.
187	6	Redeposited sand, 0.3m thick. Mid-orange/brown, loose sand with 5% brick, concrete, and sub-rounded pebble inclusions. Redeposited subsoil and rubble used for levelling before the concrete was laid.
188	6	Former soil horizon, 0.47m thick. Dark-grey/brown, soft silty/sand with 5% concrete and brick inclusions. Old ground surface that has been heavily disturbed by the construction of the surrounding modern shopping mall.
189	6	Fill of cut 190 , >1.63m thick. Mid-orange-brown, coarse and friable sand and gravel layers, >10% gravel and >2% brick, wood, concrete and cobble inclusions. Redeposited sands, gravels and demolition material backfilling foundation cut 190 for a large modern shopping mall.
190	6	Foundation cut for modern shopping mall Measuring >1.3m in width and >1.63m in depth, the cut was linear in plan, rectangular in profile and aligned north-east/south-west.

APPENDIX 3: FINDS CATALOGUE

Cxt = context; OR = Object Record number

Cxt	OR	TP	Material	Category	No.	Description	Period
<i>154</i>	1001	9	Ceramic	vessel	1	One fragment black-glazed redware	Eighteenth - early nineteenth century
<i>155</i>	1002	10	Ceramic	vessel	1	One fragment blue and white underglaze transfer-printed earthenware	Late eighteenth - twentieth century
<i>155</i>	1003	9	Ceramic	vessel	2	Two small fragments incompletely reduced green-glazed ware.	Fourteenth - fifteenth century
<i>186</i>	1004	10	Ceramic	tobacco pipe	1	One undiagnostic stem fragment	Post-medieval
<i>186</i>	1004	10	Glass	vessel	1	Large fragment pale blue/natural glass, probably mould-blown bottle.	Mid nineteenth century or later