



Little Chester Roman Fort, Derby, Derbyshire

Archaeological Evaluation Report



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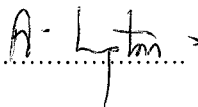
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CONTENTS

SUMMARY	2
ACKNOWLEDGEMENTS.....	3
1. INTRODUCTION	4
1.1 Circumstances of Project.....	4
1.2 Site Location	4
2. METHODOLOGY	6
2.1 Trial Trench Evaluation	6
2.2 Archive.....	6
3. HISTORICAL BACKGORUND	7
3.1 Background	7
4. EVALUATION RESULTS.....	9
4.1 Introduction.....	9
4.2 Trench 16	9
4.3 Trench 17	11
4.4 Trench 18	14
5. THE FINDS.....	17
5.1 Introduction	17
5.2 Roman Pottery.....	18
5.3 Roman Building Material.....	18
5.4 Roman Coins.....	20
5.5 Animal Bone	21
5.6 Charred and Waterlogged Plant Remains Assessment	21
6. DISCUSSION.....	23
6.1 Introduction	23
6.2 The Roman Ditches.....	23
6.3 Impact.....	24
7. CURATION AND CONSERVATION.....	25
7.1 Recipient Museum	25
7.2 Conservation	25
7.3 Storage.....	25
7.4 Packaging	25
BIBLIOGRAPHY	26
APPENDIX 1: SUMMARY FINDS CATALOGUE.....	29
ILLUSTRATIONS	32

SUMMARY

The Environment Agency, in partnership with Derby City Council, is planning to develop new flood defences in Derby, which will involve the construction of new embankments along the River Derwent as it flows through Little Chester in Derbyshire. Situated a short distance to the north of Derby city centre, Little Chester is well-known as the site of a Roman fort (*Derventio*), whilst significant Romano-British, Anglo-Saxon and medieval deposits have also been discovered in the area. The new flood defences are likely to take a route across Parker's Piece, situated between the known sites of the Roman fort and an associated bath house, and Darley Playing Fields, which overlies a significant element of the Roman civilian settlement. The route of the flood defences will also need to pass the site of the Roman fort (centred on NGR 435325 337540), which is afforded statutory designation as a Scheduled Monument (SM No 1007043).

In order to understand and manage the archaeological risks associated with the proposed scheme, the Environment Agency (EA), acting on the advice of English Heritage, commissioned Oxford Archaeology North (OA North) to undertake an archaeological evaluation of defences encompassing the fort. The evaluation was intended to establish the precise location of the defensive circuit. This was achieved via the excavation of three trenches, which were targeted on the projected course of the defensive ditches around the north-eastern corner of the fort, and adjacent to the postulated position of the western gate of the fort.

The archaeological evaluation has provided an important opportunity to investigate the defensive circuit associated with the Roman fort of *Derventio*, and add fresh information as to their location and chronological development. Whilst the footprint of the Roman fort has been subject to numerous archaeological investigations previously, the precise route of the defensive ditches around the north-eastern corner of the fort remained uncertain. The current project has enabled a better understanding of the route of the defensive ditches within this part of the Scheduled Monument, and has demonstrated that they survive largely intact, representing an important archaeological resource. The evaluation has also demonstrated that Roman remains immediately to the west of the Roman fort have been subject to some disturbance, and whilst important remains do survive *in-situ*, later activity has evidently had some negative impact on buried remains to the west of the fort.

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The evaluation was directed by Paul Dunn, who was assisted by Jon Onraet. The report was compiled by Paul Dunn and Ian Miller, and the illustrations were produced by Mark Tidmarsh. The finds were examined by Chris Howard-Davis. The project was managed by Ian Miller, who also edited the report.

1. INTRODUCTION

1.1 CIRCUMSTANCES OF PROJECT

- 1.1.1 The Environment Agency, in partnership with Derby City Council, is planning to develop new flood defences in Derby, which will involve the construction of new embankments along the River Derwent as it flows through Little Chester. Situated a short distance to the north of Derby city centre, Little Chester is the site of an important Roman fort (the site of which is afforded statutory designation as a Scheduled Monument), whilst Romano-British, Anglo-Saxon and medieval deposits have also been discovered in the area. The new flood defences will be located at Darley Playing Fields and Parker's Piece, and will also need to traverse the sites of the Roman fort, which is afforded statutory designation as a Scheduled Monument (SM No 1007043).
- 1.1.2 In order to understand and manage the archaeological risks associated with the proposed scheme, the Environment Agency, acting on the advice of English Heritage, commissioned Oxford Archaeology North (OA North) to undertake an archaeological evaluation of the defensive ditches encompassing the fort. The evaluation was intended to establish the precise location of the defensive ditches, particularly around the north-eastern corner of the fort.

1.2 SITE LOCATION

- 1.2.1 The Roman fort at Little Chester, known as *Derventio*, lies in the north-eastern suburbs of Derby, some 1km from the modern city centre, on the flood plain east of the River Derwent (centred on NGR 435325 337540). The floor of the river valley at Little Chester is approximately 1.5km wide, with the ground to the east rising gradually to Breadsall (Fig 1).
- 1.2.2 The geology of the Derwent flood plain comprises gravel and sand, which are sealed by varying depths of loam and silt. The higher ground to the east and west comprises interleaved bands of Triassic Mudstone (Keuper Marl), whilst the hill on the west bank of the river, which is occupied by Strutt's Park, comprises bands of marl and sandstone capped by boulder clay (Mello 1876).



Plate 1: Aerial view of Little Chester, marking the projected footprint of the Roman fort

2. METHODOLOGY

2.1 TRIAL TRENCH EVALUATION

- 2.1.1 In total, three trial trenches were excavated across the projected course of the Roman defences associated with Little Chester Roman fort (Fig 2). Each measured 30m long and 1.8m wide. Following the removal of the turf, the upper deposits in each trench were excavated using a 5-ton tracked machine fitted with a 1.8m wide toothless bucket. The machine operated under close archaeological supervision, down to the first archaeological deposits, whereupon all further excavation was completed manually. All spoil was scanned for artefacts.
- 2.1.2 Recording comprised a full description and preliminary classification of the deposits and materials revealed on OA North *pro-forma* sheets. The trenches were located with a Total Station Theodolite (TST) and tied into the Ordnance Survey grid. Hand-drawn plans were produced showing the contents of the trenches, with representative sections being drawn at a scale of 1:10 or 1:20 as appropriate. An indexed photographic record using monochrome and digital formats was maintained.

2.2 ARCHIVE

- 2.2.1 The results of the archaeological evaluation will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (English Heritage 1991; 2006). The project archive represents the indexing of all the data and material gathered during the course of the project.
- 2.2.2 OA North conforms to best practice in the preparation of project archives for long-term storage. The archive and the excavated material will be deposited with the Derby Museum and Art Gallery on The Strand, Derby. In addition, a copy of the archive can be made available for deposition in the National Archaeological Record. In addition, the Arts and Humanities Data Service (AHDS) online database project *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project.
- 2.2.3 The material and paper archive generated from the evaluation will be transferred in accordance with the guidelines provided by *Procedures for the Transfer of Archaeological Archives* (2003). The Derby Museum and Art Gallery accession number is DBYMU 2012-329.

3. HISTORICAL BACKGROUND

3.1 BACKGROUND

3.1.1 The first Roman fort at Little Chester was established soon after AD 50 at Strutts Park, on the west bank of the River Derwent (Forrest 1967). This was one of a small number of Neronian forts in Derbyshire, which included Chesterfield (Ellis 1989), and possibly the Castle Hill Camp fortlet between Pentrich and South Wingfield (Kay 1961). However, the fort in Strutts Park had been replaced by AD 80 with a fort on the present site, which formed the focus for an associated settlement known as *Derventio*. In addition to its strategic location at an important crossing point of the River Derwent, the fort lay at the junction of several Roman roads, including Ryknield Street (Plate 2). This military highway ran from Gloucestershire to Templeborough in South Yorkshire, and provided *Derventio* with a direct link to the fort at Wall in Staffordshire and thus Watling Street, the principal route to North Wales. Another road headed south-east from *Derventio* to Sawley, on the River Trent, providing the fort with a link to the river for water traffic. A further road headed west, leading to Rocester, near Uttoxeter.



Plate 2: The projected footprint of the Roman fort and the courses of the Roman roads, with the location of the evaluation trenches excavated in 2013

- 3.1.2 The Roman fort at Little Chester was surveyed in 1724 by the pioneering antiquarian, William Stukeley, who noted a stone wall and surrounding ditch (Stukeley 1724, 50), although no trace of this survives in the modern landscape. A series of excavations carried out during the twentieth century concluded that the line of the defences surveyed by Stukeley overlay Flavian and early Antonine occupation on a different alignment. The excavated remains dating to this initial phase of extensive Roman occupation included timber buildings of probable military and civilian type, which seemingly spanned the late first- to mid-second century (Beswick and Fowkes 2002). An excavation in 1968 also revealed the foundations of a stone gate, suggesting the presence of an early defensive circuit. The eastern defences of the fort were found to comprise an Antonine clay rampart that had been cut back to allow the stone wall to be inserted in the late third century, with some remodelling of the defensive ditches (Brassington 1996). It was also noted that the eastern stone defences appeared to be of slightly different date from those on the west and south; the western and southern stone defences appeared to date from the mid-second century, although the excavation report does not refer to clay ramparts. The defensive circuit was found to comprise two outer ditches that seemingly enclosed an area of some seven acres. There is also evidence to suggest that a broad ditch, some 6.6m wide, was dug c 20m from the wall on the eastern side of the fort in the fourth century.
- 3.1.3 It seems that this defended area was given over to civilian settlement in the late second century, and some substantial buildings were erected within the defences, and also at the junction of the roads to the east (Brassington 1982a). These buildings included what may have been a *mansio* or a bath-house, the remains of which were discovered in 1924 during the construction of a school pavilion (Brassington 1982b).
- 3.1.4 Roman burials have also been discovered at Little Chester, particularly along the edges of the main roads. Part of a Roman cemetery was also uncovered at Darley Grove, where graves containing skeletons, coins and other artefacts were discovered in 1820.
- 3.1.5 By the early third century, much of the area was under cultivation and no longer in military occupation. *Derventio* was abandoned by the end of the fourth century, although evidence for post-Roman settlement in the area is provided by cemetery close to the east gate of the fort, which is known to have been in use during the late fifth and early sixth centuries. Fragments of brooches, shields, a spearhead and a bowl, all dated to the sixth century, have been recovered from excavations in this cemetery. The focus of settlement shifted south to the modern city centre thereafter.
- 3.1.6 In the later Anglo-Saxon period, a rubble platform outside the rounded south-eastern corner of the Roman wall may have supported a strengthening of the wall or the addition of a bastion. Thereafter, the ground was given over to agriculture until the eighteenth century, when the fort defences were destroyed and farm buildings erected on the site, to be succeeded in the nineteenth century by the railway embankment, now replaced by housing.

4. EVALUATION RESULTS

4.1 INTRODUCTION

4.1.1 In total, three trenches were excavated across the projected line of the defensive ditches associated with the Roman fort at Little Chester (Fig 2). The following section provides a summary of the results obtained from the work.

4.2 TRENCH 16

4.2.1 Trench 16 was placed on the nursery gardens nearest the river to the west of Derwent House, and was aligned north-west/south-east (Fig 2). The trench measured 22 x 1.8m, and was excavated to a maximum depth of 1.67m below the modern ground surface. The topsoil (**1601**) was removed mechanically to a depth of 0.30m, and modern deposit **1602** was similarly removed mechanically a further 0.70m.

4.2.2 The natural geology (**1604**) was identified at the northern end of the trench, and also at the southern end as orange-yellow sand. At the northern end of the trench, the natural geology was overlain by a bluish-grey clay deposit, **1614**, which may represent the vestiges of a palaeo-channel. This deposit was overlain by mid- to light brown sandy silt alluvium (**1603**). Excavation of this layer yielded three fragments of animal bone.

4.2.3 A north/south-aligned ditch (**1608**), cut into natural geology **1604**, was exposed at the southern end of the trench (Fig 3). The ditch was 3m wide, with a flat base and a maximum depth of only 0.52m, suggesting that it may not have been intended as a defensive features associated with the fort. The ditch was filled by a layer of compacted stone or gravel (**1607**), which appeared to have slumped into the ditch, and then overlain by homogeneous deposit that seemingly represented (**1606**) gradual silting. Neither of these layers yielded any artefacts, although they were almost certainly of Roman date.

4.2.4 The ditch fills were overlain by a layer of compact dark brown silt (**1605**). This was overlain by a layer of reddish-brown rubble (**1609**), which was in turn cut by the foundation trench (**1613**) for wall **1611**. Wall **1611** was aligned east/west, and measured 0.40m wide (Fig 3). The fabric of the wall comprised roughly hewn stone and brick, suggesting that it was of a post-medieval date. This was corroborated by the range of artefacts recovered from the fill of the wall foundation trench (**1612**), which contained fragments of post-medieval pottery, clay pipe and glass.

4.2.5 Alluvial **1603** and the deposits south of wall **1611** were overlain by a light brown yellow alluvium (**1616**). This deposit was cut by a robber trench **1615** above wall **1611**. This was filled by a dark brown clayey silt **1610** containing post-medieval pottery and glass. The deposits were sealed by a layer of modern disturbance **1602** containing concrete and metal measuring a depth of 0.70m. This was then sealed by topsoil **1601**.



Plate 3: Trench 16 looking north-west



Plate 4: North-east-facing section of ditch 1608

4.3 TRENCH 17

- 4.3.1 Trench 17 was aligned north/south across the nursery gardens to the south of Darley Playing Fields (Plate 5), and was targeted on the north-eastern corner of the defensive circuit associated with the Roman fort (Fig 2). Significant archaeological remains pertaining to the Roman period were encountered in this trench and, specifically, the remains of two substantial ditches.
- 4.3.2 The modern made ground and topsoil (**1701**) was removed mechanically to a depth of between 0.40m and 0.70m, and the subsoil (**1702**) was excavated mechanically for a further 0.40m. All excavation subsequently was carried out using exclusively manual techniques.
- 4.3.3 The natural geology was identified in the middle of the trench as orange-yellow clayey sand. The natural geology was cut by two large linear features, which almost certainly represented elements of the Roman fort's defences (Fig 4). In the central part of the trench was a V-shaped ditch (**1705**). It was aligned east/west, and measured 7.45m wide at the top and had a maximum depth of 2.30m deep (Fig 5). The primary fill of the ditch (**1717**) comprised a deposit of dark grey clayey silt, which was devoid of any finds.
- 4.3.4 Fill **1717** was overlain by deposit **1707**, which seemingly represented the gradual silting of the ditch. Excavation of fill **1707** yielded 17 fragments of Roman pottery, and numerous fragments of animal bone. The maximum date range of the pottery spanned the late first to third centuries, although the group included a fragment of a South Gaulish samian bowl (*Section 5.2.3* below) that was characteristic of the first century, and generally out of production by *c* AD 85 (Webster 1996). In addition to the samian component, the group of pottery also included fragments amphora, frequently associated with a Roman military supply.
- 4.3.5 The upper fill of the ditch (**1706**) was very similar to made-ground deposit **1703**, which may have slumped into the ditch once it had been abandoned. No artefacts or dating material was recovered from this upper fill.
- 4.3.6 The second large linear feature, exposed in the northern part of the trench (Fig 4), had evidently been re-cut of several occasions, indicating that it had been a long-lived feature. Two initial cuts lay parallel (**1708** and **1715**), but on a slightly different alignment to ditch **1705** (Fig 4). Ditch **1708** had a more rounded profile than ditch **1705**, survived to a width of 2.4m, and had a maximum depth of 1.4m (Fig 5). It contained a single homogeneous fill (**1710**), which seemingly represented the gradual silting of the ditch over an extended period of time (Plate 6). Excavation of this fill yielded several fragments of Roman pottery, a low denomination Roman coin, a fragment of animal bone, and a fragment of ceramic building material. None of these artefacts can be dated with precision.
- 4.3.7 Ditch **1715** had been truncated by a later ditch (**1713**), and survived to a maximum width of 0.96m and depth of only 0.3m (Fig 5). It was filled by deposit **1716**, which did not contain any artefacts.



Plate 5: General view along Trench 17, looking north



Plate 6: East-facing section of ditch 1705

- 4.3.8 Ditch **1713** was slightly shallower than the earlier ditches. This had evidently persisted as a feature of the landscape for some time, as its fill (**1714**) seemingly represented a gradual silting of the ditch. However, excavation did not yield any artefacts to provide any indication for the abandonment and infilling of the ditch, although it was almost certainly of Roman origin.
- 4.3.9 Fill **1714** was cut by **1711**, which represented the re-cutting of the ditch. The re-cut ditch was filled by two homogeneous deposits of silt (**1712** and **1709**). Fill **1712** contained several fragments of Roman pottery, with a probable second-century date, and a small fragment of ceramic building material.
- 4.3.10 The southern end of the trench appeared to have been raised artificially. There were two layers of made ground: **1718**, which represented the earlier deposit; and **1703**. These layers were very mixed and well compacted, possibly suggesting a raised bank or platform, and potentially represent the base of the rampart for the Roman fort. However, no dating evidence was recovered from these deposits that could demonstrate these deposits to be of Roman origin. The made ground was overlaid by the modern material (**1701**), which included layers of hardcore and brick rubble (Plate 7).



Plate 7: East-facing section of ditches **1708**, **1711**, **1713** and **1715**

4.4 TRENCH 18

- 4.4.1 Trench 18 was placed across the nursery gardens south of Darley Playing Fields, and was aligned east/west from approximately half way along Trench 17 (Fig 2). The topsoil (**1801**) was removed mechanically to a depth of 0.30m, and the subsoil (**1802**) was excavated mechanically to a depth of 0.80m (Plate 8). These deposits sealed the archaeological remains, which comprised significant Roman deposits.



Plate 8: General view along Trench 18, looking west

- 4.4.2 The natural geology (**1803**) was identified along the base of the excavated trench as yellow clayey sand. This was cut by three principal features: a shallow pit/posthole (**1805**); and two large ditches (**1807** and **1813**). The ditches were almost certainly associated with the defences of the Roman fort. Pit/posthole **1805** was identified at the western end of trench, and was filled by **1804**. This had a diameter of 0.62m and survived to a maximum depth of 0.12m (Plate 9).
- 4.1.1 Ditch **1807** was aligned north/south across Trench 18 (Fig 6). The ditch survived to a maximum width of 4.50m, and was 2.20m deep beneath the overburden. It seemingly had a similar profile to ditch **1705** in Trench 17, suggesting strongly that it was a Roman military defensive ditch of a contemporary date to **1705**, although it flooded with water immediately upon excavation (Plate 10). Ditch **1807** was filled by a single homogenous deposit (**1806**), which seemingly derived from a gradual accumulation of silt. The fill contained several fragments of Roman pottery, with a date range spanning the later second and third centuries.



Plate 9: South-facing section of pit/posthole 1805



Plate 10: South-facing section of ditch 1807, showing ingress of groundwater

- 4.1.2 The large ditch at the eastern end of Trench 18 comprised two earlier shallow cuts (**1815** and **1817**), followed by one large deep cut (**1813**). The earliest cut of the ditch (**1817**) was filled by an homogenous deposit of silt (**1816**). The feature was cut by ditch **1815**, and only survived to a maximum depth of 0.20m, with a width of 0.80m (Fig 7); no finds were recovered from fill **1816**.
- 4.1.3 Ditch **1815** was filled by **1814**, which seemingly derived from a gradual accumulation of silt. This ditch survived to a depth of 1.04m, and a width of 2.00m due to it being cut by ditch **1813**. Fill **1814** was also devoid of artefacts.
- 4.1.4 Ditch **1813** had a maximum width of 6.5m, and cut through the fill (**1814**) of ditch **1815** (Fig 7). The primary fill comprised a thin layer of dark grey silty clay (**1812**), which contained organic deposits, indicative of a waterlogged environment. Above this deposit was bluish-grey silty clay (**1811**), which may have derived its colouration from long periods of saturation. This deposit also contained numerous large pieces of animal bone, and fragments of amphora, with a date range spanning the late first to third centuries.
- 4.1.5 Fill **1811** was sealed by light brownish-grey clayey silt (**1810**), which appeared to have washed in from the eastern edge of the ditch, suggesting that there had been some form of bank on that edge. Excavation yielded fragments of Roman pottery, with a date range spanning the later second to fourth centuries. Above this deposit was **1809**, a dark brown clayey silt, which also appeared to have been washed into the ditch from the eastern edge. This deposit also contained a fourth-century coin, together with fragments of Roman pottery and animal bone. The final deposit of the ditch was a layer of mid-brown clayey silt (**1808**), representing the abandonment of the site.



Plate 11: South-facing section of ditches **1813**, **1815**, and **1817**

5. THE FINDS

5.1 INTRODUCTION

- 5.1.1 A small group of 221 fragments of artefacts and ecofacts were recovered during the evaluation trenching. All quantification is by fragment count, but in any subsequent period of analysis, pottery and other relevant material groups will also be quantified by weight, in order to conform with current standards. The broad division by material is presented below in Table 1, and an outline catalogue sorted by context, material, artefact category, and, where possible at this stage, by artefact type, is presented as *Appendix 1*. Most of the material appears well-stratified and will sustain some targeted analysis, having a limited potential to contribute significantly to dating the stratigraphic sequence.
- 5.1.2 All of the finds recovered from the evaluation were in fair to good condition, and many of the pottery fragments were of large size and unabraded, but no attempt was made at cross-context refits. At this stage in the analysis the few items of metalwork have not been x-rayed, but the single ?silver coin survived in very good condition.

Material Group	Fragment Count	Percentage of Total Assemblage	No Contexts Producing Finds	Date Range
Bone (animal)	124	56	8	Not closely dateable
Ceramic Building Material	16	7.2	6	Romano-British
Ceramic Vessel	71	32.1	8	Romano-British to medieval
Copper Alloy	2	0.9	2	Romano-British
Industrial Debris	4	1.8	2	Not closely dateable
Silver?	1	0.45	1	Fourth century
Stone	1	0.45	1	Romano-British ?
Mollusc	2	0.9	1	Not closely dateable
Total	221	99.8		

Table 1: Finds recovered from the evaluation trenches (quantified by material)

5.2 ROMAN POTTERY

- 5.2.1 A small group of 221 fragments of artefacts and ecofacts were recovered during the evaluation trenching. All quantification is by fragment count, but in any subsequent period of analysis, pottery and other relevant material groups will also be quantified by weight, in order to conform with current standards. The broad division by material is presented below in Table 1, and an outline catalogue sorted by context, material, artefact category, and, where possible at this stage, by artefact type, is presented as *Appendix 1*. Most of the material appears well-stratified and will sustain some targeted analysis, having a limited potential to contribute significantly to dating the stratigraphic sequence.
- 5.2.2 The small assemblage of pottery is almost entirely Romano-British in origin, with only one fragment of medieval pottery, recovered unstratified. The range of Roman pottery is very similar to that seen in other phases of the project, although Derbyshire ware, very well represented in the assemblages from earlier phases of the project and often very common in local assemblages (Tyers 1996), is only poorly represented in this group.
- 5.2.3 Spot-dating suggests focus on a later second and third century date for the group. Earlier pottery fabrics appear, especially amongst the samian (from ditch fills **1707**, **1712**, and **1810**), with a fragment from a South Gaulish Dr 29 bowl, characteristic of the first century and generally out of production by *c* AD 85 (Webster 1996), from fill **1707** (Plate 12). Samian ware is relatively common within the group (ten fragments), making up 14% of the pottery present, and includes several decorated vessels, perhaps indicating a close connection with the military supply chain than seen in earlier assemblages, although this must remain speculation in such a small group. Other finewares are confined to Nene Valley-type colour-coated wares, of later second to fourth-century date, with fragments of at least one rouletted beaker noted.
- 5.2.4 The coarseware assemblage comprised a range of greywares, and orange oxidised wares, the former probably including Doncaster-type wares including both narrow-necked jars and wide-mouthed bowls, the latter comprises mainly Severn Valley wares, together these strongly suggest a late-second to third-century date, although Black-burnished ware is surprisingly poorly represented for this date, with only two bowls, with a large fragment from ditch fill **1806** and an abraded fragment from ditch fill **1809** (Plate 13).
- 5.2.5 There is only a single fragment of mortarium (from **1808**). Its fabric is highly reminiscent of second-century Wroxeter mortaria (Tomber and Dore 1998, 178, pl 149b).

5.3 ROMAN BUILDING MATERIAL

- 5.3.1 There is, in addition, a small amount of Roman ceramic building material, which includes small fragments of *imbrices* and *tegulae*, as well as smaller flat tiles. Stone building material is represented by a single dressed fragment of Roman masonry, recovered from Trench 16. Its curving surfaces suggest a roughly dressed column drum, perhaps intended to be stuccoed.



Plate 12: Fragments of samian recovered from ditch fill 1707



Plate 13: Roman greywares and Black-burnished ware recovered from ditch fill 1809

5.4 ROMAN COINS

- 5.4.1 Two Roman coins were recovered from the evaluation. One, of copper alloy from ditch fill **1710** (Trench 17) remains unidentified (Plate 14). The other coin, extremely well-preserved, is from ditch fill **1809** (Trench 18), and has been identified as an issue of Crispus, the eldest son of Constantine the Great, and can be dated AD 317-26 (Plate 15).



Plate 14: Unidentified copper-alloy coin recovered from ditch fill 1710



Plate 15: Silver coin recovered from ditch fill 1809

5.5 ANIMAL BONE

5.5.1 Although a considerable amount of animal bone was recovered from the evaluation, most derived from a single cow skull and vertebrae found together in ditch fill **1811** (Trench 18), and perhaps representing a deliberate deposit, and a cow lower mandible and other chewed bones from ditch fill **1809**.

5.6 CHARRED AND WATERLOGGED PLANT REMAINS ASSESSMENT

5.6.1 **Quantification:** three environmental bulk samples, each 10 litres in volume, were taken from two features for the assessment of charred and waterlogged plant remains (Table 2). The features sampled were ditch **1813**, and small pit/posthole **1805**. The samples were hand-floated and the flots collected on a 250 micron mesh and air-dried. The flots were scanned with a Wild M3Z stereo-microscope and the plant material and charcoal quantified and provisionally identified. The plant remains were scored on a scale of abundance of 1-5, where 1 is rare and 5 is abundant (>100 items).

Context Number	Sample Number	Context Type	Volume of Processed Sample (litres)
1809	30	Top fill of ditch 1813	10
1810	31	Intermediate fill of ditch 1813	10
1812	32	Primary fill of ditch 1813	10
1804	33	Fill of small pit/posthole 1805	10

Table 2: Environmental bulk sample assessed for plant remains

5.6.2 **Results and interpretation:** the results of the palaeo-environmental assessment are summarised in Table 3. Two of the contexts (fills **1809** and **1810**) contained charred cereal grains, wheat (*Triticum* sp). The small pit/posthole contained a charred corn marigold (*Chrysanthemum segetum*).

5.6.3 Waterlogged plant remains were recorded in the primary fill of the ditch **1813**, and there was some vivianite staining. Plant remains included common sorrel (*Rumex acetosa*), common nettle (*Urtica dioica*), common chickweed (*Stellaria media*), creeping buttercup (*Ranunculus repens*) and dead nettle (*Lamiaceae*). Curiously, the primary ditch fill also contained in high quantities poison ivy (*Rhus radicans*), a poisonous plant from the eastern USA.

5.6.4 **Potential:** this rapid assessment of the plant remains has demonstrated that the potential for the survival of plant remains in the deposits from the site is low. The primary ditch fill plant remains had vivianite staining, which can indicate cess deposits, but there were no plant remains that were indicative of food plants. The only seed of any quantity was poison ivy (*Rhus radicans*), which is very unusual in a Roman context, and may suggest that the ditch fill had been subject to some disturbance that enabled contamination with more recent plant remains. However, there is some material that may be suitable for scientific dating, including the charred cereal grains recovered from ditch fills **1809** and **1810**.

Sample No	Context No	Feature	Flot Volume (ml)	Flot Description	Plant Remains	Potential for Analysis
30	1809	Upper ditch fill 1813	50	Charcoal >2mm (++) Fish scales + Coal/clinker ++	CPR (1) Cerealia indet WPR (1) <i>Rumex acetosa</i> , <i>Cirsium</i>	Low
31	1801	Intermediate ditch fill 1813	20	Charcoal >2mm (+) Calcined bone (+) Bone (+)	CPR (1) Cerealia indet	Low
32	1812	Primary ditch fill 1813	20	Charcoal >2mm (+) Coal/clinker (+++) Bone (+) Vivianite staining (+)	WPR (4) <i>Rumex acetosa</i> , <i>Urtica dioica</i> , <i>Stellaria media</i> , <i>Lamiacea</i> , <i>Ranunculus repens</i> , <i>Rhus radicans</i>	Moderate
33	1804	Fill of posthole 1805	10	Charcoal >2mm (+)	CPR (1) <i>Chrysanthemum Segetum</i>	Low

Table 3: Charred and waterlogged plant remains from the evaluation

CPR = charred plant remains

WPR = waterlogged plant remains

HAVM = heat affected vesicular material

Scale 1= present (up to 5 items), 2= frequent (5-25), 3= common (25-50), 4= abundant (50-100), 5= (>100)

+ is present ++ is abundant

6. DISCUSSION

6.1 INTRODUCTION

6.1.1 The archaeological evaluation has provided an important opportunity to establish the defensive circuit associated with the Roman fort of *Derventio*, and add fresh information as to their location and chronological development. Whilst the footprint of the Roman fort has been subject to numerous archaeological investigations previously, the precise route of the defensive ditches around the north-eastern corner of the fort remained uncertain. The current project has enabled a better understanding of the route of the defensive ditches within this part of the Scheduled Monument, and has demonstrated that they survive largely intact, representing an important archaeological resource. The evaluation has also demonstrated that Roman remains immediately to the west of the Roman fort have been subject to some disturbance, and whilst important remains do survive *in-situ*, later activity has evidently had some negative impact on buried remains to the west of the fort.

6.2 THE ROMAN DITCHES

6.2.1 The remains of ditches associated with the Roman fort were identified in all of the evaluation trenches. The ditch exposed in Trench 16, situated to the west of the Roman fort, had been subject to some disturbance as a result of post-medieval activity. However, the flat-bottomed form of this ditch is inconsistent with the usual character of a Roman fort ditch, suggesting that it may have lay slightly beyond the defensive circuit.

6.2.2 A series of ditches were exposed in both of the trenches placed across the projected north-eastern corner of the Scheduled Monument. Excavations carried out in 1968 concluded that the defensive circuit comprised two outer ditches, with some suggestion of a third ditch that was added to the defensive system in the fourth century (Brassington 1996). The present evaluation has similarly identified a series of three ditches to the north-east of the fort. It is probable that ditch **1705** (Trench 17) represented the remains of the defensive ditch closest to the fort, and the excavated section lay immediately before the course of the ditch turned through a right angle to continue along the eastern side of the fort (Fig 8). This would certainly explain the slight mis-alignment with the adjacent ditch (**1713**) exposed in the same trench.

6.2.3 Ditch **1713** seemingly represented the second ditch from the fort, and had evidently been remodelled slightly; it may originally have comprised two narrower ditches that were expanded to create a single larger ditch subsequently. The date range of artefacts recovered from the fill of ditch **1713** imply that this remodelling had been completed prior to the third century. It seems possible that the north-south-aligned continuation of this ditch along the eastern side of the Roman fort was represented by ditch **1807** (Fig 8), although this section of the ditch did not appear to have been remodelled. Nevertheless, artefacts recovered from the fill of ditch **1807** had a similar date range to those from ditch **1713**.

- 6.2.4 The ditch exposed at the eastern end of Trench 18 (**1813**) may represent the outer defensive ditch associated with the Roman fort, and is likely to correspond with the third ditch that identified during the excavation in 1968 (Brassington 1996). However, ditch **1813** evidently derived from a remodelling of earlier ditches, and thus whilst the recovery of fourth-century material from its fill indicate that it persisted as a feature in the landscape though to the end of the Roman period, it is likely to have been an earlier feature, and potentially contemporary with the ditches excavated in Trench 17.

6.3 IMPACT

- 6.3.1 The development of new flood defences may necessitate considerable ground-moving works, which could have a substantial impact on the sub-surface archaeological resource. An appropriate scheme of further archaeological investigation in advance of development will therefore be required to mitigate the ultimate loss of the buried remains. The details of any further archaeological work required in advance of development should be devised in consultation with the Derbyshire County Council Archaeological Services and English Heritage. However, the results obtained from the evaluation trenching indicate that the impact on the sub-surface archaeological resource may be less substantial along the western side of the Roman fort, where buried remains of archaeological significance have been subject to some disturbance previously.

7. CURATION AND CONSERVATION

7.1 RECIPIENT MUSEUM

7.1.1 The Derby Museum and Art Gallery has been nominated as having the capacity to co-ordinate the deposition of the finds and the paper and electronic archive. Paper and digital copies of issued reports will be deposited with the museum. The material generated from the excavation has been allocated a unique archive accession number (DBYMU 2012-329).

7.2 CONSERVATION

7.2.1 Most of the assemblage is well-preserved and in good condition, and thus the conservation requirement is low. Only the copper-alloy Roman coin from Trench 17 is likely to require cleaning, principally in order to facilitate identification.

7.3 STORAGE

7.3.1 The complete project archive, which will include written records, plans, black and white, digital plans and photographs, artefacts, ecofacts and sieved residues, will be prepared following the guidelines set out in *Environmental standards for the permanent storage of excavated material from archaeological sites* (UKIC 1984, Conservation Guidelines 3) and *Guidelines for the preparation of excavation archives for long-term storage* (Walker 1990), prior to deposition.

7.3.2 The digital data will be stored temporarily on the server at OA North, which is backed up on a daily basis. For long-term storage of the digital data, CDs will be used, the content including the reports, plans, scanned images and digital photographs. Each CD will be fully indexed and accompanied by the relevant metadata for provenance. The digital record should ideally be duplicated as a paper record for long-term archiving, including comprehensive printouts of photographs and survey plots, labelled and summarised.

7.3.3 All dry and stable finds will be packed according to the museum's specifications, in either acid-free cardboard boxes, or in airtight plastic boxes for unstable material. Each box will have a list of its contents and will in general contain only one type of material, such as pottery or bone.

7.4 PACKAGING

7.4.1 The assemblage is currently well-packaged and will require no further packaging. Box lists derived from the site database have been compiled and will be updated when the identification of objects is complete. The paper records will be presented in either ring binders or in acid-free storage, fully indexed, and with the contents labelled.

BIBLIOGRAPHY

SECONDARY SOURCES

Armstrong, P, and Armstrong, SJ, 1987, The Clay Roof Tile, in Armstrong, P and Ayers, B, *Excavations in High Street and Blackfriargate*, Hull Old Town Report Series No 5, 234-40

Armstrong, P, 1991, The Clay Roof Tile, in Armstrong, P, Tomlinson, D, and Evans, DH, *Excavations at Lurk Lane, 1979-82*, Sheffield, 201-7

Barrett, D, 2000a *An Archaeological Resource Assessment of the Later Bronze and Iron Ages (The First Millennium BC) in Derbyshire*. East Midlands Archaeological Research Framework: <http://www.le.ac.uk/archaeology/research/projects/eastmidsw/pdfs/16der1stmill.pdf>

Barrett, D, 2000b *An Archaeological Resource Assessment of Anglo-Saxon Derbyshire*. East Midlands Archaeological Research Framework: www.le.ac.uk/archaeology/research/projects/eastmidsw/pdfs/26deras.pdf

Barrett, D, 2000c *An Archaeological Resource Assessment of Medieval Derbyshire*, East Midlands Archaeological Research Framework: www.le.ac.uk/ar/research/projects/eastmidsw/pdfs/31dermed.pdf

Beswick, P, and Fowkes, D, 2002 Excavations on the South-Eastern Defences and Extramural Settlement of Little Chester, Derby, 1971-2, *Derbyshire Archaeological Journal*, **122**, 1-328

Boesneck, J, 1969 Osteological Differences between Sheep (*Ovis aries Linne*) and Goat (*Capra hircus Linne*), in D Brothwell and E Higgs (eds), *Science and Archaeology*, **2**, London, 331-58

Brassington, M, 1967 Roman material recovered from Little Chester, Derby, *Derbyshire Archaeological Journal*, **87**, 39-69

Brassington, M, 1971 A Trajanic kiln-complex near Little Chester, Derby, *Antiquaries Journal*, **51**, 36-69

Brassington, M, 1981 The Roman Roads of Derby, *Derbyshire Archaeological Journal*, **101**, 88-92

Brassington, M, 1982a Exploratory Excavations at Little Chester, Derby, *Derbyshire Archaeological Journal*, **102**, 74-83

Brassington, M, 1982b The Excavation of the Hypocaust on Parker's Piece, Little Chester, Derby, 1924-6, *Derbyshire Archaeological Journal*, **102**, 84-6

Brassington, M, 1993 Little Chester, Derby: The 1926 Excavations, *Derbyshire Archaeological Journal*, **113**, 21-44

- Brassington, M, 1996 The Roman fort at Little Chester, Derby: The East Wall and Rampart, 1967-8, *Derbyshire Archaeological Journal*, **116**, 77-92
- Cooper, N (ed), 2006 *The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda*, Leicester Archaeol Mono, **13**, Leicester
- Crooks, K, Porter, S, Morriss, R, and Boucher, A, 2003 *Derby Magistrates' Court, St Mary's Gate, Derby: Excavation and Building Recording*, unpubl rep
- Ellis, P, 1989 Roman Chesterfield. Excavations by Terry Courtney 1974-78, *Derbyshire Archaeological Journal*, **109**, 51-130
- English Heritage, 1991 *Management of Archaeological Projects*, 2nd edn, London
- English Heritage, 1997 *Archaeology Division Research Agenda (draft)*, unpubl doc
- English Heritage, 2005 *Discovering the Past, Shaping the Future*, London
- English Heritage, 2006 *Management of Research Projects in the Historic Environment (MoRPHE)*, London
- English Heritage, 2011 *The National Heritage Protection Plan*, London
- Hall, RA, and Coppack, G, 1972 Excavations at Full Street, Derby, *Derbyshire Archaeol J*, **92**, 29-78
- James, S, and Millett, M (eds), 2001 *Britons and Romans: Advancing an Archaeological Agenda*, CBA Res Rep, **125**, York
- Kay, SO, 1961 Some Pottery Fragments from the Roman camp at Pentrich, *Derbyshire Archaeological Journal*, **81**, 139-41
- Kratochvil, Z, 1969 Species Criteria on the Distal Section of the Tibia in Ovis Ammon F. Aries and Capra Aegarus F. Hircus L. in *Acta Veterinaria (Brno)*, 389, 483-490
- Lewis, C, 2006 An Archaeological Resource Assessment and Research Agenda for the Medieval Period in the East Midlands, in Cooper 2006, 185-216
- Mackreth, DF, 2011 *Brooches in Late Iron Age and Roman Britain* (2 vols), Oxford
- Mello, JM, 1876 *Hand-book to the Geology of Derbyshire*, London
- Moorhouse, S, 1981 The medieval pottery industry and its markets, in D W Crossley (ed), *Medieval industry*, CBA Res Rep, **40**, London, 96-125
- Mould, Q, 2011 Domestic Life, in L Allason Jones (ed), *Artefacts in Roman Britain: their Purpose and Use*, Cambridge, 153-79
- Myers, A, 2000 *An Archaeological Resource Assessment of Roman Derbyshire: East Midlands Archaeological Research Framework*, www.le.ac.uk/ar/research/projects/eastmidsw/pdfs/21derrom.pdf

- OA North, 2013 *Former Prince's Supermarket, Bold Lane, Derby: Post-excavation Assessment*, unpubl rep
- Prummel, W, and Frisch, H-J, 1986 A Guide for the Distinction of Species, Sex and Body Side in Bones of Sheep and Goat, *J Archaeol Sci*, **13**, 567-77
- Rigby, V, 2001 Relief-decorated pottery, in PC Buckland, KF Hartley, and V Rigby, The Roman Pottery Kilns at Rossington Bridge. Excavations 1956-61, *Journal of Roman Pottery Studies*, **9**, 55-76
- Sparey-Green, C, 2002 Excavations on the South-eastern Defences and Extramural Settlement of Little Chester, Derby 1971-2, *Derbyshire Archaeological Journal*, **122**
- Stukeley, W, 1724 *Itinerarium Curiosum*, London
- Taylor, J, 2006 The Roman Period, in N Cooper 2006, 137-60
- Todd, M, 1967 The Roman Site at Little Chester, Derby: Excavations in 1966, *Derbyshire Archaeological Journal*, **87**, 70-85
- Tomber, R, and Dore, J, 1998 *The National Roman Fabric Reference Collection. A Handbook*, London
- Tyers, P, 1996 *Roman Pottery in Britain*, London
- Walker, K, 1990 *Guidelines for the Preparation of Archaeological Archives for Long Term Storage*, UKIC Archaeology Section, London
- Webster, G, 1961 An Excavation on the Roman Site at Little Chester, Derby, *Derbyshire Archaeological Journal*, **81**, 85-110
- Webster, P, 1996 *Roman Samian Pottery in Britain*, CBA Practical Handbook in Archaeology, **13**, York

APPENDIX 1: SUMMARY FINDS CATALOGUE

Context	OR no	Qty	Material	Category	Description	Dating
Trench 16						
1603	2323	3	Bone	animal		Not closely dateable

Context	OR no	Qty	Material	Category	Description	Dating
Trench 17						
1707	2345	15	Bone	animal		Not closely dateable
1707	2308	7	Ceramic	vessel	Samian, including decorated forms Dr29, Dr 37, cup Dr33	Later first to second century
1707	2309	5	Ceramic	vessel	Coarsewares including Derbyshire ware and greyware	
1707	2310	2	Ceramic	vessel	Amphora, Dressel 20.	Late first to mid-third
1707	2344	1	Ceramic	vessel	Samian, plain form	Probably second century
1707	2334	2	Ceramic	building material	Undiagnostic	Romano-British
1710	2330	1	Bone	animal		Not closely dateable
1710	2328	2	Ceramic	vessel	Amphora, undiagnostic coarseware	Romano-British
1710	2329	1	Ceramic	building material	Undiagnostic	Romano-British
1710	2335	1	Copper alloy	coin	Low denomination Roman coin	Romano-British
1712	2338	1	Ceramic	building material	Undiagnostic	Romano-British
1712	2339	2	Ceramic	vessel	Samian, plain forms	Probably second century
1712	2340	3	Ceramic	vessel	Whiteware	Romano-British

Context	OR no	Qty	Material	Category	Description	Dating
Trench 18						
1803	2314	3	Ceramic	vessel	Whiteware, orange-oxidised fabric	Romano-British
1806	2320	5	Bone	animal		Not closely dateable
1806	2316	9	Ceramic	vessel	Derbyshire ware, Black Burnished ware, greyware, orange oxidised ware	Later second-third century
1806	2317	1	Ceramic	building material	Undiagnostic	Romano-British
1806	2319	3	Ind debris		Small undiagnostic fragments	Not closely dateable
1808	2340	31	Bone	animal		Not closely dateable
1808	2324	8	Ceramic	vessel	Greyware, undiagnostic	Romano-British
1808	2325	1	Ceramic	vessel	Mortarium, orange fabric	Second century
1808	2326	2	Ceramic	vessel	Greyware	
1808	2327	1	Ceramic	building material	Undiagnostic	Romano-British
1808	2341	1	Ceramic	vessel	Oxidised ware, undiagnostic	Romano-British
1809		30	Cone	animal		Not closely dateable
1809		7	Ceramic	building material	Undiagnostic	Romano-British
1809		2	Ceramic	vessel	Nene Valley ware	Later second to fourth century
1809	2311	7	Ceramic	vessel	Greyware	Later second-third/fourth century
1809	2312	7	Ceramic	vessel	Nene Valley ware, Severn Valley ware	Later second-third/fourth century
1809	2313	1	Ceramic	vessel	Amphora	First to third century
1809	2321	3	Ceramic	building material	Undiagnostic	Romano-British
1809	2346	1	Copper alloy	sheet	Small fragment of sheet.	Not closely dateable
1809	2331	1	Silver?	coin	Crispus	AD 317-26
1810	2342	3	Bone	animal		Not closely dateable
1810	2336	2	Ceramic	vessel	Nene Valley ware, whiteware	Late second to fourth century

Context	OR no	Qty	Material	Category	Description	Dating
1810	2337	1	Ceramic	vessel	Samian	Probably second century
1810	2343	2	Marine mollusc	oyster		Not closely dateable
1811		36	Bone	animal		Not closely dateable
1811		2	Ceramic	vessel	Amphora	First to third century
unstrat	2332	3	Ceramic	vessel	Includes one medieval sherd.	Romano-British on
unstrat	2333	1	Ind debris		Small fragments	Not closely dateable
unstrat		1	Stone	building material	Well-dressed, rounded fragment of building stone, possibly a crude column drum?	Romano-British?

ILLUSTRATIONS

FIGURES

- Figure 1: Site location
- Figure 2: Location of additional evaluation trenches
- Figure 3: Plan of Trench 16
- Figure 4: Plan of Trench 17
- Figure 5: Trench 17 sections
- Figure 6: Plan of Trench 18
- Figure 7: Trench 18 sections
- Figure 8: Plan of projected ditches

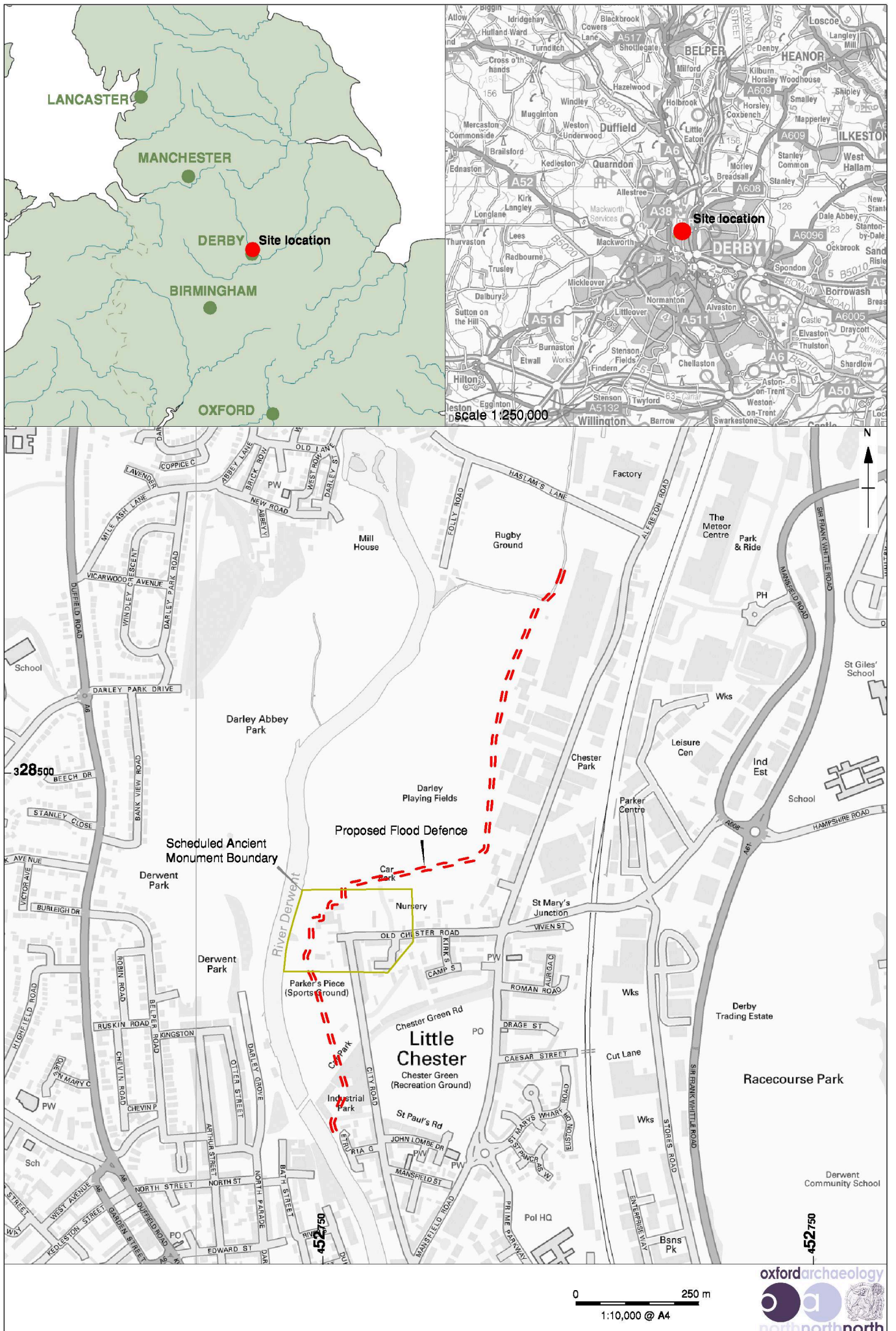


Figure 1: Site location

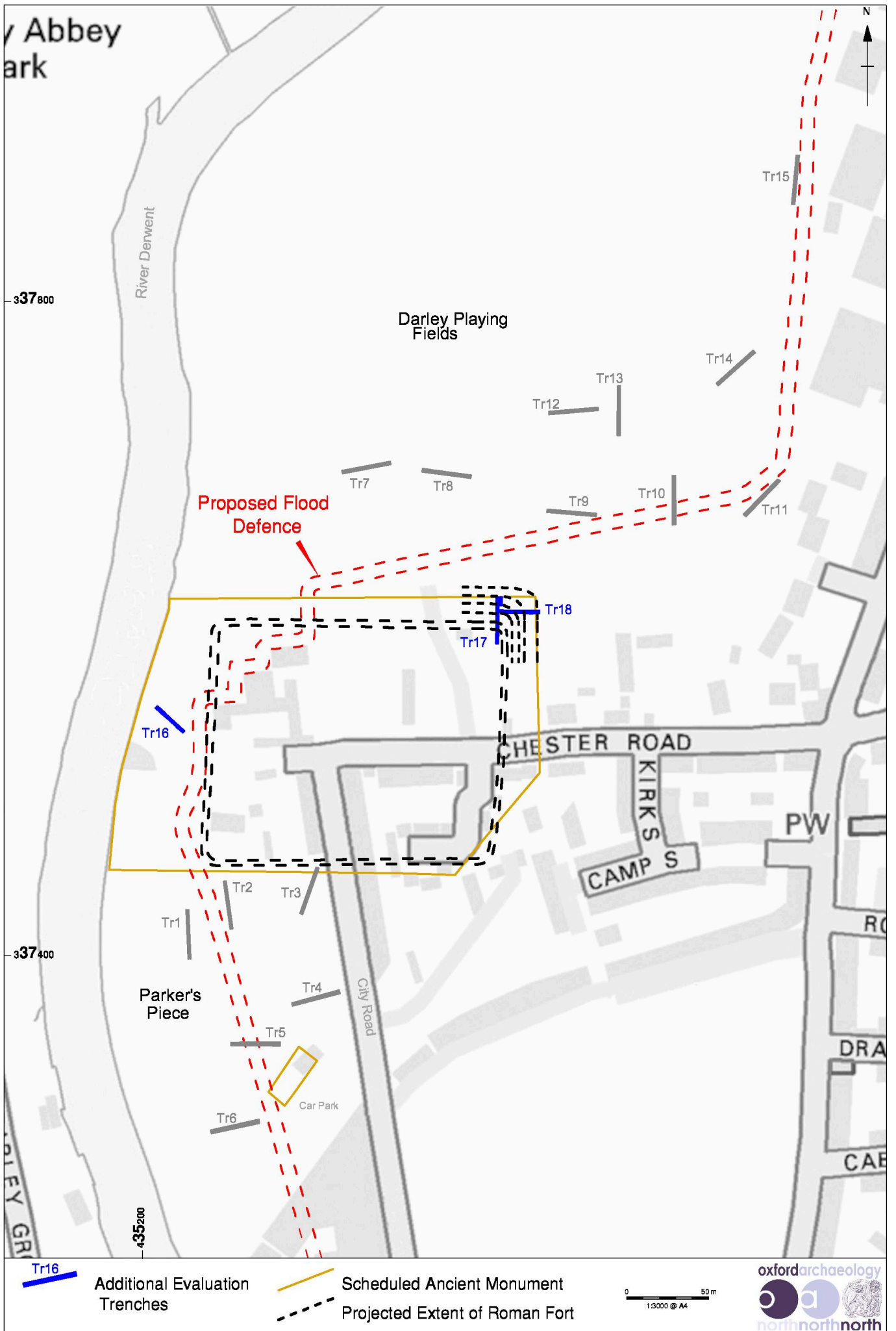


Figure 2: Location of additional evaluation trenches

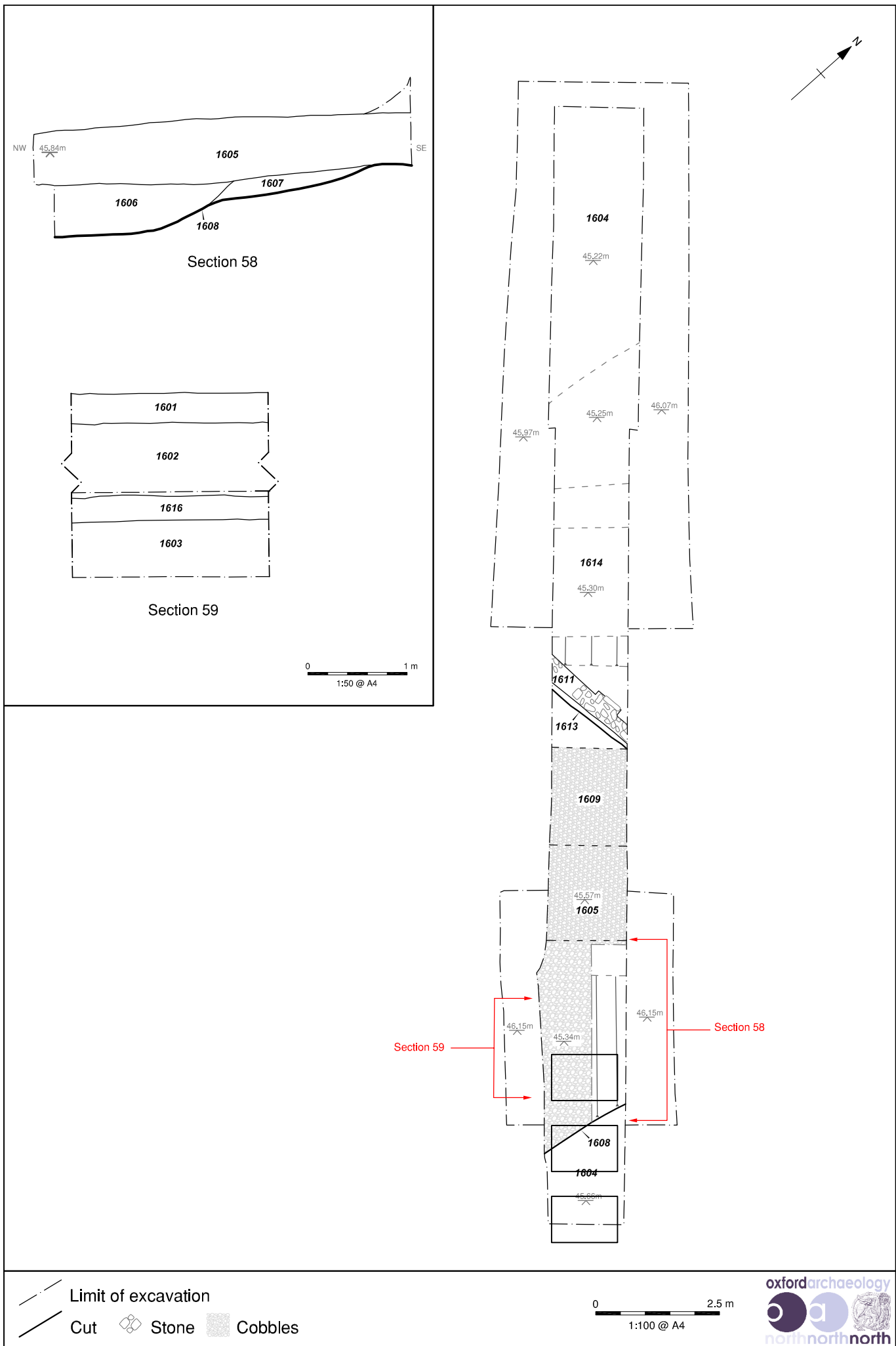


Figure 3: Plan of Trench 16

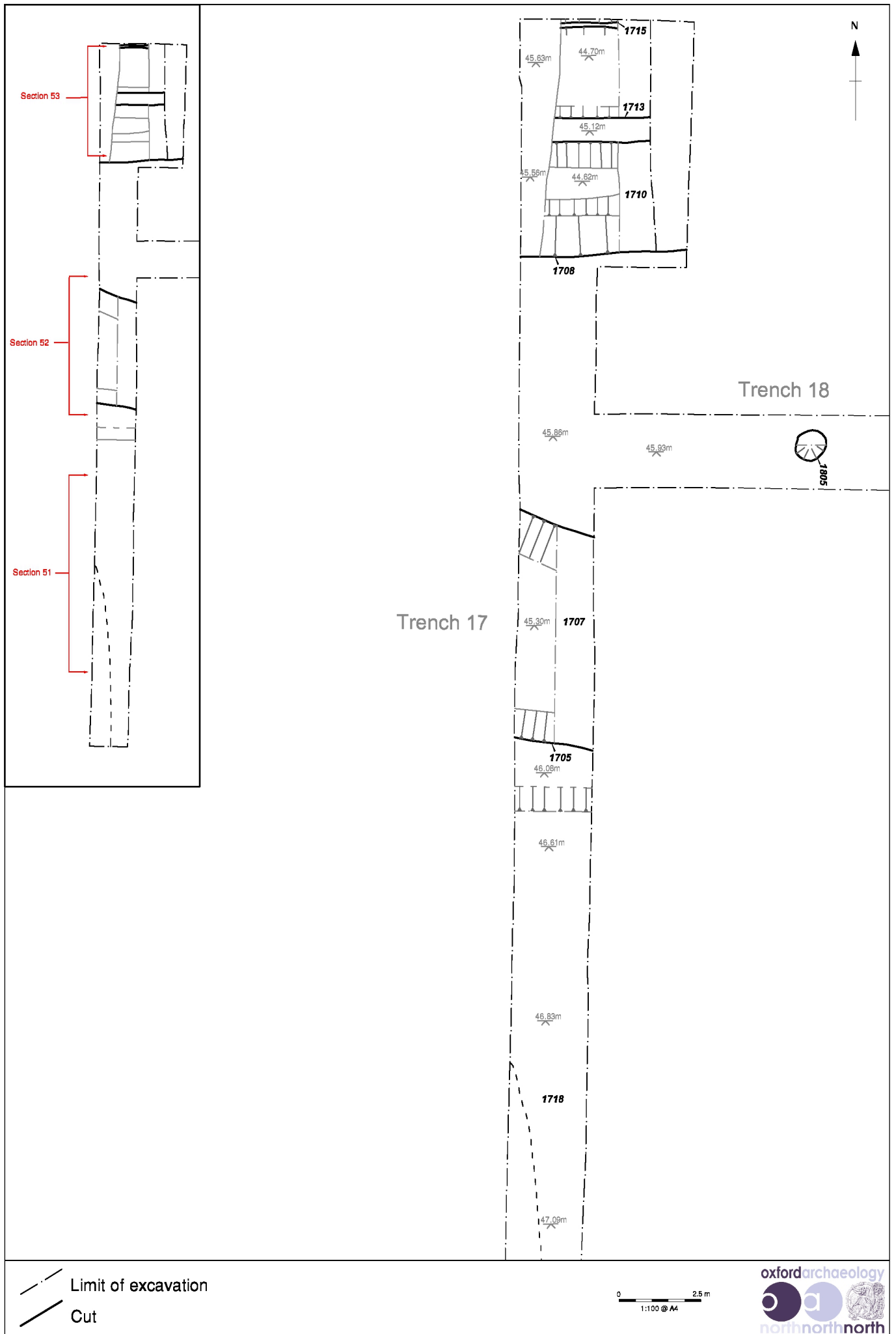
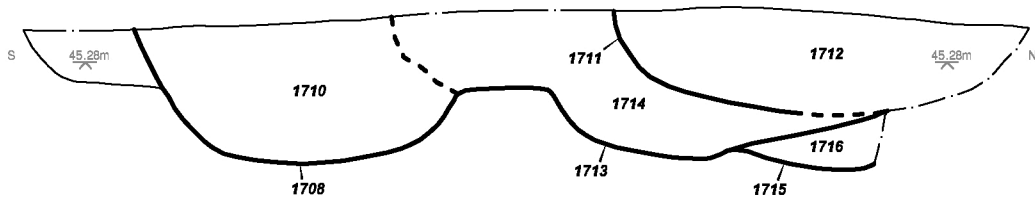
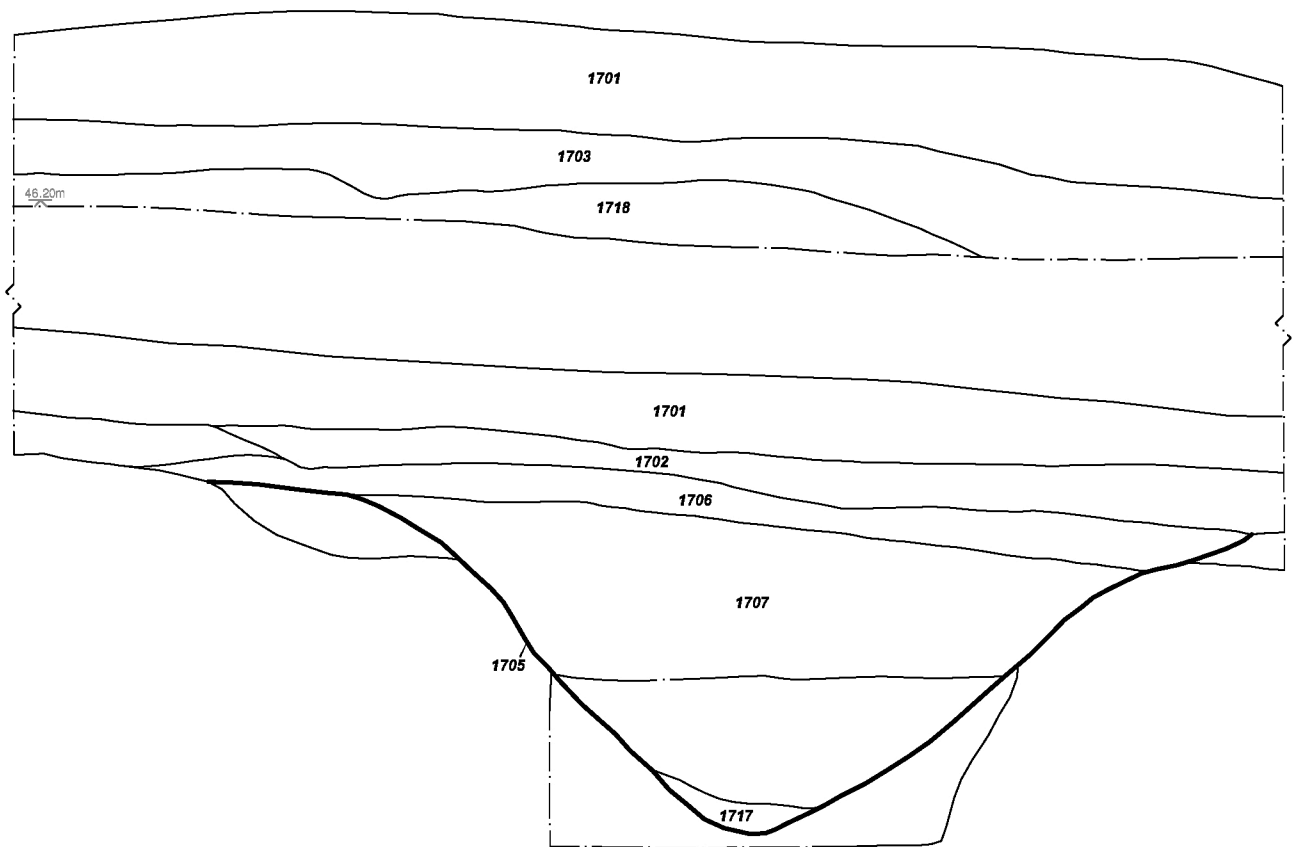





Figure 4: Plan of Trench 17



Section 53: Section across ditches **1708**, **1713**, and **1715**



Section 52: Section across ditch **1705**

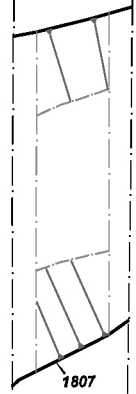
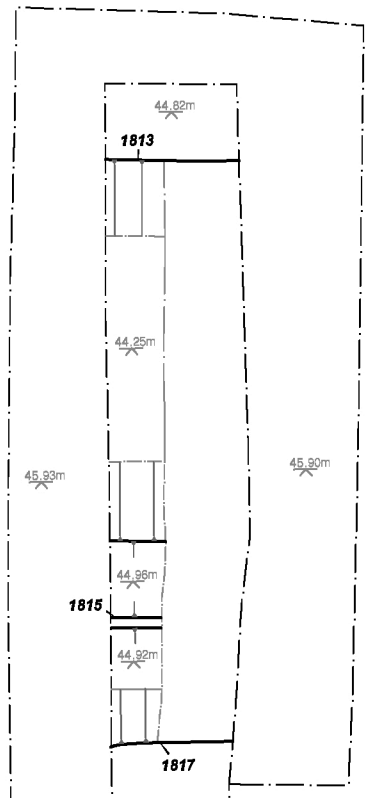
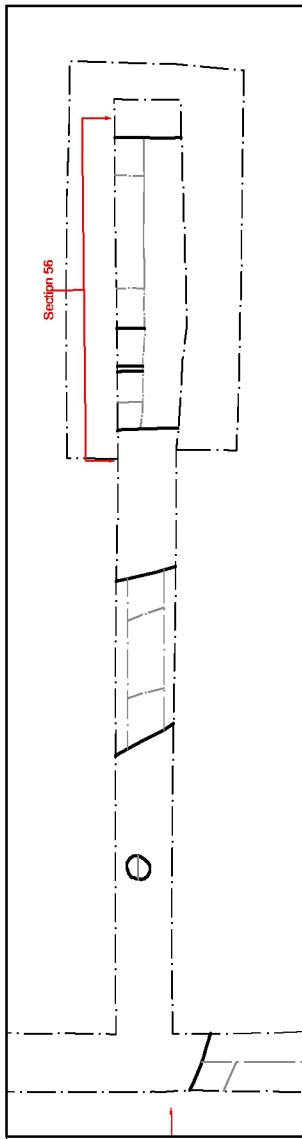
 Limit of excavation
 Cut
 Layer/deposit

0 ————— 1 m
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oxfordarchaeology

 northnorthnorth

Figure 5: Trench 17 sections



45.77m



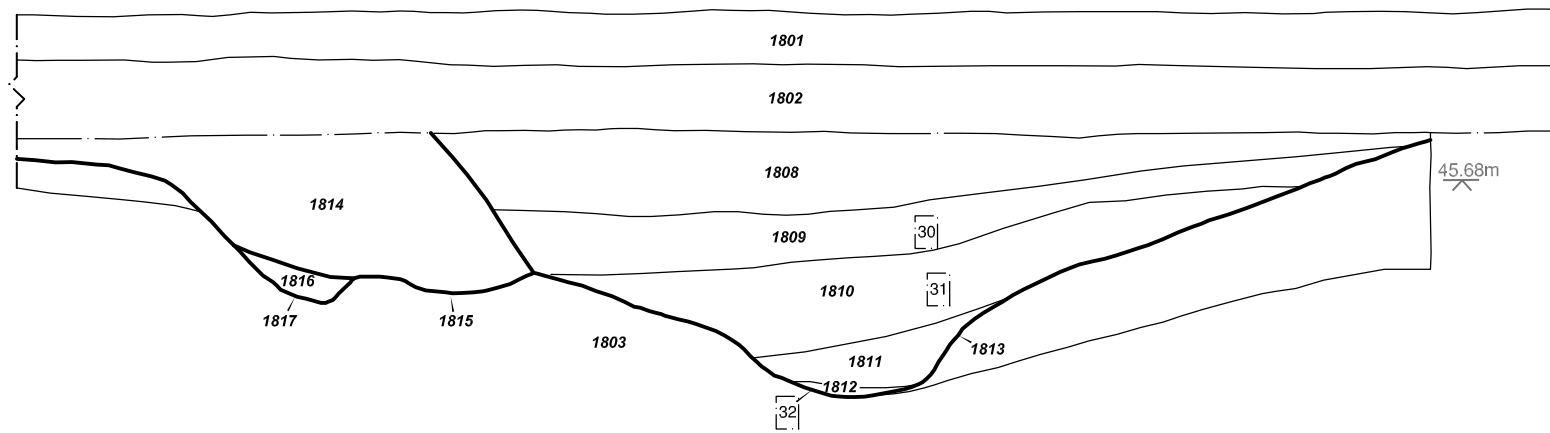
Trench 18

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


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Figure 6: Plan of Trench 18



Section 56: Section across ditch **1813**

-  Limit of excavation
-  Cut
-  Layer/deposit

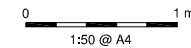


Figure 7: Trench 18 sections

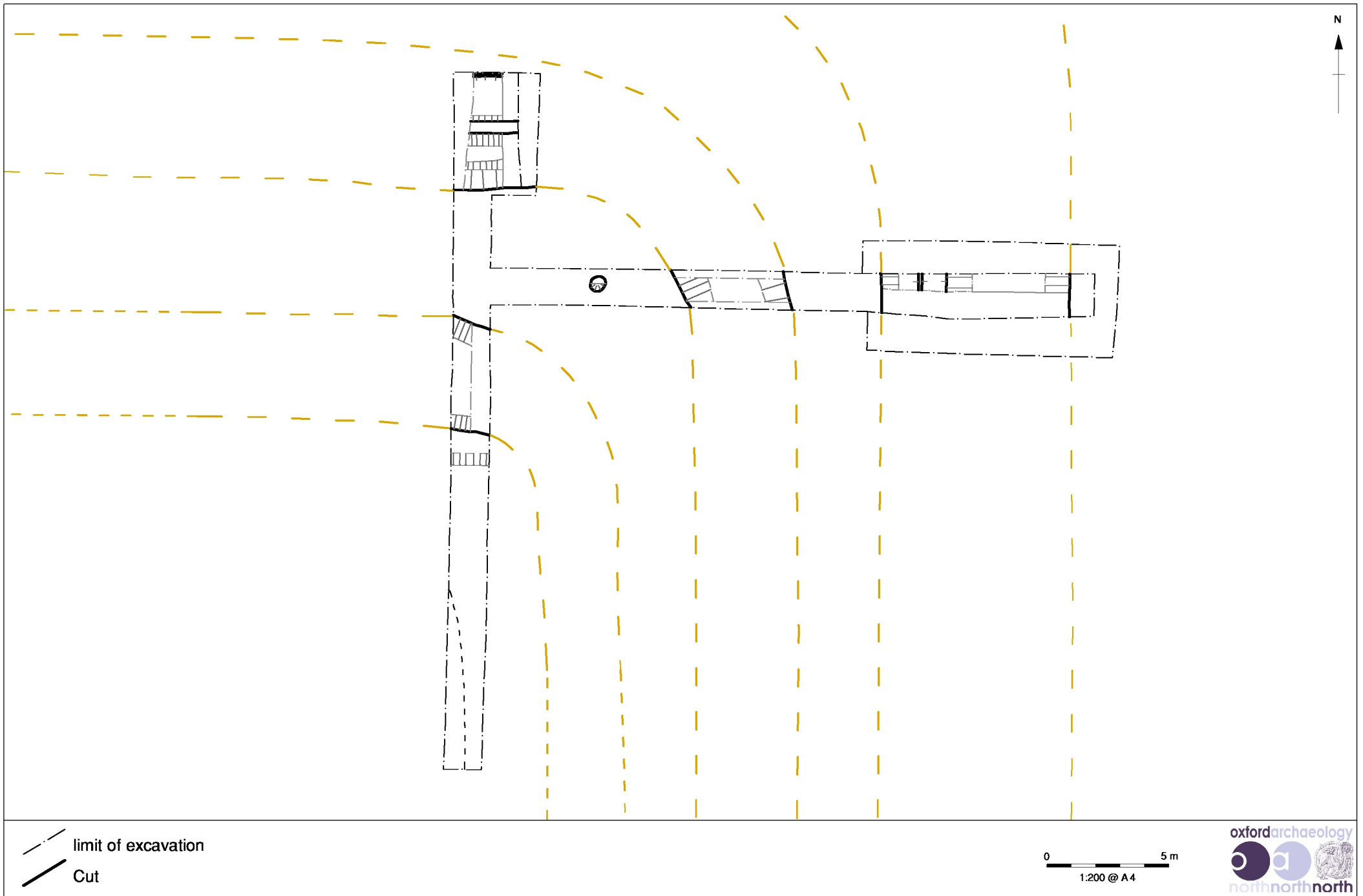


Figure 8: Plan of projected ditches in Trench 17