Archaeological Watching Brief Report for land at

TUTBURY MILL ROCESTER

For Buro Four

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Client:	Buro Four
Local Authority:	East Staffordshire Borough Council
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Abstract

An archaeological watching brief was undertaken during groundworks at Tutbury Mill, Rocester during January to July 2009. The purpose of the watching brief was to record any significant archaeological deposits, especially those related to the Roamn settlement.

A number of archaeological deposits were identified during the watching brief. Two ephemeral Roman features were recorded in the north of the site and alluvial deposits, associated with the rive Dove, containing Roman artefacts were recorded in the north and east of the site. Various19th and 20th century waste dumps associated with Tutbury Mill and ground levelling were found in the centre of the site.

Brick foundations,cellars and the remains of a large drainage culvert associated with the mill were recorded in the southern part of the site.

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1. Introduction

1.1. This report has been written by Greg Crees and Matt Williams of L : P Archaeology on behalf of Buro Four. It details the results of an archaeological watching brief on groundwork associated with the re-development of Tutbury Mill, Rocester during January to June 2009.

1.2. The watching brief compliments a Level III Historic Building Recording Survey of the mill complex which was undertaken during September 2008 by Blair Poole and Claire Statter of L – P : Archaeology (POOLE & STATTER 2008).

1.3. The work was carried out as part of an archaeological condition placed on planning permission for the redevelopment of the site.

1.4. The site is located at Tutbury Mill NGR 411291,339226 which lies on the eastern outskirts of Rocester (**FIGURE 1**).

1.5. The Local Planning Authority is East Staffordshire Borough Council who take archaeological advice from the Staffordshire County Archaeological Officer.

1.6. L – P : Archaeology allotted an internal site code of RCS/TMC 08 for this site.

2. Geology and Topography

2.1. GEOLOGY

2.1.1. Natural clay and natural gravel deposits were observed at 86.60m OD at the eastern side of the site.

2.1.2. On the western side of the site a natural blue grey clay was observed at 87.35m OD, and natural gravel pebble deposits were observed at 88.70m OD.

2.1.3. The underlying solid geology is recorded as undifferentiated Triassic mudstone, siltstone and sandstone (HTTP://WWW.BGS.AC.UK/GEOINDEX).

2.2. TOPOGRAPHY

2.2.1. The site is located on the eastern edge of Rocester, a small town in the Staffordshire Moorlands District next to the border with Derbyshire. The town lies on a spur of land between the rivers Churnet and Dove, about 1.7km north of the confluence of the rivers Churnett and Dove (FIGURE 1).

2.2.2. The site is situated immediately west of the river Dove in an area of alluvial floodplain at 86.50 and 89m OD. The site covers an area of 4.2ha. It is bounded on the south by Mill Street, on the east by the river Dove, and on the west by West View Road and residential buildings. A man-made bank forms the northern limits of the site (FIGURE 2).

2.2.3. A mill stream runs north south in the western half of the site; the mill buildings are in the south west corner of the site; the south eastern area is a football pitch and the northern area is a playing field (FIGURE 2).

3. Archaeological and Historic Background

3.1. A brief summary of the archaeological and historical background of the site and Rocester area follows here. Unless referenced otherwise, all the information is taken from the Desk Based Assessment by Kelleher (BIRMINGHAM ARCHAEOLOGY 2006).

TIMESCALES USED IN THIS REPORT

PERIOD	FROM	TO
PREHISTORIC		
PALAEOLITHIC	450,000	12,000 BC
MESOLITHIC	12,000	4,000 BC
NEOLITHIC	4,000	1,800 BC
BRONZE AGE	1,800	600 BC
IRON AGE	600	43 AD
HISTORIC		
ROMAN	43	410 AD
EARLY MEDIEVAL	410	1066 AD
MEDIEVAL	1066	1485 AD
POST MEDIEVAL	1485	PRESENT

3.2. PREHISTORIC

3.2.1. There have been limited Prehistoric artefacts recovered from Rocester including flints from the Mesolithic and Neolithic as well as late Neolithic ceramics.

3.2.2. A Bronze Age beaker, bronze axe and barbed and tanged arrowhead have been discovered in Rocester (SMR 01801-MST1793). In addition, Bronze Age barrows are known to be located south of the settlement.

3.2.3. There is an Iron Age hill fort approximately 1km to the north of the village at Barrow Hill.

3.3.ROMAN

3.3.1. Rocester was originally a Roman fort situated on the north side of the Derby to Stoke-on-Trent road (VCH, 188).

3.3.2. It is thought that a Roman auxiliary fort was built at Rocester on or soon after AD69. Excavations by Webster in 1961 suggested that it was abandoned between AD120-160, and the area became a civilian settlement.

3.3.3. Defences around the settlement have been dated to AD160. The civilian settlement continued to thrive as the defences were strengthened again in AD280. Remains of the eastern town defences have been recorded on the western site boundary along what is today West View Road.

3.3.4. Roman Rocester is thought to have several phases of occupation spread over a relatively wide area. Foundations, pottery and human bones thought to date to the Roman period were found on the site area during the construction of the mill in 1794 (Stebbs in www.roman-britain.org/places/rocester.htm).

3.4.EARLY MEDIEVAL

3.4.1. Excavations in Rocester in the 1960s revealed evidence for settlement in the area from the late 9th century. The settlement probably had a church to serve it, and this is thought to have been located at the site of the current Church of St Michael (FIGURE 2).

3.5.MEDIEVAL

3.5.1. Rocester appears in the Domesday book as a relatively prosperous settlement. The entry indicates that a mill already existed within the village although its exact location was not specified. It has been postulated that the site of the this mill lies within the Tutbury Mill complex.

3.5.2. The Domesday entry for Rocester reads:

> *"Algar held it, 1 hide, with its dependents, land for 9 ploughs, in lordship 2. 18 villagers and 10 smallholders with 9 ploughs. A mill at 10s, meadow 20 acres, woodland 1 furlong, and as wide. Value before 1066 £4, now £8."*

3.5.1. Tutbury Mill lies 80m west of the remains of Rocester Abbey. The Abbey was

founded in 1141 as an Augustinian centre and would have followed a similar pattern to other Augustinian sites across the country, with a complex of amenities and buildings.

3.5.2. It is possible that the abbey had a mill in 1229 when the abbey was given a grant . It is likely that it was a fulling mill, as by 1293 the monks were selling wool at the Abbey's own market and it had become well known for wool production. Fulling is an important process which involves the cleansing of the wool to remove oils, dirt, and other impurities (HODGES 1998). The medieval mill would not have been water powered as fulling was originally done by pounding the cloth with the fuller's feet. It was only from the 17th century that the process moved to water powered mills.

3.5.3. Earthworks in Abbey Field, to the west of the site, are thought to be the remains of ornamental gardens associated with the abbey **(FIGURE 2).**

3.6.POST-MEDIEVAL

3.6.1. The Abbey at Rocester continued to function until 1536. A purchase of an exemption from the crown meant they briefly avoided the dissolution, however, in September 1538 the Abbots had to surrender the Abbey to the Crown. In 1540 it was bought with some of the associated land by Richard Trentham.

3.6.2. An 18th century plan of Rocester Mill shows two rectangular buildings on the site of the mill, which pre-date Arkwright's mill. The playing field is marked as 'formerly the ?Abbey fish pond'. Immediately to the south is 'A temporary footbridge in case of flooding' (**FIGURE 4**).

3.6.3. Richard Arkwright (1732-1792) bought the mill and its associated land in 1781 and demolished the existing structure to build a water powered cotton mill on the site. This is the Arkwright wing of the current standing building.

3.6.4. After Arkwright, a number of alterations to the layout of the mill under a number of owners are documented until the 1980s, when the mill was finally closed. A detailed development of the mill complex can be found in the historic building report (POOLE & STATTER, 2008).

3.6.5. The 1855 Tithe map shows the mill and a woods or marshland to the west of the mill stream and in the playing field area. Arkwright's mill is shown in the south west of the site **(FIGURE 4)**.

3.6.6. The 1881 OS map shows the mill stream expanded to the west to form a mill pond and the playing field area labelled 'oyster bed'. The mill complex has been expanded at the west end to include two gas towers **(FIGURE 5)**.

3.6.7. The 1955 OS map shows the mill has been expanded by building between the two south ranges (**FIGURE 5**). There is no further significant change to the building layout in the 1978 OS map (not reproduced in this document).

3.6.8. The 1955 OS map shows the playing field as a filter bed (annotated F.B. - though this may be an incorrect label for the Foot Bridge marked on the 1881 map). The 1978 OS map shows the area as a playing field, so presumably it was drained and filled between 1955 and 1978.

4. Aims

4.1. The general aims of the archaeological watching brief were to record the character, date, type, state of preservation, and extent of any archaeological remains on site exposed or disturbed during groundworks.

4.2. Special care was taken to identify features that may relate to the Roman fort and settlement and the abbey mill.

5. Methodology

5.1. The watching brief took place in accordance with the methods laid out in the *Written Scheme of Investigations for Land at Tutbury Mill, Rocester* (POOLE: 2008).

5.2. A suitably qualified archaeologist monitored all agreed groundworks.

5.3. The areas of groundworks are shown in **FIGURE 3** and comprise:

- Reduced level in playing field area
- Reduced level and trenches in area north of playing field
- Reduced level excavation in the south east area
- Groundworks for new gymasium
- Removal of gasometers
- Excavation for new sewage pipe

6. Results

6.1. All context numbers referred to in the text are described and located within the primary archive. 'Deposit' context numbers, which include made ground and natural layers, are given in (parentheses); cut features are given in [square brackets] and structure numbers are underlined. Depths of deposits are given as level above Ordinance Datum (mOD) or refer to a Below Ground Level measurement (BGL).

6.2. PLAYING FIELD AREA

6.2.1. East of the mill stream, groundworks were carried out on the playing field area for the construction of a car park, football pitch and access road (FIGURE 2). Turf was removed and the area level was reduced by a maximum depth of 1.30m to 85.80m OD.

6.2.2. The topsoil, (1), was up to 0.20m thick and was composed of soft mid brown clayey silt. Beneath the topsoil was a layer of light orange brown silty clay (2). It was very ephemeral across the western side of the site, however towards the eastern side of the site, it formed a layer up to 0.50m thick. It contained occasional fragments of modern red brick and glass. (2) was only observed in areas overlying soft ashy deposits (10), and so is interpreted as a levelling and consolidation layer for the playing field, which was constructed between 1955 and 1978.

6.2.3. Context (10) was composed of soft dark grey brown black ashy clay silt 1.10m thick. It was made up of a number of similar overlapping deposits. (10) contained a great deal of 20th century rubble and some domestic waste, including frogged stock bricks, concrete, scrap metal, dumps of clean pink clay and glass bottles. This probably represented waste deposits from from Tutbury Mill and also domestic refuse land fill. Underlying the northern and western limits of (10) was a mid grey brown clayey silt layer, (13), 0.40m thick. It contained similar artefacts to (10) but lower concentration.

6.2.4. Natural geology was observed at 86.60m OD. It was composed of firm, mottled orange grey brown, silty clay (12).

6.2.5. It is unlikely that the waste was dumped in this area while it was being used to

produce oysters or required filtering, so these dump layers may represent further levelling for the playing field.

Plate 1 - North west area of playing field, looking north east, 1m scale. *The dark material on the right side of the picture is context (10), the lighter material to the left is the underlying layer, context (13), and natural clay, context (12), at the far left hand side.*

6.3.AREA NORTH OF PLAYING FIELD - CUT FEATURES

6.3.1. Two cut features were discovered between trenches 5 and 6. They were sealed by the topsoil and cut into a spread of Roman dump material, (23/35/59) (FIGURE 6).

6.3.2. Cut [31] was 0.18m in diameter and survived 0.11m deep, tapering slightly to a point. It was filled by a firm grey brown silty clay (30) and contained a single piece of Roman pottery. It may be the remains of a post hole.

6.3.3. Feature [29] was oval in shape measuring 1.42m by 1.10m and 0.15m deep. It had regular, concave sides, with no perceptible break of slope to its slightly concave base. It was filled by a firm mid grey brown silt (28) that contained occasional charcoal lumps, animal bone, CBM and Roman pot sherd. This may have been the base of a rubbish pit.

6.3.4. Two further deposits, (32) and (33), were uncovered 7m to the east of these features. (32) was roughly oval in shape and measured 1.15m by 0.63m. It was a firm grey brown silt. (33) measured 0.86m diameter and contained firm grey brown silt. Both features survived no more than 0.10m deep, and were not recorded as cuts. Both contained occasional pieces of Roman pottery, with (32) also containing some animal bone fragments. These may have been the bases of severely truncated pits or the remains of truncated dump deposits.

Plate 2 - The north west corner of site, east side of the mill stream, looking north east, 1m scale

6.4.AREA NORTH OF PLAYING FIELD - TRENCHES

6.4.1. The topsoil was stripped from this area, which revealed alluvial deposits below with possible features cutting them. Six trenches were excavated in this area (FIGURE 3).

TRENCH 1

6.4.2. Trench 1 measured 10.30m by 1.90m, and was positioned in a roughly north to south direction (FIGURE 3 AND FIGURE 7).

6.4.3. The Trench was positioned across a large modern cut 0.84m deep, cut [45].

The uppermost fill, (37), was a mid to dark brown silty clay with flint pebbles and cobbles. It had a dark brown ashy silt base which was reminiscent of (10) discussed above, but much stonier.

6.4.4. Two other contexts, (43) and (44), formed lower fills underneath. They were composed of an orange brown silty clay and a brown grey silty clay respectively. These were both redeposited natural from the vicinity.

6.4.5. Inclusions of 20th century building rubble and modern waste demonstrated that the deposits were modern. The feature appears to be the result of landfill and landscaping to consolidate the marsh, and as such is the same phase as the playing field deposits described above.

6.4.6. The feature had cut through (40), a layer of orange brown silty clay that extended across the area north of the playing field, and was observed up to 0.30m thick in the trench. This is thought to be an alluvial deposit resulting from flooding of the River Dove. It did not contain any finds.

6.4.7. Underlying (40) was (41) a 'dirty' natural interface layer consisting of orange brown clay silt. Orange brown natural clay (42) was recorded at 0.40m BGL/86.40m OD.

TRENCH 2

6.4.8. Trench 2 was 14m long by 1.90m wide. It was positioned in the north east corner of the site and ran in a south west to north east direction across deposits (36) and (14) (FIGURE 3 AND FIGURE 7).

6.4.9. In the north of the trench was another large modern cut [150]. It extended into the northern limit of excavation and was 1.14m deep. It was filled with clean yellow gravel (14).

6.4.10.[150] cut context (36), a brown silty clay up to 0.36m thick. It contained occasional flint pebbles and very occasional small lumps of charcoal. It contained four fragments of heavily abraded Roman pottery dated 1st to 4th century. This was another alluvial deposit similar to (40).

6.4.11. Underneath (36) was (41), previously observed in Trench 1 as the interface

with the natural deposits. Below this was natural orange clay (42) at 86.43m OD.

TRENCH 3

6.4.12. Trench 3 was 7.80m long by 1.90m wide and was positioned on the north eastern edge of the site in an east to west direction (**FIGURE 3 AND FIGURE 8**).

6.4.13. The trench cut across (39), a firm brown silty clay that was also cut by [150]. This deposit was similar to (36), containing low occurrence of flint pebbles and two abraded Roman pot sherds. (39) reached a maximum thickness of 0.84m and sloped gradually down toward the river.

6.4.14. Below (39) was a mottled orange grey silt clay (46). It followed the same general profile as (39), being maximum of 0.78m thick and sloping toward the river at a similar gradient. Two sherds of abraded Roman pottery were recovered from it, as well as one very small (<10mm) fragment of orange burnt clay. Both (39) and (42) are interpreted as further alluvial deposits.

6.4.15. (46) overlay natural orange clay (42).

TRENCH 4

6.4.16. Trench 4, was 16.35m long by 1.90m wide and ran in a north west to south east direction **(FIGURE 3 AND FIGURE 8).**

6.4.17. The upper five deposits (48), (47), (49), (50) and (35) were all alluvial deposits as seen in the previous trenches. The uppermost deposit, (35) was the most widespread, it was a firm orange brown silty clay containing abraded Roman pottery and animal bone, and was up to 0.45m thick.

6.4.18. The alluvial deposits below were all brown orange or grey silty clay deposits , the only finds recovered from these were two abraded sherd of 2nd to 4th century Black Burnished ware sherds from (49). This trench was parallel with the river to the north and the marsh to the south and as such there was no clear slope in the alluvial deposits, but the natural orange clay (51) rose to the east of the trench, from 86.30m OD to 87.10m OD, indicating a rise in the Roman topography between trenches 1 and 4.

TRENCH 5

6.4.19. Trench 5 measured 15.30m by 1.90m and was positioned in an approximately east to west direction in the north western corner of the site (**FIGURE 3 AND FIGURE 9**).

6.4.20. The upper deposits, (26), was a blue alluvial clay with no finds. Below this was a series of silt clays (27), (19), (22), (16), (17), (23), (24) and (25). (23) had been previously recorded in trench 4 as (35).

6.4.21. All the alluvial deposits were orange brown except for (16), which was a distinctive blue silt clay (16) containing charcoal flecks, pot and animal bone.

6.4.22. All the deposits below (26) contained abraded Roman pottery, with some occasional animal bone in (23), (24) and (17). Contexts (27) and (35) in particular contained a high concentration of pot. The higher concentration of finds suggests that trench 5 was closer to the original Roman rubbish dumping area.

6.4.23. The natural interface layer (53) and natural orange clay (12) was recorded in the base of the trench at 86.60m OD. The trench was parallel to the pond area and there was no clear slope in the alluvial deposits.

TRENCH 6

6.4.24. Trench 6 measured 15m by 1.90m and was positioned in an east to west direction along the northern baulk section of the north west corner of the site (**FIGURE 3 AND FIGURE 9**). A modern drain, dating to the later 19th to early 20th century, had cut through the deposits at the very western end of the trench. It is possible that the deposits extend further west of the site area.

6.4.25. Below the topsoil (66) was a series of sterile orange brown or grey brown clay silt alluvial deposits with occasional flint pebbles (69), (67), (89), (90), (91), (88), (70), (71), (68) (55) and (56) with a total depth of 0.75m.

6.4.26. Below this were two similar brown and grey clay silt alluvial deposits with occasional flint pebbles. (59) contained occasional abraded Roman pot and (60) contained much more frequent pot and animal bone.

6.4.27. Below (60) were three stratigraphically contemporary sterile alluvial layers (57), (62) and (63). Below these was an orange brown silt clay (58) with frequent pot and occasional animal bone and burnt clay fragments. At the base of the sequence was a sterile blue clay layer (64). The alluvial deposits continued the trend seen in the natural clay in trench 4 (immediately to the east) and sloped gently down to the west.

6.4.28. (58) overlay an orange clay natural (65) at 86.60m OD.

6.5. SOUTH EAST AREA - CULVERT

6.5.1. In the south east of the site a stone culvert was exposed, which ran east west into the eastern limit of excavation. The uppermost layer was the compact stone surface for parking next to the football pitch (95).

6.5.2. Below was a 0.30m thick layer of blue grey brown silty clay (96) with a very charcoal rich deposit (80) below. This overlay an 0.80m thick light brown sterile clay (73) which sealed over the remains of the culvert. These deposits probably correlate with the mid/late 20th century levelling and waste deposits seen in the playing field area.

6.5.3. The culvert, 84, was constructed of three courses of light grey, roughly cut limestone blocks in a stretcher pattern (FIGURE 10). The blocks measured between 0.59m-0.92m long by 0.30m-0.36m wide and by 0.22m-0.28m deep. They were bonded with a light grey white sandy mortar. The top and base of the culvert were made of thinner stones of the same material measuring 1.0m-1.33m long by 0.32-0.45m wide by 0.14m-0.25m deep. The culvert was rendered on its inside with a hard, light grey white mortar.

6.5.4. The culvert sloped down from the mill complex to the River Dove. The western section of the culvert had been truncated, probably as a part of the levelling groundworks associated with the football pitch.

6.5.5. The truncated western end of the culvert widened out with stone blocks set at 45 degrees to the main section. This may have been the remains of a silt trap or possibly a connection point with another culvert, though no evidence for another drainage structure was recorded on site. It was not excavated.

6.5.6. The line of the culvert is marked on the 18th century (pre-Arkwright) map as a line with short lines across it (FIGURE 4 LEFT), and it is marked on the later maps as a single line (FIGURE 4 RIGHT AND FIGURE 5). It is unclear from these maps whether these represent the structure recorded. However, the size, preservation and materials, especially the hard white mortar, suggests that the culvert as discovered dates to the Arkwright mill of the 1780s. It was probably an overflow for the mill stream, joining the mill pond with River Dove.

6.6.SOUTH EAST AREA - ALLUVIAL DEPOSITS

6.6.1. On the north side of the culvert the construction cut for the culvert [87] cuts two alluvial deposits, consisting of an upper pink brown silt clay with occasional flint pebbles (81) and lower grey orange silt clay (97) (FIGURE 11 WEST FACING SECTION).

6.6.2. On the southern side [87] cut into alluvial deposits which were also overlain by the levelling layer (73) (FIGURE 11 NORTH FACING SECTION). These deposits consisted of grey or orange brown silt clays with occasional flint pebbles (74), (75), (76), (77), (78) and (79). (75) contained one piece of Samian pottery, and (79) contained Black Burnished ware, orange ware and Samian pottery.

6.6.3. Orange clay with occasional flint pebble natural deposits were recorded below the alluvial deposits at 84.50m OD.

6.6.4. All deposits, including the natural clay, sloped gently down towards the River Dove, as seen in trench 3 in the northern area of the site.

6.7.SEWER PIPE EXCAVATION

6.7.1. Groundworks were observed for a sewer pipe that ran east to west in a position just north of Rocester football club (FIGURE 3). However, only a continuation of mill waste deposits were recorded, (10). Excavation was to a depth of c.1.50m BGL.

6.8.GYMNASIUM EXCAVATION

6.8.1. Groundworks for the gymnasium covered an L-shaped area 35m by 25m and reached a maximum depth of 1.30m BGL (FIGURE 3).

6.8.2. Beneath the hard standing were mixed layers of dark organic silt and orange clay (99), (100), and (101) containing modern waste including plastic bags, bottle glass and bricks, with a total thickness of approximately 1.00m. The modern inclusions in these waste deposits suggest that they are later than the playing field levelling layers, and probably relate to the infilling of the mill pond which is indicated on the OS maps between 1955 and 1978.

6.8.3. Groundworks in this area also partially removed a bank bordering the western side of the mill stream. The bank was about 5.50m wide and between 1.50 and 2m deep. Its western side had been slightly disturbed, by (99) and (100), which overlay the western side of the bank.

6.8.4. The bank consisted of re-deposited soils which were a poorly sorted mix of firm blue grey brown silty clay and orange brown clay silt, (103). It contained a low occurrence of poorly sorted flint pebbles and modern including brick and plastic. This is probably also related to groundworks associated with infilling the mill pond between 1955 and 1978.

6.8.5. Beneath (101) was a mottled orange brown natural clay, (102). It was observed at c.0.90m BGL. It was excavated to 1.40m BGL.

6.9.EXCAVATION OF GASOMETERS

6.9.1. Groundworks removed two buried gasometers; large circular constructions 12m diameter associated with Tutbury Mill (FIGURE 3). They are first shown on the 1881 Ordinance Survey map (FIGURE 5). Both are shown on the 1955 OS map, but only the western tower is shown on the 1978 OS map (not reproduced).

6.9.2. About 1.20m of ground was initially removed from the area above the gasometers. Following this, a 1m wide trench was excavated around the known location of the gasometers and excavated to 5m BGL. Steel shoring plates were inserted into the trench to allow for safe excavation.

6.9.3. Excavation revealed a number of made ground deposits. Four indistinct layers of made ground were observed: (104), (105), (106) and (107), but they were not easily discernible from one another. The presence of heavy

machinery meant that for safety reasons, it was not possible to closely examine them.

6.9.4. The layers of made ground consisted of layers of orange and grey silt clays with low or moderate inclusions of modern brick rubble.

6.9.5. Along the eastern side of the gasometer excavation area and along the eastern side of the northern edge, natural blue grey clay, (108) was observed at c.1.75m BGL. Along the western side of the gasometer excavation area, and also below (107), natural geology consisted of pebble gravel, (109), and was observed at 2m BGL.

6.9.6. On the southern side of the gasometer area natural gravel pebble (109) was cut by a vertical sided feature [113] filled with homogeneous brown silt (112). It was sealed by further clay silt deposits (110) and (111) containing modern brick fragments. The regular shape of [113] and the modern deposits sealing it suggest it was a feature associated with the construction of the gasometers.

6.9.7. Five modern foundation walls (114) were also observed within the southern section of gasometer excavation. These were situated within the eastern portion of the section. They were below the made ground layer (110), and had each cut about 1.0m deep into natural geology, (109). They were on a north south alignment, and set parallel to one another about 1.0m apart. It is probable that these foundations relate to the building depicted immediately on the south side of the gasometers on old maps (see FIGURE 5). The relationship between the foundations and the basement revealed on the south side of this area (context 119 – see below) was not observed.

Plate 3 - North facing section on the southern edge of gasometer excavation

6.10.GROUNDWORKS ON SOUTH SIDE OF GAS TOWERS

6.10.1. Reduced level excavation on land to the south of the gasometers extended to about 1.0m BGL and removed a thick layer of modern made ground, (118). It contained a high frequency of modern stock brick and other modern finds such as scrap metal, and the excavation of this layer included the removal of a large metal container containing tar, which had contaminated the area.

6.10.2. The removal of these deposits exposed the remains of a brick basement. The basement was 4.0m wide north south, and 10m of its length was uncovered. Excavation reached the floor of the basement at approximately 3.0m BGL, and the basement had cut well into the natural (109).

6.10.3. The basement walls, (119), were made of red bricks set in a stretcher pattern.

The western wall which formed the end of the building was fully observed, as well as portions of the north and south walls. An eastern edge to the basement was not observed. The basement had a brick floor which was partially removed during groundworks. A square drain 0.80m wide was attached to the western end of the basement. The drain was covered over with a steel plate and was completely empty. This structure is the remains of the east well mill building shown on the west side of the main mill building on the 19th and 20th century maps.

6.10.4. The basement was cut into made ground composed of consecutive deposits of orange sand and dark black brown silty clay and was up to 0.35m thick, (121).

Plate 4 - looking north west, showing west end of basement of building (119).

6.10.5. Natural orange yellow gravel (109) was visible at 0.40m BGL beyond the western end of the basement, beneath (121).

7. Finds

7.1. This section will give a basic overview of the finds recovered from the site during the watching brief. The finds will be discussed by material and sub divided by context.

7.2. GLASS ASSEMBLAGE

7.2.1. The only glass recovered from the site was from context (10), the mill waste deposit in the football ground area. The glass assemblage comprised 7 almost complete clear glass bottles. These all dated to the late 19th to 20th century. One of these bottles was a complete pint measure milk bottle dating to the mid to late 20th century. The modern glass was not retained.

7.3. CERAMIC ASSEMBLAGE

7.3.1. The ceramic assemblage consists of Roman pottery from the alluvial layers in the area north of the playing field and the south east area of the site. No finds were collected from the modern deposits in the playing field or gas tower areas, as these features can be dated from cartographic evidence, and much of the deposits were contaminated. In the table below BB=Black Burnished Ware.

7.3.2. Ceramic Table

Cxt No.	No.	Description/Notes	Provisional Date
10	67	Domestic wares, imported dumps to solidify oyster beds.	18th - 20th
11	3	Orange fabric.	1st - 3rd
13	?	Pottery and floor tile.	19th
15	1	Blue and white rim sherd.	19th
16	14	BB, grey ware, North Gaulish white ware, Wroxeter slip and Wilderspool oxidised.	1st - 3rd
17	12	BB, grey ware, North Gaulish white ware, Samian, amphora and mortaria.	1st - 3rd
18	7	BB, grey ware, North Gaulish white ware, Samian.	1st - 3rd
19	8	Orange ware, Samian.	1st - 3rd
21	32	BB, grey ware, North Gaulish white ware, Wroxeter slip, Samian.	1st - 3rd
22	10	BB, grey ware, Wroxeter slip, Samian.	1st - 3rd
23	60	BB, grey ware, Wroxeter slip, Samian.	1st - 3rd

24	13	BB, grey ware, North Gaulish white ware, Samian.	1st - 3rd
25	27	Grey ware, orange ware, Samian.	1st - 3rd
28	16	BB, grey ware, orange ware.	1st - 3rd
33	2	BB, Wroxeter white ware.	1st - 3rd
34	5	Grey ware	1st - 3rd
35	22	BB, grey ware, Wroxeter slip, Samian.	1st - 3rd
36	4	BB, grey ware, orange ware.	1st - 3rd
39	2	Grey ware, mortaria.	1st - 3rd
46	2	Grey ware, ?West Midlands White ware	1st - 3rd
48	1	Grey ware	1st - 3rd
49	2	BB	2nd -3rd
54	2	BB	2nd -3rd
56	2	BB, grey ware	1st - 3rd
58	16	BB, grey ware, Samian, mortaria	1st - 3rd
59	5	Grey ware, orange ware	1st - 3rd
60	11	Grey ware, Wroxeter slip, Samian.	1st - 3rd
71	5	BB. orange ware.	1st - 3rd
75	1	Samian	1st - 3rd
79	6	BB, orange ware, Samian	1st - 3rd

7.3.3. The pottery assemblage consists of local and imported domestic wares common in Romano-British assemblages. Samian ware is present and is often associated with military sites, and Rocester is known to have started as an auxiliary fort, but is not present here in significant frequencies to warrant any specific military connection.

7.3.4. The sherds were generally abraded and came from alluvial deposits associated with the flooding of the River Dove. They probably eroded from primary waste deposits and therefore cannot be considered to represent a true chronological pottery sequence with the oldest wares at the bottom of the sequence. As such further work on the assemblage would not be fruitful. The assemblage confirms the general date range of the fort and the later settlement.

7.4.FAUNAL ASSEMBLAGE

7.4.1. The animal bone was also collected from the alluvial layers

7.4.2. Animal bone table:

Cxt No.	No.	Description/Notes
13	1	Fragment of bovine thoracic vertebrae
17	3	Bovine. Four small fragments of rib, three fragments of vertebrae and a complete astragalus as well as a fragment of metacarpal.
23	43	Poultry radius, a fragment of Ovine (sheep/goat) mandible and a small fragment of Suidae (pig) mandible. The rest of the assemblage was made up of bovine bone. This included three proximal end metacarpals, a small fragment of scapula and two phalanges and 34 fragments of rib.
24	4	Four fragments of bovine rib.
28	6	Three fragments of Ovine vertebrae and three fragments of Ovine rib.
35	6	Bovine rib.
58	3	Bovine vertebrae.
60	5	Four fragments of Bovine rib and the proximal end of a Bovine radius.

7.4.3. The assemblage reflects general domestic waste consisting of cow, sheep and chicken. The higher frequency of bovine may suggest a certain related industry such as tanning, but the relatively small assemblage and the fact that it is from a secondary deposition precludes any further useful analysis.

8. Summary and Conclusion

8.1. An archaeological watching brief was undertaken on groundworks for the redevelopment of Tutbury Mill complex, Rocester from January to July 2009. The purpose of the watching brief was to record any archaeological deposits, with special regard to features that may relate to the 12th century Rocester Abbey, located 100m to the west of the site.

8.2. Groundworks in the playing field area revealed mid to late 20th century deposits related to levelling and consolidation for the playing field. The area had always been wet and is marked on the 18th century plan of the mill as the former site of the abbey pond, and on later maps as marsh land and oyster beds. It was filled and consolidated between 1955 and 1978 to create a playing field.

8.3. Trenching in the area north of the playing fields revealed alluvial deposits containing abraded Roman domestic waste consisting of some animal bone and pottery. The deposits were probably deposited by frequent flooding of the River Dove and slope gently down from a ridge of higher natural deposits that runs between the river and the central former marsh area. It cannot be certain when the alluvium was deposited, though the density of the finds in some layers and the lack of pottery from other periods suggests that it was during or soon after the Roman period. It is possible that some refuse was deposited directly on to the area. The area of the trenching lies outside the postulated eastern entrance of the Roman settlement (in line with St. Michael's church) in an area which probably flooded regularly. As such the area would have been wet and stagnant and therefore no use for farming or drinking water, and used instead as a rubbish dumping area.

8.4. Two cut features were recorded in this area. They were very truncated but interpreted as one post hole and one rubbish pit. The lack of any associated features or surfaces means further interpretation is impossible.

8.5. Groundworks in the south east of the site revealed a large stone culvert. This was interpreted as an overflow joining the mill pond to the west with the river to the east, dating to the construction of Arkwright's mill in 1782. The culvert cut through further alluvial deposits as seen in the trench excavations, which contained Roman pottery of the same date and also indicated a ridge of natural between the river and

the marsh area.

8.6. Groundworks for a new sewage pipe and gymnasium in the south and west of the site revealed further waste deposits and a man made bank on the west side of the mill stream post dating 1955. All the deposits contained modern rubble and plastic.

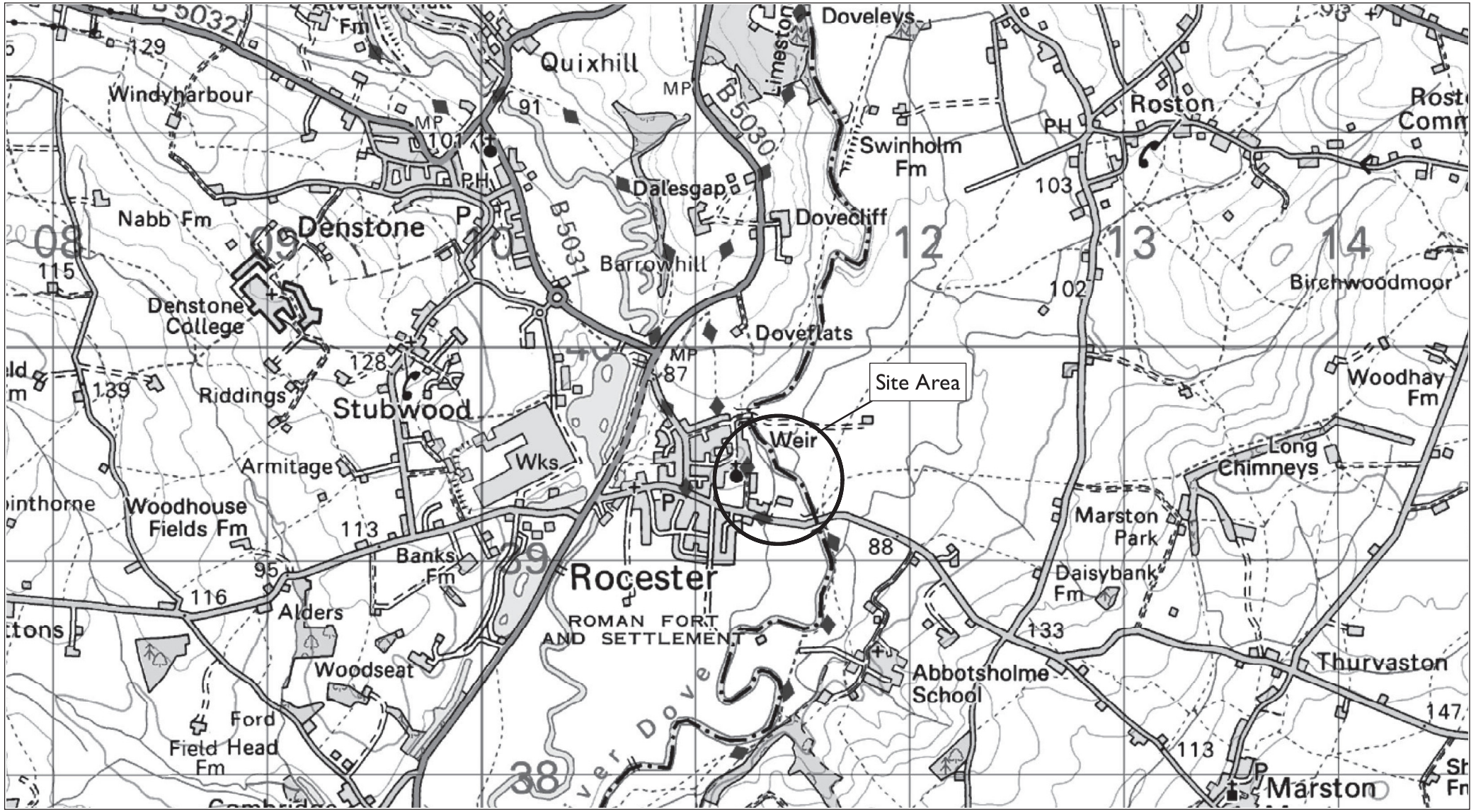
8.7. The removal of two late 19th century gas towers in the south west of the site revealed sturdy brick walls that appeared to have been cut by the construction of the gas towers. They must relate to Arkwright's mill but the 1851 Tithe map does not indicate any buildings in this area prior to the construction of the towers. It is possible that the walls may relate to the construction or foundations of the towers.

8.8. The brick cellar and foundations of the east west rectangular building of Arkwright's mill were recorded during excavations immediately south of the gas towers.

8.9. No features relating to the Medieval abbey mill, which would have been made from stone, were observed during the works.

FIGURES

FIGURE 1 // Site Location General



Scale 1:25,000 @ A4

0 1,000m

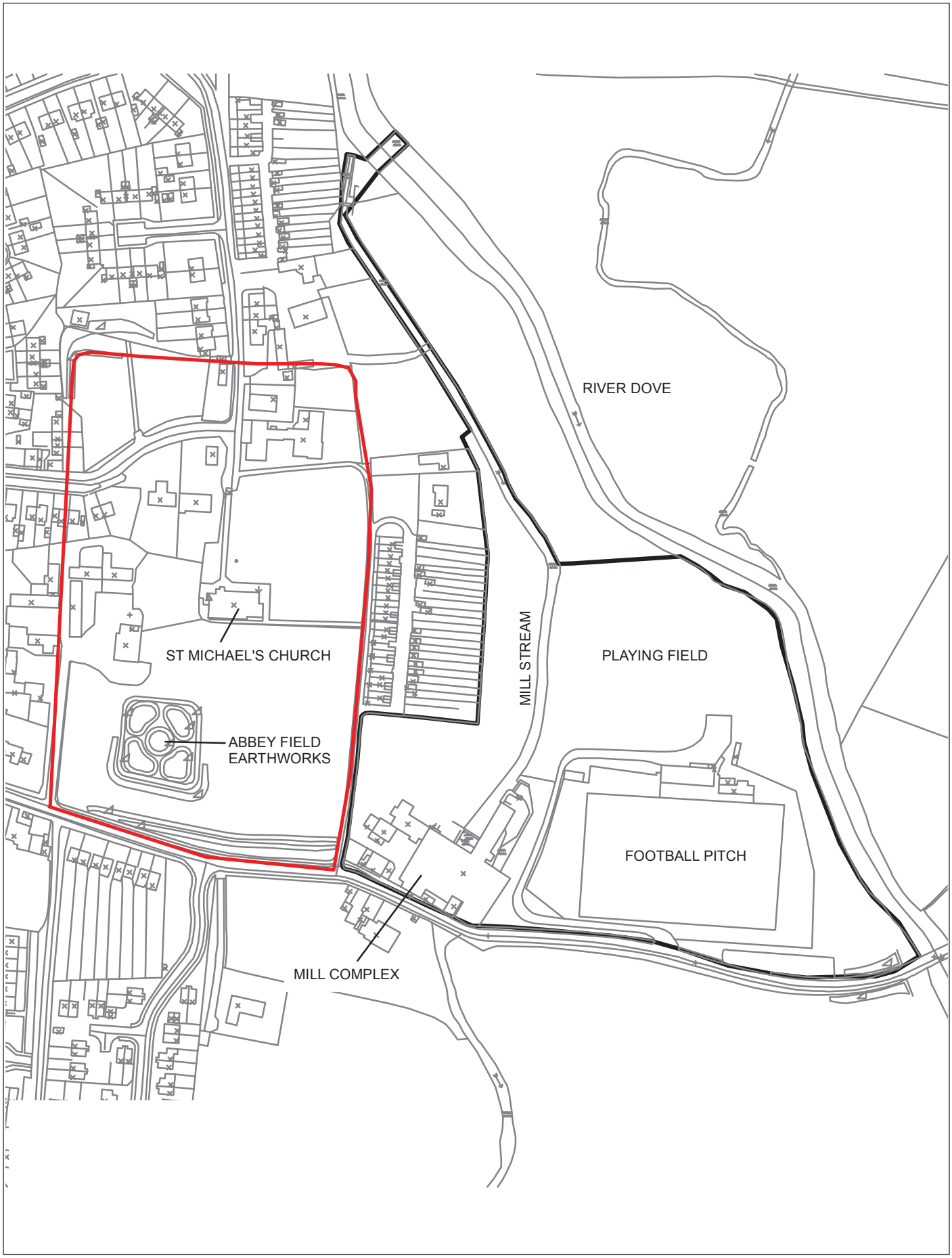
PROJECT // 0771C - Tutbury Mill, Rocester

DESCRIPTION // Site Location General

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

FIGURE 2// Site Area Detail



Scale 1:2750@ A4

Roman Defences

Site Area

0 140m

N

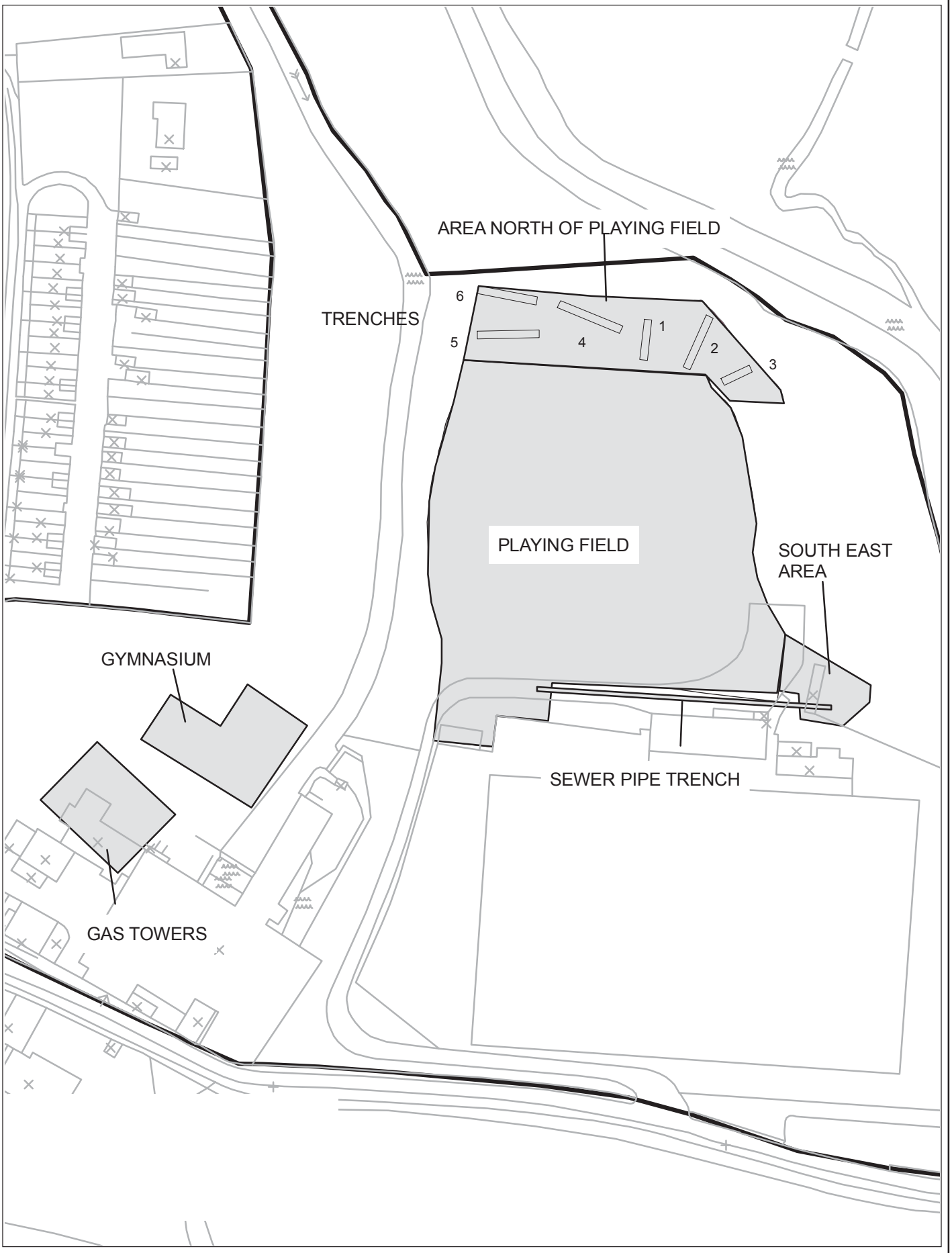
PROJECT // 0771C -Tutbury Mill, Rocester

DESCRIPTION // Site Area Detail

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

FIGURE 3 // Areas of Investigation



Scale 1:1,250 @ A4

0 50m

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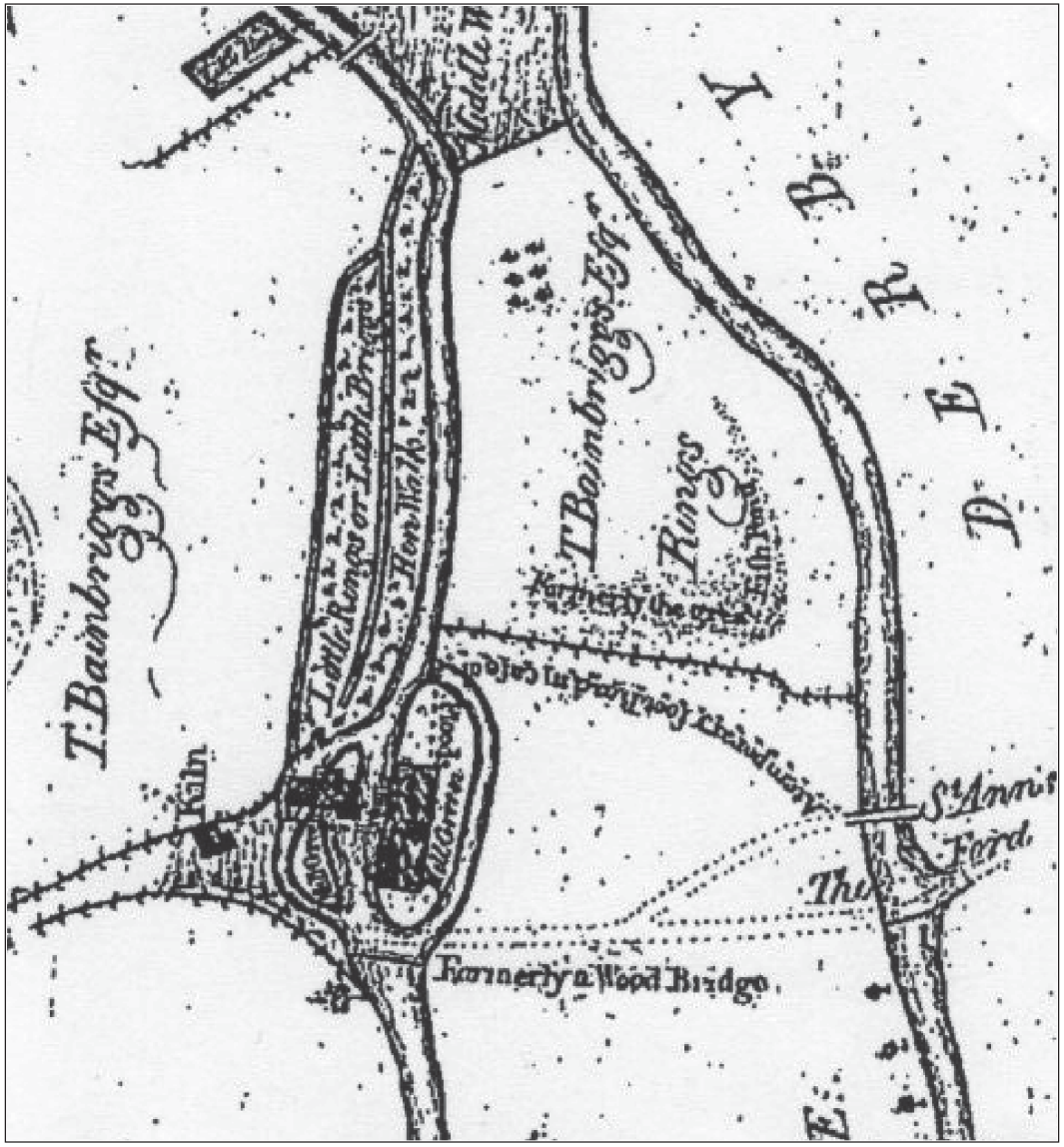
PROJECT // 0771C -Tutbury Mill, Rocester

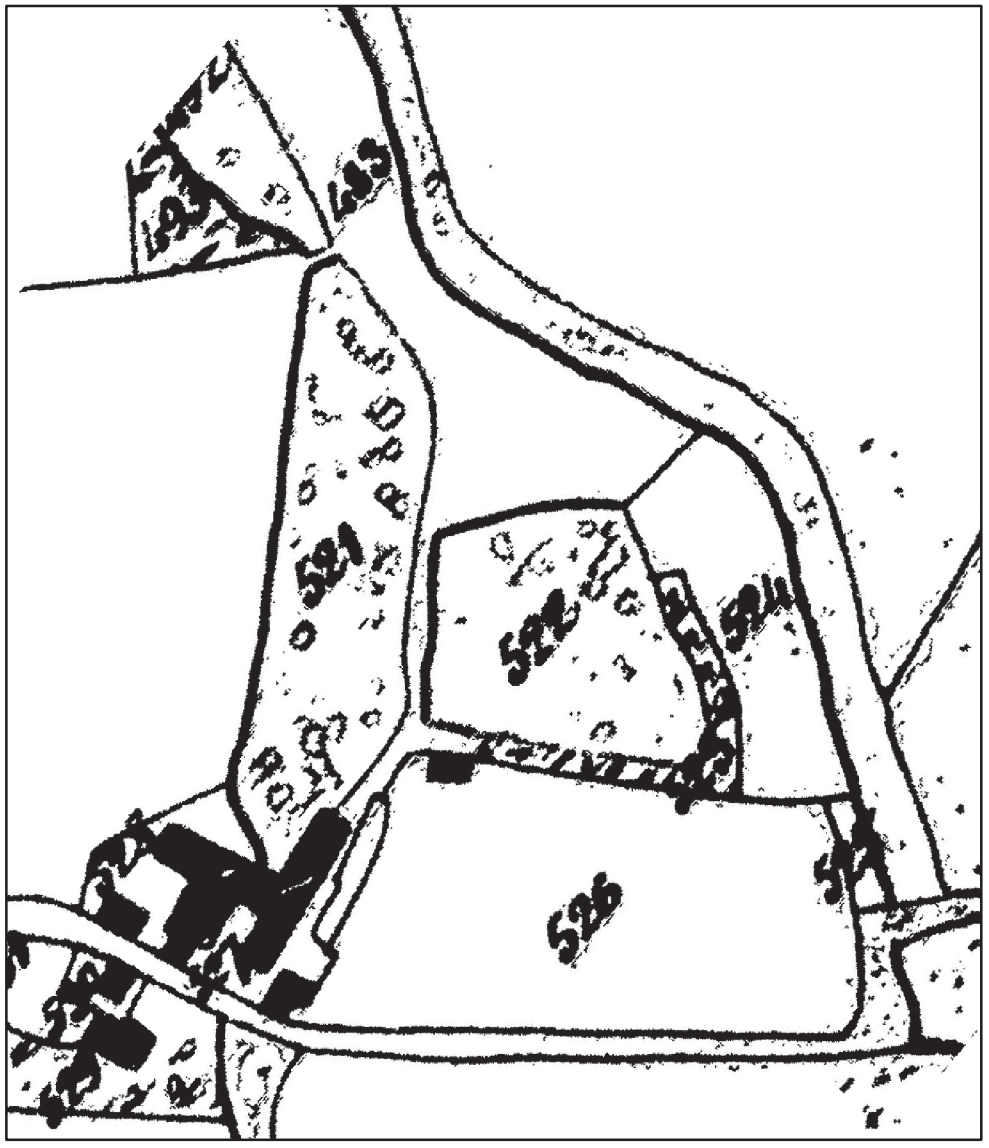
DESCRIPTION // Areas of Investigation

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

FIGURE 4 // 18th C Mill Plan and 1850 Tithe Map





0 100Meters

N

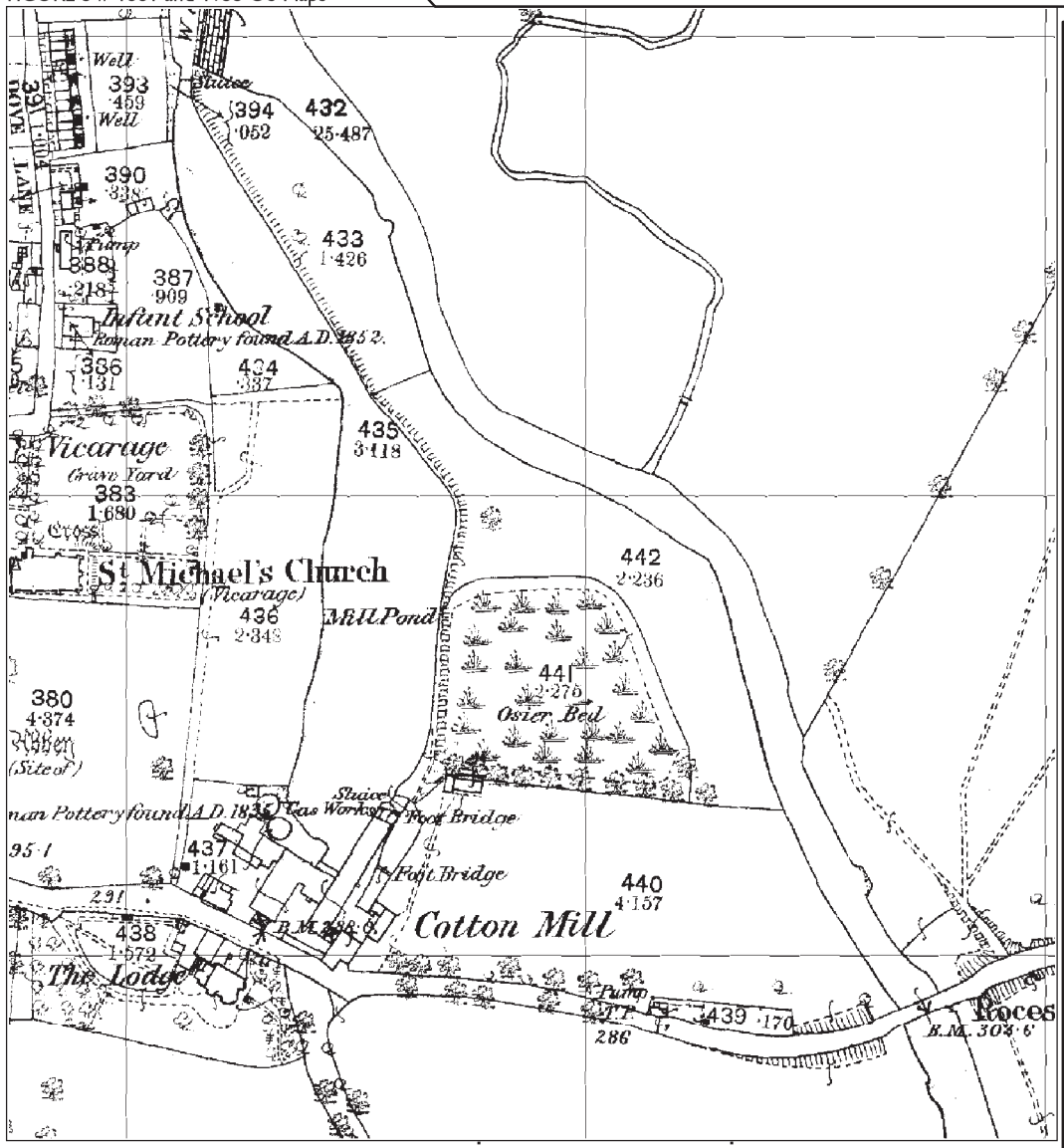
PROJECT // 0771C-Tutbury Mill Complex, Rocester

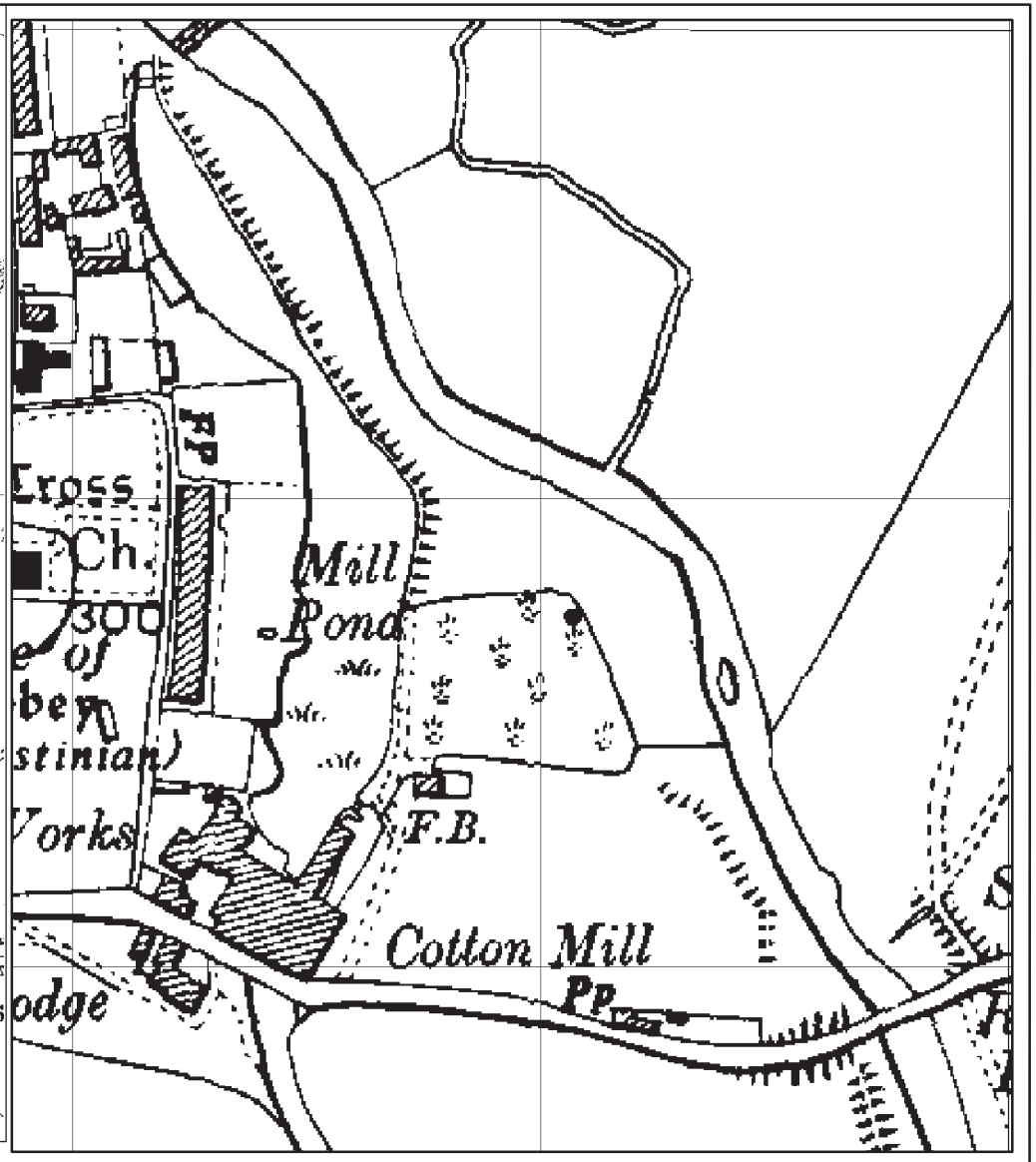
DESCRIPTION // 18th C Mill Plan (left) and 1850 Tithe Map (right)

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

FIGURE 5 // 1881 and 1955 OS Maps





0 100m

N

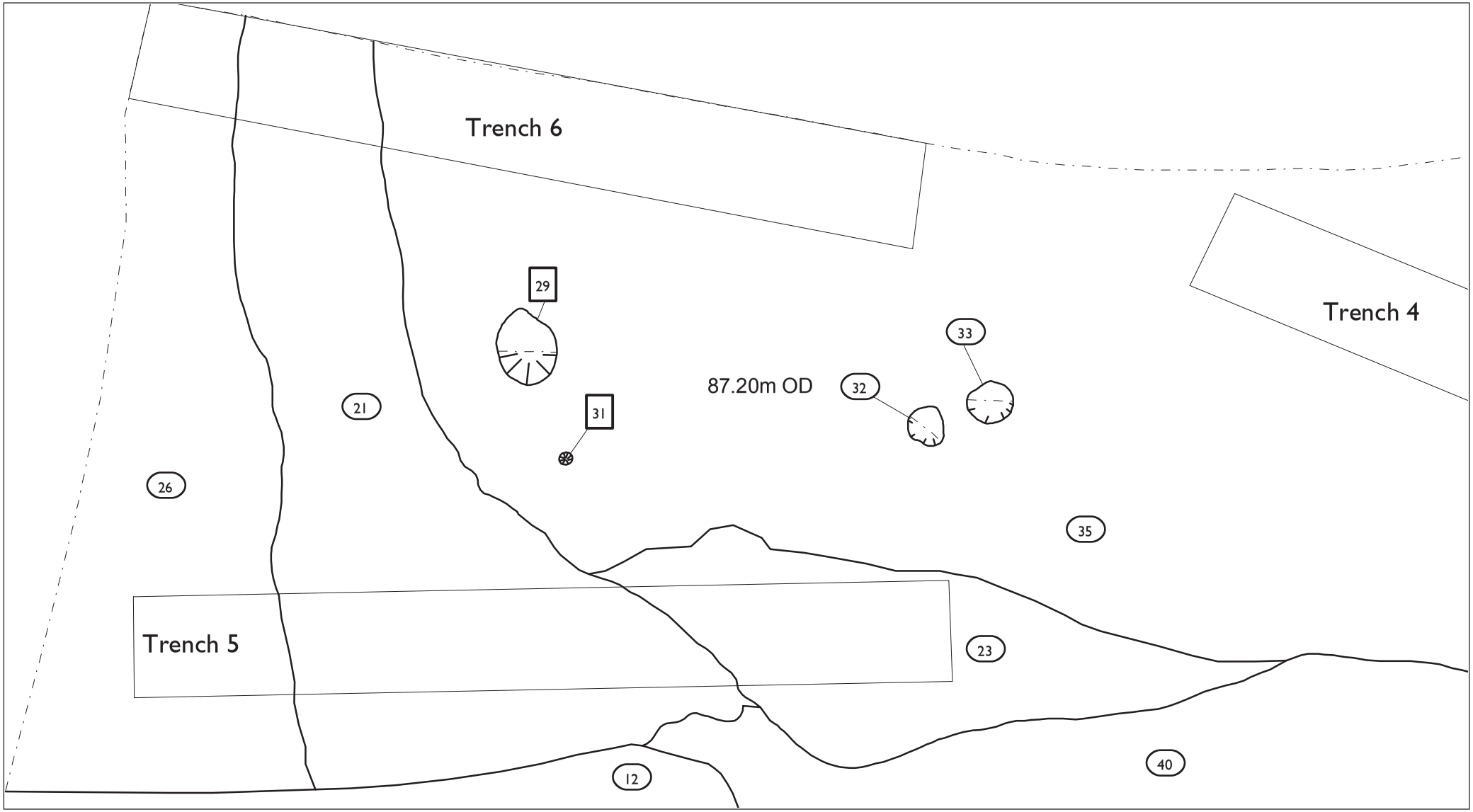
PROJECT // 0771C-Tutbury Mill Complex, Rocester

DESCRIPTION // 1881 and 1955 OS Maps

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

FIGURE 6 // North West Corner of Site Area



Scale 1:100 @ A4

0 5m

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PROJECT // 0771C -Tutbury Mill, Rocester

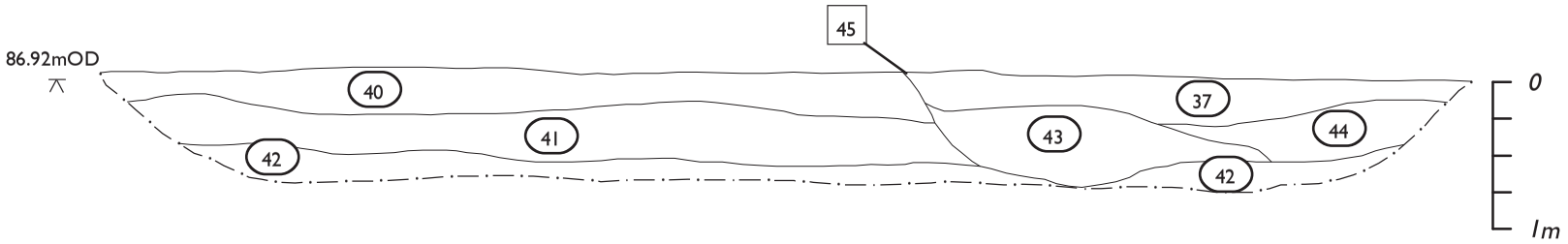
DESCRIPTION // Detail of Roman deposits in N/W corner of site

DOC REF: LP0771C-WBR-v1

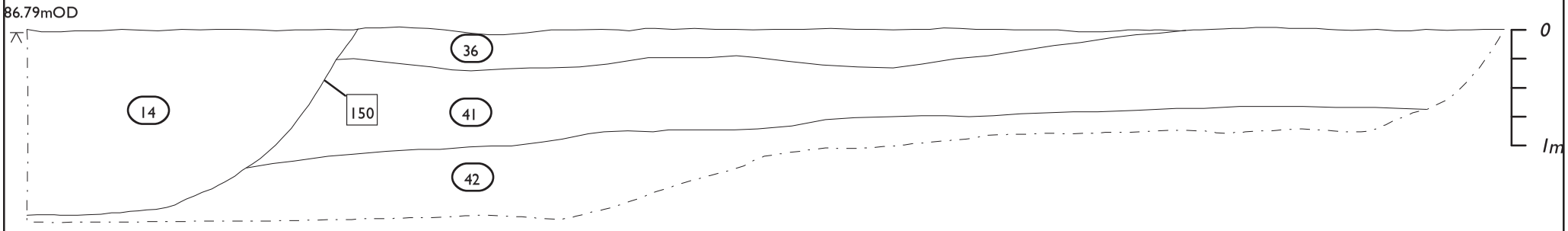
L-P:ARCHÆOLOGY

FIGURE 7 // Trench 1 and Trench 2 sections

Trench 1 - east facing section



Trench 2 - west facing section



PROJECT // 0771C -Tutbury Mill, Rocester

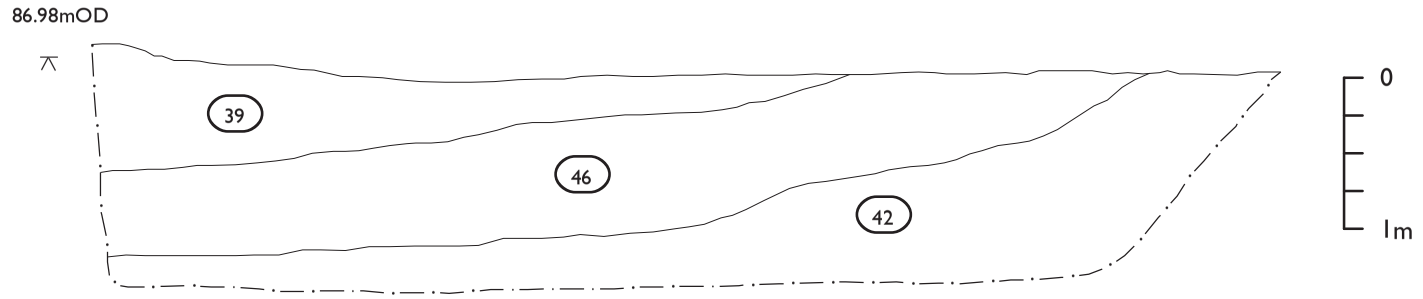
DESCRIPTION // East facing section of trench 1 and west facing section of Trench 2

DOC REF: LP0771C-WBR-v1

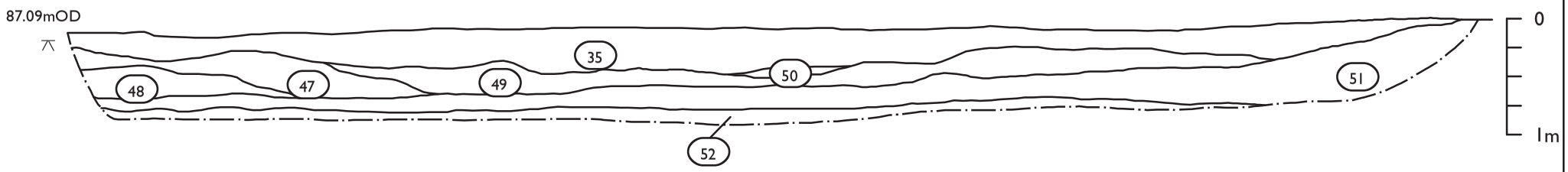
L-P:ARCHÆOLOGY

FIGURE 8// Trenches 3 and 4 sections

Trench 3 - north-west facing section



Trench 4 - south facing section



PROJECT // 0771C -Tutbury Mill, Rocester

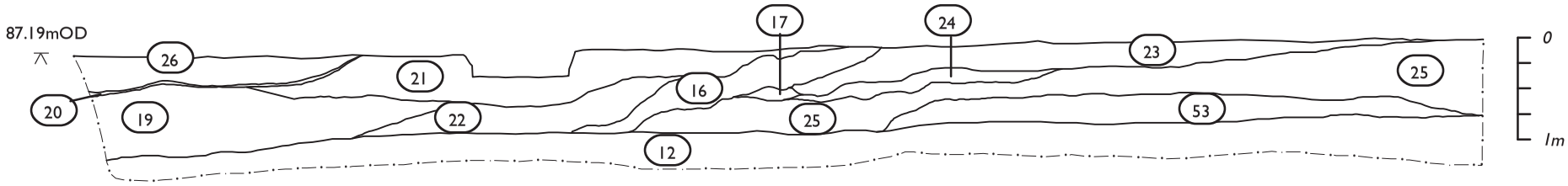
DESCRIPTION // Trenches 3 and 4 sections

DOC REF: LP0771C-WBR-v1

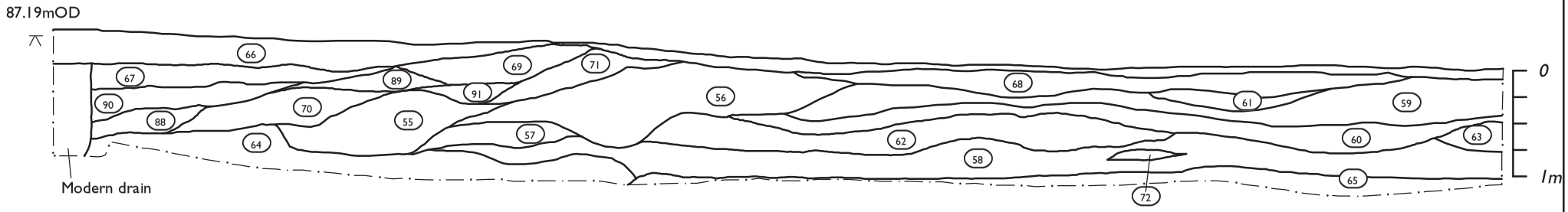
L-P:ARCHÆOLOGY

FIGURE 9 // Trenches 5 and 6 sections

Trench 5 - south facing section



Trench 6 - south facing section



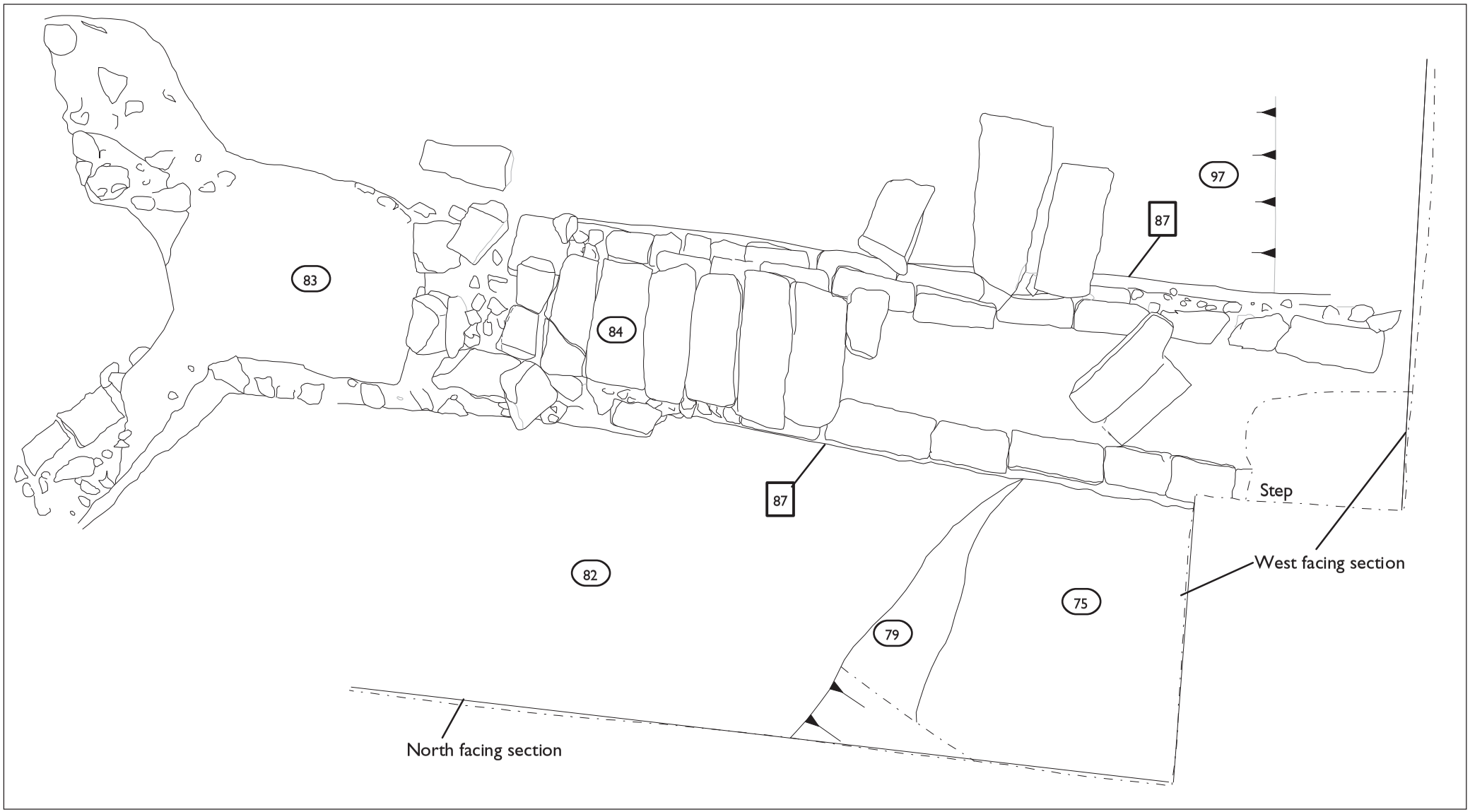
PROJECT // 0771C -Tutbury Mill, Rocester

DESCRIPTION // South facing sections of trenches 5 and 6

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

FIGURE 10 // South West Area showing Culvert



Scale 1:50 @ A4

0 5m

N

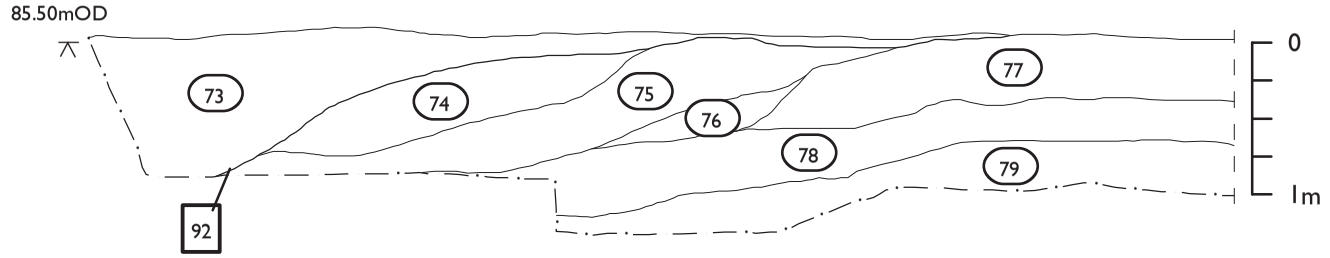
PROJECT // 0771C - Tutbury Mill, Rocester

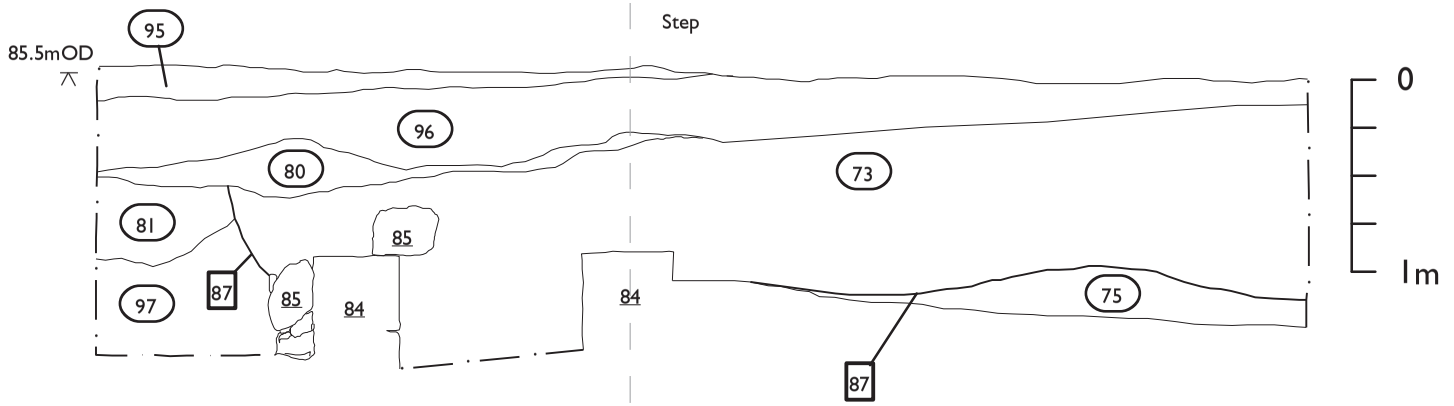
DESCRIPTION // Plan of culvert and location of north and west facing sections in south west area

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

FIGURE 11 // Sections in South East Area





PROJECT // 0771C -Tutbury Mill, Rocester

DESCRIPTION // Top - N facing section of culvert area

Bottom - W facing section of culvert area

DOC REF: LP0771C-WBR-v1

L-P:ARCHÆOLOGY

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OASIS FORM

APPENDIX 1

OASIS DATA COLLECTION FORM: England

Printable version

OASIS ID: lparchae1-66926

Project details

Project name	JCB Academy
Short description of the project	Historic building survey and archaeological monitoring at Tutbury Mill, Rocester.
Project dates	Start: 01-09-2008 End: 09-11-2009
Previous/future work	No / No
Any associated project reference codes	RCS/TMC 08 - Sitecode
Type of project	Recording project
Site status	Listed Building
Current Land use	Industry and Commerce 1 - Industrial
Monument type	TEXTILE MILL Post Medieval
Significant Finds	FOOD SERVING CONTAINER Roman
Investigation type	'Full survey','Watching Brief'
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	STAFFORDSHIRE EAST STAFFORDSHIRE ROCESTER JCB Academy/Tutbury Mill Complex
Postcode	ST14 5JX
Study area	4.20 Hectares
Site coordinates	SK 411291 339226 52.9008476586 -1.388480239660 52 54 03 N 001 23 18 W Point
Height OD / Depth	Min: 86.60m Max: 89.00m

Project creators

Name of Organisation	L - P : Archaeology
Project brief originator	Local Planning Authority (with/without advice from County/District Archaeologist)
Project design originator	L - P : Archaeology
Project director/manager	Blair Poole
Project supervisor	Greg Crees

Type of sponsor/funding body	Developer
Name of sponsor/funding body	Buro Four

Entered by	Blair Poole (b.poole@lparchaeology.com)
Entered on	9 November 2009

OASIS:

Please e-mail English Heritage for OASIS help and advice