

**AN ARCHAEOLOGICAL
WATCHING BRIEF AT ABBEY
MILLS, HIGHBRIDGE STREET,
WALTHAM ABBEY, ESSEX, EN9
1BB**

**SITE CODE: WAAM 14
REPORT NO: R12289**

NOVEMBER 2015



**PRE-CONSTRUCT
ARCHAEOLOGY**

An Archaeological Watching Brief at Abbey Mills, Highbridge Street, Waltham Abbey, Essex, EN9 1BB

Site Code: WAAM 14

Central NGR: TL 3780 0055

Local Planning Authority: Essex County Council

Planning Reference:

Commissioning Client: Keepmoat

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DOCUMENT VERIFICATION

Site Name

Abbey Mills, Highbridge Street, Waltham Abbey, Essex, EN9 1BB

**Type of project
Archaeological Watching Brief**

Quality Control

Pre-Construct Archaeology Limited Project Code			K3426
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1 ABSTRACT

- 1.1 Pre-Construct Archaeology Ltd was commissioned by Keepmoat to undertake an archaeological watching brief at Abbey Mills, Highbridge Street, Waltham Abbey Essex, EN9 1BB (centred on NGR ref: TL 3780 0055). The work was carried out on intermittently between 14th Augusty 2015 and 13th November 2015 on various parts of the site during excavation for new foundations and remediation of soil. This report details the findings and working methods of the watching brief on the site.
- 1.2 An archaeological evaluation was undertaken on the site in 2005. Evidence of archaeological activity was identified, which took the form of a pit containing a large number of cattle horncores, possibly linked with the 18th century tannery or hornery seen on a neighbouring site to the east. Evidence of boundary walls and elements of a steam mill, which formerly occupied the southern half of the site, particularly a possible chimney base and a brick tank, survived below the present ground surface. The remains of post-medieval and Victorian structures dating from 18th century were identified, increasing in density through the 19th century, when the steam mill was established.
- 1.3 The archaeological watching brief identified an early post-medieval wall located in the north-west of the site, fronting onto the street and possibly constructed of reused stone from the abbey. Two post-medieval walls and a floor were also present at the front of the site. Much of the site was covered in post-medieval and modern dump and demolition layers. To the rear of the site, adjacent to the river, alluvial material was noted, although no archaeological remains were seen within it.

2 INTRODUCTION

- 2.1 Pre-Construct Archaeology was commissioned to undertake an archaeological watching brief during below ground works associated with the new development at Abbey Mills, Highbridge Street, Waltham Abbey, Essex. The National Grid Reference for the site was TL 3780 0055. A brief was prepared for the site by Essex County Council Historic Environment Branch (Garwood July 2009).
- 2.2 Site location
- 2.2.1 The site is located opposite the Royal Gunpowder Factory and to the west of Waltham Abbey, on Highbridge Street. The site is bounded by Highbridge Street to the north, Grove Court to the west, the Old River Lea to the south and Winchester Close to the east. The previous 1980s building was located c. 3m back from the street frontage, unlike other properties nearby and therefore it was clear that this area had some potential for material of medieval to post-medieval date to survive in this area.
- 2.3 The following archaeological background is summarised in the brief (Garwood 2009) and utilises the Essex Historic Environment Record (EHER) held at Essex County Council, County Hall, Chelmsford.
- 2.4 The site lies within an area once occupied by housing and workmen's quarters associated with the nearby Royal Gunpowder Factory. On the plot of land immediately to the east currently being redeveloped as Abbey Heights and formerly the Government Drill House, an archaeological evaluation and excavation have been undertaken. The investigation revealed the remains of 18th/19th century workers cottages, a 16th century dwelling reusing Abbey stone, pits relating to tanning and containing a large quantity of preserved leather articles including medieval shoes and a post-medieval horse saddle and an earlier area of medieval marshland used for rubbish dumping.
- 2.5 During the medieval and post-medieval period the street is believed to have been occupied by detached houses set end on to the road. Certainly houses were mentioned in fourteenth-century documents and this would accord with its location on an important historic thoroughfare between Waltham Abbey and Waltham Cross. Background information on the historic settlement of Waltham Abbey can be obtained from the Historic Town Assessment (Medlycott 1999).
- 2.6 The archaeological evaluation previously carried out on the site identified evidence of early industrial activity in the form of a pit of horn cores which are likely to be associated with the 18th century tannery. Extensive modern disturbance was present across the site with considerable build up from the 18th century onwards. There was some potential for the survival of pre-18th century waterlogged deposits in the deeper areas of groundworks (Rothwell 2005). The site was used as a steam driven flour mill during the 19th century.
- 2.7 A planning application (EPF/0640/04) for residential development and associated car parking was submitted to Epping Forest District Council in March 2004. As the development lay within a potentially sensitive archaeological area the HEM Team recommended to Epping Forest District Council the need for an archaeological evaluation. Following the evaluation a full archaeological condition was placed on the planning consent due to the nature of archaeological deposits present on site. The condition stated:
- "No development or preliminary groundworks of any kind shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant, and approved by the planning authority."*
- 2.8 The HEM Team confirmed that the programme of archaeological work should comprise an archaeological watching brief during groundworks. A Written Scheme of Investigation for a watching brief was submitted by PCA to the HEM Team and approved in 2009 (Hawkins 2009). The archaeological adviser to Epping, Maria Medlycott, confirmed in 2015 that the WSI was still acceptable for the current works on the site.

2.9 The watching brief was carried out during the excavation of ground beam trenches, drainage runs and a contamination remediation area in the south of the site, close to the river. The centre part of the site, which will be car parking, did not have any below ground impact and was therefore not monitored.

2.9.1 Geology

2.9.2 The 1:50,000 Geological Survey of Great Britain (England and Wales) covering the area (Sheet 239, Hertford) indicates the site to be underlain by Recent Alluvium associated with the River Lea and Flood Plain Gravel deposits resting on deposits of Lambeth Group (Woolwich and Reading Beds). London Clay underlies the drift deposits and the centre of Waltham Abbey lies upon a gravel island.

2.10 Topography

2.10.1 Topographically the site was situated at approximately 19.00m OD. There was little variance in levels across the site.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Prehistoric

3.1.1 There have been numerous stray finds dating to the prehistoric period scattered throughout the town and Abbey area, but there is limited evidence for significant occupation. The only exception to this was a ditch uncovered during investigations at Church Street in 1993 (Medlycott, 1999), over 200m to the east on higher ground. Organic material from the ditch was dated to between 1420 and 1105 BC.

Roman

3.1.2 Sporadic deposits and features of Roman date have been recovered from within the area of the historic town but there is, to date, no evidence that the settlement was of a substantial size. Occasional finds of ceramic building material of Roman date, both roof and flue tile, indicate the presence of at least one significant building in the area. The centre of Roman occupation is likely to be on the slightly higher ground in the area of the Abbey itself or the town's marketplace.

Saxon

3.1.3 The place name Waltham derives from *wealdham*, meaning 'the high forest's administrative centre', so there are clearly Saxon origins for the town. A church was established in c. 1030, although archaeological evidence places the church structure to the 7th century (Medlycott, 1999). The primary settlement of the Saxon period, which according to the Domesday survey of 1086 was of a considerable population, to have been centred to the southeast of the site. The area surrounding the Abbey was devoted to a royal enclosure on the north, the Eldeworth enclosure to the south of the Abbey and the Abbey precinct itself.

Medieval

3.1.4 As the name indicates, Highbridge Street relates to an early bridging of the River Lea and its subsidiary streams. Highbridge Street is mentioned in a rental from c. 1320, when it was known as *Weststrate*, but its origins maybe earlier, possibly the location of a bridge of Saxon date. Documentary research suggests that the site itself may have been known as Marshbank from the 15th century.

3.1.5 The land may have been occupied by burgage plots of housing in the medieval period extending outwards from Waltham Abbey town centre. The medieval settlement appears to have been focused to the north and south of the Abbey itself.

Post-Medieval

3.1.6 The site is depicted on the *Map of Waltham Park*, of c. 1600, and shows houses established along Highbridge Street leading west to Waltham Cross. The Chapman and André Map of 1777 shows that housing extended along both the north and south sides of Highbridge Street.

3.1.7 Post-Medieval mills were located along this stretch of the Old River Lea. A steam mill, used for both corn and flour, was located on the southern portion of the site.

3.2 Aims and Objectives

3.2.1 The aim of the archaeological work was to preserve 'by record' the extent and significance of any surviving archaeological features and deposits within the site.

3.3 Archaeological Methodology

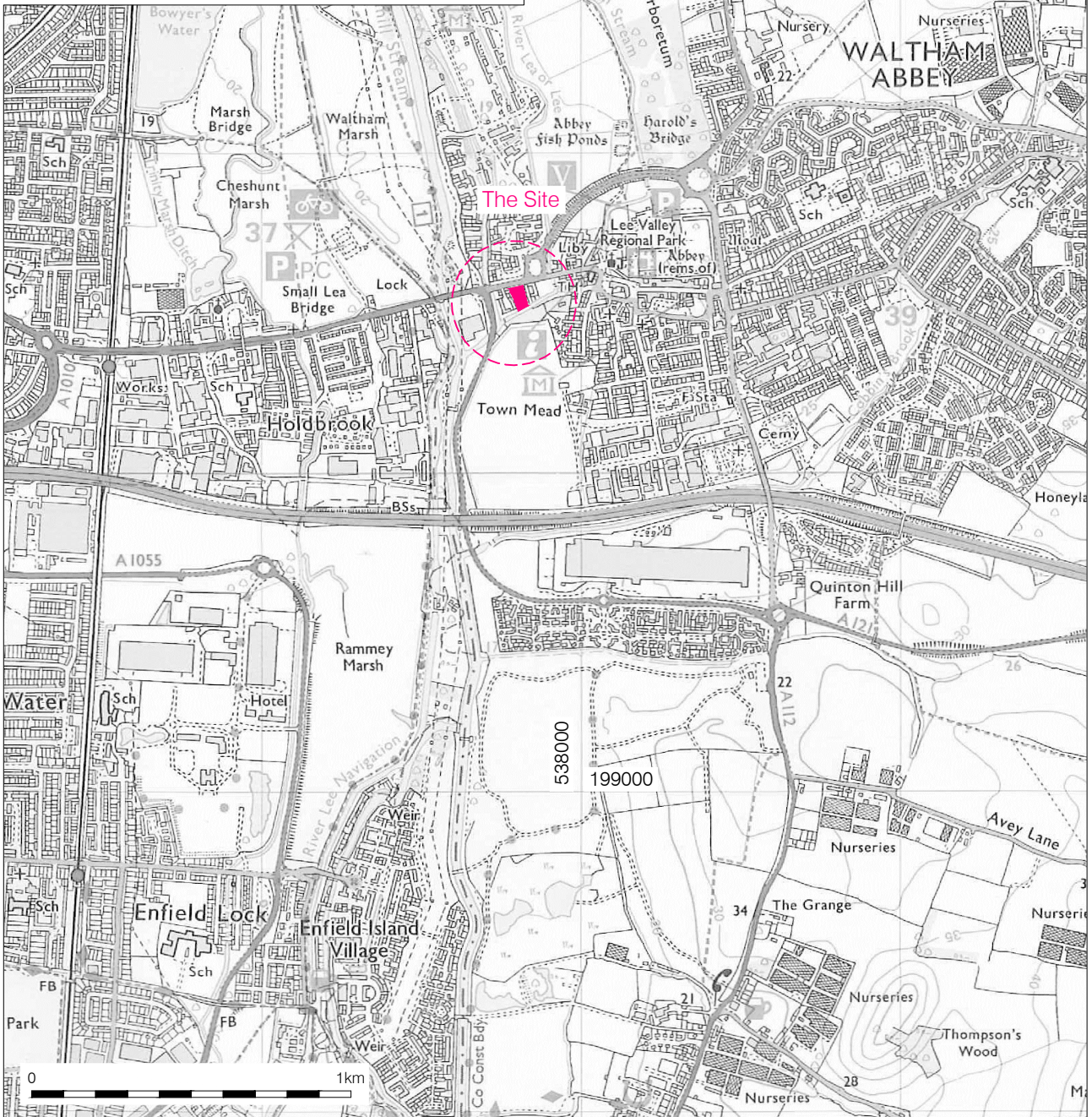
3.3.1 The excavation of the foundations, drainage runs and remediation area was undertaken in accordance with the Main Contractor's accepted scheme of work. All excavation work was carried out under archaeological supervision.

3.3.2 The machining was undertaken using a mechanical excavator. The mechanical excavator used a toothless ditching bucket to remove modern overburden under the constant supervision of an archaeologist. Spoil was mounted a safe distance from the edge of the excavation.

3.3.3 Machine excavation continued in spits until either significant archaeological strata was found or formation level was reached. Hard surfacing and overburden layers were removed by mechanical excavator, under archaeological control. Hand-excavation was undertaken once the top of the archaeological remains were exposed.

3.3.4 Deposit and feature descriptions were recorded on pro-forma context sheets comparable to those used elsewhere in the Essex area and a representative section of each test pit was drawn on polyester based drafting film (permatrace) at a scale of 1:10. In addition to this all significant features were photographed using a high resolution digital camera.

3.3.5 In order to prevent unauthorised access to the excavation areas the site was secured by the Main Contractor.



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Figure 1
 Site Location
 1:2,000,000 & 1:20,000 at A4



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Figure 2
 Trench Locations
 1:400 at A4

4 ARCHAEOLOGICAL SEQUENCE

4.1 Four areas were archaeologically monitored on the site (Figure 2). At the north of the site the excavation of the ground beams was monitored along the street frontage (Trench 1). In the north-east of the site, a trench was excavated at the site entrance (Trench 2). A further trench was excavated south of this (Trench 3). In the south of the site an area of contamination remediation was excavated, near to the river (remediation area). The watching brief was carried out intermittently between 14th August and 13th November 2015.

4.2 The Remediation Area

4.2.1 This area measured c. 15m north-south by 20m east-west and was excavated to a formation depth of 1.3m below ground level.

4.2.2 Phase 1: Natural

4.2.3 A layer of alluvium was located c. 1m below ground level and exposed to a depth of 0.30m. As the area had been remediated, the top of the alluvium had been turned over. No finds were noted in the alluvium. The area subsequently flooded soon after excavation so no further material was seen, however the formation level in this area was 1.3m below ground level and therefore anything present in the alluvium below this depth will be preserved in situ, within the proposed garden area. The top of the alluvium was at c.17.75m OD.

4.2.4 Phase 4: Modern

4.2.5 Overlying the alluvium was a 1m thick layer of modern made ground.

4.3 Trench 1

4.3.1 Phase 2: Early Post-Medieval

4.3.2 Natural ground was not reached in this area. In the north-east of the trench area, fronting onto the street, remains of a small wall were identified. The wall measured 1.04m north-south and 1.42m east-west and was one course high. It was composed of Reigate stone and ragstone. The stones may have been reused from the abbey buildings located to the east of the site. The wall was located 1m below ground level.



Plate 1: Ragstone and Reigate stone wall facing north

4.3.3 Phase 3: Post-Medieval

4.3.4 Also identified in this trench were two brick walls, present only in the south facing section directly adjacent to the external footpath. Wall [100] (Plate 2) survived to a height of six brick

courses (0.50m) and measured 1.58m east-west. The wall was located 0.40m below ground level and the bricks were unfrogged.



Plate 2: Post-medieval wall [100], facing north, seen only in section

- 4.3.5 A further post-medieval wall was seen further east of Wall [100]. Wall [101] (Plate 3) measured 0.38m high (three courses of brick) and measured 1.32m east-west. The bricks were unfrogged. To the east of the wall were floor layer [101] and some possible demolition backfill layers [102], [104] and [105]. No dating was recovered from these layers, other than unfrogged brick.
- 4.3.6 Phase 4: Modern
- 4.3.7 All the walls were sealed by modern demolition and rubble material.



Plate 3: Wall [101] facing north, seen only in section.

4.4 Trench 2

- 4.4.1 Trench 2 was located to the east of Trench 1 in the gateway to the site. Natural ground was not reached in this trench.
- 4.4.2 Phase 3
- 4.4.3 A red brick floor [108] was found in this trench. The floor was 'L' shaped and measured 1.75m north-south by 2.10m east-west. The floor was 0.45m wide. The bricks were unfrogged and the floor was badly truncated by a modern soakaway. The floor was located 1m below ground level and was also located at formation level for the development. The floor was sealed by post-medieval made ground [112].



Plate 4: Floor [108] facing south

4.5 Trench 3

4.5.1 This trench was located on the north of the site, 1.70m south of Plots 1-7. The trench was 29.30m x 7.50m x 1.50m deep. This trench had been excavated in the area that had previously been contaminated. All contaminated soil had been removed before commencement of the watching brief

4.5.2 Phase 1: Natural

4.5.3 The earliest deposit recorded within Trench 3 was a mid-yellowish green alluvial clay [115], located at c.17.50m OD. This deposit was at least 0.10m thick but continued deeper beyond the excavation limit. The alluvial clay was homogenous and sterile and devoid of material culture.

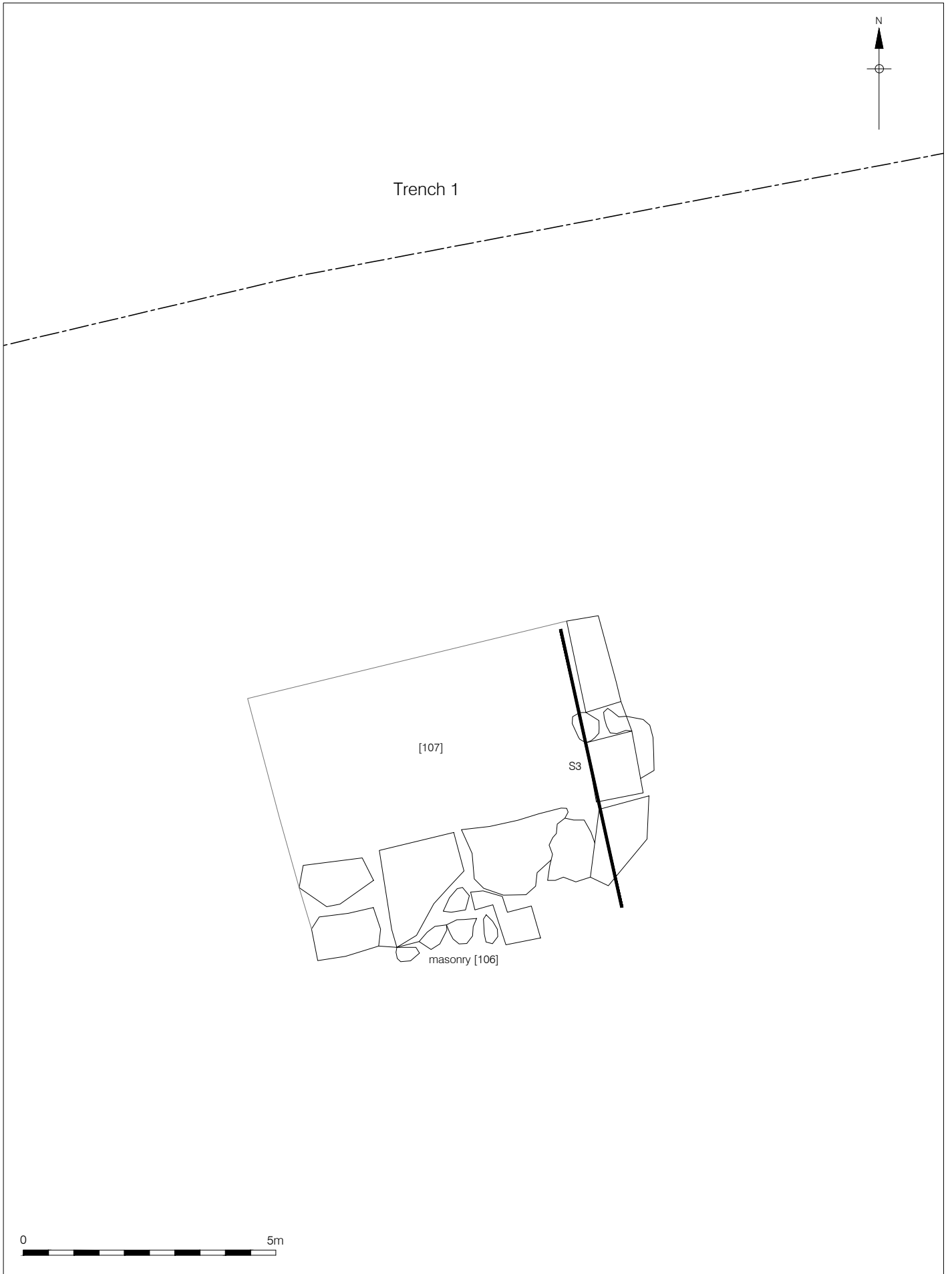
4.5.4 Sealing the alluvial clay was a layer of dark blueish grey clay which may also have represented an alluvial deposit, albeit a more organic deposit. This deposit was located at 17.85m OD and was 0.30m thick. This deposit contained some CBM fragments, however they may be a result of the disturbance to the ground above due to the contamination remediation.

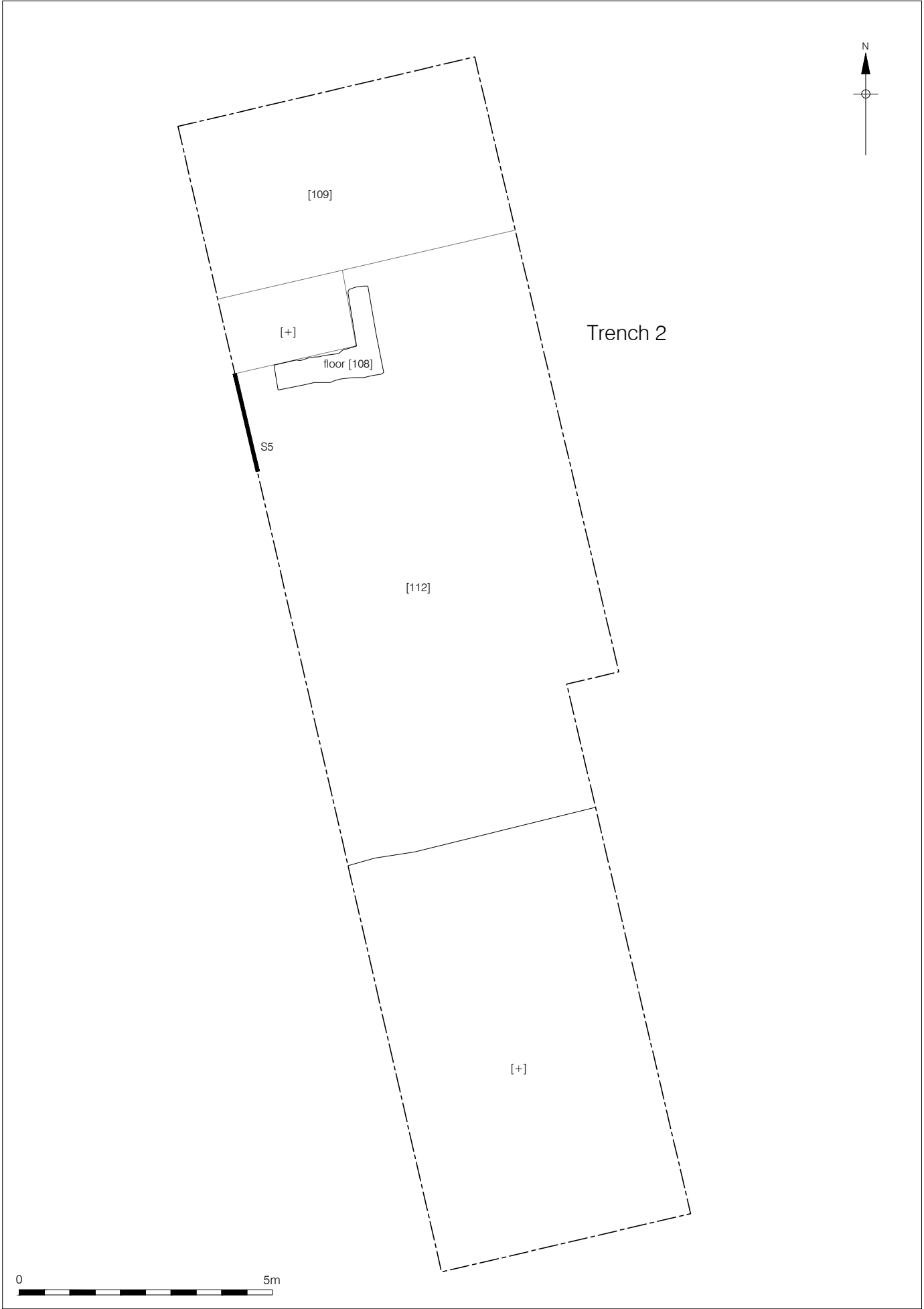
4.5.5 Phase 3: Post-Medieval

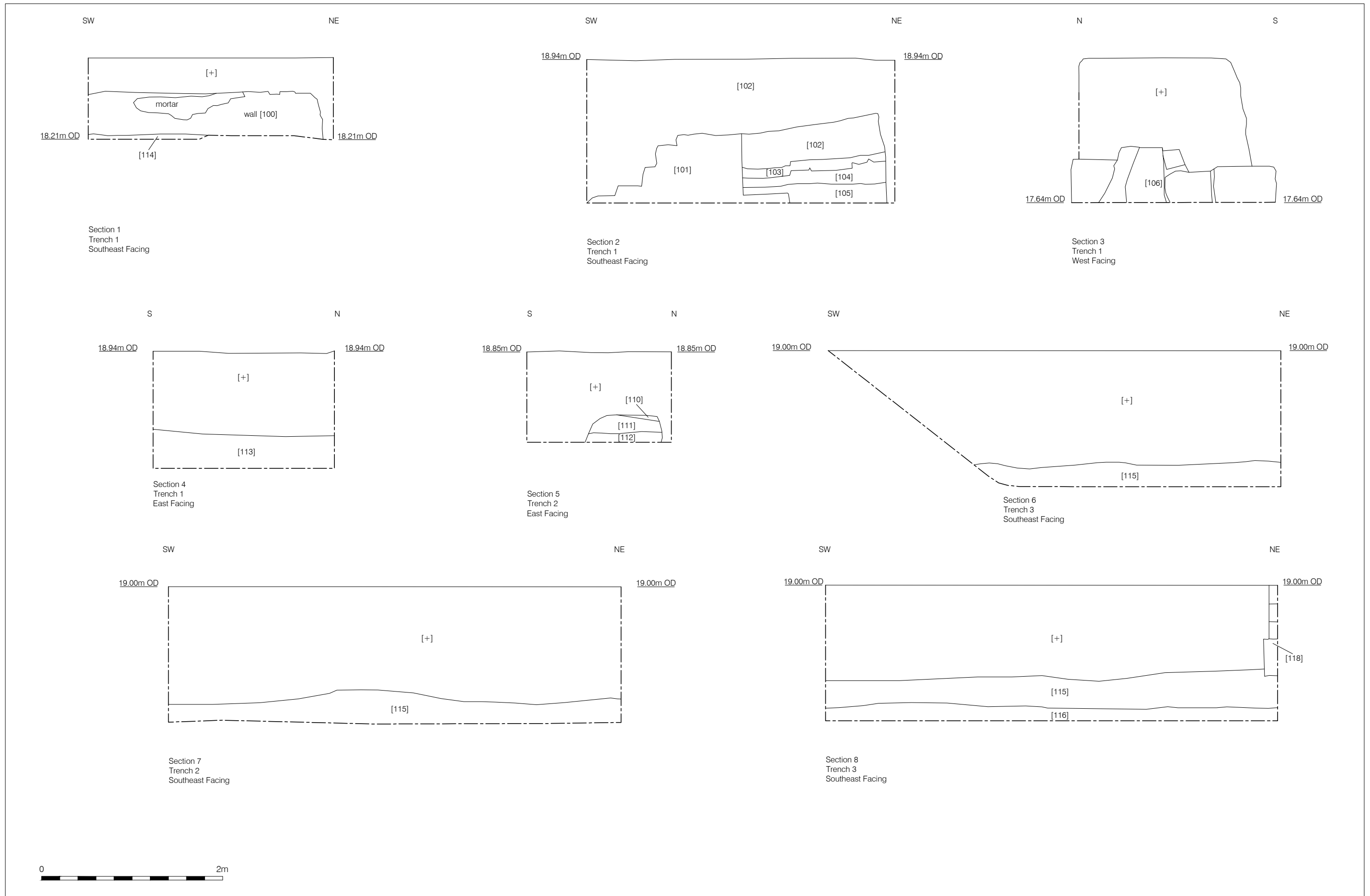
4.5.6 Completing the depositional sequence of Trench 3 was a small red brick wall [117] seen in the north facing section towards the eastern end of the trench. This wall was 1.50m in length east-west. The brickwork appeared to be post-medieval and most likely related to the steam mill formerly present on the site.

4.5.7 Phase 4: Modern

4.5.8 The natural clay deposit and brickwork was sealed by modern back fill deposited after the contaminated soil was removed. Located at 19.00m OD this deposit was 1.20m thick. Finally there was a modern wall [118] which demarcated the eastern boundary of Trench 3.







5 CONCLUSIONS

- 5.1 The watching brief identified alluvial material in the southern part of the site, adjacent to the river, as expected. No early waterfront features were identified in the south of the site, although below ground excavation in this area only extended to 1.3m. If features do survive, they will be preserved in situ beneath the gardens of the new development.
- 5.2 The archaeological watching brief found a number of features relating to the early and later post-medieval periods. The small foundation wall identified in the north-west of the site indicated the possible reuse of abbey stone in its construction and was probably of early post-medieval date, post-Dissolution. This wall was also identified at site formation level. The wall is consistent with other structures of this date noted nearby which fronted onto the road.
- 5.3 Later post-medieval walls and a floor were identified in section beneath the pavement and at the site entrance. These probably relate to the post-medieval houses present on the site in some of the maps, or to the steam mill also known to be present on the site.
- 5.4 No finds other than brick and stone were identified on the site, although much of the modern ground had been remediated, which had had some impact on the remaining below ground deposits.

6 ACKNOWLEDGEMENTS

- 6.1 Pre-Construct Archaeology Ltd would like to thank Keepmoat for commissioning the work. Thanks are also extended to Maria Medlycott of the HEM, Essex County Council for monitoring the work on behalf of Epping Borough Council.
- 6.2 The author would like to thank Helen Hawkins for her project management, Shane Maher and Matthew Edmonds for their additional supervision of site and Ray Murphy for preparing the illustrations.

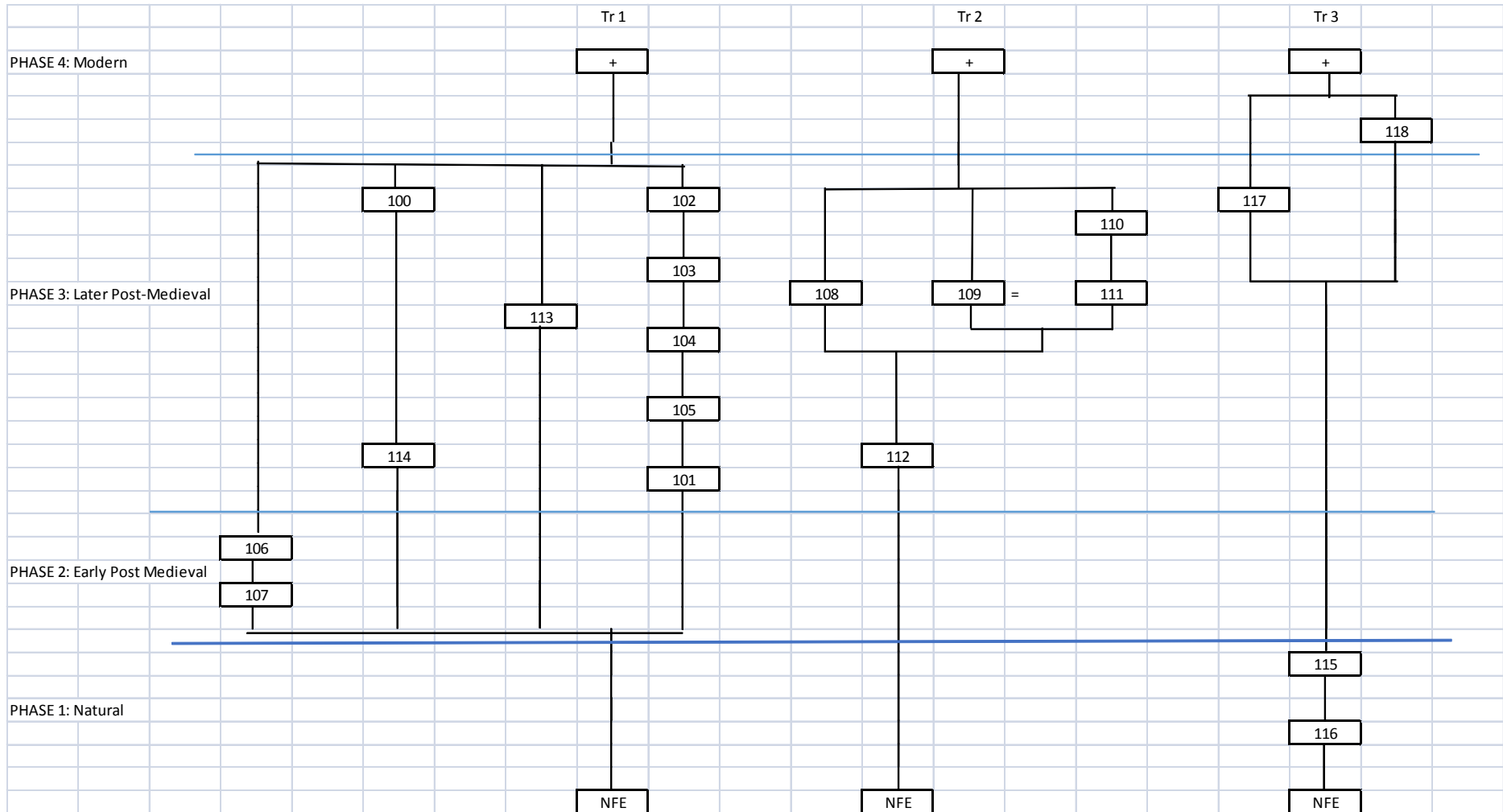
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APPENDIX 1: SITE MATRIX



APPENDIX 2: CONTEXT REGISTER

Context No.	Location	Plan	Section	Type	Description
100	Trench 1	Tr. 1	S. 1	Masonry	Post-Medieval Wall
101	Trench 1	Tr. 1	S. 2	Masonry	Post-Medieval Wall
102	Trench 1	N/A	S. 2	Layer	Post-Medieval Dump Material
103	Trench 1	N/A	S. 2	Masonry	Possible/Probable Red Brick Floor
104	Trench 1	N/A	S. 2	Layer	Post-Medieval Dump
105	Trench 1	N/A	S. 2	Layer	Post-Medieval Dump
106	Trench 1	106	S. 3	Masonry	Re-used Medieval Masonry
107	Trench 1	106	N/A	Layer	Post-Medieval/Medieval Dump
108	Trench 2	Tr. 2	N/A	Masonry	Post-Medieval Brick Floor
109	Trench 2	Tr. 2	N/A	Layer	Mixed Silty Clays
110	Trench 2	N/A	S. 5	Layer	Light Green Occasionally Gravelly Sands
111	Trench 2	N/A	S. 5	Layer	Mixed Mid Green Grey Silty Clay
112	Trench 2	Tr. 2	S. 5	Layer	Light Yellow/Green Grey Silty Clay
113	Trench 1	N/A	S. 4	Layer	Mid Brown Grey Sandy Clay Silt
114	Trench 1	N/A	S. 1	Layer	Layer under [100]
115	Trench 3	Tr. 3	S. 6, S. 7 & S. 8	Layer	Dark Silty Clay
116	Trench 3	Tr. 3	S. 8	Layer	Alluvial Green Sandy Clay
117	Trench 3	Tr. 3	N/A	Masonry	Post-Medieval Red Brick Wall
118	Trench 3	Tr. 3	S. 8	Masonry	Modern Wall at Eastern Boundary of Trench

APPENDIX 3: OASIS FORM

OASIS ID: preconst1-231410

Project details

Project name An Archaeological Watching Brief at Abbey Mills, Highbridge Street, Waltham Abbey, Essex, EN9 1BB

Short description of the project The archaeological watching brief identified an early post-medieval wall located in the north-west of the site, fronting onto the street and possibly constructed of reused stone from the abbey. Two post-medieval walls and a floor were also present at the front of the site. Much of the site was covered in post-medieval and modern dump and demolition layers. To the rear of the site, adjacent to the river, alluvial material was noted, although no archaeological remains were seen within it.

Project dates Start: 14-08-2015 End: 13-11-2015

Previous/future work Yes / No

Any associated project reference codes WAAM15 - Sitecode

Type of project Recording project

Site status Local Authority Designated Archaeological Area

Current Land use Other 3 - Built over

Monument type WALL Post Medieval

Monument type FLOOR Post Medieval

Significant Finds NONE None

Significant Finds NONE None

Investigation type "Watching Brief"

Prompt Planning condition

Project location

Country England

Site location ESSEX EPPING FOREST WALTHAM ABBEY Abbey Mills, Highbridge Street,

Waltham Abbey

Postcode EN9 1BB

Study area 150 Square metres

Site coordinates TL 378000 005500 51.686294436558 -0.006350497202 51 41 10 N 000 00 22 W
Point

Height OD / Min: 0m Max: 0m
Depth

Project creators

Name of Pre-Construct Archaeology Limited
Organisation

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originator

Project design Helen Hawkins
originator

Project Helen Hawkins
director/manager

Project Shane Maher/Fergal O' Donoghue
supervisor

Name of Keepmoat
sponsor/funding
body

Project archives

Physical Archive No
Exists?

Digital Archive Epping Forest Museum
recipient

Digital Archive ID WAAM 15

Digital Contents "none"

Digital Media "Database","Spreadsheets","Text"
available

Paper Archive Epping Forest Museum

recipient

Paper Archive ID WAAM 15

Paper Contents "none"

Paper available Media "Context sheet","Drawing","Map","Matrices","Photograph","Plan","Report","Section","Unpublished Text"

Project bibliography 1

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