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birmingham archaeology

Boiler House Drive,
Metchley Roman Fort,
Birmingham

An Archaeological Excavation
2008

UNIVERSITY OF BIRMINGHAM

REGISTERED IFA ORGANISATION

Project No. 1857

BOILER HOUSE DRIVE, METCHLEY ROMAN FORT, BIRMINGHAM

AN ARCHAEOLOGICAL EXCAVATION 2008

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BOILER HOUSE DRIVE, METCHLEY ROMAN FORT, BIRMINGHAM

AN ARCHAEOLOGICAL EXCAVATION 2008

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SUMMARY

In September 2008, Birmingham Archaeology carried out an excavation on behalf of University Hospital Birmingham NHS Trust in advance of a proposed development at Boiler House Drive, Metchley Roman fort, Birmingham (centred on NGR SP 404304 283516). Two trenches were excavated, with sondages dug in both to a maximum of 4m below ground level. The natural subsoil was not encountered in either of the trenches, and it appears that the entire area had been built-up prior to the construction of the surrounding buildings. It is possible that this build-up was associated with either the construction of the Birmingham to Worcester Canal between 1791 and 1815, or the railway in the early 19th century, both of which are located directly to the east of the site. No features, or possible features of archaeological interest were identified, and no finds were collected.

BOILER HOUSE DRIVE, METCHLEY ROMAN FORT, BIRMINGHAM

AN ARCHAEOLOGICAL EXCAVATION 2008

1 INTRODUCTION

1.1 Background to the project

Birmingham Archaeology was commissioned by University Hospital Birmingham NHS Trust to undertake an archaeological excavation adjoining Boiler House Drive, Birmingham (hereinafter referred to as the site) in advance of development.

This report outlines the results of the excavation carried out in September 2008 and has been prepared in accordance with the Institute of Field Archaeologists Standard and Guidance for Archaeological Excavations (IFA 2001).

The evaluation conformed to a brief produced by Birmingham City Council (reproduced as Appendix 1) and a Written Scheme of Investigation (reproduced as Appendix 2) which was approved by the Local Planning Authority prior to implementation in accordance with guidelines laid down in Planning Policy Guidance Note 16 (DoE 1990). The work was also undertaken in accordance with Policy 8.36 of the Birmingham Unitary Development Plan and the Council's Archaeology Strategy, adopted as Supplementary Planning Guidance.

1.2 Location and geology

The excavation site is located to the east of Boiler House Drive, and to the west of the railway line. The northern limit of the site is formed by a compound adjoining the former Medical Records building, and the southern boundary by a steep slope adjoining the existing Boiler House. The site is centred on NGR SP 404304 283516 (Fig. 1A-C).

The site is approximately 0.1 hectares in size, and is currently an area of rough ground, and hardstanding, adjoining an oil storage facility.

2 ARCHAEOLOGICAL BACKGROUND

The site includes part of the southern defences of Metchley Roman fort (Fig. 1B), first established around AD 48 (Jones 2001). This first military enclosure contained approximately 4ha. The fort defences comprised two ditches cut to a V-shaped profile, and a rampart, together with other obstructions (eg hedges), recorded along other parts of the fort defences. The fort interior contained excavated barracks, granaries, workshops and a possible Headquarters Building. It was associated with the occupation of a small *vicus* laid outside the western fort gate. Occupation of the fort and *vicus* was relatively shortlived. It was replaced by a military stores depot, represented in particular by temporary buildings, sheds and compounds, as well as by external annexes, recorded along at least three sides of the earlier fort. In turn, the military stores depot was replaced by a smaller fort (Phase 3) occupied during the third quarter of the 1st century AD. Later Roman activity at Metchley is recorded up to the end of the 2nd century AD, but is difficult to interpret in detail. It may have been associated with a small-scale military establishment located at the nearby road junction (Jones 2005).

Trenches 1 and 2 were positioned to intercept the southern defences of the Phase 1 fort, which were backfilled after abandonment of the military stores depot. The southern trench (Trench 2), was located to examine a small part of the interior of the southern annexe. Other lengths of the southern annexe defences and interior were investigated in 1998-9 (Jones 2005).

3 AIMS AND OBJECTIVES

The principle aim of the evaluation was to preserve by record any archaeological remains in advance of the proposed development. The specific aims were to reveal, excavate, record and interpret the southern Phase 1 fort defences and examine the archaeological potential of part of the southern annexe interior (Birmingham Archaeology 2008).

4 FIELDWORK

4.1 Methodology

Two trenches were excavated across the site totalling an area of approximately 138 square metres (Fig. 1C). The presence of live services restricted the trench locations. Each trench was stepped to allow a safe working depth to be achieved. Where trenches were excavated below a stepped, safe working depth, the stratigraphic sequences were recorded from above the trench.

All hardstanding was broken out using a concrete breaker and the excavation of modern overburden was carried out by a JCB mechanical excavator with a toothless ditching bucket, working under direct, continuous archaeological supervision. Spoil was stored at a safe distance to the side of the trenches.

All stratigraphic sequences were recorded, even where no archaeology was present. The trenches were planned at a scale of 1:50, and representative sections were drawn at a scale of 1:20. A comprehensive written record was maintained using a continuous numbered context system on *pro-forma* context and feature cards. Written records and scale plans were supplemented by photographs using monochrome, digital and colour slide photography.

The site archive will be prepared according to guidelines set down in Appendix 3 of the Management of Archaeology Projects (English Heritage, 1991), and the Guidelines for the Preparation of Excavation Archives for Long-term Storage (UKIC, 1990). Subject to approval from the landowner the site archive will be deposited with Birmingham City Council.

4.2 Trench 1 (Fig. 2, Plate 1)

Trench 1 was stepped to a maximum depth of approximately 4m below ground level or 134.96m AOD. The natural subsoil was not encountered within the trench. The lowest layer was a reddish brown, sandy clay make up layer (104) which had a maximum visible depth of 2.20m. Overlying this were a number of modern rubble and make up layers (100-3). The southern half of the trench was sealed by a concrete foundation pad (106), overlain by demolition rubble (107, not illustrated). An east-west aligned boundary (105), comprising of cylindrical sandstone blocks, was identified overlying the make up layer 104 at the

northeastern end of the trench. This was sealed by a modern levelling layer and topsoil (108-9, not illustrated).

No features of archaeological, or possible archaeological interest, were uncovered within the trench.

4.3 Trench 2 (Fig. 3, Plate 2)

The trench was stepped to a maximum depth of 134.92m AOD or 3.5m below ground level. The earliest layer was a reddish brown, sandy clay make up layer (206), very similar to layer 104 identified within Trench 1, which had a maximum visible depth of 2.13m in Trench 2. Overlying this were six layers of varying thickness comprising modern rubble backfill and make up (200-5). The natural subsoil was not reached within this trench and no features of archaeological, or possible archaeological interest, were identified.

5 THE FINDS

No finds of archaeological interest were recovered during the excavation.

6 DISCUSSION

The absence of the natural subsoil and the presence of thick make up layers (104 and 206) within both trenches indicates that the site had been built up perhaps during the first layout of the Queen Elizabeth Hospital Estate in the 1930s. The site forms one of a number of terraces located to the east of Boiler House Drive. It may have been formed by the extensive dumping of upcast material.

Due to the lack of dating evidence from the make up layers, it is impossible to say when the site was built-up. However it is possible that the build-up material was derived from the excavation of the Birmingham to Worcester Canal in the 1790s, or the railway line in the early part of the 19th century, both of which are located directly to the east of the site.

7 ACKNOWLEDGEMENTS

The project was commissioned by University Hospital Birmingham NHS Trust. Thanks are due to Dr Michael Hodder, who monitored the project on behalf of Birmingham City Council. Work on site was undertaken by Dave McNicol (Supervisor), Sam Hepburn and Phil Mann. Dave McNicol produced the written report which was illustrated by Nigel Dodds, and edited by Alex Jones who also managed the project for Birmingham Archaeology.

8 REFERENCES

Birmingham Archaeology 2008 *Boiler House Drive, Queen Elizabeth Hospital, Birmingham: Written Scheme of Investigation for Archaeological Evaluation*

Birmingham City Council 2008 Design Brief for Archaeological Excavation in advance of commencement of development.

Department of the Environment (DoE) 1990 *Planning Policy Guidance Note 16: Archaeology and Planning*

Institute of Field Archaeologists (IFA) 2001 *Standards and Guidance for Archaeological Excavations.*

Jones, A E 2001 Roman Birmingham 1, Metchley Roman Fort, Birmingham, Archaeological Excavations 1963-4, 1967-9 and 1997, *Transactions of the Birmingham and Warwickshire Archaeological Society*, 105.

Jones, A E, 2005 Roman Birmingham 2, Metchley Roman Fort, Birmingham, Excavations 1998-2000 and 2002, The Eastern and Southern Annexes, *Transactions of the Birmingham and Warwickshire Archaeological Society,* 108.

APPENDIX 1

BIRMINGHAM CITY COUNCIL

DEVELOPMENT DIRECTORATE
University Hospitals Birmingham NHS Foundation Trust
Boiler House Drive, Metchley Roman Fort (grid ref 40427 28351; SMR 02005)
Design Brief for *Archaeological Excavation* in advance of commencement of development

1.Summary

Proposed development at Boiler House Drive is likely to affect below-ground archaeological remains of Metchley Roman fort. This brief is for ***archaeological excavation in advance of commencement of development followed by analysis and publication of the results****.*

2.Site location and description

The site is currently occupied by the Medical Records Building and Boiler House, which are both to be demolished, and yard surfaces at different levels between them. Both buildings have basements therefore archaeological remains will not survive below them, but archaeological remains are likely to survive under the surfaces between them.

3.Planning background

Existing buildings on the site are to be demolished and a road constructed across their sites and land between them. Because the site is likely to include archaeological remains which would be affected by the proposed redevelopment, a programme of archaeological recording is required.

4.Existing historical and archaeological information

The site lies within Metchley Roman fort, which was established in the middle of the first century AD and was occupied until the end of the 2nd century AD. On the basis of extensive previous archaeological work on various parts of the fort, this particular area is known to lie near the south-east corner of the fort and to include the lines of the Phase 1 and Phase 3 defences and the area between them, and part of the southern annexe.

5.Requirements for work

Rather than an archaeological watching brief during demolition works, any surviving archaeological remains are to be recorded through archaeological excavation in advance of commencement of demolition, followed by analysis and publication of the results.

6.Stages of work

(i)Excavation:

The excavation is to consist of two areas, as follows, subject to confirmation of live service lines:

The area immediately north of the boiler house- An area up to 20m long, achieved if necessary through an L-shaped area. The depth of overburden is unknown but the width of the excavation area must ensure that if stepping or battering is required the width at base is at least 2m.

The area south of the Medical Records Building- An area aligned approximately east-west within the constraints of live services.

In each area the exact extent of excavation must be agreed on site with the Planning Archaeologist prior to commencement. All surface deposits are to be mechanically removed, under archaeological supervision. Exposed archaeological features and deposits are to be

manually cleaned and planned. A strategy is to be agreed with the Planning Archaeologist for the excavation of the features exposed. The strategy will include:
-identification and manual excavation of structures and deposits. The proposed proportion of excavation of each type of structure and deposit must be specified in the written scheme of investigation and agreed with the Planning Archaeologist in advance of commencement. Where deposits are extensive and/or deep, mechanical removal following partial manual excavation, under archaeological supervision, to expose underlying deposits and features, may be required subject to specific agreement of the Planning Archaeologist
-sampling of deposits likely to provide environmental data. An appropriately qualified specialist must advise on-site on sampling locations and methods
-sampling of deposits likely to contain industrial residues.

-finds are to be cleaned, marked and bagged and any remedial conservation work undertaken.

There must be a contingency to allow for extension of the excavated area to ensure that any associated features are appropriately excavated.

(ii)Post-excavation Assessment:
An assessment of the potential of the results of the excavation for further analysis, in accordance with the recommendations in English Heritage's *Management of Archaeological Projects*(MAP 2*)* and *MoRPHE*. The post-excavation assessment should be completed within six months of completion of work on site.

(iii)Post-excavation Analysis:
Following assessment, full analysis of the results of the project, including: dating and interpretation of excavated features; pottery and other finds analysis; [analysis of industrial residues by an appropriate specialist or specialists]; [analysis of samples for environmental data (including pollen, plant macrofossils and beetles) by an appropriate specialist or specialists]; [radiocarbon dating]; discussion of the results in their local, regional and national context, including relating the excavated features and palaeoenvironmental data to evidence from nearby sites, and discussion of the results in their local, regional and national context.

(iv)Preparation of a report for publication in an archaeological journal:
A written report accompanied by appropriate illustrations will be submitted for publication in the *Transactions of the Birmingham and Warwickshire Archaeological Society* or other appropriate archaeological publication.

7.Standards and Staffing
The archaeological excavation is to be carried out in accordance with the Code of Conduct, Standards and Guidelines of the Institute of Field Archaeologists, and all staff are to be suitably qualified and experienced for their roles in the project. It is recommended that the project be under the direct supervision of a Member or Associate Member of the Institute of Field Archaeologists.

8.Written Scheme of Investigation
A written scheme of investigation for the excavation which details methods (including proposed extent of excavation areas, provision for sampling and analysis of palaeoecological remains and industrial residues) and staffing (including specialists for post-excavation analysis) must be submitted to the Planning Archaeologist for approval in advance of commencement of work.

9.Monitoring
The excavation must be carried out to the satisfaction of Birmingham City Council, and will be monitored by the Planning Archaeologist. At least five working days notice of commencement of the excavation must be given to the Planning Archaeologist, so that monitoring meetings can be arranged. The monitoring stages will be as follows:
(i)Consideration of excavation strategy;
(ii)Site visits during excavation, at least weekly;

(iii)Consideration of post-excavation assessment report;
(iv)Monitoring post-excavation analysis;
(iv)Consideration of draft report for publication

10.Archive deposition
Subject to the agreement of the client, it is recommended that the written, drawn and photographic records of the excavation, together with any finds, are deposited in the Department of Human History, Birmingham Museums and Art Gallery, within a reasonable time of completion. The deposit will be accepted in accordance with the guidelines issued by the Society of Museum Archaeologists, *Transfer of Archaeological Archives to Museums*. Finds must be deposited in the standard boxes used by the City Museum and accompanied by box lists.

11.Summary Publication
In addition to the full report described in Part 6 above:

(i)The contractor must submit a brief summary report to the Planning Archaeologist within two weeks of completion of work on site, so that initial information can be included in the Sites and Monuments Record. The summary should consist of no more than two pages of text and should be accompanied by photographs.

(ii)The contractor must submit a short summary report for inclusion in *West Midlands Archaeology* and summary reports to appropriate period journals.

(iii)On completion of the project the contractor must complete the obligatory fields of the OASIS form and submit an electronic version of the report to OASIS (http://ads.ahds.ac.uk/oasis)

BIRMINGHAM CITY COUNCIL
DEVELOPMENT DIRECTORATE
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APPENDIX 2

WRITTEN SCHEME OF INVESTIGATION DRAFT 5/9/08

Archaeological Excavation and Post-Excavation Reporting

Boiler House Drive, Queen Elizabeth Hospital, Birmingham

1.0: INTRODUCTION

This document is based on a Brief for Archaeological Excavation in advance of development, prepared by Dr Michael Hodder, Planning Archaeologist, Birmingham City Council, dated 22 August 2008. The excavation will be followed by post-excavation analysis, reporting and publication of the results, in accordance with the Brief.

While the broad aims and methodology described in the Council Brief, and in this Written Scheme of Investigation will be followed, certain specific details may require to be altered as further information becomes available. Such variations would be agreed in advance with the Planning Archaeologist of Birmingham City Council.

Archaeological excavation and salvage recording is required in advance of the new Selly Oak Link Road in accordance with Policy 8.36 of Birmingham City Council Unitary Development Plan, government advice in Planning Policy Guidance Note 16 (PPG16), and the Council's Archaeology Strategy, adopted as supplementary planning guidance.

2.0: SITE LOCATION

The site is located to the east of Boiler House Drive, and to the west of the railway line. The northern limit of the site is formed by a compound adjoining the former Medical records building, and the southern boundary by a steep slope adjoining the Boiler House. The site centre is NGR SO 40427/28351).

The site presently comprises an area of rough ground, and hardstanding. It adjoins an oil storage facility.

3.0: ARCHAEOLOGICAL BACKGROUND

The site is crossed by the southern defences of the earliest military enclosure of Metchley Roman forts, established in the middle of the 1st century AD. The site was occupied by the Roman military until the end of the 2nd century AD. The southern Phase 1 fort defences will have originally comprised two ditches cut to a V-shaped profile, and a rampart, supported on a timber framework. The site also includes part of the interior of the southern annexe, but the annexe defences lie outside the area available for investigation.

4.0: EXCAVATION

4.1: Aims

The main objective of archaeological excavation is to preserve *by record* any archaeological remains in advance of the proposed development. The specific aims of this stage of work will

be to reveal, excavate and interpret the southern Phase 1 fort defences, including associated paleoenvironmental evidence, and the southern annexe interior.

4.2: Method

Two trenches, each a maximum of 15m by 4m will be excavated. Excavation will not exceed 2m in depth from the modern surface. The trench edges will be battered at an angle of 45 degrees, and a 45 degree ramp will be provided to allow safe access to/from each trench. After allowing for battering of the trench sides, the minimum area to be exposed at the base of the trench will be 12m by 2m. No excavation will exceed 2m in depth from the modern surface.

The modern overburden would be removed by tracked 360 degree excavator, or similar, working under archaeological control, to expose the uppermost horizon of significant archaeological deposits, or the surface of the subsoil, as appropriate. All subsequent excavation would be by hand. The machined horizon would be cleaned as appropriate to define the archaeological features and deposits present at their uppermost horizons.

A base-plan would be prepared, which would form the basis for definition of the excavation strategy, to be agreed in consultation with the Planning Archaeologist. The following strategy for sampling by hand-excavation will be followed:

Pits and post-holes, 50% hand –excavation
Linear features, 100% of length exposed in trench (if safe to do so)

Datable features and deposits would be sampled for plant remains and industrial residues.

All finds would be washed, marked, bagged, and conserved, as appropriate. Recording would be by means of pre-printed pro-formas for contexts and features, supplemented by scale plans and sections and monochrome print and colour slide photography.

Monitoring visits would be arranged as appropriate during the fieldwork.

5.0: STAFFING

The excavation would be managed for BUFAU by Alex Jones (Director/Research Fellow, MIFA). The site will be directed by Dave McNicol (Field Officer) with the assistance of two Archaeological Site Assistants.

Specialist staff would be:
Jane Evans, Roman pottery
Erica Macey-Bracken, small finds
Roz McKenna, charred plant remains
Stephanie Ratkai, post-Roman pottery
Tony Swiss, Ancient Metallurgy Laboratory, University of Bradford, industrial residues

6.0: REPORTING

Reporting would be undertaken in two stages. The results of excavation and salvage recording would be integrated in the same assessment. The results from all stages of work would be integrated in a single final report, providing a comprehensive discussion of all investigations, set within their context.

The first stage of reporting would involve the preparation of a post-excavation assessment, in accordance with The Management of Archaeology Projects 2 (English Heritage), to include a site narrative, an appropriate level of illustrations (site plans), and specialist assessments of the finds and environmental data. Following approval from the Planning Archaeologist, the work programme outlined in the assessment would then be implemented in full.

The second stage of reporting would involve the preparation of a report for a recognised archaeological journal, in consultation with the Planning Archaeologist, including a site narrative, interpretation and discussion of the evidence, supported by appropriate finds/environmental specialist reports and a discussion and conclusion of the evidence.

A short summary report would also be prepared for inclusion in *West Midlands Archaeology*.

On completion of the project the obligatory fields of an Oasis form will be completed and submitted.

7.0: ARCHIVE

The excavation archive will be deposited with an appropriate archaeological store, within a reasonable time of the completion of the fieldwork, and following consultation with the Planning Archaeologist.

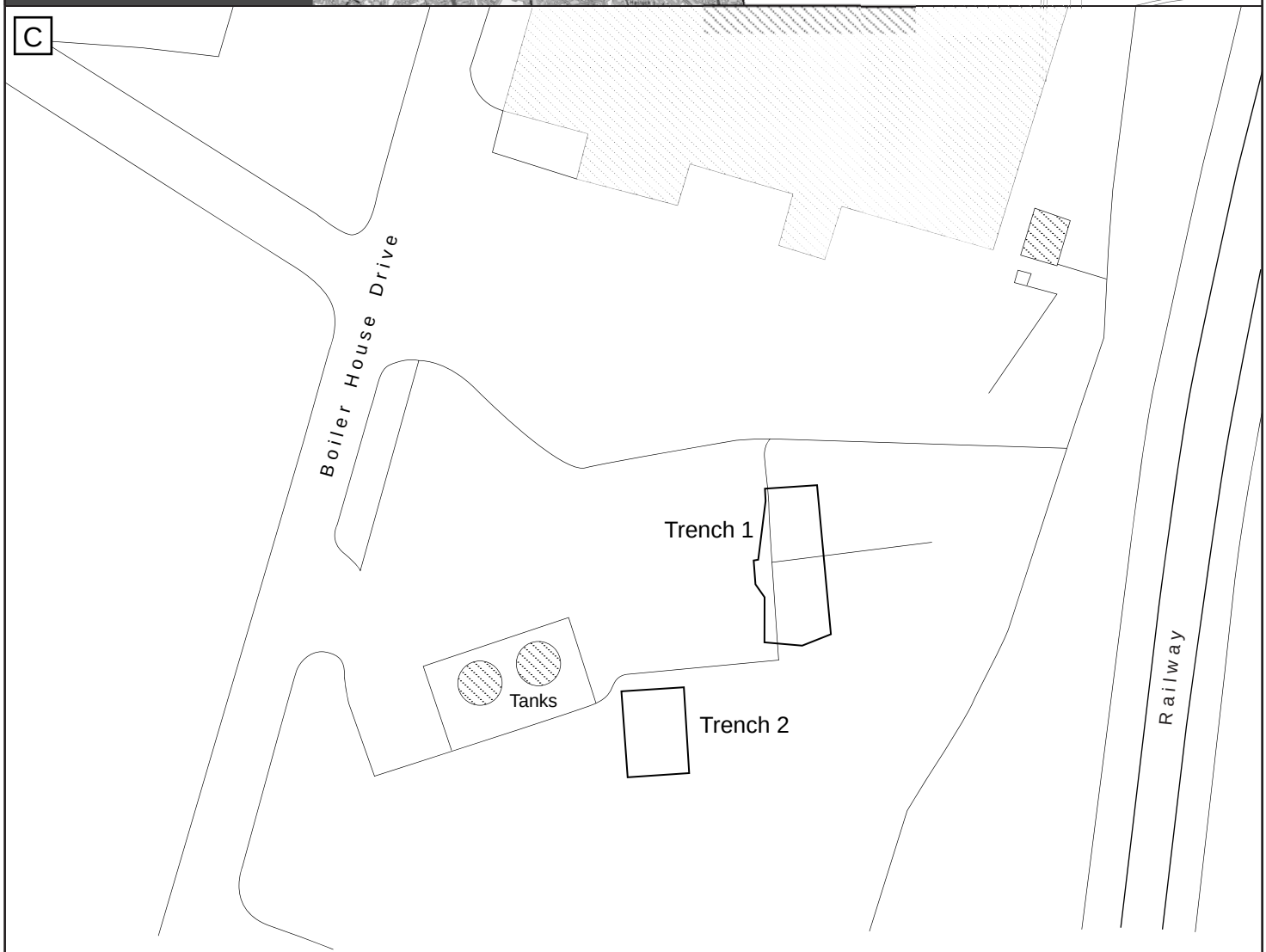
8.0: GENERAL

All project staff will adhere to the Code of Conduct of the Institute of Field Archaeologists.

The project will follow the requirements set down in the Standard and Guidance for Archaeological Excavation prepared by the Institute of Field Archaeologists.

A Method Statement has been prepared and circulated. A Risk Assessment will be prepared prior to commencement of fieldwork.

Birmingham Archaeology 5 September 2008.



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Boiler House Drive, Metchley

Figure 1: Location Plan

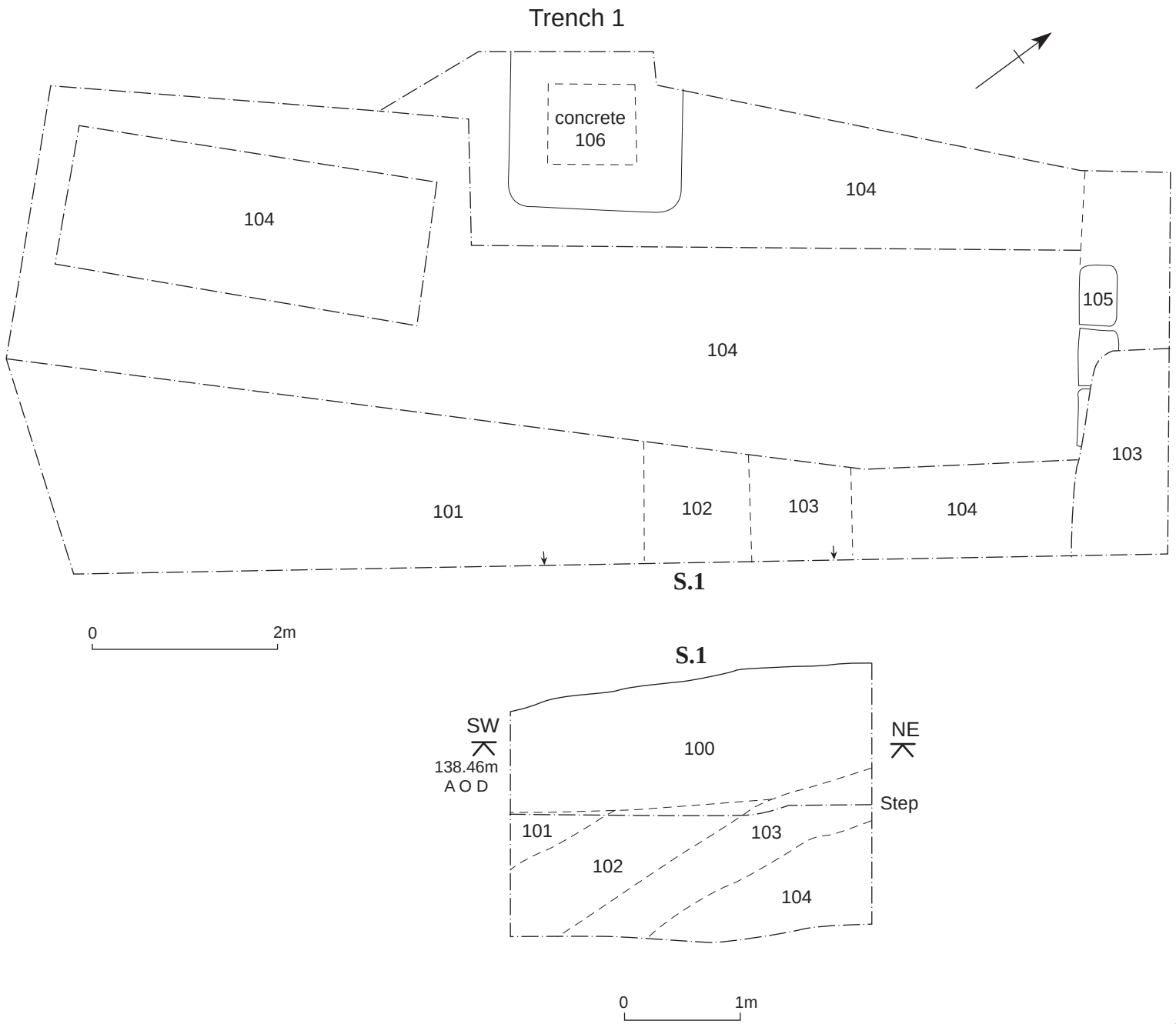

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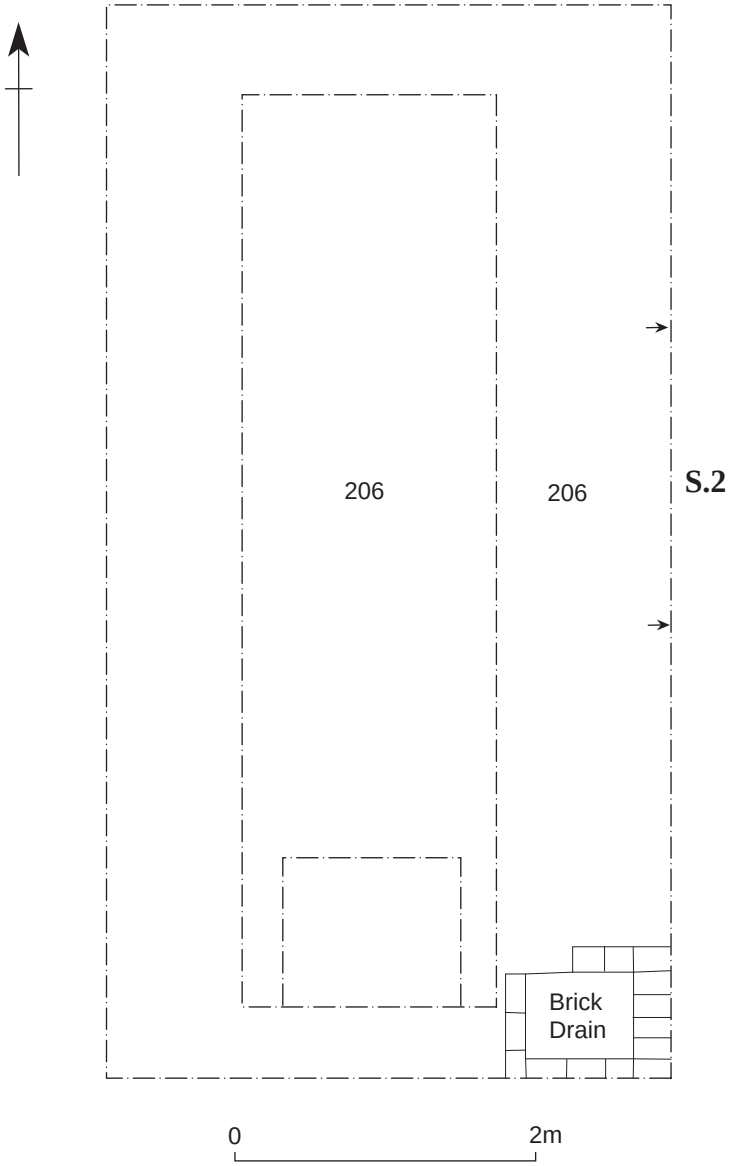
Figure 2: Trench 1 Plan and Section

Trench 2



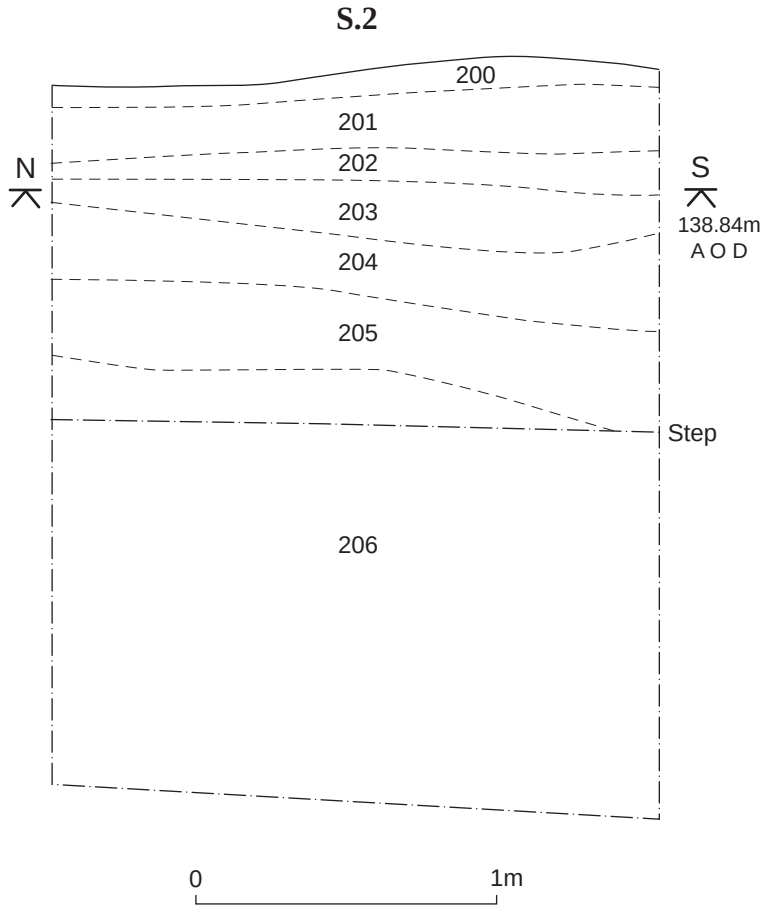


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Figure 3: Trench 2 Plan and Section

Plate 1: Machine sondage within Trench 1

Plate 2: Trench 2 section