

Diglis Basin  
Diglis Dock Road and  
Land to the rear of  
Berwick Street  
Worcester



**Archaeological Evaluation Report**



**Oxford Archaeology**

July 2005

client logo

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# Diglis Basin, Diglis Dock Road and Land to the rear of Berwick Street, Worcester

NGR: SO 8500 5380

## *ARCHAEOLOGICAL EVALUATION REPORT*

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## SUMMARY

*In June 2005, Oxford Archaeology (OA) carried out a field evaluation to the south of the centre of Worcester City, some 0.5 km from the Cathedral. The site is centred at SO 8500 5380 and is situated within an industrial compound on the Diglis Dock Road, south of the Worcester and Birmingham Canal and east of the river Severn. The work was carried out in respect of a project specification prepared by CgMs Consulting on behalf of The Barton Wilmore Planning Partnership.*

*There was no evidence of Roman or medieval archaeology within the trenches. Thick clay and silt layers at the bases of the trenches were undated, and the excavators suggest that in places they may be the result of dredging in the canal basin, but otherwise these layers represent alluvial deposits. Thereafter the truncated remains of Victorian/modern brick-built warehouse structures and floors associated with canal/riverside activities were identified to the west of the development site. Modern landfill deposits seal the site, which has recently been occupied by industrial units.*

## 1 INTRODUCTION

### 1.1 Location and scope of work

- 1.1.1 In June 2005, Oxford Archaeology (OA) carried out a field evaluation at Diglis Dock Road, to the rear of Berwick Road in Worcester City (Fig. 1). The work was undertaken in respect of a *Project Specification* prepared by CgMs Consulting (CgMs 2005), who acted as archaeological consultants for the Barton-Wilmore Planning Partnership. James Dinn, Archaeological Officer for Worcester City Council prepared a brief for the project (WCM 2004). OA prepared a *Written Scheme of Investigation* prior to commencement of work (OA 2005).
- 1.1.2 The development site is registered on Worcester City Sites and Monuments Record as WCM 98225 (Diglis Basin Complex) and lies within the City Archaeologically Sensitive Area 20. Parts of the site lie within the Worcester and Birmingham Canal Conservation Area. The site is allocated for mixed use redevelopment within the adopted City of Worcester Local Plan (1998) and subsequent drafts of the emerging Local Plan.
- 1.1.3 The evaluation was conducted within the general parameters defined by PPG16 (Archaeology and Planning) and the Worcester City Local Plan, 1996-2011 (October 2004). Policies BE21-BE27 of the Worcester City Local Plan deal with archaeology and development.
- 1.1.4 The area evaluated in this phase of work is centred at SO 8500 5380 and is approximately 1.2 ha. in area. The Diglis Basin Complex lies to the south of Worcester City centre on the east side of the River Severn and alongside the Worcester and Birmingham Canal that extends away to the north-east through the City Centre.

1.1.5 The development site had previously been one of a number of industrial compounds situated off the Diglis Dock Road. The site comprised hard standing and concrete floors associated with the remains of demolished industrial units. The evaluation area lies between 15.5 m OD and 16 m OD.

## 1.2 **Geology and topography**

1.2.1 The site is situated on the flood plain of the River Severn, on the east side of the river. The solid geology comprises Mercia Mudstone, which is overlain by glacial sands and gravels below alluvium (BGS, Sheet 199).

1.2.2 Much of the development area has recent built up ground lying above alluvium, averaging from *c* 1 m to 2.5 m in thickness across the site.

## 1.3 **Archaeological and historical background**

### *Desk-Based Assessment*

1.3.1 The application site, of which this study area forms a part, has been the subject of a Desk-Based Assessment (DBA), which has been included in the Environmental Statement presented with the planning application (EC Harris, 3rd revision, 2003). The results of this assessment were presented in the CgMs Specification and are summarised again below.

1.3.2 The DBA indicated that the ground level of the site has been considerably altered over the past 200 years. This make-up comprises 1.2 m - 3.4 m of imported materials overlying medieval alluvial deposits, which overlie the glacial sands and gravels.

1.3.3 Analysis of bore-hole logs suggests that a broad palaeochannel may cross part of the development site, possibly a former channel of the river Severn. It was thought possible that significant buried remains could be present along the banks of any such channel or within its fills, in particular at its confluence with the Frog Brook.

### *Previous Work*

1.3.4 A two-trench archaeological field evaluation has previously been undertaken within the Worcester and Birmingham Canal Conservation Area. No significant archaeological remains were identified (Archenfield Archaeology, 2003). Deposits interpreted as 'natural alluvial deposits' (of 'pinkish-red slightly gravelly/silty clay') were recorded in the evaluation trenches at a consistent level of *c* 14.8 m OD.

1.3.5 These lie higher than would be expected from information given in the First Edition Ordnance Survey maps (surveyed 1884-5), where the local surface of the meadows is noted as *c* 13.4 m. The bore-hole logs are also not completely clear. Consequently the separation between the re-deposited alluvium and the natural marl in this area is not clearly established.

1.3.6 There have also been archaeological watching briefs on selected ground investigation works, including test pits and boreholes.

### ***Roman***

- 1.3.7 It has been suggested that a Roman harbour lies within the site, located close to the mouth of the Frog Brook. This assertion is based on the results of discoveries made during excavation of the river in the mid-19th century.
- 1.3.8 The remains were found at depth, between 4 m and 6m OD. However, likely variations in the local topography indicated that the level at which any remains could occur was not predictable. Analysis of pollen samples from two test pits excavated in 1993 suggests that Roman deposits may be more widely distributed across the development site.
- 1.3.9 The DBA concluded that there was limited evidence for the actual presence of a Roman harbour. The Roman road from Worcester to Gloucester is thought to have passed through the development site, in the area of the link road to the rear of Berwick Street.

### ***Medieval and later***

- 1.3.10 No medieval remains are recorded from the site, though the floodplain would probably have been used during this period. A hermitage dedicated to St. Ursula is recorded from the general area of Diglis, although it's exact location is unknown.
- 1.3.11 The presence of the early 19th-century canal basin, with its original warehouses, associated structures and canals, is of archaeological interest. A record of the standing buildings within the Canal Conservation Area has been undertaken and submitted as part of the Environmental Statement (Archaeological Investigations Ltd., 2002).

## **2 EVALUATION AIMS**

- 2.1.1 Work on this site presented an opportunity to address a number of specific research questions, including:
- 2.1.2 The location, survival, character and interpretative significance (both within and beyond the site boundary) of palaeoenvironmental remains, where associated with human settlement or other activity, and including palaeo-channels and alluviation.
- 2.1.3 The location of the possible Roman harbour, the alignment of the Roman road from Worcester to Gloucester and identification of any roadside settlement and other Roman remains.
- 2.1.4 The nature and character of any medieval remains including the location of the hermitage of St. Ursula and any remains associated with Diglis meadows.
- 2.1.5 The development of the canal basin and associated industries and structures, including the Worcester Chemical Manure Works.

## **3 EVALUATION METHODOLOGY**

### **3.1 Scope of fieldwork**

- 3.1.1 The proposed evaluation comprised the excavation of seven 15 m-long by 3 m-wide trenches (Fig. 2). Changes to the proposed locations were made (see 3.2 below).
- 3.1.2 The location of the trenches took into account areas of archaeological potential, the proposed impacts of the development, known contamination, the suspected depth of made ground and the availability of the area to be investigated.

### 3.2 Fieldwork methods and recording

- 3.2.1 Trench locations were established and the areas CAT scanned prior to excavation. The concrete was then removed using a suitable mechanical excavator with breaker. Trenches were scanned for a second time for unidentified services.
- 3.2.2 Owing to the nature of the site, scanning for unidentified services took place at regular horizons during the excavation of the trenches. Visual checks were made regularly regarding the stability of the trench sides and potential soil contamination. Petrol contamination was noted in places.
- 3.2.3 Three trenches were relocated, shortened or re-orientated for logistical and safety reasons. Trench 1 was re-orientated to align with edge of a pavement on its east edge, ensuring minimal damage and access problems. The presence of a water pipe at the north end of the trench meant that the trench length was restricted to 10 m. In addition, the trench could not be levelled after the pipe was damaged and the trench flooded, causing the already unstable silts in the trench to collapse. Trench 3 was moved 8 m to the north, so as not to impact on a known live electrical cable. The original alignment was maintained. The presence of an electric cable in the north of Trench 6 led to a reduction in the proposed length from 15 m to 5 m.
- 3.2.4 Trenches were initially excavated to a depth of 1.2 m then stepped in by 1 m from the trench edge. Using a 1 m wide ditching bucket, a central channel was excavated to a depth of approximately 2.5 m below ground surface. Entry to the trenches to determine the nature and extent of deposits was made under supervision, where it was safe to do so. These methods and practices ensured a safe working environment during machining.
- 3.2.5 Trench plans were drawn at 1:50 and sections of significant deposits were drawn at 1:20. Small sample sections were deemed to provide insufficient information regarding the development of site. Instead whole trench sections were drawn at 1:50 to indicate the main soil horizons.
- 3.2.6 All features and trenches were photographed using colour slide and black and white print film. Recording followed procedures detailed in the *OA Fieldwork Manual* (ed. D Wilkinson, 1992).
- ### 3.3 Presentation of results
- 3.3.1 A general description of the soils, ground conditions, the stratigraphic sequences and distribution of archaeological deposits is given below. The empty trenches are briefly described, with more detailed descriptions of trenches containing features.

3.3.2 Trench descriptions are followed by a summary discussion of the results. A table of individual contexts is given in Appendix 1.

## 4 RESULTS: GENERAL

### 4.1 Soils and ground conditions

4.1.1 The general sequence within each trench comprised alluvial silts overlain by imported material. This upper sequence of dumps and spreads, forming the made ground, contained metal artefacts, ceramics and glass. Hardcore of varying thickness had been used to fill the voids and hollows within the made ground prior to the concrete surfacing.

4.1.2 Edges of trenches were unstable throughout and soil contamination was caused by petroleum infiltration. Unmapped services crossed the site causing some trenches to be reduced in length and their positions altered.

### 4.2 Distribution of archaeological deposits

4.2.1 Areas of archaeological interest were at the west edge of the site. Trenches 3, 4 and 5 contained evidence of warehouses and structures associated with recent developments in the canal basin.

4.2.2 The remaining trenches support conclusions from previous works regarding the post-alluvial re-deposition in the development of the site. These are outlined in the Archaeological and Historical background (Section 1.3 above). No further archaeologically significant deposits or materials were recovered.

## 5 RESULTS: TRENCH DESCRIPTIONS

### *Trench 1*

5.1.1 The trench (not illustrated) was located on the slip road alongside the Diglis Dock Road. Excavation and recording of this trench was hampered by a water pipe, which was damaged and led to flooding of the trench and consequent de-stabilisation of the trench edges. However, excavation was carried to a depth of 2.5 m from ground level through a thick layer of mid-reddish-brown clay silt (100), possibly representing dumped material from dredging of the nearby watercourse. Hardcore and modern concrete lay above the silt.

### *Trench 2*

5.1.2 The trench (not illustrated) was located within the footprint of a recently demolished warehouse and was excavated to a depth of 2.5 m from ground level (to 13.26 m OD). The majority of the trench comprised modern concrete footings for a building and the associated backfill (200) within a foundation cut (202). Layer 200 abutting the footings comprised dumped metalwork (including band saws and modern machine parts), modern ceramics and rubble. This layer was in turn overlain by hardcore and concrete hard-standing.

### ***Trench 3***

5.1.3 Trench 3 (Fig. 3) was excavated to a depth of 2.5 m from the present ground surface (to 12.7 m OD). At the base of the trench, alluvial clay silts (300) were encountered that were at least 0.53 m in depth. A foundation trench (301) cut layer 300 and was filled by structure 304. Wall 304 was constructed of dark red bricks measuring 0.21 m x 0.11 m x 0.075 m. The bricks were frogged and built in stretcher bond with two courses of foundation that were wider than the superstructure of the wall. The bonding matrix was a mid grey yellow sand silt. The foundation trench was backfilled with 302, a mixture of re-deposited alluvial silt. The backfill of the construction trench was overlain by layer 305, the imported made ground material seen elsewhere on the site. This was in turn overlain by successive floor surfaces (306) abutting and therefore probably associated with structure 304. The latest of these floor surfaces (307) that comprised ceramic tiles appears to have been associated with the latest phase of the building. Cutting into the floor layers (306) and truncating the brick built wall (304) was a cut (308) for the current concrete surface. At the top of the sequence, layer 309 comprised hardcore that abutted the concrete and filled the remaining void within cut 308.

### ***Trench 4***

5.1.4 The trench (Fig. 4) was excavated to a depth of 2.5 m below present ground surface (13.12 m OD). Re-deposited alluvial river silt layer 400 was reached 1.57 m below current ground level and the layer was at least 0.95 m in thickness. This layer was cut by a foundation trench (402) containing concrete footings (403 and 404) for a wall. The wall (406) was a single brick wide and of similar construction technique to the wall in Trench 3. Layer 407 comprised rubble abutting the wall on either side, which was overlain by a series of dumps and spreads representative of the built up ground deposits seen across site (layer 408). This was sealed by a modern levelling deposit of grey gravel that was the base for the present concrete surface.

### ***Trench 5***

5.1.5 Alluvial silt layer 502 was located 1.45 m below the current ground surface. The trench (Fig. 5) was excavated 1 m into this horizon. Above the silt lay 503, a thick deposit of modern metalwork pieces, broken ceramics and modern glass bottles. Towards the south end of the trench was a brick floor (500) laid on 505. It consisted of full-sized and broken bricks randomly positioned with no obvious bonding. The bricks were yellow/grey. The limits of this floor were marked by the remains of a square wooden post (508) within a posthole cut (507) with concrete packing. Above the floor surface was a layer of modern hardcore and rubble, capped by the current concrete surface.

### ***Trench 6***

5.1.6 No archaeologically significant materials or deposits were noted in the trench (not illustrated). Alluvial silts (600) were located 1.78 m below the current ground surface and these were excavated to a depth of 0.53 m. Above the silts was made-ground

(601), a layer of sand (602) and then gravel/ hardcore layer 603. The current concrete surface completed the sequence.

### ***Trench 7***

- 5.1.7 No archaeologically significant materials or deposits were found in the trench (not illustrated). The trench comprised made ground (701) found at least to a depth of 2.24 m. Above the made ground was a layer of unstable rubble hardcore (700) that was 0.8 m thick and modern concrete sealed the trench.

## **6 DISCUSSION AND INTERPRETATION**

### **6.1 Reliability of field investigation**

- 6.1.1 The full trenching programme was not completed owing to logistical reasons and the presence of services that caused some trenches to be reduced in length. Trenches had to be stepped owing to the depth of excavations and recording was usually undertaken from the trench sides.
- 6.1.2 However, a consistent pattern of deposits across the site was revealed and no artefacts earlier than those of the modern post-medieval period were noted on the site. It is unclear whether further excavation upon the removal of the overlying land-fill would elucidate the nature of deposits on the site further.

### **6.2 Overall interpretation**

- 6.2.1 The evaluation appears to broadly confirm the findings contained within the DBA. There was no evidence of Roman or medieval archaeology within the trenches. The thick clay/silt layers at the bases of the trenches were undated and presumably are alluvial deposits - possibly medieval in origin (see 1.3 above).
- 6.2.2 The excavators suggest that in places these clay/silt layers are possibly the result of dredging within the canal basin in the late 18th/early 19th century when the Birmingham-Worcester Canal was under construction, and could therefore be re-deposited.
- 6.2.3 The principal finds were relatively associated with canal/riverside activities towards the west side of the development area. The brick-built structures in Trenches 3, 4 and 5 appear to represent the footings and floor areas of Victorian/modern warehouse structures, pre-dating the construction of modern industrial units on the site. The limited exposure of these in the evaluation trenches precludes detailed interpretation of their function and date.

## APPENDICES

## APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

Trench	Ctx No	Type	Height (m)	Width (m)	Thick (m)	Comment
1		Layer			0.22	Concrete
		Layer			0.4	Hardcore
	100	Layer			2	Re-deposited silt/clay
2		Layer			0.25	Concrete
		Layer			0.12	Hardcore
	200	Layer			0.1	Fill of 202; Made ground + concrete foundations
	201	Layer			1.5	Made ground
	202	Cut		5m +	1	Filled by 200
3		Layer			0.26	Concrete - fill of [308]
		Layer			0.36	Modern build up rubble
		Structure		0.25		Concrete Wall
	300	Layer			0.5 +	Alluvial clay
	301	Cut		0.78	0.58	Cut for 304
	302	Fill		0.78	0.58	Fill of 301
	304	Structure	1.66	0.37		Wall
	305	Layer			0.34	Made ground/rubble
	306	Layer			0.24	Floor layers
	307	Layer			0.07	Tile and brick layer
	308	Cut			0.26	concrete surface interface/cut
	309	Layer			0.26	Asphalt
4		Layer			0.2	Concrete
		Layer			0.05	Hardcore
	400	Layer			0.88	Alluvial or Re-deposited silt/clay
	401	Layer			0.38	Re-deposited silt/clay
	402	Cut		0.59	0.4	Cut for wall 406
	403	Fill		0.58	0.22	Concrete foundation for 406
	404	Fill		0.56	0.19	Concrete foundation for 406
	405	Fill		0.04	0.21	Fill of [402]
	406	Structure	0.84	0.21		Wall
	407	Layer			0.13	Rubble debris
	408	Layer			0.64	Made ground
	409	Layer			0.64	Made ground
	410	Layer			0.54	Alluvial or re-deposited silt/ clay
411	Layer			0.13	Same as (407) - rubble	
5		Layer			0.2	Concrete
	500	Layer			0.07	Brick floor
	501	Layer			0.4 +	Made ground
	502	Layer			1.1	Alluvial or re-deposited silt/ clay
	503	Layer			0.95	Made ground
	504	Layer			0.1	Hardcore
	505	Layer			0.1	Made ground
	506	Fill		0.88		fo [507] - Concrete packing for post (508)
	507	Cut		0.88		Cut for post [508] - irregular
	508	Object		0.24	0.24	Wooden post - square cut

6		Layer			0.27	Concrete
	600	Layer			0.53	Alluvial or re-deposited silt/clay
	601	Layer			1.14	Made ground
	602	Layer			0.105	Sand
	603	Layer			0.27	Made ground
7		Layer			0.2	Concrete
		Layer			0.16	Hardcore
	700	Layer			0.8	Alluvial or re-deposited silt/clay
	701	Layer			1.28	Made ground

## APPENDIX 2 BIBLIOGRAPHY AND REFERENCES

Archenfield Archaeology, 2003 *Diglis Basin, Diglis Road, Worcester: A Report on an Archaeological Evaluation*

CgMs Consulting 2005 *Specification for an Archaeological Evaluation, Diglis Basin, Diglis Dock Road & Land to the Rear of Berwick Street, Worcester*

EC Harris, March 2003 *Diglis basin, Worcester Archaeological Desk Top Study 3rd Revision*

IFA 1999 *Standard and Guidance for archaeological field evaluations*

OA 1992 *Fieldwork Manual* (ed. D Wilkinson. First Edition, August 1992)

OA 2000 *Environmental Sampling Guidelines and Instruction Manual*. OA

OA 2005 *Written Scheme of investigation for an Archaeological Evaluation at Diglis Basin, Diglis Dock Road & Land to the Rear of Berwick Street, Worcester*.

Worcester City Museum Archaeology Section 2004 *Brief for Stage 1 Archaeological Evaluation and outline mitigation*

## APPENDIX 3 SUMMARY OF SITE DETAILS

**Site name:** Diglis Basin, Diglis Dock Road, Worcester City

**Site code:** WCM 101341

**Grid reference:** SO 8500 5380

**Type of evaluation:** 7-Trench field evaluation

**Date and duration of project:** 06/06/05 to 12/06/06 (7 days)

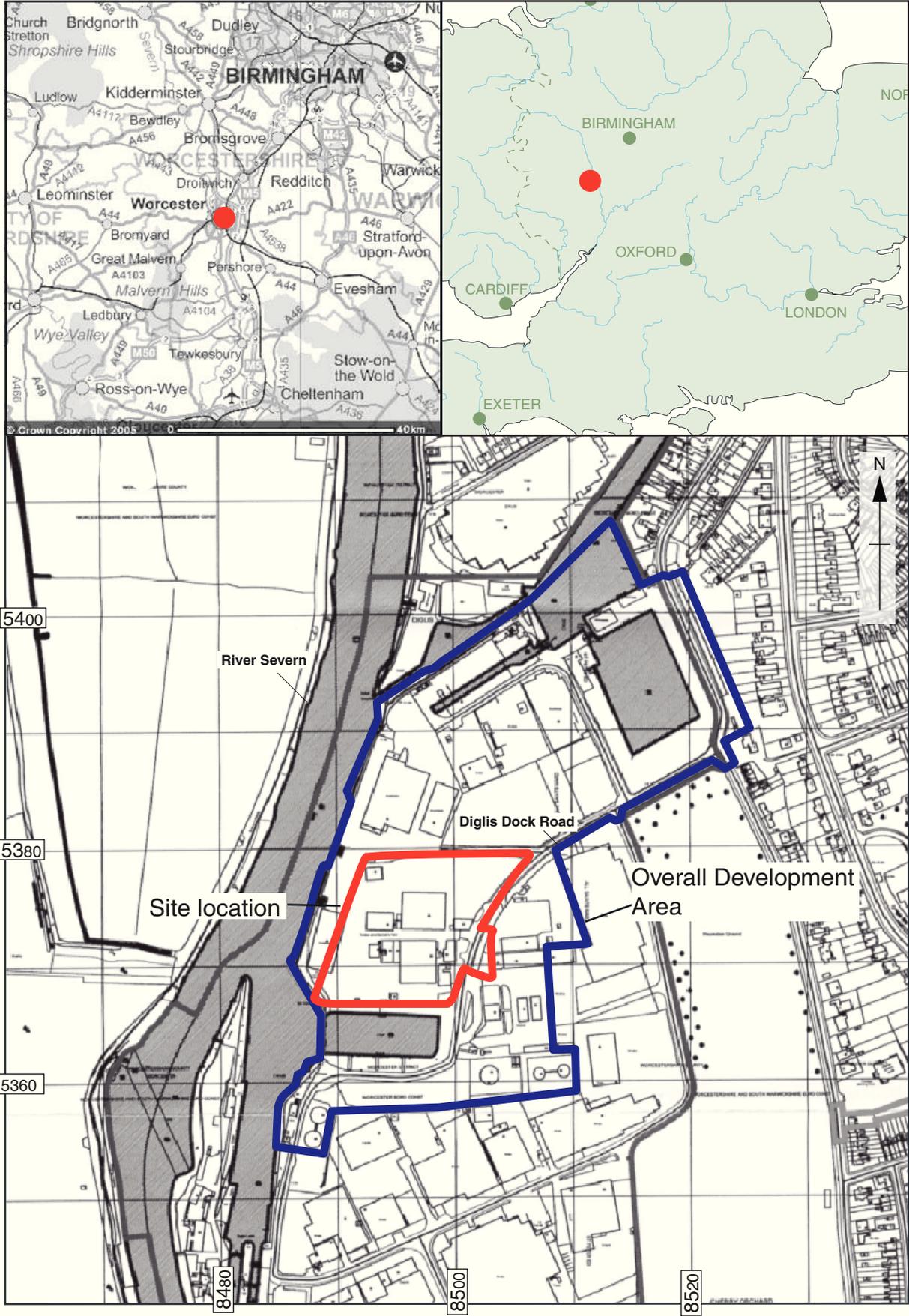
**Area of site:** 1.5 ha.

**Summary of results:** All trenches contained modern material including some structural elements. Chemical contamination was noted in places. Imported built up ground exists to a depth of at least 1.2 m across the site. Within and on top of this material are floor surfaces and brick-built foundations of relatively modern warehouse buildings that were demolished when the whole site was covered in concrete and recent industrial units erected. Trenches were excavated to a depth of 2.5 m and at this level the stratigraphy indicates that layers of alluvial silt and clay are present.

**Location of archive:** The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Worcester City Museum in due course, under the following accession number: WCM 101341



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Figure 1: Site location

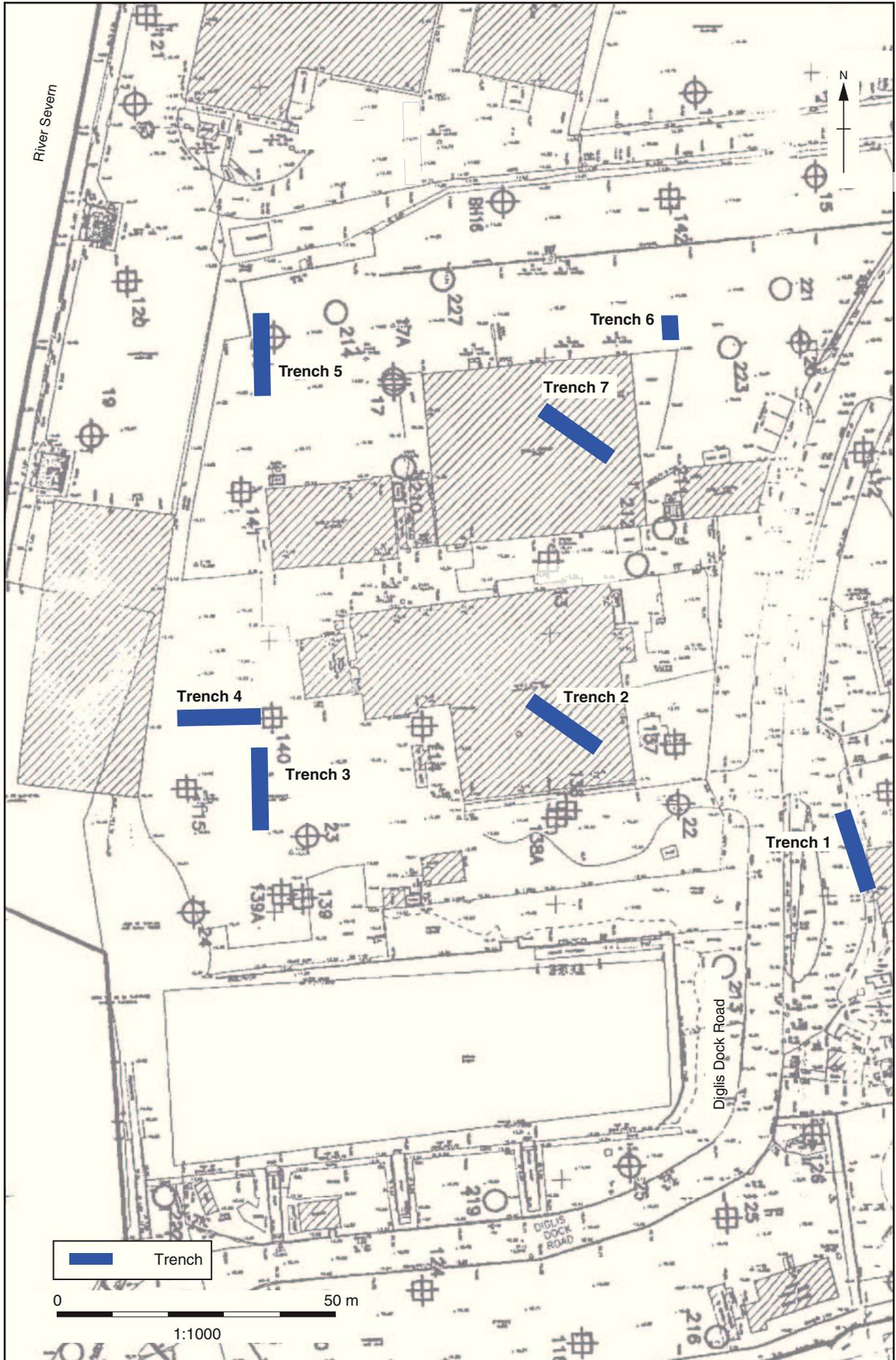


Figure 2: Trench location

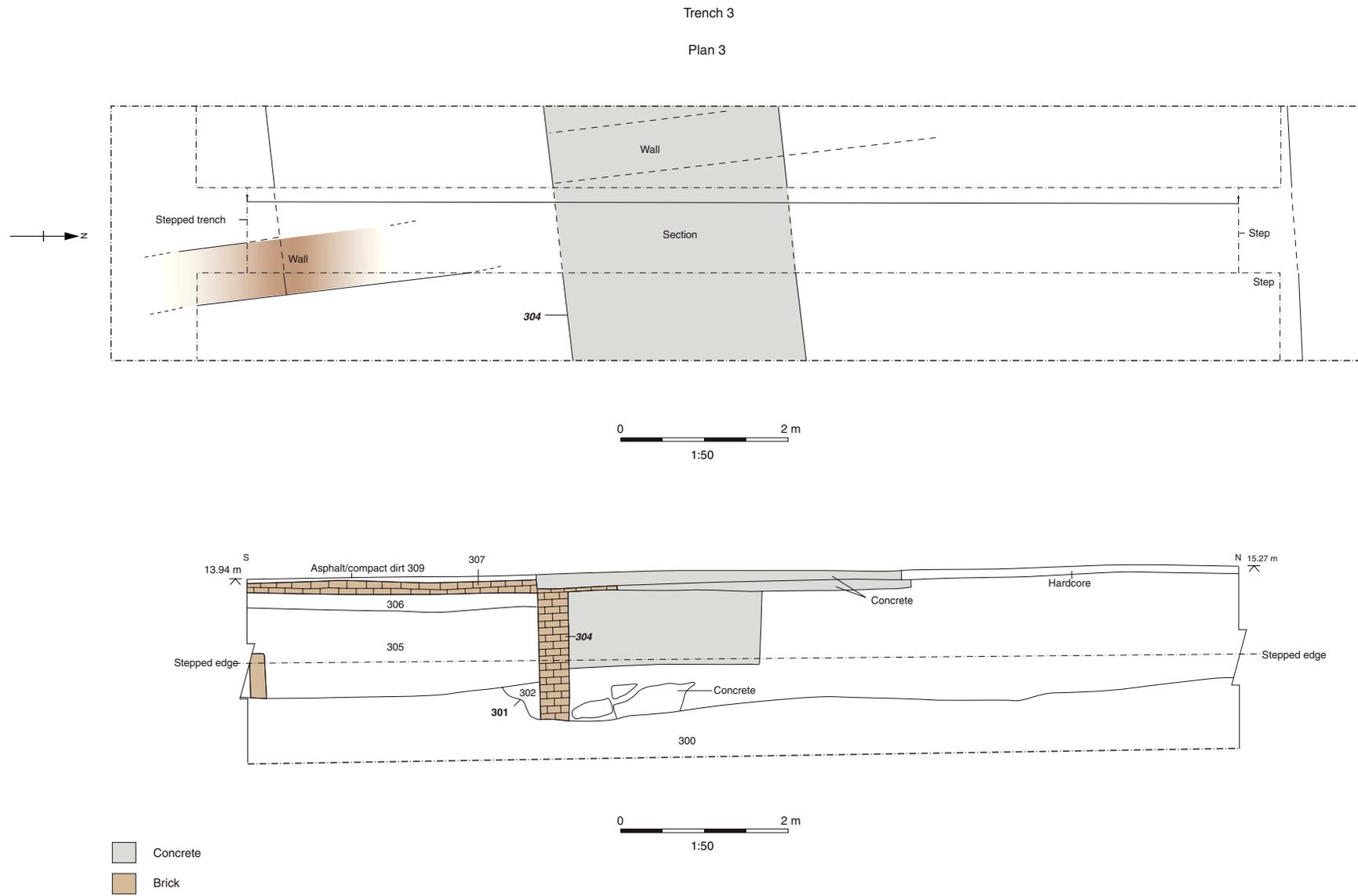


Figure 3: Trench 3, plan and sections

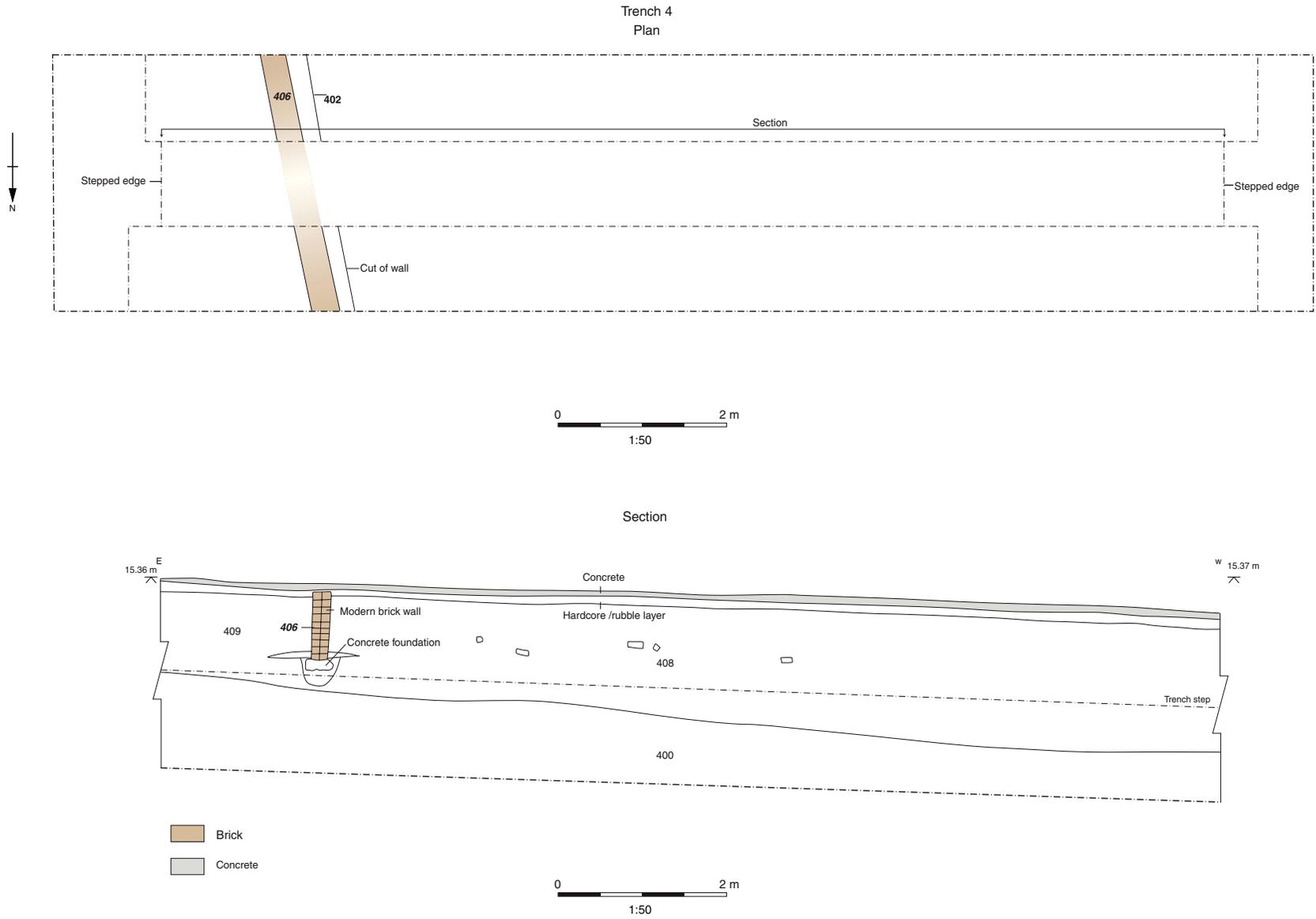
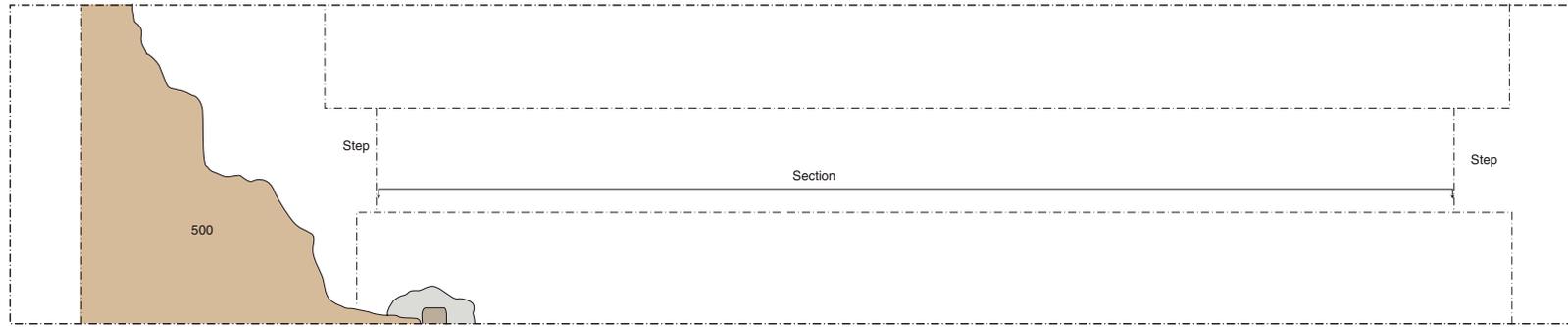


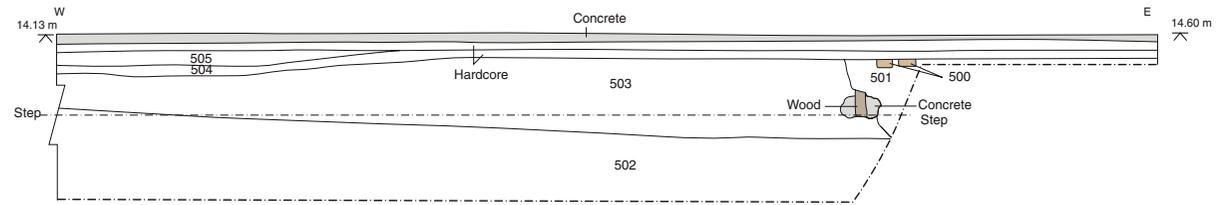
Figure 4: Trench 4, plan and sections



### Trench 5 Plan



### Section



- Brick
- Wood
- Concrete



Figure 5: Trench 5, plan and sections