

Cranwell Booster Station Byard's Leap, Sleaford Lincolnshire



Archaeological Watching Brief Report



July 2013

Client: Anglian Water

OA East Report No:1484

OASIS No: oxfordar3-153763

NGR: SK 9904 4949

Cranwell Booster Station, Byard's Leap, Sleaford, Lincolnshire

Watching Brief

Site Code: XLICBS13

CHER No. LCNNCC:2013.39

Date of Works: April-June 2013

Report No: 1484

Excavator: Graeme Clarke

Client: Anglian Water

Report Date: June 2013

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Summary

On the 3rd and 4th of April and the 19th June 2013, OA East carried out an archaeological watching brief at Cranwell Booster Station, Byard's Leap, Sleaford, Lincolnshire (SK 9904 4949). The monitoring was carried out during the construction works for a new chlorination station on an existing water main running along Ermine Street Roman Road.

The monitoring revealed deposits shown to be the limestone rubble core and gravel metalled surface of the Roman road. The surviving camber is proved to be 0.35m thick and at least 14m wide at this point. These deposits are consistent with the descriptions of Ermine street from previous archaeological monitoring conducted to the north of the site. No roadside ditch was encountered to the east of the Roman road.

1 GEOLOGY AND TOPOGRAPHY

- 1.1.1 The site is located on the Ermine Street Roman Road immediately to the north of the A17 carriageway at Byard's Leap, Sleaford, Lincolnshire (Fig.1). This is currently a 14m wide right of way known as High Dyke approximately 70m above ordnance datum (AOD). The underlying geology comprises Upper Lincolnshire Limestone Member – Limestone with no superficial deposits (source: <http://www.bgs.ac.uk/discovering-Geology/geologyOfBritain/viewer.html>).

2 ARCHAEOLOGICAL BACKGROUND

- 2.1.1 Cranwell and Byard's Leap is a parish within North Kesteven District, c.8km northwest of Sleaford.
- 2.1.2 A search was carried out of the Lincolnshire County Council Historic Environment Record (HER) via the Heritage Gateway website (<http://www.heritagegateway.org.uk>). The HER record search examined an area of 1km radius from the site.
- 2.1.3 An archaeological watching brief and excavations were conducted at Hurlington Business Park, Maiden House Farm, Fulbeck Heath (HER 35667) approximately 1km to the north west of the site (National Grid Reference [NGR] SK 9835 5010). Sherds of Bronze Age and Roman pottery were recovered with assorted medieval finds. Medieval grange buildings were recorded associated with Sempringham Priory. The priory ceased after the 15th century. Further undated features were also recorded. Cropmarks possibly associated with the grange are described as monument No. 1053285.
- 2.1.4 HER 36434 describes a prehistoric cropmark boundary at NGR SK 987 485, approximately 1km to the south of the site.
- 2.1.5 Forty Roman coins were found at NGR SK 9939 4934, approximately 0.5km to the east of the site. These were believed to have been deposited in AD 351/2 and include coins of the emperors Constans, Constantius II and Magnentius (Monument No. 325786).
- 2.1.6 The Booster Station works are located on and adjacent to Ermine Street which is described in HER 60638. This 30km section of Roman road ran between the minor Roman town of Ancaster to the south and the Roman colony of Lincoln to the north. Designed initially for direct communication to the main military centres of York and Lincoln this road would have remained an important route way throughout the Roman period.
- 2.1.7 The HER entry details the monitoring of works in Bracebridge Heath, approximately 12km to the north of the site (NGR SK 9852 6295). This revealed a 0.13m thick metalled road surface, assumed to be of Roman date. Roadside ditches and metalling were also encountered during works further towards Bracebridge Heath to the north. Monitoring on works across the Roman road approximately 11km north of the site (NGR 9881 6108) observed a cambered surface of compacted limestone, below which lay a layer of dark brown silt that may represent a buried topsoil.
- 2.1.8 A search of the Archaeology Data Service website was undertaken to determine the nature of the Roman road deposits likely to be encountered (<http://archaeologydataservice.ac.uk>). An archaeological watching brief on a replacement water main on Ermine street was conducted at Navenby, approximately 8km north of the site (SK 9930 5810). A road surfacing of water rounded pebbles was observed directly overlying the natural ground surface (Rylatt 2000). No roadside ditches were

revealed. The road was observed to be over 13m wide at this point. This report does reference a further excavation on the road 4km further to the north which revealed compacted limestone fragments forming a cambered surface 8.7m wide.

- 2.1.9 There are further records within the 1km search area relating to listed buildings in RAF Cranwell, to the east of the site, which date to the modern period.
- 2.1.10 A search of past Ordnance Survey (OS) maps of the site at <http://old-maps.co.uk> was carried out to determine the more recent use of the site. It was determined that the site's layout with Byards Leap Cottage and garden immediately to the north of the site had not changed from AD 1887. The OS map of 1976 shows much alteration in the elevation of the land bounding the south of the site and associated with the improvement of the A17 roadway.

3 METHODOLOGY

- 3.1.1 The objective of this watching brief was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.
- 3.1.2 The Brief required archaeological monitoring and recording of the Cranwell booster station works. This included: the topsoil strip of a compound area immediately to the east of Ermine Street and associated access road; excavations to reveal the existing water main along the line of Ermine Street; and the excavation of a trench across Ermine Street for a new water pipe.
- 3.1.3 The area of investigation was located on and adjacent to the Ermine Street Roman Road, currently used as a right of way. The compound area to the east was located on undeveloped agricultural land. Byard's Leap Cottage lay immediately to the north which was accessed by a tarmac track across the site.
- 3.1.4 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans and sections were recorded at appropriate scales digital photographs were taken of all relevant features and deposits.
- 3.1.5 Site conditions were dry and sunny.

4 RESULTS

4.1 Introduction

- 4.1.1 Descriptions of the ground conditions encountered and features identified are given in this section. No artefacts were recovered from the excavations. Locations of each trench are given in Figure 2.

4.2 Trench 1 and 2

- 4.2.1 Two 4m x 1.6m trenches were excavated immediately to the west of Ermine Street to expose existing water main pipes. The only deposits encountered were 'made ground', the backfills of pipe trenches associated with the water main. Much of the made ground comprised of limestone rubble.

4.3 Trench 3

- 4.3.1 Trench 3 comprised a topsoil strip (1) for the compound area to the east of the Roman road, and over the access road to the compound. The access road lead west from the compound area onto the Roman road. Only weathered natural limestone (8) was

encountered in the eastern part of the strip (the compound). A wall (**5**) was encountered running north to south along the current eastern boundary of Ermine Street / High Dyke. This was built of limestone blocks (4). Its now ruined extent could be seen extending on the surface to both north and south (see Fig.2). Immediately to the east of this wall, between it and the natural limestone, two thin deposits were encountered, extending 0.75m to the east. This comprised a reddish brown sand (7) overlain by yellowish brown limestone fragments (6) of 0.08m and 0.12m thickness respectively. The base of these deposits lay at 70.79m OD. To the west of the wall modern made ground was encountered (3) overlain by modern hardcore (2) raising the ground level at the western end of the strip for the modern tarmac track.

4.4 Trench 4

- 4.4.1 Trench 4 comprised a 0.45m wide and 0.8m deep excavation across the line of Ermine Street to connect the work in trench 1 and 2 with the compound. Natural limestone (15) was encountered at a depth of 0.6m below ground level (71.79m OD). This was overlain by Limestone rubble with a reddish brown sand (14), 0.3m thick, under a thin 0.05m thick horizon comprised of greyish brown sand with frequent rounded to angular gravels (13). This was overlain by limestone rubble (12) 0.08m thick. These deposits were truncated on the western side by the cut **11** of the existing north-south water main, backfilled with limestone rubble (10). This section was surfaced by tarmac (9).

5 DISCUSSION AND CONCLUSIONS

5.1 Ermine Street

- 5.1.1 Deposits that may be attributed to the Roman road were encountered in trenches 3 and 4. The reddish brown sand (7) and limestone fragments (6) encountered in trench 3 may be equated to the limestone rubble and reddish brown sand (14) observed in trench 4. This material is the rubble core forming the camber of Ermine Street. The thin sand and gravel layer (13) observed in trench 4 overlying this rubble core is the remaining metalled surface of the Roman road.
- 5.1.2 The surviving deposit elevations and camber at the site are presented in Figure 3. This shows the Roman road at this point to be at least 14m wide, closely resembling the current width of the present High Dyke right of way. The surviving camber is shown to be up to 0.35m thick.
- 5.1.3 These deposits are consistent with the descriptions of Ermine Street from previous archaeological monitoring conducted to the north of the site and described in sections 2.1.7 and 2.1.8.
- 5.1.4 Trench 3 proved that no roadside ditch is present to the east of Ermine Street at this location.

5.2 Wall

The wall **5** observed in trench 3 and visible in a ruined state on the surface respects the eastern limit of the Roman road deposits and the current eastern boundary of the High Dyke. The gap at its northern end between it and Byard's Leap Cottage suggests it respects the cottage, forming an entrance to the adjacent field. To the south the wall terminates at the made ground bank associated with the A17 carriageway. It may therefore be considered to be of a relatively recent construction and date.

6 ACKNOWLEDGEMENTS

- 6.1.1 The author would like to thank Anglian Water who commissioned and funded the archaeological work. The project was managed by Richard Mortimer. The illustrations were produced by Gillian Greer and Severine Bezie.
- 6.1.2 The brief for archaeological works was written by Louise Jennings, Historic Environment Officer for Lincolnshire County Council.

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http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html

<http://old-maps.co.uk>

<http://archaeologydataservice.ac.uk>

APPENDIX A. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	<input type="text" value="oxfordar3-153763"/>			
Project Name	<input type="text" value="Cranwell Booster Station, Byard's Leap, Sleaford, Lincolnshire. Watching Brief"/>			
Project Dates (fieldwork)	Start	<input type="text" value="03-04-2013"/>	Finish	<input type="text" value="19-06-2013"/>
Previous Work (by OA East)	<input type="text" value="No"/>	Future Work	<input type="text" value="Unknown"/>	

Project Reference Codes

Site Code	<input type="text" value="XLICBS13"/>	Planning App. No.	<input type="text"/>
HER No.	<input type="text" value="LCNCC:2013.39"/>	Related HER/OASIS No.	<input type="text"/>

Type of Project/Techniques Used

Prompt

Please select all techniques used:

<input checked="" type="checkbox"/> Field Observation (periodic visits)	<input type="checkbox"/> Part Excavation	<input type="checkbox"/> Salvage Record
<input type="checkbox"/> Full Excavation (100%)	<input type="checkbox"/> Part Survey	<input type="checkbox"/> Systematic Field Walking
<input type="checkbox"/> Full Survey	<input type="checkbox"/> Recorded Observation	<input type="checkbox"/> Systematic Metal Detector Survey
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Remote Operated Vehicle Survey	<input type="checkbox"/> Test Pit Survey
<input type="checkbox"/> Open-Area Excavation	<input type="checkbox"/> Salvage Excavation	<input checked="" type="checkbox"/> Watching Brief

Monument Types/Significant Finds & Their Periods

List feature types using the [NMR Monument Type Thesaurus](#) and significant finds using the [MDA Object type Thesaurus](#) together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
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Project Location

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Sleaford
Lincolnshire"/>
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HER	<input type="text" value="LCNCC:2013.39"/>	
Study Area	<input type="text"/>	National Grid Reference <input type="text" value="SK 9904 4949"/>

Project Originators

Organisation	OA EAST
Project Brief Originator	Louise Jennings (Lincolnshire County Council)
Project Design Originator	Richard Mortimer (OA East)
Project Manager	Richard Mortimer
Supervisor	Graeme Clarke

Project Archives

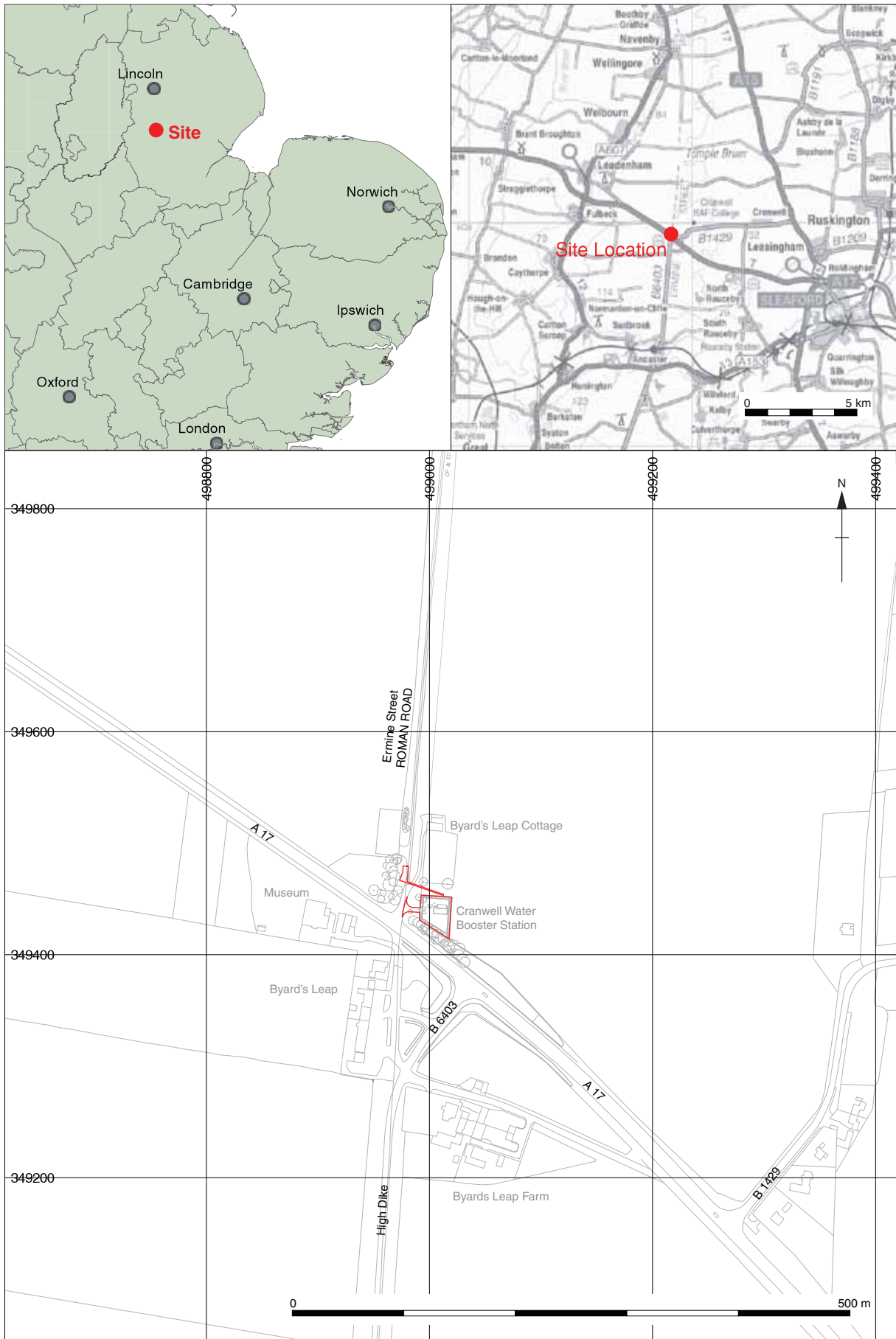
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N/A	LCNCC:2013.39	LCNCC:2013.39

Archive Contents/Media

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	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input type="checkbox"/> Survey

Notes:



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Figure 1: Site location

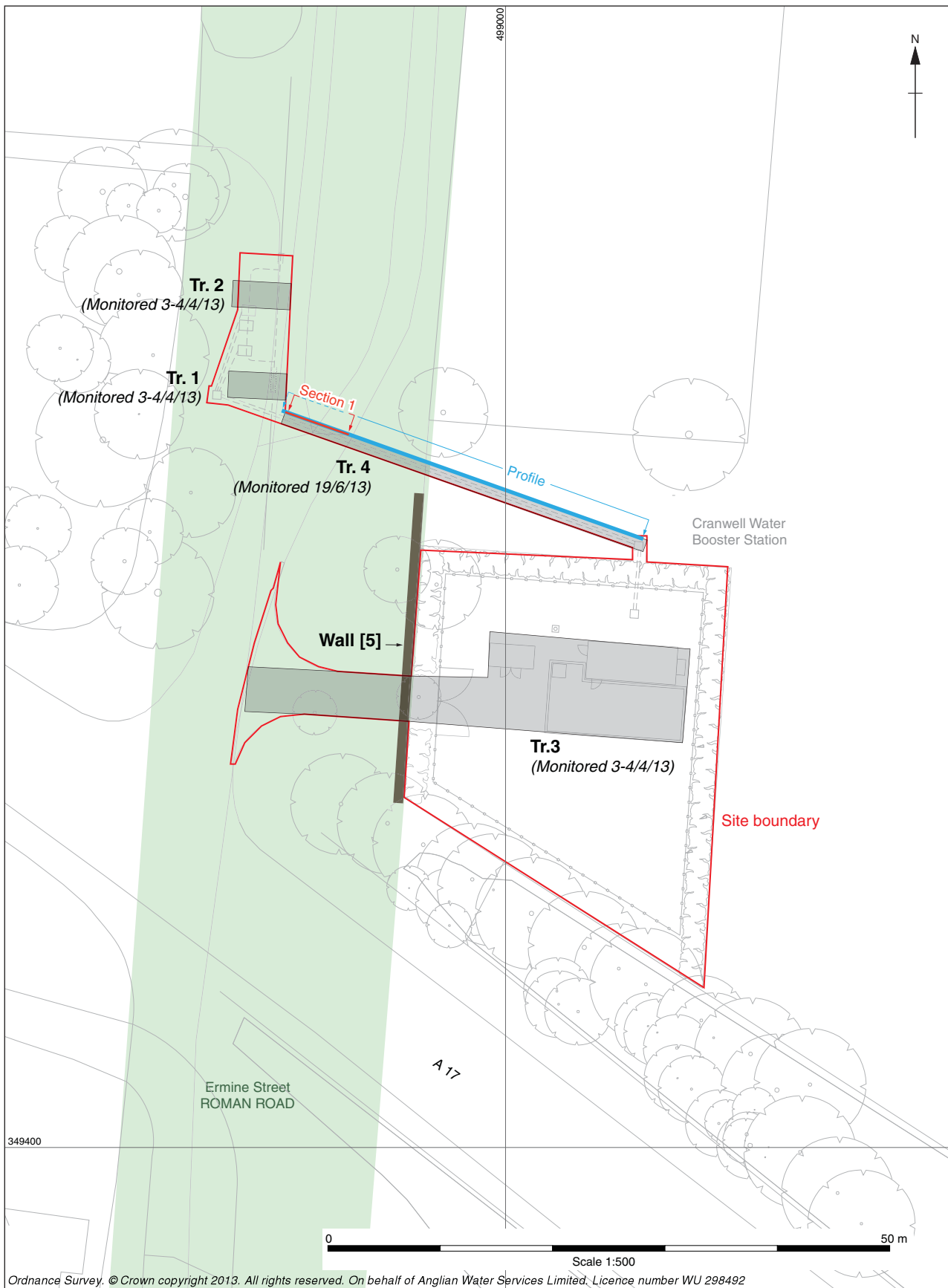


Figure 2: Site layout plan

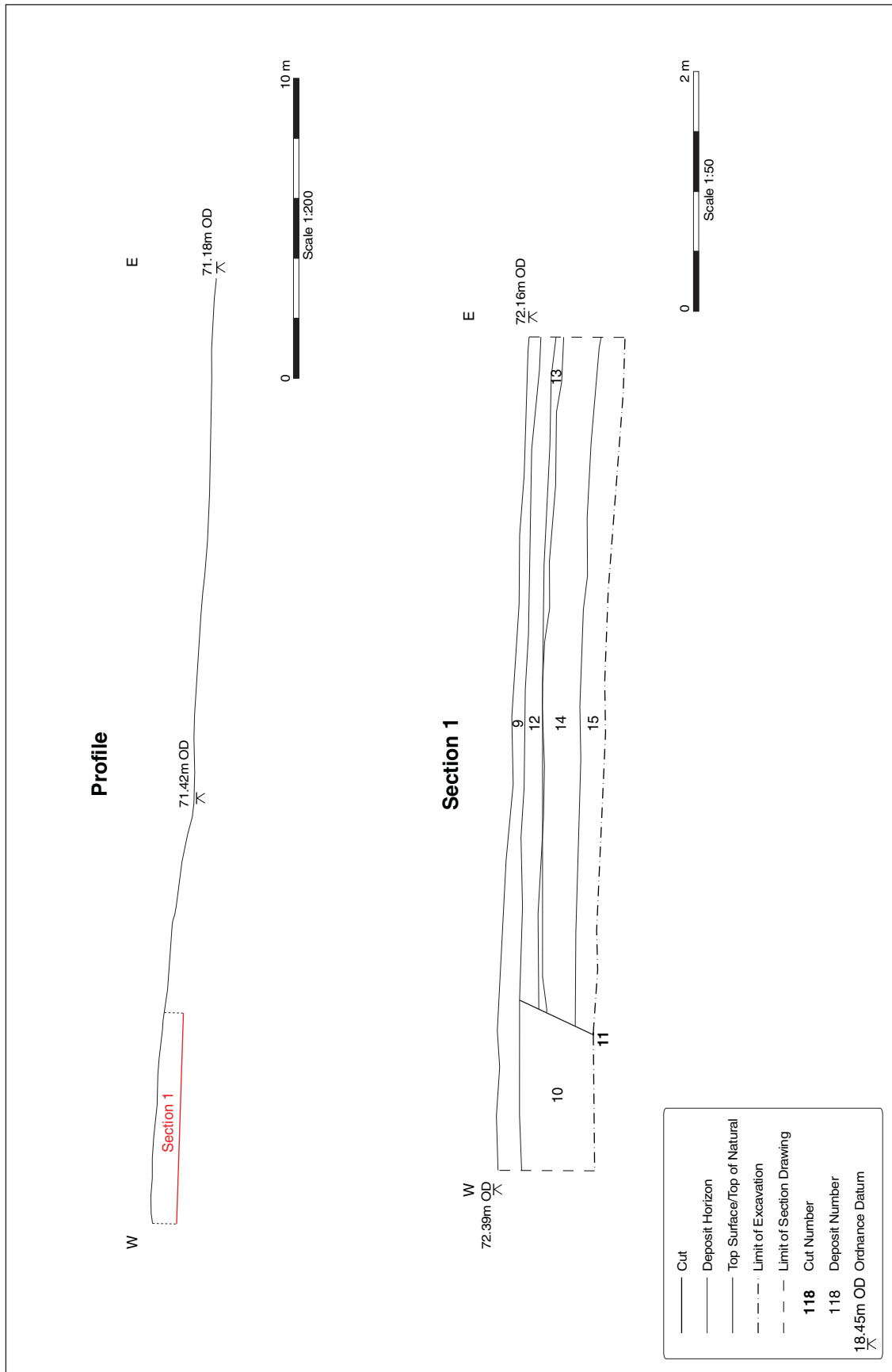


Figure 3: Profile and Section of Ermine Street



Plate 1: Trench 1 and 2 excavations



Plate 2: Trench 3 looking west with Roman Road deposits in foreground



Plate 3: Trench 4 looking north



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