

**LOUSE HOUSE CULVERT ON THE ROYAL MILITARY CANAL,
NEAR BILSINGTON, KENT**

(NGR: 604904 134124)

ARCHAEOLOGICAL WATCHING BRIEF



**Commissioned by
The Environment Agency**

Report No. 2012114

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Project No. 5334
Report No. 2012114
Site Code: LHC12

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ABSTRACT

In March 2012 Archaeology South-East (a division of the Centre for Applied Archaeology, UCL) carried out an archaeological watching brief during the removal of Louse House Culvert on the Royal Military Canal, near Bilsington, Kent (NGR: 604904 134124).

The archaeological monitoring of the groundworks revealed details of the culvert's construction, but did not provide a definitive outcome regarding the date of its construction, i.e. whether it dated to the inception of the Royal Military Canal or whether it was a later feature.

No further archaeological features or deposits were revealed during the course of the work.

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1.0 INTRODUCTION

- 1.1 In March 2012 Archaeology South-East (a division of the Centre for Applied Archaeology, UCL) carried out an archaeological watching brief during the removal of Louse House Culvert on the Royal Military Canal, near Bilsington, Kent (NGR: 604904 134124; Figs. 1 and 2). The Royal Military Canal is designated as a Scheduled Ancient Monument and is protected under the provisions of the Ancient Monuments and Areas Act 1979.
- 1.2 The project, which involved the excavation and removal of the failed culvert, was carried out to satisfy a condition placed on Scheduled Monument Consent. The archaeological watching brief was commissioned by John Kelly of The Environment Agency.
- 1.3 The culvert and associated nearby structures, were the subject of an archaeological appraisal which was produced by ASE in January of this year (Briscoe 2012). This was carried out in order to place the culvert within its context as part of the Romney Marsh landscape and Royal Military Canal, and to ascertain its significance as part of the canal scheme. The project involved examination of the visible parts of the structures.

2.0 SCOPE & METHODOLOGY

- 2.1 In general, the aim of the watching brief was to record, interpret and report on any archaeological and palaeo-environmental remains exposed during the groundworks. More specifically, the aim of the work was to record and analyse the structure of the below-ground part of the culvert in order to identify its date and origin and any associated deposits.
- 2.2 The work was carried out in accordance with a Written Scheme of Investigation prepared by Archaeology South-East, dated March 2012 and approved by Alison McQuaid, Inspector of Ancient Monuments, English Heritage. The work also adhered to the relevant *Standards and Guidance* of the Institute of Field Archaeologists (IFA).
- 2.3 The site was visited by Amy Williamson on 26th and 27th March, and John Cook on 28th March, to monitor each stage of the groundworks. A full description of the exposed structure was compiled in addition to the production of a drawn section and full photographic record. Owing to the depth and instability of the excavations, the section drawing was produced in the form of a roughly dimensioned sketch. The photographic record was made using traditional 35mm black and white photography in addition to digital photography. A selection of the digital photographs is reproduced as plates to illustrate the report and a full catalogue of all photography is included in the archive.

3.0 SITE LOCATION, TOPOGRAPHY AND GEOLOGY

- 3.1 Louse House Culvert lies 0.75km east-south-east of Bilsington village church and 0.75 km east-north-east of the bridge at Bilsington. The section of the Royal Military Canal to which it relates extends on a west-south-west to east-north-east alignment (hereafter simplified west to east), on the north side of which runs the Royal Military Road. The Royal Military Road is bounded on its northern side by a drainage ditch. Louse House Culvert is aligned perpendicular to the Royal Military Road and extends beneath it, forming part of the drainage ditch marked as Marshland Sewer on Ordnance Survey mapping (Fig. 1).
- 3.2 The land to the south of the canal is relatively flat, being part of Romney Marsh, while to the north of the site the ground slopes upwards, rising to 35m above O.D. at a distance of 1.25km north-east. The ground level of the Royal Military Road lies slightly (c. 1m) higher than the surrounding ground level, having been formed from the up-cast from the excavation of the canal (Plate 1). The road measures approximately 20m across and is essentially flat, except for a slight rise towards the centre. The ground surface of the site lies at approximately 4m above O.D.
- 3.3 According to the British Geological Survey (BGS) 1:50,000 scale geological mapping (BGS website), the natural bedrock geology of the immediate area comprises sandstone of the Tunbridge Wells Sand Formation, with a superficial geology of Tidal Flat Deposits of clay and silt.

4.0 ARCHAEOLOGICAL AND HISTORIC BACKGROUND

- 4.1 The following background is reproduced from the WSI and is provided in order that the culvert may be placed within its wider context.
- 4.2 The Royal Military Canal was originally designed during the time when England was threatened with invasion by Napoleon's army, as a means of defence crossing the Romney Marsh, the probable location for Napoleon's landing. The man-made canal would include additional defensive features: a parapet positioned on the northern bank, on the south side of the wide, flat, Royal Military Road, and 'kinks' built into the canal at approximate 500 metre intervals (RMCP 2004) to form gun positions.
- 4.3 In 1805, the construction was handed over to the supervision of the Quartermaster-General's department and by August 1806 it was completed between Seabrook and the River Rother. The canal was finally completed in 1809, by which time the threat of invasion had passed.
- 4.4 The canal was opened as a navigable stretch of water in 1807, subject to tolls for the transportation of produce and goods. In 1810, it was opened to use by the public and the tolls were extended to cover the Royal Military Road between Iden, Rye and Winchelsea. By the end of the 19th century the canal was not used for trade or navigation purposes, but it was requisitioned quickly during the Second World War and pillboxes were constructed on the northern bank.

- 4.5 Today, the canal is connected to a series of drainage ditches that stretch across the Romney Marsh, acting as the main water management feature. When water levels are high, the canal takes in the excess water in the ditches: the levels in the canal are regulated by use of the sluice at Iden Lock, where the canal joins the River Rother. In the summer, water can be pumped into the drainage ditches to irrigate the land.
- 4.6 One such drainage ditch lies on the northern side of the Royal Military Road, connected to the canal by means of culverts. The Louse House culvert forms part of the drainage channel marked as Marshland Sewer on the Ordnance Survey mapping (Fig. 1).
- 4.7 The oldest visible feature in the area of the culvert is a fragmentary quarter-circle of brickwork, the bricks of which are of a similar size, colour and type to the Napoleonic-era bricks which form the Bilsington bridge piers (Henderson 2008: 3). These piers also incorporate quoins which are formed using stones similar to one positioned above the fragmentary brickwork. An associated revetting wall, although only visible in two small areas, is of similar brickwork. These features seem to be original to the construction of the canal and associated road and ditch. It is not known whether more of this revetting wall survives in this location or in other areas: some may have been revealed during routine clearing of the ditches. However, it is clear from the scraped areas of ditch bank to the east that some of this revetting wall has been removed, possibly in order to form the culvert.

5.0 DESCRIPTION OF RESULTS

- 5.1 The culvert, which extended for 25m north – south was excavated in six stages, with each section being sealed with clay and backfilled prior to the excavation of the ensuing section (Fig. 3). The maximum width of the excavations was 2.2m. Work commenced (Stage 1; Plate 2) at the south end with the removal of the head-wall (referred to as Structure 3 in Briscoe 2012), and continued north, concluding (Stage 6) with the removal of the north head-wall (Structure 2, Briscoe 2012). Each stage of excavation provided the opportunity to view the structure of the culvert in section.
- 5.2 Except where noted to the contrary, the excavations revealed a basic stratigraphy consisting of a thin layer (c. 0.1m) of topsoil (001) over a mid-brown silty-clay (002) back-fill or up-cast deposit (Fig. 4; Plate 3). The depth of this deposit varied between c. 1.5m towards the north end of the culvert and c. 3.5m towards the south end. Towards the northern end of the excavated area, in the south-facing section at Stage 5 a layer of blue-grey clay, possibly natural alluvial clay was encountered at a depth of c. 1.7m beneath the ground surface.
- 5.3 The culvert (003) measured c. 600mm in diameter and was circular in section (Plate 4). Its construction comprised two skins or brickwork laid on edge. The inner skin was of yellow Kentish stock bricks (museum of London fabric code

MOL3035), which have a very slight, indistinct frog. These bricks were in production from 1770 until 1940, although the general warped appearance of the bricks suggests they are probably early examples, from the very end of the 18th to early-19th century (Sarah Porteus pers. comm.). The outer skin of the culvert was of orange bricks, which are unfroged and of a slightly under-fired orange sandy fabric. Dating for such bricks is less accurate, broadly 17th to 19th century, although they may be reused as one of the bricks within the sample has two layers of mortar visible (Sarah Porteus pers. comm.). In places gravel ballast was visible beneath the culvert structure. No construction cut was visible. The culvert sloped downwards (north – south) along its length, the top of it lay c. 1.2m beneath the ground surface at the northern end, while at the southern end the top lay c. 2.8m beneath ground level.

- 5.4 Towards the north end, within Stage 6 of the excavations, it was apparent that the workmanship involved in its construction was less-accomplished, with yellow and orange bricks being used in both skins, possibly indicating that the culvert at that end had been re-built, reusing original bricks (Plate 5).
- 5.5 Within Stage 5 of the excavations, it was observed that at some point in time part of the culvert had collapsed and a resulting void above had been in-filled with brick rubble (006) (Fig. 4; Plate 6).
- 5.6 Roughly half-way along the length of the culvert, within the north-facing section of Stage 4, a layer of disturbed clay (004) c. 300mm in depth was seen overlying a layer of crushed brick (005) which was c. 200mm in depth (Fig. 4; Plate 7). This has been interpreted as a possible road/track surface, related to the Royal Military Road.
- 5.7 No further archaeological features or deposits were revealed during the course of the work.

6.0 INTERPRETATION AND DISCUSSION

- 6.1 The archaeological monitoring of the groundworks associated with the removal of the culvert revealed details of its construction, but did not provide a definitive outcome regarding the date of its construction. The fact that no construction cut relating to the culvert was observed might be because the culvert was built in association with, but just prior to the excavation of the canal, the up-cast deposits related to the excavation of which were thrown up over the culvert once it was in place. The bricks utilised within its construction would sit happily with an early-19th century date. However, the fact that a construction cut was not visible does not preclude the possibility that it is a later feature, because it is possible that the construction cut was either wider than the recently excavated area, i.e. (002) would therefore represent the back-fill associated with its construction, or that it was simply not visible owing to the homogenous nature of the up-cast deposit through which it would have been excavated and then back-filled with the same.

- 6.2 The mixed nature of the brickwork at the northern end of the culvert suggests that it had been repaired at some point, possibly in connection with the construction of the head-wall (Structure 2, Briscoe 2012) in the late-19th or 20th century. Certainly there is evidence that the structure has failed in the past, as exposed in Stage 5 of the excavations, where an area of collapse was visible, together with some rubble back-filling of a void which had resulted above.

7.0 SOURCES CONSULTED

Briscoe, J. 2012 *Louse House Culvert on the Royal Military Canal, near Bilsington, Kent: Archaeological Appraisal*. ASE unpublished report 2012011

Internet Sources

British Geological Survey

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

Date accessed: 11th May 2012

English Heritage, *The National Heritage List for England*

<http://list.english-heritage.org.uk/resultsingle.aspx?uid=1005128>

Date accessed: 11th May 2012

Romney Marsh Countryside Project (2004), Royal Military Canal History

<http://www.rmcp.co.uk/canal.html>

Date accessed: 10th January 2012

8.0 DEPOSITION OF THE ARCHIVE

A full archive intended for deposition with Ashford Borough Museum has been prepared in accordance with the guidelines set out in English Heritage's Management of Archaeological Projects 2 as well those published in *Guidelines for the Preparation of Excavation Archives for Long-term Storage* (United Kingdom Institute for Conservation, 1990) and *Standards in the Museum Care of Archaeological Collections* (Museums and Galleries Commission, 1994). The archive has been assigned Archaeology South-East site code LHC12. The archive will comprise a hard copy of the full report, a pdf version of the report on CD, the full photographic record with registers, field notes and sketches.

9.0 ACKNOWLEDGEMENTS

Archaeology South-East would like to thank John Kelly of the Environment Agency for commissioning this archaeological watching brief and would also like to acknowledge Alison McQuaid of English Heritage for her input in the project.

APPENDIX 1 OASIS DATA COLLECTION FORM

OASIS ID: archaeol6-125949

Project details

Project name	Louse House Culvert, nr Bilsington, Kent: Archaeological Watching Brief
Short description of the project	In March 2012 Archaeology South-East (a division of the Centre for Applied Archaeology, UCL) carried out an archaeological watching brief during the removal of Louse House Culvert on the Royal Military Canal, near Bilsington, Kent (NGR: 604904 134124). The archaeological monitoring of the groundworks revealed details of the culvert's construction, but did not provide a definitive outcome regarding the date of its construction, i.e. whether it dated to the inception of the Royal Military Canal or whether it was a later feature. No further archaeological features or deposits were revealed during the course of the work.
Project dates	Start: 26-03-2012 End: 15-05-2012
Previous/future work	Yes / No
Any associated project reference codes	Report no. 2012011 - Contracting Unit No.
Type of project	Recording project
Site status	Scheduled Monument (SM)
Monument type	CULVERT Post Medieval
Significant Finds	NONE None
Significant Finds	NONE None
Investigation type	'Watching Brief'
Prompt	Scheduled Monument Consent

Project location

Country	England
Site location	KENT ASHFORD BILSINGTON Louse House Culvert on the Royal Military Canal
Postcode	TN25 7JZ
Study area	50.00 Square metres
Site coordinates	604904 134124 604904 00 00 N 134124 00 00 E Point

Project creators

Name of Organisation	Archaeology South-East
Project brief originator	English Heritage

Project design originator	Archaeology South-East
Project director/manager	Ron Humphrey
Project supervisor	Amy Williamson
Type of sponsor/funding body	Environment Agency

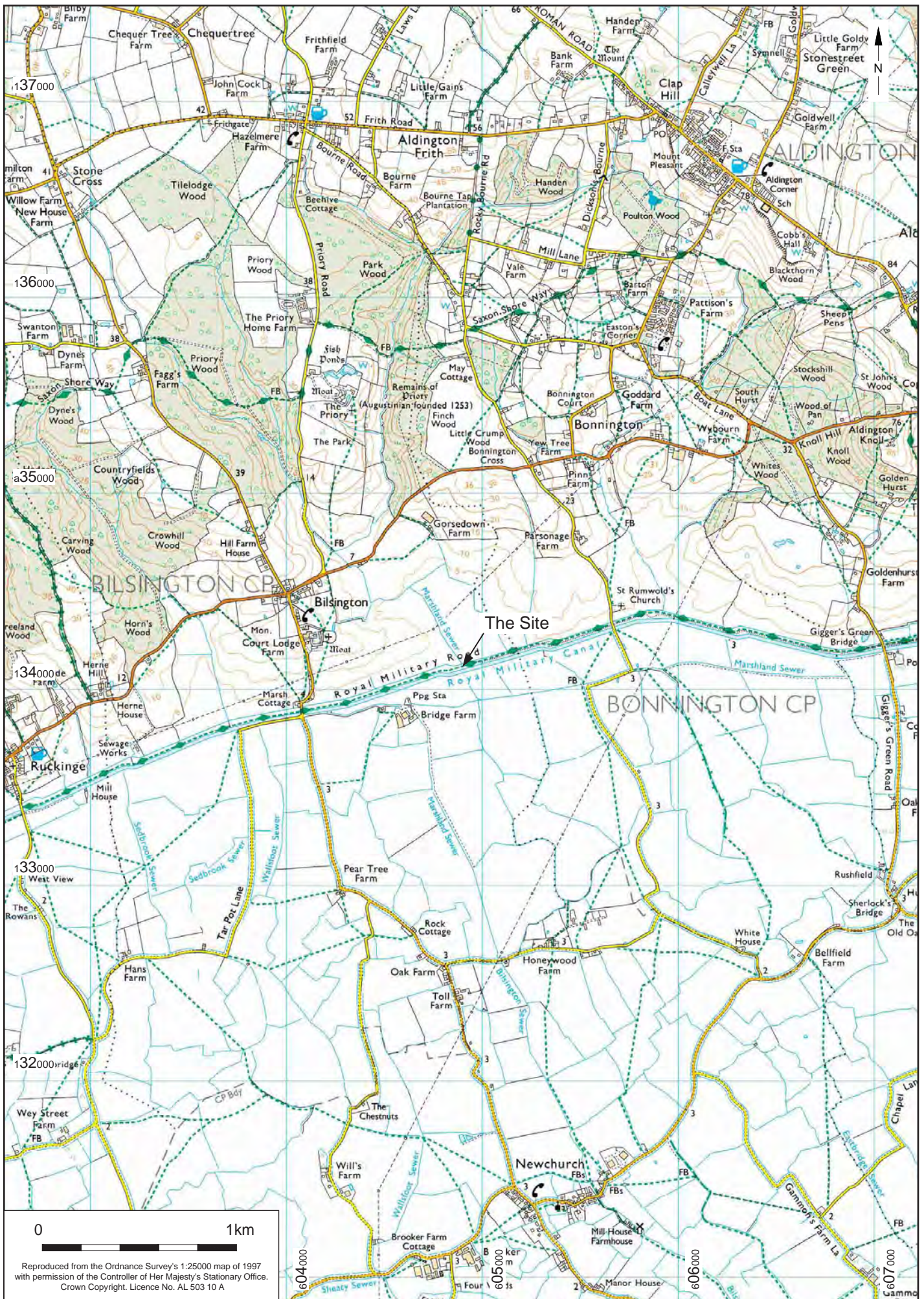
Project archives

Physical Archive Exists?	No
Digital Archive ID	LHC12
Digital Media available	'Images raster / digital photography', 'Text'
Paper Archive ID	LHC12
Paper Media available	'Context sheet', 'Photograph', 'Report'

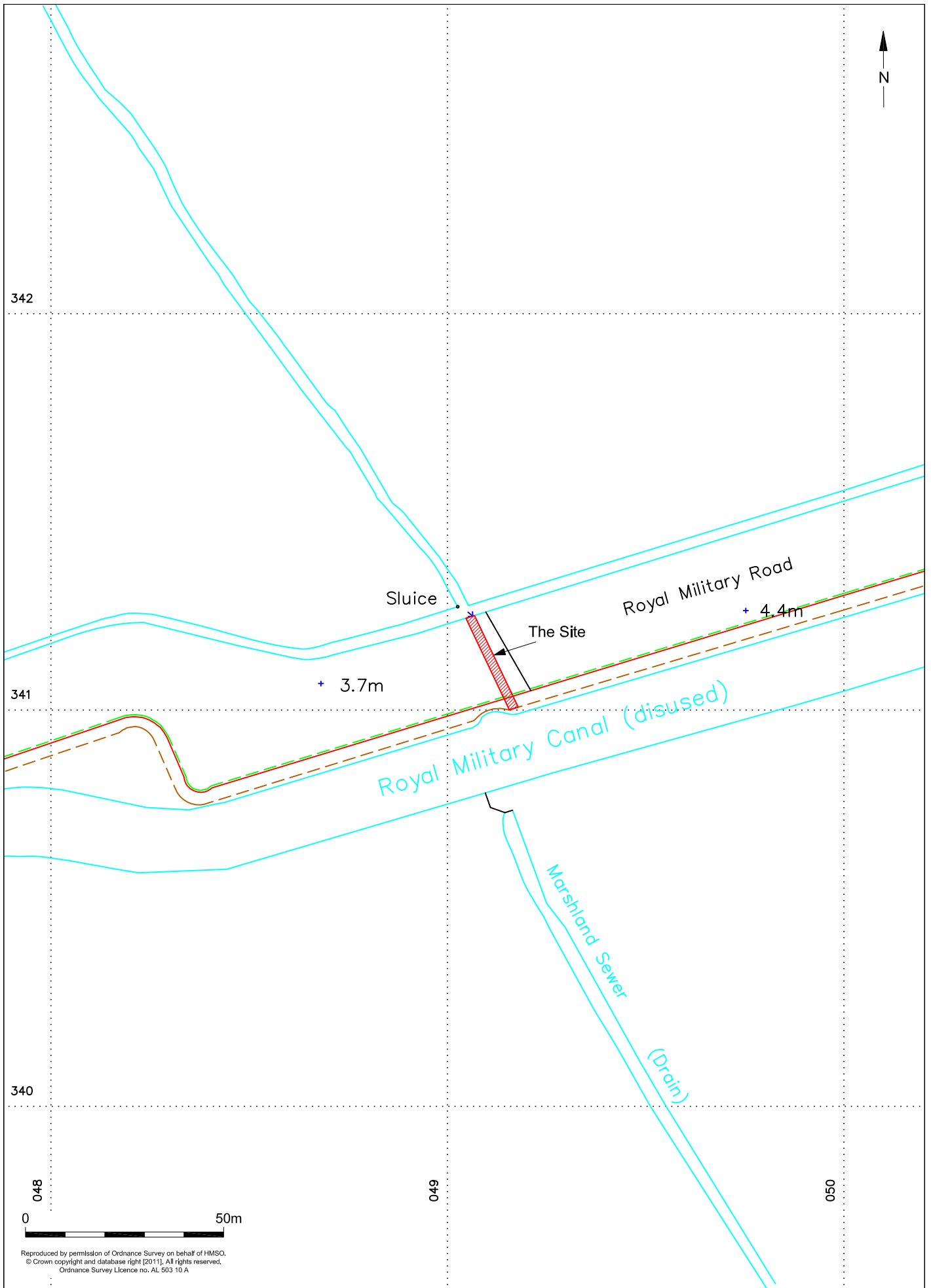
Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Louse House Culvert on the Royal Military Canal, nr Bilsington, Kent: Archaeological Watching Brief
Author(s)/Editor(s)	Williamson, A.
Other bibliographic details	Report No. 2012114
Date	2012
Issuer or publisher	Archaeology South-East
Place of issue or publication	Archaeology South-East
Description	A4 heat-bound report

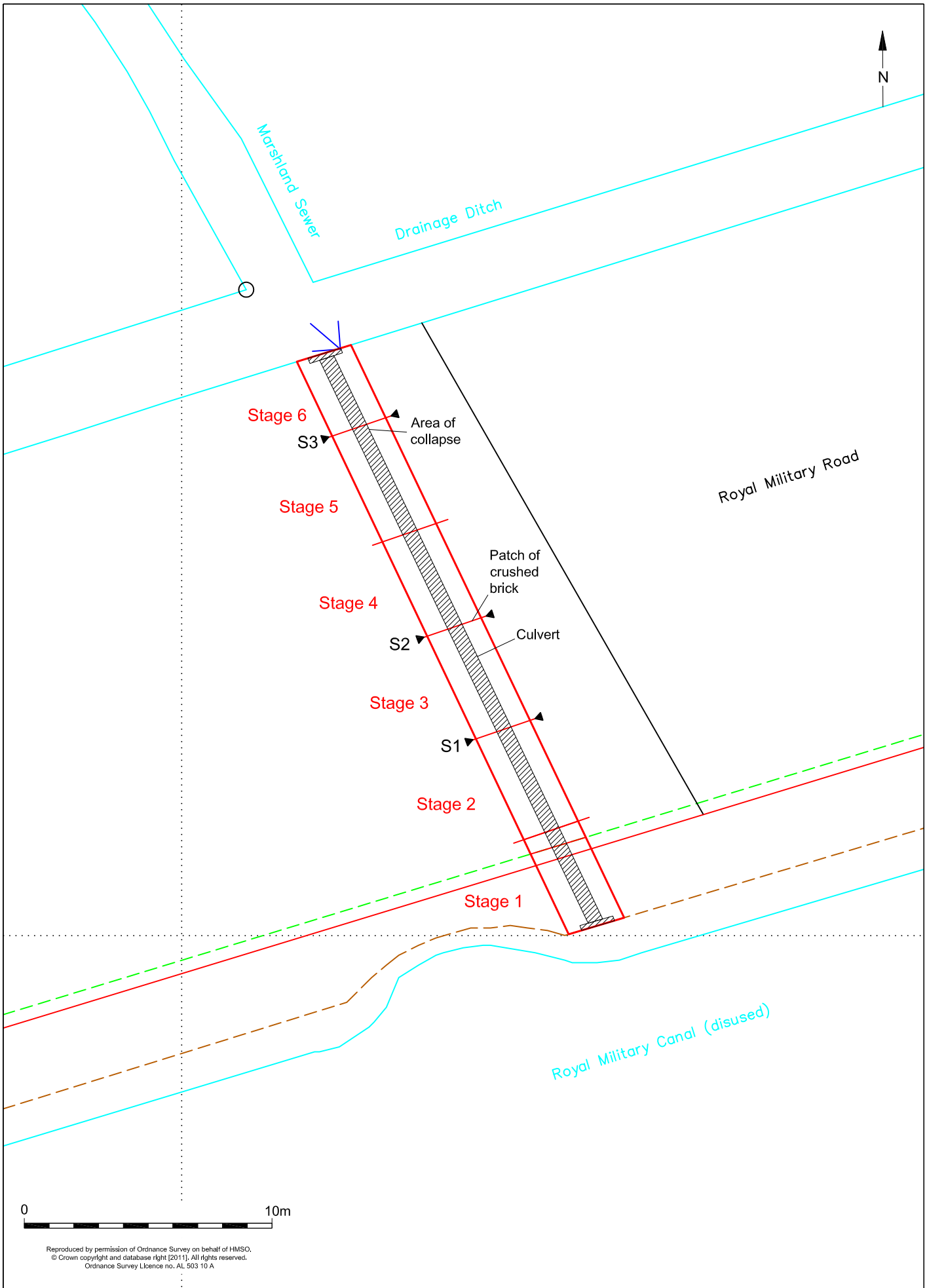
Entered by	Amy Williamson (amy.williamson@ucl.ac.uk)
Entered on	15 May 2012



© Archaeology South-East		Louse House Culvert on the Royal Military Canal, near Bilsonington, Kent		Fig. 1
Project Ref: 5334	May 2012	Site location		
Report Ref: 2012114	Drawn by: JLR			



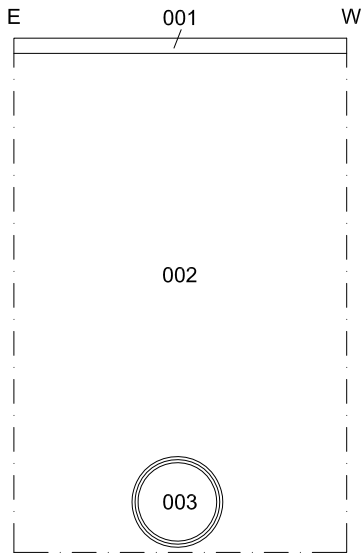
© Archaeology South-East		Louse House Culvert on the Royal Military Canal, near Bilsington, Kent		Fig. 2
Project Ref: 5334	May 2012	Detailed site location		
Report Ref: 2012114	Drawn by: AW			



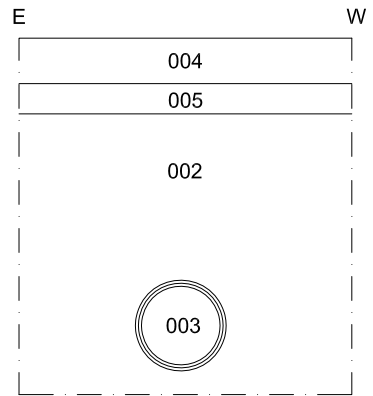
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© Archaeology South-East		Louse House Culvert on the Royal Military Canal, near Bilsington, Kent	Fig. 3
Project Ref: 5334	May 2012	Site plan	
Report Ref: 2012114	Drawn by: AW		

Section 1



Section 2



Section 3

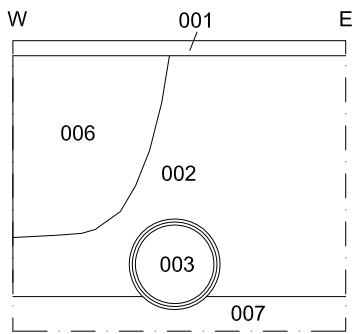




Plate 1: General view of the site, looking east



Plate 2: Stage 1 of the excavations which included the removal of the head-wall, looking east



Plate 3: Stage 3 of the excavations (north-facing section)



Plate 4: Detail of culvert as seen in north-facing section of Stage 2



Plate 5: Mixed brickwork at north end of culvert (Stage 6), looking north



Plate 6: Area of collapse and rubble-filled void (006) visible at Stage 5 of the excavations, looking north



Plate 7: Layer of crushed brick (005) visible in north-facing section of Stage 4

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