



**C261 Archaeology Central
Fieldwork Report**

**Archaeological Targeted Watching Brief at Durward Street
Shaft, Essex Wharf, Whitechapel (XSH10)**

Document Number: C261-MLA-X-RGN-D061_WS105-50001

Document History:

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
1.0	20.02.13	D Sankey	N Elsdon	E Eastbury	For CRL review
2.0	13.6.13	D Sankey	N Elsdon	E Eastbury	Comments reviewed from C261-MLA-X-XCS-D061_WS105-50001 v1.0
3.0	6.9.13	D Sankey	N Elsdon	E Eastbury	Comments reviewed from C261-MLA-X-RGN-D061-WS 105-50001 v2.0
		<i>D Sankey</i>	<i>N Elsdon</i>	<i>E Eastbury</i>	

CROSSRAIL REVIEW AND ACCEPTANCE STATUS	
This decal is to be used for submitted documents requiring acceptance by CRL.	
<input checked="" type="checkbox"/>	Code 1. Accepted. Work May Proceed
<input type="checkbox"/>	Code 2. Not Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated
<input type="checkbox"/>	Code 3. Not Accepted. Revise and resubmit. Work may not proceed
<input type="checkbox"/>	Code 4. Received for information only. Receipt is confirmed
Reviewed/Accepted by:(signature)	<i>[Signature]</i>
Print Name:	<i>S. CARROLL</i> Date: <i>3/10/13</i>
Acceptance by CRL does not relieve the designer/supplier from full compliance with their contractual obligations and does not constitute CRL approval of design, details, calculations, analyses, test methods or materials developed or selected by the designer/supplier.	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.

Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

RESTRICTED



Non technical summary

This report presents the results of an archaeological targeted watching brief carried out by the Museum of London Archaeology (MOLA) on the site of the Durward Street Shaft, Essex Wharf, Whitechapel, London E1, in the London Borough of Tower Hamlets. This report was commissioned from MOLA by Crossrail Ltd. This work is being undertaken as part of a wider programme to mitigate the archaeological implications of railway development proposals along the Crossrail route.

In the western part of the shaft, two truncated orthogonal ditches, broadly aligned north-south, east-west were exposed filled with clay but without finds. They are thought to have been part of a planting scheme visible on 18th-century maps.

Centrally, a circular brick structure set into the ground was exposed, and its position closely matches that of a circular feature marked "tank" on the 1873 Ordnance Survey map. It lies in the area of the historic Essex Wharf, almost equidistant from the – then – newly built rail head and buildings marked as "Manure Works". It is possible that it relates to providing water for the railway (although those are normally in above-ground tanks) or as a major soak-away for effluence from the manure works (at the time manure referred to all sources of phosphates, including blood).

The rail-cutting retaining wall that forms the western boundary of the shaft was also recorded.

The archaeological fieldwork has demonstrated that remains relating to the Roman or medieval period had not survived to the modern era, if they were once present on site. Evidence starts with the peripheral effects of the expanding post-medieval city with the belt of intensive horticulture that surrounded it in the 18th century. The area of the site was then taken over with industrial activities, stimulated by the arrival of the railways. The circular tank may relate to a "manure" works (superphosphate fertiliser manufacture, or to the rail head itself. The cutting for the railway in current operation marked a step-change in rail coverage and has been recorded for posterity.



Contents

Non technical Summary

1 Introduction.....	1
2 Planning background	2
3 Origin and scope of the report	3
4 Previous work relevant to archaeology of site.....	3
5 Geology and topography of site.....	4
5.1 Archaeological and Historical Background	4
6 Research objectives and aims	5
6.1 Objectives of the fieldwork	5
7 Methodology of site-based and off-site work.....	6
8 Summary of methodology for Targeted Watching Brief at Durward Shaft, Whitechapel.....	7
9 Results and observations including stratigraphic report and quantitative report	8
9.1 Durward Shaft	8
10 Assessment of results against original research aims	11
10.1 Original research aims	11
10.2 Additional research themes.....	11
11 Statement of potential archaeology	12
11.1 Importance of Resources.....	12
12 Conclusions	13
12.1 Geology.....	13
12.2 Post-medieval remains.....	13
13 Post-excavation assessment, analysis, publication and dissemination proposals.....	14
14 Archive deposition	14
15 Bibliography.....	15
16 Acknowledgements	16
17 NMR OASIS archaeological report form	17



List of Figures

At end of document

Figure 1 Location of Durward Street shaft watching brief

Figure 2 Multi-context plan of Archaeological features

Figure 3 Section through circular structure

List of Photos

Photo 1, General ground reduction and removal of rail wall	8
Photo 2 Base of ditch [13]	9
Photo 2, Section through “tank” [17]	10
Photo 3, Rail Wall [21] during demolition	10

List of Tables

Table 1 Site Details	2
Table 2 Durward Street Shaft Excavation Stages	7



1 Introduction

Crossrail is a new Cross-London Rail Link project which will provide transport routes across the south-east of England and London. The route will link Maidenhead and Heathrow in the west with Shenfield in the north-east and Abbey Wood in the south-east. In central London, from Royal Oak in the west to Pudding Mill Lane and Royal Victoria Dock in the east, Crossrail will consist of a tunnelled section with seven new stations linked to the existing transport network.

The Crossrail Whitechapel Station is a new underground station proposed on the Crossrail network. It is located along the A11 road corridor with the East London Line (ELL) railway cutting running north/south at its centre and areas of above ground lines of the District and Hammersmith and City Underground Line to the east and west. The Crossrail works fall within the London Borough of Tower Hamlets.

The site is divided into three worksite areas:-

- Cambridge Heath Worksite (Cambridge Heath shaft) to the east of Brady Street.
- Essex Wharf Worksite (Durward Street shaft) formerly referred to as Durward Street worksite located to the north of Durward Street.
- Durward Street Worksite (formally referred to as Hammersmith and City and District Line (HCDL) worksite) at the Ticket Hall and HCDL platforms at Whitechapel Station.
- This report is concerned solely with the Durward Street Shaft at the Essex Wharf worksite.

The Crossrail mitigation response to archaeology is described in the Crossrail Generic WSI (Crossrail 2009) and the detailed desk based assessment (DDBA; Crossrail 2008), and can be summarised as follows:

- In the event that intact and important archaeological remains are identified at Crossrail worksites through this process, it may be preferable, where practicable, to preserve these where they are found (ie preservation in situ).
- However, because of the nature of major works projects such as Crossrail, experience of other similar projects suggests that preservation by record is usually the most appropriate method of dealing with archaeological finds.
- Following an extensive Environmental Impact Assessment (EIA) supporting the Crossrail Bill, and the production of site-specific DDBAs, appropriate mitigation measures were scoped and specified in detail in individual project designs (site-specific WSIs – Written Schemes of Investigation) which were prepared in accordance with the principles set out in the Generic WSI, and developed in consultation with the relevant statutory authorities.
- Archaeological information that is gained from fieldwork will be followed by analysis and publication of the results and will be transferred to an approved public receiving body.

This fieldwork report describes the results of an archaeological targeted watching brief carried out during the construction of the above-mentioned shaft, located between Swanlea School and the London Overground railway, north of Durward Street (Figure 1) by Museum of London Archaeology (MOLA) under Crossrail



contract C261 Archaeology East. The centre of the site is at Ordnance Survey National Grid Reference 534645 181940.

All levels in this document are quoted in metres Above Tunnel Datum (m ATD). To convert Tunnel Datum to Ordnance Datum subtract 100m, ie 1m OD = 101m ATD.

All fieldwork was conducted between 22/10/12 and 04/01/13, and supervised by David Sankey (MOLA Supervisor).

Table 1 Site Details

Task	Principal Contractor	Programme)
<ul style="list-style-type: none"> Targeted Watching Brief [TWB] Essex Wharf Worksite, Durward Street shaft – ground reduction to 103m ATD, removal of gravity wall 	C511 BAM Nuttall Kier JV	22nd October 2012 – 4th January 2013

The event code (sitecode) is XSH10.

2 Planning background

The overall framework within which archaeological work will be undertaken is set out in the Environmental Minimum Requirements (EMR) for Crossrail (<http://www.crossrail.co.uk/about-us/crossrail-act-2008/environmental-minimum-requirements-including-crossrail-construction-code#>). The requirements being progressed follow the principles of Planning Policy Guidance Note 16 (PPG16)(DoE, 1990), and its replacements Planning Policy Statement 5 (PPS5)(DCLG, 2010) and the National Policy Planning Framework (NPPF)(DCLG, 2012), on archaeology and planning. Accordingly the nominated undertaker or any contractors will be required to implement certain control measures in relation to archaeology before construction work begins.

Schedules 9, 10 and 15 of the Crossrail Bill (2008) concern matters relating to archaeology and the built heritage and allows the dis-application by Crossrail of various planning and legislative provisions including those related to listed building status, conservation areas and scheduled ancient monuments (Schedule 9). Schedule 10 allows certain rights of entry to English Heritage given that Schedule 9 effectively dis-applied their existing rights to the Crossrail project, and Schedule 15 allows Crossrail to bypass any ecclesiastical or other existing legislation relating to burial grounds.

Notwithstanding these disapplications, it is intended that agreements setting out the detail of the works and requiring relevant consultations and approvals of detail and of mitigation arrangements will be entered into by the nominated undertaker with the relevant local planning authorities and English Heritage in relation to listed buildings and with the Department of Culture, Media and Sport (DCMS) and English Heritage in relation to Scheduled Ancient Monuments (SAMs).



3 Origin and scope of the report

This report has been commissioned from Museum of London Archaeology (MOLA) by Crossrail Ltd. The report has been prepared within the terms of the relevant standard specified by the Institute for Archaeologists (IFA, 2001). It considers the significance of the fieldwork results (in local, regional or national terms) and makes appropriate recommendations for any further action, commensurate with the results.

4 Previous work relevant to archaeology of site

The principal previous Crossrail studies are as follows:

- Crossrail, February 2005a *Environmental Statement*
- Crossrail, February 2005b *Assessment of Archaeology Impacts, Technical Report. Part 2 of 6, Central Section: Westbourne Park to Stratford and Isle of Dogs. 1E0318-C1E00-00001 [Specialist Technical Report (STR)]*
- Crossrail, November 2006; *Archaeology Programming Assessment*
- Crossrail, December 2008, MDC – *Work Package 3, Archaeological Desk-based Assessment, Whitechapel Station. Doc No CR-SD-WHI-EN-SR00001*
- Crossrail, May 2011 *Whitechapel Station Written Scheme of Investigation C140-HYD-T1-JLT-D061-00001 version 3.0*
- *C261 Archaeology Early East, Fieldwork report, Archaeological Watching Briefs and Evaluation, Whitechapel Shaft (XSH10) v3 22.08.12: C261-MLA-X-RGN-CR140-50041*

All on-site archaeological work was carried out in accordance with the following documents:

- The WSI (see above)
- A Method statement for an Archaeological targeted and Watching brief at Durward Street Shaft, Doc no C261-MLA-X-ACT-CR140-50001 Version 3 29.08.12 developed between MOLA and the principal contractors.

The above cited reports are all available from the London Archaeological Archive and research Centre (LAARC).



5 Geology and topography of site

The site is relatively flat, ground level before excavation began lay at 111.63m ATD. Historically it lay on a broad area of Langley Silt Complex – Brickearth – overlying Taplow Gravels (British Geological Survey 1:50,000 Bedrock and Superficial Deposits, sheet 256, 2006). The area of Brickearth was crossed by a meandering stream, variously called the Black ditch or Common Sewer, which ran underground in Whitechapel, through culverts by the time it was mapped in the 18th century (Barton 1982, 47).

Boreholes associated with the site indicated that river terrace deposits underlay modern made ground across much of the site and alluvial deposits potentially also survived in pockets. Beneath Durward Street boreholes indicates that made ground is present to a depth of 110.30m ATD overlying c 1m of alluvium. River terrace deposits were also recorded at this location from a depth of 109.10 to 103.80m ATD overlying the London Clay. At the Essex Wharf Worksite made ground can generally be expected at approximately 112.00m ATD to between 110.00 and 105.00m ATD, overlying c 1–4m of river terrace deposits. Alluvial deposits, if present, will overlie river terrace deposits at about 109m ATD.

6 Archaeological and Historical Background

The archaeological and historic background was covered in detail in the WSI (see section 4 above), and only the archaeological potential of the site is summarised below.

Generally, archaeological remains could date from the Roman to the post-medieval periods, including potential for Roman remains relating to the London to Colchester Roman Road that is conjectured to run to the south of the Essex Wharf Worksite and possibly through the Durward Street Worksite, and evidence of the 'Black Ditch' and its management dating to the medieval and post-medieval period. Post-medieval remains of a former distillery or of Essex Wharf may also survive on this worksite.



7 Research objectives and aims

7.1 Objectives of the fieldwork

The WSI (Crossrail 2011) stated that the overall objectives of the investigation are to establish the nature, extent and state of preservation of any surviving archaeological remains that will be impacted upon by the development.

Specifically, archaeological investigations at the worksites have the potential to recover:

- Archaeological remains of Roman to medieval date ... [*associated with the nearby*] the Roman/ medieval road from London to Colchester.
- Archaeological remains of post-medieval agricultural, industry and general urbanisation, including the ... Distillery at the Durward Street Shaft.
- [*A drainage/boundary ditch leading into*] The 'Black Ditch', once a natural watercourse but probably culverted from the medieval period.



8 Methodology of site-based and off-site work

All archaeological excavation and recording during the targeted watching brief was carried out in accordance with:

- Crossrail WSI (Investigation C140-HYD-T1-JLT-D061-00001 version 3.0, 2011)
- Crossrail WSI Addendum (Doc No. C138-MMD-T1-RST-M123_C101-00006, v5, 2011)
- Museum of London *Archaeological Site Manual* (MoL 1994)
- English Heritage Greater London Archaeology Advisory Service, June 1998 *Archaeological Guidance Papers 1–5*
- English Heritage Greater London Archaeology Advisory Service, May 1999 *Archaeological Guidance Papers 6*
- English Heritage Greater London Archaeology Advisory Service, 2009 *Archaeological Guidance Papers 1–5 (consultation draft)* [1. Desk-Based Assessments, 2. Written Schemes of Investigation, 3. Fieldwork, 4. Reporting, dissemination and publication, 5. Popular dissemination and communication of archaeology]
- A Method statement for an Archaeological targeted and Watching brief at Durward Street Shaft, Doc no C261-MLA-X-ACT-CR140-50001 Version 3 29.08.12

The site finds and records can be found under the site code XSH10 in the MOLA archive. They will be stored there pending a future decision over the longer-term archive deposition and public access process for the wider Crossrail scheme.

9 Summary of methodology for Targeted Watching Brief at Durward Shaft, Whitechapel

- The C511 Principal Contractor broke out the ground surface. They then removed the underlying modern overburden down to the first archaeological horizon between 108.3m ATD and 109.9m ATD using a mechanical excavator fitted with a flat-bladed ditching bucket (where practical), under supervision by the MOLA Supervisor.
- At this point, and continuing through subsequent excavation, the MOLA Supervisor assessed whether archaeological remains were present (including alluvium), and if so their significance.
- Following general ground reduction of modern material, the Stages of ground reduction were followed (see Section 5.1, Method statement, Doc no C261-MLA-X-ACT-CR140-50001 V3 29.08.12) in a 2.4m-wide strip 36m-long adjacent to the rail-cutting retaining wall on the west side of the shaft until terrace gravels were exposed. The wall south of this point was left standing to full height and a berm of crushed concrete battered to ground level alongside it. A basic record of the rail wall to 108.9m ATD was also made.
- Subsequently, with the exception of the area of the berm in the south of the shaft, the area of the site was reduced to the base of Stage 3, except for the area where a conveyor-belt was located at the south of the shaft. During this process the top of a circular brick-lined structure was exposed on the south-central area of the shaft, which was photographed and surveyed by MOLA geomaticians.
- The conveyor was moved over the southern part of the site and the northern area was reduced to the base of Stage 3 also, then the central area of the shaft was reduced to the base of stage 4. Again the conveyor was moved.
- The high-level of rail wall at the south end of the shaft began to be reduced and with it the berm that previously overlaid part of the brick structure.
- At this juncture the opportunity of examining the brick structure was taken. The surface was cleaned with a small mechanical excavator with a flat-bladed bucket. The structure was then half-sectioned to 1.2m depth using a larger mechanical excavator with a flat-bladed bucket. It was photographed and the fill and structural details recorded. The central area of the shaft was then reduced to the base of Stage 5. Ascertaining the base of the structure, and without further cut features in natural gravel, observations ceased.
- A written, drawn and photographic record of all archaeological deposits encountered was made in accordance with the principles set out in the Museum of London site recording manual (MoL 1994). Archaeological features were initially planned offset from the rail-cutting retaining wall. This, the circular structure, and the shaft outline were surveyed by MOLA Geomaticians using a Leica SmartRover ATX 1230+ GNSS Antenna with an RX 1250XC controller. This produces a 3D survey tied in to the Ordnance Survey National Grid (OSGB36) and transformed to the plane Crossrail Central Zone grid for graphic output.

10 Results and observations including stratigraphic report and quantitative report

10.1 Durward Shaft



Photo 1, General ground reduction and removal of rail wall

Essex Wharf Shaft	
Location	Alongside rail cutting, off Durward Street
Dimensions	57m x 22m
OS National grid coordinates	534645.131, 181940.281
LSG grid coordinates	85002.079, 36584.212
Modern Ground Level/top of the slab	111.3m ATD
Modern subsurface deposits	Modern 20th-c deposits to 109.6m ATD
Level of base of archaeological deposits observed and/or base of trench	106m ATD
Natural observed not truncated	Brickearth [23] truncated to 110m – 109.6m ATD Predominantly sand terrace gravels at 109.4m ATD

Extent of modern truncation	Horizontal truncation at 09.6m ATD
Archaeological remains	Dating Evidence, Finds, and Samples
Two small linear features were dug into natural brickearth at 109.4m ATD. Feature [13] aligned N-S and was filled with clay [12]. Feature [15] aligned E-W and was also filled with clay [14].	None
A 5.7m-diameter brick-lined structure [17], was dug [19] into natural gravels, with a construction trench backfilled with rubble and soil [18]. The highest surviving brick courses were at 108.7m ATD. Originally there had been two parallel circles of unmortared brick stretchers, each wall two bricks thick. It was backfilled with reworked natural clay and gravels, and had a lens of coal-ashy silt [16].	Late 19th-c, map
Interpretation and summary	
<p>Only lower brickearth survived modern truncation and no historic land surfaces were exposed. Two linear cut features filled with clay ([12]–[15]) are thought likely to have been ditches outlining planting plots or allotments within 18th-century market gardening. They might relate to planting schemes shown on the 18th-c Rocque map.</p> <p>The circular brick Structure [17] coincides with a circular “Tank” on a 1870s OS map. This was after the occupation of the site by a distillery, and before the built up phase of Essex Wharf. It is equidistant between buildings marked “Manure Works” (the contemporary name for factories producing superphosphates, using sulphuric acid) and the newly built rail head (a surface rail on a different alignment to the present).</p>	



Photo 2 Base of ditch [13]



Photo 3, Section through “tank” [17]



Photo 4, Rail Wall [21] during demolition

11 Assessment of results against original research aims

The draft revised GLAAS guidelines (English Heritage, 2009) require an assessment of results against original expectations (these no longer mention the criteria for assessing national importance).

11.1 Original research aims

The original research objectives were met as follows, expected archaeological remains included:

- *Archaeological remains of Roman to medieval date ... [associated with the nearby] the Roman/ medieval road from London to Colchester.*

No Roman or medieval roadside remains were present.

- *Archaeological remains of post-medieval agricultural, industry and general urbanisation, including the ... Distillery at the Durward Street Shaft.*

The earliest remains are of undated ditches, thought to possibly date to the 18th-century when rectilinear plots appear on historic maps. They mark intensive horticulture or allotments at the edge of the expanding city. No remains of the distillery were present, but the remains of a “tank” marked on the 1870s OS map was recorded. This is potentially part of the nearby “Manure Works”, or supplied water to the rail head. The rail-cutting retaining wall was also recorded and marks an intensification of the urban superstructure.

- *[A drainage/boundary ditch leading into] The ‘Black Ditch’, once a natural watercourse but probably culverted from the medieval period.*

The Common sewer or “Black Ditch” was not observed.

11.2 Additional research themes

The following new theme has been identified from the fieldwork results, however, it is not proposed that this will be explored further as part of the Crossrail project, see 14.

- *The nature and purpose of the “Tank” recorded on the OS 1873 map*



12 Statement of potential archaeology

The results from the targeted watching brief have *limited* potential for study of the following:

- The transformation from peripheral to core activities in the post-medieval urbanisation of Whitechapel

12.1 Importance of Resources

The importance of the excavated remains have been assessed using professional judgement, informed, where applicable, by the criteria for assessing the national importance of monuments (DCMS 2010, Annex 1).

The ditches identified are not dated and they are only interpreted to have been remains of 18th-century allotments or horticultural beds from the similarity in alignment to those on contemporary maps.

Similarly the brick structure identified as a “tank” on the OS 1872 map is dated from the coincidence of size and location on the map. The later rail-cutting retaining wall is typical of late 19th-century rail cutting construction.

These remains have limited rarity and diversity, moderate supporting documentation, group value with results from the surrounding area, and potential to contribute to study of the Whitechapel area.

They are therefore assessed as being of **low to moderate importance**.



13 Conclusions

13.1 Geology

The drift geology consists of Pleistocene river terrace gravels [24] (Taplow Sands and Gravels), exposed at 109.4m ATD overlain by Langley Silts Complex Brickearth [23] which were truncated at 109.6m ATD.

13.2 Post-medieval remains

Two fragmentary and undated remains of ditches ([12]–[15]) probably relate to the division of the area north of Whitechapel Road into planting plots for intensive horticulture in the 18th century, as is represented in contemporary maps.

A circular brick structure, built without mortar [17], was dug [19] into Terrace gravels (mainly sand here) and the construction cut backfilled with rubble [18]. It may have had some structure inside which was removed when it went out of use. The backfill was predominantly redeposited natural clay and gravel, probably locally-dug, with a small lens of coal-ashy fill [16]. The structure corresponds to a “tank” marked on the OS 1873 map. The rail cutting [22] was retained by a typically complex late 19th-century retaining wall [21] and backfilled with upcast clay, similar to the fill of the circular feature.



14 Post-excavation assessment, analysis, publication and dissemination proposals

The targeted watching brief results will initially be disseminated via this report.

The fieldwork has produced limited results, and a lack of associated artefacts or other material. It is therefore proposed that publication should be confined to the usual Summary Report. This will appear in the annual excavation round up in *London Archaeologist*, in *Post Medieval Archaeology*, and also be deposited with the LAARC.

This corresponds to part of output CRL13 in the Crossrail post-excavation strategy (Crossrail 2013, 5.7.3 and 9.4).

Therefore no further work is required for post-excavation assessment, analysis, or publication (other than the standard Summary Report).

15 Archive deposition

The site archive containing original records and finds will be stored with the LAARC pending a future decision over the longer-term archive deposition and public access process for the wider Crossrail project.



16 Bibliography

Barton NJ , 1982 *Lost Rivers of London*, London

Crossrail, February 2005a Environmental Statement

Crossrail. 2005. Crossrail, *Assessment of Archaeological Impacts, Technical Report. Part 2 of 6, Central Section: Westbourne Park to Stratford and Isle of Dogs. 1E0318-C1E00-00001*.

Crossrail. 2006. *Archaeology Programming Assessment. 1E0318-G0E00-00006 Rev. B*.

Crossrail, 2008b [Mott MacDonald], *MDC – Work Package 3, Archaeological Desk-based Assessment, Whitechapel Station*. Doc No CR-SD-WHI-EN-SR00001

Crossrail, 2009 *Archaeology Generic Written Scheme of Investigation*, Doc No. CR-PN-LWS-EN-SY-00009

Crossrail, 2011 *Whitechapel Station Written Scheme of Investigation* Doc No C140-HYD-T1-JLT-D061-00001 version 3.0

Crossrail, 2012 *C261 Archaeology Early East, Fieldwork Report, Archaeological Watching Briefs and Evaluation, Whitechapel Shaft XSH10*: Doc No C261-MLA-X-RGN-CR140-50041 v3 22.08.12

Crossrail, 2013 *Crossrail Central Archaeology, Updated Project Design For Post-Excavation Works*, Doc No CR-XRL-T1-STP-CR001-50001 v3.0, 20.05.13

Department of Communities and Local Government, 2010 *Planning Policy Statement 5, Planning for the Historic Environment* [PPS5].

Department of Communities and Local Government, 2012 *National Policy Planning Framework* [NPPF].

Department for Culture, Media, and Sport [DCMS], 2010, Scheduled Monuments, Identifying, protecting, conserving and investigating nationally important archaeological sites under the Ancient Monuments and Archaeological Areas Act 1979, March 2010

(<http://www.culture.gov.uk/images/publications/ScheduledMonuments.pdf>)

English Heritage Greater London Archaeology Advisory Service, June 1998 *Archaeological Guidance Papers 1–5*

English Heritage Greater London Archaeology Advisory Service, 2009 *Archaeological Guidance Papers 1–5 (consultation draft)* [1. Desk-Based Assessments, 2. Written Schemes of Investigation, 3. Fieldwork, 4. Reporting, dissemination and publication

Institute for Archaeologists, (IFA), 2001 *By-Laws, Standards and Policy Statements of the Institute for Archaeologists*, (rev. 2001), *Standard and guidance: field evaluation*

Institute for Archaeologists (IFA), supplement 2001, *By-Laws, Standards and Policy Statements of the Institute for Archaeologists: Standards and guidance – the collection, d)*



MOLA, 2011a, *Method statement for an Archaeological targeted and Watching brief at Durward Street Shaft*, Doc no C261-MLA-X-ACT-CR140-50001 Version 3

Museum of London, 1994 *Archaeological Site Manual 3rd edition*

17 Acknowledgements

The author would like to thank Jay Carver, Project Archaeologist, Crossrail for commissioning and managing the work for Crossrail.

The targeted watching brief was supervised by David Sankey. Other MOLA staff involved included, Sarah Jones Catherine Drew and Raoul Bull (geomatics), The fieldwork was managed by MOLA Project Manager Elaine Eastbury.



18 NMR OASIS archaeological report form

OASIS ID: molas1-141146

Project details

Project name	Durward Shaft Essex Wharf Worksite, Whitechapel Crossrail station
Short description of the project	A Targeted Watching Brief on the excavation of the shaft exposed undated field ditches that may relate to horticultural plots on 18th-c maps. A circular brick lined structure corresponding to a
Project dates	Start: 22-10-2012 End: 04-01-2013
Previous/future work	No / No
Any associated project reference codes	XSH10 - Sitecode
Type of project	Recording project
Site status	Area of Archaeological Importance (AAI)
Current Land use	Industry and Commerce 4 - Storage and warehousing
Monument type	DITCH Post Medieval
Monument type	SOAKAWAY Post Medieval
Monument type	RAILWAY CUTTING Post Medieval
Investigation type	"Watching Brief"
Prompt	Crossrail Act
Project location	
Country	England
Site location	GREATER LONDON TOWER HAMLETS TOWER HAMLETS Durward Street Shaft, Essex Wharf Worksite, Whitechapel Crossrail Station
Postcode	E1 5BA
Study area	960.00 Square metres
Site coordinates	TQ 3464 8194 51 0 51 31 11 N 000 03 33 W Point
Height OD / Depth	Min: 9.60m Max: 10.00m



OASIS ID: molas1-141146 – cont'd

Project creators

Name of Organisation	MOLA
Project brief originator	Crossrail
Project design originator	Crossrail
Project director/manager	Elaine Eastbury
Type of sponsor/funding body	Crossrail Ltd
Name of sponsor/funding body	Crossrail
Project archives	
Physical Archive Exists?	No
Digital Archive recipient	LAARC
Digital Contents	"Survey"
Digital Media available	"Images vector","Text"
Paper Archive recipient	LAARC
Paper Media available	"Context sheet","Drawing","Notebook - Excavation',' Research',' General Notes"
Project bibliography	
Publication type	Grey literature (unpublished document/manuscript)
Title	C261 ARCHAEOLOGY EARLY EAST Fieldwork Report Archaeological Targeted Watching Brief Durward Street Shaft, Essex Wharf Worksite - XSH10
Author(s)/Editor(s)	Sankey, D.
Date	2013
Issuer or publisher	MOLA
Place of issue or publication	London
Description	A4 report
Entered by	David Sankey (DSankey@mola.org.uk)
Entered on	16 January 2013

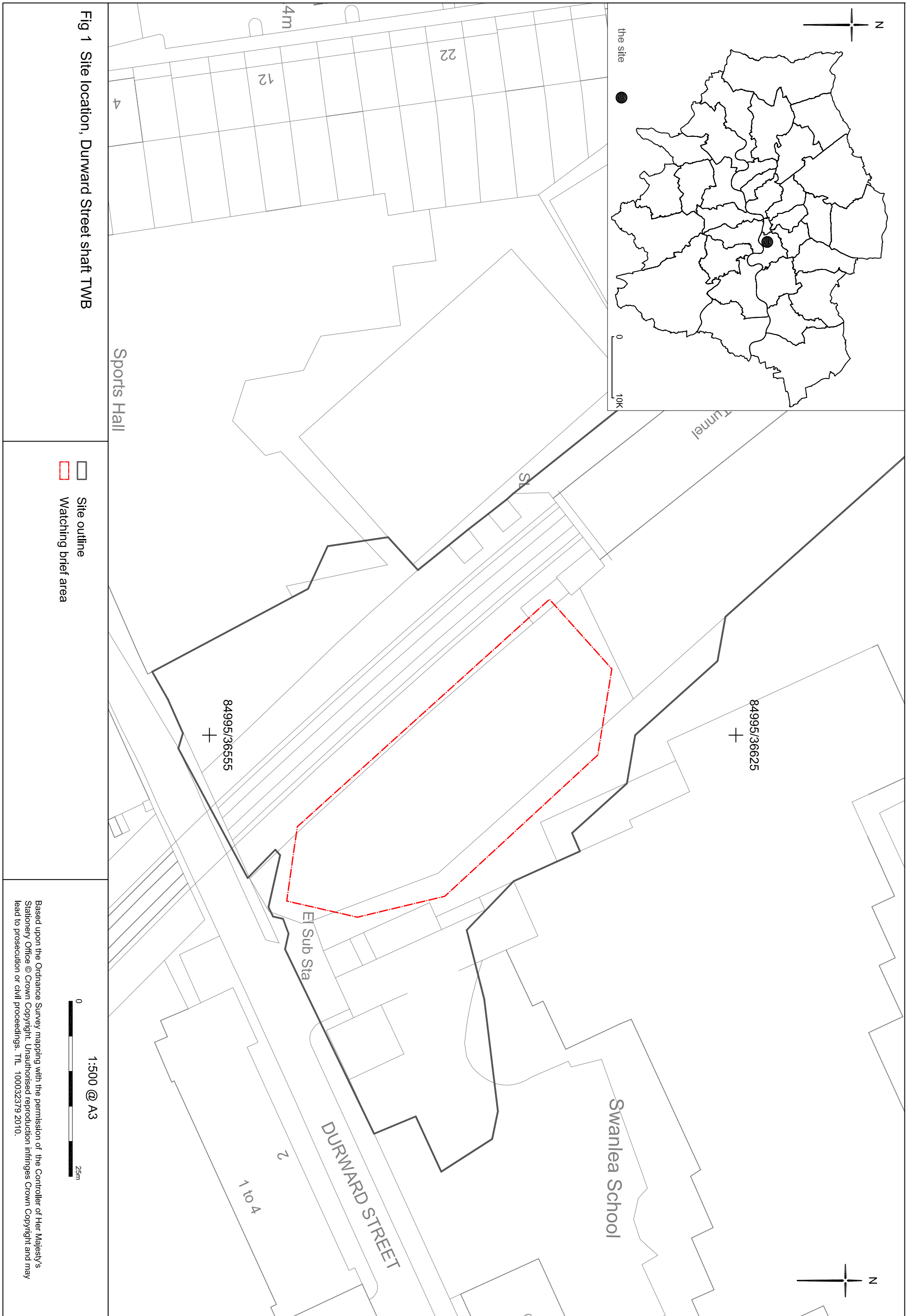



Fig 1 Site location, Durward Street shaft TWB

-  Site outline
-  Watching brief area

1:500 @ A3
 0 25m

Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. TFL 10003237/9 2010.

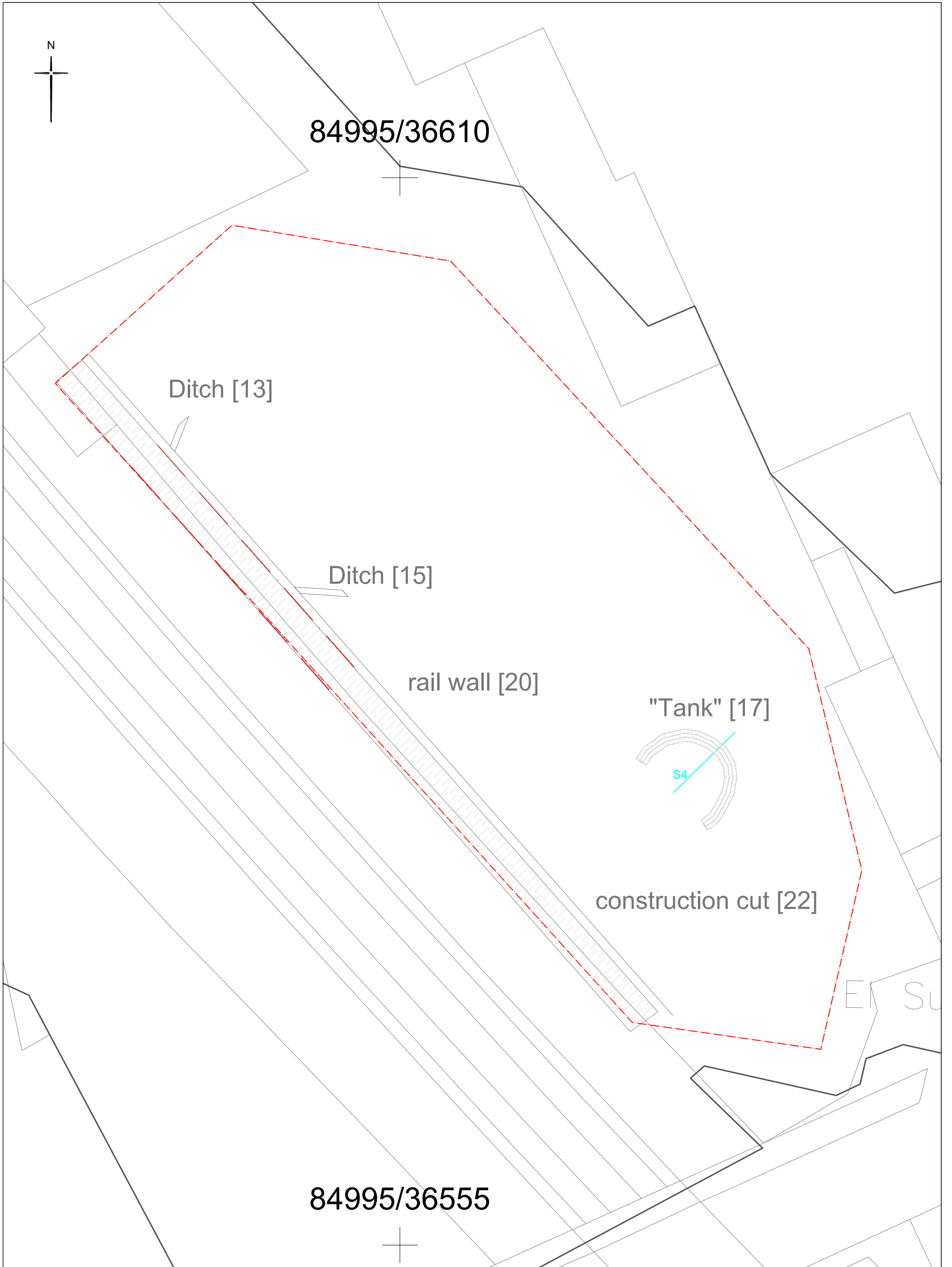








Fig 2 Multi-context plan of Archaeological features

-  Site outline
-  Trench edge
-  Modern truncation
-  Archaeological features
-  Section line

1:200 @ A3
 0  10m

Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. TFL 100032379 2010.

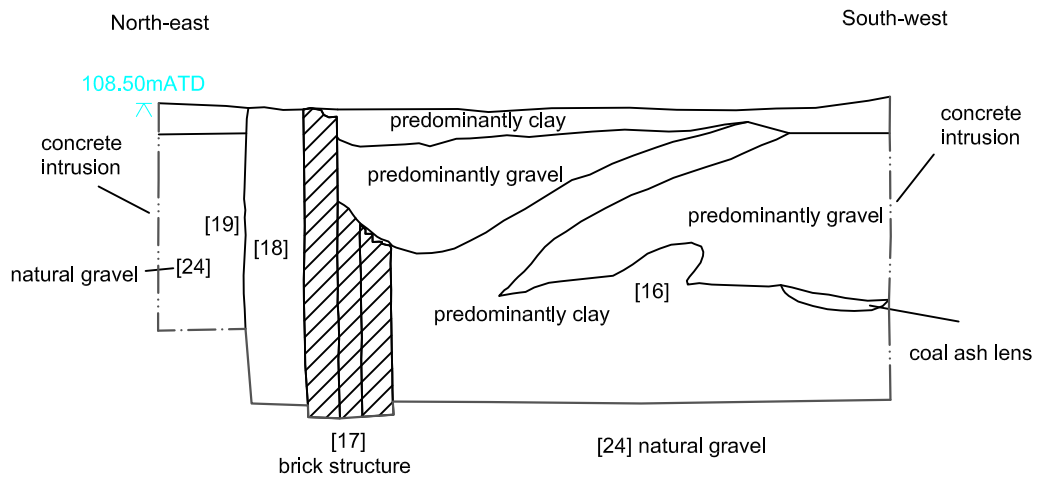





Fig 3 North-west facing section through circular structure [17]

-  Trench edge
-  Archaeological features
-  TBM

0 1:50 @ A4 2.5m

Based upon the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings. TFL 100032379 2010.