

C257 ARCHAEOLOGY CENTRAL Fieldwork Report Archaeological Watching Brief Verizon Utility Trench, Old Broad Street and London Wall (XSZ11)

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Non technical summary

This report presents the results of archaeological monitoring carried out by the Museum of London Archaeology (MOLA) on a Verizon utility diversion trench in Old Broad Street, crossing a Scheduled Monument, at the junction with London Wall, London EC2, in the City of London. The report was commissioned from MOLA by Crossrail Ltd. This work is being undertaken as part of a wider programme of mitigation along the Crossrail route.

The trench ran north to south along Old Broad Street, a route that crossed the predicted alignment of the historic City Wall (Scheduled Monument LO26N). The Crossrail Act (2008) disapplies various pieces of legislation, including the Ancient Monuments and Archaeological Areas Act 1979. However, alternative arrangements are set out in a Scheduled Monument Deed. Therefore, the trench was excavated by the C503 contractor under close continuous archaeological supervision, with attendant monitoring (watching brief) both while in the predicted location of the City Wall and within a buffer zone of 6m to the north and south of the alignment, in accordance with English Heritage agreements and the Scheduled Monument Deed.

Care was taken throughout the process of excavation to avoid damage to the Scheduled Monument should it be exposed. The attending archaeologist was present to protect and record any surviving remains of the wall, or any other archaeological deposits, if they had been encountered. However, below the slab of the existing road surface, the utility trench was hand-dug to between 0.30 and 0.80m deep and only modern material and existing utilities were encountered.

The archaeological survival/truncation data obtained during this monitoring and recording will satisfy the process as set out in the Scheduled Monument Deed. No further Verizon works are planned in the vicinity of this Scheduled Monument. Any further mitigation measures for future utilities diversions will be determined from the results of the current work and will be inserted within the Crossrail Site-Specific Written Scheme of Investigation for Liverpool Street Station.



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1 Introduction

Crossrail is a new cross London rail link project which will provide transport routes in the South-east and across London. The line will provide a range of both new and improved rail journeys across London and its immediate surroundings. The proposed development will include the construction of seven stations within central London which will have interchange with other public transport modes including the London Underground, National Rail and the London Bus service; the development will also include the renewal and/or upgrade of existing stations outside central London. The route itself will link Maidenhead and Heathrow in the west with Shenfield in the northeast and Abbey Wood in the south-east. As part of these works a new Crossrail station will be constructed in the Liverpool Street and Moorgate areas of the City of London. In order to construct the station a large number of existing utilities will be diverted in advance of construction.

This fieldwork report describes the results of an archaeological watching brief carried out in the Liverpool Street area by Museum of London Archaeology (MOLA) under Crossrail contract C257 Archaeology Central, a Verizon utility trench at the south end of Old Broad Street and the junction with London Wall (street)(see Figure 1). This trench passed across the predicted location of the historic City Wall (Scheduled Monument LO26N), and, therefore, required close archaeological monitoring, in accordance with a Scheduled Monument Deed and agreement with English Heritage.

The Roman and medieval City Wall is often referred to as London Wall; but since this is also a modern road name, the historic structure is referred to in this report as the City Wall, reserving 'London Wall' for the road.

The approximate centre of the watching brief site is at Ordnance Survey National Grid Reference 533079 181475.

All fieldwork was conducted on 17/12/11 and on 14/01/12, supervised by Robert Hartle.

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.

| Task | Principal Contractor | Date | |
|---|--------------------------|---|--|
| General Watching Brief (Verizon trench, Old Broad Street and London Wall) | C503 Vinci/McNicholas | Started 17 December 2011, Completed 14 January 2012 | |

The event code (sitecode) is XSZ11.



2 Planning background

Crossrail is being built under the powers of the Crossrail Act (2008), which disapplies various pieces of legislation, and replaces them with alternative provisions. Those pertinent to these works are:

- The Crossrail Act contains clauses that disapply the usual statutory controls for works that affect Scheduled Monuments. The Ancient Monuments and Archaeological Areas Act 1979 is modified by Schedule 9 (Paragraph 4) of the Crossrail Act 2008 in respect of works authorised by the Act. Alternative provisions are set out within a Scheduled Monument Deed: Crossrail: Works affecting scheduled monuments in the City of London (Crossrail, 2008a). Consequently, the Nominated Undertaker (Crossrail) has signed the Deed relating to works affecting scheduled monuments in the City of London (Crossrail Act 2008), hereafter referred to in this document as 'the Deed', with the Secretaries of State and English Heritage. The Deed requires details of works that may affect Scheduled Monuments to be approved by the Secretaries of State. The Scheduled Monument Deed is included in full in the Crossrail method statement, which also details the requirements and procedures relating to approvals and archaeological requirements under the Deed (Crossrail 2011, Section 4).
- The principles of Planning Policy Guidance 16 (PPG16)(DoE, 1990) are encompassed within the Crossrail Environmental Minimum Requirements (EMR; Crossrail 2008b), in particular Annex 2: Planning & Heritage Memorandum, and the Crossrail Generic Written Scheme of Investigation (Crossrail 2009a). PPG16 was replaced by Planning Policy Statement 5 (PPS5)(DCLG, 2010), itself superseded by the National Policy Planning Framework (NPPF)(DCLG, 2012).

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).

The archaeological works recorded within this report were designed to satisfy the process set out in the Deed.

This report will be made available from The London Archaeological Archive and Research Centre (LAARC) in due course.

4 Previous work relevant to archaeology of site

Schedule 2 of the Deed sets out a process to be employed by Crossrail design engineers to inform the design of the utilities diversions. The assessment stages set out in Schedule 2, and the works carried out by Crossrail to satisfy that process, are summarised below:

 A detailed desk-based assessment (DDBA) was carried out by Crossrail and Museum of London Archaeology in 2008/09 to collate and map past observations

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fieldwork.

of the City Wall, and thereby understand the potential for encountering the scheduled monument during utilities works and consequently to inform the necessity for a trial trench evaluation.

- Non-intrusive fieldwork investigations followed the DDBA. MOLA reviewed the results of geotechnical investigations and identified an anomaly in an area to the east of Moorgate, where part of the City Wall was expected. Consequently, the Ground Penetrating Radar results were reviewed by Stratascan, a professional geophysical and specialist survey service often used to survey archaeological projects. Stratascan concluded that no archaeological features could be definitely identified, and that further radar work was not likely to produce reliable results. The decision was therefore taken to move directly from DDBA to intrusive
- Consultation with English Heritage took place in 2009 for an archaeological watching brief and evaluation. English Heritage (Jane Siddell, Inspector of Ancient Monuments) provided a specification for protection measures to be enacted should the Scheduled Monument LO26N be exposed. These works were carried out by Crossrail and MOLA in the Liverpool Street to Moorgate area in the same year. Of the ten trenches, trench LIV19 was located at the southern end of Old Broad Street on the conjectured alignment of the City Wall (Scheduled Monument LO26N)(Crossrail 2009b). However, trench LIV19 did not encounter any part of the City Wall, but demonstrated modern disturbance to a depth up to 1.50m below ground level (Crossrail, 2010).
- In accordance with clause 2.2 of the Deed, before making a request for approval
 of the works covered by this report, Crossrail consulted English Heritage (Jane
 Siddell) on 14th October 2011. A method statement was then prepared by
 Crossrail for this watching brief and evaluation (Crossrail, 2011, Doc. No. CRL1XRL-Z7-GMS –C101-50001).

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 Route Section, 1E0318-C1E00-00001, [Specialist Technical Report (STR)]
- Crossrail, 2008a Crossrail: Works affecting scheduled monuments in the City of London [Scheduled Monument Deed]
- Crossrail, 2008b Utilities Diversions: London Wall, Moorgate, Blomfield Street, Old Broad Street, Bishopsgate, Past Observations Of City Wall [Detailed desk based assessment (DDBA) for the City Wall only]
- Crossrail, 2008c Archaeology Detailed Desk Based Assessment Liverpool Street Station, Doc. No. CR-SD-LIV-EN-SR-00001 [Liverpool Street DDBA].
- Crossrail, 2010 Archaeological Watching Brief & Evaluation, Utilities trial trenches, Liverpool Street and London Wall, Revision 2.0. Museum of London Archaeology.



5 Topographical and historical background

The natural geology lies too deep to have been reached by these works.

The natural geology consists of Pleistocene Taplow terrace gravels, generally c 3.5 to 6m below modern ground levels, which forms the base of the archaeological sequence. Brickearth (Langley Silt complex), overlaying terrace gravels, may survive here in localised areas.

The site is situated on the eastern side of the broad, shallow valley of the former Walbrook stream. Street level lies at *c* 113.1 to 113.2m ATD, sloping down gently to the west.

The geological and topographical setting is described at greater length in the Specialist Technical Report (Crossrail 2005b) and the Liverpool Street DDBA (Crossrail 2008c).

5.1 Archaeological and Historical Background

The following summary of the archaeological background concentrates on those elements likely to be affected by the utility trench, ie those likely to survive within c 1.50m of modern ground level in the area of the trench (the expected maximum depth).

5.1.1 Roman Period (AD 50 to 450)

There is limited evidence for prehistoric activity in the Liverpool Street area, however, this area is situated immediately north of the Roman city of *Londinium*. From approximately the late 2nd century AD, the city boundary was formally marked by a wall which ran roughly east to west either along the line of the road now named London Wall, or a short distance to the north. The wall divided the urban area of the city to the south, from extra-mural areas to the north, where various activities, possibly including some occupation, took place. Roman cemeteries were placed outside the city boundaries, in particular along roads leading out of the city such as Ermine Street, modern Bishopsgate.

Construction of the City Wall appears to have blocked or constricted the course of the Walbrook, and from the later Roman period through to the end of the medieval period, a marsh formed in this extra-mural area. These deep marsh deposits account for some of the considerable depth of archaeological remains in this area.

Description and significance of Scheduled Monument LO26N

The wall itself was constructed of Kentish ragstone with tile courses around a rubble and mortar core. It generally survives to a width of up to c 2.5 to 3.0m, at variable heights, anywhere between c 0.3m and c 4m or more below modern street level (depending upon the extent of later truncation).

Remains of Roman and medieval wall from the west end of All Hallows Church to 38 Camomile Street, a distance of *c* 235m long, have been designated a Scheduled Monument (LO26N). The majority of this section now runs beneath buildings to the

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north of London Wall and Wormwood Street. However, the wall may survive beneath the south end of Old Broad Street north of London Wall (road). The extent of survival of the buried parts of the wall is uncertain.

Schedule 1, Part 3 of the Deed sets out background information describing the Scheduled Monument LO26N:

... The parts of the monuments which might potentially be affected by the utility diversions are buried below ground level. It is considered that earlier utilities have previously been dug at least part-way through localised parts of the monuments. The current English Heritage mapping of the buried monuments is not considered to be accurate in detail. The wall around the landward side of the Roman city of Londinium was built in c AD 200. Bishopsgate was one of the five original major gates, later reconstructed to project c 8m from the wall line. The wall was refurbished in the medieval period, the gates rebuilt, and new ones, including Moor Gate, were added. Further refurbishment took place in the 17th century, and large portions of the wall were demolished from the mid 18th century onwards. Scheduled monument LO26N, London Wall: remains of Roman and medieval wall from the west end of All Hallows Church to 38 Camomile Street Section LO26N is c 235m long, and extends eastwards from All Hallows Church to 38 Camomile Street. Unlike section LO26P, the majority of this section runs beneath buildings to the north of London Wall and Wormwood Street. It might, therefore, only be affected by utility diversions where it crosses the southern ends of Old Broad Street and Bishopsgate. This section includes the site of the former Bishopsgate, which projects north of the line of the wall. The centre of this section lies at approximately NGR 532820 181525. The extent of survival of the buried parts of the wall and the Bishopsgate is uncertain. The top of the surviving wall at Bishopsgate was previously observed at c 1.6m below ground level. The western end at All Hallows Church survives above ground level.

Of the ten trenches dug during the 2009 watching brief and evaluation, only trench LIV19 was located at the southern end of Old Broad Street on the conjectured alignment of the City Wall (Scheduled Monument LO26N)(Crossrail 2009). However, trench LIV19 did not encounter any part of the City Wall, but demonstrated modern disturbance to a depth up to 1.50m below ground level.

5.1.2 Medieval Period (AD 450 to 1540)

Whilst the Moorfields Marsh would have inhibited human activity in this area north of the wall during the medieval period, repairs and reconstruction of the wall included the addition of new exits from the City at Moorgate (The Moor Gate) and a postern (small gate or doorway) at what would become Blomfield Street. During the later medieval period the marsh was drained.

5.1.3 Post-medieval (AD 1540 to 1900)

The area between Moorgate and Bishopsgate gradually filled in with buildings during the 17th and 18th centuries, with the exception of the open Moor Field lying west of Blomfield Street, which survived as the open grounds of the Bethlem Hospital (Bedlam). Parts of the City Wall, notably the gates at Moorgate and Bishopsgate, had been rebuilt or refaced in brick during the 17th century, but from the mid 18th-century onwards, large portions of the wall, and eventually the gates, were demolished to



ground level. The modern location and route of Old Broad Street was first laid out in the late 17th to early 18th century. An 18th or 19th-century cellar, truncated by modern utilities, was found in trench LIV19 of the earlier Crossrail watching brief and evaluation (site code XRF09; Crossrail 2010).



6 Aims and objectives

The prime purpose of the watching brief was to prevent damage to the Scheduled Monument, if it survived in this location, in order for it to be preserved *in situ*. Secondly, archaeological recording was to provide information on the presence, absence, and survival quality of the City Wall (within the limited area and depth of the trench) or other archaeological deposits, and inform the detailed design of Crossrail utility diversions. The purpose of the fieldwork was set out in the Crossrail Method Statement (Crossrail 2011b, Section 1.2).



7 Methodology of site-based and off-site work

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

- Crossrail Method Statement for Verizon works at Old Broad Street in relation to the Scheduled Monument City Wall (LO26N) (Doc. no. CRL1-XRL-Z7-GMS – C101-50001, 2011)
- Crossrail C503 Liverpool Street Method Statement Utilities Diversions Excavation, Duct Installation, Backfilling. (Doc No. C503-VIN-C-GMS-C101-50010, Revision 1, 14/11/2011)
- Crossrail WSI (Doc. No. CR-SD-LIV-EN-SY-00001, 2009)
- Crossrail, 2008a, Scheduled Monument Deed: Crossrail: Works affecting scheduled monuments in the City of London
- Corporation of London Department of Planning and Transportation, 2004
 Planning Advice Note 3: Archaeology in the City of London, Archaeology
 Guidance
- Museum of London Archaeological Site Manual (MoL 1994)

7.1 Watching Brief Methodology

The following methodology, as agreed with English Heritage and as noted within the Schedule 3 of the Deed, was implemented during the C503 Verizon utility diversion works. All on-site archaeological work was carried out in accordance with the Vinci and Crossrail method statements (Crossrail 2011a and 2011b).

The Verizon utility trench was positioned across the predicted line of the alignment of the City Wall (see Figure 2), therefore, suitable care was taken throughout the process of excavation and other fieldwork to avoid damage to the Scheduled Monument. A continuous archaeological watching brief was in place during works, both while in the predicted location of the City Wall and within a buffer zone of 6m to the north and south of the alignment.

The trench was dug during two weekends, following road closures, by C503 subcontractors McNicholas. The contractors removed the modern road surface and the concrete sub-base using machines. Excavation beneath the sub-base and the removal of modern material was conducted carefully by the contractor with hand tools under close archaeological supervision and inspection, in this case by an experienced Senior Archaeologist. English Heritage (Jane Siddell) was kept informed of works as they progressed.

Contingencies designed to protect the City Wall were in place should it or other archaeological deposits be encountered. Firstly, excavation would have ceased if the archaeologist had determined that archaeological deposits, in particular the City Wall, had been reached. The attending archaeologist would have then exposed, recorded and surveyed any archaeological remains, which would have then been left *in situ*. Archaeological remains would have been recorded using the methods in the Museum of London *Archaeological Site Manual* (1994). Under no circumstances would the works have been allowed to impact the City Wall. If the City Wall had blocked the



duct route, the latter would have been altered, for example, the duct route would have been shallower to avoid the monument, or if this was not possible the route would have been moved east or west until a suitable space was identified. Lastly, protective geotextile membrane and a layer of sand would have been installed over any remains of the City Wall before the trench was backfilled and reinstated.

The predicted depth of excavation for the Verizon Trench was approximately 600mm, with a maximum depth of no more than 1.50m below ground level. In practice, the trench was only dug to a depth of between 450mm and 500mm below ground level, except for an area at the northern end of the trench which was dug to 800mm below ground level (see 8.1). Excavation revealed only modern features and deposits, and no archaeological remains were exposed. In particular, no remains relating to the City Wall (Scheduled Monument LO26N) were encountered.

The locations of all features and deposits were recorded by the Senior Archaeologist using local baselines. The reference points for these baselines, a limited number of levels, and the trench outline were surveyed by the contractor's surveyors, to an accuracy of at least 1cm, and the survey data (to Ordnance Survey National Grid coordinates) was subsequently provided to MOLA (see Figure 1). Following the completion of recording, the trench was backfilled and the road surface re-instated.



8 Results and observations including stratigraphic report and quantitative report

One trench was monitored and the results are tabulated below. See Figure 1 for trench location

8.1 Verizon Trench



Photo 1 The southern end of the trench, at the junction of Old Broad Street and London Wall. Looking north-east.

| Verizon Trench | |
|--|--|
| Location | In the roadway at south end of Old Broad Street, on the eastern side c 1m west of the pavement, at the junction of London Wall (see Figure 1 and Photo 1). |
| Dimensions | 1.90m (north to south) x 0.60 to 1.00m (east to west) x 0.30 to 0.80m deep |
| LSG grid coordinates | 83424 36158 |
| OS National grid coordinates | 533079 181475 |
| Modern Ground Level | 113.11m to 113.23m ATD |
| Modern subsurface deposits | Tarmac and concrete 300 to 400mm thick, overlaying modern utility trenches with sand or gravel backfills. |
| Level of base of archaeological deposits | Base of trench: |

Crossrail Old Broad Street Verizon Utility Trench WB, Fieldwork Report (XSZ11)) C257-MLA-X-RGN-C101-50001 v2

| None | N/A |
|--------------------------------|---------------------------------------|
| Archaeological remains | Dating Evidence, Finds, and Samples |
| Extent of modern truncation | The full depth and area of the trench |
| Natural | Not reached |
| | 112.61m ATD at south end |
| observed and/or base of trench | 112.43m ATD at north end |

Interpretation and summary

Beneath the road surface, the trench revealed intercutting modern utility trenches with sand or gravel backfills, however, the base of these intrusions was not reached. The trench was dug to between 450mm and 500mm below ground level (see Figure 2), except for one small area (1.00m x 0.60m) at the northern end of the trench, which was dug deeper between the utilities to 800mm below ground level. Within this deeper area, a brown orange clay [1] was found at 112.68m ATD, and continued to the base of the trench at 112.43m ATD. This material was identified as either 20th-century made ground from the presence of 20th-century building material within the deposit. This material was perhaps construction backfill or utility backfill.

No archaeological remains were revealed. In particular, no remains relating to the City Wall (Scheduled Monument LO26N) were encountered.



Photo 2: The northern half of the trench, with intercutting gas pipe and telecommunication duct trenches beneath the concrete, backfilled with sand and gravel, looking north-east.



Photo 3: The southern half of the trench, with intercutting duct trenches beneath the concrete, backfilled with sand and gravel, looking north.





Photo 4: Close up of utilities within the southern half of the trench, with tarmac above concrete left and right. From above, north at top.



9 Conclusions

No archaeological remains were exposed during these works. In particular, no remains of the City Wall (Scheduled Monument LO26N) were encountered.

The trench revealed intercutting modern utility trenches with modern sand or gravel backfills beneath the road surface (see Figure 2 and Photo 2 to Photo 4), and a modern clay backfill (deposit [1]) at the northern end of the trench between the utilities. However, the bases of these features and deposits were not reached and the trench was only dug to a depth of 0.45 to 0.80m (see 8.1).

Due to the high density of existing services and, consequently, the limited depth of this utility trench, only a minimal contribution can be made to the predictive modelling of archaeological deposit survival within this area, and, by extension, towards protection of the Scheduled Monument.

However, although negative, these results do help refine the understanding of modern deposits, truncation and obstructions within this area. The watching brief has demonstrated that the City Wall does not survive in this area at these limited depths. Unfortunately, as neither the City Wall or any other archaeological deposits were encountered, the predicted line of the City Wall can neither be confirmed or disproved by these works. Therefore, the nature of the City Wall's survival in this precise location remains unknown. Moreover, the full extent of modern truncation, which was not bottomed, also remains unknown, beyond the area of investigation and at greater depths beneath it.

10 Publication and dissemination proposals

The watching brief results will initially be disseminated via this report; the supporting site archive of records, including digital data (no finds were found) and by incorporation into the wider predictive deposit modelling for the Crossrail scheme. Any publication proposals will be considered by the Project Archaeologist in relation to later fieldwork of the Liverpool Street site, and also the wider context of archaeological potential and results within the Crossrail scheme.

11 Archive deposition

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



12 Bibliography

Corporation of London Department of Planning and Transportation, 2004 *Planning Advice Note 3: Archaeology in the City of London, Archaeology Guidance*

Crossrail, February 2005a Environmental Statement

Crossrail, February 2005b Assessment of Archaeology Impacts, Technical Report. Part 2 of 6, Central Route Section, 1E0318-C1E00-00001, [Specialist Technical Report [STR]]

Crossrail, 2008a Crossrail: Works affecting scheduled monuments in the City of London [Scheduled Monument Deed]

Crossrail, 2008b *Utilities Diversions: London Wall, Moorgate, Blomfield Street, Old Broad Street, Bishopsgate, Past Observations Of City Wall* [detailed desk based assessment (DDBA) for the City Wall only]

Crossrail, 2008c Archaeology Detailed Desk Based Assessment Liverpool Street Station, Doc. No. CR-SD-LIV-EN-SR-00001.

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

Crossrail, 2009b Liverpool Street & Moorgate Utilities Trial Trenches Archaeological Watching Brief & Evaluation. Doc No. CR-PN-LIV-EN-MS-00003.

Crossrail, 2010 Archaeological Watching Brief & Evaluation, Utilities trial trenches, Liverpool Street and London Wall, Revision 2.0. Museum of London Archaeology.

Crossrail, November 2011a *C503 – Liverpool Street Method Statement Utilities Diversions – Excavation, Duct Installation, Backfilling.* Doc No. C503-VIN-C-GMS-C101-50010, Revision 1, 14/11/2011 [Vinci method statement]

Crossrail, November 2011b Method Statement for Verizon works at Old Broad Street in relation to the Scheduled Monument City Wall (LO26N), Doc No. CRL1-XRL-Z7-GMS –C101-50001, Revision 1, 09/11/2011 [Crossrail archaeological method statement]

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 of the Environment, 1990 *Planning Policy Guidance 16, Archaeology and Planning* [PPG16]

Museum of London, 1994 Archaeological Site Manual 3rd edition

Museum of London, 1998 General Standards for the preparation of archaeological archives deposited with the Museum of London



13 Acknowledgements

| The author would like to thank | (McNiche | olas) and | |
|----------------------------------|--------------------------|-------------------|-------|
| (McNicholas) for their assistant | ce on site, as well as C | Crossrail Manager | |
| and Vinci C503 Mana | igers | and | . The |
| fieldwork was commissioned a | nd managed for Cross | rail by | and |
| | | | |

The evaluation was conducted by the author. Gideon Simons (MOLA geomatics) produced the figures. The fieldwork was managed by MOLA Assistant Contract Manager Nicholas Elsden and Contract Manager Elaine Eastbury.



NMR OASIS archaeological report form 14

OASIS ID: molas1-117511

Project details

Crossrail Verizon Utility Trench, Old Broad Street (XSZ11) Project name

the project

Short description of Archaeological watching brief on Crossrail utility diversions at Old Broad Street in the predicted location of the City Wall (Scheduled Monument LO26N). A trench (19.00m long x 0.60 to 1.00m wide) was dug to install new utility ducts, and was between 0.45 to 0.80m deep. The trench was located at the south end of Old Broad Street, at the junction with London Wall. Although within the area of the City Wall, no archaeological remains were encountered in

this area at this depth.

Project dates Start: 17-12-2011 End: 14-01-2012

Previous/future

work

Yes / No

Any associated project reference

codes

XSZ11 - Sitecode

Any associated project reference

codes

XRF09 - Sitecode

Type of project Recording project

Site status Scheduled Monument (SM)

Current Land use Transport and Utilities 1 - Highways and road transport

Project location

Country England

Site location GREATER LONDON CITY OF LONDON CITY OF LONDON

Crossrail Verizon Utility Trench, Old Broad Street

Postcode EC2

Study area 15.00 Square metres

Site coordinates TQ 33081 81484 51.5160840587 -0.081817258292 51 30 57 N

000 04 54 W Point

Site coordinates TQ 33079 81475 51.5160036441 -0.08184946697240 51 30 57 N

000 04 54 W Point

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Site coordinates TQ 33077 81470 51.5159591792 -0.081880165014 51 30 57 N

000 04 54 W Point

Height OD / Depth Min: 12.40m Max: 12.90m

Project creators

Name of Organisation MoL Archaeology

Project brief originator

Crossrail

Project design originator

Crossrail

Project

Nicholas Elsden

director/manager

Project supervisor Robert Hartle

Type of

sponsor/funding

body

Local authority controlled infrastructure development company

Name of sponsor/funding

body

Crossrail

Project archives

Physical Archive Exists?

No

Digital Archive recipient

LAARC

Digital Media available

'Images raster / digital photography', 'Survey', 'Text'

Paper Archive recipient

LAARC

Paper Media available

'Context sheet', 'Drawing', 'Plan', 'Report', 'Survey'

Paper Archive

notes

trench record sheets

Project bibliography 1

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