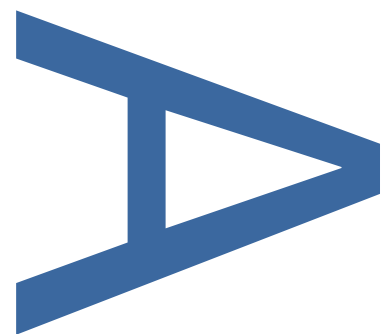
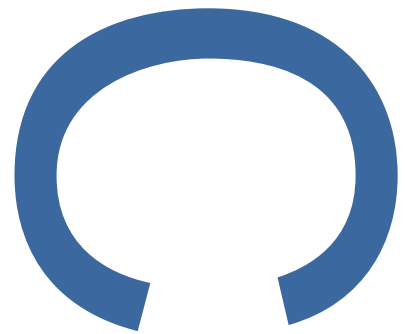


**CANNON STREET
GAS MAINS REPLACEMENT,
CITY OF LONDON**

**AN ARCHAEOLOGICAL
WATCHING BRIEF**

SITE CODE: NNA19

AUGUST 2019



PRE-CONSTRUCT ARCHAEOLOGY

DOCUMENT VERIFICATION

**CANNON STREET GAS MAINS REPLACEMENT,
CITY OF LONDON**

AN ARCHAEOLOGICAL WATCHING BRIEF

Quality Control

Pre-Construct Archaeology Ltd	
Project Number	K6130
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**CANNON STREET GAS MAINS REPLACEMENT, CITY OF LONDON:
AN ARCHAEOLOGICAL WATCHING BRIEF**

SITE CODE: NNA19

LOCAL PLANNING AUTHORITY: CITY OF LONDON

PLANNING APPLICATION NUMBER: N/A

SITE CENTRAL NGR: TQ 32577 80927

COMMISSIONING CLIENT: THE ENVIRONMENT PARTNERSHIP

PROJECT MANAGER: ZBIGNIEW POZORSKI, PCA

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1 ABSTRACT

- 1.1 This report details the results of an archaeological watching brief undertaken by Pre-Construct Archaeology Limited (PCA) during the works to replace gas mains at Cannon Street, City of London. The site is centred at National Grid Reference TQ 32577 80927.
- 1.2 The works were part of a wider programme of gas mains network replacement across London to be completed by 2021. The operations in the Cannon Street area required a closure of Cannon Street to traffic that will continue until December 2019.
- 1.3 The site is located within the City of London Archaeological Priority Area, an area of high archaeological potential and close to important Scheduled Monuments.
- 1.4 The archaeological investigation was conducted between 30 April and 07 August 2019 and comprised the monitoring and recording of ten trenches and two test pits excavated by the contractor.
- 1.5 The excavations were made in pre-existing service trenches, therefore they only revealed modern made ground and previous backfill. No archaeological deposits or horizons were uncovered during the operations.
- 1.6 The excavations were too shallow to expose the underlying geological deposits.

2 INTRODUCTION

- 2.1 This report details the results of an archaeological watching brief undertaken during the works to replace gas mains by Pre-Construct Archaeology Limited (PCA) at Cannon Street, City of London (Figure 1). The site is centred at National Grid Reference TQ 32577 80927.
- 2.2 The proposed works are part of a wider programme of gas mains replacement across London to be completed by 2021. The operations in the Cannon Street area required a closure of Cannon Street to traffic that will continue until December 2019.
- 2.3 The site is located within the City of London Archaeological Priority Area, an area of high archaeological potential. It lies close to Scheduled Monument of the Roman governor's palace and Scheduled Monuments of London's Livery Halls: Chandlers' Hall, Skinners' Hall, Dyers' Hall and Innholders' Hall which also contain Roman and medieval remains.
- 2.4 The monitoring was undertaken between 30 April and 07 August 2019.
- 2.5 The investigation was supervised by Pat Cavanagh, Ferdinando Lentini and Corso Dominici, and was project managed of Zbigniew Pozorski, all PCA. The archaeological work was commissioned by The Environment Partnership.
- 2.6 The site was allocated the unique site code NNA19. The complete archive comprising written, drawn, and photographic records and artefacts will be deposited with the Museum of London Archaeological Archive (MLAA).
- 2.7 All works were undertaken in accordance with the following documents:
- Cannon Street Gas Mains Replacement, City of London: Written Scheme of Investigation for An Archaeological Watching Brief (PCA 2019)
 - Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2015)
 - *Guidelines for Archaeological Projects in Greater London* (Historic England Greater London Archaeology Advisory Service HE GLAAS 2015)
 - Standard and guidance for an archaeological watching brief (Chartered Institute for Archaeologists (CIfA) 2014).
 - *Fieldwork Induction Manual: Operations Manual* (PCA; Taylor, J & Brown, G. 2009, updated 2018)

3 GEOLOGICAL AND TOPOGRAPHIC BACKGROUND

- 3.1 According to the British Geological Survey (BGS) of England and Wales, the local geology consists of clay of the London Clay Formation. Superficial deposits are recorded as being clay, silt, sand and peat alluvial deposits (BGS online 2019).
- 3.2 The site lies at c. 10-11m AOD and c. 300m north of the River Thames. It comprises parts of Cannon Street in the City of London where the sections of gas mains pipe will be inserted.
- 3.3 The site lies near the course of the Walbrook stream which once ran on a roughly north-south alignment from the area of Cannon Street station through modern Bank station and further north near to Moorgate and Throgmorton Avenue. The upper part of the stream was formed by numerous tributaries which fanned out and covered the area from Moorgate to Liverpool Street and beyond (PCA 2019:6).

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 4.1 The area of Cannon Street subject to current works is located within what was the heart of the Roman city. The site of the Roman governor's palace (Praetorium) developed in the 2nd century AD is situated close to the south-east within Cannon Street station area (Scheduled Monument 1001997). An excavation and watching brief at Cannon Place revealed structural remains comprising a series of masonry walls predating and contemporary with the palace. Limited evidence for early medieval and medieval remains, dating to between 900 and 1150 AD and comprising pits and walls was found along the western part of the site, with the supposition being that all later evidence was removed during the construction of Cannon Street Station in the 1860s. A trenched evaluation just south of the station recovered similar evidence related to the Roman period, but also revealed significant early medieval structural remains. Finally, an archaeological excavation at the Innholder's Hall, revealed evidence for Roman dumps and a timber drain on the east bank of the Walbrook, and which was interpreted as being evidence for land stabilisation or reclamation. A pile-based chalk foundation dating to the medieval period was interpreted as being evidence for an early Innholder's Hall or building which preceded it.
- 4.2 The site lies close to Scheduled Monuments of London's Livery Halls: Chandlers' Hall, Skinners' Hall, Dyers' Hall and Innholders' Hall. A livery hall is a type of guildhall belonging primarily to the London livery companies (chartered companies originating from the craft guilds), but also found elsewhere in the country. The location of the halls has been earlier part of a medieval college for priests known as Jesus Commons, with the site being closed during the reign of Henry VIII. Following the Dissolution, the site seems to have been converted into tenements. The halls were subsequently built in the 17th-18th century with later rebuilt and alterations. During the 19th century rebuilding of Dyers' Hall, the remains of a Roman tessellated floor were uncovered at a depth of c. 5m below ground level. The scheduling includes the archaeological and environmental remains below the hall.
- 4.3 Investigations at St. Swithin's House revealed late Iron age defensive structures in the form of four north south aligned v-shaped ditches cut into the natural gravels. These were overlain by a section of the Roman road, as well as Roman structures showing a burn sequence attributed to the Hadrianic fire of AD 120-130. A deliberately fragmented animal bone assemblage recorded on the site was also attributed to the Roman period (MOLA 2006).
- 4.4 The site at 100 Cannon Street showed further Roman activity in the form of a series of pits. This area showed continued use as an area of refuse evidenced by a further series of pits dating from the medieval period to the 19th century (MOLA 2002).
- 4.5 A Roman tessellated floor found at 78-82 Cannon Street is a testament to the affluence associated with the area proximate to the governor's palace (Historic Monuments England 1928).
- 4.6 Recently carried out PCA's archaeological investigation at Dyers Hall (not yet published) revealed Roman masonry remains of previously unknown building, hardened surfaces which may have been floors and evidence of strengthening of foundations by use of timber posts. Large amounts of

Roman ceramic building material were also recovered including painted stone mouldings, roof tiles and painted plaster. More investigations in the area were conducted recently by MOLA but results have not yet been made available.

- 4.7 The Halls presence is a significant testament to the development of commercial activity and trade regulation in the city of London, and that the area retains potential for archaeological and environmental information relating to the earlier post-medieval buildings and Roman London, sited as it is in close proximity to the remains of a Roman imperial palace and the Roman waterfront or wharf of Londinium.

5 RESEARCH DESIGN

5.1 The archaeological investigation was designed to determine the presence or absence of surviving deposits and features at the site which may be impacted by the development and, if present, to investigate and record them. The investigation also aimed to clarify the nature and extent of existing disturbance and intrusions and hence assess the degree of archaeological survival.

- The following site-specific research questions were also posed:
- To record the nature, extent, date, character, quality, significance and state of preservation of any archaeological remains affected by the investigation.
- To assess where appropriate the ecofactual and palaeo-environmental potential of archaeological deposits and features from within the site.
- To establish the below ground sequence in this area of the site.
- To report on the results of the watching brief.

6 METHODOLOGY

- 6.1 The proposed methodology of the archaeological work was detailed in the site-specific Written Scheme of Investigation (PCA 2019) and comprised the archaeological monitoring of the service foundation trenches and associated groundworks.
- 6.2 The groundworks comprised removal of existing surface and ground reduction with both elements monitored by PCA. Ten trenches and two test pits were then excavated (Figure 2).
- 6.3 The ten trenches and two test pits were located at three different road junctions; trenches 1-3 & 5 were centred upon the junction of Queen Street and Cannon Street whilst Trenches 4, and 6 - 8 were centred upon the Walbrook and Dowgate Hill junction. Trench 9 was located at the junction of Nicolas Lane and Martin Lane whilst trench 10 was located at the south end of Salters' Hall Court with Cannon Street (Figure 2).
- 6.4 All groundworks were carried out under PCA's archaeological supervision. Any potential archaeological features or deposits encountered within the excavations were cleaned and investigated by hand and recorded by the attending archaeologist.
- 6.5 All recording systems adopted during the investigation were fully compatible with those most widely used elsewhere in the City of London; presented in PCAs Operations Manual 1 (Taylor & Brown 2009, updated 2018). A representative section of each foundation trench was drawn by hand at a scale of 1:10 in order to illustrate the observed stratigraphy, modern disturbance and current ground level. In addition to a series of digital photographs recording the encountered deposits a written record of each deposit was also produced. Location of the section drawing was located by offsetting from the property boundary and plotted onto OS mapping data by CAD.
- 6.6 Following the completion of all phases of fieldwork and reporting the project archive will be deposited in its entirety with the Museum of London Archaeological Archive (MLAA) with the unique site code NNA19.

7 RESULTS OF INVESTIGATION

7.1.1 In general, the trenches varied between 10-20m in length and were excavated, on average, to c. 1.2m below ground level (BGL) although localised deeper sondages were opened in some of the trenches.

7.2 Trench 1

7.2.1 Trench 1 was on an NNE-SSW alignment and was located in the open space between buildings where Queen Street is off-set at this road junction. It was excavated to a depth of 1.8m BGL, c. 10m OD. Excavation revealed no archaeological deposits or horizons and the trench was not deep enough to expose the underlying geology (Figure 3, Section 1, Plates 1 & 2).

7.2.2 The deposits of modern made ground was sealed by a 0.60m thick layer of tarmac road surface and an underlying concrete slab which was removed during the ground reduction.

7.3 Trench 2

7.3.1 The trench was on a NW-SE alignment and was located c. 30m to the west of the Queen Street road junction with Cannon Street (Figure 2a). Excavation revealed neither archaeological deposits nor was it deep enough to expose the underlying geology.

7.4 Trench 3

7.4.1 The trench was on a NW-SE alignment and was located directly upon the junction of the Queen Street road junction with Cannon Street.

7.4.2 It was excavated to a depth of 1.5m (BGL), c. 9.30m OD. The sequence of made ground was sealed by a 0.40m thick layer of tarmac and underlying concrete slab which was removed during the ground reduction. Excavation revealed no archaeological deposits or horizons and the trench was not deep enough to expose the underlying geology.

7.5 Trench 4

7.5.1 Trench 4 was excavated on a NW-SE orientation and was located on the Walbrook / Dowgate Hill junction with Cannon Street (Figure 2b).

7.5.2 It was excavated to a depth of 1.8m (BGL), c. 8.60m OD. Deposits of made ground were sealed by a 0.50m thick tarmac surface and an underlying concrete slab which was removed during the ground reduction. No deposits other than modern made ground were seen in the trench.

7.6 Trench 5

7.6.1 Trench 5 was excavated on an NNE-SSW alignment and was located immediately north of the Queen Street road junction with Cannon Street (Figure 2a).

7.6.2 It was excavated to a depth of 1.10m (BGL), 9.79m OD. The sequence of made ground was sealed

by a 0.50m thick layer of road paving slabs and underlying concrete which was removed during the ground reduction. Excavation revealed neither archaeological deposits nor was it deep enough to expose the underlying geology.

7.7 Trench 6

7.7.1 The trench was excavated on a NW-SE orientation and was located immediately west of the Walbrook / Dowgate Hill road junction with Cannon Street (Figure 2b).

7.7.2 It was excavated to a depth of 2.20m (BGL), c. 7.80m OD. A deposit of made ground was sealed by a 0.50m thick tarmac surface and underlying concrete slab which was removed during the ground reduction. No archaeological deposits or natural geology were exposed.

7.8 Trench 7

7.8.1 The trench was excavated on a NW-SE alignment and was located on the Walbrook / Dowgate Hill Road junction with Cannon Street (Figure 2b; Figure 3, Section 6; Plate 3).

7.8.2 It was excavated to a depth of 1.55m (BGL), 8.49m OD. The made ground was sealed by a 0.45m thick layer of stone blocks and the underlying concrete slab which was removed during the ground reduction. No archaeological deposits or natural geology were seen.

7.9 Trench 8

7.9.1 Trench 8 was excavated on a NE-SW orientation and was located on the north-west corner of the Walbrook road junction with Cannon Street (Figure 2b).

7.9.2 It was excavated to a depth of 1.18m (BGL), 9.32m OD. The modern made ground was sealed by a 0.50m thick tarmac surface layer and underlying concrete slab which was removed during the ground reduction. No archaeological deposits or natural geology were seen.

7.10 Trench 9

7.10.1 The trench was excavated on a NW-SE orientation on the junction of Nicholas Lane to the north and Martin Lane to the south on Cannon Street (Figure 2c; Figure 3, Section 10, Plates 5 & 6).

7.10.2 It was excavated to a depth of 1.50m (BGL), c. 8.90m OD. The sequence of made ground was sealed by a 0.50m thick tarmac surface and underlying concrete slab which was removed during the ground reduction.

7.11 Trench 10

7.11.1 Trench 10 was excavated on a NW-SE orientation and was located at the junction of Salters' Hall Court with Cannon Street (Figures 2b & 2c).

7.11.2 It was excavated to a depth of 1.70m (BGL), c. 9.40m OD. The sequence of made ground was sealed by a 0.24m thick tarmac surface and underlying concrete slab which was removed during the ground reduction. Excavation revealed no archaeological deposits or underlying geology

7.12 Test Pit 1 (Walbrook / Dowgate Hill Crossroads with Cannon Street)

7.12.1 Test Pit 1 was located immediately to the east of the crossroads on Cannon Street (Figure 2b; Figure 3, Section 8; Plates 7 & 8).

7.12.2 It was excavated to a depth of 2m (BGL), c. 9.10m OD. The modern made ground was sealed by a 0.60m thick tarmac surface and underlying concrete slab which was removed during the ground reduction. No archaeological deposits or natural geology were seen.

7.13 Test Pit 2 (Walbrook / Dowgate Hill Crossroads with Cannon Street)

7.13.1 Test Pit 2 was located immediately adjacent to Test Pit 1 to the east of the Walbrook/Dowgate Hill junction with Cannon Street (Figure 2b). It contained similar deposit sequence as Test Pit 1.

8 ARCHAEOLOGICAL SEQUENCE

8.1 No deposits or features of archaeological interest were uncovered during the excavations. In addition, the depth of the trenches was insufficient to reveal the underlying geological layers.

8.2 All layers encountered were layers of modern 'made ground' and backfill.

9 INTERPRETATION AND CONCLUSIONS

9.1 The watching brief did not reveal any archaeological features or finds. The trenches were excavated through the made ground and backfill within the modern backfill of existing gas mains trenches and other services. The current works did not impact on potentially underlying archaeological remains.

9.2 Due to the shallow nature of the excavations the research objectives were not met with an exception of the confirmation that the earlier excavations for the service installations had been backfilled with contemporary material.

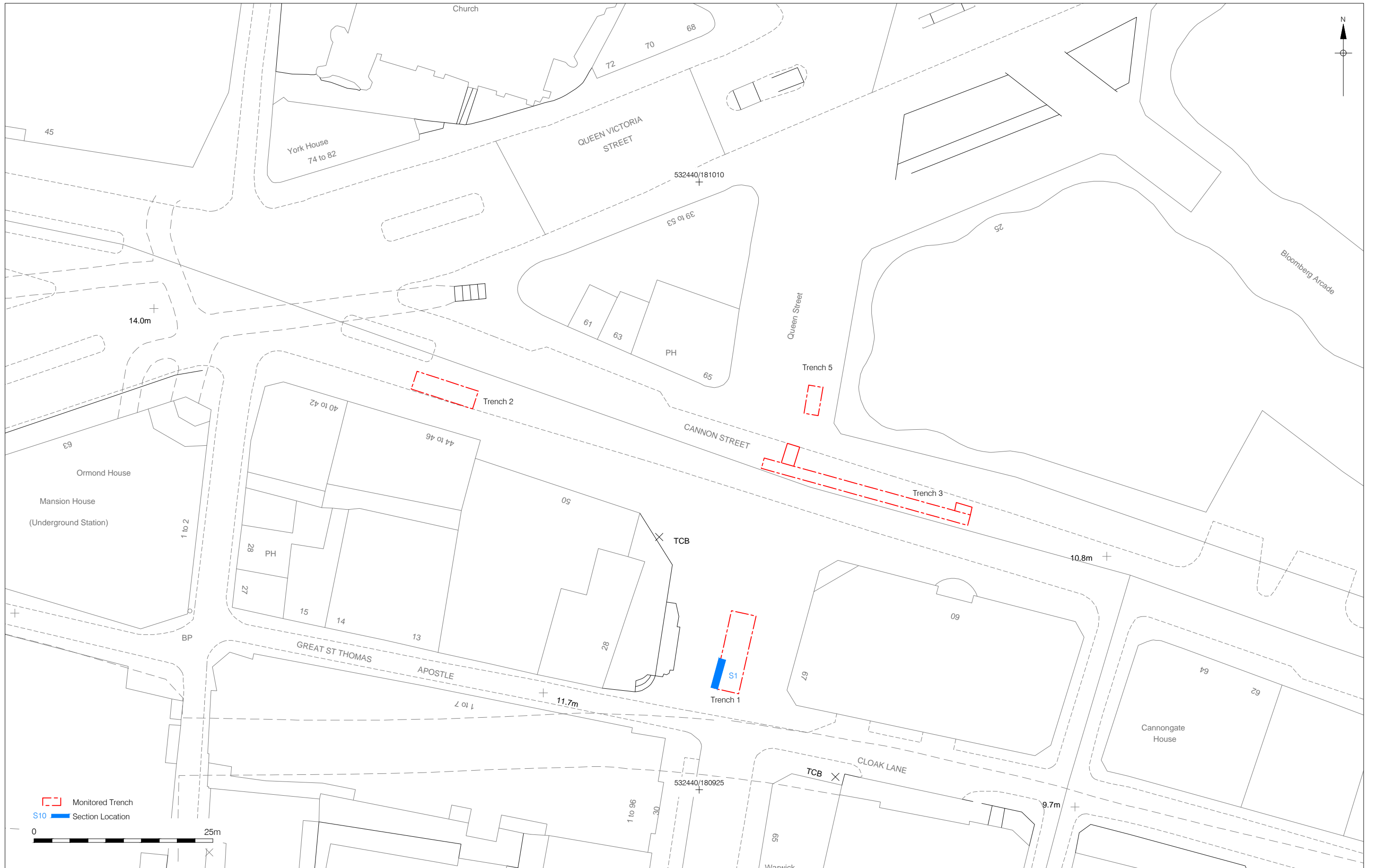
10 ACKNOWLEDGEMENTS

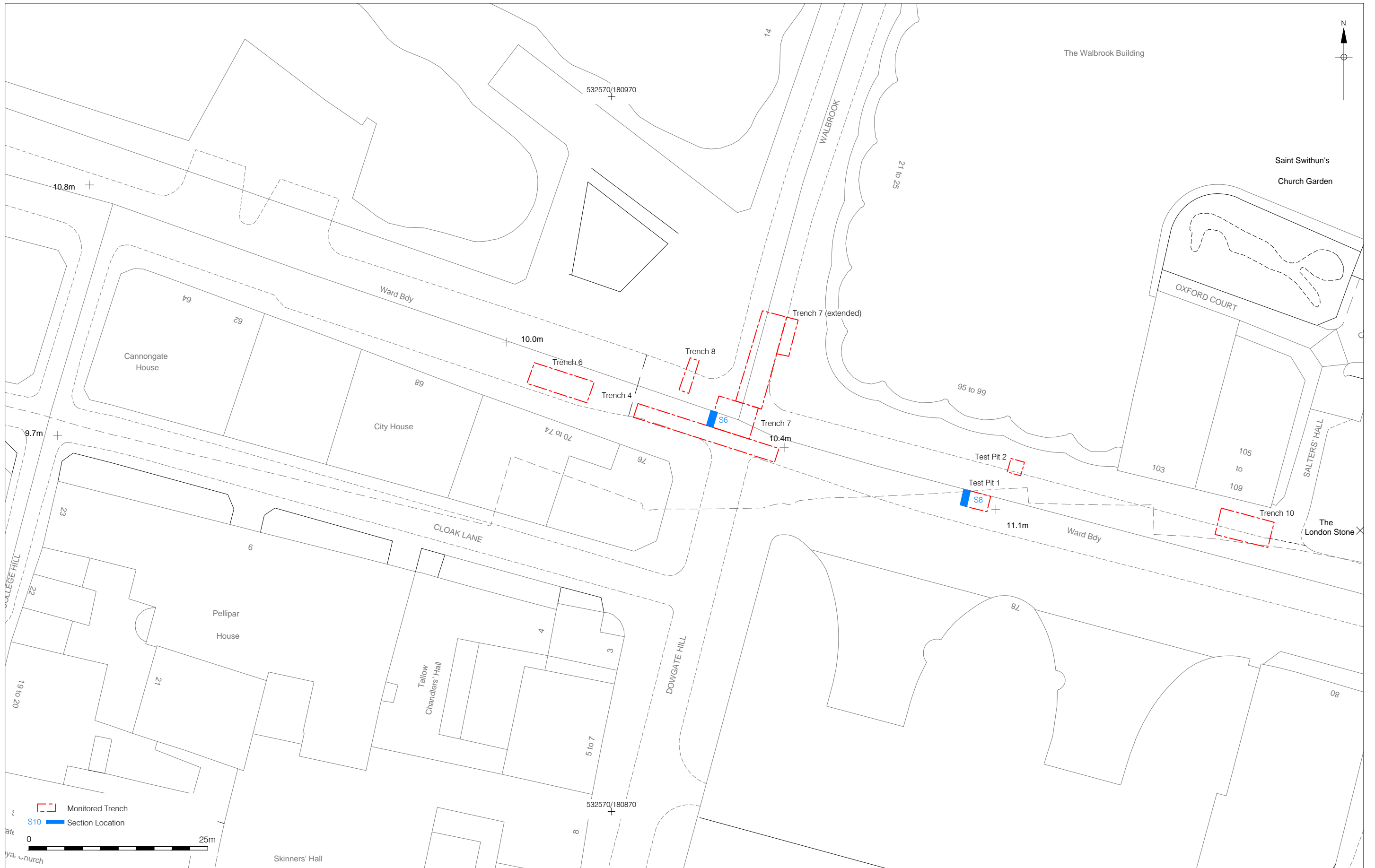
- 10.1 Pre-Construct Archaeology would like to thank Amir Bassir of The Environment Partnership for commissioning the work. We also thank Kathryn Stubbs of the City of London, Historic Environment for her input and advice to the project.
- 10.2 The author would also like to thank Pat Cavanagh, Ferdinando Lentini and Corso Dominici for their work on the site, Zbigniew Pozorski for his project management and editing this report, and Ray Murphy for the illustrations.

11 BIBLIOGRAPHY

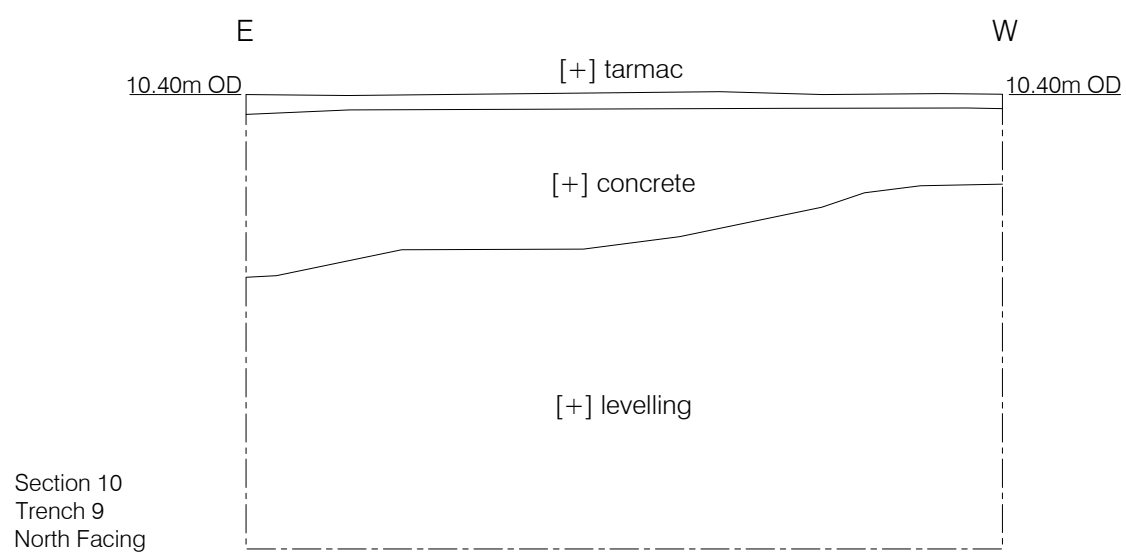
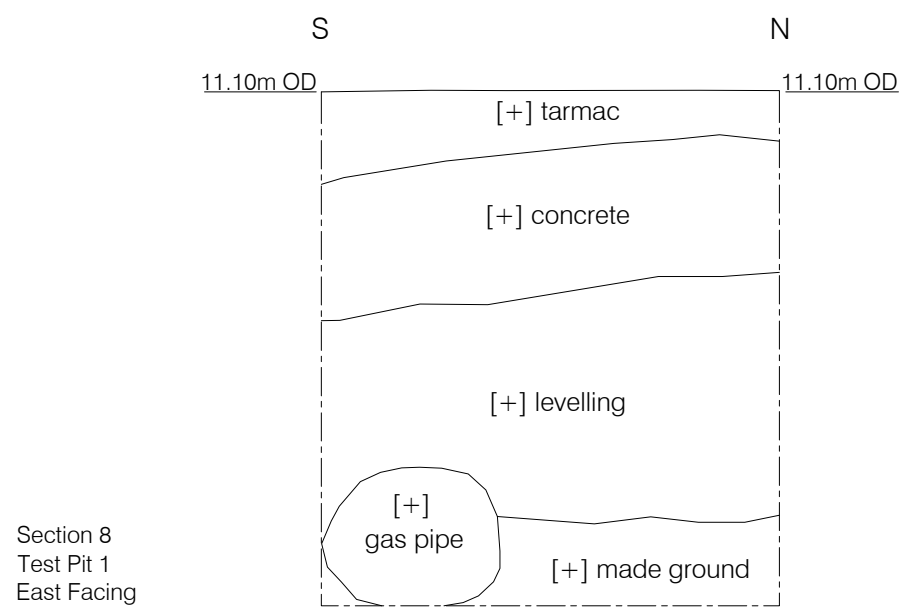
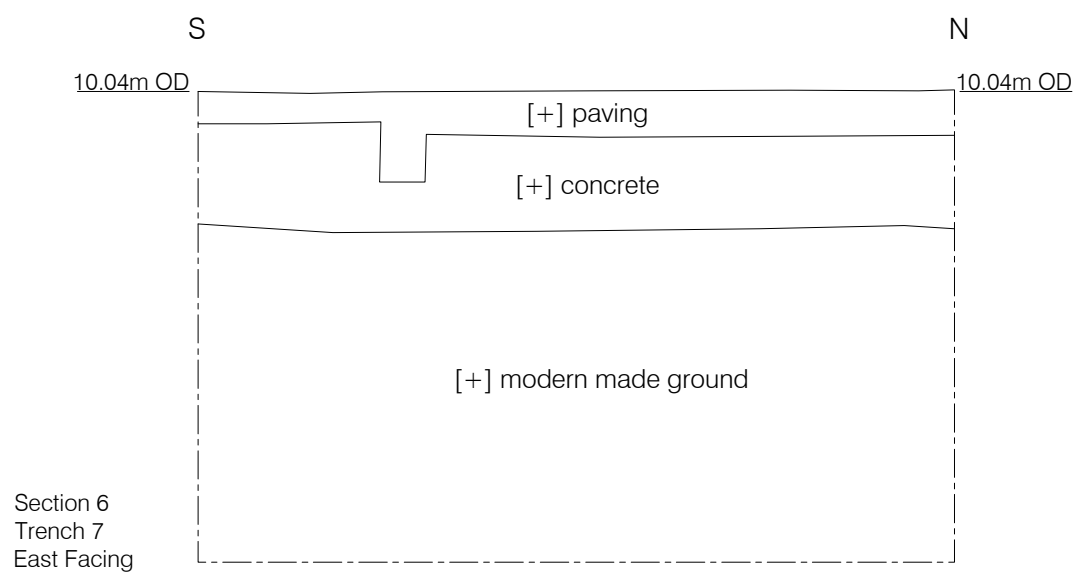
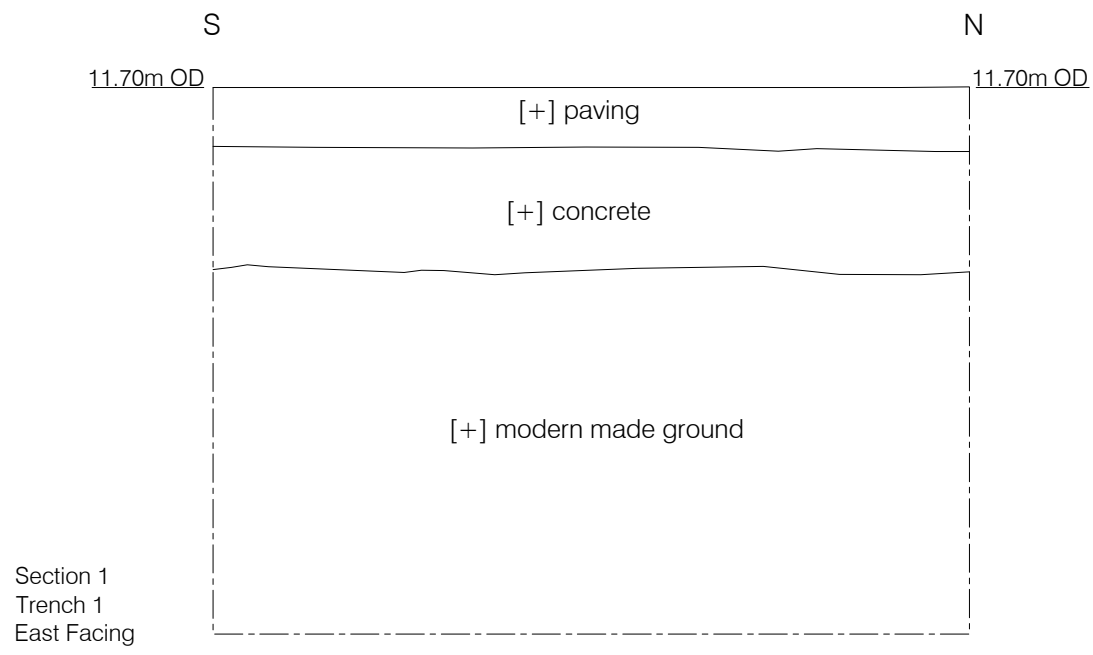
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[+] - no context number assigned, layers have no archaeological significance



PLATES

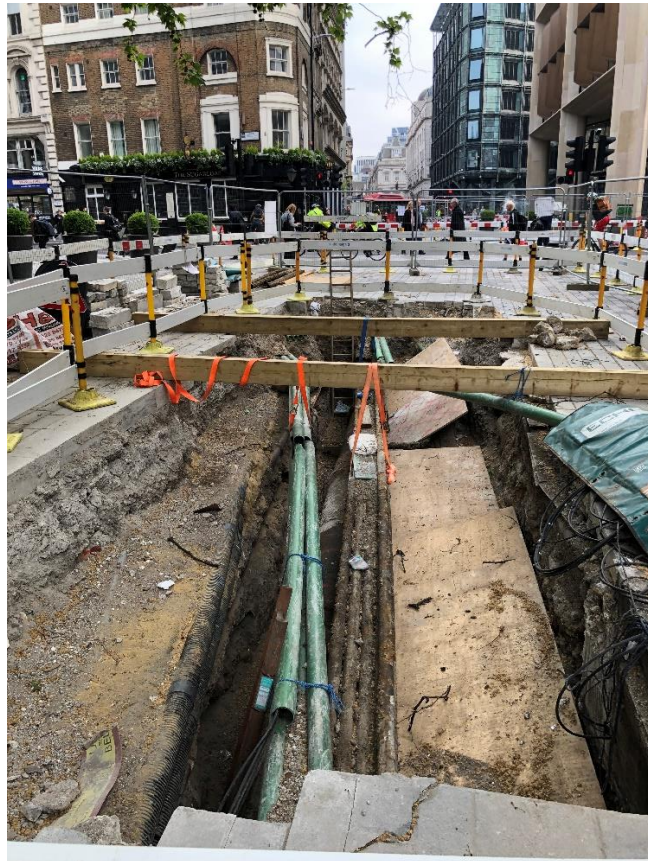


Plate 1: Trench 1, view to the north towards Queen Street.



Plate 2, Trench 1, Section 1, view to north-west, scale 1m.

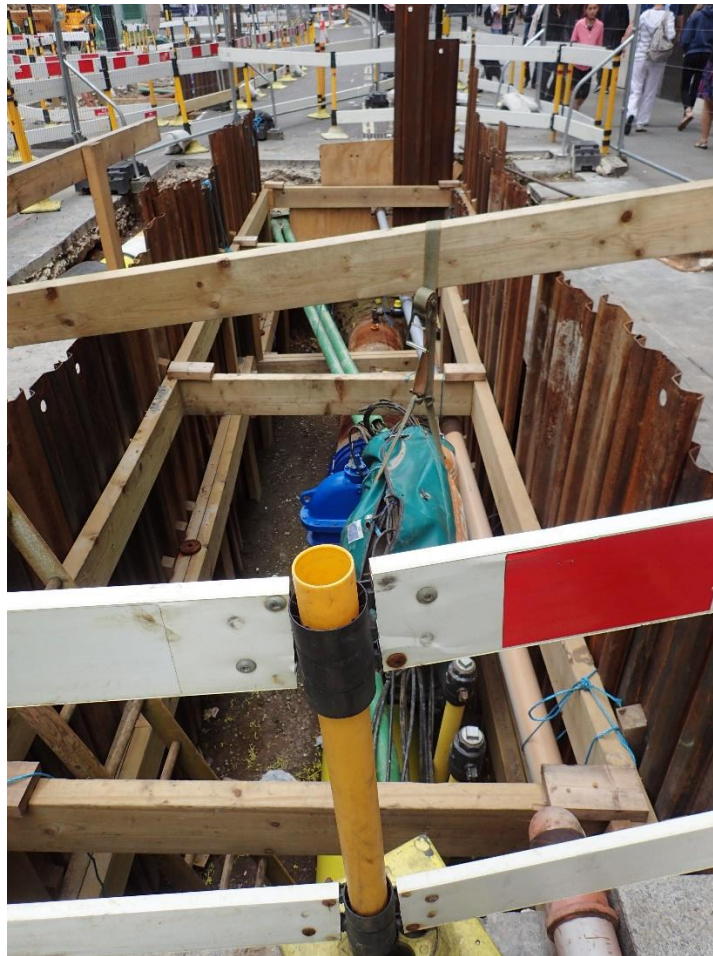


Plate 3: Trench 7, view to east.



Plate 4: Trench 7, Section 6, view to west, scale 1m.



Plate 5: Trench 9, view to the west.



Plate 6: Trench 9, Section 10, view to the north, scale 0.5m

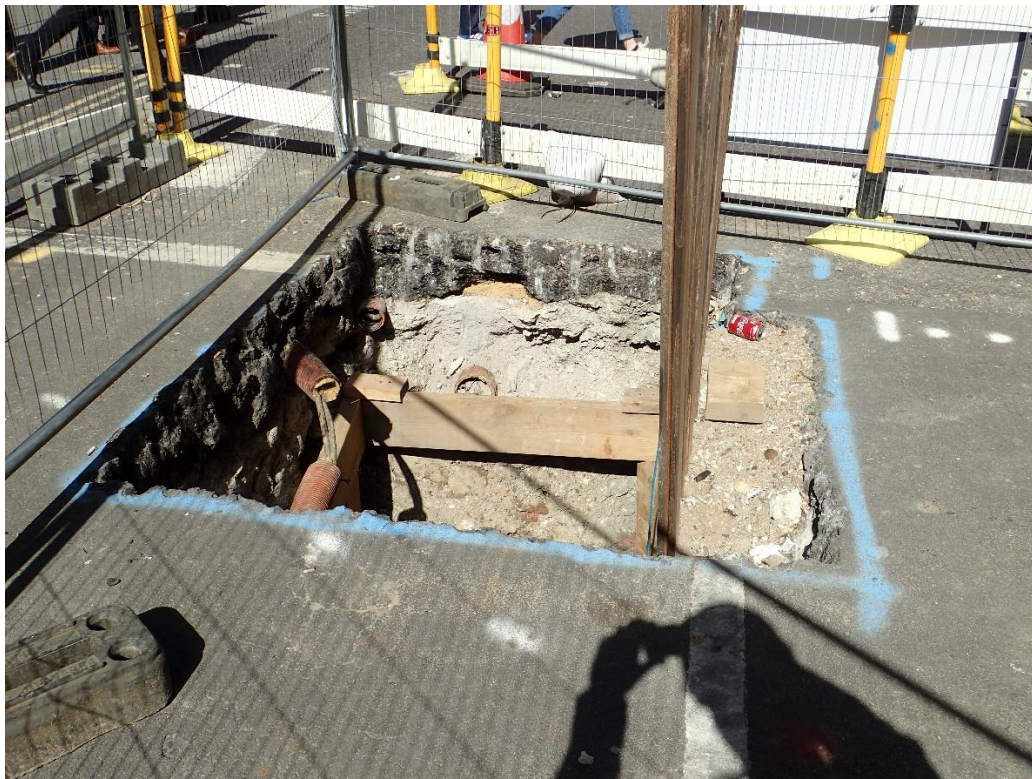


Plate 7: Test Pit 1, view to west.

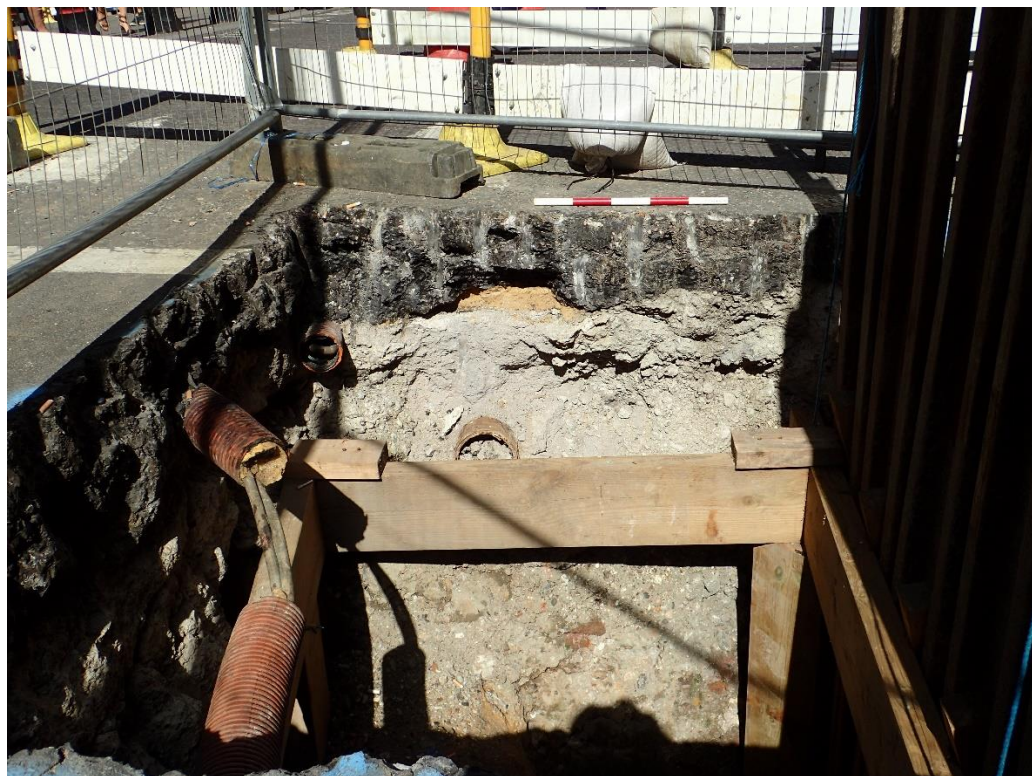


Plate 8: Test Pit 1, Section 8, view to west, scale 1m.

APPENDIX 1: OASIS REPORT

OASIS ID: preconst1-363349

Project details

Project name	Cannon Street Gas Mains Replacement, City of London
Short description of the project	archaeological watching brief undertaken by Pre-Construct Archaeology Limited (PCA) during the works to replace gas mains at Cannon Street, City of London. The watching brief comprised the monitoring and recording of ten trenches and two test pits excavated by the contractor. The trenches were located at three different road junctions; trenches 1-3 and 5 were centred upon the junction of Queen Street and Cannon Street whilst Trenches 4, and 6 - 8 were centred upon the Walbrook and Dowgate Hill junction. Trench 9 was located at the junction of Nicolas Lane and Martin Lane whilst Trench 10 was located at the southern end of Salters' Hall Court with Cannon Street. The excavations were made in pre-existing service trenches, therefore they only revealed modern made ground and previous backfill. No archaeological deposits or horizons were uncovered during the operations. The excavations were too shallow to expose the underlying geological deposits.
Project dates	Start: 30-04-2019 End: 07-08-2019
Previous/future work	No / No
Any associated project reference codes	NNA19 - Sitecode
Type of project	Field evaluation
Site status	Area of Archaeological Importance (AAI)
Current Land use	Other 11 - Thoroughfare
Monument type	NONE None
Significant Finds	NONE None

Project location

Country	England
Site location	GREATER LONDON CITY OF LONDON CITY OF LONDON Cannon Street Gas Mains Replacement
Site coordinates	TQ 32577 80927 51.511196810413 -0.089286909685 51 30 40 N 000 05 21 W Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 25m Max: 26m

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	City of London

Project design originator	Kathryn Stubbs
Project director/manager	Zbigniew Pozorski
Project supervisor	Corso Dominici
Name of sponsor/funding body	The Environment Partnership

Project archives

Physical Archive recipient	Museum of London
Physical Contents	"other"
Digital Media available	"Text"
Paper Archive recipient	NMRC, Museum of London
Paper Media available	"Context sheet", "Correspondence", "Diary", "Drawing", "Photograph", "Plan", "Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Cannon Street Gas Main Replacement, City of London: An Archaeological Watching Brief
Author(s)/Editor(s)	W Perkins
Date	2019

Entered by	Wayne Perkins (wperkins@pre-construct.com)
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