



1 TUDOR STREET
London
EC4

City of London

An archaeological evaluation report

April 2008



MUSEUM OF LONDON

Archaeology Service

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Site Code: TUS08
National Grid Reference: 531580 180965

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Summary (non-technical)

This report presents the results of an archaeological evaluation carried out by the Museum of London Archaeology Service on the site of 1 Tudor Street, London, EC4 between the 11th January and 21st February 2008. The report was commissioned from MoLAS by Stockland Halladale.

An Archaeological impact assessment (Jamieson and Wroe-Brown 2006), recommended the need for archaeological field evaluation and monitoring of geotechnical pits and boreholes to determine the nature of surviving archaeology on the site. Planning Permission for redevelopment required an archaeological evaluation (Ref: Condition 16 07/00377/MDC). Two evaluation test-pits, (TP10 and TP11) were proposed, located on the northern (lower ground floor) part of the site (MoLAS, 2007). The lower ground floor slab was recorded at 1.54m OD and the anticipated level of 'natural' London Clay was expected to be -0.7m OD.

Test pit 10 revealed modern material consisting of construction backfill and the concrete slab down to a level of -1.12m OD, at which point the truncated surface of London Clay was seen. Test pit 11 revealed modern material to a level of at least -0.89m OD, with the existing slab overlying construction backfill and a further concrete slab or fill.

In addition to the two trial pits, the demolition contractors cored through the corners of all of the proposed pile cap positions in the Lower Ground Floor Area. The results of these cores indicated that the slab in the Lower Ground Floor area was an average of 1.41m thick and at its shallowest was 0.9m thick.

The report concludes that no archaeological deposits were found to survive in the northwest and northeast parts of the site. Given the nature of the disturbance seen in the TP positions and the thickness of the slab across the site it appears that the truncation caused during construction on this site in the 1970s was more extensive than anticipated in the desk-based assessment. No in-situ archaeological deposits are expected to survive.

An earlier evaluation pit was carried out on the former car park ramp adjacent to the southwest corner of the present site, as part of the Unilever House redevelopment. This recorded modern disturbance down to a level of -1.2m OD.

The new building requires piled foundations (750mm diameter) with 1500mm thick pile caps. The base of the pile cap will therefore lie at c 0m OD with piles extending through to a deeper level. The existing slab will be retained.

Given the fact that the existing truncation extends down to at least the anticipated level of London Clay and the fact that most of the new construction work in the Lower ground Floor will only extend to 0m OD, it is recommended that no further archaeological monitoring is required as part of the redevelopment.

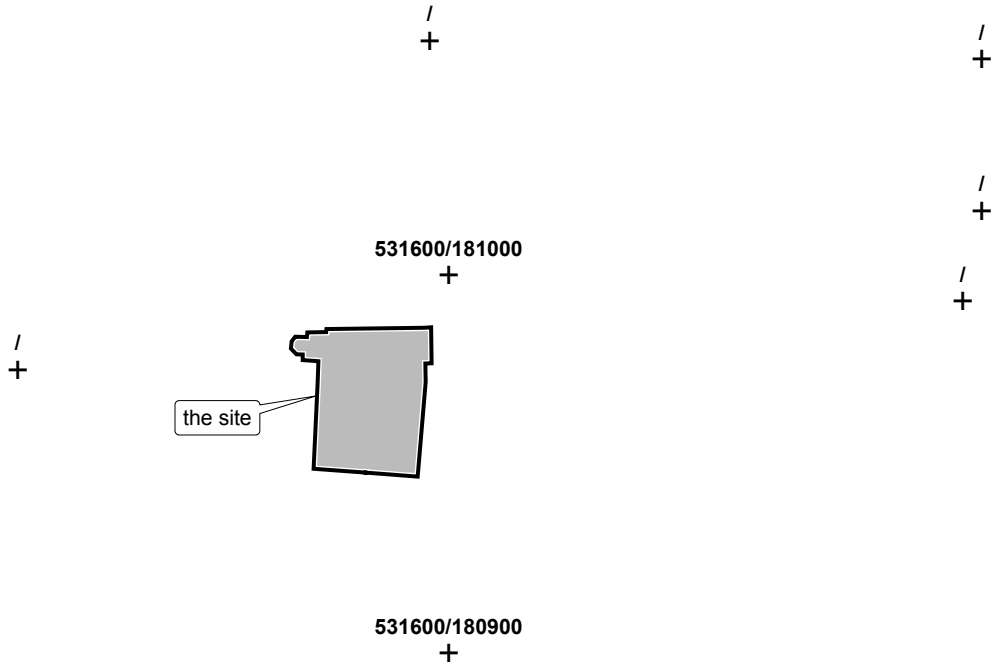
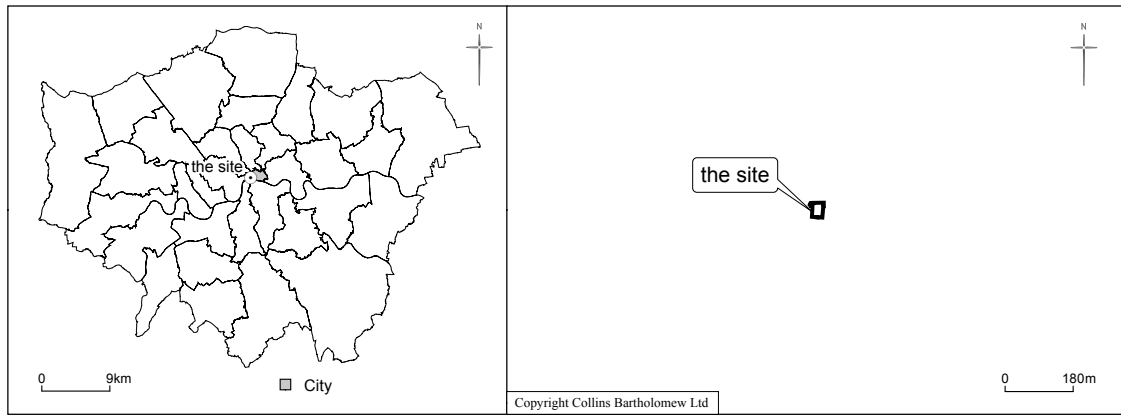
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Fig 1 Location map

1 Introduction

1.1 Site background

The evaluation took place at 1 Tudor Street, London, EC4 hereafter called ‘the site’. It is bounded to the north by Tudor Street, to the east by Kingscote Street and Watergate, to the south by the new Unilever House and to the west by the properties 3–5 Tudor Street (Fig 1). The approximate centre of the site lies at Ordnance Survey National Grid reference 531580 180965.

A desk-top *Archaeological impact assessment* was previously prepared, which covers the whole area of the site (Jamieson and Wroe-Brown, 2006). The *assessment* document should be referred to for information on the natural geology, archaeological and historical background of the site, and the initial interpretation of its archaeological potential. A Method Statement for evaluation was prepared by MoLAS and submitted to the City of London pursuant to the evaluation condition (MoLAS 2007)

1.2 Planning and legislative framework

The legislative and planning framework in which the archaeological exercise took place was summarised in the previous *Archaeological impact assessment* (Jamieson and Wroe-Brown 2007). The archaeological evaluation was required as a Condition of Planning Permission (ref. Condition 16, 07/00377/MDC)

1.3 Origin and scope of the report

This report was commissioned by Stockland Halladale and produced by the Museum of London Archaeology Service (MoLAS). The report has been prepared within the terms of the relevant Standard specified by the Institute of Field Archaeologists (IFA, 2001).

Field evaluation, and the *Evaluation report* which comments on the results of that exercise, are defined in the most recent English Heritage guidelines (English Heritage, 1998) as intended to provide information about the archaeological resource in order to contribute to the:

- formulation of a strategy for the preservation or management of those remains; and/or
- formulation of an appropriate response or mitigation strategy to planning applications or other proposals which may adversely affect such archaeological remains, or enhance them; and/or
- formulation of a proposal for further archaeological investigations within a programme of research

1.4 Aims and objectives

All research is undertaken within the priorities established in the Museum of London's *A research framework for London Archaeology*, 2002.

The following research aims and objectives were established in the *Method Statement* for the evaluation (Section 2.2):

- What is the nature and level of natural topography? Does it have the potential to enhance knowledge of the riverine development of this area?
- What are the earliest deposits identified? Are there any pre-medieval deposits?
- Do the remains of the medieval waterfront revetments survive beneath the lower ground floor slab?
- If medieval reclaimed land is encountered, can the land use on the site during the medieval period be determined?
- Do remains associated with the Tudor Bridewell Palace survive beneath the lower ground floor slab?
- Is there any evidence of Great Fire deposits?
- What are the latest deposits identified?

2 Topographical and historical background

A detailed description of the geology, archaeology and history of the site was provided in the earlier *Archaeological impact assessment* (Jamieson and Wroe-Brown 2006, section 3). A brief resume is provided here:

The site lies at the western side of the confluence of the River Thames and the River Fleet. From approximately the Bronze Age to the 14th century, the whole area of the site would have lain within the mouth of the Fleet, with the river bank probably lying a short distance to the north in the Saxon period.

After a grant of land in 1159, the Knights Templar began reclaiming large tracts of land at the mouth of the Fleet. The subsequent sequence of land reclamation and revetment in the area of the site is not completely understood, and the remains of revetments recorded to date are likely to represent only parts of a complex sequence of land reclamation. The Knights Hospitaller eventually acquired most of the Templars' London property, including that on the west bank of the Fleet. Later references to the land variously describe it as waste, vacant or as garden and it was leased out to a succession of tenants.

Between 1515 and 1523, Bridewell Palace was constructed for Henry VIII on lands west of the Fleet. The palace had a Long Gallery extending southwards across the site and terminating in a wing running east-west along, or close to, the waterfront, as recorded on the copperplate map of 1553–9 (not illustrated). Bridewell Palace was damaged in the Great Fire of 1666, but only the principal courtyard and Great Hall were rebuilt. Any surviving remnants of the Long Gallery and the waterfront range would have been destroyed.

Reconstruction followed the Great Fire, with the waterfronts to either side of the River Fleet extended further south. The newly reclaimed land became a wharf. The waterfront does not appear to have been further extended in the area of the site until the end of the 18th century. By then, the River Fleet was culverted, and further reclamation with the construction of the Victoria Embankment in 1864–70, with its integral sewer and underground railway, finally brought the waterfront to its present location. Throughout this period, the site appears to have been occupied by terraced properties up until the present building.

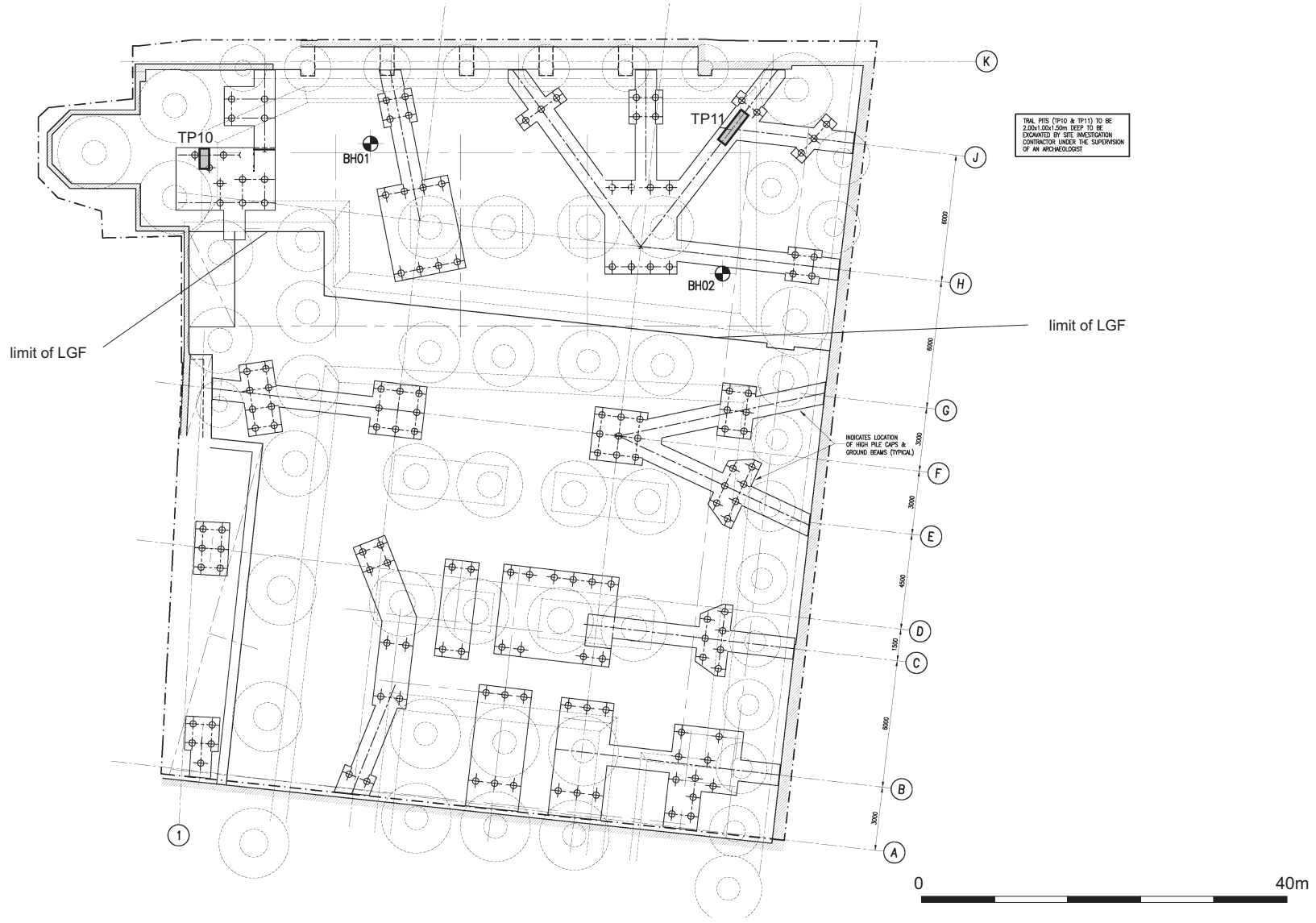


Fig 2 Proposed locations of trial pits and boreholes in relation to new foundations

3 The evaluation

3.1 Methodology

All archaeological excavation and monitoring during the evaluation was carried out in accordance with the preceding *Method Statement* (MoLAS, 2007), and the *MoLAS Archaeological Site Manual* (MoLAS, 1994).

Two evaluation trenches (TP10 and TP11), were located on the north lower ground part of the site (Fig 2). The slab was broken out and cleared by contractors down to the base of the concrete slab. Following inspection by the MoLAS Senior Archaeologist it was confirmed that the underlying deposit consisted of heavily disturbed and redeposited overburden. The testpits were therefore excavated by machine, where possible, down to the London Clay. Two geotechnical boreholes, proposed originally in the Method Statement, did not occur at the time of the evaluation. However the demolition contractors, General Demolition, did carry out a large number of cores through the slab, confirming that the thickness was a minimum of 0.90m OD and a maximum of 1.7m OD (See Appendix for core results).

The location of the test pits was recorded by MoLAS, by offsetting from the north retaining wall and plotting the measurements onto a Basement Survey (Drg. No. 6980001-08-P6 Upton McGougan Consulting Engineers). This information was then plotted onto the Ordnance Survey grid.

A written and drawn record of all archaeological deposits encountered was made in accordance with the principles set out in the MoLAS site recording manual (MoLAS, 1994). Levels were calculated by measuring down from the top of the concrete slab, with an Ordnance Datum value of +1.540 (Drg. No. 6980001-09 Upton McGougan Consulting Engineers).

The site has produced: 2 trench sheets, 1 trench location plan; 2 section drawings at 1:20; levels data, site diary and two photographs. No finds were recovered from the site.

The site records can be found under the site code TUS08 in the MoL archive.

3.2 Results of the evaluation

<i>Test pit 10</i>	
Location	Northwest corner of the site
Dimensions	2.00m by 1.00m by 2.75 depth
Level on top of slab	1.54m OD
Base of slab	-0.22m OD
Depth of archaeological deposits seen	N/A
Level of base of deposits	-1.21m OD
Natural observed	Truncated London Clay -1.21m OD

Test pit 10 was located in the northwest corner of the site. Beneath the slab a mixed dark brown and mid brown sandy clay and silt was recorded, 1.00m thick, the top of which was recorded at -0.22m OD. Included in the makeup of the deposit were frequent red and yellow stock brick fragments, lenses of gravely sand and lengths of wire and metal. It was evident that no archaeological deposits had survived in this area of the site.

<i>Test pit 11</i>	
Location	Northeast corner of the site
Dimensions	4.00m by 1.00m by 1.93depth
Level on top of slab	1.54m OD
Base of slab	0.79m OD
Depth of archaeological deposits seen	N/A
Level of base of deposits	-0.39m OD
Natural observed	N/A

Test pit 11 was located in the northeast area of the site (Fig 2). Beneath the slab a mixed dark grey/brown and mid brown sandy clay and silt was recorded, 1.18m thick, the top of which was recorded at 0.79m OD. Included in the makeup of the deposit were frequent red and yellow stock brick fragments and modern wood fragments. It was evident that no archaeological deposits had survived in this area of the site.

At -0.39m OD the surface of another concrete slab or mass concrete fill layer was recorded, which extended down for at least 500mm. Once again it was evident that no archaeological deposits had survived in this area of the site.

3.3 Assessment of the evaluation

GLAAS guidelines (English Heritage, 1998) require an assessment of the success of the evaluation ‘in order to illustrate what level of confidence can be placed on the information which will provide the basis of the mitigation strategy’. In both test pits, it is evident that the northern lower ground floor has been extensively disturbed,

presumably during the construction of a thick slab and large underreamed piled foundations.

The two boreholes that were proposed in the method statement were not undertaken in the lower ground floor area. However a large number of cores were taken through the slab by the demolition contractor. These help to confirm the average thickness of the slab (1.41m).

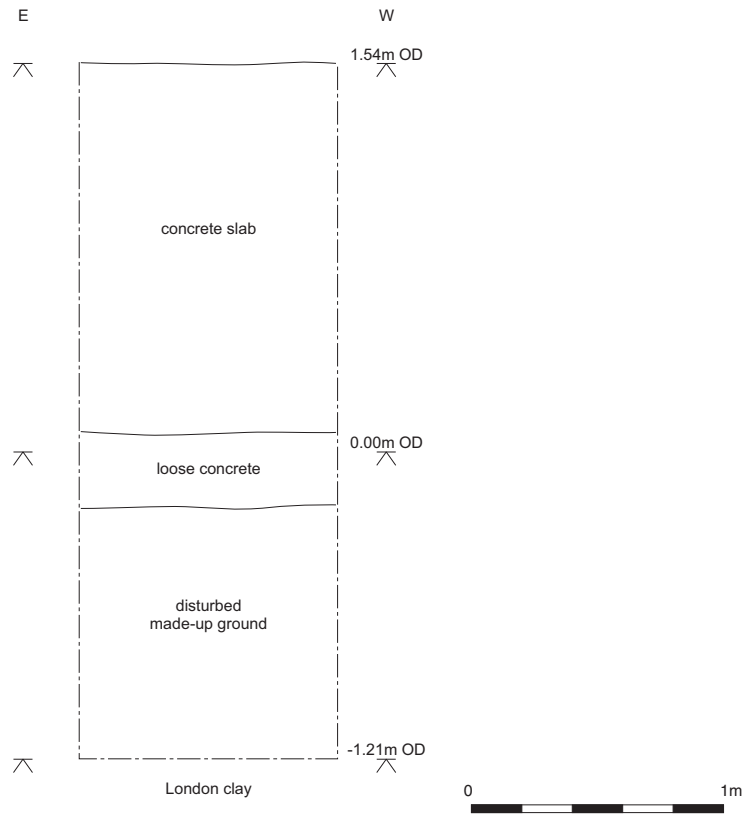


Fig 3 North facing section of Testpit 10



Fig 4 Testpit 10 (view from the north)

4 Archaeological potential

4.1 Realisation of original research aims

- What is the nature and level of natural topography? Does it have the potential to enhance knowledge of the riverine development of this area?

As Truncated London Clay was reached 2.75m below slab level at a height of -1.21m OD in Testpit 10, there is no potential for enhancing knowledge of riverine development in the western part of the site. No evidence for the nature and level of natural topography was seen in Testpit 11.

- What are the earliest deposits identified? Are there any pre-medieval deposits?

No in situ archaeological deposits were recorded.

- Do the remains of the medieval waterfront revetments survive beneath the lower ground floor slab?

See above.

- If medieval reclaimed land is encountered, can the land use on the site during the medieval period be determined?

See above.

- Do remains associated with the Tudor Bridewell Palace survive beneath the lower ground floor slab?

See above.

- Is there any evidence of Great Fire deposits?

See above.

- What are the latest deposits identified?

The latest identified deposits in Testpit 10 consisted of heavily disturbed and redeposited mixed construction deposits associated with the construction of the previous building in the 1970s (piling, pile probing and slab construction).

4.2 General discussion of potential

The evaluation has shown that the potential for survival of ancient ground surfaces (horizontal archaeological stratification) in the Lower Ground Floor area is non-existent.

4.3 Significance

No archaeological evidence has been recorded. The northern lower ground floor had been disturbed by modern construction.

5 Proposed development impact and recommendations

The existing basement slab and the lower ground floor slab will be retained and a new building will be constructed on both existing and new piles. The base of the pile caps will be at approximately 0m OD. The piles will be 750mm diameter. As no archaeological deposits appear to survive on the northern lower ground floor, there will be no impact.

Two pile caps will be required in the area of the former car park ramp. A pre-War basement was known to extend across this area (see MoLAS 2006 Desk-based assessment) and a test pit opened in this area as part of the Unilever House development revealed modern truncation to -1.2m OD.

The evidence from the archaeological evaluation and cores suggests that the site was heavily disturbed during construction in the 1970s and no meaningful archaeological deposits are expected to survive. It is therefore recommended that no further work is required on this site as part of this redevelopment.

6 Acknowledgements

The author would like to thank Stockland Halladale for commissioning this report and Joe Cachia, Construction Manager of Balfour Beatty Construction Ltd for his help on site.

The project manager from MoLAS was Sophie Jackson. Thanks to Carlos Lemos and Faith Vardy for the illustrations.

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8 NMR OASIS archaeological report form

8.1 OASIS ID: molas1-37828

Project details

Project name 1, Tudor Street

Short description of the project Two evaluation test-pits, (TP10 and TP11) were proposed, located on the northern (lower ground floor) part of the site. Test pit 10 revealed London Clay 2.75 metres below slab level at -1.21m OD, below a one metre thick layer of disturbed ground, the top of which was recorded at -0.22m OD. This was overlain by the basement slab, 1.76m thick, the top of which was recorded at 1.54m OD. Testpit 11 revealed a layer of concrete (at least 500mm thick) at -0.39m OD beneath disturbed ground 1.18m thick, the top of which was recorded at 0.79. The basement slab above was 0.75m, the top of which also recorded at 1.54m OD. The report concluded that no archaeological deposits were found to survive in this part of the site.

Project dates Start: 11-01-2008 End: 21-02-2008

Previous/future work Yes / No

Any associated project reference codes TUS08 - Sitecode

Type of project Field evaluation

Site status Area of Archaeological Importance (AAI)

Current Land use Industry and Commerce 2 - Offices

Methods & techniques 'Annotated Sketch','Photographic Survey','Test Pits','Visual Inspection'

Development type Urban commercial (e.g. offices, shops, banks, etc.)

Prompt Planning condition

Position in the After outline determination (eg. As a reserved matter)
planning process

Project location

Country England
 Site location GREATER LONDON CITY OF LONDON CITY OF LONDON 1,
 Tudor Street
 Postcode EC4
 Study area 1065.00 Square metres
 Site coordinates TQ 31580 80965 51.5117719118 -0.103633099455 51 30 42 N 000
 06 13 W Point
 Height OD Min: -1.21m Max: -1.21m

Project creators

Name of Molas
 Organisation

Project brief City of London
 originator

Project design MoLAS
 originator

Project Sophie Jackson
 director/manager

Project supervisor Portia Askew

Name of StocklandHalladale Ltd
 sponsor/funding
 body

Project archives

Physical Archive No
 Exists?

Digital Archive No

Exists?

Digital recipient Archive LAARC

Digital Archive ID TUS08

Paper recipient Archive LAARC

Paper Archive ID TUS08

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