

**LAND AT 12-20 PAUL STREET AND
83-105 CLIFTON STREET,
HACKNEY EC2A 4JH**

**ASSESSMENT OF AN
ARCHAEOLOGICAL WATCHING
BRIEF**

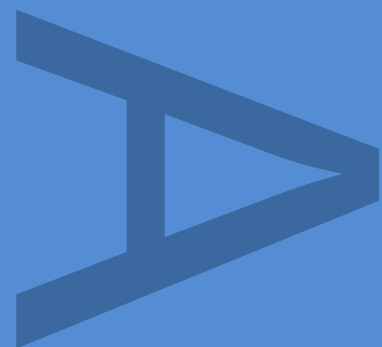
**PLANNING APPLICATION NUMBER:
2007/1871**

**LOCAL PLANNING AUTHORITY:
LONDON BOROUGH OF HACKNEY**

PCA REPORT NO: R11770

SITE CODE: CLF12

JUNE 2014



PRE-CONSTRUCT ARCHAEOLOGY



DOCUMENT VERIFICATION

LAND AT 12-20 PAUL STREET AND 83-105
CLIFTON STREET, HACKNEY EC2A 4JH

AN ARCHAEOLOGICAL WATCHING BRIEF

Quality Control

Pre-Construct Archaeology Ltd	
Project Number	K3451
Report Number	R11770

	Name & Title	Signature	Date
Text Prepared by:	Joe Brooks		June 2014
Graphics Prepared by:	Jennifer Simonson		June 2014
Graphics Checked by:	Josephine Brown		June 2014
Project Manager Sign-off:	Chris Mayo		June 2014

Revision No.	Date	Checked	Approved

Pre-Construct Archaeology Limited
Unit 54
Brockley Cross Business Centre
96 Endwell Road
London
SE4 2PD

12–20 PAUL STREET AND 83–105 CLIFTON STREET, LONDON EC2A 4JH
ASSESSMENT OF AN ARCHAEOLOGICAL WATCHING BRIEF

Local Planning Authority: London Borough of Hackney

Planning Application Number: 2007/1871

Site Code: CLF12

Central National Grid Reference: TQ 33058217

Written and Researched by: Joe Brooks

Pre-Construct Archaeology Limited, June 2014

Project Manager: Chris Mayo

Commissioning Client: McLaren Property
on behalf of
Katam Limited and Reining Limited

Consultant: Mills Whipp Projects

Contractor: Pre-Construct Archaeology Limited
Unit 54, Brockley Cross Business Centre
96 Endwell Road
Brockley
London SE4 2PD
Tel: 020 7732 3925
Email: cmayo@pre-construct.com
Web: www.pre-construct.com

© Pre-Construct Archaeology Limited

June 2014

© The material contained herein is and remains the sole property of Pre-Construct Archaeology Limited and is not for publication to third parties without prior consent. Whilst every effort has been made to provide detailed and accurate information, Pre-Construct Archaeology Limited cannot be held responsible for errors or inaccuracies herein contained.

CONTENTS

1	ABSTRACT.....	4
2	INTRODUCTION	5
3	PLANNING BACKGROUND	6
3.1	<i>National Guidance: National Planning Policy Framework</i>	6
3.2	<i>Regional Policy: The London Plan</i>	6
3.3	<i>Local Policy: Archaeology in the London Borough of Hackney</i>	6
3.4	<i>Site Specific Planning Background</i>	7
3.5	<i>Research Aims</i>	7
4	GEOLOGY AND TOPOGRAPHY.....	8
5	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND.....	10
5.1	<i>Prehistoric</i>	10
5.2	<i>Roman</i>	10
5.3	<i>Saxon</i>	10
5.4	<i>Medieval</i>	11
5.5	<i>Post-Medieval</i>	12
5.6	<i>Archaeological investigations at the site</i>	13
6	ARCHAEOLOGICAL METHODOLOGY.....	14
7	ARCHAEOLOGICAL SEQUENCE.....	16
7.1	<i>Phase 1: Natural Pleistocene River Terrace Deposits</i>	16
7.2	<i>Phase 2: Alluvial Deposits</i>	16
7.3	<i>Phase 3: Post-Medieval</i>	17
7.4	<i>Phase 4: 19th Century</i>	17
7.5	<i>Phase 5: Modern</i>	17
8	DISCUSSION AND CONCLUSIONS	18
8.1	<i>Discussion</i>	18
8.2	<i>General Conclusions</i>	20
8.3	<i>Publication</i>	20
8.4	<i>Archive Quantification and Destination</i>	20
8.5	<i>Confidence</i>	20
9	ACKNOWLEDGEMENTS.....	21
10	BIBLIOGRAPHY	22

PLATES

Plate 1: View northeast across northern half of site.....	14
Plate 2: View northeast of ground reduction in progress at northern side of site.....	16
Plate 3: View west of plot at 12-20 Paul Street taken prior to evaluation in 2012.....	19

ILLUSTRATIONS

Figure 1: Site Location.....	23
Figure 2: Area of Watching Brief	24
Figure 3: Sections.....	25

APPENDICES

Appendix 1: Site Matrix.....	26
Appendix 2: Context Index	27
Appendix 3: OASIS Form	28
Appendix 4: Pottery Assessment.....	30
Appendix 5: Clay Tobacco Pipe Assessment.....	31

1 ABSTRACT

- 1.1 This report details the working methods and results of an archaeological watching brief undertaken by Pre-Construct Archaeology Ltd on land at 12-20 Paul Street and 83-105 Clifton Street in the London Borough of Hackney EC2A 4JH. The watching brief was conducted between 2nd April and 23rd May 2014 and was commissioned by McLaren Property. The archaeological consultant was Mills Whipp Projects.
- 1.2 The findings of a geoarchaeological borehole investigation carried out on the site in December 2013 by Quaternary Scientific (QUEST) are also summarised in this report.
- 1.3 The fieldwork consisted of monitoring ground reduction across the site to a level of c. 12.7m OD in preparation for piling.
- 1.4 In some areas in the north-west of the site Hackney Gravels were recorded at an elevation of c. 12.75m OD, above which alluvial-lain marshland deposits were recorded. Sealing this alluvium were extensive post-medieval deposits of dumped ground reclamation material recorded to a height of c. 13.59m OD. A late 18th-19th century brick built basement at the west of the site cut into these dump layers. Above this sequence, to a level of around c. 16.00m OD, was a further layer of made ground dating to the 20th century.
- 1.5 A similar sequence as that described above was recorded by the geoarchaeological borehole investigation (Young, 2013) and during an archaeological evaluation on the site in December 2012 (Hawkins, 2013).

2 INTRODUCTION

- 2.1 This report details the results and working methods of an archaeological watching brief undertaken by Pre-Construct Archaeology Ltd. at 12-20 Paul Street and 83-105 Clifton Street, Hackney EC2A 4JH.
- 2.2 The watching brief monitored the reduction of the entire site to c. 12.7m OD which constituted the formation level for a piling mat. A summary of findings from a geoarchaeological borehole investigation which was undertaken will also be discussed.
- 2.3 An archaeological evaluation was undertaken at the site by PCA in 2012 (Hawkins 2013). Three evaluation trenches were excavated which encountered natural terrace gravels overlain by a sequence of alluvium. Cutting through this alluvium was a late medieval/early post-medieval quarry pit. Sealing the alluvium was an extensive sequence of early post-medieval made ground associated with the reclamation of Moorfields from the marsh in the 16th century. These were sealed by modern concrete. A significant proportion of the south-west part of the site, constituting 12-20 Paul Street, had already been truncated below the formation level due to 20th century development (Figure 2).
- 2.4 The site is bounded to the east by Clifton Street, to the west by Paul Street, and to the north and south by properties fronting both of those roads. The site is centred at National Grid Reference TQ33058217, and covers an area of approximately 4,180 square metres.
- 2.5 The work was commissioned by McLaren Property. The archaeological consultant was Mike Hutchinson of Mills Whipp Projects, the watching brief was supervised by Joe Brooks and was project managed by Chris Mayo, both of Pre-Construct Archaeology Ltd. The work was monitored by Adam Single of the Greater London Archaeological Advisory Service (GLAAS), the Archaeology Advisor to the London Borough of Hackney.
- 2.6 The works herein described were undertaken in accordance with an approved Written Scheme of Investigation prepared by Mills Whipp Projects (2013).
- 2.7 Following approval of the project by the Local Planning Authority, the completed archive comprising written, drawn and photographic records will be deposited with the London Archaeology Archive and Research Centre (LAARC).
- 2.8 Site records were compiled continuing the unique site code CLF12 which was obtained for the evaluation work at site.

3 PLANNING BACKGROUND

3.1 National Guidance: National Planning Policy Framework

3.1.1 The National Planning Policy Framework (NPPF) was adopted on March 27 2012, and now supersedes the Planning Policy Statements (PPSs). The NPPF constitutes guidance for local planning authorities and decision-takers both in drawing up plans and as a material consideration in determining applications.

3.1.2 In considering any planning application for development the local planning authority will be guided by the policy framework set by the NPPF, by current Local Plan policy and by other material considerations.

3.2 Regional Policy: The London Plan

3.2.1 The relevant Strategic Development Plan framework is provided by “The London Plan, Spatial Development Strategy for Greater London Consolidated with Alterations since 2004” (Feb 2008). It includes the following policy relating to archaeology within central London:

Policy 4b.15 Archaeology

The Mayor, in partnership with English Heritage, the Museum of London and Boroughs, will support the identification, protection, interpretation and presentation of London’s archaeological resources. Boroughs in consultation with English Heritage and other relevant statutory organisations should include appropriate policies in their DPDs for protecting Scheduled Ancient Monuments and archaeological assets within their area.

3.3 Local Policy: Archaeology in the London Borough of Hackney

3.3.1 The relevant local policy is provided by the London Borough of Hackney’s Core Strategy, which was adopted in 2010. It contains the following policy statement with regards to the Historic Environment:

Core Strategy Policy 25: Historic Environment

All development should make a positive contribution to the character of Hackney’s historic and built environment. This includes identifying, conserving and enhancing the historic significance of the borough’s designated heritage assets, their setting and where appropriate the wider historic environment.

3.4 Site Specific Planning Background

3.4.1 As was stated in the approved Written Scheme of Investigation (WSI) for the project (Mills Whipp Projects, 2013), following the planning application submission (2007/1871), a condition requiring a programme of archaeological work was attached to the permission. Subsequently, an evaluation of the site was undertaken in November and December 2012 consisting of three trenches. Having assessed the results of this evaluation (Hawkins 2013) English Heritage stated that 'a geoarchaeological borehole in a part of the site where the fullest alluvial sequence can be anticipated, coupled with a watching brief on ground reduction would constitute acceptable mitigation...'.

3.5 Research Aims

3.5.1 The following aims and objectives were detailed within the approved WSI (Mills Whipp Projects, 2013):

4.1 Watching brief

4.1.1 The watching brief will be maintained during ground reduction works in order to monitor the alluvial sequence and natural gravel for the presence of significant archaeological features or artefacts and to record its deposit morphology. Where significant archaeology is discovered it will be excavated and recorded in order to elucidate its nature, date and function in order to further understand the landuse history of the area.

3.5.2 The geoarchaeological borehole which was also designed within the WSI was implemented by QUEST under the supervision of PCA in December 2013, in advance of site demolition and the ground reduction work. The borehole is reported separately (Young 2013).

4 GEOLOGY AND TOPOGRAPHY

4.1 Geology

4.1.1 The solid geology of the site is shown by the Institute of Geological Sciences (IGS 1979) as Eocene London Clay forming the London Basin.

4.1.2 The British Geological Survey Sheet 256 (North London: 1994) suggests that the site is underlain by deposits of Hackney Gravels (defined as 'Post-diversionary Thames River Deposits') of Pleistocene date.

4.1.3 Archaeological fieldwork in the immediate vicinity has shown that the gravel was overlain by Langley Silt (often termed brickearth) and that both deposits have been heavily exploited by quarrying (Mills Whipp Projects 2012).

4.1.4 The site was situated in the upper reaches of the River Walbrook in antiquity, the source of which is unconfirmed but is postulated to be either in Shoreditch or further away at Angel. Barton (1992) believes the river to have followed the line of Curtain Road before running through Moorfields, beneath the Bank of England and eventually entering the Thames close to Cannon Street Station. The stream probably changed its course over time and therefore there will be numerous buried channels. Associated alluvial deposits have been found at many sites in the vicinity including Phipp Street and Worship Street (ibid).

4.1.5 A ground investigation report undertaken on the site describes a sequence of London Clay overlain by Hackney Gravel. It also highlights alluvial deposits sealing the Hackney Gravel in various locations across the site (Applied Geology 2011).

4.1.6 The archaeological evaluation recorded yellow brown slightly silty gravelly sand, interpreted as the top of the Hackney Gravel, at heights between c. 11.60m OD in Trench 1 and c. 11.41m OD in Trench 2 (Figure 2). The Hackney Gravel recorded throughout all the evaluation trenches was consistent with the known underlying geology as described by both the British Geological Survey Sheet (256 North London) for the area and the ground investigation undertaken by Applied Geology (Applied Geology 2011).

4.2 Topography

4.2.1 The topography of the site is varied. The land plot containing 12-20 Paul Street comprises a post-war office block at the centre of an access roadway to the north and south, which decline from street level (at Paul Street, c 16.5m OD to a rear (eastern) car park area, which itself contains two level platforms north and south (at approximately 13.56m OD), declining into a central low platform at approximately 13.02m OD. This topography has clearly been caused by substantial groundworks during previous development in this part of the site, development which may (judging from the visible roof

scars on the surrounding retaining walls) actually pre-date the current office block. The land plot containing 83-105 Clifton Street is generally flat, at an elevation of approximately 16.5m OD.

5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The archaeological and historical background of this site has been researched in an Archaeological Desk Based Assessment (Mills Whipp Projects 2012); the following text forms a summary of that document.

5.1 Prehistoric

5.1.1 Little evidence for activity for the prehistoric period has been found in the immediate vicinity of the site. The line of Old Street is thought to have its origins as a prehistoric trackway, but no archaeological evidence for this has ever been recorded. A pointed Palaeolithic handaxe was found close to the junction of City Road and Old Street in 1896. Recovered from the same general vicinity was a Bronze Age chisel.

5.1.2 The largest concentration of prehistoric material was recovered from investigations at the Honourable Artillery Ground, c. 330m west of the site. Forty-four sherds of Late Bronze Age/Early Iron Age pottery were found along with struck and burnt flints, potentially recovered from a stream thought to be leading to the Walbrook. Iron Age pottery sherds have also been found to the south of Finsbury Square.

5.2 Roman

5.2.1 The Roman settlement of *Londinium* had begun to grow as a mercantile centre by AD 50. It was centred on the bridgeheads that had been built across the Thames after the Roman invasion in AD 43 and was situated approximately 700m to the south of the site. A large extra mural cemetery was located in the area of Finsbury Circus to the south. The construction of the City wall at the end of the 2nd century AD was probably one of the causes of the area becoming marshy, as the wall circuit interfered with the drainage regime of the River Walbrook.

5.2.2 A handful of Roman finds have been recorded in the vicinity of the site: a Roman cremation was found in 'Moorfields' and Roman pottery was found during a 1976 excavation on Bunhill Street, along with four bronze armlets found in 1912 on Old Street. The head of a Roman terracotta figurine was found somewhere on Paul Street, and on Scrutton Street a Roman bone needle was found. These types of finds and their small number are thought to be typical of the periphery of a major Roman settlement.

5.3 Saxon

5.3.1 The place-names "Hoxton", "Haggerston" and "Shoreditch" have Saxon origins and it is likely that the latter began to develop as a settlement in the 11th century. It was probably focussed on the church of St Leonard at the junction of what was Ermine Street and Old Street.

5.3.2 The walled City was largely abandoned by the Saxons until the 9th century in favour of a

new trading settlement fronting the Strand at Covent Garden. With the exception of a supposed Saxon spur from 'Moorfields' there is no evidence for Saxon activity in the area of the site.

- 5.3.3 The Domesday Book of 1086 records that the Canons of St Paul's held nine acres of land outside Bishopsgate in 1066. The area of the site itself is also thought to have belonged to St Paul's Cathedral, as in the medieval period, and was probably a bog.

5.4 Medieval

- 5.4.1 In the medieval period the area of Moorfields was part of the prebendal manor of Finsbury owned by St Paul's. A charter of William I mentioned the moor as a landmark. About 1180 the chronicler Fitzstephen wrote a description of London which included a description of Londoners skating in wintertime on 'that great marsh which washes the walls of the City on the north side'. An inspection of Moorfields in 1301 by the Lord Mayor's Court had to be undertaken by boat. The damp conditions have permitted the survival of many medieval artefacts including large quantities of leather, predominantly from shoes and waste material from industry, which would have been situated in the general vicinity of the site.

- 5.4.2 The medieval manor house Finsbury Court was located at the junction of Chiswell Street with Finsbury Pavement, on a natural prominence within Moorfields marsh. The manor house is depicted on the mid 16th century Copperplate map and was recorded during an archaeological excavation.

- 5.4.3 The area was transformed in 1415 when the Lord Mayor, Thomas Falconer, breached the City wall to make a new gateway, Moor Gate. This gate was probably only a postern as it was rebuilt in 1472 by the Mayor William Hampton. The *causey* or causeway became known as Finsbury Pavement.

- 5.4.4 In 1477 Ralph Joceline, Mayor, repaired the City wall between Aldgate and Aldersgate. He also caused 'Moorfields to be searched for clay, and brick thereof to made and burnt; he likewise caused chalk ... to be burnt into lime in the same Moorfields'.

- 5.4.5 In 1511 the Mayor 'caused dikes and bridges to be made, and the ground to be levelled, and made more commodious for passage, since which time the same hath been heightened' but 'yet it stood full of noisome water'. Stow considered that the 'moorish' nature of the ground would defy any long term drainage scheme. In 1527 Mayor Thomas Seymour improved the sluices and ditches and drained the marsh.

- 5.4.6 Archaeological investigations corroborate the picture presented by the historical sources. The area of Moorfields was crossed by streams such as those found at 101-117 Finsbury Pavement, 119-125 Finsbury Pavement, 7-21 Wilson Street and 19-23 Worship Street. Extensive medieval quarrying for brickearth and gravel has also been identified at numerous sites in the vicinity. These include 25-32 Chiswell Street, 10-13 Dominion

Street, Finsbury Island Site, Finsbury Pavement, Finsbury Square, Goswell Road and Worship Street, along with interventions in advance of the construction of the London Overground east London Line at Shoreditch, where series of roadside medieval quarry pits were recorded (Bull *et al.* 2011, 28-33). These quarries acted as sumps for the surrounding ground and so acquired a marsh vegetation. The resulting deposits can be waterlogged and anaerobic which results in good organic preservation. Furthermore, as the disused quarries were ideal for garbage disposal vast amounts of waste leather, horn, wood and timber have survived in some instances.

5.5 Post-Medieval

5.5.1 As land reclamation proceeded large amounts of soil and debris were imported to raise the ground level. At Bonhill Street levelling was reportedly 10m deep but such a depth undoubtedly encompasses a backfilled quarry. Dumping to raise the ground level has also been recorded at City Road, Worship Street and Appold Street, between 1m to 5.5m thick.

5.5.2 In the early 17th century the paths crossing the fields were formalised as gravel walks and avenues of planted trees, being described in 1607 as 'the garden of this city and a pleasurable place of sweet airs for citizens to walk in'.

5.5.3 The copperplate map of the mid 16th century graphically illustrates the environs of the site. On Moorfields archers are shown practicing their skills while animals graze in the open fields. West of the site the main road follows the line of modern Moorgate before heading east along the line of Hog Lane (present day Worship Street) towards Bishopsgate.

5.5.4 By the time of Faithorne and Newcourt's map of 1658 there have been significant changes in the vicinity of the site. To the south and west a number of walled tenter-grounds had been established (for drying new cloth). London was expanding at this time beyond the tight confines of the City walls; the site however remained open ground.

5.5.5 During the Great Plague of 1665 additional graveyards were opened at Moorfields in Finsbury Fields. Samuel Pepys wrote on 30th August 1665 'I went forth to Moorfields to see (God forgive my presumption!) whether I could see any dead corpse going to the graves; but as God would have it did not'.

5.5.6 Moorfields became a refugee camp for the homeless following the Great Fire in 1666. Debris from the fire was spread over open ground around the City, including Moorfields, and has been found at 2-14 Bunhill Row.

5.5.7 By 1682 the south-western part of the site was occupied by a tenter ground and the remainder was open land. The urban sprawl of London was expanding up and around Bishopsgate to the east. By 1746 the site lay on the edge of London. The tenter-ground still existed and the eastern side of the site had buildings associated with 'Mr Witanooms

Vinegar Yard'. Horwood in 1799 depicted the site as largely open ground, Paul Street having been now laid out. Buildings occupied the western and eastern sides of the site. By 1813 a new development, Paul Square, had been erected and more buildings laid out.

- 5.5.8 Further development had occurred by 1835 when Clifton Street had been defined. Details in 1875 showed the site as being stone yards with terraced houses to the east. A similar picture was presented in 1896 and 1913. The site suffered some bomb damage in the Second World War and by that time the eastern terrace had been demolished. The site was largely cleared ground in 1953 with ruins on the western side. By 1964 a garage had been established and the Paul Street frontage had been developed. The site is presently occupied by an NCP car park and empty offices.

5.6 Archaeological investigations at the site

- 5.6.1 Pre-Construct Archaeology Limited's archaeological evaluation at the site (Hawkins 2013) recorded a sequence in keeping with what was predicted. It comprised Hackney Gravels at an elevation between 11.41 and 11.60m OD, sealed by alluvial-lain marshland deposits. At the surface of these in Trench 1 a pit was recorded which is interpreted as a late medieval – early post-medieval quarry pit, consistent with other archaeological features in the vicinity. The pit and the marshland was then in the post-medieval period sealed by an extensive deposit of dumped reclamation material, which raised the site (in the area of Trenches 2 and 3) to 15.75 to 15.70m OD. A 19th century cellar in Trench 3 shows the urban development of the site, with that feature perhaps relating to an ancillary structure within the "Stone Yard" which is shown in this location of the site in maps of the later 19th century. Finally the sequence within Trenches 2 and 3 was formed of the current ground level and associated make-up.
- 5.6.2 The area of Trench 1 had previously been subjected to significant groundwork episodes, which are considered to pre-date the current 1960s building which occupies 12-20 Paul Street. These actions truncated the pit and the top of the alluvial sequence; this is based upon the presence of a substantial retaining wall (perhaps of 19th or early 20th century date) which forms the northern, eastern and southern boundary to the car park area and which extends down to the current lower car park level. The wall shows signs of previous structures as scars and therefore suggest that previous construction in this position had already lowered the ground level prior to further ground-shaping to achieve the uniform and multi-level topography of the 1960s car park.

6 ARCHAEOLOGICAL METHODOLOGY

- 6.1 The fieldwork comprised the archaeological monitoring of ground reduction to a formation level of 12.70m OD across the site, an area of approximately 4,180 square metres, between April and June 2014 (Figure 2).
- 6.2 Some parts of the site were not excavated: ground remediation to the upper sequence of the site's strata was undertaken in the northwest corner of the site to remove buried petrol tanks from the garage formerly in this location; works within the footprint of 12-120 Paul Street were unmonitored as truncation in this area below the formation level for the new development had already been proven (Hawkins 2013); lastly, an area measuring approximately 20m by 20m at the northeast corner of the site was unmonitored (Figure 2). Otherwise all ground reduction was monitored by archaeologists.
- 6.3 All aspects of the work followed national (IfA 2013) and local (GLAAS 2009) guidelines, and complied with PCA's own fieldwork manual (Taylor and Brown 2009). The fieldwork was carried out in accordance with methodologies stipulated within an approved WSI (Mills Whipp Projects 2013).
- 6.4 Excavation proceeded with the use of mechanical diggers and was carried out in 300mm spits until archaeological strata were discovered or the formation level was reached.



Plate 1: View northeast across northern half of site showing area after reduction to formation level.

- 6.5 Following the ground reduction, where required, relevant faces of the excavation were inspected and cleaned using hand tools.

- 6.6 All significant archaeological features were investigated by hand tools and recorded in plan at 1:20 or in section at 1:10 using standard single context recording methods. Photographs were taken where appropriate.
- 6.7 Plans, sections and the location of the interventions monitored were located by use of engineering site drawings and foundation location plans, which referenced piling lines established on site. Heights in this report are calculated from engineering levels calculated to OS datums and located on the site.
- 6.8 Site records were compiled continuing the unique site code CLF12 which was obtained for the evaluation work at site. Context numbers were started at 50 in order to avoid contamination of records; section numbers were started from 10.

7 ARCHAEOLOGICAL SEQUENCE

7.1 Phase 1: Natural Pleistocene River Terrace Deposits

7.1.1 The earliest deposit encountered during the watching brief was a layer of orangey yellow sandy gravel designated context [53]. This deposit was interpreted as the top of the Hackney Gravel and was recorded at a height of c. 12.75m OD in the north-west of the site (Plate 1). Across the south and east of the site, such deposits were not observed at or above the formation level.

7.1.2 A unit of silty, sandy gravel was recorded in the borehole, its upper surface identified at 11.57m OD.



Plate 2: View northeast of ground reduction in progress at northern side of site; the surface of the Hackney Gravels is visible.

7.2 Phase 2: Alluvial Deposits

7.2.1 Sealing the Hackney Gravel was a sequence of alluvial deposits [52] and [54] recorded in sections 10 to 15 (see Figure 2). This sequence was recorded between c. 13.15m OD and c. 12.75m OD and was up to 0.40m thick. It consisted of homogenous silty clay deposits with infrequent organic lenses.

7.2.2 A clayey alluvial deposit [57] was observed in section 15 to have a thickness of 0.18m from an upper height of 12.88m OD (Plate 1). This layer contained frequent flecks of charcoal and infrequent lenses of organic material. The borehole recorded this material at a lower depth, its upper surface apparent at 11.95m OD (the borehole was

approximately 60m southeast of section 15).

7.2.3 These deposits represent deposition in a slow moving or stagnant (i.e. low energy) wetland environment.

7.3 Phase 3: Post-Medieval

7.3.1 Sealing the alluvial deposits was an extensive sequence of later post-medieval made ground. This material [51] and [56], recorded in sections 10, 11, 12 and 15, was recorded at a highest level of c. 13.59m OD and had an overall thickness of between 0.30m and 0.60m (Plate 2). It consisted of a stratified sequence, indicative of sequential ground-raising, with various deposits containing frequent CBM fragments and CTP / pottery dating from between AD 1550-1710 (Appendices 4 and 5).

7.3.2 The borehole recorded a comparable horizon between 11.95 and 13.83m OD of variable silty and clayey material, containing mollusca, bone and occasional brick fragments.

7.3.3 These layers represent the reclamation of the marshland which occurred during the early post-medieval period.

7.4 Phase 4: 19th Century

7.4.1 Cutting through the post-medieval made ground was a wall for a 19th-century brick built basement [55]. The bricks comprising this structure were orangey red and un-frogged, bonded with light grey sandy mortar containing flecks of charcoal (Figure 2). This structure, visible within the ground reduction area, was the same wall as that which defined the northern boundary to 12-20 Paul Street prior to the site's demolition.

7.4.2 A later phase of construction was identified by several courses of yellow bricks visible towards the top of the wall.

7.4.3 The basement wall, aligned approximately east-west over a distance of 11.50m, remained to a height of 2.60m. The top of the brick work was recorded at a level of c. 16.00m OD, whilst the bottom was found at a level of 13.40m OD.

7.5 Phase 5: Modern

7.5.1 Sealing the entire site from c. 13.59 to 16.00m OD was a layer approximately 3m thick of late 19th and 20th century made ground [50] consisting of a sandy-silt matrix with brick fragments, crushed concrete and other demolition material.

7.5.2 A horizon of similar material was recorded in the borehole between 13.32 and 13.08m OD.

7.5.3 This layer appears to be associated with redevelopment of the site after it suffered bomb damage during the Second World War and when a garage and office buildings were constructed.

8 DISCUSSION AND CONCLUSIONS

8.1 Discussion

8.1.1 The watching brief recorded a similar sequence to that recorded during the archaeological evaluation and geoarchaeological borehole.

8.1.2 Hackney Gravels were recorded at an elevation of c. 12.75 OD in the north-western part of the site. Across the south and east of the site, such deposits were not observed at or above the formation level of c.12.70m OD. Evidence from the borehole located in the east of the site recorded gravel at a level of 11.57m OD.

8.1.3 The surface of the gravel found in Section 10 at c. 12.75m OD is at variance with the gravel surface elsewhere, compared as follows (see Figure 2):

	Height of Hackney Gravels
Evaluation Trench 1	11.60m OD
Evaluation Trench 2	11.41m OD
Evaluation Trench 3	11.44m OD
QUEST Borehole 1	11.57m OD
CTB4, located inside site boundary at NW corner (Applied Geology 2011)	c 12.30m OD
DCS4, located inside site boundary at NW corner (Applied Geology 2011)	c 12.00m OD
WB (northwestern area of site)	12.75m OD

8.1.4 Considered as a whole, these levels for the surface of the gravels indicate widespread undulation, higher in the west of the site than the east, with the resulting hollows then being filled by waterlain deposits as the area became marshy from the Roman period onwards.

8.1.5 In their report, QUEST describe the gravel horizon as being “laid down on the valley floor within a high energy braided river system, most likely during the Wolstonian Glacial period (Marine Isotope Stage 8, ca. 350-280,000 cal BP)” (Young 2013).

8.1.6 A c. 0.40m thick alluvial-lain marshland deposit was observed sealing the natural gravel across the northern-central area of the site. The absence of it in the northwest area of the site is due to the elevated gravel in this location, reinforcing the hypothesis that the gravel was undulating and the resultant hollows were gradually filled by the marsh. In the eastern part of the site the geoarchaeological borehole recorded the top of this alluvial layer at 11.95m OD, which was below the formation level of the watching brief.

8.1.7 During the post-medieval period, the marshland alluvium was sealed by a deposit of dumped ground reclamation consisting of demolition material. This layer was approximately 0.60m where thickest, raising the site to c. 13.59m OD. Pottery and clay

tobacco pipe recovered from this horizon dated the made ground to between AD 1500 and 1710.

- 8.1.8 A 19th century wall observed at the northwest of the site relates to a structure depicted at this location on maps dating from 1875 onwards (not illustrated). The function of the building is not stated, but the wall observed formed the northern extent of the structure which then extended southwards into the footprint of what was 12-20 Paul Street; the 19th century building had been demolished by the construction of the office block in the 20th century, and the wall found retained as a retaining wall to the new external subterranean car park level.

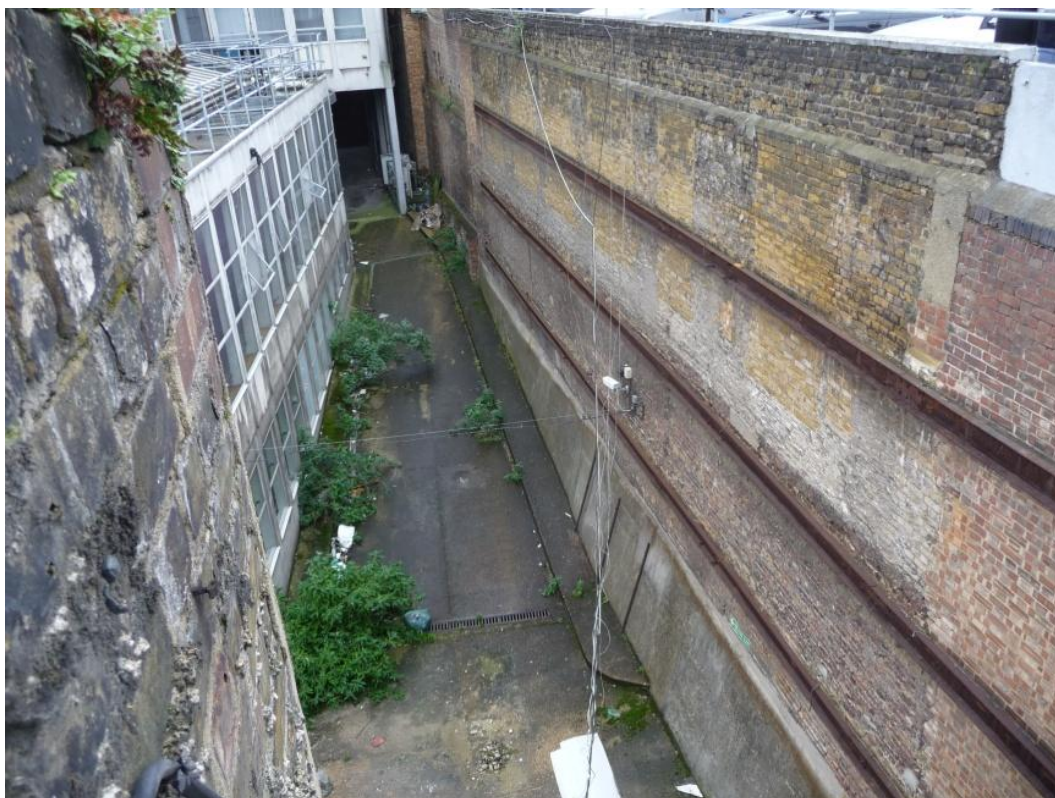


Plate 3: View west of plot at 12-20 Paul Street taken prior to evaluation in 2012. The brick wall at the right of the photo is wall [55] recorded at depth during the watching brief. The lower ground level was the external subterranean car park where Trench 1 was excavated.

- 8.1.9 In association with the development of the site in the late post-medieval period and 20th century, around 3m of made ground was deposited above post-medieval horizons to raise the ground level to around 16.00m OD.
- 8.1.10 No evidence for any structures dating to earlier than the late 18th century were discovered and no archaeological features cutting the natural gravel were observed during the watching brief.

8.2 General Conclusions

8.2.1 The results of the archaeological investigation at 12-20 Paul Street and 83-105 Clifton Street have provided a model of a landscape underlain by undulating terrace gravels and covered by a variable marshland deposit which was instigated from the Roman period onwards, rendering the area largely unusable until reclamation episodes in the post-medieval period to allow structural development. This development was poorly attested in the archaeological record largely due to the intensive redevelopment of the site in the modern periods, which must have caused truncation to sub-surface remains – the only viable reason for their notable absence.

8.2.2 The borehole towards the Clifton Street frontage was successfully implemented but did not reveal significant archaeological or geoarchaeological remains or potential.

8.2.3 No further work is required for the finds recovered from the site.

8.2.4 Pre-Construct Archaeology Limited does not consider that further specific post-excavation work for this planning condition is necessary or appropriate.

8.3 Publication

8.3.1 The results of the site investigation will be published as a brief note by PCA in the annual 'Round-Up' of *London Archaeologist*.

8.4 Archive Quantification and Destination

8.4.1 The archive from all PCA's work at the site comprises the following:

Context sheets	36 sheets
Plans @ 1:20	20 sheets
Sections @ 1:10	14 (20 sheets)
Photographs	111 images
Finds (all types)	1 box

8.4.2 Upon approval this report and with confirmation that the condition is discharged the complete archive will be deposited with the London Archaeological Archive and Research Centre under the unique site code CLF12.

8.5 Confidence

8.5.1 PCA considers that the archaeological work was completed in accordance with all relevant guidelines, best-practice documents and the approved Written Scheme of Investigation.

8.5.2 The work was undertaken in reasonable weather conditions. The Principal Contractor afforded appropriate care to the archaeological aims of the project and utilised careful excavation methods with grading buckets to allow close inspection of the site.

9 ACKNOWLEDGEMENTS

- 9.1 Pre-Construct Archaeology Ltd would like to thank McLaren Property for commissioning and facilitating the work and their archaeological consultant, Mike Hutchinson of Mills Whipp Projects, for his guidance and oversight.
- 9.2 Thanks are also extended to Adam Single of the Greater London Archaeology Advisory Service for monitoring the work on behalf of the London Borough of Hackney.
- 9.3 The author would like to thank Chris Mayo for his project management and editing, Jennifer Simonson for the illustrations and Chris Jarrett for the finds assessments.

10 BIBLIOGRAPHY

10.1 Printed Sources

Applied Geology, 2011, 'Report on Ground Investigation at 12-20 Paul Street, London', unpublished client report.

Barton, N. 1992 *The Lost Rivers of London* Phillimore & Co.

Bull, R., Davis, S., Lewis, H. and Phillpotts, C. with Birchenough, A. 2011 Holywell Priory and the development of Shoreditch to c 1600: Archaeology from the London Overground East London line, MOLA Monograph 53.

Greater London Archaeological Advisory Service (GLAAS) 2009 Archaeological Guidance Papers 3: Standards and Practices in Archaeological Fieldwork in London, English Heritage.

Hawkins, N., 2013. 'Land at 12-20 Paul Street and 83-105 Clifton Street, Hackney EC2A 4JH An Archaeological Evaluation', unpublished Pre-Construct Archaeology Ltd report.

Institute for Archaeologists 2013 *Standard and Guidance for an Archaeological Watching Brief*, Institute for Archaeologists

Mills Whipp Projects, 2012, '12-20 Paul Street & 83-105 Clifton Street, London EC2: Project Design for Archaeological Evaluation', unpublished Mills Whipp Projects report.

Mills Whipp Projects, 2013. '12-20, Paul Street and 83-105, Clifton Street, London EC2: Written Scheme of Investigation for Archaeological Watching Brief and Borehole', unpublished Mills Whipp Projects report.

Taylor, J. and Brown, G. 2009 PCA Fieldwork induction manual, (Operations Manual 1), London: Pre-Construct Archaeology Ltd.

Young, D.S., 2013 '12 -20 Paul Street and 83-105 Clifton Street, London Borough of Hackney (Site Code: CLF12): Geoarchaeological Fieldwork Report', unpublished Quaternary Scientific (QUEST) report.

10.2 Online Sources

Department for Communities and Local Government, 2012. National Planning Policy Framework: Conserving and Enhancing the Historic Environment

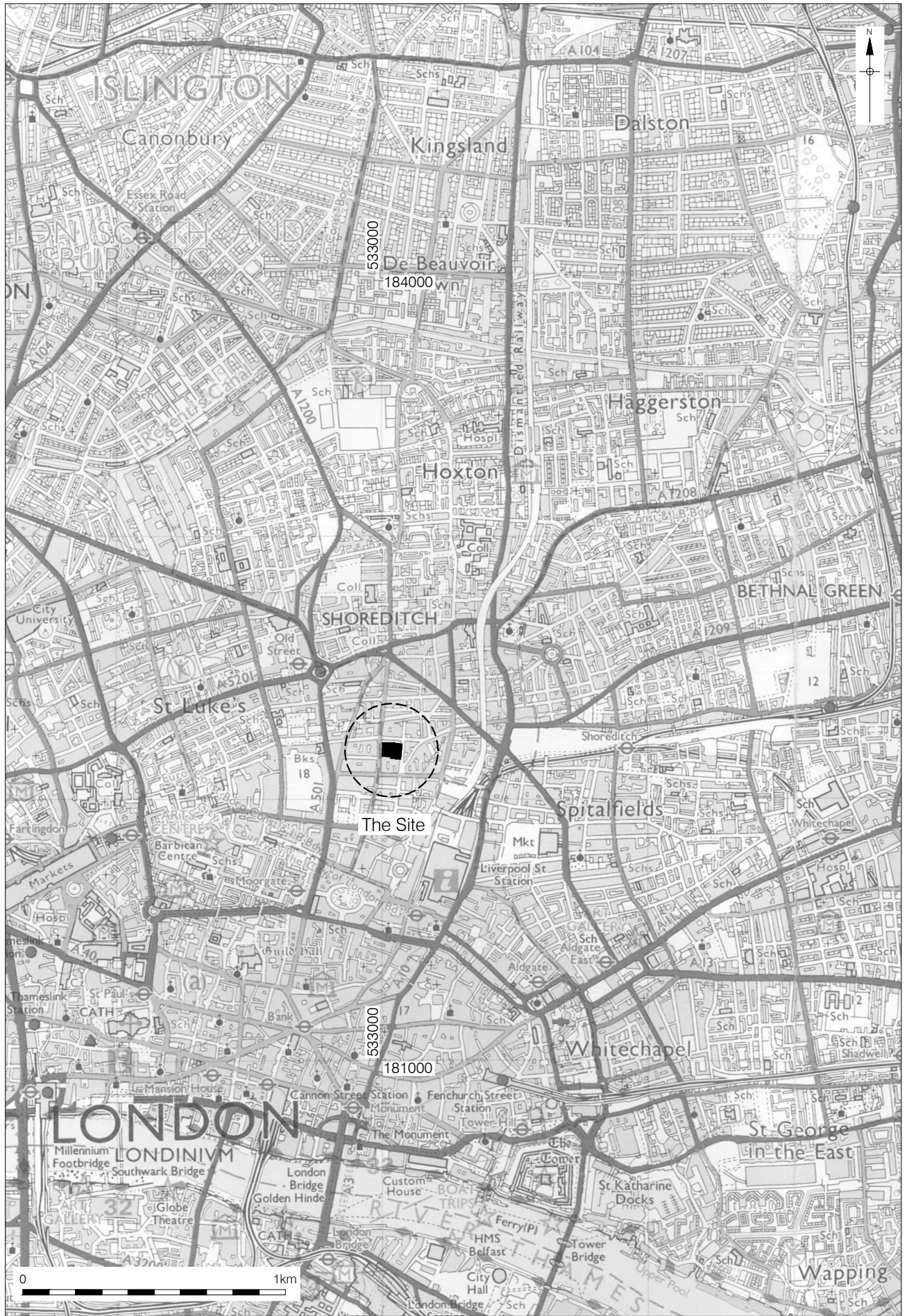
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Greater London Authority, 2011 'The London Plan'

<http://www.london.gov.uk/priorities/planning/londonplan>

London Borough of Hackney, 2010. Local Development Framework Core Strategy

<http://www.hackney.gov.uk/Assets/Documents/Adopted-LDF-Core-Strategy-final-incchaptimagescov-Dec2010-low-res.pdf>

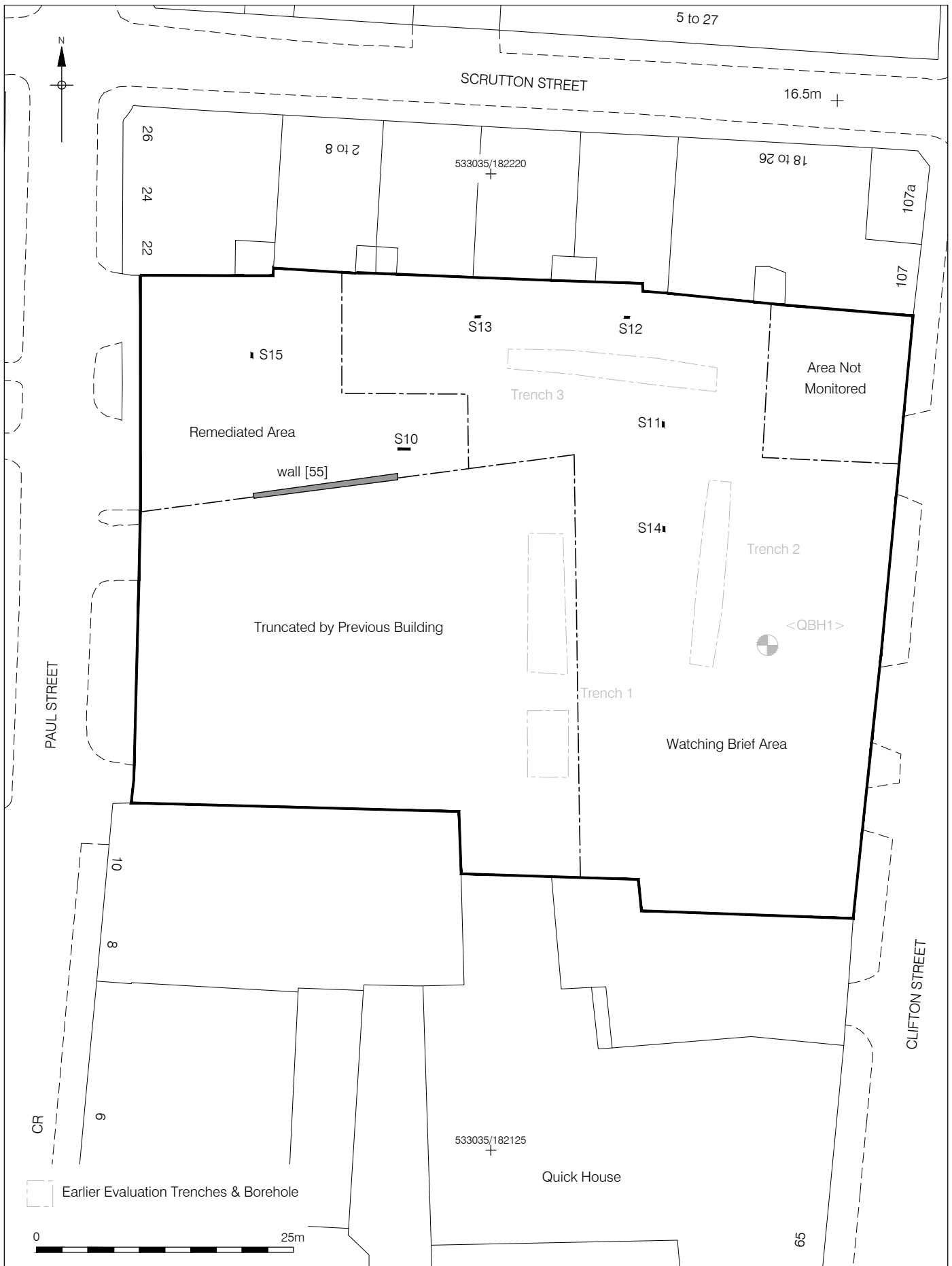


© Crown copyright 2006. All rights reserved. License number 36110309

© Pre-Construct Archaeology Ltd 2014

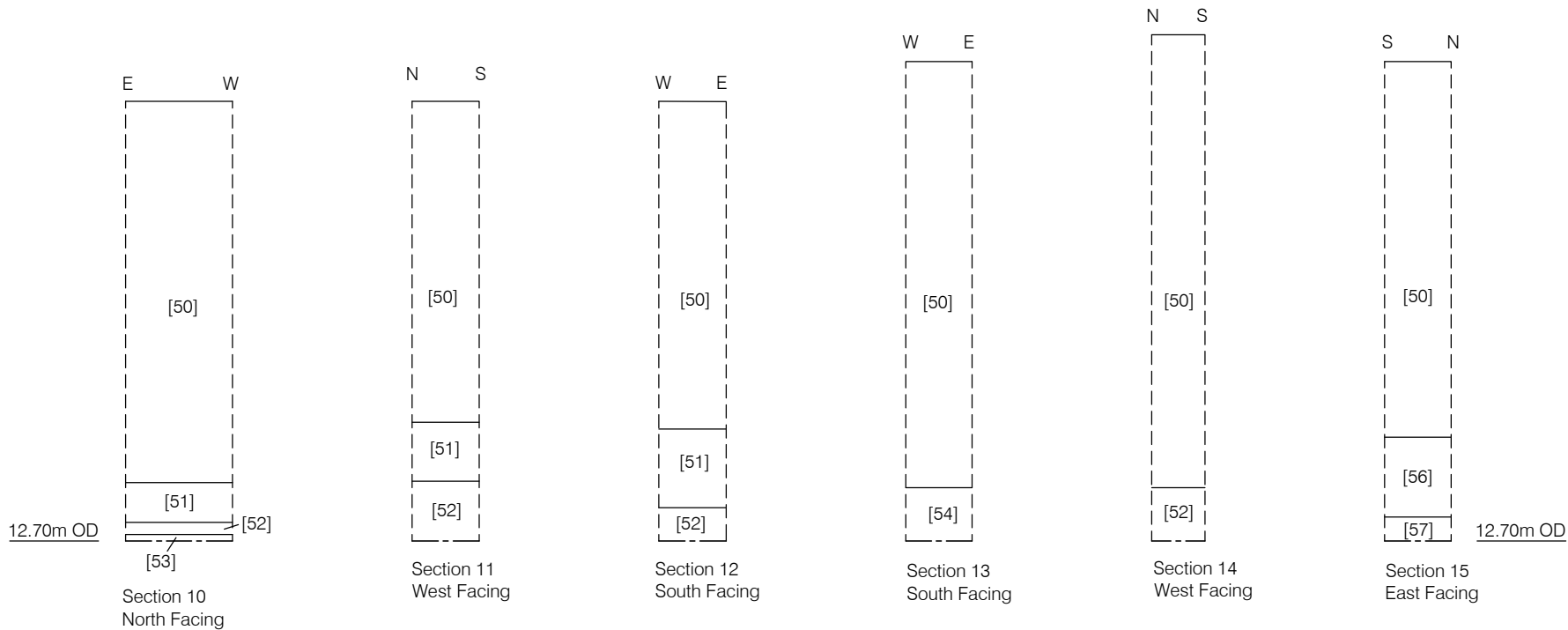
26/06/14 JS

Figure 1
 Site Location
 1:20,000 at A4



© Crown copyright 2014. All rights reserved. License number PMP36110309
 © Pre-Construct Archaeology Ltd 2014
 27/06/14 JS/JB

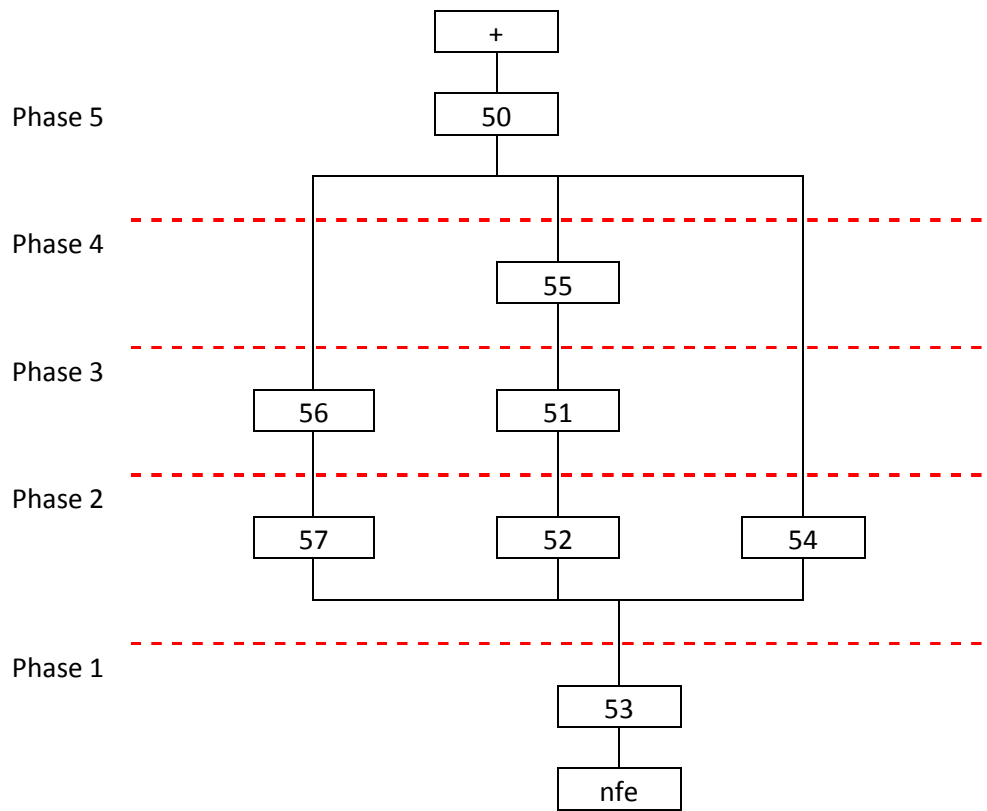
Figure 2
 Area of Watching Brief also showing position of borehole (QBH1) and locations of evaluation trenches
 1:500 at A4



© Pre-Construct Archaeology Ltd 2014
27/06/14 JS/JB

Figure 3
Sections 10 - 15
1:50 at A4

APPENDIX 1: SITE MATRIX



APPENDIX 2: CONTEXT INDEX

Site	Context No.	Type	Interpretation	Description	Depth (m)	High (m OD)	Low (m OD)	Section
CLF12	50	Layer	Made Grnd	Dark greyish brown, clayey silt	3.00	16.00	13.10	10,11,12,13,14,15,16,17
CLF12	51	Layer	Made Grnd	Dark greyish brown, clayey silt	0.89	13.59	13.14	10,11,12
CLF12	52	Layer	Marsh	Dark greyish brown, silty clay	0.45	13.15	12.84	10,11,12
CLF12	53	Layer	Natural	Orangey yellow, gravel	0.05	12.75	12.75	10
CLF12	54	Layer	Marsh	Dark greyish brown, silty clay	0.40	13.10	13.10	13
CLF12	55	Masonry	C19 wall	Orangey red, unfrogged brick,	2.60	16.00	13.40	-
CLF12	56	Layer	Made Grnd	Dark grey, sandy silt	0.60	13.48	13.48	15
CLF12	57	Layer	Marsh	Mid greyish brown, clay	0.18	12.88	12.88	15

APPENDIX 3: OASIS FORM

OASIS ID: preconst1-181224

Project details

Project name	12-20 Paul Street and 83-105 Clifton Street, London EC2A 4JH: An Archaeological Watching Brief
Short description of the project	The fieldwork consisted of monitoring ground reduction across the site to a level of c. 12.7m OD in preparation for piling. In some areas in the north-west of the site Hackney Gravels were recorded at an elevation of c. 12.75m OD, above which alluvial-lain marshland deposits were recorded. Sealing this alluvium were extensive post-medieval deposits of dumped ground reclamation material recorded to a height of c. 13.59m OD. A late 18th-19th century brick built basement at the west of the site cut into these dump layers. Above this sequence, to a level of around c. 16.00m OD, was a further layer of made ground dating to the 20th century. A similar sequence as that described above was recorded by the geoarchaeological borehole investigation and during an archaeological evaluation on the site in December 2012.
Project dates	Start: 02-04-2014 End: 23-05-2014
Previous/future work	Yes / No
Any associated project reference codes	CLF12 - Sitecode
Any associated project reference codes	2007/1871 - Planning Application No.
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	WALL Post Medieval
Significant Finds	POTTERY Post Medieval
Significant Finds	CLAY TOBACCO PIPE Post Medieval
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	GREATER LONDON HACKNEY HACKNEY 12-20 Paul Street and 83-105 Clifton Street
Postcode	EC2A 4ED
Study area	4077.00 Square metres
Site coordinates	TQ 533041 182190 50.9424277288 0.182385501985 50 56 32 N 000 10 56 E Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 11.41m Max: 12.75m

Project creators

Name of Organisation	Pre-Construct Archaeology Limited
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Mills Whipp Projects
Project director/manager	Chris Mayo
Project supervisor	Joe Brooks
Type of sponsor/funding body	Developer

Name of sponsor/funding body Katam Limited and Reining Limited

Project archives

Physical Archive recipient	LAARC
Physical Archive ID	CLF12
Physical Contents	"Ceramics"
Digital Archive recipient	LAARC
Digital Archive ID	CLF12
Digital Contents	"Stratigraphic"
Digital Media available	"Images raster / digital photography", "Images vector", "Text"
Paper Archive recipient	LAARC
Paper Archive ID	CLF12
Paper Contents	"Stratigraphic"
Paper Media available	"Context sheet", "Miscellaneous Material", "Notebook - Excavation", "Research", "General Notes", "Plan", "Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	12-20 Paul Street and 83-105 Clifton Street, London EC2A 4JH: An Archaeological Watching Brief
Author(s)/Editor(s)	Brookes, J.
Other bibliographic details	PCA R11770
Date	2014
Issuer or publisher	Pre Construct Archeaology Limited
Place of issue or publication	London
Description	A4 client document with blue covers, c33 pages

Entered by	Chris Mayo (cmayo@pre-construct.com)
Entered on	1 July 2014

APPENDIX 4: POTTERY ASSESSMENT

By Chris Jarrett, Pre-Construct Archaeology Limited

Introduction

The post-Roman pottery assemblage consists of two sherds, representing two estimated number of vessels (ENV). The pottery dates to the post-medieval period. The condition of the pottery is good and comprises sherd material and this all indicates deposition soon after breakage. The pottery was recovered from one context.

Spot dating index

Context [2]. spot date: 1550-1700

Surrey-Hampshire border whiteware with clear green glaze (BORDG), 1550 -1700, two sherds, 2 ENV, form: bowl and possible mug.

Significance, potential and recommendations for further work

The pottery has little significance at a local level and it is found as types and forms frequently found in the London region and the material occurs in a small group without much meaning. The main potential of the pottery is to date the contexts it was recovered from. There are no recommendations for further work.

APPENDIX 5: CLAY TOBACCO PIPE ASSESSMENT

By Chris Jarrett, Pre-Construct Archaeology Limited

INTRODUCTION

A small sized assemblage of clay tobacco pipes was recovered from the site (one box). All of the fragments are in a good condition, indicating fairly rapid deposition after breakage. Clay tobacco pipes occur in one context as a small (under 30 fragments) sized group. All of the clay tobacco pipes (two fragments and present as two bowls) were classified by Atkinson and Oswald's (1969) typology (AO) and 18th-century bowls are according to Oswald (1975).

Spot dating catalogue

Context [2], spot date: c .1700-1710

AO22: one bowl, dated 1680-1710, initialled P ?I M, possibly a triple initialled item.

OS10: one bowl, dated 1700-40.

Significance, potential and recommendations for further work

The assemblage has little significance as the material occurs as a small group without much meaning. The only potential of the clay tobacco pipes is to date the contexts it was recovered from. There are no recommendations for further work on the assemblage.

Reference

Atkinson D. and Oswald. A., 1969, 'London clay tobacco pipes'. Journal of British Archaeology Association, 3rd series, Vol. 32, 171-227.

PCA

PCA SOUTH

UNIT 54
BROCKLEY CROSS BUSINESS CENTRE
96 ENDWELL ROAD
BROCKLEY
LONDON SE4 2PD
TEL: 020 7732 3925 / 020 7639 9091
FAX: 020 7639 9588
EMAIL: info@pre-construct.com

PCA NORTH

UNIT 19A
TURSDALE BUSINESS PARK
DURHAM DH6 5PG
TEL: 0191 377 1111
FAX: 0191 377 0101
EMAIL: info.north@pre-construct.com

PCA CENTRAL

THE GRANARY, RECTORY FARM
BREWERY ROAD, PAMPISFORD
CAMBRIDGESHIRE CB22 3EN
TEL: 01223 845 522
FAX: 01223 845 522
EMAIL: info.central@pre-construct.com

PCA WEST

BLOCK 4
CHILCOMB HOUSE
CHILCOMB LANE
WINCHESTER
HAMPSHIRE SO23 8RB
TEL: 01962 849 549
EMAIL: info.west@pre-construct.com

PCA MIDLANDS

17-19 KETTERING RD
LITTLE BOWDEN
MARKET HARBOROUGH
LEICESTERSHIRE LE16 8AN
TEL: 01858 468 333
EMAIL: info.midlands@pre-construct.com

