

**An Archaeological Watching Brief
at 112-114 Tooley Street,
Bermondsey
SE1 2TH,
London Borough of Southwark**

NGR: TQ 33197 80098

Planning Ref: 16/AP/4092

**ASE Project No: 160773
Site Code: TES 17**

**ASE Report No: 2017456
OASIS ID: archaeol6-299364**

By Sarah Ritchie, MA ACIfA

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Abstract

This report presents the results of an archaeological watching brief commissioned by CgMs Consulting, and carried out by Archaeology South-East at 112-114 Tooley Street, Bermondsey, SE1 2TH.

The watching brief consisted of up to 1.50m of ground reduction within a street level courtyard at the rear of the site, located at c. 4.27m AOD, and up to 1.10m of ground reduction within the existing basement of the extant building, located at c. 1.53m AOD.

The work revealed a sequence of red and yellow brick walls, attributed to the remains of outbuildings located within the rear gardens/courtyards of the properties fronting Tooley Street, cutting into a sequence of post-medieval dumping and levelling layers believed to represent post-medieval land levelling and possible reclamation within and around the intertidal channels in the Southwark area.

The lowest deposits observed within the archaeological sequence consisted of alluvial and peaty clay deposits with post-medieval inclusions, such as peg tile. It is uncertain whether these deposits represent deliberate backfill/levelling of the site, or the natural silting of an intertidal channel during the post-medieval period.

Natural deposits were not encountered.

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1.0 INTRODUCTION

1.1 Site Background

- 1.1.1 Archaeology South-East, the contracting division of the Centre for Applied Archaeology (CAA), Institute of Archaeology (IoA), University College London (UCL) was commissioned by CgMs Consulting, to undertake an archaeological watching brief at 112-114 Tooley Street, Bermondsey, SE1 2TH, London Borough of Southwark (Figure 1; NGR TQ 33197 80098).
- 1.1.2 The site comprises a rectangular plot comprising two, three-storey Victorian terraced buildings with shopfronts, including a lower ground floor level underneath the front half of the site to the front of the properties. The site is bound to the north-east by Tooley Street; and to the north-west, south-east and south-west by retail properties.
- 1.1.3 The site lies within the Borough, Bermondsey and Rivers Archaeological Priority Zone as designated by the London Borough of Southwark. The area is of known archaeological potential, comprising evidence of Roman occupation together with medieval activity concentrated within the confines of Bermondsey eyot. Bermondsey Street, c.60m west of the site was likely established as a causeway leading into areas of former channels between the islands, which made up North Southwark during the prehistoric, Roman and medieval periods (SBC 2007).

1.2 Geology and Topography

- 1.2.1 Reference to British Geological Survey mapping (Geology of Britain Viewer; Accessed 25/10/2017) shows the site lies on a solid geology of London Clay Formation (clay and silt) forming the London Basin. Overlying the London Clay is a series of gravel terraces, namely Kempton Park Gravel Formation (sand and gravel) deposited during periods of glacial and inter-glacial conditions (Bridgland 1996). Kempton Park Gravels have been categorised as part of the Devensian Stage, the last glacial stage of the British Pleistocene epoch (Gibbard 1994, 90).
- 1.2.2 The natural topography of the Southwark area is one of low-level gravel eyots separated by lower-lying areas and braided stream channels, which were periodically flooded. Episodes of Holocene transgression and regression of the Thames have led to the deposition of alluvial silts and clays interspersed with episodes of localised peat formation, especially in channel locations. The site is believed to lie on the north-western edge of a low-lying island south of Tower Bridge. Programmes of land reclamation and consolidation are known to have taken place during the Roman, medieval and Post-medieval periods (MoLAS 2000).
- 1.2.3 The site is generally level at c.4m Above Ordnance Datum (AOD). The course of the River Thames flows from west to east c.90m north of the site.

1.3 Planning Background

- 1.3.1 Planning permission has been granted by London Borough of Southwark (Ref. No.: 16/AP/4092) for the erection of a mansard roof extension above Nos.112

and 114 Tooley Street, erection of a third storey rear extension above the existing rear closet wings, erection of an addition at first floor level, ground floor glazed extension in the rear courtyard, change of use of ground floor and lower ground floor from Office to Restaurant, conversion of existing upper floors from Office to a large House in Multiple Occupation, alterations to the ground floor frontage and installation of ventilation flue at the rear. Condition 3 of the planning decision states:

3) Before any work hereby authorised begins, the applicant shall secure the implementation of a programme of archaeological mitigation works in accordance with a written scheme of investigation involving an archaeological watching brief, which shall be submitted to and approved in writing by the Local Planning Authority in advance of the commencement of such works.

1.4 Aims and Objectives

1.4.1 The general aim of the watching brief was:

- To record and excavate any features encountered during the course of the groundworks, and determine the character, quality and date of each feature or group of features.

1.4.2 Within these parameters, the watching brief of this site presents an opportunity to address the following objectives:

- To determine the presence of any prehistoric or Roman activity within the site.
- To establish the presence of Anglo-Saxon or late medieval activity within the site. Can evidence of late medieval land reclamation/water management be identified?
- To establish the presence of post-medieval domestic activity within the site. Is there evidence for pre-19th century structures? What can the evidence tell us about the type of occupation taking place?
- Establish the likely impact of past land use and development.

1.5 Scope of Report

1.5.1 This report details the results of the intermittent archaeological watching brief carried out on the site between the 25th May and 10th October 2017. This report has been prepared in accordance with the Written Scheme of Investigation (CgMs, 2016a).

1.5.2 The site work was carried out by Sarah Ritchie, Ian Hogg and Jonny Gardner, and was managed by Andy Leonard (fieldwork) and Andy Margetts (post-excavation).

2.0 ARCHAEOLOGICAL BACKGROUND

2.1 Overview

- 2.1.1 The following archaeological background is drawn from the Archaeological Desk-Based Assessment for the site (CgMs, 2016b). For a full background please refer to this document.

2.2 Prehistoric

- 2.2.1 The occurrence of *in-situ* Palaeolithic material in the underlying river Kempton Park terrace gravels is typically rare (BGS 1996, 130).
- 2.2.2 There are no recorded finds dating from the prehistoric periods recorded within 150m of the study site.

2.3 Roman

- 2.3.1 The Museum of London Archaeology map of *Londinium* (2011) places the site on the north-western edge of a low-lying island south of Tower Bridge. Programmes of land reclamation and consolidation are known to have taken place during the Roman period which is largely reflected in the HER records from the vicinity.
- 2.3.2 Deposits of peat dated to the Roman period are recorded from a geotechnical test pit on Bermondsey Street c.20m to the west of the site. The peat horizons were recorded within a flood deposit, potentially corresponding to periods of river 'regression'.
- 2.3.3 Deposits indicating a dump of Roman material next to a watercourse, possibly as part of land reclamation are recorded on Tooley Street, c.110m north-west of the site. Further dump deposits of Roman date are recorded c.130m south-east of the site.
- 2.3.4 Roman features including a wooden revetment associated with a channel were found at 141-7 Tooley Street, c.100m east of the site.

2.4 Anglo-Saxon and medieval

- 2.4.1 *Lundenwic*, the Saxon settlement which grew up to the west of *Londinium*, is thought to have been abandoned during the later ninth century AD, when the Roman city was re-inhabited, due to Viking attacks. The Thames was bridged at Southwark by AD 1000; Southwark is named in the Burghal Hidage of 915 as *Suthringa geweorche*, or the defensive work of the men of Surrey. The Domesday Book records a church, c.50 houses, a port, and the collection of tolls within the settlement (Watson 2009, 147).
- 2.4.2 The approximate location of the early medieval Bermondsey Stone Cross is recorded at the top of Bermondsey Street, c.90m north-west of the site.

- 2.4.3 An evaluation at 108-110 Tooley Street revealed a medieval rubbish layer, overlain by modern material. Further medieval dump layers largely comprised of animal bone, shells and broken pottery together with channels and ditches were recorded during an archaeological excavation at Battle Bridge Lane c.40m north of the site. This evidence suggests a period of land reclamation occurring in the vicinity of the site up to the 14th century AD.
- 2.4.4 The Rosary, a moated house built by Edward II in 1325 AD was located c.110m north of the site. Excavations around the site of the Rosary have indicated that the house had a waterfront on the River Thames, with a revetted river wall separating the buildings complex from the surrounding watercourses. The moat was backfilled in the mid-16th century, a period of considerable activity in the area.
- 2.4.5 A second moated house dating to the late medieval period belonging to Sir John Falstoff is recorded north of Abbot's Lane c.150m north of the site. Falstoff Place was associated with mills probably run on tidal power, a wharf and many lesser buildings in a large area to the north of Tooley Street.

2.5 Post-medieval and modern

- 2.5.1 The area around Tooley Street became increasingly developed from the 16th century onwards, as more land was reclaimed from intertidal channels in the Southwark area.
- 2.5.2 A large area of post-medieval brick buildings which appear to be warehouses and other commercial/industrial premises associated with north Southwark's waterfront were found during an excavation on the north side of Tooley Street, c.30m north of the site. Further rubbish pits and layers associated with these structures appeared to represent the disposal of local rubbish, with evidence pointing towards a possible leather working and metal working industries.
- 2.5.3 Approximately 30m to the west of the site, post-medieval land surfaces were recorded in a geotechnical test pit. Evidence of a backfilled ditch or river channel dated to the 16th to 17th centuries, overlain by later pits and foundation trenches c.60m south of the site indicates that the land around the site was being reclaimed and utilised during the 16th, 17th and 18th century expansion of Southwark.
- 2.5.4 Early views and maps of the site show it to be approximately located within an area occupied by buildings and yards on the southern side of Tooley Street from the late-16th through to the mid-18th centuries.
- 2.5.5 Richard Horwood's map of 1792-99 shows the site occupied by buildings with yards to the rear on the southern side of Tooley Street.
- 2.5.6 The 1887 Goad Fire Insurance Plan shows that Tooley Street had been widened by this date. The site is now comprised of nos. 163 and 164 Tooley Street (later renumbered to 112 and 114), with a yard, and part of a carpenter's workshop to the rear. The buildings, recorded as a shop with dwelling above are 3 stories in height and constructed in brick. The 1894-96 Ordnance Survey shows some additional outbuildings within the rear yard. The carpenter's workshop to the south has been demolished.

2.5.7 The 1945 LCC World War II Bomb Damage Map records all the buildings within the site as receiving significant bomb damage. The 1952 Ordnance Survey indicates that the buildings within the site were repaired after the war. With the exception of the construction and subsequent demolition of a small extension to the rear of the buildings, there is little further change apparent on later mapping.

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Fieldwork Methodology

- 3.1.1 A Risk Assessment and Method Statement (RAMS) was prepared prior to commencement of the work, and a site code (TES 17) obtained from the London Archaeological Archive and Research Centre (LAARC) and has been used as the unique site identifier for all records.
- 3.1.2 The watching brief work comprised the monitoring of ground reduction at the site pertaining to the lowering of the ground level in the rear external courtyard and existing basement. The ground reduction was excavated by hand by a qualified sub-contractor under observation by an ASE Archaeologist.
- 3.1.3 All levels within the courtyard area were measured down from the existing slab, which had a known level of 4.27m OD, and the basement area was measured down from the existing slab, which had a level of 1.53m OD.
- 3.1.4 While a watching brief is designed to cause minimal disruption to a development, the contractor ensured that sufficient time was granted to the Archaeologist(s) on site to properly investigate and record any archaeological features and/or deposits in line with the requirements of the WSI (CgMs, 2016a).
- 3.1.5 Any exposed potential archaeological features/deposits were cleaned by hand and recorded in plan using ASE standard context sheets. Post-excavation plans and sections were recorded and a comprehensive photographic record taken.

3.2 The Site Archive

- 3.2.1 ASE informed LAARC prior to the commencement of fieldwork that a site archive would be generated. The site archive is currently held at the offices of ASE and will be deposited at LAARC in due course. The contents of the archive are tabulated below (Table 1).

Context sheets	21
Section sheets	1
Plans sheets	1
Colour photographs	0
B&W photos	0
Digital photos	93
Context register	1
Drawing register	1
Watching brief forms	8
Trench Record forms	0

Table 1: Quantification of site paper archive

Bulk finds (quantity e.g. 1 bag, 1 box, 0.5 box 0.5 of a box)	1 box
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Registered finds (number of)	0
Flots and environmental remains from bulk samples	0
Palaeoenvironmental specialists sample samples (e.g. columns, prepared slides)	0
Waterlogged wood	0
Wet sieved environmental remains from bulk samples	0

Table 2: Quantification of artefact and environmental samples

3.3.2 The finds and environmental samples ultimately deposited as part of the archive are dependent on specialist recommendations and regional archive requirements.

4.0 RESULTS (Figures 2-4)

4.1 Courtyard area

- 4.1.1 The courtyard area was situated to the rear of the site within the south-east corner. The existing courtyard slab [1000] was relatively flat, and located at c.4.27m AOD. The scope of the ground reduction within this area involved the hand excavation and reduction of the courtyard area by c.1m. The construction cut for a new bridge wall was excavated to a depth of c.1.50m below existing ground level (c.2.78m AOD). The natural geology was not reached within this area.
- 4.1.2 Within the construction cut for the new bridge wall, the sequence revealed a layer of mid-blue/grey alluvium [1016] with 17th century pottery inclusions, located at c.2.78m AOD. This deposit marked the limit of the ground reduction, and so it was not possible to ascertain whether alluvium [1016] represents a water channel that naturally silted up during the post-medieval period, or intentional dumping of redeposited alluvium as land was reclaimed from intertidal channels during the earlier post-medieval period.
- 4.1.3 Sealing alluvial deposit [1016] were a series of dump layers and lenses with crushed mortar, ceramic building material (CBM), and shell inclusions, [1017]; [1018] and [1019], which likely represent levelling activity associated with reclamation. A large sherd of relatively un-abraded pottery from [1018] suggests a mid/late 17th century date for the reclamation. These dump layers were only observed within the construction cut for the new bridge wall.
- 4.1.4 Levelling layers [1017]; [1018] and [1019] were truncated by red brick walls [1009]=[1011] (construction cut [1020]), [1010] and [1013] (construction cut [1014]), which represent the remains of post-medieval ancillary structures within the rear courtyards of the properties fronting onto Tooley Street. Brick samples from these walls suggest a late 17th-18th century date range. The walls were horizontally truncated at c.3.27m AOD, and were sealed by a 0.30m thick 18th century dump/made ground layer [1008], which spanned the entire courtyard area and consisted of frequent mortar, CBM and coal inclusions, as well as occasional pottery and clay tobacco pipe (CTP) with a c. 1740-1800 date range. An isolated dump deposit of broken ceramic roof tiles [1015] was recorded separately, however is likely associated with the same dumping and levelling phase within the site.
- 4.1.5 Cutting into dump/levelling [1015] and [1008] was wall [1006] (construction cut [1007]) and associated sandy surface or bedding layer [1002]. The wall consisted of frogged yellow bricks with some reused un-frogged red bricks, and likely dates to the later 18th century. Also cutting into [1008] was possible rubbish pit or ditch [1005], which measured at least 0.35m deep but was not fully excavated. The feature contained at least three fills – [1003]; [1004] and [1012], all of which contained frequent (intrusive?) 19th/20th century metal, pottery and CTP. Possible pit [1005] was recorded as linear in shape, and was observed abutting wall [1013]. It was heavily truncated by modern intrusion to the south-west and had clearly been subject to some reworking. It is probable that feature [1005] actually represents multiple disturbed dump deposits of differing dates abutting 18th century wall [1013].

4.1.6 Sealing wall [1006] and feature [1005] was late post-medieval/made ground [1001]. Measuring c.0.15m thick, this deposit appeared to be truncated by the existing structure, suggesting perhaps [1001] represents the remains of the made ground within the rear of the site prior to the post World War II rebuilding which took place c.1945-1952.

4.1.7 Overlying the whole courtyard area was c.0.20m of modern made ground [1000] and a 0.05m slab of concrete, located at c.4.27m AOD.

Context	Type	Interpretation	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
1000	Layer	Made ground and concrete slab	Courtyard	Courtyard	0.25m	4.27
1001	Layer	Made ground	Courtyard	Courtyard	0.15m	4.02
1002	Layer	Surface?	Courtyard	Courtyard	0.16m	3.87
1003	Fill	Fill of 1005	2.45m	0.45m	0.30m	3.87
1004	Fill	Fill of 1005	2.45m	0.45m	0.35m	3.57
1005	Cut	Pit or Ditch	2.45m	0.45m	0.75m (NFE)	3.87
1006	Mas	Wall	1.35m	0.55m	0.30m	3.87
1007	Cut	Construction cut	1.35m	0.55m	0.30m	3.87
1008	Layer	Made ground	Courtyard	Courtyard	0.40m	3.53
1009	Mas	Wall	1.4m	0.75m	0.07m	3.27
1010	Mas	Wall	1.05m	0.40m	0.10m	3.27
1011	Mas	Wall	0.82m	0.17m	0.07m	3.27
1012	Fill	Fill of 1005	2.45m	0.35m	0.10m (NFE)	3.22
1013	Mas	Wall	4.75m	0.25m	0.38m	3.27
1014	Cut	Construction cut	4.75m	0.25m	0.38m	3.27
1015	Layer	Dump	3m	1.5m	0.18m	3.71
1016	Layer	?Redeposited Alluvium	Courtyard	Courtyard	NFE	2.78
1017	Layer	Dump	1.5m	1m	0.10m	3.13
1018	Layer	Dump	0.70m	0.45m	0.15m	3.03
1019	Layer	Made ground/Dump	3.6m	1m	0.10m	2.88
1020	Cut	Construction cut	1.7m	1.2m	0.10m	3.27

Table 3: List of recorded contexts, courtyard area

4.2 Basement area

4.2.1 The basement area was situated at the front of the site within both 112 and 114 Tooley Street. The existing basement slab was relatively flat, and located at c.1.53m AOD. The scope of the ground reduction within this area involved the hand excavation and reduction of the whole basement area by c.0.70m, with isolated deeper foundation cuts/pile locations which were excavated to c.1.10m BGL. The natural geology was not reached within this area.

4.2.2 The isolated foundation cuts revealed a made ground deposit consisting of

mid grey gravels and sand [1024] with CBM and peg tile inclusions. This deposit was observed at c.0.44m AOD, and was not bottomed. Sealing [1024] was post-medieval layer [1023], which consisted of 0.10m of mid grey-brown peaty clay with occasional CBM fragments. [1023] was overlain by mid grey-brown clayish-silt [1022]. It is possible that deposits [1022]-[1024] represent natural silting up of a water channel during the post-medieval period, however given the information currently available it is not possible to say this with any certainty.

4.2.3 Sealing made ground [1022], and observed across the whole basement area, as 0.49m of a mixed brownish-yellow silty clay made ground [1021] with a mix of CBM, CTP and red brick inclusions, located at c.1.23m AOD.

4.2.4 Sealing the whole basement area was 0.18m of modern levelling material and a 0.12m thick concrete slab, located at c.1.53m AOD.

Context	Type	Interpretation	Max. Length m	Max. Width m	Deposit Thickness m	Height m AOD
1021	Layer	Made ground	Basement	Basement	0.49m	1.23
1022	Layer	Made ground	Foundation/Pile locations	Foundation/Pile locations	0.20m	0.74
1023	Layer	Made ground	Foundation/Pile locations	Foundation/Pile locations	0.10m	0.54
1024	Layer	Made ground	Foundation/Pile locations	Foundation/Pile locations	0.05m (NFE)	0.44

Table 4: List of recorded contexts, basement area

5.0 THE FINDS

5.1 Summary

5.1.1 A small assemblage of finds was recovered during the watching brief at 112-114 Tooley Street, London Borough of Southwark. All finds were washed and dried or air-dried as appropriate. They were subsequently quantified by count and weight and were bagged by material and context (Table 5). All finds have been packed and stored following ClfA guidelines (2014).

Context	Pottery	Weight (g)	CBM	Weight (g)	Metal	Weight (g)	Clay Tobacco Pipe	Weight (g)
1003							1	2
1004	5	110	12	1372	11	946		
1006			2	2196				
1008	10	550					1	14
1009			2	3757				
1012	6	634	1	3			1	14
1013			2	5016				
1015			2	789				
1016	3	96						
1018	1	42						
Total	25	1432	21	13133	11	946	3	30

Table 5: Finds quantification

5.2 The Pottery by Luke Barber

5.2.1 The archaeological monitoring recovered 24 sherds of pottery, weighing 1406g, from six individually numbered contexts. The material has been fully listed in Table 6 as part of the visible archive. MoLA fabric codes have been used as well as common name.

5.2.2 The earliest pottery from the site appears to be of the 17th century. The sherds from dump [1018] and alluvial layer [1016] do not have any later pottery associated with them and do not show significant signs of abrasion. Close dating in isolation is difficult but generally the PMSRY is unlikely to have been in use much beyond the mid 17th century. All could be placed comfortably in a mid/late 17th century date. Further 17th- century pottery, this time residual, was recovered from made ground [1008]. This deposit also contained a notable spread of 18th- century material, including the WEST, late TGW, SWSG and CREA vessels. These are again in relatively fresh condition suggesting they have not been subjected to repeated reworking. However, the same made ground also contained the large pieces of ENGS that clearly show it to be a deposit post-dating c. 1825.

5.2.3 The two fills of ditch [1005] are somewhat at odds: the material from the lowest

fill (context [1012]) clearly being later than the material from the upper fill (context [1004]). It suggests the upper fill to have been made up of imported material. Overall the ceramics would suggest activity spanning the 17th to mid/late 19th centuries but the assemblage is too small to draw conclusions from.

Context	Fabric	Maximum date range of fabric	No	Weight	Comments (including estimated number of vessels)
1004	LONS: London stoneware	1670-1900+	2	90g	Large bottle x1 (iron wash, salt glaze externally)
1004	RBOR: Red Border ware	1550-1900	1	12g	Bowl x1 (clear glaze internally. Internal chalky/water concretion)
1004	CREA: Creamware	1740-1830	2	10g	Uncertain form x1 (stained0)
1008	PMSRY: Post-medieval slipped redware (clear glaze)	1480-1650	1	46g	?Bowl x1 (white slip under clear glaze on interior base. Finer fabric than usual)
1008	WEST: Westerwald stoneware	1590-1900	1	28g	Jug x1 (incised line decoration with cobalt blue infill)
1008	TGW: Tin-glazed earthenware	1570-1845	2	16g	Ointment pot (small) (blue-tinged glaze with blue line from labelling). 24mm di base, 29mm tall
1008	SWSG: White salt-glazed stoneware	1720-1780	1	16g	Lid x1 (from vase?. Moulded floral & shell designs)
1008	CREA: Creamware	1740-1830	2	16g	Plates x2 (scalloped rims)
1008	ENGs: English stoneware	1700-1900+	3	426g	Large spirit bottle x1 (tan top, Bristol glaze with part of retailer's monogram)
1012	TPW4: Green transfer-printed whiteware	1825-1900+	5	90g	Saucer x1 (ivy/floral sheet pattern, cup recess)
1012	ENGs: English stoneware	1700-1900+	1	518g	100% shouldered mineral water bottle x1. (Iron wash, salt glaze. 25mm di aperture, 72mm di base, 168mm tall. Stamped near base: J. BOURNE & SON // PATENTEES // DENBY POTTERY // NEAR DERBY')
1016	PMR: London-area post-medieval redware	1580-1900	2	80g	Bowl/dish? X1 (clear glaze internally); Pipkin? X1 (external clear glaze patches, rod handle, externally sooted)
1016	PMSRY: Post-medieval slipped redware (clear glaze)	1480-1650	1	16g	Uncertain form x1 (white slip, clear glaze internally)
1018	TGW: Tin-glazed earthenware	1570-1845	1	42g	Dish/charger x1 (blue decoration)

Table 6: Pottery assemblage.

5.3 The Ceramic Building Material by Isa Benedetti-Whitton

5.3.1 Twenty-one pieces of ceramic building material weighing a total of 13,133g were collected from three stratified contexts ([1004], [1012], [1015]) and three standing structures; [1006], [1009] and [1013]. All the material was quantified by form, weight and fabric and recorded on standard recording forms. This information was then entered into a digital Excel database. Fabrics were identified with the aid of a x20 binocular microscope and catalogued using

Museum of London Archaeology's (MOLA) fabric reference codes; fabric descriptions are provided below in Table 7.

- 5.3.2 The bricks collected were mostly typical of the 17th-18th century. The mortar adhering to those bricks sampled from standing structures was grey with pieces of coal, charcoal and even animal bone apparent in the mix, which is typical of building materials produced following the Great Fire of 1666 when household debris was used to temper both bricks and mortar. It is possible that the bricks recovered from [1009] and [1013] predate the fire and were re-used, although the 3032 brick piece taken from [1006] definitely dates later. 3032 bricks start being manufactured post-1666 and the burnt ash and debris inclusions make this fabric distinctive. This particular 3032 brick also displayed a slight frog, which suggests a later 18th century date.
- 5.3.3 Additional brick pieces were collected from [1004] and [1012], and some roof tile fragments from [1015]. The bricks were both formed from typically pre-1666 fabrics 3033 and 3065, although the latter was only represented by large crumb. The tile fragments from [1015] were in generic London roof tile fabric 2586 and cannot be dated beyond being broadly post-medieval.
- 5.3.4 All material has been discarded following recording and analysis.

Fabric	Description
2586	Orange fabric with varying quantities (moderate-common) of medium and coarse quartz.
3032	Dark red-purple fabric; parts of the surface are often discoloured by fine yellow speckling. Common burnt black ash and flint inclusions (up to 6mm) with varying amounts of quartz (up to 0.8mm).
3033	Fine fabric with scatter of quartz (up to 0.8mm), calcareous/calcium carbonate inclusions (up to 1.5mm) and black iron oxide (up to 1.5mm). Occasional flint fragments and small pebbles (up to 7mm)
3039	As fabric 3033 but with lenses of light clay giving a streaky appearance to the core.
3065	Very sandy fabric with common quartz (up to 0.8mm), sparse dark red iron oxide (up to 3.0mm) and white flint/shell(?) inclusions

Table 7: Fabric descriptions for ceramic building material

5.4 The Clay Tobacco Pipe by Elke Raemen

- 5.4.1 A small assemblage comprising 23 fragments of clay tobacco pipe (weight 28.8g) representing three different pipes was recovered from three different contexts.
- 5.4.2 Included are three stem fragments and a mouthpiece, all four of which conjoin, which can only be broadly dated between c. 1750-1910 ([1003]). The tip consists of a straight cut and has not been finished further.
- 5.4.3 Eighteen conjoining fragments from a bowl dating to c. 1740-1800 were found in [1008]. The bowl is decorated with a rose moulded in relief on the back seam and an only partially surviving plant on the seam facing the smoker.

5.4.4 Finally, context [1012] contained a bowl with moulded basket design, a type very common between c. 1850-1910 ([1012]).

5.5 The Glass by Luke Barber

5.5.1 Ditch fill [1012] contained a 28g shard of milk glass, possibly from a vase. The piece is decorated with purple glass inlaid spots and streaks and would not be out of place with the associated 19th- century ceramics.

5.6 The Bulk Metalwork by Trista Clifford

5.6.1 A small assemblage of seven objects weighing a total of 915g was recovered from pit fill [1004]. The assemblage is in poor condition; mineralized and covered with an ashy conglomeration of adherent stones, bone fragments and pieces of ceramic material, suggesting it may have been burnt.

5.6.2 Four large heavy-duty nails were recovered, the most complete example has a sub-square head and measures 93mm in length. Also present is a large bolt with circular head (L155mm). The remaining objects consist of a circular section rod fragment which possibly formed part of a bolt and a heavy rectangular plate fragment (L101mm x W68mm) of uncertain function.

5.6.3 The suggested date range for the assemblage is mid- 19th-mid 20th century.

6.0 DISCUSSION AND CONCLUSIONS

6.1 Overview of stratigraphic sequence

- 6.1.1 Two areas of ground reduction were archaeologically observed and recorded within the site. These consisted of an area within a rear courtyard, starting at a level of c.4.27m AOD, and being reduced to a depth of c.1-1.50m below ground level. In addition, the basements of the existing buildings, situated fronting Tooley Street and located at c.1.53m AOD, were reduced c.0.70-1.10m below existing ground level.
- 6.1.2 The courtyard area revealed multiple phases of post-medieval levelling and dumping episodes truncated by two phases of brick structures and their subsequent demolition, likely to represent phases of late 17th-18th century outbuildings to the rear of current and earlier properties fronting Tooley Street. The stratigraphic sequence observed in this area began at c.4.27m AOD and ceased at c.2.78m AOD at maximum depth.
- 6.1.3 The basement area revealed a series of post-medieval made ground layers. This stratigraphic sequence started at c.1.53m AOD and ceased at c.0.44m AOD. Natural deposits were not observed within either area.
- 6.1.4 Due to the nature of the works being carried out, a full stratigraphic sequence through the full depth of surviving archaeology could not be recorded. However, the watching brief recorded post-medieval structures and made ground/dump deposits at a maximum height of c.4.02m AOD within the courtyard, and post-medieval made ground/dump deposits at a maximum depth of c.0.44m AOD within the basement. It is reasonable to assume, therefore, that the archaeological sequence on site comprises of at least 3.58m of post-medieval activity associated with the silting of river channels or land reclamation with subsequent development of this reclaimed land characterised by late 17th-18th century structures followed by 19th century to modern residential and retail activity.

6.2 Deposit survival and existing impacts

- 6.2.1 The level of modern truncation of the surviving archaeological stratigraphy on the site varies, with the highest level of truncation present within the basements of the existing buildings, within the north-east of the site where it fronts onto Tooley Street. The highest level of archaeological survival is to the rear of the site, within the courtyard area, and presumably beneath the existing building in the south-west of the site, which does not appear to be basemented at present.

6.4 Discussion of archaeological remains by period

17th century or earlier alluvium

- 6.4.1 The earliest deposits encountered on site comprised alluvium. Due to the limited exposure and depth of the groundworks it is unclear whether these deposits relate to natural silting of river channels or the deliberate infilling of channels during reclamation activity. The associated finds indicate a 17th century date. It is interesting to note that a deliberately infilled channel dating

to the 16th/17th centuries has been encountered some 30m to the west (see section 2.5.3).

Late 17th – 18th century structures

- 6.4.2 After natural silting or reclamation activity had ceased the site became developed with evidence of late 17th-18th century brick built structures. Though contemporary historic mapping shows the site as being built-up at this time (see CgMs 2016b), the detail and accuracy is not sufficient to positively identify the encountered structures. It is likely they relate to ancillary structures within yards.

Late 18th - 19th century activity

- 6.4.3 [1006] (construction cut [1007]) relates to a late 18th century wall of a building or structure occupying the rear of 112 and 114 Tooley Street. It is not shown on historic maps such as the 1887 Goad Fire Insurance Plan. It possibly relates to an ancillary structure. From this time the site became occupied by the buildings, recorded on the aforementioned plan as a shop with dwelling above. The 1894-96 Ordnance Survey shows some additional outbuildings within the rear yard of the buildings, however, these cannot be related to wall [1006].
- 6.4.4 The remains encountered at the site are of local significance. They provide possible evidence of 17th century reclamation as well as post-medieval occupation and development of this part of London.

6.3 Consideration of research aims

- Determine the presence of any prehistoric or Roman activity within the site.

No evidence of prehistoric or Roman activity was observed within the site.

- Establish the presence of Anglo-Saxon or Late Medieval activity within the site. Can evidence of Late Medieval land reclamation/water management be identified?

No Anglo-Saxon or late medieval activity was observed within the site.

- To establish the presence of post-medieval domestic activity within the site. Is there evidence for pre-19th century structures? What can the evidence tell us about the type of occupation taking place?

The archaeological watching brief encountered remains of late 17th – 18th century structures. Unfortunately, these cannot be easily related to contemporary historic mapping, however, it is likely that they relate to ancillary structures within yards. Due to the limited nature of the remains little can be said about the type of occupation taking place. The artefactual material is indicative of residential occupation.

- Establish the likely impact of past land use and development.

Post-medieval and modern activity is unlikely to have significantly truncated earlier remains. This is due to the presence of 17th century alluvial deposits

indicating the area was previously occupied by a river channel or represents reclaimed land. There is potential for 17th century and earlier remains to survive in areas of the site unaffected by the groundworks.

6.5 Updated Research Agenda

6.5.1 No further ground reduction is required during this redevelopment of the site, and the archaeological requirement to fulfil the planning condition has been met, as agreed by Gillian King, Archaeological Advisor to Southwark Council and CgMs Consulting.

6.5.2 The fieldwork at the site has demonstrated the potential for 17th century and earlier remains to survive below the impact of the current works. Should any future development take place on the site or its immediate environs the following research questions would provide suitable project research aims:

“What is the full post-medieval sequence on the site? What can this sequence tell us about phases of land reclamation, management of water channels and subsequent development of this area of London?”

“Is there any evidence of medieval, Roman and/or prehistoric activity beneath the currently known sequence of post-medieval land reclamation, dumping and construction episodes?”

6.6 Conclusions

6.6.1 The archaeological watching brief monitoring ground reduction at 112-114 Tooley Street consisted of up to 1.50m of ground reduction within a street level courtyard at the rear of the site, located at c. 4.27m AOD, and up to 1.10m of ground reduction within the existing basement of the extant building, located at c.1.53m AOD.

6.6.2 The work revealed a sequence of red and yellow brick walls, attributed to the remains of outbuildings located within the rear gardens/courtyards of the properties fronting Tooley Street. These were found to truncate a sequence of post-medieval dumping and levelling layers believed to represent post-medieval land levelling and possible reclamation within and around the intertidal channels in the Southwark area.

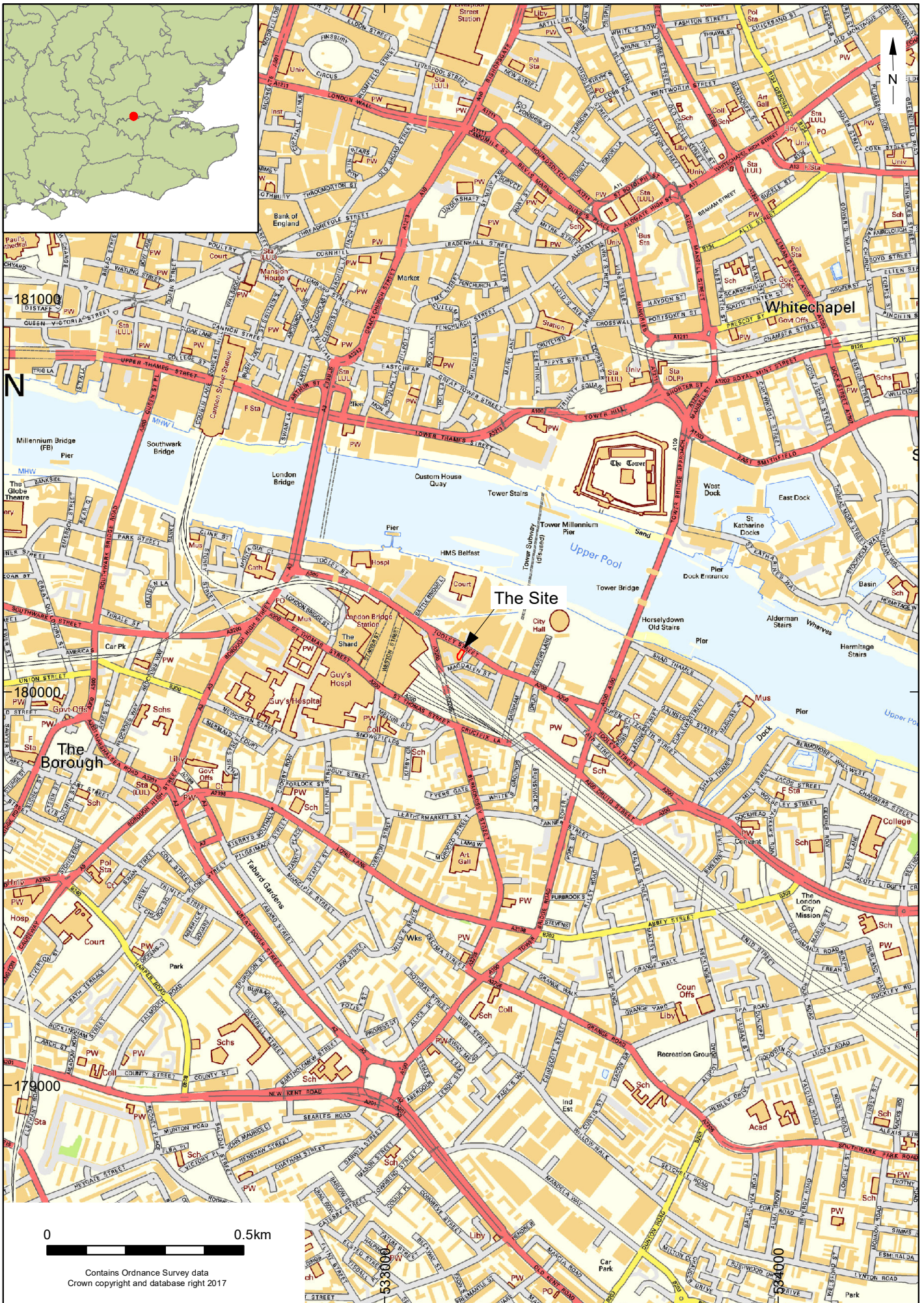
6.6.3 The lowest deposits observed within the archaeological sequence consisted of alluvial deposits with post-medieval inclusions, such as peg tile and 17th century pottery. It is uncertain whether these deposits represent deliberate backfill/levelling of the site, or the natural silting of an intertidal channel during the post-medieval period. If the former, these remains may represent the extension of contemporary activity related to the infilling of a ditch or river channel recorded previously c.30m to the west (see section 2.5.3).

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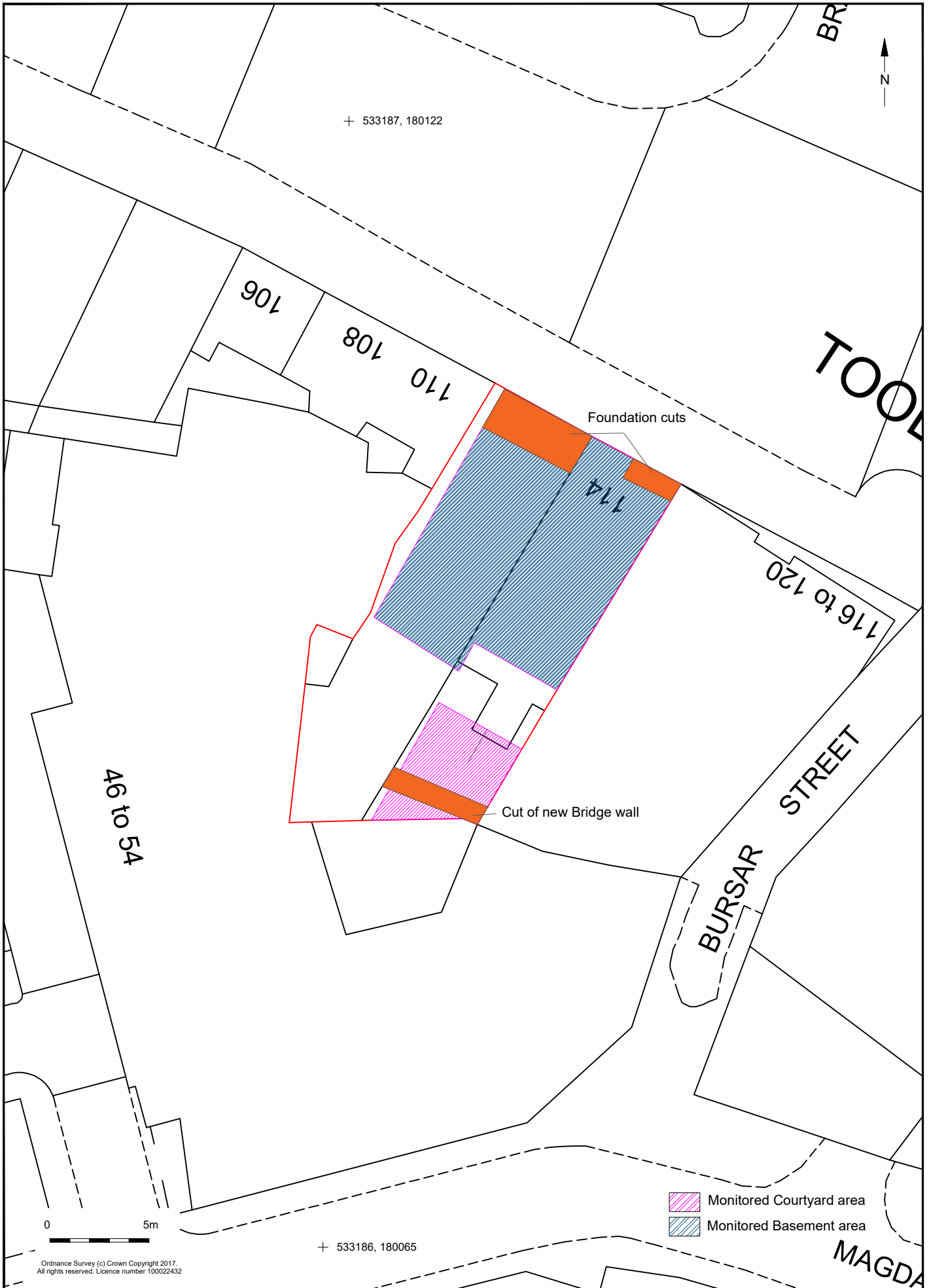
ACKNOWLEDGEMENTS

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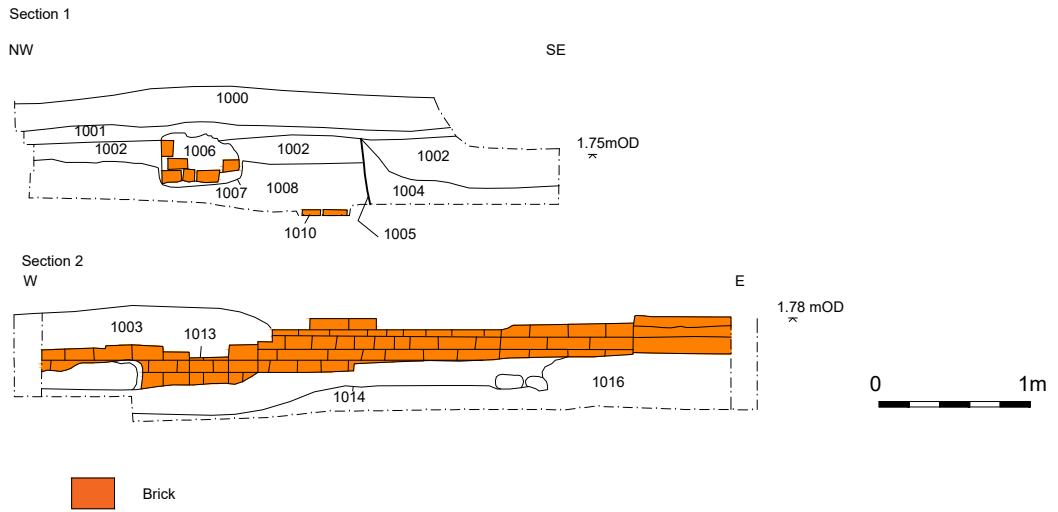
© Archaeology South-East		112-114 Tooley ST		Fig. 1
Project Ref: 160773	November 2017	Site location		
Report Ref: 2017456	Drawn by: AR			



© Archaeology South-East		112-114 Tooley St	Fig. 2
Project Ref: 160773	November 2017	Site plan showing monitored areas	
Report Ref: 2017456	Drawn by: AR		



© Archaeology South-East		112-114 Tooley St	Fig. 3
Project Ref: 160773	November 2017	Multi context plan of courtyard area	
Report Ref: 2017456	Drawn by: AR		



Wall [1013] and dump [1008] facing southeast



Ground reduction in southwest corner, detailing modern drain and wall [1009]



Reduction of dump [1008] in northeast area of courtyard

© Archaeology South-East		112-114 Tooley St	Fig. 4
Project Ref: 160773	November 2017	Sections and photographs of courtyard area	
Report Ref: 2017456	Drawn by: AR		

HER Summary

Site code	TES 17					
Project code	160773					
Planning reference	16/AP/4092					
Site address	112-114 Tooley Street					
District/Borough	Southwark					
NGR (12 figures)	533203 180107					
Geology	Kempton Park Gravel Formation					
Fieldwork type	Eval	Excav	WB	HBR	Survey	Other
Date of fieldwork	25th May - 10th October 2017					
Sponsor/client	CgMs Consulting					
Project manager	Andy Leonard					
Project supervisor	Jonny Gardner					
Period summary	Palaeolithic	Mesolithic	Neolithic	Bronze Age	Iron Age	
	Roman	Anglo-Saxon	Medieval	Post-Medieval	Modern	
Project summary (100 word max)	<p>The watching brief consisted of up to 1.50m of ground reduction within a street level courtyard at the rear of the site, located at c. 4.27m AOD, and up to 1.10m of ground reduction within the existing basement of the extant building, located at c.1.53m AOD.</p> <p>The work revealed a sequence of red and yellow brick walls, attributed to the remains of outbuildings located within the rear gardens/courtyards of the properties fronting Tooley Street, cutting into a sequence of post-medieval dumping and levelling layers believed to represent post-medieval land levelling and possible reclamation within and around the intertidal channels in the Southwark area.</p> <p>The lowest deposits observed within the archaeological sequence consisted of alluvial and peaty clay deposits with post-medieval inclusions, such as peg tile. It is uncertain whether these deposits represent deliberate backfill/levelling of the site, or the natural silting of an intertidal channel during the post-medieval period.</p> <p>Natural deposits were not encountered.</p>					

Finds summary

Find type	Material	Period	Quantity
POT	Ceramic	Post-medieval	1406g
CBM	Ceramic	Post-medieval	13,133g
CTP	Ceramic	Post-medieval	28.8g

OASIS Form

OASIS ID: archaeol6-299364

Project details

Project name	An Archaeological Watching Brief at 112-114 Tooley Street, Bermondsey SE1 2TH, London Borough of Southwark
Short description of the project	The watching brief consisted of up to 1.50m of ground reduction within a street level courtyard at the rear of the site, located at c. 4.27m AOD, and up to 1.10m of ground reduction within the existing basement of the extant building, located at c.1.53m AOD. The work revealed a sequence of red and yellow brick walls, attributed to the remains of outbuildings located within the rear gardens/courtyards of the properties fronting Tooley Street, cutting into a sequence of post-medieval dumping and levelling layers believed to represent post-medieval land levelling and possible reclamation within and around the intertidal channels in the Southwark area. The lowest deposits observed within the archaeological sequence consisted of alluvial and peaty clay deposits with post-medieval inclusions, such as peg tile. It is uncertain whether these deposits represent deliberate backfill/levelling of the site, or the natural silting of an intertidal channel during the post-medieval period. Natural deposits were not encountered.
Project dates	Start: 25-05-2017 End: 10-10-2017
Previous/future work	No / Not known
Any associated project reference codes	TES17 - Sitecode
Type of project	Recording project
Site status (other)	Archaeological Priority Zone
Current Land use	Industry and Commerce 3 - Retailing
Monument type	WALL Post Medieval
Significant Finds	POT Post Medieval
Significant Finds	BRICK Post Medieval
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	GREATER LONDON SOUTHWARK BERMONDSEY ROTHERHITHE AND SOUTHWARK 112-114 Tooley Street
Postcode	SE1 2TH
Study area	0 Square metres

Site coordinates TQ 33203 80107 51.503679557628 -0.080580160762 51 30
13 N 000 04 50 W Point

Project creators

Name of Organisation	Archaeology South-East
Project brief originator	CgMs Consulting
Project design originator	CgMs Consulting
Project director/manager	Andy Leonard
Project supervisor	Jonathan Gardner
Type of sponsor/funding body	Client

Project archives

Physical Archive recipient	LAARC
Digital Archive recipient	LAARC
Paper Archive recipient	LAARC

Project bibliography 1

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