

**40 Bermondsey Street, 42-44 Bermondsey Street
and 1-7 Snowsfields
London SE1**

Pre-determination Evaluation Report

NGR 533122 179897.

Sign-off history

issue no.	issue date	prepared by	reviewed by	approved by	notes
1	03/12/2018	Portia Askew (Archaeology) Thomas Light (Graphics)	Derek Seeley	Derek Seeley Project Manager	First issue
2	19/12/2018	Portia Askew (Archaeology) Thomas Light (Graphics)	Derek Seeley	Derek Seeley Project Manager	Text revisions
3	07/01/2019	Portia Askew (Archaeology) Thomas Light (Graphics)	Derek Seeley	Derek Seeley Project Manager	Scheme description added

MOLA code: P18-507



www.mola.org.uk

© MOLA

Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED

tel 0207 410 2200 email: business@mola.org.uk

Museum of London Archaeology is a company limited by guarantee

Registered in England and Wales

Company registration number 07751831 Charity registration number 1143574

Registered office Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED



Contents

<u>Executive summary</u>	<u>2</u>
<u>1 Introduction</u>	<u>3</u>
1.1 Site background	3
1.2 Designated heritage assets	3
1.3 Aims and objectives	3
<u>2 Archaeological and historical background</u>	<u>5</u>
2.1 Topography and geology	5
2.2 Predicted archaeological potential	5
<u>3 The evaluation</u>	<u>7</u>
3.1 Methodology	7
3.2 Results	7
3.3 Significance of the results	14
3.4 Assessment of the evaluation	14
<u>4 Proposed development impact and recommendations</u>	<u>15</u>
<u>5 Planning framework</u>	<u>16</u>
5.2 Statutory protection	16
5.3 National Planning Policy Framework	16
5.4 Greater London regional policy	18
5.5 Local planning policy	19
<u>6 Bibliography</u>	<u>20</u>
<u>7 NMR OASIS archaeological report form</u>	<u>21</u>

Figures

Cover: View of the 1-7 Snowfields site (left, looking north-west) and the yard area on the western half of the 40, 42-44 Bermondsey Street site (right, looking north-west)

Fig 1 Site location

Fig 2 Trial trench location plan

Fig 3 Plan showing the remains of 18th and 19th houses and warehouses that occupied the site

Fig 4 Horwood's map of 1799

Fig 5 Horwood's map of 1799 (1813 revision)

Fig 6 Ordnance Survey 1st edition map of 1872

Fig 7 Ordnance Survey 1st edition map of 1894

Executive summary

This report presents the results of an archaeological evaluation carried out by MOLA (Museum of London Archaeology) on the site of 40, 42-44 Bermondsey Street/1-7 Snowsfields, London SE1. The report was requested by the local planning authority in support of a planning application to clarify the site's potential for archaeological remains, and their likely significance. The results will inform the consideration by the local planning authority of the archaeological implications of the planning application. The evaluation was commissioned by Arup Group on behalf of the client Three Ten Bermondsey Ltd

The evaluation comprised four trial pits, two on an area of hardstanding to the east and south of a warehouse in 1-7 Snowsfields and two in the Bermondsey Street site in the open yard area in the western half of the site.

All four trial pits were specifically designated for archaeological investigation with provision to remove 'low grade layer' after recording with a view to augering from the top of the alluvial deposits

The results of the field evaluation have helped to refine the initial assessment of the archaeological potential of the site. Natural gravels were located in all trial trenches overlain by channel silts and in two of the trenches on the Snowsfields site, evidence for a Mesolithic horizon was identified in the auger holes. Above this horizon alluvial silts were seen, sealed by late post-medieval dumps and the remnants of late 18th/early 19th century houses and a backfilled basement pertaining to the 18th/19th century wool warehouse on the Bermondsey site.

Full planning permission is being applied for demolition of existing buildings (40-44 Bermondsey Street), repair; rebuilding and refurbishment of existing building (leather warehouse) and erection of 2no. new buildings of ground floor and up to part 4 (+24.2m AOD) and part 9 storeys (+46.7m AOD to roof line, +49.7m AOD to top of equipment) and ground floor and 16 storeys (+68.0m AOD to roof line, +71.0m AOD to top of equipment) with a total floor space up to 23,390sqm GIA, with landscaping, plant, storage and servicing and associated works. The development would comprise:

- Building 1, located on Bermondsey Street, for the demolition of existing buildings and erection of a new building including one basement level, ground floor and up to part 4 and part 9 storeys in height, comprising Office (B1) up to 12,350sqm GIA and Retail (A1-A5) up to 1,100sqm GIA.*
- Building 2, located on Vinegar Yard, for the refurbishment of existing warehouse building and construction of new building including two basement levels, ground floor and up to 16 storeys in height, comprising Office (B1) up to 9,650sqm and Retail (A1-A5) up to 290sqm GIA.*

The results of the archaeological evaluation and will form part of the planning application.

1 Introduction

1.1 Site background

- 1.1.1 The evaluation took place at 40 Bermondsey Street and 42-44 Bermondsey Street, London SE1 3UD, and 1-7 Snowfields, London SE1 3QP, hereafter called 'the site' (**Error! Reference source not found.**). The site comprises two irregularly shaped areas hereinafter described as the 'Snowfields site' and the 'Bermondsey Street site'. The Snowfields site is situated on the northern side of Snowfields and the Bermondsey Street site is located on the southern side.
- 1.1.2 The Snowfields site comprises a former hop warehouse in the north-western quadrant with tarmac yards to the east and south. This site is bounded by Vinegar Yard to the north, an open car park to the east, a commercial office and restaurant building to the west and Snowfields to the south. The centre of the Snowfields site lies at National Grid reference 533122 179897.
- 1.1.3 The Bermondsey Street site comprises an open yard area in the western half of the site, a restaurant in the north-eastern quadrant and an office building in the south-eastern quadrant with an access way running on an approximate east-west alignment between the two buildings. This site is bounded by Snowfields to the north, Bermondsey Street to the east, a hotel and office building to the west, and commercial buildings to the south. The centre of the Bermondsey Street site lies at National Grid reference 533146 179873
- 1.1.4 The site code for the sites is ERO18.
- 1.1.5 A building appraisal of the former hop warehouse on the 1-7 Snowfields site was written in 2012 (Ettwein Bridges 2012) and a desk top study of the area was prepared by Ove Arup Partners (Ove Arup 2018) provides detail on the built heritage. These both post-date an archaeological desk top assessment of 2001 for the site to the north west of 1-7 Snowfields (Hertfordshire Archaeological Trust 2001) which gives details of the natural geology, archaeological and historical background of the site, and the initial interpretation of the archaeological potential of the site. The results of the evaluation have provided further information of the archaeological potential within the site. The evaluation has taken place at the pre-planning stage, and the report will be submitted as part of the planning application, to enable the local planning authority (LPA) to formulate an appropriate mitigation strategy for the impacts of the proposed development on archaeology.

1.2 Designated heritage assets

- 1.2.1 The site lies within/contains the following designated heritage assets:
- The site lies within a proposed Archaeology Priority Area – North Southwark and Roman roads, formerly the Borough, Bermondsey & Riverside Archaeology Priority Zone.

1.3 Aims and objectives

- 1.3.1 The purpose of an archaeological evaluation as defined by the Chartered Institute for Archaeologists is to confirm 'as far as is reasonably possible, the nature of the archaeological resource within a specified area using appropriate methods and practices' (CIfA 2014). The aim of such an investigation 'pre-determination', i.e. prior to the determination of planning consent is to clarify the site's potential for archaeological remains and so inform the LPA's consideration of the implications of the planning application. The results will also help the LPA to set out an appropriate strategy for any further investigation and/or mitigation which may form a condition as part of planning consent.
- 1.3.2 The redevelopment of the Snowfields and Bermondsey Street sites may have an impact on post-medieval and prehistoric archaeological deposits. The primary objective of the evaluation is to confirm the extent, nature and significance of any surviving archaeological deposits or structures within the open yard areas of the site.

- 1.3.3 The assessment of significance of any surviving remains is undertaken in the context of the wider archaeological research priorities for London. These are set out in the Museum of London's '*A research framework for Greater London*' (MOL, 2002).
- 1.3.4 A number of broad objectives and research questions have been identified for this evaluation:
- What is the nature and level of natural topography?
 - Is there any evidence for prehistoric activity on this site?
 - Is there evidence for medieval or post-medieval development within the site?
 - What are the earliest deposits identified?
 - What are the latest deposits identified?
 - What is the extent of modern disturbance?
- 1.3.5 The results of the archaeological evaluation outlined in Section **Error! Reference source not found.** will be used to gauge the extent and significance of archaeological survival and to inform the planning application.

2 Archaeological and historical background

2.1 Topography and geology

- 2.1.1 A description of the topology and underlying geology is detailed in the Archaeological Assessment of the site (Hertfordshire Archaeological Trust 2001) and summarised in the Written Scheme of Investigation (MOLA 2018). The site is located on the eastern edge of a north-south aligned palaeochannel to the south of the main channel of the Thames. In summary, the known / predicted levels of natural deposits and truncation are as follows:
- Current ground level, on the Snowfields road surface between both sites, is at 2.70m above Ordnance Datum (OD)
 - The top of any untruncated alluvium / brickearth would be at c 0.80m OD, based on the evidence from Borehole 5 of a ground investigation on the adjoining site to the north-east (Ashdown Site Investigation Ltd 1998, Section 4, Table 2).
 - The top of untruncated gravel is likely to be at -2.4m to -2.60m OD, based on the evidence from an evaluation at 46-48 Bermondsey Street, some 20m to the south of the site (MoLAS 2008), although it has been found at a greater depth of -3.93m OD, some further 180 metres south at 2 Carmarthen Place. Taking into account the evidence of immediately adjacent sites, it is probable that natural sands/gravels are to be found beneath the site at similar levels.

2.2 Predicted archaeological potential

- 2.2.1 There is likely to be archaeological survival on both areas of the site. These may consist of walls and wall foundations, drains, wells and rubbish pits associated with the houses and warehouses that were constructed on the site.
- 2.2.2 The archaeological potential for each period is discussed below in relation to the site:

Prehistoric period (800,000 BC–AD43)

- 2.2.3 The site is located on the edge of a palaeochannel located to the south of the main channel of the Thames in the later prehistoric periods. The site has high potential for prehistoric remains given the evidence from adjacent sites where. At 2 Carmarthen Place, just to the south of the Bermondsey a deep sequence of sands and silts spanned the Early to later Mesolithic periods.
- 2.2.4 There is likely to be archaeological survival on both areas of the site. These may consist of walls and wall foundations, drains, wells and rubbish pits associated with the post-medieval houses and warehouses that were constructed on the site.

Prehistoric period (800,000 BC–AD43)

- 2.2.5 It is clear from a study of proximate sites that this part of the Southwark is particularly rich in prehistoric remains. The palaeochannel discussed above was substantial, it filled and became first a reedy marsh, possibly used for wildfowling, during the Bronze Age, from about 2000 BC. Plant succession ensured it later became a scrub woodland whilst the islets to either side of it were cultivated.
- 2.2.6 The site has high potential for prehistoric remains given the evidence from adjacent sites. At 46-58 Bermondsey Street, just to the south of the site, a deep sequence of sands and silts spanned the early to later Mesolithic period.
- 2.2.7 At Carmarthen Place, to the south of the Bermondsey Street side of the site, the overlying fluvial sands, with a surface at -2.33m OD, could be of Early Holocene (Early Mesolithic) date. The silts, surface at -1.23m OD, that overlie the sand may be broadly contemporary with the Later Mesolithic period and hunter-gatherer occupation of the Thames Valley. A sand to silt to peat sequence may represent the infilling of an abandoned channel and this is supported by the thicker peat deposits on the site than found on nearby sites. The base of the peat is at –

1.23m OD. The peat on the site may correlate with the thick peat deposit of the East London Thames floodplain, which is typically of Neolithic to Bronze Age date (MoLAS 2005).

- 2.2.8 To the west of the Snowfields site at Vinegar Yard natural sand was cut by a small, possibly prehistoric, cooking pit, infilled with burnt flint. It was truncated by a wide, shallow channel which was filled with alluvial sand and peats containing small quantities of burnt flint, flint implements and pottery of possible Bronze Age date (MoLAS 1998). An archaeological evaluation undertaken at 6-13 Melior Street, located approximately 75m to the east of the site revealed natural gravels were sealed by up to 3.31m of alluvial deposits. There was no peat within or below the alluvium (MOLA 2014).

Roman period (AD 43–410)

- 2.2.9 The site has low potential for Roman remains. In the Roman period the land levels were still marginal and would have been prone to flooding. There is no evidence for Roman structures in this area but there have been a number of sites where Roman pottery has been recovered indicating the possibility of local activity in the vicinity.

Early Medieval (Saxon)- Late Medieval (AD 410–1485)

- 2.2.10 The site has low potential for the survival medieval remains. During the medieval period Bermondsey Abbey was founded and the abbey church and main buildings were located at the south end of Bermondsey Street. Bermondsey Street was described as a causeway that linked the Abbey to the south side of London Bridge where the main focus of the medieval settlement was located. The land either side of Bermondsey Street was not developed until the 14th/15th centuries. A number of medieval walls have been recorded along Bermondsey Street.

Post-medieval period (AD1485–present)

- 2.2.11 The site has high potential for the survival of post-medieval remains. The post medieval period saw the rapid expansion of development to the south of the river with Bermondsey becoming a centre for the tanning industry and associated trades with the construction of housing to accommodate the increased population of the area (see Figs 4 & 5) housing development. The warehouse on the Snowfields site was built between 1856 and 1872 and was used as a hop warehouse (Ettwein Bridges 2012).

3 The evaluation

3.1 Methodology

- 3.1.1 All archaeological excavation, monitoring and recording during the evaluation was carried out in accordance with the WSI (MOLA 2018).
- 3.1.2 The evaluation involved the excavation and recording of four trenches.
- 3.1.3 The slab was broken out and cleared by contractors under MOLA supervision. Trenches were excavated by machine by the contractors and monitored by a member of staff from MOLA.
- 3.1.4 The trenches were located using triangulation and off-setting from adjacent building/walls and plotted onto a base map, surveyed in by geomatics. The trenches were then plotted onto the OS grid.
- 3.1.5 The site records consist of : 4 trench location plans; 17 context records; 2 section drawings at 1:20; and 45 photographs.
- 3.1.6 The site records can be found under the site code ERO18 in the MoL archive.

3.2 Results

- 3.2.1 For trench locations see Fig 2.

Trial Trench 1

Location	South side of yard (Bermondsey site)
Dimensions	4.0m by 2.0m x 2.80m depth
Modern ground level/top of slab	2.81m OD
Base of modern slab	2.51m OD
Depth of archaeological deposits seen	N/A
Level of base of trench	0.25m OD
Natural observed	-4.2m OD in Auger hole 1

- 3.2.2 A north-south aligned internal brick wall [15] and associated concrete/screed floor [16] of a warehouse basement was recorded under 2.21m of loose brick and modern backfill. The wall was 0.73m high by 1.93m long with a width of 0.30m protruding into the trench, indicating it was wider than could be recorded. It was truncated down to a depth of 0.97m OD (Photo 1). The floor was recorded at a height of 0.25m OD. The location of the wall would place it in relation to the 18th/19th century wool warehouse that appears on the Horwood map of 1799 (Fig 5).
- 3.2.3 In order to ascertain the depth of the natural gravels and the ground below the basement, a sondage was excavated through the floor to accommodate an auger, the results of which are presented in Table 1. Natural gravel was located at -4.2m OD, overlain by a +4m depth of channel and alluvial silts, including a marsh fen deposit, the top of the sequence at -0.30m OD. The presence and depth of the channel silts may indicate that the site lies within a channel, rather than on the western margin of an island.



Photo 1 View of wool warehouse wall [15] and floor [16], scale 0.50m (looking east)

40 Bermondsey St, 42-44 Bermondsey St						
AH1 (Trial Trench 1)						
Concrete slab surface at: m OD			2.8	E:533148	N: 179865	
Auger Hole 1	Depth below ground level		Elevation m OD		Description	Interpretation
1.1	0	3.1	2.8	-0.3	Void	Trench excavation
1.2	3.1	3.52	-0.3	-0.72	Soft (mottled brown) olive sandy silt grading into below	Weathered alluvium
1.3	3.52	3.62	-0.72	-0.82	Light brown silt ; sharp contact with below.	Weathered alluvium
1.4	3.62	3.62	-0.82	-0.82	Soft dark brown decayed woody peat sharply sloping lower contact	Marsh/fen deposit
1.5	3.62	3.85	-0.82	-1.05	Soft brown partly oxidised silt with chalk element. Grades into below.	Weathered alluvium; initial flood deposits
1.6	3.85	7	-1.05	-4.2	Soft wet olive green fine to medium sands with granular to very fine flint element with depth	Channel sands
1.7	7	7.5	-4.2	unknown depth	Compact olive green sand and gravel	Shepperton Gravel

Table 1 Sequence of auger deposits in Trial Trench 1

Trial Trench 2

Location	North side of yard (Bermondsey site)
Dimensions	4.60m by 2.0m by 2.0m depth
Modern ground level/top of slab	2.83m OD
Base of modern slab	2.33 – 2.43m OD
Depth of archaeological deposits seen	0.70m thick
Level of base of deposits observed and/or base of trench	1.63m OD
Natural observed	-4.5m OD in Auger Hole 2

- 3.2.4 An external east-west aligned brick wall and foundation [17] of a dwelling, fronting onto Snowfields was recorded below the slab and blinding. The wall was 0.70m high by 2.00m long (extending both east and west beyond the extent of the excavation) and 0.64m wide. It was truncated down to a depth of 2.33m OD (Photo 2). The location of the wall on site would place it in relation to the 18th/19th century property as seen on the Horwood maps (Fig 4) & (Fig 5). To the south of the wall, a late 20th century drain cut through the deposits, with evidence for a considerable amount of disturbance to the deposits to a depth of 0.83m OD, where alluvium was seen.
- 3.2.5 In order to ascertain the depth of the natural gravels and the ground below the alluvium augering was necessary, the results of which are presented in Table 2. Natural gravel was located at -4.5m OD, overlain by 4.60m depth of channel and alluvial deposits, including a marsh fen, the top of the sequence at -0.02m OD. The presence and depth of the channel silts may indicate that the site lies within a channel, rather than on the western margin of an island.



Photo 2 View of Trial trench 2 showing wall [17] and top of alluvium, scale 0.50m (looking north-north-west)

AH2 (Trial Trench 2)						
Land surface at: m OD			2.8	E: 533146 N: 179880		
Auger Hole 2	Depth below ground level		Elevation m OD		Description	Interpretation
2.1	0	2.78	2.8	0.02	Void.	Trench excavation
2.2	2.78	2.82	0.02	-0.02	Soft dark brown organic clay. Horizontal contact	Trample surface base of trench.
2.3	2.82	2.9	-0.02	-0.1	Soft light brown clay. Graded contact.	Weathered alluvium
2.4	2.9	3.2	-0.1	-0.4	Soft dark brown organic silt y clay. Graded contact	Marsh/fen deposit
2.5	3.2	3.5	-0.4	-0.7	Soft blue silty clay becoming increasingly sandy (laminated initially) with depth. Graded contact	Alluvium; initial flood deposits
2.6	3.5	3.77	-0.7	-0.97	Soft predominantly orange medium sands. Graded contact.	Weathered channel sands
2.7	3.77	3.95	-0.97	-1.15	Generally soft dark grey silty clay sands with light grey chalk inclusions (3.79m to 3.82m bgl)	Channel sands
2.8	3.95	7.3	-1.15	-4.5	Olive green initially clayey fine to medium sand	Channel sands
2.9	7.3	7.5	-4.5	-4.7	Olive green sand and gravel	Shepperton Gravel

Table 2 Sequence of auger deposits in Trial Trench 2

Trial Trench 3

Location	West side of the Snowfields site
Dimensions	2.0m by 2.50m by 1.35m depth
Modern top of slab	2.70m OD
Base of modern fill/slab	2.48m OD
Depth of archaeological deposits seen	0.95m thick
Level of base of deposits observed and base of trench	1.35 -1.45m OD
Natural observed	-4.6m OD in Auger Hole 3

- 3.2.6 Two brick built walls [3], 0.25m high and [4, 0.35m high of a dwelling, fronting onto Snowfields were recorded in association with a drain [2] below a 19th century dump deposit. These were truncated down to a depth of 1.83m OD (Photo 3). The bricks used in the construction of the walls were re-used and of 16th/17th date (pers comm Ian Betts, MOLA Senior Building Materials Specialist). The location of the walls and drain would place them in relation to the 18th/19th century property as seen on the Horwood maps (Fig 5). A later brick foundation was recorded in section with a distinct north-west-southeast direction and is likely to correspond to the late 19th century tenements as seen on the Ordnance Survey map 1894 (Photo 4) (Fig 7). On the east side of the trench an in situ circular drain was seen and is likely to be associated with a mains drain, possibly from the warehouse on the north side of the site.
- 3.2.7 In order to ascertain the depth of the natural gravels and the ground below the alluvium augering was necessary, the results of which are presented in Table 3. Natural gravel was located at -4.6m OD, overlain by 4.50m depth of channel and alluvial deposits, including a marsh fen, the top of the sequence at -0.01m OD. The presence and depth of the channel silts may indicate that the site lies within a channel, rather than on the margin of an island.



Photo 3 View of Trial trench 3 showing walls [3] (bottom), and [4] (centre right) and drain [2] (centre under excavation), (looking north-east)



Photo 4 View of wall [3] (right), drain [2] (centre), wall [4], scale 0.50m (looking south-east)

AH3 (Trial Trench 3)						
Land surface at: m OD				2.70		
Auger Hole 2	Depth below ground level		Elevation m OD		Description	Interpretation
3.1	0	1.90	2.70	0.80	Void.	Trench excavation
3.2	1.9	2.8	0.80	-0.1	Soft light brown clay..	Weathered alluvium
3.3	2.8	3.3	-0.1	-0.6	Soft dark brown organic silty clay	Marsh/fen deposit
3.4	3.3	3.5	-0.6	-0.8	Pale brown organic clay	Alluvium; initial flood deposits
3.5	3.5	4.2	-0.8	-1.5	Pale grey/white fine silt (tufa)	Alluvial silt (?Mesolithic)
3.6	4.2	6.2	-1.5	-3.5	Soft dark grey silty clay sand	Channel sands
3.7	6.2	7.3	-3.5	-4.6	Soft dark grey silty clay sand	Channel sands
3.8	7.3	-	-4.6	unknown depth	Olive green sand and gravel	Shepperton Gravel

Table 3 Sequence of auger deposits in Trial Trench 3

Trial Trench 4

Location	East side of the Snowsfield site
Dimensions	3.0m by 2.0m by 1.35 depth
Modern ground level/top of slab	2.85m OD
Base of modern fill/slab	2.35m OD
Depth of archaeological deposits seen	1.20m thick
Level of base of trench	1.68m OD
Natural observed	-5.3m OD in Auger hole 4

- 3.2.8 The remains of two brick built walls [18], and [19], of houses dating to the 18th and 19th centuries were recorded cutting through make-up dumps, (Photo 5). To the west, an 'L' shaped brick built feature was dated to the late 19th/20th century (Photo 3). The bricks used in the construction of walls [18] and [19] were re-used and of 16th/17th date (pers comm Ian Betts, MOLA Senior Building Materials Specialist). The area surrounding the walls had been heavily disturbed since the construction of the buildings with evidence of later rebuilds, as evidenced by the use of 20th century bricks in wall [19]
- 3.2.9 The location of the walls would place them in relation to the 18th/19th century properties as seen on the Horwood maps (Fig 5) and the tenements as seen on the Ordnance Survey map 1894 (Fig 7).
- 3.2.10 In order to ascertain the depth of the natural gravels and the ground below the alluvium augering was necessary, the results of which are presented in Table 4. Natural gravel was located at -5.3m OD, overlain by 5.85m depth of channel and alluvial deposits, the top of the sequence at 0.89m OD. The presence and depth of the channel silts may indicate that the site lies within a channel, rather than on the margin of an island.



Photo 5 View of Trial trench 4 showing brick walls [18] (centre right), [19] (centre left) and [20] (far left)

1-7 Snowfields SE1						
AH4 (Trial Pit 4)						
Concrete slab surface at: m OD				2.85		
Auger Hole 1	Depth below ground level		Elevation m OD		Description	Interpretation
4.1	0	1.92	2.85	0.93	Void	Trench excavation
4.2	1.92	4.07	0.89	-1.36	Soft (mottled brown) bluish fine silty clay with brown	Weathered alluvium
4.3	4.07	4.47	-1.33	-1.76	Black organic plastic clay	Alluvium
4.4	4.47	4.67	-1.76	-2.16	Off-white pale grey silt/marl ?tufa	Alluvial silt (?Mesolithic)
4.5	4.67	7.81	-2.16	-5.30	Brown to yellowy fine to coarse wet sand and very sand	Channel sands
4.6	7.81	7.91	-5.3	unknown depth	Compact olive green sand and gravel	Shepperton Gravel

Table 4 Sequence of auger deposits in Trial Trench 4

3.3 Answering original research aims

3.3.1 What is the nature and level of natural topography?

Natural gravels were located between -4.20m OD and -5.3m OD

3.3.2 Is there any evidence for prehistoric activity on this site?

No tangible evidence for the prehistoric period was found although a “tufa” deposit found in Auger holes 3 and 4 is indicative of the Mesolithic (pers comm Virgil Yendell, MOLA Senior Geoarchaeologist).

3.3.3 Is there evidence for medieval or post-medieval development within the site?

No evidence for the medieval period was found. Wall foundations, drains, part of a warehouse of 18th and 19th century date were found in all the trenches.

3.3.4 What are the earliest deposits identified?

The earliest relate to the depositional sequence of channel deposits, that may be Mesolithic in date.

3.3.5 What are the latest deposits identified?

The latest deposits are of late 19th and early 20th century in date and form demolition dumps and makeup dumps and drains

3.3.6 What is the extent of modern disturbance?

Modern disturbance was found in Trench 2, where the area was heavily truncated by a late 20th century drain run and inspection chamber and in Trench 1, where demolition material had been deposited within the basement area of the late 18th century wool warehouse.

3.4 Significance of the results

3.4.1 The evaluation recorded heavily truncated late 18th/ early 19th century activity of low significance on the site. The construction of the 18th/19th century warehouses on the Bermondsey Street site has resulted in truncation of deposits down to the level of the alluvial deposits. All of the auger holes revealed a series of channel sands and silts, the most significant possibly pertaining to the Mesolithic period, on the Snowfields site.

3.4.2 The earliest surviving archaeological remains consist of late 18th/early 19th century brick walls, drains of houses that fronted onto Snowfields and part of the basement of the wool warehouse on the Bermondsey Street site.

3.5 Assessment of the evaluation

3.5.1 HEGLAAS guidelines (2015) require an assessment of the success of the evaluation to illustrate what level of confidence can be placed on the information which will provide the basis of the mitigation strategy.

3.5.2 In the case of this, site the location and spread of the test pits indicates a high level of confidence in the information obtained during the evaluation for those areas currently accessible.

4 Proposed development impact and recommendations

- 4.1.1 Development proposals are being prepared for a planning application to redevelop the site. The development has not yet received planning permission. The results of the archaeological evaluation will form part of the planning application. *Full planning permission is being applied for demolition of existing buildings (40-44 Bermondsey Street), repair; rebuilding and refurbishment of existing building (leather warehouse) and erection of 2no. new buildings of ground floor and up to part 4 (+24.2m AOD) and part 9 storeys (+46.7m AOD to roof line, +49.7m AOD to top of equipment) and ground floor and 16 storeys (+68.0m AOD to roof line, +71.0m AOD to top of equipment) with a total floor space up to 23,390sqm GIA, with landscaping, plant, storage and servicing and associated works. The development would comprise:*
- *Building 1, located on Bermondsey Street, for the demolition of existing buildings and erection of a new building including one basement level, ground floor and up to part 4 and part 9 storeys in height, comprising Office (B1) up to 12,350sqm GIA and Retail (A1-A5) up to 1,100sqm GIA.*
 - *Building 2, located on Vinegar Yard, for the refurbishment of existing warehouse building and construction of new building including two basement levels, ground floor and up to 16 storeys in height, comprising Office (B1) up to 9,650sqm and Retail (A1-A5) up to 290sqm GIA.*
- 4.1.2 The results of the archaeological evaluation will form part of the planning application.

5 Planning framework

- 5.1.1 Current planning legislation and policies are detailed in the Written Scheme of Investigation (MOLA 2018)

5.2 Statutory protection

Scheduled Monuments

- 5.2.1 Nationally important archaeological sites (both above and below-ground remains) may be identified and protected under the *Ancient Monuments and Archaeological Areas Act 1979*. An application to the Secretary of State is required for any works affecting a Scheduled Monument or its setting.

Planning (Listed Buildings and Conservation Areas) Act 1990

- 5.2.2 The Act sets out the legal requirements for the control of development and alterations which affect buildings, including those which are listed or in conservation areas. Buildings which are listed or which lie within a conservation area are protected by law. Grade I are buildings of exceptional interest. Grade II* are particularly significant buildings of more than special interest. Grade II are buildings of special interest, which warrant every effort being made to preserve them.

Human remains

- 5.2.3 Development affecting any former burial ground is regulated by statute, principally the *Burial Act 1857*, the *Disused Burial Grounds Act 1884* and 1981, and the *Pastoral Measure 1983*.
- 5.2.4 The exhumation of any human remains requires approval from either the Secretary of State or the Church of England, depending on the current location of the remains. Exhumations from land which is subject to the Church of England's jurisdiction will need the Church's authorisation (a Faculty or the approval of a proposal under the *Care of Cathedrals Measure 2011*). This includes consecrated ground in cemeteries.
- 5.2.5 Exhumations from land which is not subject to the Church of England's jurisdiction will need a licence from the Secretary of State, under Section 25 of the *Burial Act 1857* as amended by the *Church of England (Miscellaneous Provisions) Measure 2014*. A Burial Licence is required from the Secretary of State if the remains are not intended for reburial in consecrated ground (or if this is to be delayed - for example where archaeological or scientific analysis takes place first).
- 5.2.6 Under the *Town and Country Planning (Churches, Places of Religious Worship and Burial Grounds) Regulations 1930*, the removal and re-interment of human remains should be in accordance with the direction of the local Environmental Health Officer.

5.3 National Planning Policy Framework

- 5.3.1 The Government issued the National Planning Policy Framework (NPPF) in March 2012 (DCLG 2012). One of the 12 core principles that underpin both plan-making and decision-taking within the framework is to 'conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations' (DCLG 2012 para 17). It recognises that heritage assets are an irreplaceable resource (para 126), and requires the significance of heritage assets to be considered in the planning process, whether designated or not. The contribution of setting to asset significance needs to be taken into account (para 128). The NPPF encourages early engagement (i.e. pre-application) as this has significant potential to improve the efficiency and effectiveness of a planning application and can lead to better outcomes for the local

community (para 188).

5.3.2 NPPF Section 12: Conserving and enhancing the historic environment, is produced in full below:

Para 126. Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. In developing this strategy, local planning authorities should take into account:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

Para 127. When considering the designation of conservation areas, local planning authorities should ensure that an area justifies such status because of its special architectural or historic interest, and that the concept of conservation is not devalued through the designation of areas that lack special interest.

Para 128. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Para 129. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

Para 130. Where there is evidence of deliberate neglect of or damage to a heritage asset the deteriorated state of the heritage asset should not be taken into account in any decision.

Para 131. In determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness.

Para 132: When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

Para 133. Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- the nature of the heritage asset prevents all reasonable uses of the site; and

- no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
- conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and
- the harm or loss is outweighed by the benefit of bringing the site back into use.

Para 134. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.

Para 135. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

Para 136. Local planning authorities should not permit loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.

Para 137. Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites and within the setting of heritage assets to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably.

Para 138. Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 133 or less than substantial harm under paragraph 134, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.

Para 139. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

Para 140. Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.

Para 141. Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

5.4 Greater London regional policy

The London Plan

5.4.1 The overarching strategies and policies for the whole of the Greater London area are contained within the London Plan of the Greater London Authority (GLA July 2011). Policy 7.8 relates to Heritage Assets and Archaeology:

A. London's heritage assets and historic environment, including listed buildings, registered historic parks and gardens and other natural and historic landscapes, conservation areas, World Heritage Sites, registered battlefields, scheduled monuments, archaeological remains and memorials should be identified, so that the desirability of sustaining and enhancing their significance and of utilising their positive role in place shaping can be taken into account.

B. Development should incorporate measures that identify, record, interpret, protect and, where appropriate, present the site's archaeology.

C. Development should identify, value, conserve, restore, re-use and incorporate heritage assets, where appropriate.

D. Development affecting heritage assets and their settings should conserve their significance, by being sympathetic to their form, scale, materials and architectural detail.

E. New development should make provision for the protection of archaeological resources, landscapes and significant memorials. The physical assets should, where possible, be made available to the public on-site. Where the archaeological asset or memorial cannot be preserved or managed on-site, provision must be made for the investigation, understanding, recording, dissemination and archiving of that asset.

F. Boroughs should, in LDF policies, seek to maintain and enhance the contribution of built, landscaped and buried heritage to London's environmental quality, cultural identity and economy as part of managing London's ability to accommodate change and regeneration.

G. Boroughs, in consultation with English Heritage, Natural England and other relevant statutory organisations, should include appropriate policies in their LDFs for identifying, protecting, enhancing and improving access to the historic environment and heritage assets and their settings where appropriate, and to archaeological assets, memorials and historic and natural landscape character within their area.

5.5 Local planning policy

- 5.5.1 Following the Planning and Compulsory Purchase Act 2004, Planning Authorities have replaced their Unitary Development Plans, Local Plans and Supplementary Planning Guidance with a new system of Local Development Frameworks (LDFs). UDP policies are either 'saved' or 'deleted'. In most cases archaeology policies are likely to be 'saved' because there have been no significant changes in legislation or advice at a national level
- 5.5.2 Southwark Council is in the process of reviewing the Proposed Submission Version of the New Southwark Plan, which will be submitted in early 2019. The Plan contains policy P20: Archaeology:
- 1 Development must conserve the archaeological resource commensurate to its significance. Planning applications affecting sites within Archaeological Priority Areas (APAs) shall be accompanied by an archaeological assessment and a report on the results of a field evaluation of the site, including an assessment of the impact of the proposed development on the archaeological resource. The assessment should identify and describe the significance of the archaeological interest of the site, including any contribution made by the archaeological setting of the site. Any harm or loss of archaeological resource resulting from development will require justification; and
 - 2 Development must preserve archaeological remains of national importance in situ and preserve archaeological remains of local importance in situ unless the public benefits of the development outweigh the loss of archaeological remains. Where archaeological remains cannot be preserved in situ the remains must be excavated, recorded, archived, published, interpreted and displayed through a detailed planned programme of works. There may also be a requirement for a programme of public engagement, in order that the results of significant archaeological discoveries are disseminated. The scale of this public engagement will be based upon on the significance and interest of the findings, but may involve site visits for the public or other means of on- and off-site viewing

6 Bibliography

- ACAO, 1993 *Model briefs and specifications for archaeological assessments and field evaluations*, Association of County Archaeological Officers
- Archaeological Archive Forum, 2011 *Archaeological Archives: a guide to best practice in creation, compilation transfer and curation*
- Arup, 2018 Bermondsey Desk Study Report, August 2018
- Ashdown Site Investigation Ltd (1998), St Thomas Street, London SE1 – Engineering Report on the Site Investigation, 9264L, October 1998.
- BADLG, 1991 *Code of Practice, British Archaeologists and Developers Liaison Group*
- Chartered Institute for Archaeologists, (CIFA), 2014 *By-Laws, Standards and Policy Statements of the Chartered Institute for Archaeologists, Standards and guidance*
- DCLG [Department of Communities and Local Government], March 2012 *National Planning Policy Framework*.
- DCLG [Department of Communities and Local Government], March 2014 *Conserving and Enhancing the Historic Environment: Planning Practice Guide*
- Ettwein Bridges Architects 2012, *Building Appraisal: Former Hop Warehouse, 9-17 Vinegar Yard, London SE1*, unpublished report.
- GLA [Greater London Authority], March 2015 *The London Plan. Spatial Development Strategy for Greater London. Consolidated with Alterations Since 2011*
- GLAAS [Greater London Archaeological Advisory Service], 2015 *Guidelines for Archaeological Projects in Greater London.*, GLAAS Guidance Paper, Revised April 2015
- Hertfordshire Archaeological Trust 2001, "72-84 St. Thomas Street", London SE1, August 2001: An Archaeological Desk-Based Assessment (August 2001)
- MoLAS 2005, 2 Carmarthen Place, SE1 A report on archaeological monitoring of geotechnical pits and/or boreholes, MoLAS unpublished report
- Molas 2008, 46-48 Bermondsey Street, Southwark: An archaeological evaluation and excavation report (February 2008) MoLas unpub rep
- Museum of London, 1994 *Archaeological Site Manual 3rd edition*
- Museum of London, 2002 *A research framework for London archaeology 2002*
- Museum of London, 2009 *General Standards for the preparation of archaeological archives deposited with the Museum of London*
- Museums and Galleries Commission (1992) *Standards in the Museum Care of Archaeological Collections*.
- Over Arup Partners, 2018 Seller Property Group: Bermondsey Desk Study Report
- Society of Museum Archaeologists (1993) *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland*.
- Society of Museum Archaeologists (1995) *Towards an Accessible Archive. The Transfer of Archaeological Archives to Museums: Guidelines for Use in England, Northern Ireland, Scotland and Wales*.
- Standing Conference of Archaeological Unit Managers, 1991 revised 1997 *Health and Safety in Field Archaeology, Manual*
- Treasure Act 1996 *Code of Practice (2nd Revision)* 1996, DCMS
- Treasure (Designation) Order 2002, TSO
- Thompson, A, Westman A, and Dyson, T (eds), 1998 *Archaeology in Greater London 1965-90: a guide to records of excavations by the Museum of London*, Archaeol Gazetteer Ser Vol 2, London

7 NMR OASIS archaeological report form

OASIS ID: molas1-336917

Project details

Project name	40 Bermondsey Street, 42-44 Bermondsey Street and 1-7 Snowfields, London SE1
Short description of the project	The pre-determination evaluation comprised four trial pits, two on an area of hardstanding to the east and south of a warehouse in 1-7 Snowfields and two in the Bermondsey Street site in the open yard area in the western half of the site. All four trial pits were specifically designated for archaeological investigation with provision to remove 'low grade layer' after recording with a view to augering from the top of the alluvial deposit. The results of the field evaluation have helped to refine the initial assessment of the archaeological potential of the site. Natural gravels were located in all trial trenches overlain by channel silts and in two of the trenches, on the Snowfields site, evidence for the Mesolithic horizon was identified in the auger holes. Above this horizon alluvial silts were seen, sealed by late post-medieval dumps and the remnants of late 18th/early 19th century houses and a backfilled basement pertaining to the wool warehouse on the Bermondsey site
Project dates	Start: 12-11-2018 End: 29-11-2018
Previous/future work	No / Not known
Any associated project reference codes	ERO18 - Sitecode
Type of project	Field evaluation
Site status	Conservation Area
Site status	Local Authority Designated Archaeological Area
Current Land use	Industry and Commerce 3 - Retailing
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	WALL Post Medieval
Monument type	DRAIN Post Medieval
Monument type	WALL FOUNDATION Post Medieval
Methods & techniques	""Augering"", ""Targeted Trenches""
Development type	Urban commercial (e.g. offices, shops, banks, etc.)
Prompt	Conservation Area Consent
Prompt	Conservation/ restoration

Prompt Planning condition

Position in the planning process Pre-application

Project location

Country England

Site location GREATER LONDON SOUTHWARK BERMONDSEY ROTHERHITHE AND SOUTHWARK 40 bermondsey Street, 42-44 Bermondsey Street and 1-7 Snowfields, London SE1

Postcode SE1

Site coordinates TQ 33122 79897 51.501811322198 -0.081825915005 51 30 06 N 000 04 54 W Point

Height OD / Depth Min: -5.3m Max: -4.2m

Project creators

Name of Organisation MOLA

Project brief originator Arup

Project director/manager Derek Seeley

Project supervisor Portia Askew

Type of sponsor/funding body Arup Group

Name of sponsor/funding body Arup Group

Project archives

Physical Archive Exists? No

Physical Archive notes No finds from the site

Digital Archive recipient Museum of London Archaeological Archive

Digital Archive ID ERO18

Digital Media available "Images raster / digital photography", "Survey", "Text"

Paper Archive recipient Museum of London Archaeological Archive

Paper Archive ID ERO18

Paper Media available "Section", "Survey", "Unpublished Text", "Context sheet", "Diary", "Drawing", "Matrices", "Photograph", "Plan", "Report"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	40 Bermondsey Street, 42-44 Bermondsey Street and 1-7 Snowsfields, London SE1: Pre-determination Evaluation Report
Author(s)/Editor(s)	Askew, P
Date	2018
Issuer or publisher	MOLA
Place of issue or publication	MOLA
Description	An A4 unpublished client report
Entered by	Portia Askew (paskew@mola.org.uk)
Entered on	19 December 2018

OASIS:

Please e-mail [Historic England](#) for OASIS help and advice

© ADS 1996-2012 Created by [Jo Gilham and Jen Mitcham](#), email Last modified Wednesday 9 May 2012

Cite only: <http://www.oasis.ac.uk/form/print.cfm> for this page

[Cookies](#) [Privacy Policy](#)

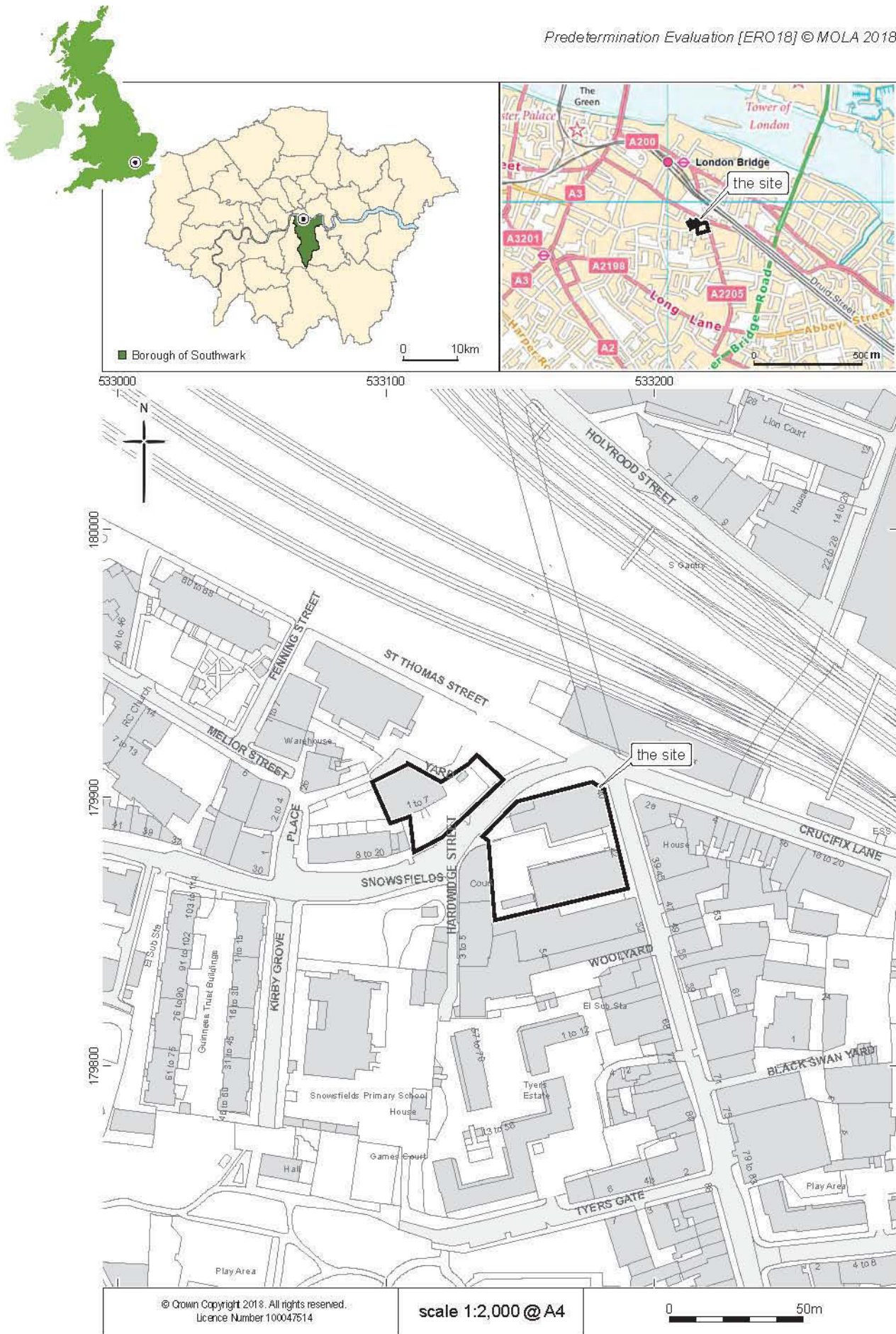


Fig 1 Site location

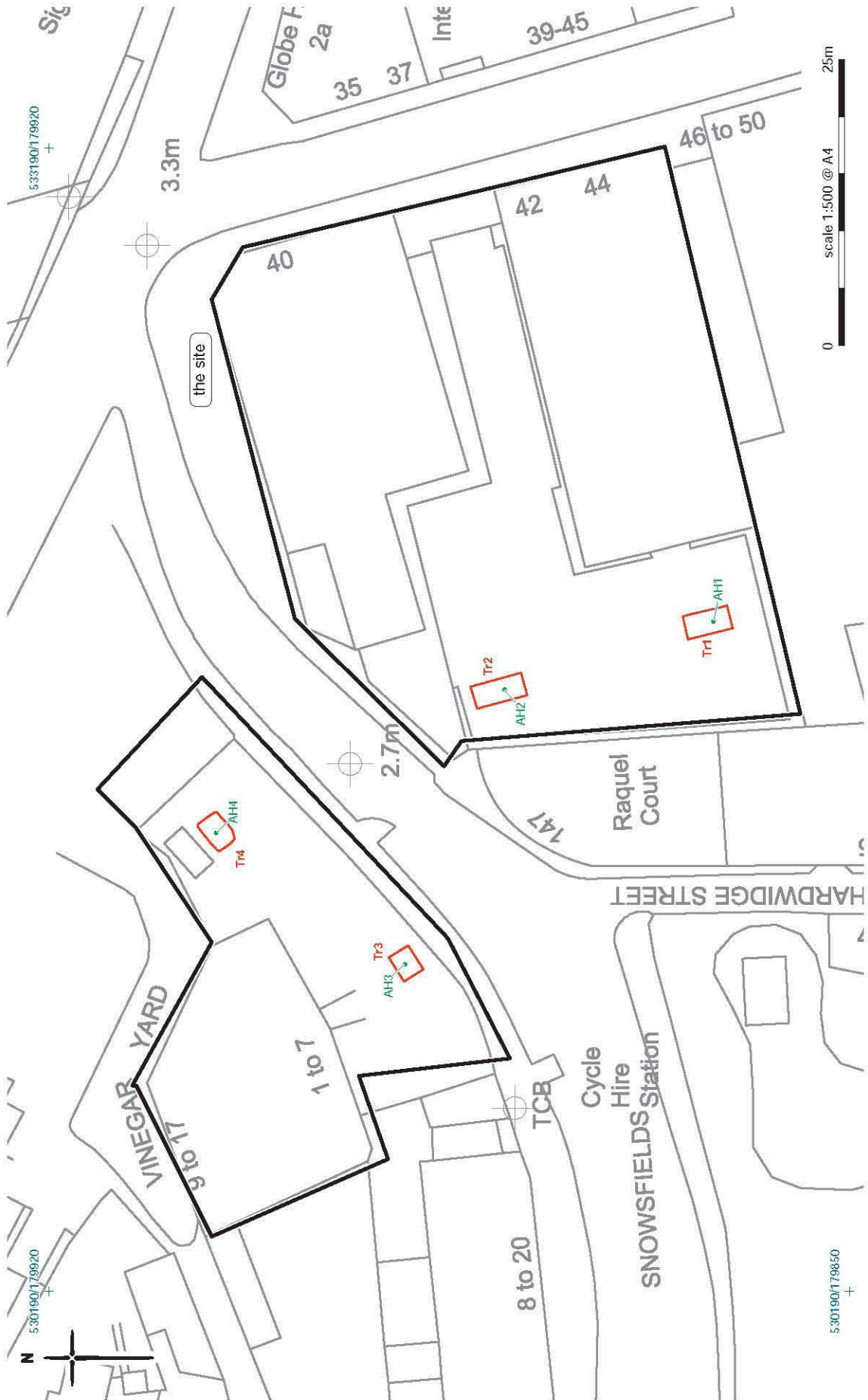
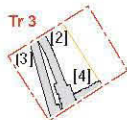
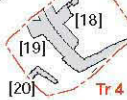
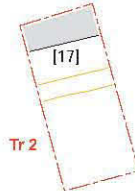


Fig 2 Trench location plan

YARD

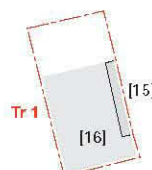


2.7m

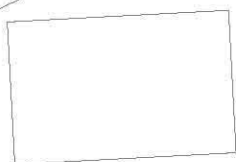


147

Raquel Court



cycle
line
ation



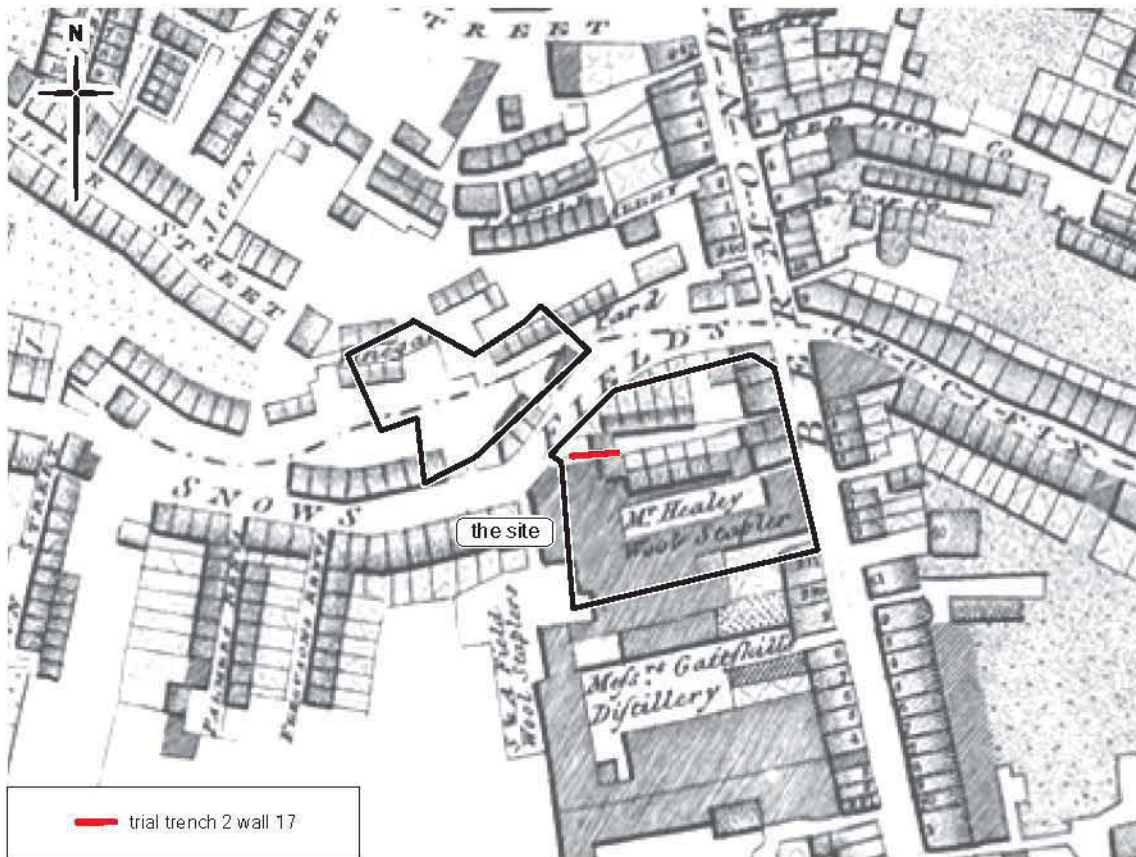


Fig 4 Horwood's map of 1799



Fig 5 Horwood's map of 1799 (1813 revision)

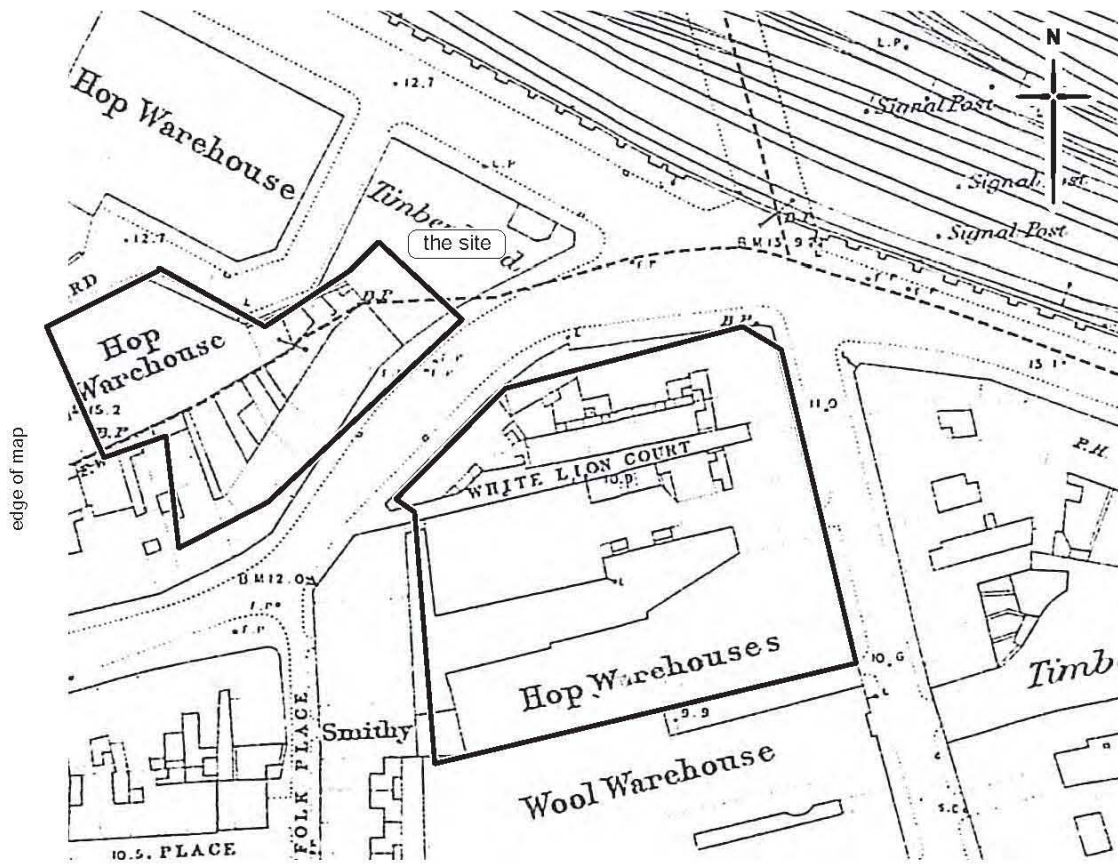


Fig 06 Ordnance Survey 1st edition 25": mile map of 1872 (not to scale)



Fig 07 Ordnance Survey 2nd edition 25": mile map of 1894 (not to scale)