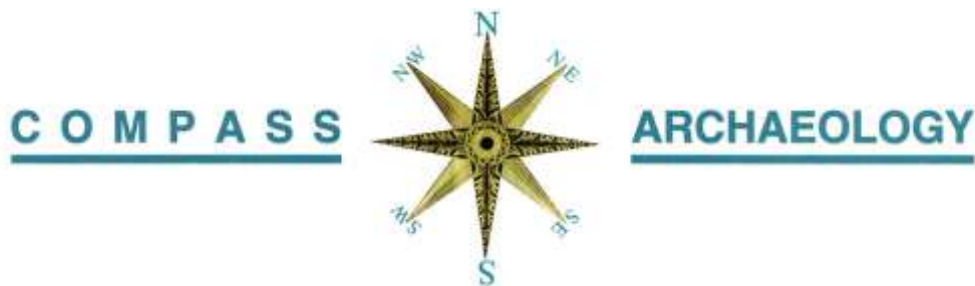


THAMES WATER MAINS REPLACEMENT WORKS BLYTHE ROAD, W14 0HB

LONDON BOROUGH OF HAMMERSMITH AND FULHAM

AN ARCHAEOLOGICAL WATCHING BRIEF

October 2016



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Abstract

In August and early September 2016 Compass Archaeology undertook an archaeological watching brief during Thames Water mains replacement works along the length of Blythe Road, West Kensington, in the London Borough of Hammersmith and Fulham.

The archaeological monitoring took place over the course of three site visits with a total of 20 launch pits and open-cut trenches being recorded in detail to provide an illustrative sample of the underlying stratigraphy and any observed archaeological features.

Natural geology was observed in several pits, present from a depth of between 0.40m and 0.86m below present ground levels. Often the natural was overlain by layers of made ground or levelling material, (either crushed red brick or compacted chalk dust and rubble), forming the original road base for the Victorian streets laid out in the mid-19th century.

Where natural was not observed the trenches contained deep deposits of mixed silts often containing 19th century pottery. Some of these deposits were shown to be within large, steep sided cuts, interpreted as brickearth quarries, dug from the 17th century and into the 19th century to procure the raw materials used in the local brickmaking trade.

Additional archaeological features observed included a brick wall footing, potentially part of the boundary to a 19th century bleaching and dyeing works at the west end of Blythe Road, and a brick-built sewer / drain crossing the southern arm of Blythe Road opposite the Post Office Savings Bank Building at the east end of the watching brief area. This feature too was probably constructed as part of the wider development of the area in the mid-19th century.

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1 INTRODUCTION

- 1.1 This document forms a summary of the findings of an archaeological watching brief (WB), conducted by Compass Archaeology in August and early September 2016, during Thames Water Mains Replacement Works along Blythe Road, in the London Borough of Hammersmith and Fulham, W14, (see fig.1).

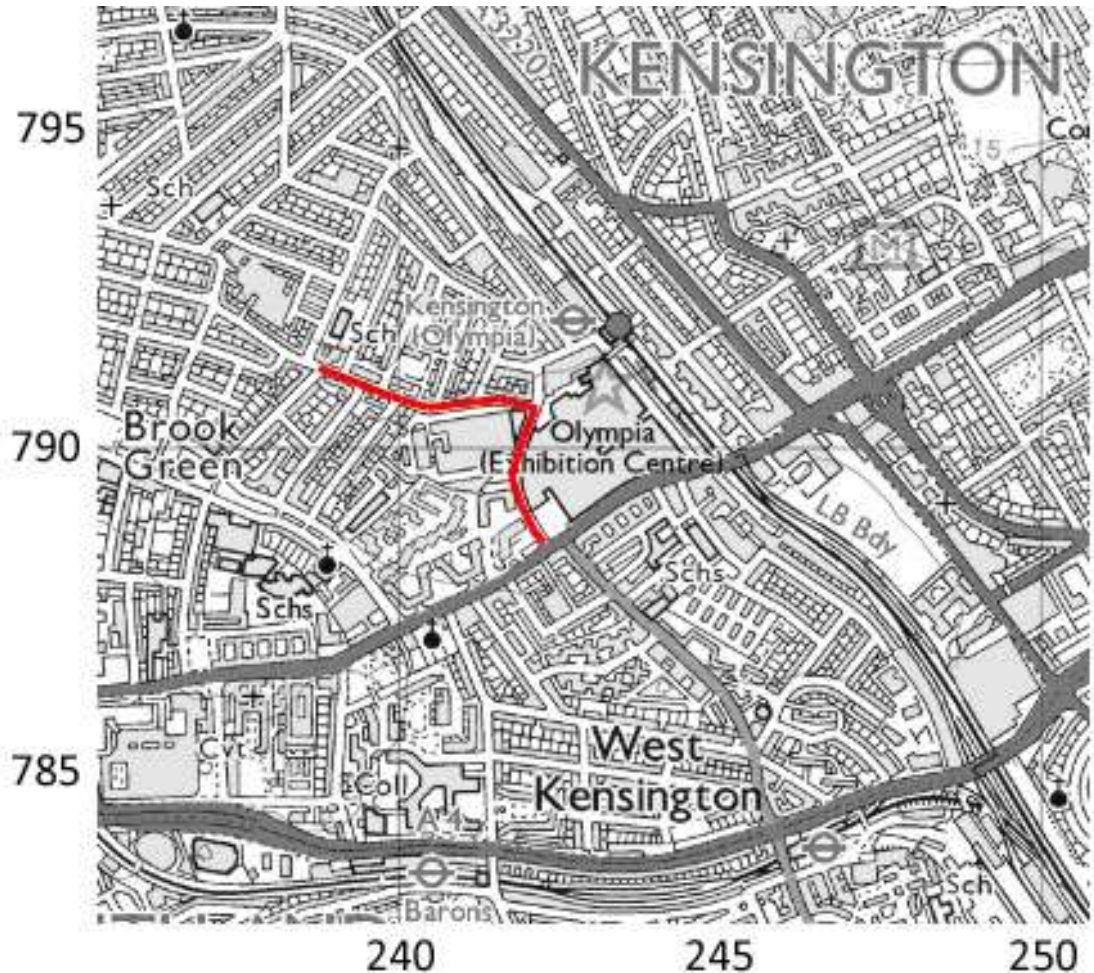


Fig.1: OS location plan

- 1.2 The WB was conducted between the 3rd of August and the 8th of September 2016 during the excavation of open cut trenching and launch pits along the length of Blythe Road by Thames Water. The WB had been commissioned by Thames Water following advice from Historic England as the site held the potential for encountering evidence of 19th century quarry pits.

2 ACKNOWLEDGMENTS

- 2.1 Compass Archaeology would like to thank Thames Water Utilities Ltd for its support of the archaeological fieldwork, and to Claire Hallybone, Senior Archaeologist at Thames Water, for commissioning the works on their behalf. Thanks also to the Skanska groundwork crew, especially Mr Kerry Isles for allowing inspection of the trench works and for keeping Compass informed of the progress of the works and facilitating site visits.

3 SITE LOCATION, GEOLOGY AND TOPOGRAPHY

- 3.1** The site of the groundworks lay within the London Borough of Hammersmith and Fulham, in the area of Kensington Olympia. The works ran the length of Blythe Road, from the junction with Augustine Road in the west and Beaconsfield Terrace Road in the east, and down to Lyons Walk in the south. This amounts to an approximate length of 710m in total.



Fig.2: Mid-scale OS map of area of observations in red

- 3.2** According to the British Geological Survey, (England and Wales Sheet 256: North London), the east-west arm of the site overlies Kempton Park gravels, with some evidence of worked ground to the immediate north. The north-south arm of the works overlies an island of Langley silt representing a high point in the surrounding area.
- 3.3** The natural topography is relatively flat at about 4.00mOD, with a northeast- southwest slope upwards towards the Thames, which lies at 6.00mOD, c1.3km to the southwest.

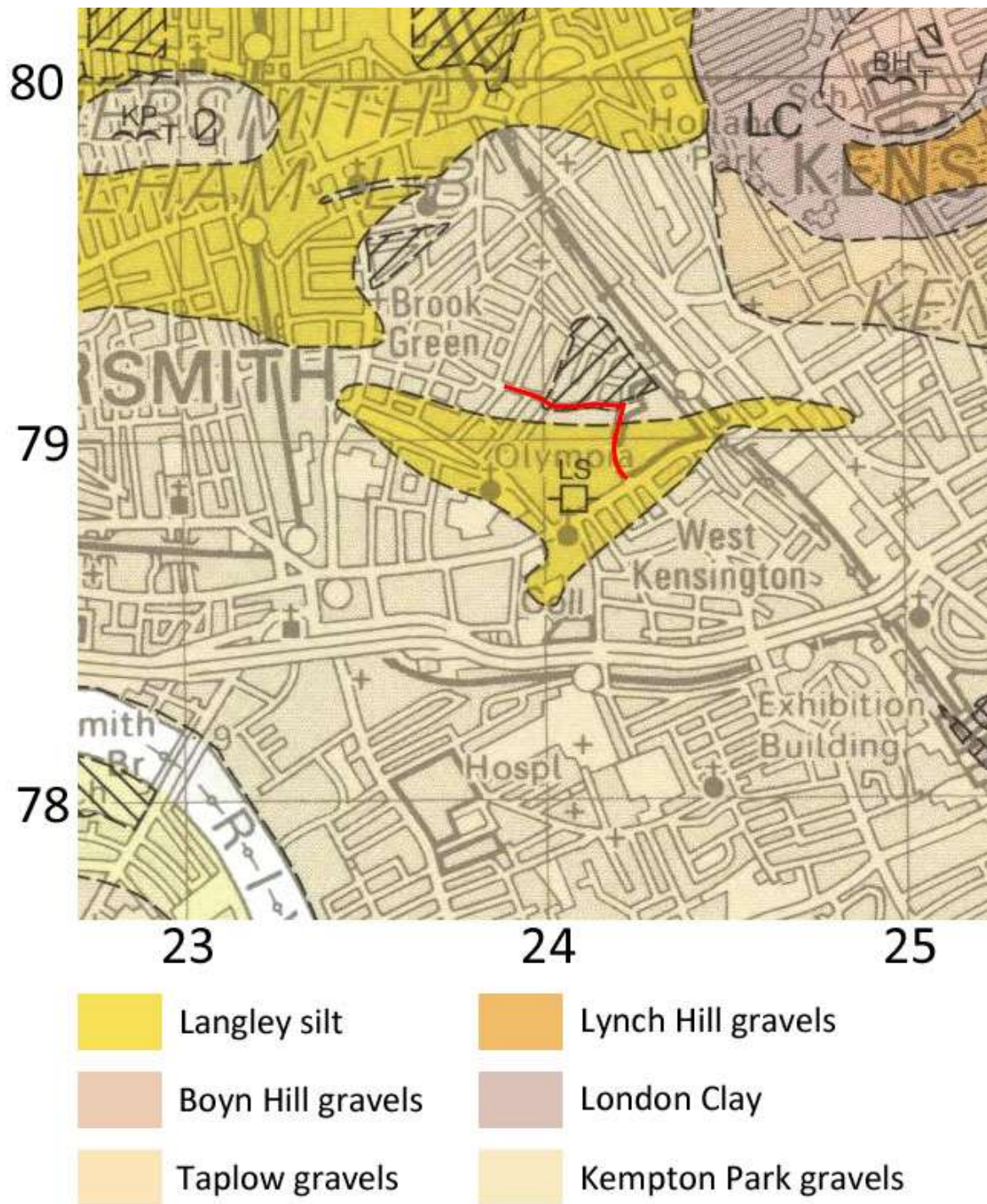


Fig.3: The site in relation to underlying deposits based on the BGS Sheet 270: South London

4 ARCHAEOLOGICAL AND HISTORIC BACKGROUND

4.1 The site history is relatively straightforward with very little development having taken place prior to the later-post medieval period.

4.2 Early history: Prehistoric to medieval

Blythe Road fell within the Saxon manor of Fulham, in the Hundred of Ossulton, dating back to at least the late-7th century when it was given to the Bishop of London Erkenwald. The manor contained 40 hides at the time of Domesday, (1086), and was still under the control of the Bishops of London. The area around Blythe Road is believed to have been open fields used for agriculture.

Little detail is known of any communities near to the modern Blythe Road area prior to the mention of the settlement of Brook Green in 1493, when an open ditch called either Black Bull's Ditch or Parr's Ditch flowed across the Green towards the Thames at Chancellor's Wharf.

4.3 Post-medieval

For much of the post-medieval period the area around Blythe Road remained undeveloped and continued to serve as an agricultural hinterland to the cities of London and Westminster, (fig.4).

Hammersmith did not receive its first church until the 1660's when Sir Nicolas Crispe built one at his own expense. Sir Nicholas Crispe amongst other things made his fortune in brickmaking, and much of the surrounding area was utilised for quarrying the raw materials and in the creation of the bricks themselves. This is attested to in various documentary and cartographic references to 'brickfields', (fig.5), and the fact that in 1876 Brook Green had become so polluted from brickfield waste that a new sewer had to be laid to channel the effluence away.

In 1652 first mention is made of Blythe House, a large property situated at the west end of modern day Blythe Road. The house at this point is described as comprising 15 rooms, and in 1740 is occupied by Captain Henry Doughty. Blythe House is interchangeably called 'Blinde Lane House' indicating the existence of some form of thoroughfare leading up to the property by the middle of the 18th century. By 1839 the road is described as being in a poor condition and unpassable in winter.

In 1855 the house was purchased to function as the first Catholic Reformatory School in England at the behest of Lord Edward Howard and the Rev. Dr. Henry Manning. The school is shown on the 1869 OS map, (fig.5). By 1870 however the site was deemed unfit for purpose. At this time the surrounding area was still essentially open with brick fields and brick mills still operational on the northern side of Blythe Road.

The house was modified and additional buildings constructed and the site renamed the St Stephen's Industrial School for Roman Catholic Boys, opening in 1872. Once again the establishment was deemed unsatisfactory by 1874, and after falling admissions the School closed for good in 1887.

The site was subsequently occupied by the Swan Laundry, and the area to the immediate west was built over. By the late 1890s the surrounding area was a mass of Victorian terraces, and resembles the streetscape that survives largely intact to this day, (fig.6). The house itself was demolished by the early 1900s, (fig.7).

Other notable features of the surrounding area include the Vineyard Nursey established in 1745 by two Scotsmen, James Lee and Lewis Kennedy at the eastern end of Blythe Road, (fig.5). This became the first of its kind in the country, and the two men introduced several new species to the nation through establishing links with famous travellers including the fuchia and rose tree.

The site of the Nursery was purchased to make way for the newly fashionable railway, and Kensington station opened in 1844. A large portion of the site was set aside for the National Agricultural Hall, opened on 26th December 1866, and later renamed Olympia. These two new elements underwent several re-designations and change of function, with the Agricultural Hall being requisitioned as a civilian internment camp during the First and Second World Wars, and also as clothing stores and demobilisation stations during the war years. Olympia later hosted exhibitions and more recently concerts and lifestyle shows. Kensington station was not a great success and closed on several occasions before reopening as Addison Road in 1862. The station was knocked out by incendiary bombs in 1940 and finally reopened in 1946 as Kensington (Olympia).



Fig.4: Extract from Milne's 1800 land use map showing the area of Blythe Road as market garden (g); arable ground, (a); plus some meadow (m).



Fig.5: Extract from the First Edition OS map of Kensington area, surveyed 1863, published 1869



Fig.6: Extract from the 1896 OS map

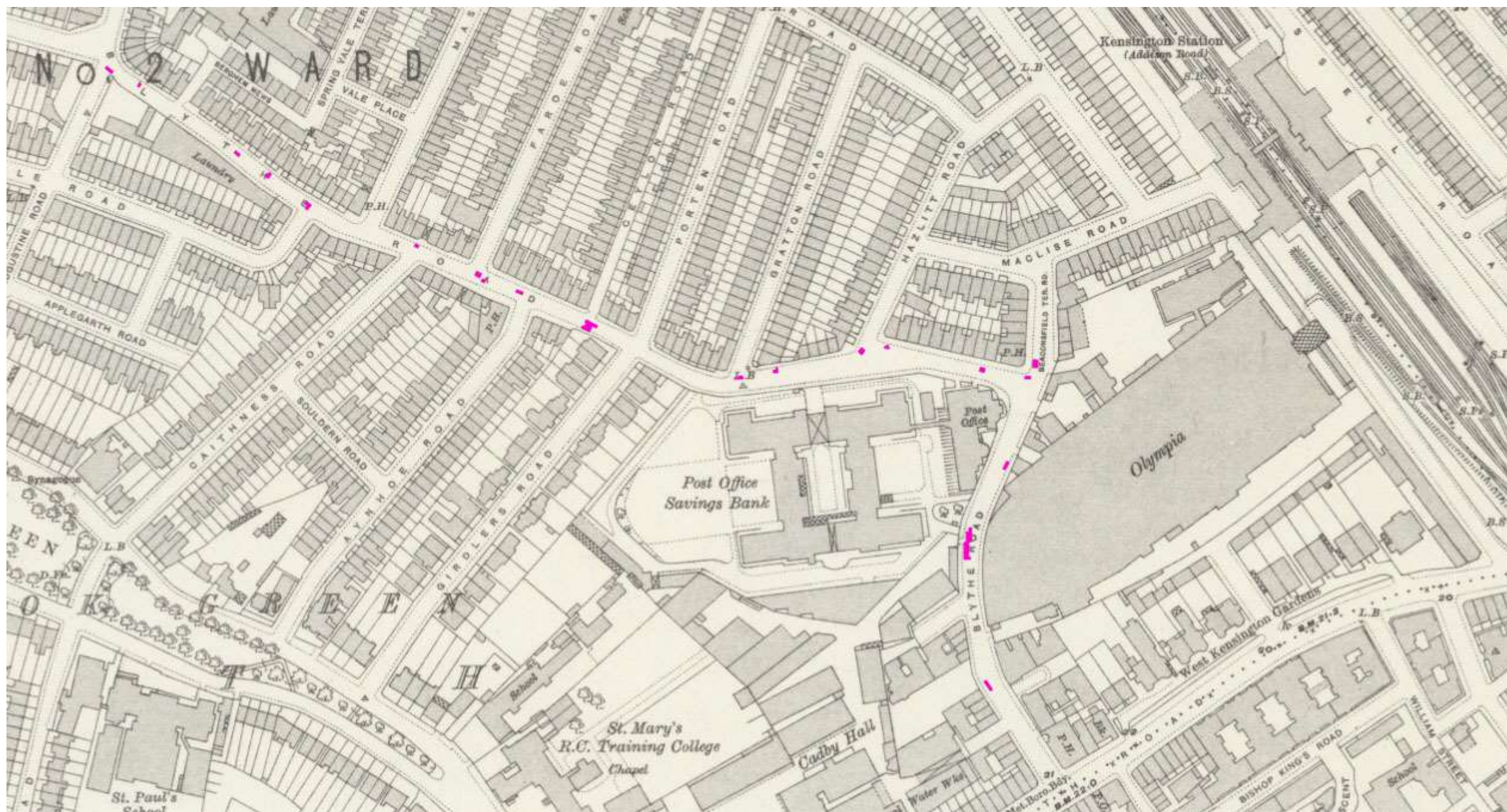


Fig 7: Extract from the 1913 – 1916 OS map



Fig 8: Extract from the 1952 Plan TQ2379

5 ARCHAEOLOGICAL OBJECTIVES & RESEARCH QUESTIONS

5.1 The watching brief provided an opportunity to address the following archaeological research questions:

- Is there any evidence for 19th century quarry pitting as indicated by the cartographic and documentary evidence?
- What is the nature and extent of the quarry pitting in this part of the wider landscape?
- What is the natural geology and at what level does it appear across the works area? What can this tell us about the natural topography of the area?
- Is there any evidence for earlier archaeological activity from prehistoric to medieval periods?

6 METHODOLOGY

6.1 Standards

6.1.1 The field and post-excavation work was carried out in accordance with Historic England guidelines (Historic England 2015). Works conformed to the standards of the Chartered Institute for Archaeologists (CIfA 2015). Overall management of the project was undertaken by a full Member of the Institute.

The watching brief will follow the requirements of the National Planning Policy Framework (NPPF) adopted in March 2012.

6.1.2 Fieldwork was carried out in accordance with the Construction (Health, Safety & Welfare) Regulations. All members of the fieldwork team held valid CSCS Cards (Construction Skills Certificate Scheme), and appropriate personal protective equipment as required. Members of the fieldwork team also followed the contractors' health and safety guidelines and held Thames Water Safety Passports.

6.2 Fieldwork

6.2.1 The archaeological watching brief took place during groundworks associated with the replacement of the existing cast iron water mains piping, including the excavation of launch pits for new runs and open-cut trenching along more elaborate set-ups, (see fig.9).

6.2.2 Where archaeological remains were exposed adequate time was allowed for investigation and recording, although every effort was made not to disrupt the development programme.

6.2.3 Archaeological deposits and features were investigated and recorded in stratigraphic sequence, and finds dating evidence recovered where possible.

- 6.2.4** Archaeological contexts were recorded as appropriate on *pro-forma* trench record sheets by written and measured description. The investigations were recorded on a general site plan and related to the Ordnance Survey grid. Levels were taken on the top of all pits subjected to more concentrated archaeological scrutiny, derived from the nearest Ordnance Datum Benchmark.

The fieldwork record will be supplemented as appropriate by digital photography.

- 6.2.5** The Client and Historic England representatives were kept advised of the progress of the fieldwork.

6.3 Post-excavation

- 6.3.1** Assessment of finds has been undertaken by appropriately qualified staff (see Appendices II & III below). Finds and samples will be treated in accordance with the appropriate CIfA guidelines, (CIfA 2014a).

- 6.3.2** Archaeological finds and samples will be retained and bagged with unique numbers related to the context record, although certain classes of material may be discarded if an appropriate record has been made. Where necessary, sensitive artefacts will be properly treated, in line with the appropriate standards.

6.4 Report and Archive

- 6.4.1** Copies of the report will be supplied to the client, Historic England, and the Local Studies Archive

- 6.4.2** The report will contain a description of the fieldwork plus details of any archaeological remains or finds, and an interpretation of the associated deposits. Illustrations will be included as appropriate, including at a minimum a site plan located to the OS grid. A short summary of the project will be appended using the OASIS Data Collection Form and in paragraph form suitable for publication in the London Archaeologist excavation round-up.

- 6.4.3** There is no provision for further analysis or publication of significant findings. Should these be made the requirements would need to be discussed and agreed with the Client and with Historic England.

- 6.4.4** Once the project is completed an ordered indexed and internally consistent archive will be compiled in line with CIfA standards and guidance, (CIfA 2014b), and will be deposited in a local archive under site code BYE16. The integrity of the site archive should be maintained, and the landowner(s) will be urged to donate any archaeological finds to the appropriate local museum.

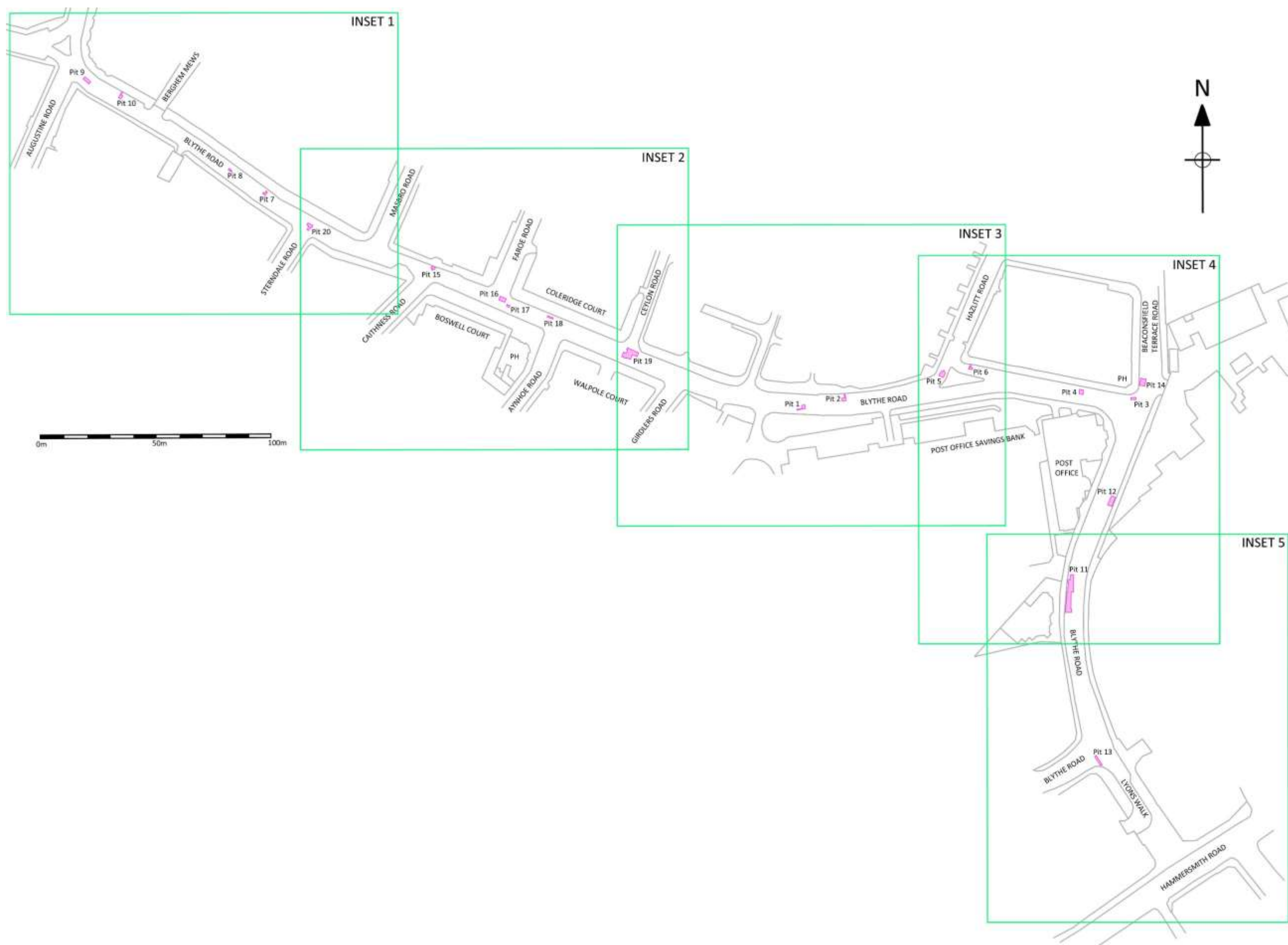


Fig.9: Plan showing observations, (Insets are produced in Appendix I)

7 RESULTS

7.1 The watching brief was conducted over three stages, the far eastern and western ends; the north-south arm; and the mid-section. Site visits were spaced so as to ensure a maximum number of pits and trenches were open at each stage. Observations during these ground works are detailed below in chronological order. Reference should be made to figs.9 for wider location of observations, and Appendix I for smaller scale maps and direction of view for accompanying photographs. Deposits are shown in round brackets thus (1), and cuts and / or structures in square brackets thus, [2].

7.2 East and West ends; (03.08.16)

On the 3rd of August a site visit was made to view groundworks from the junction of Blythe Road and Beaconsfield Terrace Road and Blythe Road and Girdlers Road in the east, and between No.134 Blythe Road and the junction with Augustine Road in the west. A total of 10 pits were investigated in more detail 1-6 in the east and 7-10 in the west.

7.2.2 Pit 1

Pit 1 was excavated towards the western end of the Post Office Savings Bank site and measured 4.15m long, (E-W), and between 0.55m to 2.10m wide, (N-S). The trench was 1.10m deep and the stratigraphy was simply the modern road make up of tarmac, (101), over grey gravels (102) as a bedding layer, sealing a mixed reddish-grey-brown silt, (103).



Fig.10: North facing section in Pit 1, facing south (1m scale)

7.2.3 Pit 2

Pit 2 was dug adjacent to the curb outside Eagle House, (No.54-58 Blythe Road). It measured 2.85m long, (N-S), by 1.95m wide, (E-W), and was dug up to 1.20m deep.

The observed stratigraphy included the modern road surface, (201), over a layer of compacted grey gravels, (202). These overlay a layer of crushed red brick and mortar dust forming the existing road base, (203), which sealed the natural brown-yellow clay-silt, (204), from 0.60m below ground level.

7.2.4 Pit 3

Pit 3 was dug at the junction with Beaconsfield Terrace Road, outside of 'The Beaconsfield' public house. This pit was 2.50m long, (E-W), by 1.10m wide, (N-S), and 1.30m deep.

The modern road surface and type 2 road base, (301), overlay a 0.10m layer of yellow-brown gravels possibly forming a former Victorian road surface, (302). These gravels overlay a dump of brown-grey silty-clay, with some charcoal debris, crushed red brick, and gravels inclusions, (303), 0.45m thick. These in turn overlay a 0.55m deeper dump of more homogenous dark-grey-blue silty-clay, (304).



Fig.11: *Northern section of Pit 3 facing northwest, (1m scale)*

7.2.5 Pit 4

Pit 4 was excavated outside of No.28 Blythe Road, and 2.10m square and 1.10m deep.

The modern road surface overlay the same grey gravel road base, and a similar brick and mortar dust levelling layer, (403), overlying natural yellow-brown clay, (407), at 0.55m below ground level. At the eastern end of the trench the natural was cut by a feature 0.45m deep and at least 1.60m long, [406]. This pit was filled with banded layers of red brick dust and charcoal lenses, (405), possibly derived from some nearby demolition, episode capped by a grey gravels, (404). This material contained mid-19th century material.

Pit [406] may have been either a purpose-dug pit to dispose of the demolition debris or it could have been a former quarry pit utilised opportunistically for a rubbish pit. The profile of the pit with a sharp near vertical cut and wide flattish base would suggest a quarry pit as it has a more uniform and purposeful exercise. If it was merely cut for the disposal of rubbish the pit could perhaps have been dug much quicker and with less care.



Fig.12: Pit 4 facing north, with cut [406] behind 1m scale

7.2.6 Pit 5

Pit 5 was dug on the west side of the traffic island at the junction of Blythe Road and Hazlitt Road. It was an irregular shape but was a maximum of 3.25m long, (NE-SW), by 2.30m wide, (NW-SE), and a maximum depth of 1.10m.

The modern road surface overlay c0.25m of mixed gravels, (502), representing former road surfaces when the traffic island was not present. In the northern part of the pit the gravels lay atop a crushed red brick road bedding layer, (503), 0.10m deep. This sealed

a homogenous dark-grey silty-clay, (504), which lay within a vertical sided cut, [505]. The dark-grey deposit and [505] cut through a small pillar of natural orange clay-silt, (506), which was also truncated to the south by the existing pipe trench.



Fig.13: *West-facing section in Pit 5, facing east, with cut [505] filled with dark silt (504), and surviving natural (506) to the right of 1m scale*

7.2.7 Pit 6

Pit 6 was excavated on the east side of the same traffic island as Pit 5. It measured 1.80m long, (NW-SE), and 1.5m wide, (NE-SW), with a thinner 1.07m long and 0.60m wide branch to the northern pavement. The pit was 0.60m deep.

The modern road surface and concrete road base overlay a thin grey lens of silt, (602), which directly overlay the natural, (606), in the northern pavement arm. Silt (602) produced several sherds of mid-19th century pottery including London Stoneware, Refined Whiteware and Yellow-ware. The natural was present from c0.40m below ground level. Near to where it linked in with the main trench the natural was abruptly cut through by a large straight-sided cut, [605], filled by a lower brown silt, (604). This cut was sealed by crushed red brick and gravels mix (602) below the road base.

7.2.8 Pit 7

Pit 7 was excavated outside of No.132 Blythe Road, and measured 1.95m long, (NE-SW), and 1.35m wide, (NW-SE), and was dug to a depth of 1.25m deep.

The stratigraphy in Pit 7 was highly disturbed and truncated by a number of service runs. The modern road surface sealed two layers of grey gravels, (702), and greyish silts, (703). These lay over the natural orange-brown clay-silt, (704).

7.2.9 Pit 8

Pit 8 was located in the middle of the carriageway of Blythe Road opposite Nos.144 and Nos.146. It measured 1.97m long, (NW-SE), and 1.10m wide, (NE-SW), and was dug to a depth of 1.25m.



Fig.14: Northwest facing section through Pit 8 facing southeast, 1m scale

The modern road surface overlay a 0.15m thick layer of crushed brick, mortar dust and brown silt, (802), forming the modern road base. This sealed a layer of large rounded gravels in a grey silt matrix, (803), 0.20m thick and representing a former road surface. This gravel road lay over a 0.10m layer of crushed chalk and mortar forming the foundation for the gravels road, (804). This sealed a thick deposit of reddish-brown banded silts representing made ground, (805). This made ground continued beyond the depth of excavation.

It is not immediately clear whether this lower dump below road surfaces (803) / (804) are the fills of a larger feature such as a quarry pit.

7.2.10 Pit 9

Pit 9 was opened at the far western end of Blythe Road outside No.170, at the junction with Augustine Road. The pit measured 3.50m long, (NW-SE), by 1.44m wide, (NE-SW), and up to 0.95m deep.

The modern road surface overlay yellow-brown gravels (902), over a crushed red brick road bed, (903). These represented a previous road surface. Below the red brick road base was a further chalk and mortar levelling layer, (904), similar to (804). This in turn sealed more grey-brown gravelly silts, (905) containing a few sherds of post-medieval Redware and London Stoneware suggesting a late-18th century date.



Fig.15: *Northeast-facing section through Pit 9, facing SW, 1m scale*

7.2.11 Pit 10

Pit 10 was located outside of No.164 and measured 2.90m long, (NNE-SSW), by 1.35m wide, (WNW-ESE), and up to 0.80m deep.

The modern road surface, lay atop 0.10m of crushed red brick and mortar dust, (1002). This sealed large rounded gravels and grey silts (1003) in the southern section representing a former road surface. This road surface directly overlay the natural brown clay-silt, (1006). In the northern section the red brick lens overlay the footings of a former wall, [1004]. The wall was built of red brick one and a half stretchers wide, (0.32m), and 1.35m long, and survived up to at least 12 courses high, (0.92m). The wall footing was built within a narrow trench, [1005], cut directly into the natural.



Fig.16: Pit 10 facing east, with Wall [1004] below red bricks and mortar (1002). Note the cut for the modern gas pipe down the centre of the trench. 0.60m scale

The orientation and positioning of the wall are comparable to the boundary surrounding the Springvale Bleaching and Dyeing Works shown on the First Edition OS map of 1869, (fig.5). The wall surrounds the southern end of the works site with gardens to the immediate north of the boundary wall. This interpretation is supported by dating of the bricks to c1800-1900¹.

¹ See Appendix III



Fig.17: Wall [1004] within cut [1005] facing E, (0.60m scale)

7.3 Southern branch of Blythe Road; (28.03.16)

7.3.1 A second site visit was planned to coincide with excavations along Blythe Street from the junction with Beaconsfield Terrace Road in the north and Lyons Walk in the south. A total of four pits were examined in depth, Nos.11-14.

7.3.2 Trench 11

Pit 11 was the most extensive area of open cut trenching at 16.50m long, (N-S), and between 1.30m wide at the north end, and 2.50m to 2.85m wide towards the southern end. The trench was dug up to about 1.40m deep. The trench was opened on the west side of the carriageway.

The modern road surface (1101), overlay a former road of yellow-brown gravels 0.28m deep, (1102). The gravels overlay a 0.25m of crushed red brick, (1103), over 0.15m of grey silt-clay, (1104). This sealed the natural brown clay-silt natural, (1108), present from c0.81m.

At the northern end of the trench, and cut into the natural was [1107], the construction cut for brick drain [1106]. The drain was truncated to the west but would have crossed the trench on an E-W alignment. It had internal dimensions of 0.70m wide and at least 1.00m deep, (the base was not reached), the walls were 0.24m wide, equivalent to one stretcher. Bricks taken for dating were interpreted as c1666-1850, and thought to fall within the later-17th to 18th century date range, though there is potential for their having been re-used².

The drain was silted up with a grey-brown fine silt, (1105), and sealed below the crushed red brick deposit, (1103).



Fig.18: Drain [1106], facing northeast, 1m scale

² See Appendix III



Fig.19: *Drain [1106] facing east, 0.50m scale*



Fig.20: *Internal shot of drain [1106] facing east, showing silting (1105)*



Fig.21: *Trench 11 facing southeast from northern end, 1m scale*

7.3.3 Pit 12

Pit 12 was 4.40m long, (NNE-SSW), and 1.95m – 2.15m wide, (WNW-ESE). The trench was dug up to 1.37m deep on the eastern side of the carriageway.

The modern road base (1201), was approximately 0.38m deep, and overlay a reddish silt, (1202), over deep grey silt containing crushed brick, (1203). These made ground layers amounted to 0.86m of stratigraphy sealing a blue-grey silty-clay, (1204), representing the natural ground.



Fig.22: *Trench 12 facing east, 1m scale*

7.3.4 Trench 13

Trench 13 was c6.00m in length, (NW-SE), by 1.50m, (NE-SW), by 1.25m deep.

The trench was on the western side of the street at the junction of Lyons Road and directly along the course of the existing cast iron water pipe cut, [1303], with the trench containing service backfill (1302).



Fig.23: Trench 13, facing northwest, 1m scale

7.3.5 Pit 14

Pit 14 was opened at the northern end of the southern arm, north of Pit 3 outside of 'The Beaconsfield'. It was between 3.20m to 3.40m long, (N-S), by 2.30m to 2.60m wide, (E-W), and up to 1.85m deep.

The modern road surface and road base, (1401), was 0.60m thick, and overlay a thick deposit of yellow and off-white gravels, (1402). These represented a series of former road surfaces. These sealed reddish silty gravels, (1403), acting as a consolidation layer. This lay over a thin compacted layer of crushed yellow mortar, (1404). The lower 0.65m of the pit was comprised of a homogenous deep deposit of grey-brown made ground, (1405) containing several sherds of 19th century pottery including Blue Stoneware, Transfer-printed Whiteware and Refined Whiteware. It is likely that this made ground formed part of the same large feature seen in Pit 3, represented by made ground (304).



Fig.24: *West facing section through Pit 14, 1m scale*

7.4 Mid-section of Blythe Road; (8th September)

7.4.1 A final site visit was made to inspect the trenching in the middle stretch of Blythe Road between Ceylon Road in the east, and Sterndale Road in the west. A total of six pits were inspected, Nos.15-20.

7.4.2 Pit 15

Pit 15 was excavated on the north side of the carriageway outside of Nos.108 -112 Blythe Road. The pit measured 2.00m long, (WNW-ESE), by 1.10m wide, (NNE-SSW), and up to 1.05m deep.

The exposed stratigraphy included 0.20m of modern road surface, (1501), overlying 0.45m of crushed red brick, (1502), which sealed at least 0.40m of brown-yellow natural clay, (1503). The natural continued beyond the depth of excavation.

7.4.3 Pit 16

Pit 16 was dug at the junction of Blythe Road and Faroe Road, 3.05m long, (WNW-ESE), by 1.90m wide, (NNE-SSW), by 1.30m deep.

The stratigraphy varied from the northern to the southern sides of the trench. On the northern side of the pit the modern road surface and road base, (1601), directly overlay the natural clay, (1604), at 0.40m below ground level. On the southern side of the pit the road base overlay c0.37m of layered gravels, (1602), which were over a thin layer of crushed chalk, (1603), forming a level base for the gravels to be laid over. This 0.13m deep layer directly sealed the natural brown-yellow clay.

The difference to the two sides of the pit reflect the former narrower road layout from the later Victorian period. So the northern side of the pit now in the road would have been pavement, hence the shallowness of the stratigraphy. The southern side of the pit reflects the foundations of the road in the 1850s, with the former ground surfaces having been stripped prior to construction and the chalk laid down as a ground preparation surface.



Fig.25: *Northeast facing section through Pit 16, facing south, 1m scale*

7.4.4 Pit 17

Pit 17 was dug very close to Pit 16, to the east of the latter. It measured 1.50m long, (WNW-ESE), and 1.00m wide, (NNE-SSW), and was dug to 1.30m deep.

Pit 17 was small but relatively busy in terms of archaeology. The modern road base, (1701), was 0.20m thick and overlay 0.42m of layered grey and brown gravels, (1702). These gravels represented the same road surfaces seen in Pit 16. These overlay a thick orange-brown mottled clay-silt, (1703), which sealed a dark-grey silty-clay, (1704) from 1.12m depth below ground level. Adjacent to these deposits was the cut of an existing pipe trench cut into the natural, (1706). Silt (1704) lay within cut [1705] which also cut the natural, as a severe, vertical face to the south.

Cut [1705] is believed to represent a quarry pit, infilled and sealed by silts (1704) and (1703) to prepare the ground for the construction of the road during the Victorian era. Silt (1704) contained a single sherd of Transfer-printed Whiteware datable to c1830-1900, and probably dated to the earlier end of this date range due to the presence of the road by the 1860s.



Fig.26: *Pit 17 facing southeast, 1m scale*

7.4.5 Trench 18

Trench 18 was dug on the north side of Blythe Road outside of Coleridge Court, opposite the junction with Aynhoe Road.

Trench 18 measured 2.70m long, (WNW-ESE), and 0.80m wide, (NNE-SSW), and up to 1.30m deep.

The observed stratigraphy was very basic with the existing road and gravel road base (1801), amounting to the upper 0.70m, which overlay 0.07m of crushed chalk and reddish silt, (1802), sealing the natural brown clays, (1803), from a depth of 0.77m plus.

7.4.6 Trench 19

Trench 19 spanned the width of the road, measuring up to 5.65m long, (NW-SE), and up to 5.10m wide, (NNE-SSW), and was 1.35m deep.

The stratigraphy varied across the span of the pit. The only consistent element was the existing tarmac road surface, and concrete road base amounting to the uppermost 0.52m of ground, (1901).

To the south the section exposed an underlying dump of grey clay-silt, (1902). This silt overlay a dark-red silt containing occasional gravel inclusions, (1903), and was present from 0.88m below ground level. This material lay within a vertical cut, [1905] which showed evidence of having been partially lined in wood, at least at the lower level, (1904).

The northern half of the pit was different in that the modern road surface and road base, (1901), overlay a crushed red brick layer, (1906), 0.17m thick. This layer and all subsequent layers in this sequence had been cut by [1905] to the south. Red brick layer (1906) overlay a grey silt made ground, (1907), which sealed an iron water pipe, and a mottled orangey-brown made ground, (1908). The orange made ground overlay a dark-grey silt and clay mixture with crushed brick, gravels and chalk made ground, (1909). Made ground (1909) lay within cut [1910], immediately adjacent to [1905], and interestingly was one of the only pre-19th century contexts. The pottery recovered from this material, two large sherds of Post-medieval Redware and English Tin-glazed Ware, was datable to the late-17th century.

The purpose of these cuts is unclear, but their dimensions would suggest a collection of large intercutting quarry pits. The wooden lining in pit [1905] would suggest they were of some depth, in that some form of shoring was deemed necessary.



Fig.27: *Trench 19 facing south, 1m scale*



Fig.28: *Pit 19, southern corner facing southeast, 1m scale*



Fig.29: *Detail of wooden lining (1904) within cut [1905], 0.20m scale*

7.4.7 Pit 20

Pit 20 was L-shaped 2.50m long, (NW-SE), and 1.30m wide, (NE-SW), with a 1.90m long arm extending NE-SW. the depth of the pit was up to 1.16m deep. The pit was dug on the north side of the road, outside of No.128 Blythe Road, opposite the junction with Sterndale Road.

Pit 20 contained the modern road surface and road base, (2001), overlying a mixed gravel layer, (2002), lying over a crushed red brick, (2003). This brick layer sealed a mixture of brown silt and gravels, (2004). These gravels overlay a thicker grey-brown silty gravels, (2005), containing small crushed elements of brick and tile. This lower deposit was present from 0.80m below ground level and continued to below the depth of excavation.



Fig.30: Pit 20 facing southwest, 1m scale

8 CONCLUSIONS

8.1 We can now look back at the original research questions set down in the WSI and compare them with the results of the watching brief.

8.2 **Is there any evidence for 19th century quarry pitting as indicated by the cartographic and documentary evidence? What is the nature and extent of the quarry pitting in this part of the wider landscape?**

As described above a large number of the observed pits and trenches contained large areas or deep deposits of made ground, (1, 3, 8, 14 and 20), and several showed direct signs of cut features, (4, 5, 17 and 19).

The latter often had very severe boundaries with the surrounding natural deposits, often near vertical to vertical profiles, and where visible wide flat bases. This profile would suggest features of considerable depth and planning; [1905] even showed signs of wooden lining / shoring. They would appear to be evidence of widespread quarry pitting across the watching brief site as they cover all areas subject to observation.

Other than material recovered from their subsequent backfilling there was no evidence to suggest when they were originally dug. It would appear however that they were deliberately backfilled by the mid-19th century in preparation for the laying out of the new roads and terraced houses. Prior to this the area may have resembled a kind of lunar landscape with only partially backfilled or naturally silted pits pockmarking the surface. It's possible that the pits may have contained pools of stagnant water or industrial run-off from the associated brickmaking processes and were opportunistically backfilled from other sources of rubbish such as middens. This is a distinct possibility given the dismal descriptions of the area from the early-19th century.

8.3 **What is the natural geology and at what level does it appear across the works area? What can this tell us about the natural topography of the area?**

The natural geology comprised a pale-brown to yellow clay-silt containing occasional small gravels and was found anywhere between 0.40m to 0.81m below ground level. An exception to this was in Pit 12 where the natural was a dark-grey blue clay-silt approximately 0.86m below ground level. This natural may have been discoloured through natural chemical leaching. There was never any indication of earlier soil profiles over the natural ground suggesting that the area was stripped down to the bare earth prior to construction of the Victorian terraces and road layout. Thus the observed natural deposits were probably slightly truncated.

8.4 **Is there any evidence for earlier archaeological activity from prehistoric to medieval periods?**

No archaeological evidence for pre-16th century activity was observed during the watching brief. Although a few sherds of potentially late-16th century Post medieval Redware, (1580-1900), were recovered these were almost exclusively found within deposits containing much later 18th and 19th century pottery and so should also be dated to the later part of their fabric date range.

9 SOURCES

9.1 Published sources

Bird, J and Norman, P, (ed.) 1915. *Survey of London: Vol.6, Hammersmith*

Chartered Institute for Archaeologists, 2015. *Standard and guidance for an archaeological watching brief*

Historic England, 2016. *Greater London Archaeology Advisory Service: Guidelines for Archaeological Projects in Greater London*

9.2 Cartographic sources, (chronological)

Milne, T, *Land-use map of London and Environs in 1800, PLATE III*, (1800)

Ordnance Survey, *London Sheet XLI*, (Surveyed 1863, published 1865)

Ordnance Survey, *London Sheet VI.96 & 97*, (Surveyed 1893, published 1895)

Ordnance Survey, *London Sheet IV.15*, (Surveyed 1913, published 1916)

Ordnance Survey, *TQ Plan 2379*, (1952)

British Geological Survey, *Solid and Drift geology 1:50,000 scale. Sheet 270: South London*, (1998)

APPENDIX I Site plans showing observations and direction of view for accompanying photographs

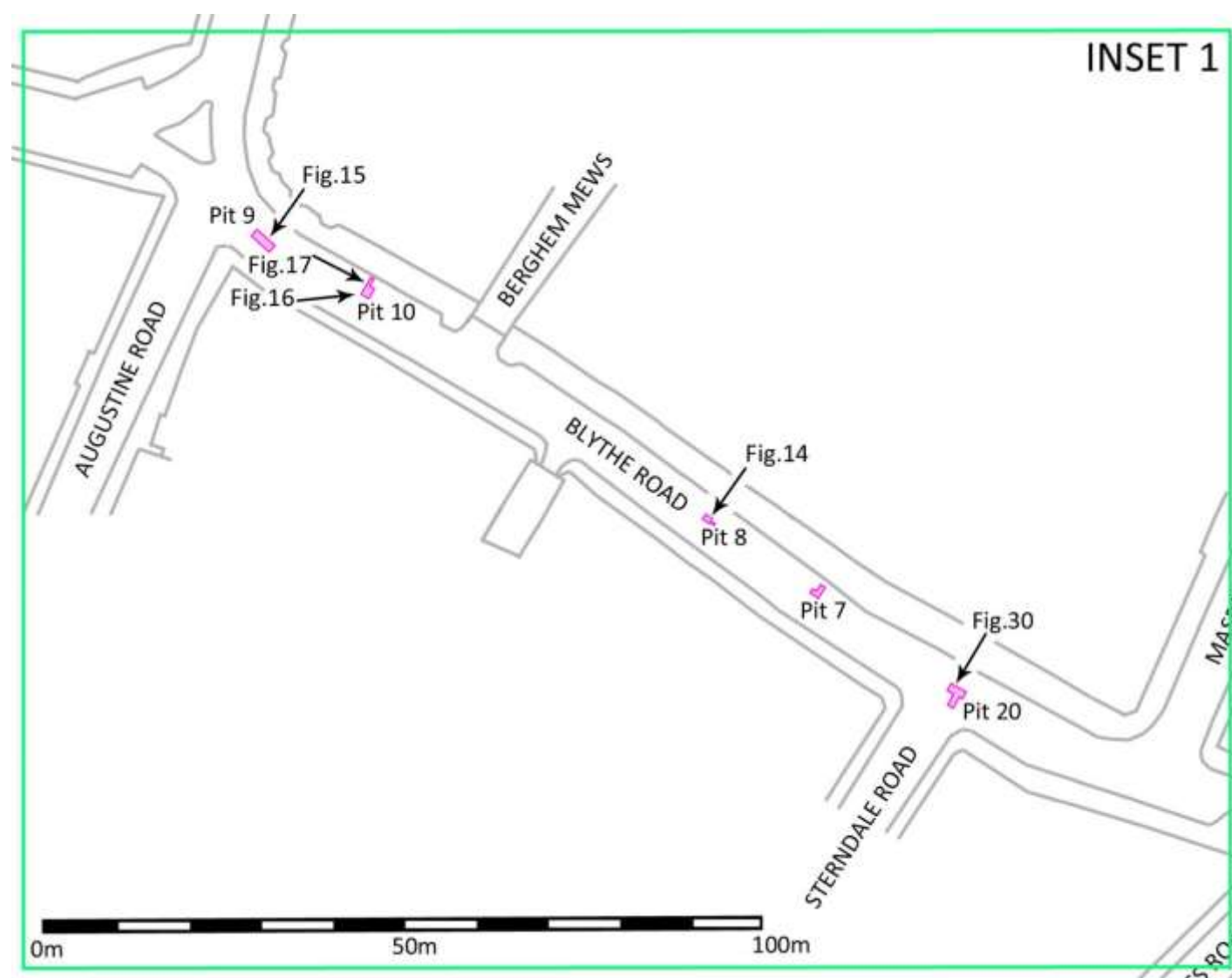


Fig.31: Far west of watching brief area

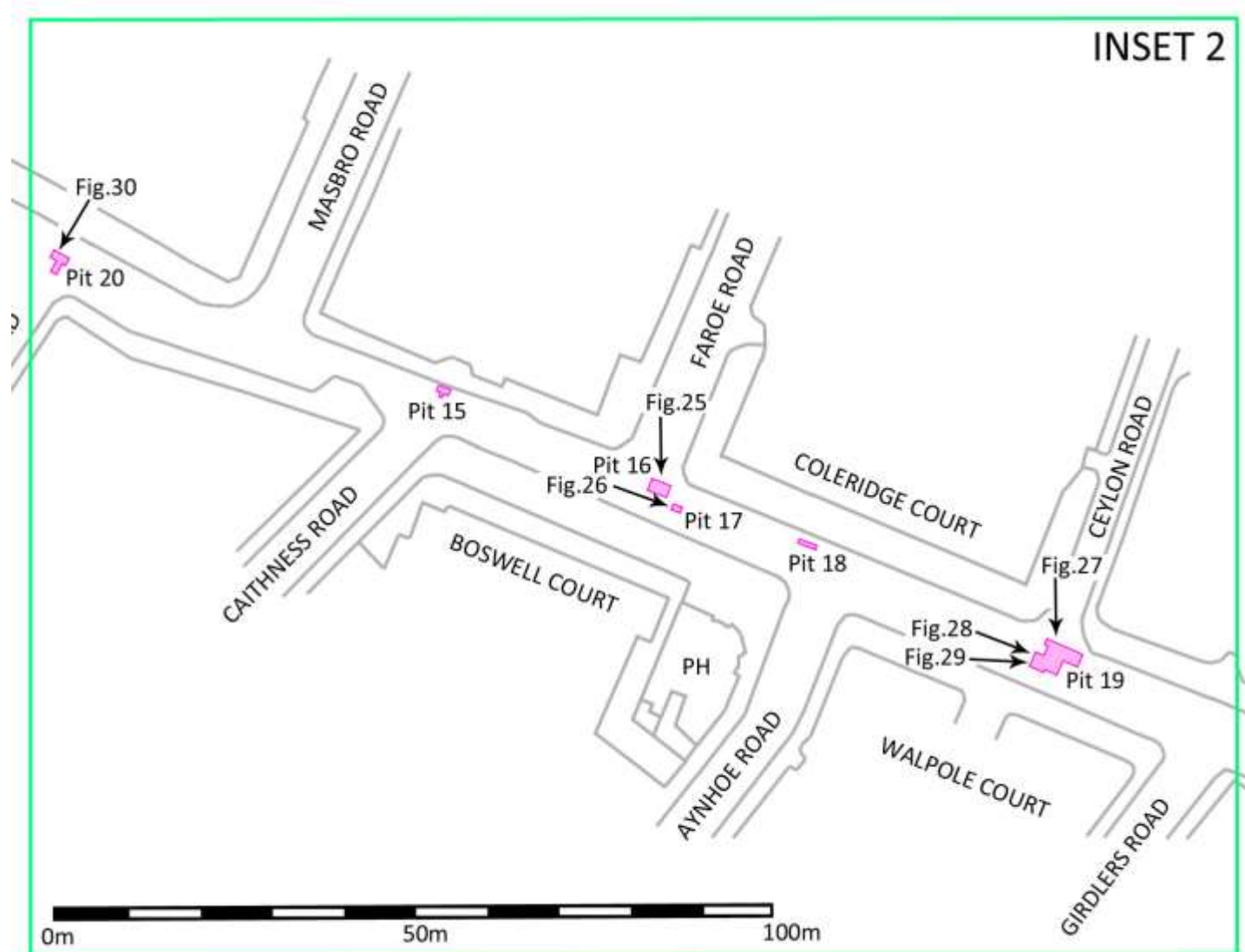


Fig.32: West of centre of watching brief area

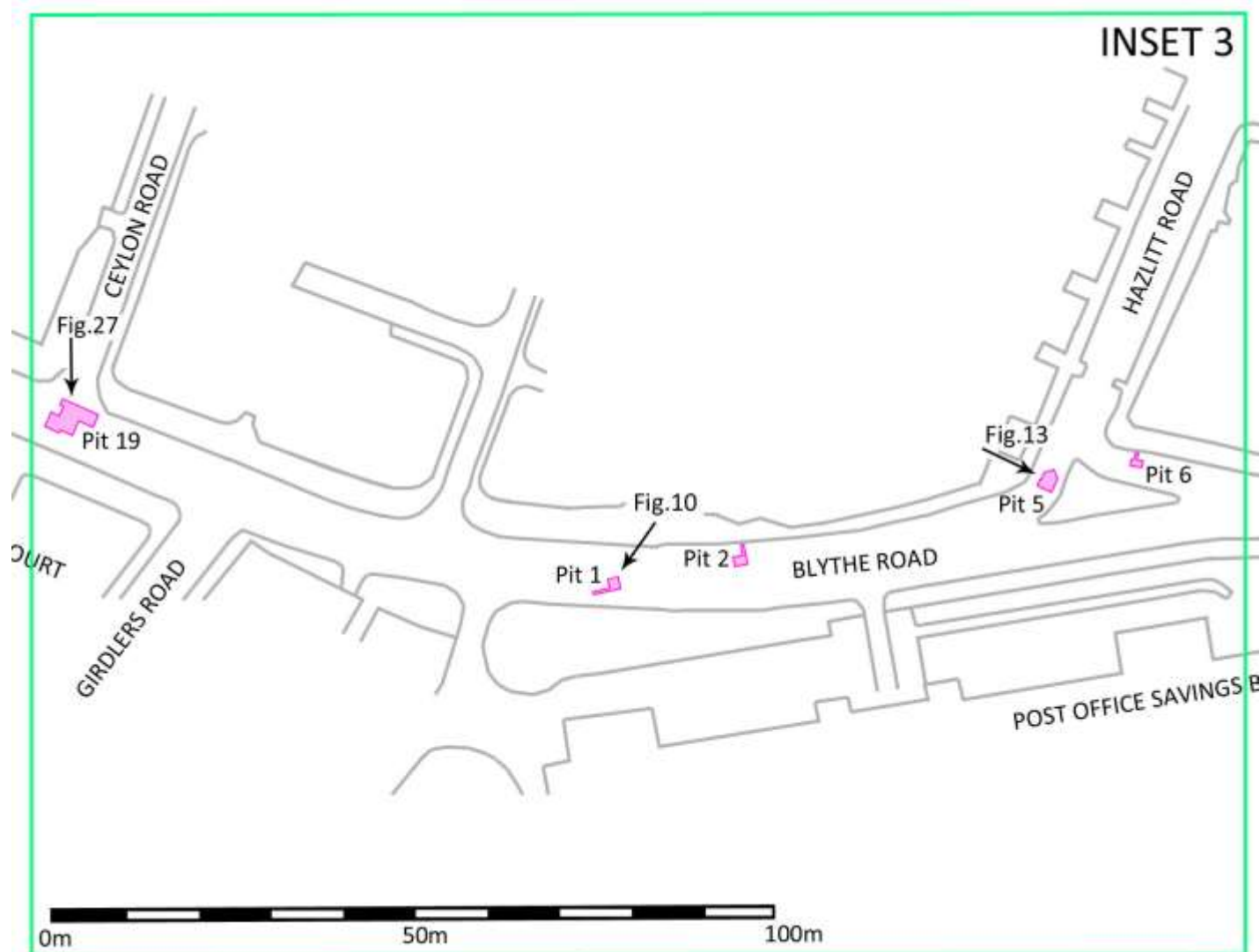


Fig.33: East of centre of watching brief area

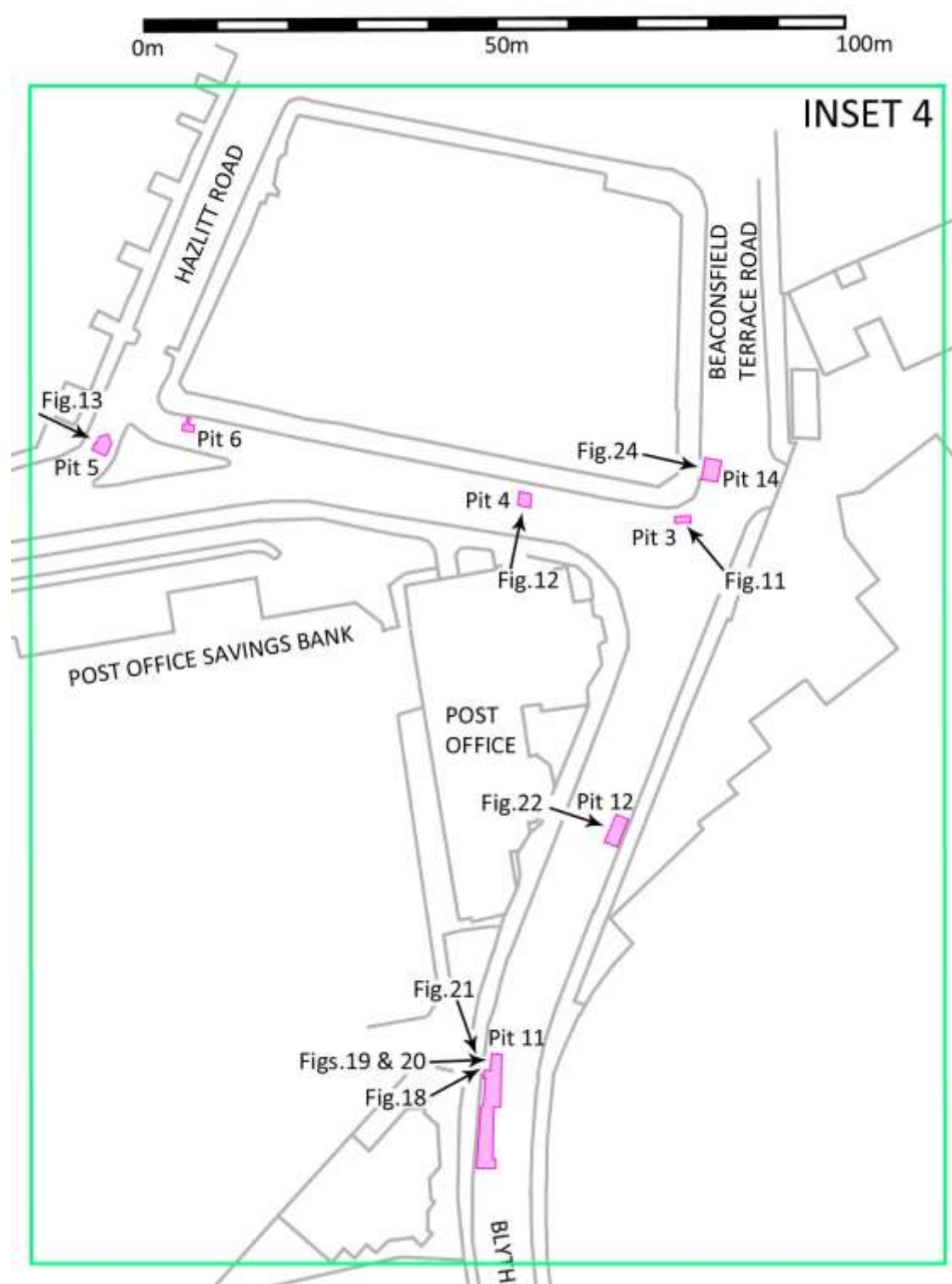


Fig.34: Far east of watching brief area

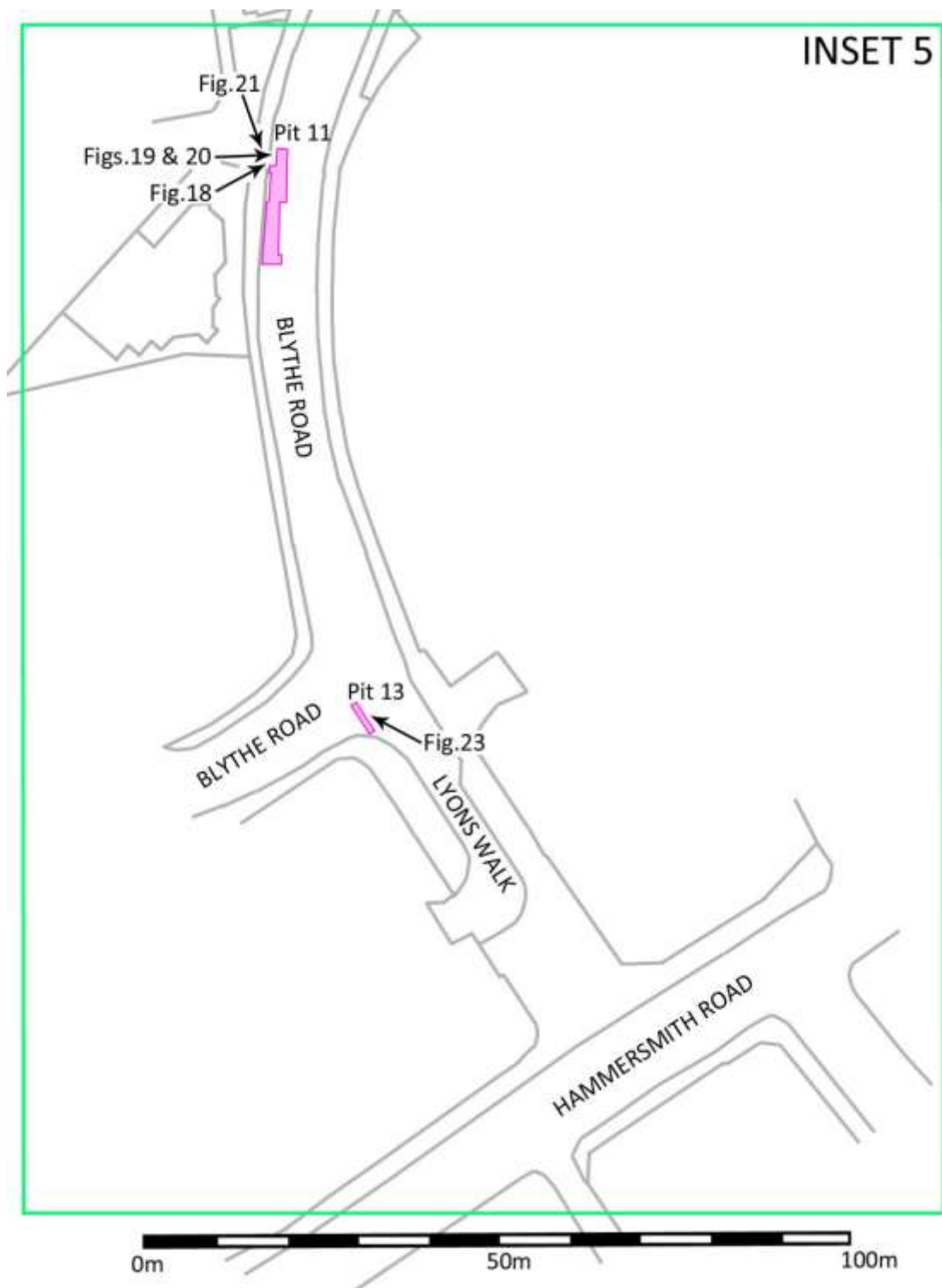


Fig.35: *Far southern end of watching brief area*

APPENDIX II Pottery from Blythe Road, (BYE16) by *Paul Blinkhorn*

The pottery assemblage comprised 80 sherds with a total weight of 1453g. It was mostly of 19th century date, and was recorded using the conventions of the Museum of London Type-Series (eg. Vince 1985), as follows:

BLUE:	Blue Stoneware, 1800-1900. 1 sherd, 8g.
CREA:	Creamware, 1740-1830. 9 sherds, 66g.
HORT:	Horticultural Earthenwares, 19 th – 20 th century. 1 sherd, 39g.
LONS:	London Stoneware, 1670 – 1900. 4 sherds, 353g.
PMR:	Post-medieval Redware, 1580 – 1900. 5 sherds, 304g.
PMR SLIP:	London Area Slipped Redware, 1800-1900. 2 sherds, 46g.
REFW:	Refined Whiteware, 1800-1900. 24 sherds, 370g.
TGW:	English Tin-Glazed Ware, 1600-1800. 1 sherd, 20g.
TPW:	Transfer-printed Whiteware, 1830-1900. 29 sherds, 167gg.
YELL:	Yellow Ware, 1840-1900. 4 sherds, 40g.

The pottery occurrence by number and weight of sherds per context by fabric type is shown in Table 1. Each date should be regarded as a terminus post quem. The range of fabric types is typical of sites in the region.

The only two assemblages which seem likely to date to before the 19th century are 1903 and 1909. The former produced just two small bodysherds of PMR, and cannot be dated more closely than the terminus post quem given in Table 1. Context 1909 produced two fairly large sherds, a rimsherd from a PMR chamber-pot, and the centre of a dish or bowl with a foot-ring in TGW. The former are difficult to date closely, although Redware fabrics in the London area were most common during the 17th century (Orton 1988, 298). The fragment of TGW has a very pale blue glaze on both surfaces, with monochrome, dark blue floral decoration in what would have been the centre of the upper surface. Vessels with similar glazes, decorative schemes and forms were the most common TGW vessels from a late 17th – mid/late 18th century assemblage from 129 Lambeth Road in London (ibid. 355). It seems most likely therefore that the two sherds were deposited in the late 17th – early 18th century.

The rest of the material appears to be typical 19th century domestic assemblages, comprising largely a mixture of white earthenware table- and kitchen-wares, and small quantities of stoneware bottles and jars.

Bibliography

Orton, C, 1988, 'Post-Roman Pottery' in P Hinton (ed.) *Excavations in Southwark 1973-76 and Lambeth 1973-79*. MoLAS and DGLA Joint Publication 3, 295-364

Vince, AG, 1985, 'The Saxon and Medieval Pottery of London: A review', *Medieval Archaeology* 29, 25-93

Table 1: Pottery occurrence by number and weight (in g) of sherds per context by fabric type

	PMR		TGW		LONS		CREA		BLUE		HORT		PMR SLIP		REFW		TPW		YELL		
Cntxt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	No	Wt	Date
103																			1	8	M19thC
203															2	10	1	3			19thC
303					1	95									7	69	5	48	1	5	M19thC
405							5	27					1	37	2	10	3	21	1	4	M19thC
503															6	238	9	56			19thC
602					1	162									1	10	2	11	1	23	M19thC
905	2	107			1	72	3	38													L18thC
1203					1	24											1	4			19thC
1405									1	8	1	39	1	9	6	33	6	19			19thC
1502							1	1									1	2			19thC
1704																	1	3			19thC
1903	2	11																			L16thC
1909	1	186	1	20																	L17thC*
Total	5	304	1	20	4	353	9	66	1	8	1	39	2	46	24	370	29	167	4	40	

*see text

APPENDIX III Ceramic building material by *Susan Pringle*

Context	CBM / Context date	Period	Fabric	Form	Count	Weight	L	B	T	Condition	Comments
1004	1800-1900	PM	3032	Brick	1	1631	195+	104	65	M	Frogged, possibly stamped but obscured by mortar. Flat surfaces; sharp arrises. Diagonal pressure mark.
1004	1800-1900	PM	Vitrified	Brick	8	1979	220+	-	66	H, M, Rd, V	Vitrified & distorted, blown. Slight indentation in base - shallow frog? But too damaged for secure ID. Greyish lime mortar on top, base and stretcher. Diagonal pressure mar. Where atthey survive, arrises are sharp. 18th to early 19th?? Very coarse calc carb inclusions in fabric.
1106	1666-1850	PM	3032	Brick	2	2423	222	100	64	M, Ru?	2 conjoin. Unfrogged; flat faces except for one warn stretcher - water eroded? Yellow-speckled surfaces, diagonal pressure mark. Pink/light orange mortar with brick dust aggregate. Late 17th/18th c?
1106	16661850	PM	3032	Brick	2	3149	245	105	61	M, Ru?	2 fragments, unfrogged, mortared together with pinkish mortar cntaining brick dust. 1 fragment appears to have a cream-coloured mortar underlying pink, probably re-used. Late 17th/18thc?

Key: H = Heated; M = Mortar; PM = Post medieval; Rd = Reduced; Ru = Re-used; V = Vitrified

All measurements given in millimetres, (L = Length; B = Breadth; T = Thickness). Weight in grams

APPENDIX IV OASIS online data collection form

OASIS ID: *compassal-264521*

Project details

Project name	Blythe Road Thames Water Mains Replacement Works
Short description of the project	<p>In August and early September 2016 Compass Archaeology undertook an archaeological watching brief during Thames Water mains replacement works along the length of Blythe Road, West Kensington, in the London Borough of Hammersmith and Fulham. The archaeological monitoring took place over the course of three site visits with a total of 20 launch pits and open-cut trenches being recorded in detail to provide an illustrative sample of the underlying stratigraphy and any observed archaeological features. Natural geology was observed in several pits, present from a depth of between 0.40m and 0.86m below present ground levels. Often the natural was overlain by layers of made ground or levelling material, (either crushed red brick or compacted chalk dust and rubble), forming the original road base for the Victorian streets laid out in the mid-19th century. Where natural was not observed the trenches contained deep deposits of mixed silts often containing 19th century pottery. Some of these deposits were shown to be within large, steep sided cuts, interpreted as brickearth quarries, dug from the 17th century and into the 19th century to procure the raw materials used in the local brickmaking trade. Additional archaeological features observed included a brick wall footing, potentially part of the boundary to a 19th century bleaching and dyeing works at the west end of Blythe Road, and a brick-built sewer / drain crossing the southern arm of Blythe Road opposite the Post Office Savings Bank Building at the east end of the watching brief area.</p>
Project dates	Start: 03-08-2016 End: 08-09-2016
Previous/future work	No / No
Any associated project reference codes	BYE16 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Other 11 - Thoroughfare
Monument type	BRICK WALL FOOTING Post Medieval
Monument type	BRICK DRAIN Post Medieval
Monument type	QUARRY PITS Post Medieval

Significant Finds	POTTERY Post Medieval
Investigation type	"Watching Brief"
Prompt	Water Act 1989 and subsequent code of practice
Project location	
Country	England
Site location	GREATER LONDON HAMMERSMITH AND FULHAM HAMMERSMITH Blythe Road
Postcode	W14 0HB
Study area	0.7 Kilometres
Site coordinates	TQ 23717 79219 51.497858842955 -0.217508572149 51 29 52 N 000 13 03 W Line
Site coordinates	TQ 24212 79065 51.496365907963 -0.210434658297 51 29 46 N 000 12 37 W Line
Site coordinates	TQ 24224 78856 51.494484750684 -0.210335449259 51 29 40 N 000 12 37 W Line
Height OD / Depth	Min: 0.4m Max: 0.86m
Project creators	
Name of Organisation	Compass Archaeology
Project brief originator	Historic England
Project design originator	Compass Archaeology
Project director/manager	Geoff Potter
Project supervisor	Geoff Potter
Type of sponsor/funding body	Thames Water Utilities

Project archives

Physical Archive recipient	Museum of London archaeological archive
Physical Contents	"Ceramics"
Digital Archive recipient	Museum of London Archaeological Archive
Digital Media available	"Images raster / digital photography","Spreadsheets","Text"
Paper Archive recipient	Museum of London Archaeological Archive
Paper Media available	"Map","Notebook - Excavation',' Research',' General Notes","Photograph","Unpublished Text"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Thames Water Mains Replacement Works, Blythe Road, W14 0HB, London Borough of Hammersmith and Fulham. An archaeological watching brief
Author(s)/Editor(s)	Aaronson. J
Date	2016
Issuer or publisher	Compass Archaeology
Place of issue or publication	250 York Road, Battersea, SW11 3SJ
Description	A short summary report detailing the observations made during the watching brief. Includes background to the site; location, geology, topography, history and archaeology; methodology employed; written description of the deposits and features; conclusions reached. Text accompanied by historic plans, illustrative photography of pits / trenches, and site location plans. Appendices include pottery and CBM reports, OASIS from and London Archaeologist summary

APPENDIX V London Archaeologist Summary

Blythe Road, West Kensington, W14 0HB, TQ23944 79101 Geoff Potter Watching Brief
03.08.16 – 08.09.16 Thames Water Utilities Ltd BYE16

In August and early September 2016 Compass Archaeology undertook an archaeological watching brief during Thames Water mains replacement works along the length of Blythe Road, West Kensington, in the London Borough of Hammersmith and Fulham.

The archaeological monitoring took place over the course of three site visits with a total of 20 launch pits and open-cut trenches being recorded in detail to provide an illustrative sample of the underlying stratigraphy and any observed archaeological features.

Natural geology was observed in several pits, present from a depth of between 0.40m and 0.86m below present ground levels. Often the natural was overlain by layers of made ground or levelling material, (either crushed red brick or compacted chalk dust and rubble), forming the original road base for the Victorian streets laid out in the mid-19th century.

Where natural was not observed the trenches contained deep deposits of mixed silts often containing 19th century pottery. Some of these deposits were shown to be within large, steep sided cuts, interpreted as brickearth quarries, dug from the 17th century and into the 19th century to procure the raw materials used in the local brickmaking trade.

Additional archaeological features observed included a brick wall footing, potentially part of the boundary to a 19th century bleaching and dyeing works at the west end of Blythe Road, and a brick-built sewer / drain crossing the southern arm of Blythe Road opposite the Post Office Savings Bank Building at the east end of the watching brief area.