THAMES WATER MAINS REPLACEMENT WORKS KENNINGTON, NEWINGTON AND CAMBERWELL

HAMPTON 3612
LONDON BOROUGHS OF SOUTHWARK AND LAMBETH

AN ARCHAEOLOGICAL WATCHING BRIEF

Thames Water

COMPASS ARCHAEOLOGY

July 2010

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SITE CODE: TZA08
APPROXIMATE BOUNDING POINTS
NORTH: TQ 3194 7877
SOUTHWEST: TQ 3124 7755
SOUTHEAST: TQ 3260 7675

COMPASS ARCHAEOLOGY LIMITED
5-7 SOUTHWARK STREET
LONDON SE1 1RQ
Telephone: 020 7403 9660
Email: mail@compassarchaeology.co.uk

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Abstract

This report details the results of a programme of archaeological monitoring undertaken during Thames Water mains replacement works in the Newington, Kennington and Camberwell areas of the London Boroughs of Lambeth and Southwark between October 2008 and December 2009.

In over 1,300m of trenching only two areas of archaeological remains were recorded, both in the Camberwell area on Crawford Road and Warner Road. The former consisted of a section of well-preserved wood of probable 19th date, the exact nature of which is unknown. It is suggested that the wood may be the remains of either earlier trench shoring (perhaps related to the original Victorian pipework) or a feature relating to the pre-development period of Camberwell when the area was of a much more rural nature. In Warner Road two examples of buried soil horizons were recorded in section, both of which contained finds of 19th century date. No further archaeological finds or features were recorded during the course of the archaeological watching brief. Remaining trenching exposed modern road layers and service related deposits, and in places backfill contemporary with the original pipes was noted.

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1. Introduction

1.1 This report details the results of a programme of archaeological monitoring and recording undertaken during Thames Water Mains Replacement Works in the areas of Newington, Kennington and Camberwell, in the London Boroughs of Southwark and Lambeth, between 24th October 2008 and 16th December 2009. The areas of mains replacement works were approximately bounded to the north at NGR TQ 3194 3124, to the southwest at TQ 3124 7755 and to the southeast at TQ 3260 7675 (*cf.* Figure 2).

1.2 Over 1,300m of trenching was observed during the course of the archaeological watching brief, which involved both isolated pits and stretches of open cut excavations (*cf.* Figure 1). Regular monitoring visits were made and a standardised method of recording was employed; where archaeological remains were observed these were recorded in more detail and an increased programme of monitoring undertaken to ensure appropriate mitigation measures were in place.

1.3 This report was commissioned by Claudia Innes of Thames Water Utilities Ltd., following consultation with Mark Stevenson of English Heritage and Chris Constable of the London Borough of Southwark.

Figure 1: General view of Thames Water Mains Replacement Works open cut trenching along Crawford Street, looking northwest 2nd February 2009 (1m Scale).

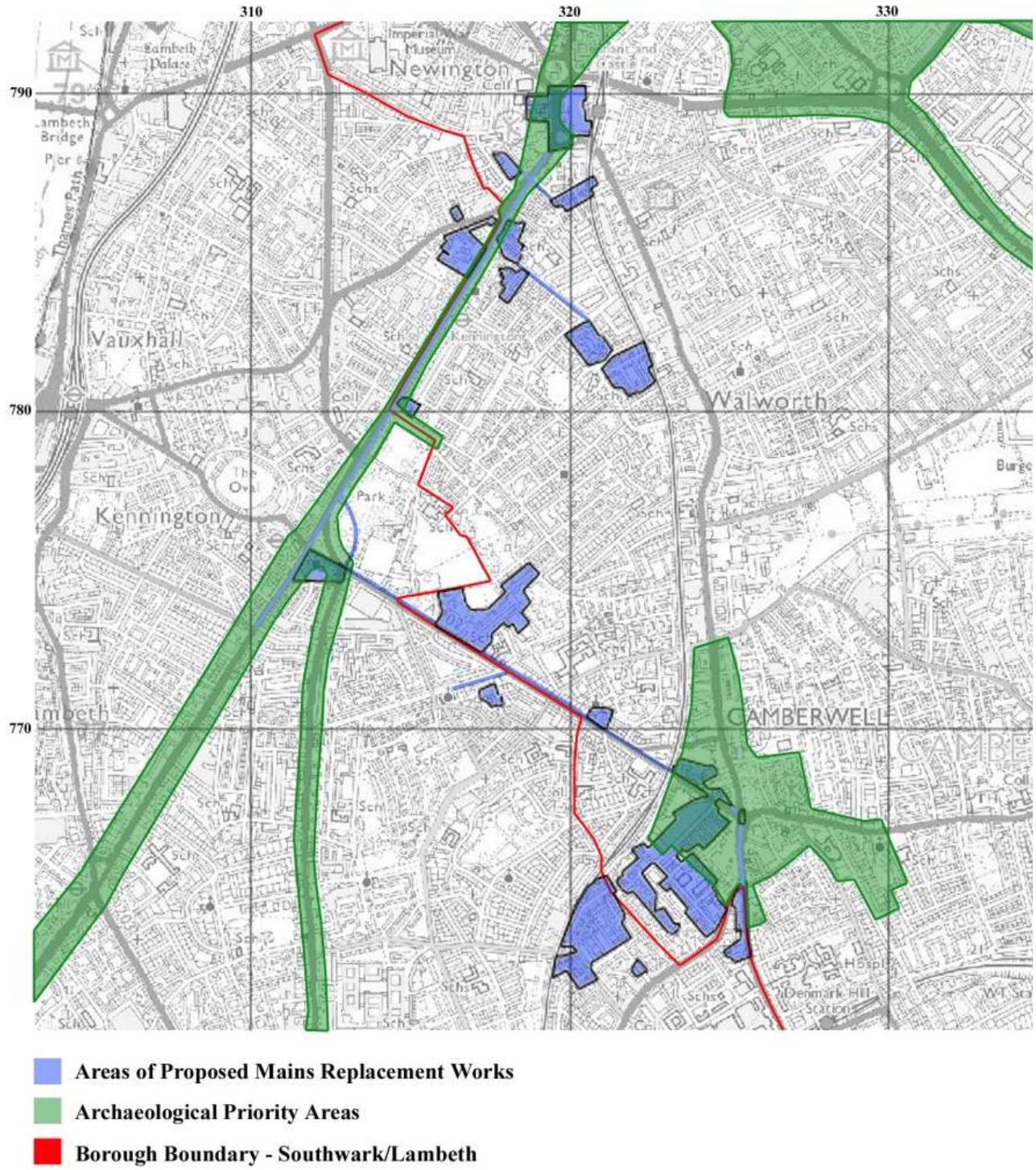

Figure 2: Location of archaeological monitoring during Thames Water Mains Replacement Works in the London Boroughs of Southwark and Lambeth.

2. Site Location and Geology

2.1 The areas of mains replacement works were approximately bounded to the north at NGR TQ 3194 3124, to the southwest at TQ 3124 7755 and to the southeast at TQ 3260 7675 (*cf*. Figure 2).

2.2 The British Geological Survey *(Sheet 270,* 1998) indicates that much of this area is covered by fairly recent River Terrace Deposits (Kempton Park and Taplow Gravels) described as gravel, sandy and clayey in parts. To the southeast in the area of Camberwell the area is shown as Langley Silt, sandy clay and silt ('brickearth').

3. Archaeology and the London Boroughs of Lambeth and Southwark

3.1 The London Boroughs of Southwark and Lambeth Unitary Development Plans (UDP) contain policies relating to archaeological remains and sites with archaeological potential. A number of the areas defined by Thames Water fall within these Borough defined zones and required a greater level of monitoring than those sites falling outside priority areas.

3.2 The London Boroughs of Lambeth and Southwark have located Areas of Archaeological Priority protected by policies 48 (Lambeth UDP) and 3.7/E.5.1 (Southwark UDP). These areas are useful in the assessment of the archaeological potential in this part of Greater London and are therefore listed below:

APA 1: Elephant and Castle/Kennington Park Road/Clapham Rd (A3)

"*This zone follows the line of Roman Stane St, from London to Chichester. In addition the Saxon and medieval village of Newington Butts lies within the priority zone."* (Southwark UDP: Archaeology).

The length of the modern A3 runs across both Boroughs of Lambeth and Southwark, indicating the alignment of the Roman road of Stane Street. Further detail on the archaeological nature and significance of this feature is provided below plus evidence for a possible road junction in the vicinity of Kennington Park (*cf*. Section 4).

APA 2: Camberwell

"This zone incorporates the Saxon and medieval village of Camberwell" (Southwark UDP: Archaeology).

APA 3: Brixton Road (A23)

This zone follows the line of the Roman London-Brighton Road and is defined as an Archaeological Priority Zone by the London Borough of Lambeth UDP.

4. Archaeological and Historical Background

4.1 Prehistoric

There is little evidence of prehistoric activity within the study area but there is some potential for prehistoric remains owing to the nature of geological deposits. Gravel terrace sites within London have produced a variety of prehistoric evidence. However, early prehistoric occupation of this area of south London was probably restricted to transitory or nomadic hunter-gatherer groups and later more settled occupation is likely to have occurred further north in closer proximity to the River Thames and along the valleys of its tributaries.

4.2 Roman

The modern A3 (Kennington Park Rd/Clapham Rd) and A23 (Brixton Rd) follow the lines of the Roman roads of Stane Street and the London-Brighton Road respectively. Stane Street was constructed to connect Chichester *(Noviomagus)* – the then tribal capital of Roman Sussex – with London by the most direct route available according to the natural topography of the landscape. The earliest sections of Stane Street, connecting Chichester with its immediate environment, were probably constructed around 60-70 AD, based on artefactual evidence recovered from excavations along its length. However, the alignment of Stane Street approaching London Bridge along the Kennington Park Road was probably constructed some time later as London began to emerge as a provincial capital and the roads were extended accordingly. Excavations at Newington Causeway, immediately north of Elephant and Castle exposed areas of compact gravel surfaces thought to represent the alignment of Stane Street.

The London-Brighton Road (sometimes referred to as the London-Portslade Road) is thought to have branched off Stane Street at or near Kennington Park and continued south along to the existing A23 (Brixton Road) through Streatham and Croydon towards Brighton.

There is little evidence for activity or settlement associated with either road in this area. The majority of the study area was largely unoccupied marshland, with the nearest major settlement situated in Roman Southwark to the north, in the immediate vicinity of London Bridge. Some evidence of agricultural activity and ditches has been exposed in Newington in the north of the study area and a number of find spots are listed. The roads themselves are fairly typical construction, consisting of metalled foundations, cambered clay *agger* and surface flint metalling, probably with flanking ditches constructed either side. Beyond the roads themselves, potential for Roman remains is probably fairly limited with evidence for small-scale agricultural activity and occupational debris most probable.

4.3 Saxon and Medieval

The Southwark UDP identifies the *"Saxon and medieval village of Camberwell"* as an Archaeological Priority Zone, as shown on Figure 1 below. Little is known of the Saxon settlement of Camberwell and few archaeological investigations have produced evidence of occupation of this period. The Parish Church of St Giles is thought to be Saxon in origin, with a structure of some significance thought to have stood on the

site possibly as early as the 7th century and a church is mentioned in the Domesday Survey of 1086. The church was subject to much alteration across the centuries, with the addition of a north aisle in 1520 and significant enlargement in 1786. The structure was destroyed by fire in 1841 and subsequently rebuilt and consecrated by the Bishop of Winchester in 1844.

The Domesday Survey refers to '*Ca'brewelle*', which is listed with assets of six hides and one virgate; one church, eight ploughs, 63 acres of meadow and woodland worth 60 hogs. The name is probably derived from the Old English meaning '*well*' or '*spring*' and may have referred to the natural springs associated with the area. Alternatively, the name may refer to the Saxon for '*Cripple*', and the associated of the St Giles, patron Saint of cripples, it is possible that the name means '*Cripple Well'* and refers to the medicinal properties of the natural waters. Prior to the Norman Invasion, Camberwell consisted of a single manor held of Edward the Confessor and subsequently William the Conqueror by *Haims* or *Haimo,* Viscount of the Brixton Hundred and Sheriff of Surrey. Camberwell was subsequently split into seven separate manors, passing through various illustrious family lines of the times and generally remaining large open-countryside retreats.

Newington is not mentioned in the Domesday survey of 1086, but a church nearby at Walworth is listed and it is likely that the structure was later relocated west leading to the name *Neweton* or 'New Town'. The addition of '*Butts*' to the name of the parish may have derived from the practice of setting up archery butts in the area, or possibly from the family name associated with the area. In itself, Newington Butts seems to have a relatively minor settlement and parish. Its prosperity seems to have relied largely on two factors, the establishment of Lambeth Palace by the archbishopric in *c.*1200 and the association with the area of Elephant and Castle immediately north which formed a major crossroads for travellers between London and the South.

Kennington is referred to in the Domesday Survey of 1086 as *Chenintune* and is listed as held by Theodoric the Goldsmith of Edward the Confessor, rendering one hide, three virgates, three ploughs and four aces of meadow. The name may have derived from the Saxon *'Kyning-tun'* referring to the place, or town of the King. The area clearly had some significance in this period although little archaeological evidence of Saxon occupation has been found. At some point the estate reverted back to the Crown and in 1337 was given by Edward III to his son Edward 'The Black Prince'. The Prince built a substantial palace on the site in the 13th century and the street names still bear reference to this in the form of 'Black Prince Road'. In the 17th century the manor of Kennington was settled on the Prince of Wales and much of the area still remains under ownership of the current Prince of Wales.

4.4 Post-medieval

Camberwell seems to have remained a relatively small, rural settlement until well in to the 19th century. The population in 1725 is listed as a mere 1520, but with the arrival of the railways in the 1860s (as with much of South London) the village was transformed, with its population reaching 111 and by 1871 the population was 306. A comparison of Rocque's map of 1746 with Stanford's Library map of 1862 shows the dramatic development of Camberwell in this period (*cf.* Figures 3 and 4 below). Camberwell became a parliamentary borough by the *Redistribution of Seats Act 1885,*

and later a metropolitan borough by the *London Government Act 1899.* This remained until 1965 when Camberwell was absorbed in the London Borough of Southwark and lost its own Borough status.

Newington appears to have developed in a similar fashion to Camberwell, being gradually drawn into urban London with the establishment of extended transport routes to the south, notably with the construction of new bridges over the Thames. The post-medieval period saw the expansion of this part of south London as people began to take up residence outside of the main urban centre. A number of the surviving Georgian terrace houses are now designated as Conservation Areas by the existing Southwark UDP.

In the early post-medieval period Kennington was considered of some political importance. Kennington Common, now Kennington Park was the site of the Surrey Gallows where in 1746 nine Scottish rebels of the Jacobite Rebellion were executed. Kennington developed in similar form to Newington and Camberwell in this period, becoming a popular residential area with a number of Georgian terraces constructed in the 18th and early 19th centuries. In 1845 the Surrey Cricket Club was founded at Oval and the first test match was played there in 1880. Further political fame arrived at Kennington in 1848 when the common was the site of major Chartist demonstrations in their campaigns for political reform.

5. Archaeological Research Questions

5.1 The objectives of the archaeological watching brief included contributing to the knowledge of the archaeology of the area through the recording of any remains exposed as a result of excavations in connection with the groundworks. Particular attention was made to the character, height below ground level, condition, date and significance of the deposits. The fieldwork presented an opportunity to address the following general and specific research questions:

- Is there any evidence for prehistoric to medieval activity, and what is the nature of this? What evidence is there for historic settlement, in particular the Saxon and medieval village of Camberwell?
- Is there any evidence for the line of the Roman road (Stane Street); this could include metalled surfaces as well as associated features such as ditches? Also, is their any evidence in the Kennington Park area for the postulated junction with the London-Brighton Road?
- What evidence is there for post-medieval activity, and what is the significance of this?
- At what level do archaeological deposits survive in the highways across the area?
- Can the watching brief works inform on the site-specific research questions of local archaeological sites and archaeological priority areas?

6. The Archaeological Programme

6.1 Standards

The field and post-excavation work was carried out in accordance with current English Heritage guidelines (in particular, *Standards and Practice in Archaeological Fieldwork, Guidance Paper 3)* and to the standards of the Institute for Archaeologists *(IfA Standard and Guidance for Archaeological Watching Briefs).* Overall management of the project was undertaken by a full Member of the Institute.

The recording system followed the procedures set out in the Museum of London recording manual. By agreement with MoLA the recording and drawing sheets used were directly compatible with those developed by the museum.

6.2 Fieldwork

The archaeological watching brief took place during contractors' groundworks, and involved one archaeologist on site as required to monitor works and to investigate and record possible archaeological remains. Close liaison was maintained with the groundworks team to ensure a presence on site as and when necessary.

Where possible archaeological remains were exposed adequate time was allowed for investigation and recording, although every effort was made not to disrupt the contractors' programme. Where possible, excavation was undertaken using a flat bladed bucket (working in a single direction) to enable archaeological remains to be cleanly recorded prior to disturbance. Where possible archaeological remains were encountered, machine excavation ceased to allow the remains to be investigated further.

6.3 Methodology

Archaeological deposits and features were investigated and recorded in stratigraphic sequence, and the facility was in place for full finds dating and environmental evidence to be recovered. There were no deposits requiring environmental sampling recovered from this watching brief.

All observed groundworks were recorded using a standardised system. Individual record sheets were completed for each excavation noting location, dimensions, method of excavation, sequence and description of exposed deposits and presence/absence of archaeological remains. Records were supplemented with photography as necessary.

7. Post-Excavation Work

The fieldwork was followed by off-site assessment and compilation of this report, and by ordering and deposition of the site archive.

7.1 Finds and Samples

Arrangements were in place for finds and samples to be treated in accordance with the appropriate guidelines, including the Museum of London's *'Standards for the Preparation of Finds to be permanently retained by the Museum of London'*. Assessment of finds was undertaken by appropriately qualified staff, although in fact there was no significant material. Similarly, no samples were taken during the project.

7.2 Report Procedure

Copies of this report will be supplied to the Client, to the Archaeological Advisors at English Heritage and the London Borough of Southwark, to the respective local studies libraries and to LAARC.

8. The Site Archive

The records from the archaeological project will be ordered in line with MoL *Guidelines for the Preparation of Archaeological Archives* and will be deposited as part of a programme of deposition in the Museum of London Archaeological Archive.

9. The Archaeological Watching Brief

Archaeological monitoring of Thames Water mains replacement works in the Newington, Kennington Park Road and Camberwell areas of the London Boroughs of Southwark and Lambeth commenced on 24th October 2008. All monitored works are detailed below and the nature and extent of exposed deposits and features is discussed and supplemented with photographic records as appropriate. The majority of trenching exposed modern road layers and underlying made-ground or service related deposits with no archaeological finds or features observed, although natural geological horizons were present at the lower level in many areas. Archaeological deposits or features were recorded in a small number of excavations, although these were restricted to fairly recent periods (mostly 19th century) and are not considered highly significant.

9.1 Newington

9.1.1 Penton Place

Approximately 230m of open cut excavations were observed along Penton Place, in the form of various stretches of open cut trenching and launch pits for pipe bursting and insertion. Table 1, below, lists the monitoring visits in relation to the excavations observed and should be read in conjunction with location plan in Figure 4 below.

Figure 3: Trenching on Penton Place (26th November 2008 1m Scale), with right: detail of the trench section on Penton Place, shown the natural silty clay appearing at *circa* 0.7m below the current ground surface (Scale 1m).

Street	Date of Visit	Method	Location	Length (m)	Width (m)	Depth (m)
Penton Place	30.10.2008	OC	North side, running southeast from Canterbury Avenue junction.	10.5	0.5	1.2
	31.10.2008	OC	Extension of above, running southeast	7	0.5	1.7
	04.11.2008	TP	Trial Hole A - North side, east of junction with Iliffe Street.	1.25	1.25	1.1
		TP	Trial Hole B - North side, west of junction with Amelia Street.	1.42	0.84	0.7
		TP	Trial Hole C - North side, east of junction with Amelia Street.	1.45	0.85	0.31
	14.11.2008	OC	North side, between Iliffe Street and Amelia Street	40	0.3	1
	26.11.2008	OC	North side, from east of junction with Amelia St to No 83.	70	0.3	1.1
	14.01.2008	OC	North side, 8m short of junction with Kennington Park Rd to Newington Estate	100	0.6	0.97
				231.62		

Table 1: Excavations on Penton Place (locations and dimensions). OC stands for Open Cut and TP for Trial Pit/Launch Pit

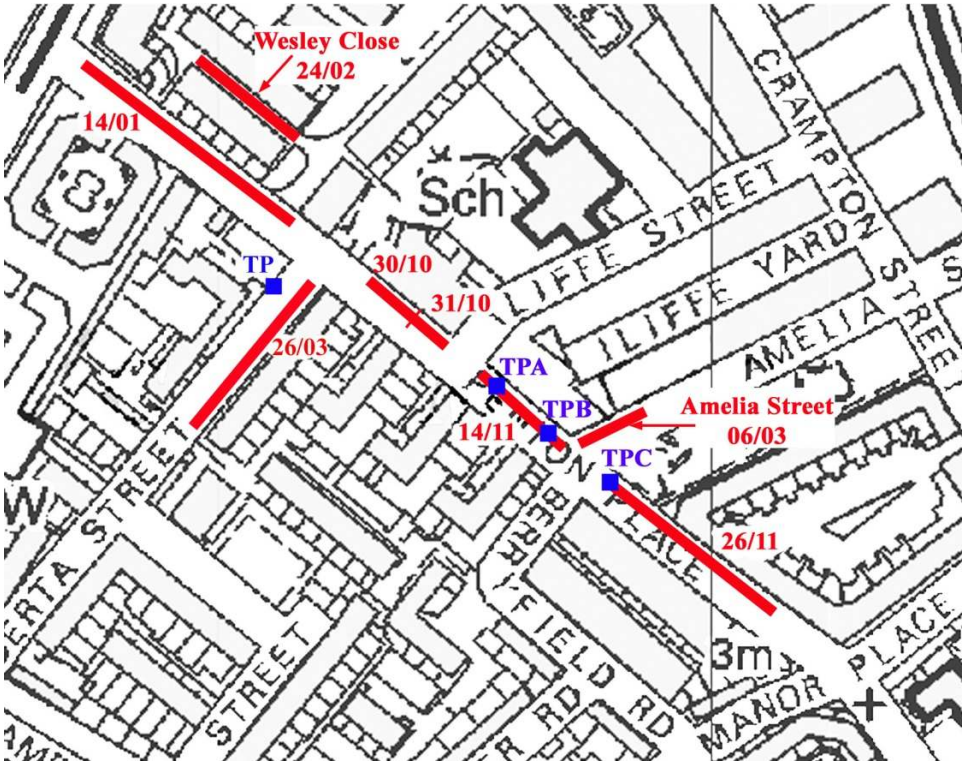

Figure 4: Locations of Penton Place replacement works as listed in Table 1, in relation to the Ordnance Survey 1:2500 map.

The majority of works on Penton Place exposed the existing tarmac road surface overlying concrete hardcore, in turn overlying a series of service backfill deposits and modern made-ground. Natural gravels were observed at the base of excavations northwest of the Iliffe Street junction (monitoring visits of the 30th and 31st October 2008), and elsewhere redeposited gravels were incorporated in made-ground layers. No archaeological finds or features were observed in Penton Place during the course of the archaeological watching brief, along natural gravels and clays were observed at *circa* 0.8m below the current ground surface below. Made-ground observed during trenching between Iliffe St and Amelia Street (14th November 2008) produced large pieces of York Stone, a very hard sandstone often used in slabs for paving (*cf*. Figure 5 below). The examples retrieved from the Penton Place trenching are of no great significance and appear to be simple residual inclusions in a made-ground deposit.

Figure 5: Trenching on Penton Place (14th November 2008 1m Scale), a sample of York Stone (10cm scale).

Trenching between Iliffe Street and Canterbury Avenue (31st October 2008) exposed the remains of a brick-built arched drain cut by the cast-iron Victorian mains pipe. The drain clearly predates the water main although the bricks, mainly red and yellow stock bricks, indicate a 19th century date. This may relate to water or sewage works in place before replacement by the later cast-iron pipes. The drain ran approximately north-south crossing the northeast-southwest aligned water main. It was recorded to a height of five courses in the base of the Penton Place trench, running out of the southwest facing section into the trench for approximately 0.9m before being cut by the more recent iron pipe. There were no obvious structural remains south of the pipe, running into the northeast facing section.

Figure 6: Section of brick drain in trenching on Penton Place (view southeast; 0.5m scale).

9.1.2 Alberta Street

75m of trenching was excavated on the south eastern side of Alberta Street, approximately 0.5m from the kerb and running between the Penton Place junction and the end of the terraced properties (*cf*. Figure 4 above). The trenching was backfilled and reinstated during archaeological monitoring, and a smaller square excavation on the north western side of Alberta Street was inspected and recorded. The pit was located immediately south of the car park entrance on the corner of Alberta St and Penton Place, it measured *c.* 2.5m by 1.5m in plan and was excavated to a depth of some 1.1m. In both these areas tarmac and concrete hardcore were observed overlying modern services and associated backfill deposits – no archaeological finds or features were observed (*cf*. Figure 7).

Figure 7: General view of a VMR launch pit on Alberta Street (26th March 2009).

9.1.3 Wesley Close

A single open cut trench was observed on Wesley Close, part of the Newington Estate to the north of Penton Place *(cf.* Figures 4 and 8). The trench measured approximately 50m in length by 0.34m in width and was excavated to an average depth of 1m below the existing tarmac road surface. Exposed deposits consisted of a bitumen base immediately beneath the tarmac overlying concrete hardcore road-makeup, modern services and associated deposits – no archaeological finds or features were observed.

Figure 8: Open cut trenching on Wesley Close, view looking northeast and above view of the east facing section showing modern make-up layers (1m Scale).

9.1.4 Amelia Street

Approximately 39m of open cut trenching was observed on the north side of Amelia Street running west from the junction with Penton Place (*cf.* Figure 4). The trench was an average of 0.5m in width and excavated to a maximum depth of 1.3m. The excavations exposed initial layers of tarmac and concrete overlying redeposited natural gravels, this in turn overlay apparently undisturbed deposits of natural gravels and clay to the base of the trench – no archaeological finds or features were observed.

9.1.5 Penrose Street and Penrose Grove

A total of 145m of trenching was monitored from the junction with Penton Place running east towards the Walworth Road and south along Penrose Grove (*cf.* Figure 9 below). A stretch of trenching from the Penrose Place junction to the railway bridge was partly backfilled and reinstated prior to monitoring, but excavations to the south and east were observed and fully recorded. Trenching was open cut at an average of 0.5m in width and excavated to a depth of between 0.95m and 1.2m below the existing tarmac ground surface. In both cases deposits consisted of existing road

layers over reinforced concrete and modern services and backfills. No archaeological finds or features were observed.

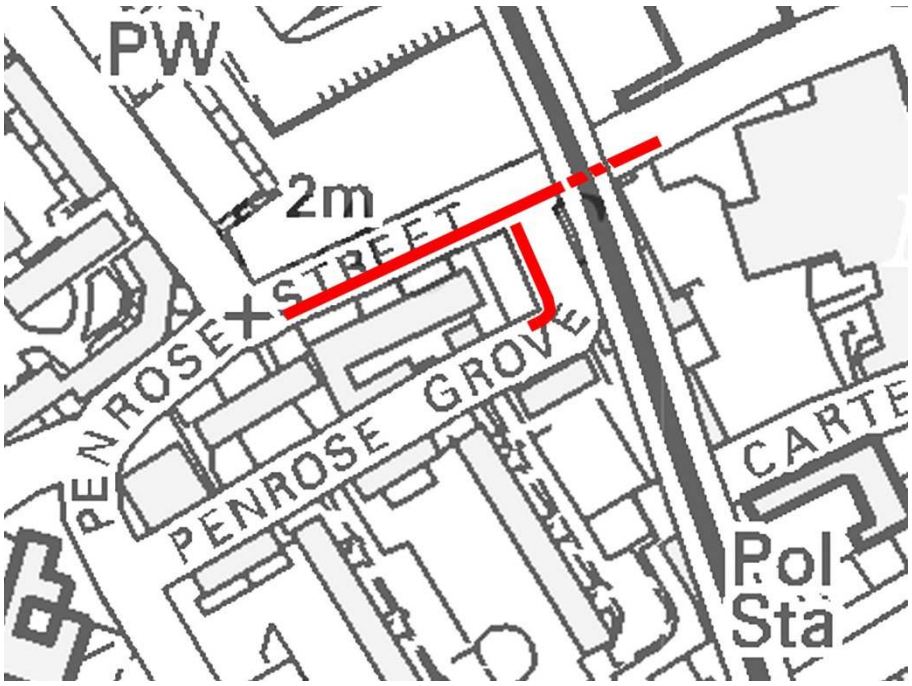

Figure 9: Location of Penrose Street and Penrose Grove works.

9.1.6 Newington Butts

Open cut trenching was observed on Newington Butts at the junction with Kennington Park Road and Kennington Lane. The trenches exposed existing road tarmac overlying concrete hardcore and modern road makeup layers to a depth of some 0.8m, the trench was excavated to an average width of 1m. No archaeological finds or features were observed.

9.2 Kennington

9.2.1 Kennington Park Road

The majority of works along Kennington Park Road employed the pipe bursting method of mains replacement, and consequently only limited observable excavation could took place. However, as the road and immediate vicinity is designated an Archaeological Priority Area, lying along the line of the Roman road of Stane Street, it was ensured that excavations taking place were observed thoroughly. Almost 150m of trenching was observed along Kennington Park Road and Kennington Lane over a series of visits – the dates of these monitoring visits are listed in Table 2 below in relation to the observed excavations, and should be read in conjunction with the location plan in Figure 13 below.

Street	Date of Visit	Method	Location	Length (m)	Width (m)	Depth (m)
K'Park Road	28.08.2009	LP	Kennington Park, south end adjacent to Camberwell Road.	1	1	1
	23.09.2009	OC	Inside Kennington Park, northwest corner immediately adjacent to Kennington Park Road.	30	0.5	1.2
	24.11.2009	OC	Junction of Kennington Park Road and Kennington Road.	4	0.5	0.9
	01.12.2009	LP	East pavement outside Nos 63-73 Kennington Park Road.	6	1	0.85
	04.12.2009	LP	East pavement outside No 61 Kennington Park Road.	8	1.5	1.1
K'Lane	12.11.2009	OC	East carriageway at the junction with Kennington Park Road.	100	0.5	0.7
			Total:	149m		

Table 2: Excavations on Kennington Park Road and Kennington Lane (locations and dimensions).

No evidence of the survival of archaeological remains relating to the Roman Road was observed during the course of monitoring of excavations along and around Kennington Park Road. In general, existing tarmac road surfaces or paving slabs were observed in sand bedding and overlying concrete hardcore to varying depths. Modern road makeup layers were observed beneath consisting of varying depths and consistencies of brick rubble in sand and clay matrices with concrete inclusions. A number of the excavations exposed the backfill deposits contemporary with the original pipes and contained typical 19th century finds including fragments of yellow London stock brick. No archaeological finds or features of significance were observed during the course of monitoring.

Figure 10 Example of one of the shallow launch pits on Kennington Park Road (1st December 2009).

Figure 11 Example of one of the launch pit sections on Kennington Park Road, in the vicinity of no. 161 Kennington Park Road (1st December 2009, 1m Scale).

Two areas of trenching were observed in Kennington Park itself, at the northern end (23rd September 2009) and the southern end (28th August 2009). Both excavations exposed topsoil to an average depth of 0.4m below the existing ground level, overlying mixed made-ground deposits containing modern concrete and brick inclusions. Heavy rooting was observed in the sections in both areas.

Figure 12: Trenching in Kennington Park (23rd September 2009, 1m Scale).

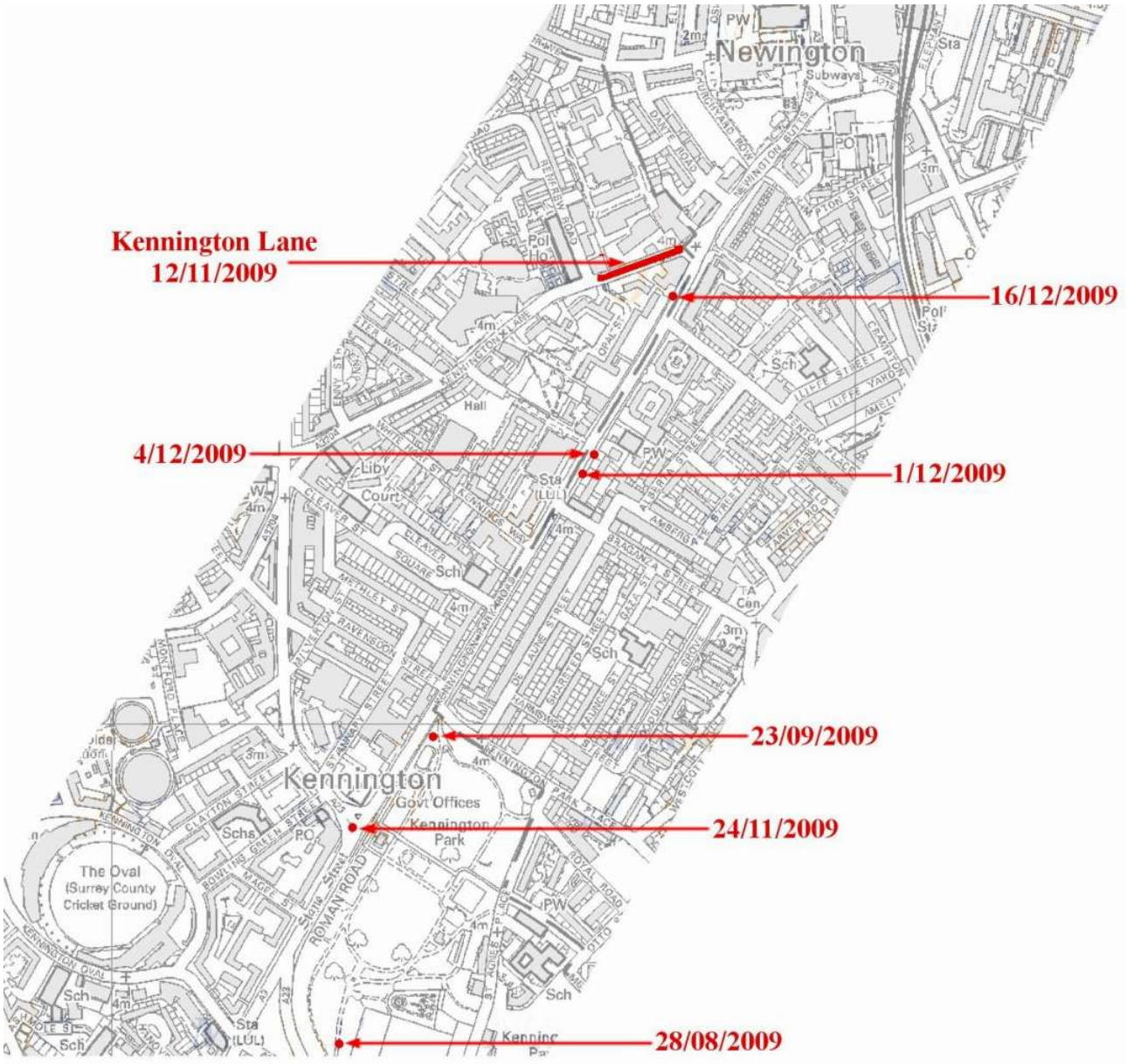

Figure 13: Location of works along Kennington Park Road and Kennington Lane.

9.2.2 Prima Road and Brixton Road

Some 107m of trenching was observed on Prima Road between the junctions with Clapham Road (west) and Brixton Road (east) and a further 21m was observed to the north along Brixton Road itself. The monitoring visits to these two areas are listed below in Table 3 in relation to the location and extent of the excavations, it should be read in conjunction with the location plan in Figure 14.

Street	Date of Visit	Method	Location	Length (m)	Width (m)	Depth (m)
Brixton Road	09.10.2009	OC	Two trenches in the west carriageway immediately north of the Prima Road junction.	21	0.71 – 1.71	0.76 – 1.4
Prima Road	08.07.2009	LP	North carriageway c.1.8m south of kerb and 13m east of churchyard corner.	7.5	2.1	1.9
	22.07.2009	LP	As above, fully sheet piling in place.	-	-	-
	12.08.2009	OC	South carriageway c.2m north of kerb between Clapham Road junction (west) and c.25m east of Offley Road junction (east)	100	0.75	0.9-1.4
			Total:	128.5		

Table 3: Excavations on Prima Road and Brixton Road

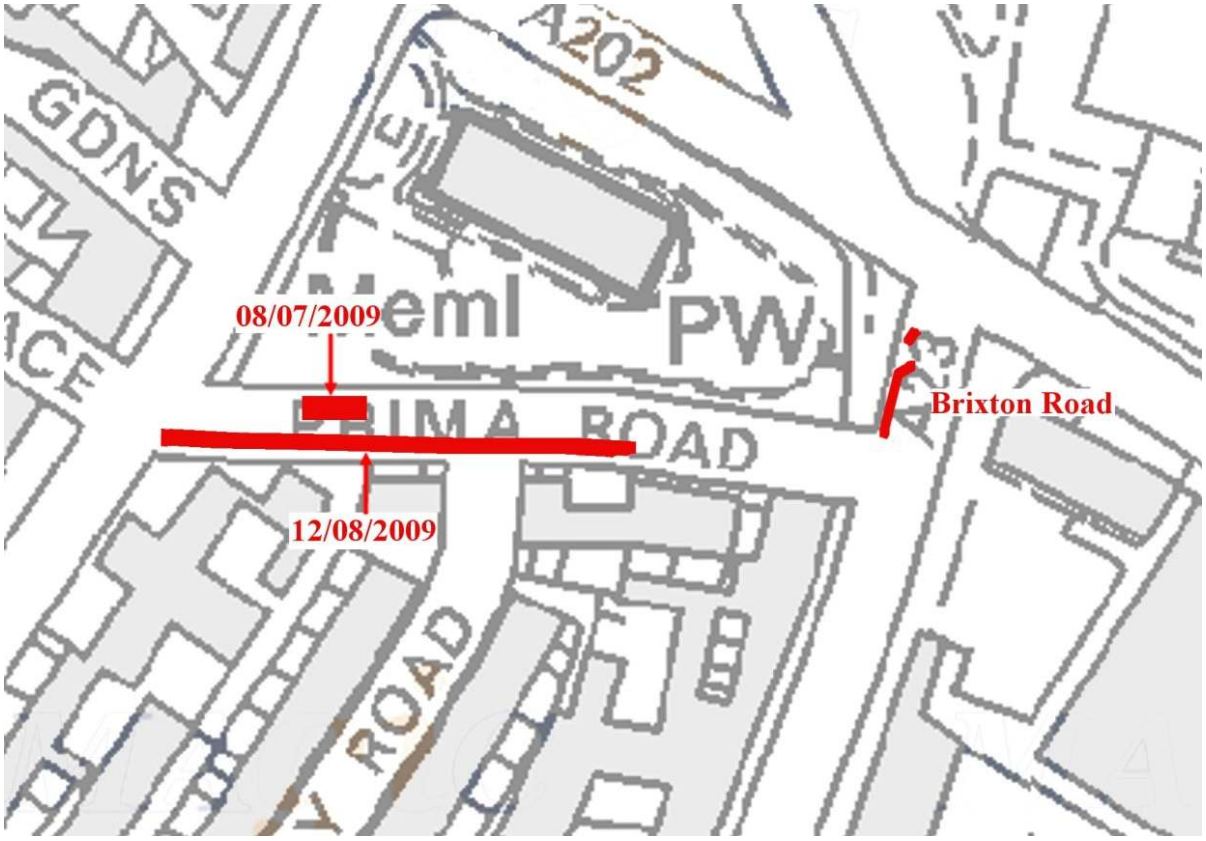

Figure 14: Location of trenching on Prima Road and Brixton Road.

Monitoring on 8th July 2009 observed a large 7.5m launch pit on the north side of Prima Road some 15m east of the corner of St Mark's churchyard. The trench measured some 2.10m in width and was excavated to an average depth of some 1.9m below the existing ground surface. The excavations exposed existing tarmac road surface and concrete hardcore overlying orange/brown sand and gravel natural at a depth of 1.4m.

Figure 15: General view and detail of section of trenching on the north side of Prima Road, with natural sandy gravels visible at 1.4m below the current ground surface. (8th July 2009, 1m scale).

Along the south carriageway between the junction with Clapham Road and east of the Offley Road junction, some 100m of trenching was observed, at an average width of 0.75m and excavating to between 0.95m and 1.4m in depth. Existing road tarmac was

observed overlying coarse concrete hardcore along the full length of the trench. Varying depths and compositions of modern made-ground layers were observed, including yellow stock brick rubble which may reflect demolition or destruction of earlier Victorian buildings in the area. Greyish brown sandy-clay was observed below 0.9m in some areas of trenching with occasional red and yellow brick inclusions. No archaeological finds or features were observed in trenching along Prima Road.

Figure 16: Trenching on the south side of Prima Road and section below, showing natural clayey gravels appearing at *circa* 1m below the current ground surface (12th August 2009, 1m Scale).

Two trenches were observed on Brixton Road, between the junctions with Prima Road and Camberwell New Road. Both trenches exposed existing tarmac overlying two concrete hardcore deposits to a depth of some 0.5m. Orange/brown sand and gravel ballast was observed below, occasionally cut by the shingle backfill of modern service cuts. No archaeological finds or features were observed.

9.3 Camberwell

9.3.1 Warner Road

Approximately 187m of excavations were observed along Warner Road, between Camberwell New Road to the north and Denmark Road to the south. The excavations consisted of both open-cut trenches and trial pits, the locations of which are shown on Figure 17 below and listed in Table 4. The majority of excavations on Warner Road exposed existing road layers and concrete hardcore overlying made-ground and service related deposits. Natural deposits were observed between 0.6m and 0.8m below the existing ground level, consisting largely of sand and gravels occasionally exposing silty clay lenses.

Street	Date of Visit	Method	Location	Length (m)	Width (m)	Depth (m)
Warner Road	05.11.2008	TP	Trial Hole A - Opposite Cranmere Court (north side)	1.23	0.4	1.02
		TP	Trial Hole B - Outside Camberwell Bus Garage front entrance (north side)	1.57	0.43	0.58
		TP	Trial Hole C - Outside No. 55 (south side)	1.7	0.4	0.95
		TP	Trial Hole D - South side east of Crawford Road	1.3	0.5	1
		TP	Trial Hole E - South side, west of Crawford Road	1.6	0.5	1
	14.11.2008	OC	South side, from north side of Crawford Road junction to Cranmere Crt.	50	0.55	1.3
	16.01.2009	OC	South side, from Camberwell Road junction to 2nd driveway	60	1	1.3
		OC	South side, between Denmark Hill and Lowth Road	70	0.5	1.15
				187.4		

Table 4: Excavations on Warner Road.

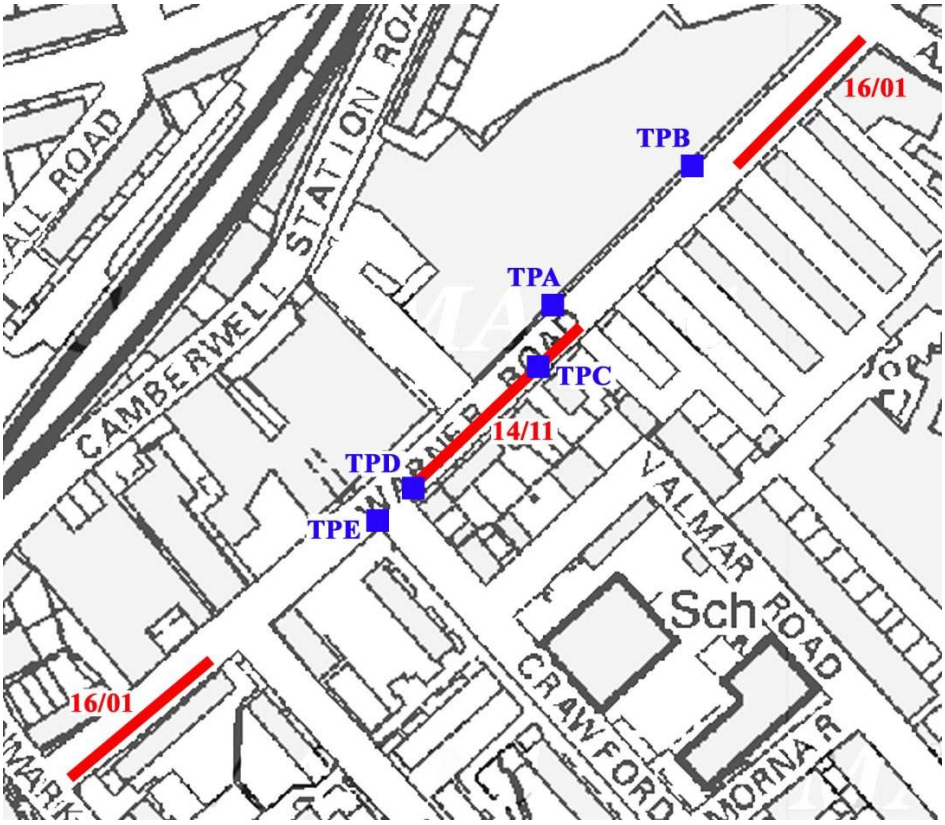

Figure 17: Location of Warner Road works.

Two excavations (Trial Pits C and D) exposed probable buried soil horizons overlying the natural layers and beneath the more recent ground makeup above. In both cases the deposits contained fragments of stock brick and tile and are considered to be of 19th century date. Camberwell, while an established settlement from as early as the Saxon period, remained small and rural until well into the 19th century, thereafter expanding rapidly – in part due to the arrival of the railways. These deposits may well date from the more rural settlement around Camberwell, reflecting buried plough or agricultural deposits, which were subsequently sealed during the development of the roads and surrounding properties.

Figure 18: Buried soil horizons observed on Warner Road in excavated Test Pits B (left) and C (right). 1m scale

Figure 19: Top Location of Test Pit A on Warner Road and (below)Trenching looking southwest along Warner Road (4th and 14th November 2008, 1m Scale).

Figure 20: Top Warner Road southeast facing section looking southwest towards the junction with Denmark Road and (below) the southwest end of trenching in Morna Road, both areas revealed silty sandy gravels at circa 0.8m below the current ground (16th January 2009, 1m Scale).

9.3.2 Crawford Road

Approximately 214m of trenching was observed along Crawford Road between Warner Road to the northwest and Coldharbour Lane to the southeast (*cf.* Figure 21 below). The excavations consisted of both sections of open cut trenching and small, shallow test pits excavated within the pavement (see Table 5 below).

Street	Date of Visit	Method	Location	Length (m)	Width (m)	Depth (m)
Crawford Road	19.11.2008	OC	North side between Coldharbour Lane and Morna Road	95	0.48	1.25
	02.12.2008	OC	North side, west of Morna Road to east of Valmar Road	100	0.5	1.3
	16.01.2009	TP	Pavement, north side between Warner Road and Valmar Road	1.2	0.3	0.15
	11.02.2009	OC	From junction with Warner Road, north side.	18	0.6	1.12
				214.2		

Table 5: Excavations on Crawford Road.

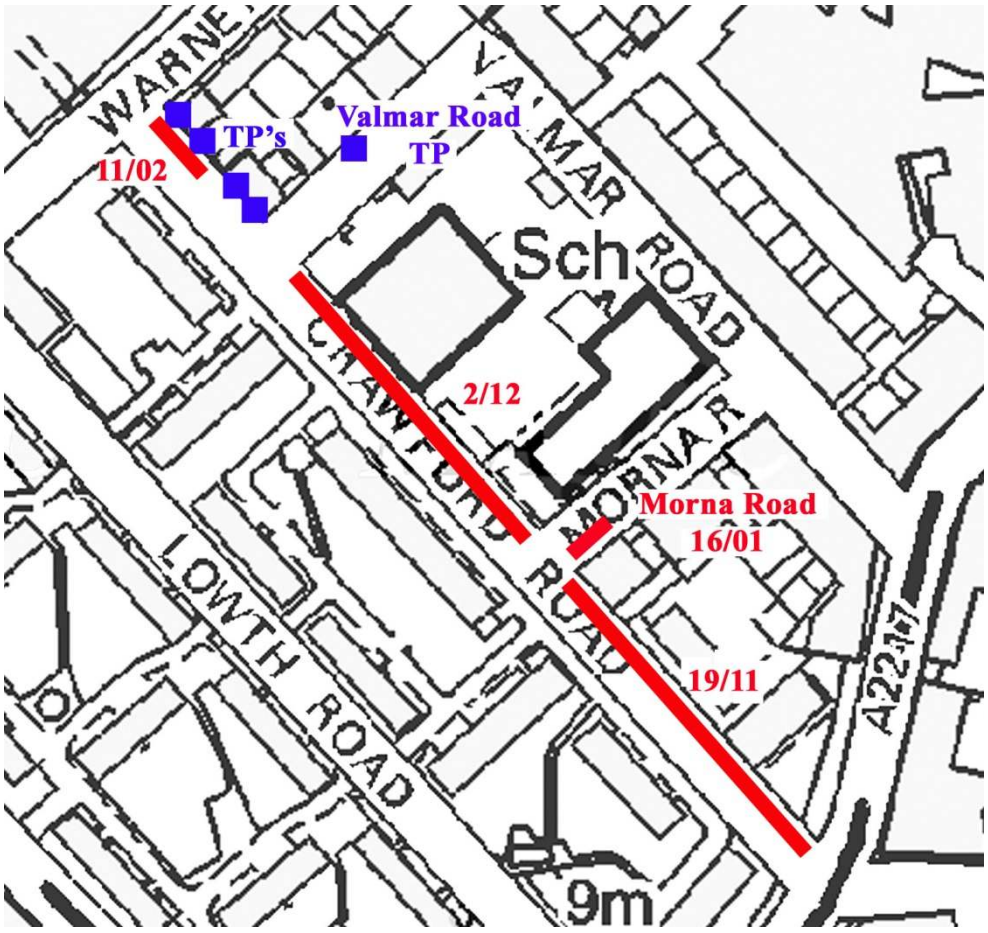

Figure 21: Location of Crawford Road, Morna Road and Valmar Road works.

All excavations undertaken on Crawford Road exposed existing road layers and hardcore, while in the deeper open cut trenches made-ground and service backfills were observed overlying natural sand gravels. Trenching southeast of the Valmar Road junction (2/12 and 19/11) exposed probable buried soil horizons, very similar to those observed on Warner Road (above), with similar inclusions and probably dating from the same period of rural occupation in the 19th century.

Trenching at the northwestern end of Crawford Road, running southeast from the junction with Warner Road, exposed existing road layers overlying *c.* 0.5m of redeposited sands and gravels beneath which a length of degraded wood was observed in the southwest facing section. The wood was recorded at a depth of *c*. 0.65m below the existing ground surface and measured 0.25m in height. It was observed running at length of 6m+ along the section and was *c.* 70mm thick. Limited rooting was observed in places around the plank and a very dark humic soil was noted underlying the plank to the north, while to the south the wood appeared to directly overly truncated natural gravels. The limited area of investigation makes accurate identification of the nature and use of this feature very difficult, although several possibilities can be suggested. It is possible that the wood represents 'shoring up' or supporting of trench sides during the laying of previous services, and that the present contractors trench was coincidentally located on the line of earlier excavations. Conversely, the wood may be an earlier feature, potentially related to pre-development 19th century rural occupation. In either case, the condition of the wood is relatively good indicating a fairly recent date of deposition.

Figure 22: Views of the wooden remains observed in trenching on Crawford Road (1m scale).

9.3.3 Morna Road

A small 5m section of trench was observed on the southwestern end of Morna Road, adjacent to the south kerb. The trench measured 1.2m in width and was excavated to a depth of 1.1m below the existing tarmac road surface. Exposed deposits consisted of rubble makeup and made-ground overlying natural sand and gravel deposits with occasional clay lenses from 0.7m below the current ground surface (Figure 20). No archaeological finds or features were observed.

9.3.4 Valmar Road

A single test pit measuring 1.44m by 1.43m was observed on the northern side of Valmar Road outside the driveway access to Sycamore Court (see Figure 9 above). Existing road tarmac was observed overlying concrete makeup and mixed service backfills. No archaeological finds or features were observed.

9.3.5 Camberwell New Road

Approximately 37m of trenching was observed on Camberwell New Road between the Camberwell Green roundabout to the southeast and the junction with Medlar Street to the northwest (*cf.* Figure 23 below). All trenches exposed the existing tarmac road layers overlying reinforced concrete hardcore, with mixed made-ground layers and service backfills beneath.

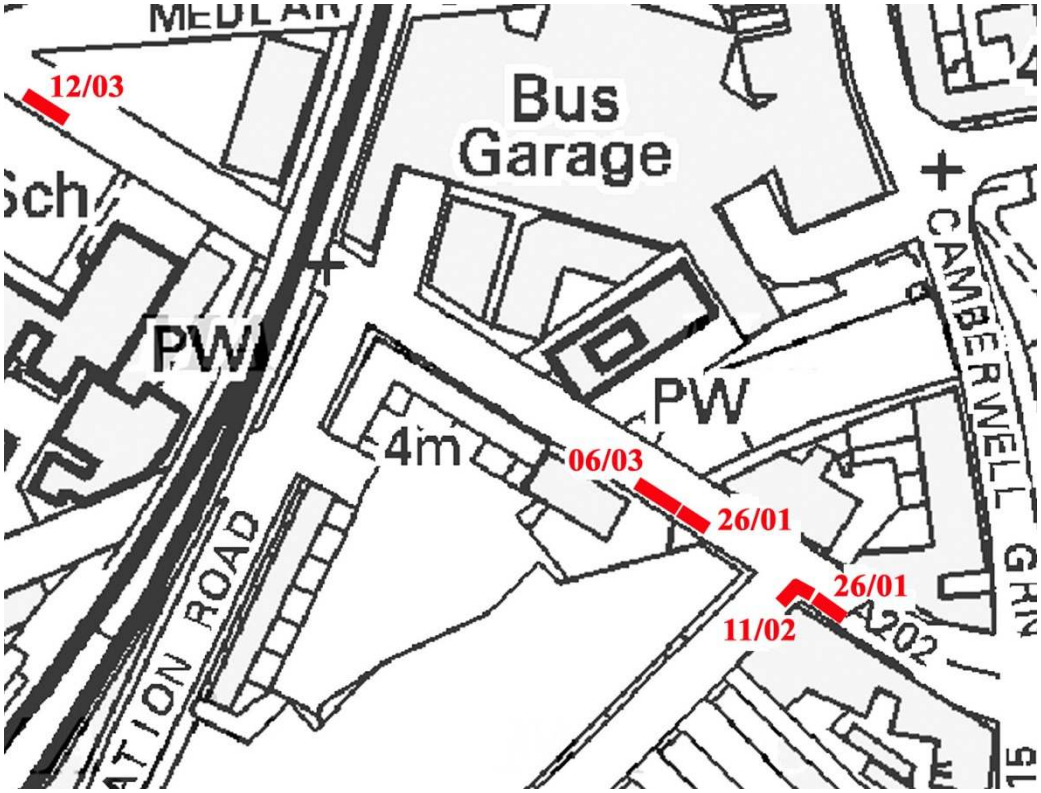

Figure 23: Location of Camberwell New Road (south) works.

A further 36m of trenching was observed at the northwest end of Camberwell New Road, between the junction with Brixton Road (northwest) and Foxley Road (southeast). Figure 17 below shows the location of these trenches.

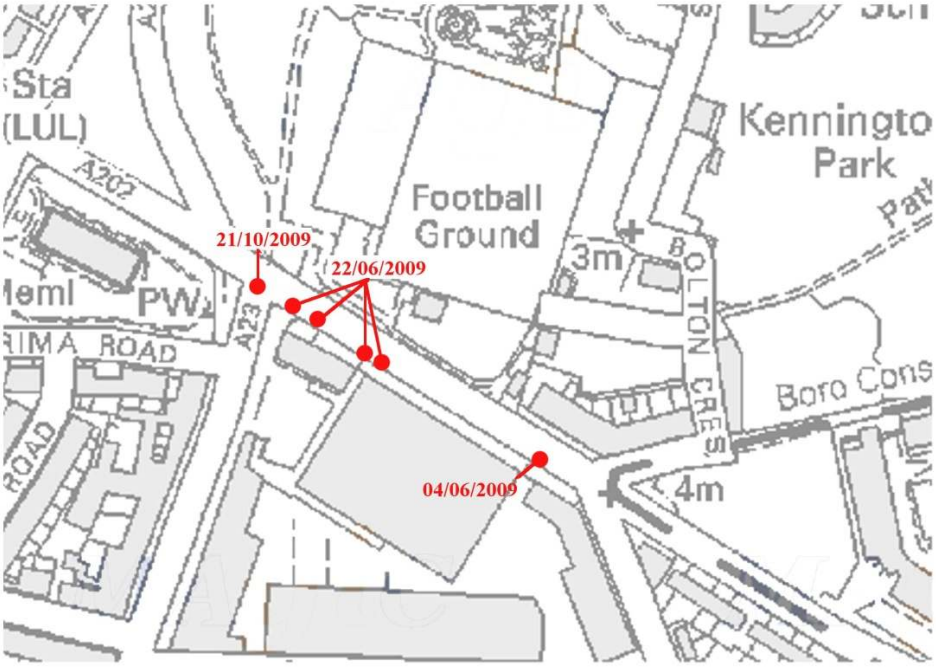

Figure 24: Location of Camberwell New Road (north) works.

The excavations at the northwest end of Camberwell New Road exposed the existing tarmac road surface overlying concrete hardcore to between 0.3m and 0.55m. Made-ground layers and modern service backfills were exposed below this level, and in one trench (22nd June 2009), redeposited natural deposits of brickearth and gravels were recorded below 1.5m in depth. Backfill contemporary with the original pipes was recorded in various locations. No archaeological finds or features were recorded during trenching on Camberwell New Road.

Figure 25: Section of trenching on Camberwell New Road (22nd June 2009), showing road makeup layers overlying Victorian pipe backfill (1m scale).

Figure 26: Camberwell New Road showing the old main after removal and sterile natural mid brown clays (12th March 2009), Scale 1m.

9.3.6 Denmark Hill

A small 3.5m section of trench was observed on Denmark Hill at a width of c.0.5m and excavated to a depth of 1.1m below the existing ground level. Tarmac was exposed overlying two layers of concrete hardcore, the lowest of which was reinforced with steel bars. Below this level mixed brick rubble was observed in a sandy matrix – this deposit may represent rubble from localised demolition of earlier Victorian buildings.

10. Summary and Conclusions

10.1 Archaeological monitoring of Thames Water mains replacement works in the areas of Newington, Kennington and Camberwell recorded no significant archaeological remains. In over 1300m of trenching only two observations of archaeological remains were made and these were restricted to a probable 19th century date.

10.2 In Crawford Road a large section of degraded wood was noted in section and is thought to be either the remains of earlier trench shoring or a possible agricultural feature relating to the earlier rural Camberwell, prior to the wide scale development of the later 19th century. However, the good condition of the wood indicates a fairly recent date of deposition, and it is not thought to pre-date the 19th century. In Warner Road two areas of possible buried soil horizon were observed, both of which contained fragments of yellow stock brick and were subsequently dated to probable 19th century origin.

10.3 No further archaeological finds or features were observed during the course of the archaeological watching brief, all remaining trenching exposed modern made-ground layers and service related deposits.

11. Bibliography

Compass Archaeology. 2009. *Thames Water Mains Replacement Works in Kennington and Camberwell: An Interim Report.*

Compass Archaeology. *Thames Water Utilities Ltd. Water mains replacement works in Kennington and Camberwell, London Boroughs of Lambeth and Southwark (Hampton 612): Specification for an Archaeological Watching Brief.*

Appendix I: OASIS Data Collection Form

OASIS ID: compassa1-78501

Project details

Project name	Thames Water Mains Replacement Work: Newington, Kennington and Camberwell, London Boroughs of Lambeth and Southwark
Short description of the project	Archaeological monitoring of water mains replacement works in the Newington, Kennington and Camberwell areas of Lambeth and Southwark. Some 1300m of trenching was observed between October 2008 and December 2009. Two areas of archaeological remains were noted - unidentified wood in section and buried soil horizons both dating to the 19th century. Elsewhere, trenching exposed modern road layers and service related deposits.
Project dates	Start: 24-10-2008 End: 16-12-2009
Previous/future work	No / No
Any associated project reference codes	TZA08 - Sitecode
Type of project	Recording project
Site status	Local Authority Designated Archaeological Area
Current Land use	Other 11 - Thoroughfare
Monument type	WOOD Post Medieval
Monument type	BURIED SOIL HORIZON Post Medieval
Significant Finds	N/A None
Investigation type	'Watching Brief'
Prompt	Water Act 1989 and subsequent code of practice

Project location

Country	England
Site location	GREATER LONDON LAMBETH LAMBETH Newington, Kennington and Camberwell Mains Replacement Works
Site location	GREATER LONDON SOUTHWARK CAMBERWELL AND DULWICH Newington, Kennington and Camberwell Mains Replacement Works
Postcode	SE5
Study area	1.33 Kilometres
Site coordinates	TQ 3194 7877 51.4919601368 -0.09926889775120 51 29 31 N 000 05 57 W Point
Site coordinates	TQ 3124 7755 51.4811585210 -0.109800785888 51 28 52 N 000 06 35 W Point
Site coordinates	TQ 3260 7675 51.47365061 -0.09052520993850 51 28 25 N 000 05 25 W Point

Project creators

Name of Organisation	Compass Archaeology
Project brief originator	English Heritage/Department of Environment
Project design originator	Compass Archaeology
Project director/manager	Geoff Potter
Project supervisor	Jonathan Henckert
Type of sponsor/funding body	Thames Water Utilities
Name of sponsor/funding body	Thames Water Utilities

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Museum of London archive
Digital Contents	'none'
Digital Media available	'Images raster / digital photography'
Paper Archive recipient	Museum of London Archive
Paper Contents	'none'
Paper Media available	'Map','Miscellaneous Material','Plan','Report','Unpublished Text'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Thames Water Mains Replacement Works. Kennington, Newington and Camberwell (Hampton 3612), London Boroughs of Lambeth and Southwark: An Archaeological Watching Brief
Author(s)/Editor(s)	Cummings, R
Date	2010
Issuer or publisher	Compass Archaeology
Place of issue or publication	5-7 Southwark St
Description	A4 33 page bound report
Entered by	Rosie Cummings (mail@compassarchaeology.co.uk)
Entered on	16 June 2010

Appendix II: London Archaeologist Summary

Site Address:	Thames Water Mains Replacement Works in Newington, Kennington and Camberwell, London Boroughs of Lambeth and Southwark.
Project type:	Watching brief
Dates of Fieldwork:	24th October 2008 – 16th December 2009
Site Code:	TZA08
Supervisor:	Jonathan Henckert
NGR:	Bounding Points: North: TQ 3194 7877, Southwest: TQ 3124 7755, Southeast: TQ 3260 7675
Funding Body:	Thames Water Utilities Ltd

Archaeological monitoring of Thames Water mains replacement works in the areas of Newington, Kennington and Camberwell recorded no significant archaeological remains. In over 1300m of trenching only two observations of archaeological remains were made, both restricted to a probable 19th date. A section of unidentified well preserved wood was noted in section, possibly relating to earlier trench shoring for the laying of the Victorian watermain, and buried soil horizons containing 19th century finds were recorded nearby. Elsewhere, exposed deposits consisted of modern road layers and service related deposits. Natural clays and gravels were recorded across the study area in several locations.