



RAMBOLL

Crossrail Archaeology Framework

C254 –Paddington Station Watching Brief Fieldwork Report

CRL Document Number: C254-OXF-T1-RGN-CRG03-50262rev3

Contract MDL reference CXX.XXX

1. Contractor Document Submittal History:

Revision:	Date:	Prepared by:	Checked by:	Approved by:	Reason for Issue:
3.0	07/06/2016	Gary Evans pp 	Richard Brown 	Dan Poore 	For Acceptance
2.0	16/05/2016	Gary Evans	Richard Brown	Dan Poore	For Acceptance
1.0	07/10/2015	Gary Evans	Andy Shelley	Richard Brown	For Acceptance

2a. Stakeholder Review Required? YES NO

Stakeholder-submission-required: LU RfL Purpose of submission: For no-objection
 NR LO For information
 DLR Other: _____

This document has been reviewed by the following individual for coordination, compliance, integration and acceptance and is acceptable for transmission to the above stakeholder for the above stated purpose:

Sign: _____ Role: _____ Name: _____ Date: _____

Sign: _____ Role: _____ Name: _____ Date: _____

2b. Review by Stakeholder (if required):

Stakeholder Organisation	Job Title	Name	Signature	Date	Acceptance
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

3. Acceptance by Crossrail:

Crossrail Review and Acceptance Decal			
This decal is to be used for submitted documents requiring acceptance by Crossrail.			
<input checked="" type="checkbox"/>	Code 1.	Accepted. Work May Proceed	
<input type="checkbox"/>	Code 2.	Not Accepted. Revise and resubmit. Work may proceed subject to incorporation of changes indicated	
<input type="checkbox"/>	Code 3.	Not Accepted. Revise and resubmit. Work may not proceed	
<input type="checkbox"/>	Code 4.	Received for information only. Receipt is confirmed	
Reviewed/Accepted by: (signature)	Print Name:	Position:	Date:
	J. CARVER	POSTARIAL	8/6/16
Acceptance by Crossrail does not relieve the designer/supplier from full compliance with their contractual obligations and does not constitute Crossrail approval of design, details, calculations, analyses, test methods or materials developed or selected by the designer/supplier.			



CONTENTS

SUMMARY	3
1. INTRODUCTION.....	4
1.1 Scope of Work	4
1.2 Planning Background.....	5
2. LOCATION, TOPOGRAPHY AND GEOLOGY.....	6
3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	9
3.1 Documentary background	9
3.2 Previous Archaeological Work:.....	15
3.3 Conclusions of the Desktop Study	16
3.4 Archaeological Potential	16
4. RESEARCH AIMS AND OBJECTIVES	17
5. INVESTIGATION METHODOLOGIES	17
5.1 Methodological Standards	17
5.2 Fieldwork Techniques	19
5.3 Recording	21
5.4 Survey Work	21
5.5 Finds Collection and Retention	21
5.6 Environmental Sampling	22
6. RESULTS.....	22
6.1 Introduction	22
6.2 Test Pits	23
6.3 Archaeological Test Pits	38
6.4 Utilities Trenches	39
6.5 Basement Clash Trench	49
6.6 Station Box Construction.....	51
6.7 Additional Works.....	58
7. FINDS.....	61
7.1 Pottery	61
7.2 The Clay Tobacco Pipes.....	65
7.3 The ceramic building material	65
7.4 Phasing	67
8. CONSTRAINTS	70
9. RESULTS IN RELATION TO INVESTIGATION AIMS	70
10. ASSESSMENT OF THE RESULTS	72
10.1 Assessment Criteria	72
10.2 Relative Completeness.....	73
10.3 Condition	73
10.4 Rarity	73

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



10.5	Group Value	73
11.	POTENTIAL	74
12.	CONCLUSIONS	74
13.	PUBLICATION AND DISSEMINATION	75
14.	ARCHIVE/FINDS DEPOSITION	75
15.	BIBLIOGRAPHY AND CARTOGRAPHIC SOURCES	76
	APPENDIX 1: ARCHAEOLOGICAL CONTEXT INVENTORY	79
	APPENDIX 2: FINDS	99
	APPENDIX 3: SUMMARY OF SITE DETAILS	108
	APPENDIX 4: SMR / HER / OASIS RECORD FORMS	109

FIGURES

Figure 1: Location plan

Figure 2: Site topography

Figure 3: Site Plan

Figure 4: Detailed plan of investigations north-west

Figure 5: Detailed plan of investigations south- east south

Figure 6: Composite profile through Holocene and Pleistocene stratigraphy recorded during the watching brief

Figure 7: Composite profile transect location



SUMMARY

A programme of archaeological investigation was undertaken by Oxford Archaeology/Ramboll UK (OAR), in the vicinity of Paddington Station, City of Westminster, London W2.

Intermittent watching brief works were commenced in June 2010 and continued through to January 2014. These comprised the monitoring of works prior to and during the construction of the Crossrail Paddington Station and recording of below ground structures and strata.

The majority of the archaeological deposits observed during the project, were dumps and landscaping/levelling deposits associated with the adaptation of the local topography in relation to the Great Western Railway's development of the area in the 19th century. A number of 19th century brick built cellars and sewers uncovered beneath Eastbourne Terrace were also recorded.

The remains of elements of Paddington Station recorded during the project, including sections of a roadway made up of wooden setts uncovered beneath the modern roadway in Departures Road. Other archaeological works included the monitoring and recording of the demolition of the Eastbourne Terrace retaining wall and iron railings between Departures Road and Eastbourne Terrace and the glass and steel canopy over Departures Road.

Early Holocene and Pleistocene strata was observed and recorded during bulk removal. The prime objective of this monitoring was to identify whether fauna bearing silts revealed at the Crossrail Royal Oak Portal continued in this area. Neither the specific strata nor any faunal remains were encountered.

Complex sequences of slope wash deposits were observed in the south eastern part of the site. These included tufa-rich deposits (the formation of tufa potentially indicates the presence of buried land surfaces) these were recorded and monitored during extraction but found to be re-worked/ex situ.



1. INTRODUCTION

1.1 Scope of Work

- 1.1.1 Oxford Archaeology/Ramboll UK (OAR), (previously Oxford Archaeology/Gifford (OAG)) were commissioned by Crossrail Ltd to undertake a programme of archaeological works in the vicinity of the Crossrail Paddington Station, City of Westminster, London W2 (hereafter the Site).
- 1.1.2 The new Crossrail Paddington Station is being built beneath Eastbourne Terrace and Departures Road south west of the existing Railway Terminus.
- 1.1.3 The archaeological works, which took place between June 2010 and January 2014, comprised the excavation and recording of Archaeological Trial Trenches, the monitoring and recording of Test Pits, utilities diversion trenches, enabling works and bulk excavations. In and around the Crossrail Paddington Station, more specifically the works were centred on Eastbourne Terrace and Departures Road (TQ 26557 81358).
- 1.1.4 The archaeological work undertaken comprised Trial Trench Evaluations, Targeted Watching Briefs (TWB) and General Watching Briefs (GWB).
- 1.1.5 The specification for Trial Trench Evaluations and the two classes of watching brief are set out in the Generic Written Scheme of Investigation (Document Reference 14022008-44ES-P2Z1, Section 7).
- i) *A General Watching Brief shall comprise observation and recording of the Principal Contractor's works without constraint on their working methods.*
- ii) *A Targeted Watching Brief shall comprise observation and recording of the Principal Contractor's works with specific operations carried out under the supervision of the Archaeology Contractor. Under Targeted Watching Briefs, the Archaeology Contractor may impose constraints on, or require changes to, the Principal Contractors' or his sub-contractor's method of working to enable the archaeological investigation to take place alongside construction works.*
- Targeted Watching Briefs shall be used for areas of known occasional, dispersed features, which are either not considered to be of sufficient significance to warrant archaeological investigation in advance of construction, or where access prior to construction has not been possible and where, as a result, there is a possibility of unexpected discoveries*
- Except in cases where unexpected, potentially nationally important, archaeological remains are discovered, the Targeted Watching Brief shall be designed and implemented so as to avoid adverse impact on the construction programme, wherever practicable.*
- 1.1.6 The Principal Contractor was required to make allowance in their activity programme for the completion of any Targeted or General Watching Briefs as set out in the SSWSIs.
- 1.1.7 An Archaeological Trial Trench Evaluation was also carried out to characterise the below ground strata and the archaeological potential for any Pleistocene deposits present:
- Two archaeological test pits were excavated (by machine) to the south of Paddington Station on the northern side of Eastbourne Terrace. ATP 1 was close to the junction of Eastbourne Terrace with Chilworth Street and ATP 2 was situated outside number 40 Eastbourne Terrace (Figure 1). The investigation is reported in document C254-OXF-T1-RGN-CRG03-50208.



1.1.8 Targeted Watching Brief investigations were required for the following works:

- During the diversion of the two gas mains within the pavement or highway of Departures Road to identify record and remove any wooden setts that were present
- The excavation of sheet pile foundation trenches
- The excavation of diaphragm wall guides trenches.
- During the excavation of the 52 m long Macmillan House Basement Clash Trench excavated within the pedestrian pavement or highway of Departures Road
- Ground reduction along the length of Departures Road/Eastbourne Terrace to enable construction of the station box roof slab
- Bulk excavation of the Crossrail Station Box itself

1.1.9 General Watching Brief investigations were required for the following works:

- Excavation of a utilities corridor on the southern side of Eastbourne Terrace
- Additional trenches excavated across the width of Eastbourne Terrace and Departures Road to allow for service ‘tie ins’
- Works to divert utilities to Paddington Station within the basement of Macmillan House
- Removal of the Departures Road Canopy
- The removal of the retaining wall and railings on the Eastbourne Terrace frontage
- Excavation of intrusive trial pits prior to the removal of the listed railings and coping stones of the retaining wall
- The recording and monitoring of removal of sections of wooden roadway in Departures Road for reinstatement at a later stage, was also carried out by OAR.

1.1.10 This report is a full Fieldwork Report, and details the results from the programme of archaeological works. It is written in line with Section 8F of the Specification for Evaluation and Mitigation (CR-PN_LWS_EN_SP_0001- revised as CRL1-XRL-T1-RSP-CRG03-50001 (2012)), produced following the completion of on-site works in order to disseminate the results of the investigations.

1.1.11 It follows on from an Interim Report detailing the preliminary results of the Archaeological Trial Trench Evaluation (C254-OXF-T1-RGN-CRG03-50098) a full field work report detailing the results of the Archaeological Trial Trench Evaluation (C254-OXF-T1-RGN-CRG03-50208) a Wooden Sett Characterisation Report (C254-OXF-T1-RGN-CRG03-50109). As well as a Post Excavation Assessment and Updated Project Design (C254-OXF-T1-RGN-CRG03-50160).

1.2 Planning Background

1.2.1 Paddington Station is a Grade I listed building of exceptional national significance. It is acknowledged as a masterpiece of Victorian architectural and engineering achievement, and represents one of Brunel’s most important works. The whole of Paddington Station is listed and its curtilage extends throughout the station itself, Departures Road and the London Street Deck (Figure: 2). The international significance of the Great Western Railway and Paddington Station is reflected in the fact that it is deemed worthy of consideration for UNESCO World Heritage Site status in 1999.



- 1.2.2 The overall framework within which archaeological work was undertaken is set out in the Environmental Minimum Requirements (EMR) for Crossrail (3rd draft November 2007) and confirmed in the Crossrail A008. <http://www.legislation.gov.uk/ukpga/2008/18/schedule/7>
- 1.2.3 The requirements being progressed follow the principles of Planning Policy Guidance Note 16 on archaeology and planning (1990), superseded by PPS5 as of 23 March 2010 and subsequently NPPF in 2012. Accordingly the nominated undertaker or any contractors will be required to implement certain control measures in relation to archaeology before construction work begins.
- 1.2.4 The strategy for archaeological works was set out in the Crossrail Generic WSI (14022008-44ES-P2Z1); it presented the strategy for archaeological design, evaluation, mitigation, analysis, dissemination and archive deposition that will be adopted for design and construction of Crossrail. The Generic WSI provides a general statement of objectives, standards and structure for the planning and implementation of archaeological works.
- 1.2.5 Crossrail produced a Site Specific Written Scheme of Investigation (SSWSI) for the Site (C130-SWN-Z-RSI-B071-00001). The practical methods of realising the requirements of the SSWSI were set out in OAR's Archaeology Method Statement (C254-OXF-W-GMS-CRG01-00003 rev 1.1 to 4 – 24/09/10 to 04/09/12), which were approved by Jay Carver, the Crossrail Project Archaeologist.

2. LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1.1 The Crossrail Paddington Station will be located to the southwest of the existing Network Rail Railway Terminus. The Site will be formed of a large underground box constructed beneath Eastbourne Terrace and Departures Road with Praed Street to the south east and Bishops Bridge Road to the north-west (Figure 1).
- 2.1.2 In general the area has a south trending slope towards the River Thames. With heights dropping from 128 m ATD (above Tunnel Datum where the Tunnel Datum is calculated as being 100 m above Ordnance Datum e.g. 1 m aOD = 101 m ATD) at the Bishop's Bridge end of Eastbourne Terrace. Down to 125.40 m ATD at the junction of Praed Street/Craven Street.
- 2.1.3 A detailed history of Paddington Station has been published by Stephen Brindle (Brindle 2004). Paddington Station was built in a pre-existing depression or cutting. Incremental development and further redevelopment of the Site location since the 1840s has resulted in the current arrangement of two distinct levels - the upper level, Eastbourne Terrace, which covers about two third of the Site is approximately the same level as the surrounding area. However along its northern side it drops down to a lower level. Departures Road, which is approximately 4.6 m lower (c.123.80 m ATD) and at a similar level to the platforms of the Network Rail Railway Terminus to the south. The two levels are separated by a brick built retaining wall that runs east to west along the southern edge of Departures Road. The topography of Departures Road itself varies with slopes at either end, up to Praed Street in the east and Bishop's Bridge Road in the west.
- 2.1.4 The British Geology Society Drift edition map of the area (Sheet 256, North London) shows that Lynch Hill River Terrace Gravel's dated to between 250,000 and 350,000 years B.P (Marine Isotope Stage 10-8), overlie much of the Paddington area including the Site.



- 2.1.5 The main river terrace sequences in the Paddington area are however more complex as they are crossed by tributaries of the Thames. These include the River Westbourne, a north bank tributary of the River Thames, which starts on Hampstead Heath. This river is of considerable antiquity and together with its associated alluvial fills may have originally developed in conjunction with the glacial phases of the Thames. The course of the former River Westbourne lies beneath Westbourne Terrace / Gloucester Terrace some 150 m to the south of the Site.
- 2.1.6 The river terrace deposits are overlain by brickearth deposits locally known as the Langley Silts (Bridgland, 1994). The Langley Silts overlie more than one gravel body in the Thames valley and are therefore of a wide variety of ages, but have been known to be associated with Palaeolithic archaeology (Gibbard 1985; Wymer 1968).
- 2.1.7 Some 800 m to the west - north west of the Site, a sedimentary sequence associated with cool climate waterlain deposition was recorded by OAR during work at the Crossrail Royal Oak Portal site (Westbourne Park/Royal Oak Portal-C254-OXF-T1-RGN-CRG03-50047 and C254-OXF-T1-RGN-CRG03-50082, Lord Hill's Bridge - C254-OXF-T1-RGN-CRG03-50116 and C254-OXF-T1 RGN-CRG03-50193).
- 2.1.8 These deposits, which contained an assemblage of around 100 identifiable large 'cold stage' mammal bones (reindeer and bison), have been dated to the later parts of Marine Isotope Stage (MIS) 5 continuing into MIS 4. The richest faunal horizon at Royal Oak Portal is dated to 68.8ka B.P (MIS 4), whilst the underlying sediments range in age from 80.6ka to 88.1ka B.P (Bates *et al* 2014, 54). Bates has described the Royal Oak Portal site as being of "regional and national importance" (*ibid*).
- 2.1.9 The following is partly summarised from pages 11-13 and Figure 2 of the Archaeological SSWSI (C130-SWN-Z-RSI-B071-00001).
- 2.1.10 Programmes of geotechnical investigations have been undertaken as part of the 1992 Crossrail Investigation, with further works in 1993 and 2006. This has been supported by archaeological monitoring of geotechnical works around Bishops Bridge Road.
- 2.1.11 The various investigations have shown a sequence of multiple "made ground" layers overlying river terrace deposits that in turn overly deposits of Eocene London Clay. These were observed at a height of c.123 m ATD in Eastbourne Terrace and 123.5 m ATD in Praed Street. The river terrace deposits appear to be thickest towards the east. In places the river terrace deposits were overlain by a layer of, what the excavator's called brickearth or alluvial clay.
- 2.1.12 The SSWSI noted that; "a layer of dark grey alluvial clay at a height of 122.21 m ATD, probably relating to either a tributary of the Westbourne channel or an adjacent pond", was recorded in Package 17a Test Pit 208 (C130-SWN-Z-RSI-B071-00001 Section 2.55).
- 2.1.13 Within the area of the Lawn Concourse in Paddington Station itself, construction appears to have caused considerable truncation. The basements of Macmillan House appear to have truncated the upper natural geological and later deposits down to the London Clay at a height of between 118 and 120 m ATD (Paddington Scheme Design Report Document: CR-SD-PAD-CE-RT- 00002).



- 2.1.14 A series of test pits (TP6, TP7, TP9 and TP10) and one self-boring pressuremeter (SBP1) ground investigation works have recorded around the Paddington Site. Crossrail have also provided additional information from (CPTu3-CPTu8), and trial pits (TP78-TP84, TP76A, TP77A and TP82A) carried out by Soil Mechanics in 1993 as well as the results of boreholes for the Telstar House Development (BH1). In none of these exploratory holes were alluvium deposits encountered.
- 2.1.15 These investigations showed that the superficial river terrace deposits varied in thickness across the Site. The river terrace deposits appeared to be thickest to the east of the main Paddington Box site becoming progressively thinner towards the west.



3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 Documentary background

- 3.1.1 The archaeological and historical development of the Paddington worksites has been set out in the Detailed Desk-based Assessment (DDBA) (CR-SD-PAD-EN-SR-00002). This study, which included a historic map regression exercise, is partly summarised below.
- 3.1.2 There is limited evidence of human activity in the area from the Prehistoric, Roman and Medieval periods and the area appears to have been essentially rural in character until the turn of the 19th century.

Prehistoric:

- 3.1.3 To date, research has not located any evidence of prehistoric deposits within the immediate vicinity of Paddington Station. However, the landscape of the area during the prehistoric period would have been dominated by the valley of the River Westbourne, which ran to the west of the Site. This would have provided a background for hunter-gatherer activity and occupation during this period. The proximity of the Westbourne means that most of the evidence for such activity will be masked by later fluvial deposition.
- 3.1.4 Isolated finds of Palaeolithic axes (c. 450,000-12,000 B.C) are commonly recovered from River Terrace Gravel deposits elsewhere in London. Whilst in 1925 an assemblage of worked flint, Levallois type flakes and cores, along with remains of auroch (*Bos Primigenus*), were recovered next to a former course of the River Westbourne in Hyde Park at a height of 113.41 m ATD (Dewey 1926, 73-5).
- 3.1.5 Little evidence remains of early farming and land use dating to the Late Prehistoric period has been found in the area, and what has been recovered is piecemeal in nature.

Roman:

- 3.1.6 The Roman city of *Londinium* lay approximately 6 km to the east of the Site. *Londinium* was served by a series of roads, two of which are in the vicinity of the Site. Bayswater Road is aligned on Roman Stane Street, approaching London from Chichester (*Noviomagus Reginorum*) in the south west (MLO14883; MLO11208). The Paddington Station is also located to the north west of the *Via Trinobantia* which ran from London to the town of Silchester (*Calleva Atrebatum*) along what is now Oxford Street. To the east present day Edgware Road follows the line of Roman Watling Street.
- 3.1.7 Previous archaeological field work and research has determined that there are no Roman known remains in the immediate locality of the Paddington Station. During this period it seems that area would have been an open agricultural landscape. However, Roman occupation sites were often located at the intersection of roads and bridging points (i.e. Marble Arch or Bayswater).

Anglo-Saxon and Medieval:

- 3.1.8 No Saxon or Medieval remains have been found close to the Site. The trading port of Saxon *Lundenwic* (the successor to Roman *Londinium*) was located around the Strand and Aldwych c. 4 km to the east of the Site.
- 3.1.9 The earliest evidence of settlement in the area comes from the name itself; *Padintune* or *Padda's tun* (farm), seen in a charter of Westminster Abbey compiled after the Norman Conquest. Paddington is not mentioned in Domesday Book.



- 3.1.10 The land of Hyde Park and surrounding regions, including the River Westbourne, formed the Saxon agricultural lands of Eia, which was bequeathed by Geoffrey de Mandeville to Westminster Abbey in 1086. The land to the north of the former Eia estates was owned by the Bishops of London. At this time Paddington appears to have been a small settlement around a central green (Paddington Green). Neither courts nor a manor house were recorded in the area during the Middle Ages.

Post-Medieval:

- 3.1.11 Land use in the area gradually changed in the Post-Medieval period with urbanisation spreading out from the City of London and Westminster. The Paddington area was not immune from this and gradually evolved from a rural medieval village into a suburb of London. During the 17th century it was still a small settlement centred on a village green. It is unlikely that the late medieval hamlet of Paddington extended much further than the north and north east fringes of present day Paddington Green. A probable medieval chapel stood a short distance to the north of the Green (Elrington *et al* 1989, 185). In 1664 just over fifty households were assessed for Hearth Tax in Paddington Green, with a further eighteen recorded at the satellite settlement of Westbourne Green (*Ibid*, 181). The medieval chapel was demolished and replaced by the new church of St. James at the end of the 1670s (*ibid*, 233).
- 3.1.12 During the 18th century the area became increasingly built up with the addition of a number of large houses, including Westbourne Manor and Westbourne Park, set in extensive grounds. The infrastructure of the area also underwent an evolution with an up grade in the road system, including a number of toll roads (The Harrow Road).
- 3.1.13 In the 1740s the main settlement in the area was still centred on Paddington Green and along the nearby Edgware Road with smaller collections of dwellings around Westbourne Green and at Bayswater (“Bayswatering”) where the Uxbridge Road (Bayswater Road) crossed the River Westbourne.
- 3.1.14 Rocque’s map of 1746 (Table 2 in Crossrail 2008b) shows the study area located within a field system south of Westbourne Green Village. The line of the Westbourne valley is defined as a shaded to the west of what is now Paddington Station. A pest house (“Lord Craven’s Pest House”) is shown at Craven Hill to the west of the Westbourne. A lane “Green Lane” runs to the north of the study area. No structures are shown in the area of Crossrail construction activity.
- 3.1.15 Apart from some building next to St. George’s burial ground at Paddington Green, little further change took place until the 1790s. Most of the area was given over to grassland, providing grass and hay for the dairy farmers who supplied London with milk. (Elrington *et al* 1989, 182). Its rural charms much appreciated by artists, Westbourne Green “*had a very refined air in 1795 and was considered a beautiful rural place until 1820*” (*ibid*, 1989 182, 199).

Modern:

- 3.1.16 More rapid development occurred in the 19th century with housing spreading into the area from the already built up areas to the south and east. Development of the area was further speeded up with the construction of the Grand Junction Canal (Regent Canal) at the turn of the 19th century, this event greatly contributed towards the transformation of the area from a series of secluded hamlets to crowded suburb.



- 3.1.17 The Paddington branch of the canal and the Paddington Basin were opened in 1801, the latter lined by wharves and warehouses on its north and south banks (*ibid*, 174-180, 233-241). Within four years the Grand Junction was expanded eastwards beyond the Paddington area via the Regent's Canal, turning it into a navigable waterway that eventually ran across the northern suburbs of London as far east as the River Lea.
- 3.1.18 Greenwood's map of 1824 (Table 2 in Crossrail 2008b) shows the early development of the area. Westbourne Road (now Westbourne Terrace) and London Street are in place but are empty of buildings as is a Praed Street (also called Conduit Street). A lane or footpath, called Bishop's Walk, is shown running along the line of the present Bishop's Bridge Road before crossing the Grand Junction Canal (Regents Canal) with a bridge. The area between London Street and Westbourne Street is shown as open fields surrounded by hedges and crossed by footpaths. Two unnamed, possibly unmade, roads are shown on the area now covered by the station. One runs from Westbourne Street (now Westbourne Terrace) to South Wharf Road south of Paddington Basin whilst another is shown running north from the junction of London Street and South Wharf Road to the Harrow Road. The Grand Junction Canal is shown running to the north of the Site with the Paddington Canal Basin to the east. The River Westbourne is still evident although a culvert has been constructed to divert it under the Canal. A number of reservoirs and water works are shown to the immediate south of Praed Street /Conduit Street and in the area now covered by St. Mary's Hospital. Aside from two small-unnamed structures shown to the southeast of the bridge crossing the Paddington Basin branch of the Grand Junction Canal at the northern end of Bishop Bridge Road, no other buildings are shown within the Crossrail works area.
- 3.1.19 The development of the nearby stretch of the River Westbourne, which until 1844 supplied the Bayswater area with water, had begun in 1439. With the building of a conduit to take water to City of London (MLO 56870, 52002) in the vicinity of Craven Terrace (formally Conduit Street) and Gloucester Terrace. The Westbourne, which until the middle of the 19th century was called Bayswater Rivulet (Elrington *et al* 1984, 174), is still shown as open in Crutchley's c. 1829 map (Brindle 2004, 17 fig. 2.4).
- 3.1.20 The construction of the Grand Junction Canal was followed by the construction of the Great Western Railway (GWR) from the late 1830s; both of these had a considerable impact on the area. The final canalisation of the Westbourne into the Ranelagh Sewer in the 1870s was also a significant event at the time.
- 3.1.21 The completion of the GWR in around 1840 completed the development of the area (MLO; 97446). This work was authorised by the Great Western Railway Companies Act of Incorporation in 1835. '*By agreement with the Bishop and his lessees, work began on the easternmost stretch from Acton to Paddington, running through clay cuttings south of the canal, in 1836, although the eastern end and terminus were delayed until an Act of 1837 permitted the alteration of public roads*' (Elrington *et al* 1989,176).



- 3.1.22 The first Paddington Station was first opened for the GWR in 1838 as a temporary terminus immediately to the west of Bishop's Walk, which was replaced by a new road (Bishop's Road) and a new brick built bridge. This station was largely constructed of timber and used the arches of the bridge as its entrances and offices. The station consisted of two Arrival platforms, one 255 ft (78 m) and one 340 ft (105 m) long, and two Departure platforms, both 235 ft (72 m) long. Access to the station was from an open yard to the east of the station/bridge. With passengers entering the station through the arches of the Bishop's Bridge itself. The large irregularly shaped entrance yard stood in a large hollow, in the area now occupied by the present station buildings (Brindle 2004, 20-21, figs. 2.7 and 2.9). In early pictures of the first station, a brick built retaining wall separating it from Eastbourne Terrace is shown, whilst to the north an earth bank is shown slopping up to the level of the Grand Junction Canal (Brindle 2004, 24, figs. 2.12 and 2.13).
- 3.1.23 Because the entrance yard was considerably lower than the surrounding area it was reached by inclined roads leading down from London Street and Conduit Street (Praed Street). A timber built goods depot and offices was built into the southern edge of this yard, which appears to have been left largely empty.
- 3.1.24 The first Paddington station was demolished in c.1853 and was replaced by the present station built on the site of the former entrance yard and goods depot.
- 3.1.25 The new station was built on land belonging to the Church Commission in "a shallow depression or bowl" (*ibid*, 17) a quarter of a mile east of the old one. This station, which was to be the London Terminus of the GWR, was built below street level on the insistence of the former landowner (*ibid*, 17).
- 3.1.26 The new Paddington Station was planned and designed by the GWR Company Engineer, Isabard Kingdom Brunel, with architectural assistance from Matthew Digby Wyatt. Fox Henderson and Co who had previously overseen the building of the Crystal Palace in Hyde Park built the new station between 1851 and 1854. Work also commenced on the Great Western Hotel (now the Hilton London Paddington) outside the station facing on to what was then called Conduit Street East (now Praed Street).
- 3.1.27 The station, inspired by a forerunner at Munich and by the Crystal Palace, was 700 ft (215 m) long and 238 ft (73 m) wide. The station opened for Departures on 16 January 1854 and for Arrivals on 29 May 1854, at which time the original station to the west of Bishops Bridge was demolished.
- 3.1.28 The train shed initially had ten lines - 5 facing platforms (although only three appear to have been used for normal traffic) and 5 sidings for coaches. The new building was orientated so that Arrivals were located on the north side along London Street and Departures were located on the south side along Eastbourne Terrace. The rail lines and platforms were sheltered beneath an ornate triple span glazed roof based on the Paxton Crystal Palace model and were constructed of wrought iron and Paxton type ridge and furrow glass. The platforms were set below the prevalent street level with both Arrivals and Departures being approached by means of ramped access. Both Eastbourne Terrace and London Street were held back by brick built retaining walls.



- 3.1.29 The ground and first floors of the central part of Macmillan House also date from this time. To the east stood the Great Western Royal Hotel, which was separated from the main building by a gap containing four track spurs linked by a bank of turntables. To the west of this open area stood the building itself, 32 bays in length, with a central loggia which served as the main entrance to the Departure Platform (present day Platform 1) (*ibid* 112). To the west of the main block was another open area, beyond which stood a detached block, 15 bays in length. A plan of the ground floor prepared by Brunel in 1851 shows the arrangement of rooms on either side of the loggia that faced out on to the Departure Platform (*ibid*, 116). From east to west these included small offices, the first-class ladies' waiting room, the first-class waiting room, the main booking office, the central loggia, the second-class waiting room, the royal waiting room and a number of smaller offices (*ibid*).
- 3.1.30 The initial scheme included a Hansom cab and carriage set down area under a 'Paxton' type roof built upon slender wrought iron trusses and cast iron columns on Departures Road, with a similar arrangement on the Arrivals side. The southeast end of the Departures Road canopy had a gable with a clock and the GWR arms.
- 3.1.31 Paddington had its first major addition in the 1860s when the world's first underground railway opened in 1863. The Metropolitan Railway, which initially ran between Paddington and Farrington, had its western terminus at a station called Bishop's Road (now the Hammersmith and City Line's "Paddington"), built at the northeast end of the Bishop's Bridge. In 1868 a second station, originally called Praed Street Station (renamed Paddington in 1948) was built opposite the Great Western Royal Hotel when the Metropolitan Railway was extended by a new line from Paddington to South Kensington.
- 3.1.32 The underground railway and its stations were constructed using a cut and cover method, which would have resulted in the removal of considerable areas of possible archaeological deposits. Further sub-surface construction work included the construction of basements and connections to the below ground platforms, a subway between Praed Street Station and the GWR station was built in 1887 (Elrington *et al* 1989, 177).
- 3.1.33 Eastbourne Terrace is not shown on Crutchley's 1829 map (in Brindle 2004, 17 fig. 2.4) of the area, but is shown on the Lucas 1849 Paddington parish map (see 5.1.4 below). Most of the Terrace appears to be empty land but short rows of buildings are shown at the junctions with Praed Street, Chilworth Street and Cleveland Terrace. A row of four, 5 storey, houses and the Prince of Wales Hotel are shown on a c.1840 drawing of the front of early station (*ibid*, 24 fig. 2.12) as standing between Cleveland Terrace and the junction of Bishops Bridge Road / Eastbourne Terrace. The picture also shows the c. 3-4 m drop between the level of Eastbourne Terrace and the first Paddington Station's entrance yard. This part of the yard appears to have been terraced with a brick built abutment wall topped by railings.
- 3.1.34 By the 1860s all of Eastbourne Terrace appears to have been built upon. With a terrace of buildings and housing which are described as being "*well to do*" in the Victorian County History (Elrington *et al*, 1989, 204-212). A photograph of Paddington Station and Eastbourne Terrace taken in c.1910 shows the slope down into Departures Road, the brick terrace retaining wall between Departures Road and Eastbourne Terrace and a row of 4 storey houses running along the southern side of Eastbourne Terrace. The roadway appears to be much narrower than now (Brindle 2004, 111, fig. 7.12). These building, many of which were used by the GWR for offices, appear to have stood until the complete redevelopment of the area from the late 1950s.
- 3.1.35 Increase in rail traffic led to the quadrupling of the GWR mainline track out to Slough in 1879. An additional Arrivals platform was provided in 1878 to cope with the additional traffic. The new platform replaced carriage sidings which had stood on the northern side of the station



- 3.1.36 In 1880 Paddington was lit by electricity for the first time, the first major London public building to be so illuminated, and this was permanent from 1886 using the GWR's own power station at Park Royal.
- 3.1.37 A major programme of improvements of 1906-16 included rebuilding of the approach over-bridges with large steel spans. As part of this programme the original brick arches of the Bishop's Bridge Road were taken down allowing the re-arrangement of the track into the terminus.
- 3.1.38 Between 1909 and 1916 three new platforms were provided, Nos. 10, 11 and 12. Platform 12 was set aside for the transport of milk and parcels. These works involved the re-alignment and cutting back of London Road and the provision of an additional fourth span to the north side of the station in 1912-6. As part of the extensive modifications to the station, the Arrivals side of the station was changed considerably, the original Arrivals ramp was removed and cab ramp access was moved to the western end of the platforms via two separate ramps. The first providing access to the original platform area and the second giving access to the new platforms. Both ramps were accessed from the newly re-aligned London Street.
- 3.1.39 In the early 20th century some modification was undertaken on the original design of the Departures Road retaining wall and associated railings. The main feature of which was the construction of large brick built piers on the southern side of Departures Road, one buttress being built for every two bays of the Paxton-style canopy roof. The re-design included the provision of larger downpipes, incorporated into the brick piers.
- 3.1.40 The cast-iron columns supporting Brunel's shed roof were replaced with the present steel ones in 1922-4; those in the north cab-road had already gone in 1916. This work was designed by Company Engineer W.W Grierson and erected by the Cleveland Bridge Company. Further extensive works designed by Culverhouse and Carpmael were undertaken after 1929 and complete by 1934. These included a new parcel depot, a new footbridge link across all platforms and the lengthening of platforms under new canopies. The Bishops Road Station was also re-modelled to provide additional platforms. The Bishop Road Goods depot was demolished in 1925 and a new goods depot building beneath a single span erected.
- 3.1.41 A second major rebuilding programme of 1930-34 followed the Development Loan Guarantees and Grants Act of 1929, designed to alleviate unemployment. The works included the extension of the platforms, the construction of 'The Lawn' as a passenger concourse (now redeveloped) and the building of two new office blocks and the extension of the Great Western Hotel.
- 3.1.42 During the Second World War Paddington Station was hit a number of times by enemy action. On the 17 April 1941 a parachute mine hit the roadway outside the Departure side offices in Departure Road, demolishing much of the range at the eastern end of Platform 1 including parts of the Departures Road Canopy. At platform level, the booking office, waiting rooms and porters' rooms were all damaged, and six staff and ten others killed (Brooksbank 200, 76). Much of the 1880 General Meeting Room Block (Macmillan House Block E1) was damaged beyond repair, as was the eastern end of the 1852 General Office block (Macmillan House Block B).
- 3.1.43 The buildings were partly rebuilt in the Post War years but the original Paxton Roof over the Cab-road (Departures Road) was totally removed and replaced by the current roof.



- 3.1.44 The 1950 OS map (not shown) of the area shows the site to be much as it looks today. However most of the small buildings and their rear gardens, which had stood on the south side of Eastbourne Terrace from the 19th century had been demolished. Aside from eight at the Praed Street end of the Terrace and the Public House at the Terrace's corner with Bishop's Bridge Road. Instead the land is shown as vacant, presumably in readiness for the construction of the modernist offices which took over the terrace in the second half of the 20th century
- 3.1.45 During 1968-9 British Rail implemented numerous alterations to the station including substantial alterations, replacements and renewal of the station roof. With the end of steam traction at the end of the 1960s the station was cleaned up, and the concourse was enlarged in 1968-9 and again in the 1970s. In 1985 British Rail moved its Western Region headquarters to Swindon and, as a result, the GWR's old offices were refurbished for commercial letting. The platforms were also shortened to make the concourse more spacious. Further restoration works to the station roof occurred between 1985 and 1993 and a new service yard was created within the area of the redundant milk platform, separated from Platform 12 on the north side of the station. All taxi and other drop off traffic had been relocated to the south, Departures side (Departures Road) by 1985, by which time a paper handling and parcels depot (Red Star) was erected on the London Street Deck (giving rise to the alternative name Red Star Deck).
- 3.1.46 The approach tracks were again re-laid and re-signalled in 1992-4 and at the same time the Brunel roof was progressively repaired and decorated. Finally 'The Lawn' building was demolished in 1999 and has been replaced by a larger version designed by Nicholas Grimshaw and Partners (which also supervised the restoration of the end screens of the station's roof).

3.2 Previous Archaeological Work:

- 3.2.1 **1990 to 2000:** Two investigations in 1990 and 2000, within Paddington Goods Yard/London Street, 290 m to the north of the Site, encountered London Clay just beneath modern road/pavement at heights of 122 m ATD and 127 m ATD respectively (archaeological site codes PGY90, PYD00). The 1990 results also revealed that the London Clay had been severely truncated by the GWR railway cutting.
- 3.2.2 In 1998, at 12-20 Praed Street, 550 m to the east of the Site, works revealed the Lynch Hill Terrace Gravels at 130 m ATD (site code PRA98).
- 3.2.3 **2009-2010:** A number of utilities trenches were subject to archaeological observation work around the Paddington Station area during initial Crossrail works (trench locations on Figure: 3 and in Table 8. Crossrail 2010a).
- 3.2.4 In Trench PAD 3 on Praed Street, the upper 0.58 m consisted of modern disturbance and reworked material. Below this geological deposits were revealed, these comprised clean, firm silty, clayey, sand which was consistent with the Langley Silt Complex Brickearth of the British Geological Survey.
- 3.2.5 In the base of Trench PAD 11 a layer of compact, dark brown, green silty clay with very occasional 19th century pottery fragments was recorded. The overlying deposit was a layer of hard silty sand with moderate red brick fragments.



- 3.2.6 Trenches PAD 21 and PAD 22, situated in Chilworth Street and Cleveland Terrace, revealed brick built arched cellars extending 1 m into the present roadway. These, probable 19th century coal cellars, were cut through Post-Medieval fills and a deposit of coal ash to a depth of 1.1 m below Ground Level (bGL). A stiff brown clay, seen at a depth of 1.2 m bGL in PAD 21 and 1.4 m bGL in PAD 22, was probably the weathered upper surface of the London Clay. The variation in the height of the London Clay in the two trenches seemed to suggest a natural slope from east down to west, reflecting the valley of the now buried River Westbourne.
- 3.2.7 The findings from the archaeological watching brief on the utilities trenches provide more detailed information about the likely archaeology to be located in the Paddington Station worksite. For the most part the natural geology appeared to have been truncated by activity in the Post-Medieval period. Trenches 21 and 22 in Cleveland Terrace and Chilworth Street respectively exposed what appeared to be the natural slope of the Westbourne river valley.
- 3.2.8 At Bishop’s Bridge Road a layer of dark grey alluvial clay at a height of 122.21 m ATD, probably relating to either a tributary of the Westbourne channel or an adjacent pond”, was recorded in Package 17a Test Pit 208 (C130-SWN-Z-RSI-B071-00001 Section 2.55).
- 3.2.9 An archaeological watching brief (XRK09) during ground investigation surveys in Departures Road (under works package PAD-0122) identified a 0.10 m thick, possible Pleistocene horizon, comprising silty sand and gravel at c.120.58 m ATD in a single trial pit (Trial Pit 1). The horizon was sealed by a layer of colluvium or made ground c.1m thick of probable Post-Medieval date which was in turn overlain by c .2 m of Post-Medieval and Modern “Made ground”.

3.3 Conclusions of the Desktop Study

- 3.3.1 The results of the archaeological and historical research undertaken for the Paddington Station, in relation to the construction of Crossrail and its associated activity, showed that the area remained as open fields up until the middle of the 19th century, when rapid housing growth and transport construction occurred. It is this transport construction, which has contributed to the truncation of archaeological deposits, through road construction, the construction of Paddington Station and the associated rail infrastructure.
- 3.3.2 In particular, during the excavation for Paddington Station itself and the adjacent railway cuttings large amounts of excavated soil was generated and deposited to level out the natural topography of the area within the proposed Crossrail Station Box. Masking and obscuring any pre-existing archaeological remains and deposits.

3.4 Archaeological Potential

- 3.4.1 The SSWS (C132-SWN-Z-RSI-B071-00001 Rev 9.0) concluded that there was;
- 3.4.2 *Low potential for Palaeolithic remains in the area. If located, any features or artefacts would have a low importance if they were redeposited; this may become high importance if significant in situ remains were present, although this was considered to have a low probability.*
- 3.4.3 The later OAR Archaeological Method Statement (dated 24-07-12) added the following caveat: *The results of recent C254 work at Royal Oak Portal indicate that relict channels of the Westbourne River, and precursors, survive, and the possibility that they are present at Paddington exists* “(C254-OXF-W-GMS-CRG03-00003. Section 2.11).



- 3.4.4 There was: *low to medium potential for Roman or medieval remains to be located although these would have a moderate to high importance were they to be identified*". NB. Possible medieval dumping was identified in TP208 at Bishops Bridge Road.
- 3.4.5 The assessment found that there was: *high potential for post-medieval archaeology relating to the construction of Brunel's Railway to be located within the construction area and of earlier railway works in general. Where this can be positively dated to be part of Brunel's construction these remains were likely to be of moderate to high importance.*

4. RESEARCH AIMS AND OBJECTIVES

- 4.1.1 The project generic aims and objectives are set out in the SSWSI. As the project progressed and new data recovered these were further defined in additional method statements (C254-OXF_W_GMS_CRG03-00003 Revision3.0).
- 4.1.2 The overall objectives of the investigation were;
- 4.1.3 *To refine the understanding of early modern occupation of the site and, potentially, earlier features and deposits, and to elucidate the character, nature, date, extent and state of preservation of any surviving archaeological remains that will be impacted upon by the development.*
- 4.1.4 The investigations also had more specific research and work aims. These are outlined below:
- *To record the landscape development (i.e. land construction) through assessment of the soil stratigraphy, including the definition of any survival Brickearth or Pleistocene deposits;*
 - *To define levels of landscape change due either to environment and climate or human interaction;*
 - *To identify any surviving elements of Brunel's 1845 and 1854 Paddington Station and to define and record the development of Brunel's railway and associated GWR works;*
 - *To define and record surviving elements of Victorian vernacular architecture both above and below ground; and*
 - *To identify the location, extent and depth of post-medieval and early modern truncation of archaeology and natural deposits, particularly in relation to the construction of the GWR and Paddington Station.*

5. INVESTIGATION METHODOLOGIES

5.1 Methodological Standards

- 5.1.1 All archaeological work, including the preparation of this report, was conducted according to current best practice and accepted professional standards (see OA Fieldwork Manual 1992, Museum of London Archaeological Site Manual 1990), and as outlined in:
- Paddington Station – Contract No. C130, Archaeological Site Specific Written of Investigation. Document No. SWN-Z-RSI-BO71-0001 (October 2010)
 - Archaeological Generic Written Scheme of Investigation, Document No: CR-PN-LWS-EN-SY-00001, 7 July 2009 (AWSI) (revised as CR-XRL-T1-GST-CR001-00003 (2012)).
 - Archaeology Specification for Evaluation and Mitigation (including Watching Brief), Document No: CR-PN-LWS-EN-SP-00001, 26 June 2009, (ASEM) (revised as CRL1-XRL-T1-RSP-CRG03-50001 (2012))



- Works Information (Volume 1 - General), Document No: CR-SD-PRW-X-RT-00151, 5 June 2009 (WIV1)
- Works Information (Volume 2 - Particular), Document No: CR-SD-PRW-X-ITT-00001, 13 July 2009 (WIV2)
- Crossrail standards and specifications
- Institute for Archaeologists – Standard and Guidance for archaeological excavation, 2008 (revised)
- Institute for Archaeologists – Standard and Guidance for an archaeological watching brief, 2008 (revised)
- Museum of London collections and archive policies and guidance
- English Heritage – Geoarchaeology, 2007
- English Heritage - Archaeological Science at PPG16 interventions: Best Practice Guidance for Curators and Commissioning Archaeologists, 2003
- GLAAS Archaeological Guidance Papers 1999
- Corporation of London archaeology guidance – Planning Advice Note 3, 2004
- Museum of London Archaeology Service site recording manual (MOLA 1994).



5.2 Fieldwork Techniques

5.2.1 A broad summary of the methods employed during the project is described below, as well as any significant variation or clarification of the agreed methodology.

Trial Trench Evaluation

5.2.2 The fieldwork strategy for the Trial Trench Evaluation is described in detail in the SSWSI (C130-SWN-Z-RSI-B071-00001 (VER. 9.0, 05 Sept 11) and the OAR Archaeology Method Statement (C254-OXF-W-GMS-CRG01-00003 rev 4 – 04/09/12).

5.2.3 In summary; the two trenches (Archaeological Test Pit 1 and Archaeological Test Pit 2), each measuring 4 m x 2 m, were machine excavated to a depth of c. 5 m below the existing ground surface.

5.2.4 After removal of the modern roadway the two trenches were machine excavated by the main contractor (Bryne Brothers for CSJV) in 200 mm thick spits, using a tracked machine fitted with a toothless bucket.

5.2.5 All work took place under continuous archaeological supervision.

5.2.6 All spoil and upcastings from the excavations were scanned visually for artefacts and ecofacts.

5.2.7 In the absence of artefacts or ecofacts, manual access to the trench was not carried out and strata sections were recorded from ground level.

Watching Brief

5.2.8 The watching brief, as defined in the Generic WSI, is a programme of archaeological monitoring (i.e. observation, investigation and recording) which is carried out by a suitably qualified archaeologist during site investigations and construction works. The purpose of a watching brief is to identify the potential of any archaeological remains that are uncovered during the course of the works and record them appropriately (as far as is reasonably practicable). The watching brief results in the preparation of an ordered archive that will be incorporated into the post-excavation works and into publication of the project results. The following observations were recorded on a daily basis.

- The Unique Event Code, in this case XSD10, and location of the area observed;
- The date of the observation;
- Personnel employed on site;
- A description of the construction works observed;
- Any relevant works sub-contractor and personnel undertaking and supervising the construction activity;
- Depths and extents of excavation works observed;
- A measure of confidence that any archaeological remains would have been observed and reasons;
- The areas and horizons (both those containing archaeological or remains of quaternary geological importance and those which do not) unaffected by construction activity (with special reference to archaeological sites identified for preservation in situ);



- The reasons why any particular area of the works was not observed, and noting those areas not subject to disturbance from construction;
- Location and description of any archaeological remains; and
- Location and description of any modern remains.

- 5.2.9 The techniques outlined below were utilised when appropriate, which was when significant archaeological remains were uncovered, when time constraints permitted and when it was safe to do so.
- 5.2.10 The watching briefs aimed to include archaeological supervision during the initial removal of overburden/ topsoil/subsoil followed, as necessary, by localised hand inspection, and assessment by the on site archaeologists. An appropriate sample was excavated from cut features and other archaeological remains of importance. Sampling of cut features included feature inter-sections to establish relative chronologies. The extent of sampling was determined by OAR in liaison with the Project Archaeologist (and as discussed with the relevant local authority and English Heritage, and a quaternary specialist, if necessary). As an example works included; the sample excavation of a selected number of deposits (both layers and negative, cut features) recording of structural remains and drawn sections and profiles. All work was done with the aim of recovering sufficient information to determine function, form, and date.
- 5.2.11 All trenches had their tarmac surfaces and underlying concrete slabs cut out and removed by the Principal Contractor and then the modern slab preparation deposits/sub-base were removed, either by mechanical excavation or by hand. The methodology being dictated by the Principal Contractor's method statement. This element of the works did not require permanent archaeological supervision. Subsequent to this initial breaking out phase archaeological supervision was dependent on the rate of works.
- 5.2.12 Where work was rapid and ongoing, the archaeological presence was more extensive, than when work progressed at a slow rate. The intermittent presence was sufficient since the majority of the investigations took place during the opening up of the trenches and during the installation of shoring. While the Principal Contractors undertook their tasks there was often no change in the circumstances of the trench until they were backfilled.
- 5.2.13 Investigation and recording work was done as part of the ongoing process and every effort was made to conduct the archaeological elements alongside the contractor's work so that there was no stoppage time for archaeological reasons. The density of archaeological remains and their level of significance meant that this was entirely possible.
- 5.2.14 The order in which the trenches were excavated was dictated by the programme of works with no archaeological input.
- 5.2.15 Heights for all deposits have been related to approved Permanent Ground Markers (PGMs) or approved Ordnance Survey benchmarks (OSBM), where reasonably accessible.
- 5.2.16 It was frequently not possible to clean and record the archaeological profile of excavations, due to health and safety or access constraints. However, every effort was made to establish the presence or absence of archaeological deposits and by establishing a height for significant deposits, including the depth of modern intrusions, key stratigraphic components and natural deposits.



5.3 Recording

- 5.3.1 All observations were undertaken against a unique Event Site Code (XSD10). Provided in advance of the project by the London Archaeological Archive Resource Centre.
- 5.3.2 A continuous unique numbering system was operated for each of the sites.
- 5.3.3 Plans and sections were drawn 1:50 1:20 or 1:10. Isolated archaeological remains (artefacts) were spot-located in plan and a height provided where applicable.
- 5.3.4 The photographic record consists of digital as well as 35 mm formats. Archived photographs include an appropriate graduated scale, a north arrow, and a header board detailing (as a minimum) the event code and context/feature number.
- 5.3.5 All structures, deposits and finds were recorded by OAR according to current best practice and accepted professional standards (see OA Fieldwork Manual 1992, Museum of London Archaeological Site Manual 1990).

5.4 Survey Work

- 5.4.1 The Principle Contractors' surveyors undertook all survey setting out. The set outs were usually conducted using a Total Station Theodolite or other suitable automated equipment referenced from approved Crossrail Permanent Ground Marker (PGM) data. Where survey was not possible, significant features were measured and drawn onto reproduced Crossrail-issued scaled drawings.
- 5.4.2 The positions of the interventions and survey points were verified by OAR through discussion and observation. The use of main contractor surveyors meant that data management of raw survey by OAR was not necessary.
- 5.4.3 Heights for all remains were related to approved Permanent Ground Markers (PGMs) or approved Ordnance Survey benchmarks (OSBM), where reasonably accessible.
- 5.4.4 In all instances, CAD work has, and will, follow the guidelines set out in Crossrail's CAD Standards (CR-STD-005 CAD Standards v2) and Crossrail's *Archaeology Specification for Evaluation & Mitigation (including Watching Brief)* (Document CR-PN-LWS-EN-SP-00001 - revised as CRL1-XRL-T1-RSP-CRG03-50001 (2012)). Two main drawings are maintained; one consists of the compiled survey data, digitised features and raster images in the Crossrail co-ordinates system. The other has the same information but has been inserted to a certified Ordnance Survey mapping system and uses the OS co-ordinates. This second drawing will be a requirement for archiving in London.
- 5.4.5 All plan scans have been numbered according to their plan site number. Digital plans will be given a standard new plan number from the site plan index at the time of archiving.

5.5 Finds Collection and Retention

- 5.5.1 All Finds were treated in accordance with the relevant guidance given in the IFA Standards and Guidance for Archaeological Field Evaluation. The UK Institute of Conservators Guidelines Conservation Guideline No 2 and the Museums and Galleries Commission's Standards in the Museum Care of Archaeological Collections (1991), excepting where they are superseded by statements made below.



- 5.5.2 All artefacts from excavated contexts were retained, except those from features or deposits of obviously recent date. No finds were, however, discarded without the prior approval of the Crossrail Project Archaeologist. In such circumstances, sufficient artefacts were retained in order to elucidate the date and/or function of the feature or deposit.
- 5.5.3 All retained artefacts were, as a minimum, washed, weighed, counted and identified. Any artefacts requiring conservation or specific storage conditions were dealt with immediately in line with First Aid for Finds (Watkinson & Neal, 1998).

5.6 Environmental Sampling

- 5.6.1 A strategy for sampling archaeological and environmental deposits was developed in consultation with OA's environmental department and was set out in OAR's Archaeology Method Statement (C254-OXF-W-GMS-CRG01-00003 rev 1.1 to 4 – 24/09/10 to 04/09/12).



6. RESULTS



6.1 Introduction




- 6.1.1 The scope of the watching brief works around Paddington Station varied in type, size and duration. In all cases the archaeological recording was aimed to be; consistent; of the highest standards; and integrate with the whole project. However, the logistics and health and safety of some elements of the work, did preclude the highest level of recording if physical access to areas was limited.
- 6.1.2 The results are presented below and are collated in terms of the type of work done, based on geographical location.
- 6.1.3 The work is primarily summarised by investigation for clarity but related features and remains are linked throughout. Where contexts could be identified between the investigations they have been done so and the phases referred to are those determined by the larger scale excavation works, where applicable.
- 6.1.4 In most cases the works consisted of an initial phase of test pits that aimed to investigate the ground conditions and/or locate the services in question. In several instances these test pits followed an earlier wave of similar test pits in similar locations.
- 6.1.5 After the test pits a second phase took place whereby extensive trenches were excavated to divert the services at which point the original ones became redundant. Frequently the test pits and accompanying trenches were done separately for each of the services. This resulted in a series of parallel trenches within close proximity.
- Eastbourne Terrace utility diversion works. The services in question, which required diversion works, included; electricity, water, sewerage, gas, fibre-optics and BT (communications).
 - Departures Road utility diversion works
 - The Utilities Diversion works were followed by;
 - Macmillan House Basement Clash Trench
 - The construction for the Crossrail Station Box itself, which comprised; obstruction clearance, excavation of the diaphragm walls guide walls and the bulk excavation of the box itself.




- 6.1.6 Additional work included; the recording and monitoring of removal of sections of wooden roadway in Departures Road for reinstatement at a later stage. Whilst, at the request of Crossrail’s Assistant Project Archaeologist, an unidentified structure was recorded after its exposure during works in the car park at the end of Platform 1/1a. This structure was beyond the listed building curtilage of Paddington Station.
- 6.1.7 There were variations in what was recorded primarily due to; the depths achieved; weather conditions; manner of work i.e. manual or mechanical; localised truncations; and whether the area had been recently subjected to disturbance. By this it is suggested that the later trenches may have had less integrity than the earlier ones. Where the term ‘Made Ground’ has been used this refers to highly mixed deposits; mixed in terms of colouration, texture and composition. The deposits termed ‘Made Ground’ result from recent ground disturbances primarily the installation of services and utilities throughout the 20th century, and as such as of no archaeological significance.



6.2 Test Pits



Identifier		Results
<p>Test Pit 1 – Macmillan House basement Block C</p> <p>See Fig.4</p>	 <p>Location. Looking east</p>  <p>The dividing wall is to left and the outside wall of Macmillan House is at the back</p>	<p>The present floor surface consisted of terracotta tiles (6117) laid upon a concrete slab (6118), between the slab and the bedding for the tiles a damp proofing course made up of a masticated layer of asphalt was observed. Upon removal of the concrete a levelling deposit was observed (6095), consisting of mid grey clay. Underlying this deposit London Clay (6119) was observed at a depth of 120.38 m ATD. The test pit was excavated against the south east corner of exterior wall of Macmillan House (6071) with an interior wall. Deposit 6095 was accumulated against the wall with the construction cut (6132) not being observed until natural Geology was exposed.</p>



<p>Test Pit 2 – Macmillan House basement Block B See Fig.4</p>	 <p>TP2 – Fully excavated. Facing northwest</p>	<p>Excavated through the basement floor slab formed of a rendered concrete and masticated bitumen, (6078), this exposed two layers of “Made Ground”, (6125) a loose light grey with frequent black inclusions, overlying deposit (6126) which consisted of a mid greyish brown clay with fine gravel inclusions. These deposits had been built up against two brick built walls (6077)/ (6073), on the north and south sides of excavation. These walls formed part of the basement of Macmillan House and cut through a soft dark grey brown clay (6085) which represents the natural geology in this part of the Site.</p>
<p>Test Pit 3 – adjacent to Cosey’s Hole Pump room, Macmillan House basement. Block B See Fig.4</p>	 <p>TP3- Fully excavated. Facing east. The outer wall of Macmillan House is to the left with the defunct dividing wall 6068 in the centre</p>	<p>Two concrete floor slabs, (6079) and (6070) were identified during the excavation of Test Pit 3, both approximately 0.15m thick and separated by a layer of masticated bitumen (6081). Upon their removal, the original east-west aligned outer wall of Macmillan House (built in 1852) was exposed (6073), this surrounded by a light grey coarse sandy gravel deposit, the backfill of its construction cut (6102) which cut through London Clay (6072). The concrete, (6070) foundations of a brick pillar (6082) were also identified. The brick pillar appeared to be an alteration to the formation of the basement. The remains of an earlier north –south aligned brick built wall (6068) was observed. This partly demolished wall appeared to represent an earlier dividing wall.</p>


<p>Test Pit 4 – Departures Road, pavement to west of “Horse Entrance”</p> <p>See Fig.5</p>	 <p>TP4 – Location. Facing northwest. The Horse Entrance is to the right</p>  <p>TP4 – Southeast facing section. The outer wall of Macmillan House on its concrete foundations to right</p>	<p>Upon removal of the modern pavement (6094), associated bedding layer (6093) and concrete (6091) two levelling deposit were identified, (6088) a loose mid brownish orange gravel rich clay with frequent brick and rubble inclusions which overlay a cleaner brownish orange gravel clay (6074). Below these deposits natural geology was observed, first Langley silts (6092) for approximately 0.1m on top of suspected Lynch Hill Terrace Gravels, (6105) which were observed to the limit of excavation. Cutting through these deposits was the outer wall of Macmillan House (6075), built of yellow stock bricks and constructed upon concrete base (6090). The wall was surrounded by a mid grey gravel rich sandy clay backfill (6087).</p>
<p>Test Pit 5 – Store room in basement of Macmillan House (Block E)</p> <p>See Fig.5</p>	 <p>TP5- Fully excavated. Facing southwest</p>	<p>Excavated through a concrete floor slab (6096), which was formed against internal dividing wall (6051). Wall 6051 was constructed upon a concrete slab with a loose mid greyish brown sandy gravel clay levelling deposit. The external wall of Macmillan House Block E (6097) was also observed, and noted to be cutting through the natural geology (6052). This deposit consisting of coarse sandy gravels was up to 4 m thick.</p>
<p>Test Pit 6 – Macmillan House basement</p>		<p>Two concrete layers, (c. 1.24m thick in total) with the upper forming the floor slab of Macmillan House, overlay coarse sandy gravels</p>



<p>Block A See Fig.5</p>	 <p>TP6- Fully excavated. Looking south</p>	<p>(6057), which were observed at a depth of 119.17m ATD. These river terrace deposits represented the natural geology in this part of the site.</p>
<p>Test Pit 7 – Paddington Hilton Hotel Casino See Fig.5</p>	 <p>TP7- Fully excavated. Looking east</p>	<p>Upon removal of the raised modern wooden floor the concrete floor slab was exposed. Constructed on a sheet of black plastic, damp proofing, and abutting red brick wall (6120). This wall, which appears to be the outer wall of the hotel, was constructed upon a concrete base with the construction cut being back filled with a greyish yellow coarse sand gravel deposit. The wall cut through the Lynch Hill sandy gravels (6122), which were at least 1.05 m thick.</p>
<p>TPSW1 – Departures Road See Fig.5</p>	 <p>TPSW1- Fully excavated. Looking northwest</p>	<p>Spanning the northern pavement and the modern roadway of Departures Road. The upper archaeological sequence comprised a series of “Made ground” deposits associated with the construction of the modern road. Both the tarmac (6021) and concrete block paving (6047) were constructed on a concrete bedding (6035), which overlay a modern type 1 aggregate (6045). These modern deposits overlay the corner of concrete structure of unknown function (6045) / (6064). This structure cut through a 0.15 m thick</p>

		<p>layer (6044) which appeared to be re-deposited Lynch Hill Gravels.</p>
<p>TPSW2 – Departures Road See Fig.5</p>	 <p>East facing section of TPSW2. The large modern concrete structure can be seen on right</p>	<p>Located centrally in the roadway the same tarmac- surface concrete-sub base sequence observed in TPSW1 was observed. This overlay a thick concrete structure (6038), which was cut through a series of made ground deposits consisting of two additional concrete bedding layers (6036) and (6036) which were built upon a compact yellowish brown gravel clay (6040). Concrete structure 6038 is likely to relate to Block E basement construction in the 1930's (see Basement Clash trenches below). Deposit (6040) overlay soft black clay silt with ash, clinker, oyster, and pottery inclusions (6041; pottery dating between 1830-1880). Under this levelling deposit, a re-deposited stiff mid grey clay containing small fragments of red brick and pottery (6042-pottery dating from 1805-1900) was observed. The earliest deposit observed was a mid greyish clean brown clay (6043), which was seen 2 m BGL.</p>
<p>TPSW3 – Departures Road See Fig.5</p>	 <p>Exposed wooden blocks (6020)</p>	<p>Directly underling the tarmac (6021) of the present roadway were wooden blocks used as a former road surface (6020). After their careful removal, two bedding deposits were observed loose concrete (6025) and more compact concrete (6027).</p> <p>Running along the northern edge of the Test Pit, a long concrete block was observed, this was suspected to be the back fill of a robbed out kerb reflecting an earlier widening of the road. Two additional levelling deposits were recorded underlying the concrete sub base (6027), (6030) was very compact 0.20 m thick dark grey sandy clay gravel. Whilst (6032) was a soft, dark grey</p>



	 <p>Complete excavated TSPW3. Looking southeast. To the right Brickearth deposits, to the left backfilled construction cut for Macmillan House basement wall 6026</p>  <p>TSPW3- Looking south. Wooden block roadway (6020) clearly seen just below modern road. Yellowish brown Brickearth deposits, with backfilled construction cut for Macmillan House basement wall 6026 in the foreground</p>	<p>ashy gravel rich silt, which contained large amounts of occupation waste (primarily oyster shell and china). A cut for a ceramic pipe was observed truncating these deposits; this service was sealed by deposit 6027 and 6030. In addition this service truncated (6022) and (6023) which were backfill deposits associated with brick built wall (6026) were located on the northern edge of the trench. This wall forms the southern edge of the Macmillan House basements.</p> <p>Natural geology, (6034) was observed in the southern half of the trench at 123.70 m ATD and appeared to be a Brick earth deposit. The deposit had been completely truncated away by the construction of cut for wall (6026)</p>
--	--	--



<p>TPSW4 Departures Road See Fig.5</p>		<p>Located in the pavement of Departures Road under the main Cab Roof canopy to the east of TPSW6. Excavated abutting the exterior wall of the section of Macmillan House, which had been rebuilt following bomb damage. The yellow stock brick foundations of exterior brick wall of Macmillan House was recorded as (6046) and the tarmac pavement (6128). A single “Made Ground” deposit was observed consisting of mid greyish brown and gravel rich clay (6129). An east-west aligned modern pipe trench cut this deposit, which was probably the backfill of the construction cut for the outer wall of Macmillan House.</p>
<p>TPSW5 See Fig.5</p>		<p>TPSW5 to the south east of Departures Road was excavated in order to investigate the potential presence of wooden setts in this area. The absence of setts negated further investigation and recording.</p>
<p>TPSW6 - Departures Road See Fig.5</p>	 <p>TPSW6-Location. Looking east. TPSW6 is beneath the yellow cover with TPSW4 beneath yellow cover behind</p>	<p>Located in the pavement under the Departures Road Canopy to the west of TPSW4. Excavated abutting the exterior wall of the section of Macmillan House, which had been rebuilt following bomb damage. The yellow stock brick foundations of exterior brick wall of Macmillan House was recorded as (6058) and the tarmac pavement (6125). A single “Made Ground” deposit was observed consisting of mid greyish brown rubble and gravel rich clay (6060). This deposit overlay two iron pipes and is likely associated with their placement, explaining the variation from the primary deposit observed in TPSW4.</p>



	 <p>TPSW6- Fully excavated. Facing north. The exterior wall of Macmillan House is on the right</p>	
<p>TPSW7 and TPSW8 – Departures Road See Fig.5</p>	 <p>TPSW7 and TPSW8 Location of trenches after reinstated. Looking north. The recent tarmac marks the infilled trenches</p>  <p>Concrete roof of the Osborne Tunnel</p>	<p>Located at the western end of Departures Road, upon removal of the modern roadway the concrete roof of the Osborne Tunnel (6013) was exposed and no further excavation was undertaken.</p>

<p>Trial Hole 4- Eastbourne Terrace/ Departures Road</p>	 <p>Trial Hole 4 – West facing section. Retaining wall (6108) is visible on the left</p>	<p>Located in the northern pavement of Eastbourne Terrace against the retaining wall between Departures Road and Eastbourne Terrace. Trial Hole 4 was the only excavated trial hole from a proposed series of 7. Under the slab paving and associated bedding layer two levelling deposit were removed, a 0.5m tick brown sandy clay (6109) overlying grey clay silt containing construction rubble (6110). Beneath this a series of backfill deposit associated with the construction the retaining wall (6108) were exposed. The latest backfill deposit, (6114) consisted of a friable mid yellow orange sandy gravel. This overly deposits (6112), a moderately compact grey silt clay and (6115) a mid brownish grey silty clay.</p> <p>The construction cut of the retaining wall had truncated the natural geology (6113), a grey brown sandy silt clay alluvial or 'brick earth' deposit observed at the southern edge of the excavation. This deposit was observed at a height of 125.81 m ATD.</p>
<p>Basement Clash Trench Trial Hole 6 Departures Road See Fig.5</p>	 <p>Trial Hole 6 flat roof of 1930s basement of Macmillan House Block E. Covered with a sealing layer of masticated bitumen</p>	<p>One of a series of trial holes excavated at the eastern end of Departures Road to uncover the line of outer wall and roof of the Macmillan House (Block E) basement. The flat roof of the basement was uncovered directly beneath the modern pavement.</p>
<p>Basement Clash Trench Trial Hole 11</p>		<p>One of a series of trial holes excavated at the eastern end of Departures Road to uncover the line of outer wall and roof of the</p>

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

<p>Departures Road See Fig.5</p>	 <p>TH 11 looking north. The modern road over wooden block surface. On the right hand side of section, the construction trench for the 1930s basement can be seen cutting through a layer of crushed red brick 6346 and ashy oyster rich layer 6347</p>	<p>Macmillan House (Block E) basement. Present Roadway and sub base (6350/6348) sealed the construction cut (6404) for the 1930s concrete and brick basement (6410) of Macmillan House, which ran along the southern side of trench. This construction trench cut through a layer of crushed brick (6346) which sealed a 0.15 m thick layer of soft dark ashy grey silty clay containing frequent fragments of oyster shell and mid 19th century pottery (6347).</p>
<p>Basement Clash Trench Trial Hole 12 Departures Road See Fig.5</p>	 <p>TH 12. Looking east. The modern road over wooden block surface. On the left hand side of the section, the wall and the construction trench for the 1930s basement can be seen cutting through a series of levelling deposits</p>	<p>One of a series of trial holes excavated at the eastern end of Departures Road to uncover the line of outer wall and roof of the Macmillan House (Block E) basement. Present Roadway and sub base deposits sealed the backfill of two construction cuts (6350) and (6533) for two concrete walls (6349) and (6413). Cut (6350) appeared to be a recut, which was excavated and filled with rough concrete (6413). An addition to the earlier brick and concrete wall of the Macmillan House basement (6349). These cut a series of road levelling deposits. A coarse sandy gravel rich clay (6328) which sealed a 0.10 m thick layer of soft dark ashy grey silty clay containing frequent fragments of oyster, pottery, (6345) dump gravel rich clay silt 6352.</p>

<p>Basement Clash Trench Trial Hole 14 Departures Road See Fig.5</p>	 <p>TH 14 looking west. Modern road and sub base sealed the backfill of construction cut (6532) and wall (6412) the Macmillan House basement</p>	<p>One of a series of trial holes excavated at the eastern end of Departures Road to uncover the line of outer wall and roof of the Macmillan House (Block E) basement.</p> <p>Tarmac surface of modern road and sub base sealed the backfill of construction cut (6532) excavated for concrete wall (6412). Part of the outer wall of the Macmillan House basement. This cut a series of road levelling deposits. A coarse sandy gravel rich clay (6401), which sealed a 0.15 m thick layer of soft dark ashy grey silty clay containing frequent fragments of oyster, pottery (6405).</p>
<p>Basement Clash Trench Trial Hole 15 Departures Road See Fig.5</p>	 <p>TH 14. Looking west. Modern road and sub base sealed the backfill of construction cut (6532) and wall (6412) the Macmillan House basement</p>	<p>One of a series of trial holes excavated at the eastern end of Departures Road to uncover the line of outer wall and roof of the Macmillan House (Block E) basement.</p> <p>Tarmac surface of modern road and sub base sealed the backfill of construction cut (6532) excavated for concrete wall (6412). Part of the outer wall of the Macmillan House basement. This cut a series of road levelling deposits. These overlay a coarse sandy gravel rich clay (6401).</p>



<p>Basement Clash Trench Trial Hole 16 Departures Road See Fig.5</p>	 <p>TH6 section showing road levelling deposits over a ashy grey silty clay containing frequent fragments of oyster shell (6408)</p>	<p>One of a series of trial holes excavated at the eastern end of Departures Road to uncover the line of outer wall and roof of the Macmillan House (Block E) basement. The tarmac surface of modern road sealed construction cut (6530) for Macmillan House basement walls (6530). This cut a series of road levelling deposits sealed a 0.20 m thick layer of soft dark ashy grey silty clay containing frequent fragments of oyster shell (6408).</p>
<p>SCTH 18 Departures Road See Fig.5</p>		<p>This trench revealed a backfilled construction cut for a water pipe trench beneath the tarmac surface of the modern road (6415).</p>
<p>SCTH 19 (Station Box northern Guide Wall Trench) Departures Road See Fig 4 and 5 red line</p>	 <p>Station Box northern Guide Wall Trench beneath the Departures Road Canopy. Looking north. Surface and sub base of modern road, a layer of wooden setts and its concrete sub base, gravel bedding above levelling deposits including (6462) the</p>	<p>The guide wall trench ran along the northern edge of Departures Road, beneath the Departures Road Canopy. The sequence beneath the tarmac surface and sub-base of the modern road (6415 6425 6432/6431) comprised; a layer of rectangular wooden setts (which represents a former wooden block roadway) laid on a concrete sub-base and gravel bedding layer. This in turn lay above a number of levelling deposits, including an extensive deposit of black ashy clay with frequent oyster shell fragments and 19th century pottery which was seen in almost all of the interventions in Departures Road (6462). This overlay a series of</p>



deposit of black ashy clay with frequent oyster shell fragments and 19th century pottery which was seen in almost all of the interventions in Departures Road. Natural geology sands and gravels at the base



Station Box northern Guide Wall Trench beneath the Departures Road Canopy. Looking west. Surface and sub base of modern road a layer of wooden setts and its concrete sub base, above levelling deposits including (6462) deposit of black ashy clay with frequent oyster shell fragments and 19th century pottery over natural geology


gravels and sands, which appeared to be in situ natural geology. To the west of the Departures Road Canopy the wooden block roadway was not present, instead a layer of granite setts (6429) with its concrete sub-base made up the former roadway. This sealed a thin layer of crushed chalk (6421), which in turn sealed a series of levelling deposits. Natural geological deposits were not seen within the trench.


<p>SCTH 20 Departures Road See Fig.4</p>	 <p>Section of SPTH 20. Looking south</p>	<p>This test pit revealed the Tarmac surface of the modern road (6471) overlying granite setts (6201) on a gravel and sand sub-base (6472). The sub-base overlay a deposit of crushed chalk (6473) above levelling deposits (6774) and oyster and silty sand (6475)</p>
<p>SCTH 21 Departures Road See Fig.4</p>	 <p>Section of SPTH21. Looking east</p>	<p>SCTH 21 was excavated within the ramp at the western end of Departures Road. In the test pit the tarmac surface of modern road overlay granite setts (6201) on a sub-base of sandy gravel (6483). This sealed a thin layer of crushed chalk (6484) and a 0.20 m thick layer of gravel. Beneath this was a dark grey silty clay containing oyster shells (6482) and a deposit of grey sandy clay.</p>

<p>SCTH 22 Departures Road See Fig.4</p>	 <p>Section of SCTH 22. Showing rough-hewn chalk blocks 6477. Looking west</p>	<p>SCTH 22 was excavated within the ramp at the western end of Departures Road. It revealed the tarmac surface of modern road overlying granite setts (6201) of the former road on a sub-base of crushed red brick (6479). This sealed a 0.50m thick layer of gravel and clay (6480) and a deposit of rough-hewn chalk blocks (6477). Beneath this was a mid grey brown sandy clay (6478).</p>
	 <p>Non-archaeological Trial Trench 2. Modern road and sub base over levelling deposits</p>	<p>Two non-archaeological trial holes were excavated in the western end of Chilworth Mews. The following archaeological sequence was uncovered; The modern road surface (6534) and its sub base and levelling (6535) (6536) over lay a north–south aligned brick built vaulted sewer (6537).</p>

	Non-archaeological Trial Trench 1. Road, sub base and levelling with vaulted sewer on right	
--	---	--

6.3 Archaeological Test Pits

Identifier		Results
ATP 1 Eastbourne Terrace See Fig.5	 <p data-bbox="459 1176 869 1249">ATP 1. Base of sequence Brickearth deposit over gravels</p>	<p data-bbox="933 577 1380 683">Test Pit 1 measured 4 x 2 m and was excavated to a depth of 5 m below existing ground level.</p> <p data-bbox="933 689 1380 1093">The upper 3 m of strata comprised modern overburden/ “made ground” including re-deposited natural and the existing hardstanding deposits (6463) overlay a 0.7 m thick layer of mid yellowish brown, coarse sandy clay brickearth (6464) This deposit was observed to a height of 123.47 m ATD and overlay a series of slopewash/fluvial (?) deposits.</p> <p data-bbox="933 1099 1380 1301">The earliest deposits observed in this trench comprised gravels (6465). These deposits, whose base was not found, were exposed and excavated to a depth of 121.77 m ATD.</p>

<p>ATP 2 See Fig.5</p>	 <p>ATP 2. Base of sequence showing “made ground” over “tufa” rich brown clay overlying sand and gravels</p>	<p>Test Pit 2 measured 4 x 2 m and was excavated to a depth of 5 m below existing ground level.</p> <p>A c. 2.7 m thick deposit of modern “Made ground” / embankment material (6466) layer directly below the modern roadway.</p> <p>This sealed a 0.5 m thick layer of stiff, brown alluvial clay (6467), which contained frequent fragments of white calcareous gypsum or “tufa. This deposit, which was observed at a height of 123.47 m ATD in overlay a deposit of mid brown clay (6468) which sealed a series of slopewash/fluvial? deposits.</p> <p>These comprised fine sands (6470) whose base was not found at a depth of c 121.45 m ATD. A deposit of sandy gravel (6469) overlay this. These deposits, upper surface were seen at 122.67 m ATD.</p>
----------------------------	---	---

6.4 Utilities Trenches

Identifier		Results
<p>Trench 1 Eastbourne Terrace See Fig.4 and 5 red line</p>		<p>Utilities Trench 1 ran along the whole length of Eastbourne Terrace through the southern pavement.</p> <p>A brick wall (6004), comprised of red bricks with deep machine made frogs and rendered with grey concrete, was observed running along the southern edge of the trench throughout the entire length of the trench except where the trench crossed side streets</p>



Utilities Trench 1. Looking west. Wall 6004 is on the left



West facing section at east end of trench. Showing pre-existing services and modern brick built retaining wall on right



Utilities Trench 1 – Section opposite Cleveland Terrace

(Chilworth Street and Cleveland Terrace). This modern wall) is associated with the 1960s redevelopment of Eastbourne Terrace and appears to act partly as a retaining wall and basement wall for the modern properties.



All excavation work took place within the construction trenches of the pre-existing services and within the rubble backfill of the construction cut (6002) of wall (6004).

Wall (6004) was not seen running across the entrance to Chilworth Street and Cleveland Terrace these were the only two opportunities to observe any deposit existing prior to the retaining walls construction.




Across Cleveland Terrace a series of “made ground” or levelling deposit were observed underlying the Tarmac (6005) of the present roadway and its associated bedding layer (6007). The first deposit observed consisted of a compact light brown gravel clay 0.15 m thick (6050), underlying this deposit was a light mid greyish brown silty clay with frequent gravel inclusions (6019), reflecting re-deposition of natural. This overlay a moderately compact mid brown coarse sandy gravel rich clay (6017). A domestic dump (6018) was observed under this, consisting of dark grey black ashy clay silt, which contained a large quantity of oyster shell. The final levelling deposit (6012), a mid brown sandy clay gravel, was a suspected re-deposited natural.


Natural geology was observed in base of the trench at 126.55 m ATD and consisted of a brown ‘Brick earth’ deposit (6170).

Chilworth Street showed a similar sequence of “Made ground” deposits. Removal of the tarmac (6005) and bedding layer (6007) and additional bedding layer (6008) was exposed. Underlying this was a compact mid



		<p>brown orange sandy clay (6015) which in turn overlay deposit (6009), a loose dark grey black clayey silt. Deposit (6010), a compact mid greyish brown sandy clay silt was observed under this and sealed deposit (6016) a compact mid brown with mid orange brown mottling redeposited natural geology (6010) which was observed at 124.59 m ATD and consisted of a mid greyish brown sandy clay silt alluvial deposit.</p> <p>Wall (6014) at the corner of Chilworth Street and Eastbourne Terrace, constructed from yellow frogged stock bricks was truncated by (6004); the wall was associated with a barrel vaulted culvert of red brick (6013).</p> <p>Between Cleveland Terrace and Bishop's Bridge Road, the east-west aligned wall (6004) seen elsewhere in the trench was not observed. This entire section of the trench appears to have been excavated within the backfill of the pre-existing services.</p>
<p>UTR 2 Departures Road</p>		<p>Utilities Trench 2 ran perpendicular across the eastern end of Departures Road, excavated to a depth of 1.45 m the trench was approximately 7.3 m x 0.7 m, at 127.30 m ATD.</p> <p>The work was carried out in two phases, the initial work was undertaken to remove part of the wood sett roadway (6020) the setts, which lay directly beneath the tarmac surface of the present roadway, were exposed at 127.18 m ATD. Upon the successful removal the trench was backfilled. With further excavation being undertaken at a later date.</p> <p>Upon further excavation a series of dumped deposits were identified. Underlying the wooded setts of (6020) was a compact pinkish white course sand mortar (6136) likely to be the</p>

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

		<p>bedding layer for the setts. This overlay a c. 0.17-m thick concrete base (6137).</p> <p>Two suspected levelling layers were observed under the concrete a brownish yellow fine grain sand 0.08 m thick, (6138), which overlay a pinkish red layer of sand and crushed brick, 0.12 m thick (6139).</p>
<p>UTR3 Departures Road</p>	 <p>Utilities Trench 3 – Location. Looking northwest</p>  <p>Utilities Trench 3 – South facing section</p>  <p>Utilities Trench 3 – From west. Showing Brick built structure (6157) with</p>	<p>Located in the northern pavement of the western ramp of Departures Road, to the west of the Departures Road Canopy.</p> <p>Due to the sloped nature of Departures Road at this point the surface height at varied from 126.96 m ATD at the northwest to 123.77 m ATD at the southeast end of the trench. Throughout the length of the trench a consistent stratigraphic sequence was observed, however not all deposits were observed throughout the entirety of the trench.</p> <p>The surface deposits consisted of the present tarmac footpath, concrete block footpath and tarmac roadway.</p> <p>Upon removal of the modern footpath at the north west end of the trench a brick structure (6157 – see Fig.4) was identified. Consisting of a brick structure 6167 on a concrete base 6169, the full depth of which is not known as it extended beyond the limit of excavation.</p> <p>On top of the brick structure was a cast iron plate 6168 welded to which was five short lengths of “Bridge Rail” type railway tracks. The centre of the brick base was hollow and the proximity of the tracks and the small size of the structure suggests that the</p>

	<p>associated Bridge Rail type tracks.</p>  <p>Utilities Trench 3 – From east. Showing former line of</p>	<p>tracks were not functioning as rails. The structure is believed to post-date the construction of Macmillan House as it was next to, though not touching the exterior wall of the building. In addition to this the metal plate to which the tracks were welded was partially cut into the exterior wall. Overlying the structure was deposit (6160), dark yellow clay sand with frequent crushed brick and debris inclusions. This deposit was observed throughout the majority of the trench, with further excavation towards the south east of the structure showing this deposit to be overlain by four deposits, likely to be associated with levelling of the area.</p> <p>Excavations alongside the edge of the retaining wall at the north east side of Departures Road showed a drainage pipe running perpendicular to the trench. The pipes were aligned with the wall columns supporting the Departures Road Canopy outside Macmillan House. The wall columns included the drainage pipes from the roof. Upon excavation beyond the canopy the drainage pipes in the trench continued showing that the canopy previously extended beyond its current limit.</p> <p>At the southeast end of the retaining wall the trench turned in towards Macmillan House and crossed the present vehicle entrance to the Goods Yard.</p> <p>The tarmac of the roadway was removed and exposed granite paving sets (6201), as observed elsewhere around Paddington Station. These sets were constructed upon two bedding layers, compact sand (6184) and a compact black clinker sand (6186). Underlying these bedding layers a brick wall was observed (6198). Constructed of a shallow frogged pink and yellow brick in an English bond, with a course yellow sand mortar. The wall was on the</p>
--	--	--



This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

	<p>retaining and canopy support wall (6198)</p>	<p>same alignment as that of the retaining wall and constructed using the same materials and techniques and is likely to be the original continuation of this wall.</p> <p>Within the trench the end of the wall was identified reflecting the original width of the entrance to Macmillan House. Constructed within the end of the wall a drainage pipe was observed suggesting that initially the canopy extended to the walls limit.</p> <p>To the southeast, beyond the limit of the wall, two additional make-up layers were identified, deposit 6203 was an orange brown sand clay gravel which overlay 6204 a mid orange brown clay sand with frequent gravel inclusions. This two deposits were observed to the end of the trench, which abutted the exterior wall of Macmillan House (6205).</p>
<p>UTR 4 Eastbourne Terrace</p>	 <p>Trench 4. Looking west</p>	<p>Located at the south east end of Eastbourne Terrace and running perpendicular to it. This was the smallest of the trenches measuring 2.8 m x 0.9 m and excavated to a depth of 0.5 m. Tarmac was observed overlying a concrete sub base 0.3 m thick, which had been constructed upon a coarse sandy gravel deposit (6188) overlying loose pale greyish red gravel sand (6189).</p>
<p>UTR 5 Eastbourne Terrace</p>	 <p>Trench 5. Looking east</p>	<p>Utilities Trench 5 ran perpendicular across Eastbourne Terrace slightly east of Trench 4.</p> <p>Trench 5 was excavated to link the newly installed services running under Departures Road in Trench 2 with those in Trench 1. Trench 5 was excavated to a depth of 0.95m to the south west and 1.9m to the north east. Initially the present roadway was removed consisting of a 0.13 m thick tarmac layer overlying 0.31 m of concrete sub base. The road had been constructed upon a layer of black cinder (6193) and a 20 mm thick deposit of sand, which overlay a</p>




This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System



		<p>levelling deposit of orange sandy clay with occasional brick inclusions (6194). The next deposit, (6196), observed was dark brown clay with occasional brick and rubble inclusions. This deposit was observed to the limit of excavation. Between deposits (6194) and (6196) a small yellow sand lens was observed (6195) of dump material accumulated during the make-up of the ground.</p>
<p>UTR 6 Figure 4 (BT) Eastbourne Terrace Departures Road</p>	<div data-bbox="459 689 847 1043" data-label="Image"> </div> <p data-bbox="459 1055 831 1122">Trench 6 – Eastbourne Terrace. East facing section.</p> <div data-bbox="459 1167 847 1630" data-label="Image"> </div> <p data-bbox="459 1641 847 1742">Trench 6 –Departures Road. East facing section. Retaining wall 6145 is on the left</p>	<p>Utilities Trench 6 was located in the pavement between the north west end of Eastbourne Terrace and Departures Road. Located either side of the retaining wall, (6141), separating Eastbourne Terrace and Departures Road two different stratigraphic sequences were observed, both consisting of entirely “Made ground”.</p> <p>In Eastbourne Terrace upon removal of the existing block paving (6150) and associated bedding layer (6151) modern services were exposed cutting through deposit (6148), a bedding layer of dumped material consisting of mortar and construction rubble. This overlay a levelling deposit, (6145), consisting of a compact mid greyish brown fine sandy clay. Layer (6145) sealed both deposits 6146 and 6147, with 6147 being the back fill of the construction cut (6152) and consisting of rubble rich sandy. The construction cut 6152, which was the foundation trench for retaining wall (6141), truncated deposit (6146), a mid brown clay with occasional brick fragments, an initial levelling event prior to construction.</p> <p>In Departures Road, the tarmac pavement (6154) and its bedding/ sub base (6155) were removed along with the tarmac surface of the former roadway (6021), upon which the pavement had been constructed. A cobble surface, (6142), was observed under the road consisting of granite setts and constructed upon a bedding</p>

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System



		<p>of soft dark grey silty clay containing frequent fragments of red brick (6153). Two further levelling deposits were observed beneath 6142, a compact mid brown sandy gravel rich clay (6143), which overlay a dump of construction material (6144). On this face retaining wall (6135) did not have a visible construction cut. So probably built in a freestanding trench with the wall built up against the northern limits of the trench.</p>
<p>Trench 7 Eastbourne Terrace</p>	 <p>Trench 7 Location. Looking east</p>  <p>Trench 7 – South facing section</p>	<p>Excavated on the northern side of Eastbourne Terrace running parallel to the road, excavated to a depth of 1.1 m.</p> <p>Upon removal of the modern tarmac road surface and its concrete sub-base; three “Made ground” deposits were observed. A thin, 80 mm thick, band of loose brown sandy gravel overlay dark grey sandy clay, which contained construction rubble. The final deposit that was observed at the base of the trench was brown sandy clay with occasional red brick and rubble inclusions.</p>
<p>Water Diversion Trench (Departures Road)</p>		<p>Beneath the tarmac surface of the modern road 6377/6385 a series of backfilled service trenches (6369 6380) sections of granite setts (6201) (to the west of the Departures Road Canopy) and sections of wooden setts 6020 (beneath the Departures Road</p>

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

	 <p>Water Diversion Trench looking north showing the wooden block roadway 6020 sitting on a layer of crushed chalk</p>  <p>Water Diversion Trench looking north. Showing wooden block roadway 6020 and its concrete sub base over silty clay. The possible fill of a north-south channel 6497</p>	<p>Canopy) represent the remains of the former road. Make up or levelling deposits including an extensive layer of dark grey ashy sand and clay containing frequent fragments of mid-19th century pottery some clay tobacco pipes and very frequent oyster shells (6390) were seen along most of trench. An equally extensive layer of crushed red brick 6373 /6389, and in areas, to the west of the mainline station's loggia entrance a 0.25 m layer of crushed chalk, were also seen acting as a sub base for the wooden block roadway. These overlay deposits of natural gravels, sandy clays and sands. In front of the loggia entrance to Platform 1, the base of a north–south aligned clay filled cut was observed to the silted up remains of a possible channel (6497).</p>
<p>Water Diversion Trench Eastbourne Terrace</p>	 <p>Top of vaulted cellars looking north</p>	<p>Beneath the modern roadway and sealed by a deposit of puddled clay 6736 and a layer of clinker (6740). A row of vaulted, brick built cellars (6730, 6731, 6732, 6733, 6734, 6737, 6738 and 6739) were uncovered running along the southern edge of the street. Built of red unfroged bricks with repairs built in yellow bricks with shallow frogs. These pavement cellars had been filled with concrete. Circular holes were seen cut into roofs of these cellars almost</p>

	 <p>Roofs of arched cellars below Eastbourne Terrace. Looking west towards Bishop's Bridge Road</p>	<p>certainly represent coalholes. The top of the roofs were at a height of 126m ATD.</p>
<p>Sewer Shaft Eastbourne Terrace See Fig.5</p>		<p>Located in the middle of Eastbourne Terrace opposite Cleveland Terrace a 2 x 2 m shaft was excavated to a depth of approximately 5.5 m for the diversion of a brick sewer. Due to the narrow width of the excavation the stratigraphic sequence was formed of backfill deposit from within the construction cut, (6197) for the sewer (6202). The top of the sewer was observed at approximately 124.07 m ATD. The tarmac (6209) and concrete sub base (6210) were removed to expose a narrow band, c. 0.12 m of crushed red brick and sand (6214). This overlay a make up layer, c. 0.38 m of brown clay with occasional brick fragments and gravel inclusions (6211). The remainder of the backfill observed was a more sterile version of this deposit and is suspected of being re-deposited oxidised London Clay (6212). Blue grey unoxidised London Clay was observed in section at a level of c. 122.57 m ATD.</p>

6.5 Basement Clash Trench

Identifier		Results
<p>Departures Road See Fig.5</p>	 <p>Wooden roadway 6020. Looking west</p>  <p>Macmillan House basement with natural Gravels</p>	<p>Excavated at the eastern end of Departures Road. This machine-excavated trench covered almost the entire width of the roadway and ran along the whole length of the basement of the 1930s section of Macmillan House.</p> <p>The trench was monitored to a depth of 6 m deep (118.32m ATD). The rendered brick basement walls (6427) and concrete footings (6410) of the 1930s basement in Macmillan House, Block E were within a construction cut (6428). This was backfilled with mixed deposits (6360-6363) sealed by a concrete sub-base 6359 for the wooden roadway (6020). At one point the basement wall had been strengthened with the addition of a section of concrete wall (6445).</p> <p>The outer face of wall (6427) was reduced by up to 300 mm so as to better accommodate the diaphragm walls of the Crossrail Station Box.</p> <p>The construction cut 6428 cut through a series of gravels and sands (6440, 6442 and 6443), which formed the natural geology deposits in this part of the Site. London Clay, both “weathered” (6446) and “non weathered” (6441), was uncovered beneath the gravels at a height of 119 m ATD.</p>



Corner of Macmillan House
Basement



Upper bricks 6427 and lower
concrete footings 6410 of
Macmillan House Basement



Base of sequence Gravels over
London Clay

6.6 Station Box Construction

Identifier		Results
<p>Plunge Columns Eastbourne Terrace/ See Fig.4</p>	 <p>Plunge column Trial trenches. Looking west</p>  <p>Plunge column pit with northern wall and arched roof of the egg sewer</p>	<p>Mid way through the bulk excavations, a series of non-archaeological Trial Trenches were excavated at the location of Plunge Columns 1-12. To identify and remove sewer (6133).</p> <p>The sewer, its construction cut (6555) and its backfills (Appendix 1 and 6556) were uncovered and recorded (see context table for descriptions). As were the extensive made-ground deposits which overlay the London Clay at the western end of the Station Box.</p> <p>See below and conclusions for description of the egg-shaped sewer</p>

Bulk
Excavations
Eastbourne
Terrace/
Departures
Road



Redbrick floor (6545) of cellars (6546) beneath southern edge of Eastbourne Terrace. Looking north



Second inner cellar wall added to inner face of original white washed southern wall of cellar (6546)

Eastbourne Terrace

The upper 1-1.5 m of the archaeological sequence beneath Eastbourne Terrace comprised backfilled service trenches, backfilled construction trenches or makeup/ sub base deposits for the present roadway.

Beneath this, the bulk excavations revealed a row of brick built apsidal cellars (6546) was uncovered along the southern side of Eastbourne Terrace. These were aligned east west. Built of walls made of red unfrogged bricks set in a pale yellow sandy lime mortar. The walls were 0.24 m thick most had brick floors seen at 124.94 m ATD. (6545). Cellars were 3.90 m long and 2.30 m wide internally and were in a cut 5 m wide. A row of 0.80 m wide entrances was seen in the southern walls.

These are almost certainly coal storage cellars for the 19th century properties along this road line. They appear to be one cohesive build, although a number had clearly undergone some alterations i.e. side walls repaired, brick floors replaced with concrete. In a number of the cellars the second brick wall had been built over the original southern outer wall. The roofs and most of the walls had been removed down to within 0.7 m of the floor and the resulting “robber cut” filled with demolition rubble. This demolition almost certainly occurred when the south side of Eastbourne Terrace was developed in the 1960s.



Base of cellars (6546) brick floor (6545). Looking east. The southern diaphragm wall of the Station Box is on the right



Southern wall of cellars. Brick floor (6545), with stone threshold of the cellar's former entrance

Along the middle of Eastbourne Terrace an east-west aligned a brick built sewer (6133) was uncovered. The sewer, which was 'egg-shaped' The Egg-Shaped Sewer

The egg-shaped sewer measured 1.2 m in width (with an internal max width of 0.9 m) and was 1.4 m in height. It was found at a depth of 2.40 m. Three circular, brick built manholes (6553) were also revealed cut into the top of the sewer.

The bulk excavations removed the retaining wall between Eastbourne terrace and Departures Road.

This comprised a tapered panelled brick wall with a series of stucco covered banded buttresses which supported the Departures Road Canopy. These buttresses were rectangular in plan and where



Brick built circular manhole (6553) into Egg Sewer during demolition



Side of brick built Sewer (6133) looking northwest



Side wall and top of Sewer (6133) looking south

topped by simple capitals supporting dentilled cornice blocks and were not bonded into the battered brickwork of the main wall.

A set of brick steps, with a small room beneath, leading down from Eastbourne terrace to Departures Road was also demolished as were several small rooms, which had been built through the retaining wall into the Eastbourne Terrace. At the top of the wall (the Eastbourne Terrace street level) The gaps between the buttresses were filled with moulded iron railings. The railings and roof are the subject of a more detailed OAR report (C254 Building Recording Departures Road, C254-OXF-TI-RGN-CRG03-50214), which incorporates an earlier report on the in situ Canopy produced by Scott Wilson (Scott Wilson, 2009).

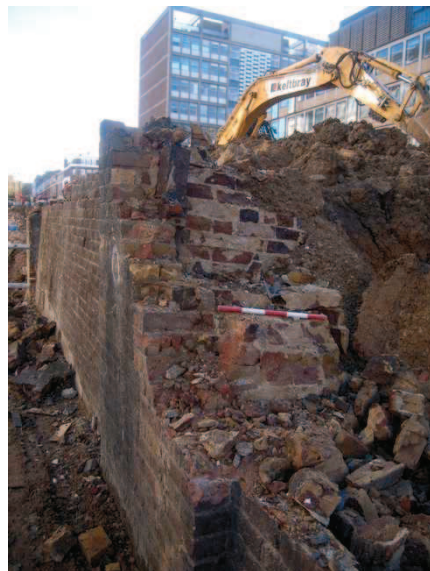
The retaining wall was constructed of red, yellow and mauve bricks with shallow frogs bonded with a very hard light grey mortar with coal flecks. The main wall stepped out some 0.9 m on its southern side towards the base.

The construction cuts for the retaining wall was up to 5 m in width and had truncated and mixed the underlying archaeological deposits beneath Eastbourne Terrace (6452 and 6453).

These deposits which at the western end of the Site were up to 3 m thick appeared to be dumps and levelling deposits, used to level out the local topography, during the development of the area from the middle of the 19th century. The bulk excavations in Eastbourne Terrace showed that at the western end of the Site the



Retaining wall between Eastbourne Terrace and Departures Road during demolition



Demolition of retaining wall between Eastbourne Terrace and Departures Road



“madeground “ dumps and levelling deposits, were a lot thicker (up to 3 m thick) than at the eastern end. And that they lay directly above the underlying gravels and sands or London Clay.

Departures Road

Along Departures Road the upper archaeological sequence was different. There were none of the “makeup” deposits seen beneath Eastbourne Terrace, instead beneath the modern road a roadway made up have wooden and granite setts (6020, 6201, 6135, 6142, 6429 and 6460) was uncovered running along most of Departures Road. A sequence of levelling and bedding layers were uncovered beneath this roadway (see e.g section 6.2).

Lowest Sequence Eastbourne Terrace/Departures Road

The series of deposits uncovered along the whole length of the Station Box beneath Eastbourne Terrace were; A layer of light to mid brown coloured silty clay with small patches of calcareous tufa (6549, 6550, 6810, 6807, 6803, 6802 and 6800) were seen at variable depths along the whole of Eastbourne Terrace Site, starting at a height of between 126.58 m and 123.20 m ATD. This deposit was up to 1.5 m thick and aside from the tufa deposits contained no artefacts or visible ecofacts.

At the western end of the Site, Brickearth overlay London Clay whilst at the centre and east of the site silty sandy silts overlay substantial deposits of gravels. An extensive (up to 7 m thick in the eastern end of the Station Box) sequence of sands and gravels. These appear to be thickest in the

Demolition of “room” adjacent to Retaining wall between Eastbourne Terrace and Departures Road



Madeground deposits beneath Eastbourne Terrace. To the west of the Crossrail Station Box



Madeground deposits beneath Eastbourne Terrace within the Crossrail Station Box



east of the main Paddington Box site becoming progressively thinner towards the west. No artefacts or ecofacts were visible in these deposits.

The London clay, both “weathered” (6561) and “non-weathered” (6441), was uncovered beneath the Lynch Hill gravels at a height of 122.55 m ATD at the western end of the Box.

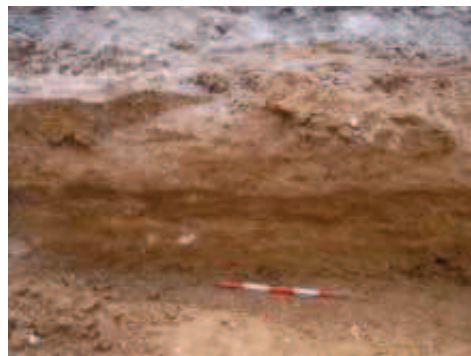
Granite sett roadway at western end of Departures Road



Silty sands with lens of calcareous tufa seen overlying gravels at eastern end of the Crossrail Station Box



Top of silty sand deposits. Beneath Eastbourne Terrace






Silty sand deposits with lens of calcareous inclusions in section

	 <p>Base of sequence. Pleistocene (?) gravels and sands over London Clay</p>  <p>Base of sequence. Pleistocene (?) gravels and sands over London Clay</p>	
--	--	--

6.7 Additional Works

Identifier		Results
Platform 1A – Car Park See Fig.4		Upon removal of a concrete platform in the car park located at the end of Platform 1/1a an unidentified structure was observed. Consisting of two parallel steel rails, c.1.2 m off the ground. A section of the siding was stamped with the maker's name, Collvilles; a Scottish steel company founded in 1872 and nationalised in 1967.

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

	 <p>Structure observed in car park</p>  <p>Mechanical Element of unknown structure</p>	<p>The function of the structure is unknown but looks to have formed the base or supports for a previous working platform. Towards the western end of the structure a small moving part was identified.</p>
<p>Monitoring of partial removal Wooden Block Roadway- Departures Road</p>	 <p>Wooden roadway uncovered during utility diversions. Looking southeast towards retaining wall</p>	<p>As part of the project, an area of wooden block roadway at the eastern end of Departures Road was lifted and reinstated and further setts were retained as salvage items to be incorporated into the paving design for the future Crossrail Paddington Station.</p> <p>The locations of the wooden setts were mapped and the setts photographed.</p> <p>The average block size was 230 mm (length) x 75-80 mm (width) x 145 mm (laid depth). The blocks were probably of Deal (common in railway sleepers and telegraph poles) and laid in an alternating joint stretcher pattern. The blocks are laid from the Paddington Station side of Departures Road with ends laid against a Portland cement ridge, which in turn</p>



Wooden roadway against Eastbourne Terrace retaining wall



Decayed section of setts



Wooden roadway at eastern end of Departures Road. Looking east. Showing seam where setts were lifted to build basement of Macmillan House

abutted the kerbstone of the present pavement.


The long sides of the setts were orientated towards the Eastbourne Terrace retaining wall. The laying pattern was completed against Eastbourne Terrace wall by NW-SE aligned stretchers (see photo).

Joints were generally flush but there are intermittent creosote soaked bark inclusions in the joints. These were c 1-2 mm thick and are presumed to act as expansion joints.

The setts were creosote soaked and laid directly on a Portland cement base. The soaking appears to have been carried out insitu as the bases of the setts are not fully protected and many had rotted.

At the eastern end of the road a single seam was apparent running parallel to the Departures Road

A section shows that here the roadway to be constructed in two parts. This also coincides with the location of the construction cut for the 1930s Macmillan House (Block E) Offices basement.

	 <p>Wooden roadway in section. Concrete sub base gravel bedding layer and black ashy clay deposit containing frequent oyster shells and frequent fragments of mid-19th century pottery</p>	<p>All the setts lay directly below the tarmac surface of the present carriageway and were all lain on to a concrete base. this always sat on a bedding layer of yellow sandy fine gravel which in turn overlay a 0.1-0.2m thick band of black ashy clay which contained numerous fragments of oyster shell, clay tobacco pipes and sherds of pottery which appear to date from around 1860-1880s.</p>
--	--	--

7. FINDS

7.1 Pottery

- 7.1.1 A total of 485 sherds of pottery weighing 20.303kg were recovered from 39 contexts. These are all broadly of 'Victorian' date. Apart from a single crucible rim, the material is entirely domestic in character. In general the pottery is in a fairly fragmentary condition although many quite large sherds are present as well as several complete vessels - mainly the smaller robust storage vessel forms such as whiteware preserve jars and paste pots and stoneware ink bottles. Almost all the pottery was retrieved from an ashy, silty layer beneath the wooden sett roadway.

Methodology

- 7.1.2 All the pottery was examined and spot-dated during the present assessment stage. For each context the total pottery sherd count and weight were recorded on an Excel spreadsheet, followed by the context spot-date which is the date-bracket during which the latest pottery types in the context are estimated to have been produced or were in general circulation. Comments on the presence of datable types were also recorded, usually with mention of vessel form (jugs, bowls etc.) and any other attributes worthy of note (e.g. makers' marks, decoration etc.). A rough sherd count of individual pottery fabrics was also recorded in the comments field.

Pottery Fabrics

7.1.3 These were recorded (in the comments field) using the codes of the Museum of London (LAARC 2007). Sometimes the full name also. The types occurring here are listed in Table 1 while an indication of their relative frequency is provided in the summary below (Appendix 2).

Fabric	Common Name	E. Date	L. Date
BBAS	Black basalt stoneware	1770	1900
BLUE	Blue stoneware	1800	1900
BONE	Bone china	1794	1900
CHPO	Chinese porcelain	1580	1900
CREA DEV	Creamware with developed pale glaze	1760	1830
CREA GRN	Creamware: green glazed	1760	1830
ENGS	English stoneware	1700	1900
ENGS BRST	English stoneware with Bristol glaze	1830	1900
ENPO	English porcelain	1745	1900
GERST	Unsourced German stoneware	1480	1900
LONS	London stoneware	1670	1926
MISC PM	Miscellaneous unsourced post-medieval pottery	1480	1900
NOTS	Nottingham stoneware	1700	1800
PEAR	Pearlware	1770	1840
PEAR TR	Pearlware with underglaze transfer-printed decoration	1770	1840
PMR	London area post-medieval redware	1580	1900
RBOR	Surrey-Hants border redware	1550	1900
REFW	Plain refined white earthenware	1805	1900
REST ENG	Red stoneware with engine-turned decoration	1765	1780
RFMCS	Relief-moulded coloured stoneware	1800	2000
ROCK	Rockingham mottled brown-glazed ware	1800	1900
ROCK IWS	Rockingham-type ware with internal white slip	1800	1900
STSL	Staffordshire-type combed slipware	1660	1870
TPW	Transfer-printed refined whiteware	1830	1900
TYNESL	Tyneside/Sunderland-type slipware	1840	1900
YELL	Yellow ware	1820	1900

Table 1. List of post-medieval pottery fabrics in alphabetic order



Summary

- 7.1.4 The core dates of the great majority of contexts fall within the mid 19th century, or more specifically within the years c.1830/40-1880. The commonest vessel types present are tablewares (mainly dishes and bowls) in Transfer-Printed Whitewares (TPW), mainly datable after c. 1825, and some of these may have remained in use for several decades before breakage and disposal.
- 7.1.5 There is no convincing evidence for any pottery types earlier than c. 1760 and nearly everything here is later than c. 1800. A single sherd of red stoneware with engine-turned decoration (REST ENG, c 1765-1780) and one or two sherds of Chinese Porcelain (CHPO) are possibly the only pieces securely datable to the later 18th century. The complete absence of Tin-Glazed Wares (TGW) and Staffordshire White Salt-Glazed stonewares (SWSG), both very common types in London until c. 1780, underlines the fact that the assemblage is later than this.
- 7.1.6 Refined tablewares of the Staffordshire and Midlands potteries are abundant. The commonest tablewares are the TPWs - mainly 'Willow Pattern' and other designs of the early-to-mid 19th century. Dishes and bowls are the commonest forms but teacups, saucers, jugs, tureens and chamberpots are also fairly common. Transfer-printed Pearlware (PEAR TR) vessels of the period c. 1770-1840 are also fairly common but plain Refined Whitewares (REFW) are commoner still - many of the latter occur as smallish cylindrical preserve pots for meat pastes and cosmetic creams etc. These were fitted with ceramic pot lids - either plain or sometimes with transfer-printed designs and inscriptions listing their contents.
- 7.1.7 A group of five such broken TPW pot lids was recovered from Context (finds reference 6298) and probably date to c. 1860-1880. These include a couple of near-identical lids for James Atkinson's famous bear's grease (showing chained bear) - sold from premises at 24 Old Bond Street, London, and two near-identical lids for Atkinson's 'Rose Cold Cream' sold from the same address. The Atkinson Company moved to that address in 1832 although pot lids with these sort of designs are commonest from c. 1850/60 onwards. Once established the designs may have remained unchanged for several decades and so are difficult to date much closer than this. Taller cylindrical (REFW) jars for preserves are also fairly common. In the late 19th century (c. 1870+) it was commonplace for the base of these to be stamped with the company mark or name - but this feature is absent here.
- 7.1.8 The numerous brown or cream stoneware ink bottles and blacking bottles from the site (ENGS, ENGS BRST) are likewise unmarked and this again points to a mainly mid 19th century dating for this collection of storage vessels and containers.
- 7.1.9 Datable maker's marks occur on the underside of a few pieces of transfer-printed tableware including a dish marked 'T&R - B' for T and R Boote of Burslem (Staffs) datable 1842+ (Context 6422). A sherd from a German stoneware selter (mineral) water bottle (GERST) bears part of a Duchy of Nassau stamp datable to the period c. 1836-1866 (Context finds reference 6281).

- 7.1.10 More unusual stoneware items include part of a spirits barrel in the shape of a wooden barrel with hoops, part of a large flanged lid probably from a water filter (for drinking water) and a rim from a possible brining or pickling trough (ENGS, LONS). The most unusual stoneware item however is the inturned rim from a slender barrel-shaped crucible (Context finds reference 6333) which appears to have been used (scorched) although it is not clear what for. The whiteware (REFW) items also include part of a spittoon (6299). Another very unusual object - possibly of late 18th century date - is a small urn-shaped 'pepper pot' (or sprinkler for something) in Wedgwood-type black basalt stoneware (BBAS, Context 6405). This has an urn-shaped body (complete) supported by a narrow (broken) stem once attached to a stand or terminal. The perforated dome of the 'pepper pot' still contains a red ochre-like powder or paint - so it may actually have been used as something like a cosmetics dispenser, or perhaps as an artist's or draughtsman's accessory? Mass-produced Yellow ware (YELL) tablewares and kitchenwares from the Midlands potteries are also common finds here - mainly as bowls, sugar bowls and jugs. These often have trailed slip decoration - usually banding - sometimes with tree-like 'mocha' decoration typical of early to mid 19th century assemblages.
- 7.1.11 Domestic earthenware crockery (mainly redwares) from less industrialised or 'country pottery' sources also forms a small, but significant element of the assemblage. Possibly the most surprising item here is a very late example of a large sub-rectangular dish in Staffordshire-type combed Slipware (STSL) which occurs in a context of c.1860-1880 (Finds reference 6299). These are normally typical of early to mid 18th century assemblages and are only rarely found in southern English contexts after c. 1820. But continued to be made in declining numbers at a few Midlands potteries, and even at Ipswich, perhaps as late as 1883 (Godden 1980, pl. 30). They were also produced at Isleworth in Middlesex. The 19th century examples, as here, often have a sandier brick-red fabric and may come from sources other than their traditional Staffordshire homeland (Cotter 2000, 248). Two other redwares come from northern English sources and are moderately common in the assemblage here. One type was probably made at Rockingham in West Yorkshire and at potteries near Ripon in South Yorkshire (ROCK IWS); this occurs as fairly large storage jars or crocks and as large mixing bowls - always with an allover internal white slip (Cotter 2000, fig. 171.1-2). Another redware is Tyneside/Sunderland-type slipware (TYNESL) which commonly occurs, as here, as large sub-rectangular dishes with internal decoration in trailed white slip lines. These were used for serving bread and also as cutlery dishes (ibid, fig. 171.3). Both types occur fairly commonly on 19th century sites in southern England and may have been transported southwards on coaling ships and also perhaps by the railways. A few storage jars or crocks in glazed Post-Medieval Red earthenware (PMR) are probably from the London area, as are a few unglazed terracotta flowerpots. Some paler glazed redwares however may be from sources outside London including assemblage the potteries along the Surrey/Hampshire border (RBOR). Fuller details of the assemblage may be consulted in Appendix 2.



7.2 The Clay Tobacco Pipes

Introduction and Methodology

- 7.2.1 The excavation produced a total of 16 pieces of clay pipe weighing 86g from 11 contexts. These have been spot-dated and given a basic catalogue. The catalogue records, per context, the quantity of stem, bowl and mouth fragments, the overall sherd count, weight, and comments on condition and any makers' marks or decoration present. The comments field has been expanded in this instance to include additional information on parallels and any other observations worthy of note. The pipe spans the late 18th and 19th century. Full details may be consulted in the catalogue and are summarised in Appendix 2.

Summary

- 7.2.2 In total there are 4 pipe bowls, no pieces of mouth and 12 stem pieces. The pipes are mostly in a fresh to slightly worn condition with 4 complete or nearly complete bowls present but only fairly short pieces of stem. The maximum number of pipe fragments from any context is just 4 pieces (Context 6032). The stems appear to range from the late 18th or early 19th century onwards but it is possible, like the bowls, that they may all be 19th century.
- 7.2.3 The four bowls can be reasonably closely paralleled with those from other assemblages from London and are all of 19th century type (Atkinson and Oswald 1969). Probably the most interesting item (Context 6032) is a complete fresh bowl of AO33 type (c.1840-1910), with a broken-off spur. On the back of the bowl is a large shield-shaped stamp with the maker's name 'BALME/ MILE END' for George Balme, of Canal Wharf, Mile End Road who was active c.1867-1876 (ibid, 217). This is probably the only piece worthy of illustration (although it might be illustrated in other London publications). Two other bowls are of AO28 type (c.1820-1860), both with typically 19th century moulded oakleaf seams. One of these (Context 6330) has a spur with the maker's mark 'JC' on either side; this could be any one of several mid 19th century London pipemakers with these initials (ibid. 218). The fourth bowl is of AO33 type (c.1840-1910), also with moulded oakleaf seams.

7.3 The ceramic building material

Introduction

- 7.3.1 A total of 8 pieces of ceramic building material (CBM) weighing 14.281kg were recovered. All of this material appears to be of late post-medieval or 19th-century date. The material was recorded following standard OA procedure and using templates established for other CBM assessments in southern England. No further work on the assemblage is recommended.



Methodology

7.3.2 The assemblage has been designated 'Mixed CBM' although it includes four complete bricks. This was catalogued on an Excel spreadsheet at an 'intermediate' level of detail - somewhere between a basic catalogue (i.e. recording just sherd counts and weight per context) and a detailed catalogue (recording all the types of CBM and their dimensions, per context). By this system broad predictable functional categories of CBM were recorded by sherd count per context (i.e. plain roof tile, brick fragments, floor tile and 'other' types of CBM). A whole weight was recorded for each context but not for each type. This gives a more detailed snapshot of the composition of the assemblage than a basic catalogue but it falls short of the detail found in a detailed catalogue. The complete bricks were recorded separately with all measurable dimensions recorded (in the comments field). An approximate spot-date was assigned to the latest material in each context. Spot-dates assigned are based on the character of the material itself and are of necessity quite broad due to the highly conservative nature and regional variation of this class of building material. CBM dates should therefore be used with caution and regarded as of secondary importance to dates based on pottery or clay pipes. Individual types or classes of CBM are briefly described below (see catalogue for more detailed description).

Flat roof tile

7.3.3 Also known as peg tile. These are of typical rectangular shape and fairly crude manufacture with a pair of circular nail holes at one end. All the pieces are in smooth orange-red fabrics. The assemblage is mostly very fragmentary and unremarkable. Some is of 19th century date and includes some fairly large fresh pieces. The rest is very worn and may include late 18th to 19th century tiles.

Brick

7.3.4 This includes four complete bricks. Three of these are frogged London stock bricks from the Eastbourne Terrace retaining wall (6198 and 6449) and probably date to the early or mid 19th century. They appear to have makers' marks stamped in the base of the frog, but these are illegible. The fourth complete example is a very hard purplish-grey engineer's brick with a stamped letter 'H' in the frog and probably dates to the late 19th or early 20th century. This was from cellar floor 6545 beneath the southern side of Eastbourne Terrace.

7.3.5 Two bricks, including the latter, are sooted along an exposed stretcher length and may have been exposed to smoke from train engines. A broken half-brick in a granular orange fabric is probably of late 19th or early 20th century date. The two other worn scraps of brick (from 6012 – redeposited natural by Cleveland Terrace) are of broadly post-medieval date.



7.4 Phasing

- 7.4.1 Broad phasing has been ascribed to the deposits and structures encountered during the works on the basis of relative stratigraphy and finds uncovered, these were used in conjunction with cartographic and documentary evidence. The results are presented below in chronological order.
- 7.4.2 The timeline for the Site is based on the major influences on the railway network and activity at Paddington Station. Prior to this the major influence in the area was the construction of the Paddington branch of Grand Junction Canal and the Paddington Basin.
- 7.4.3 Aside from geological deposits, brickearth, Holocene and Pleistocene silts, sands and gravels, no pre-railway features or deposits were identified within the scope of this project as the various cuttings associated with the construction and development of the railway appear to have removed all of the pre modern deposits on the Site.
- 7.4.4 Four periods are outlined.
- Phase 0- Natural Drift Geology
 - Phase 1- 1838 – 1854 First Paddington Station
 - Phase 2- Second Paddington Station
 - Phase 3-1993 – Current Privatisation Era

Phase 0: Natural Drift Geology

- 7.4.5 The basic geological sequence in this area of London as recorded on BGS (see section 2) should generally consist of brickearth; overlying sandy gravels of the Lynch Hill series; which in turn overlie London Clay.
- 7.4.6 A possible north-south aligned stream or channel was seen cutting through this deposit in line with the loggia entrance on platform 1 and Chilworth Street.
- 7.4.7 At the western end of the Site the Brickearth overlay London Clay, whilst at the centre and east of the Site there was an extensive (up to 7 m thick in the eastern end of the Station Box) sequence of silts, sands, gravels and redeposited tufa. These appear to be thickest in the east of the main Paddington Box site becoming progressively thinner towards the west. These deposits were interpreted as slopewash deposits (layers being moved down-slope by weathering, erosion and fluvial action - note Figure 2 - Site topography, shows the site location to be on the edge of a linear depression in the London Clay) and cannot clearly be defined as Pleistocene or Holocene in primary or secondary deposition. The watching brief was applied to this complex of deposits due to the discovery of faunal remains to the north-west at Royal Oak portal and the potential that these deposits were correlated with those. The absence of artefacts or visible ecofacts precluded further geoarchaeological specialist work on these deposits.
- 7.4.8 London Clay was seen at the base of all of the Macmillan House Test Pits, the Basement Clash Trench and in the Paddington Box excavations at depths of 122.55 – 119 m ATD.



Phase 1: 1838-1854 First Paddington Station

- 7.4.9 To the west of the Station Box an east-west aligned row of arched brick built cellars were uncovered in a water mains diversion trench (see Fig.4). Now filled with concrete, many of them had circular holes cut into their roofs suggesting that they were used as coal cellars. On Lucas' 1842 map of the area (Table 2 in Crossrail 2008b) a short row detached buildings, are shown at the western end of Eastbourne Terrace. Whilst in an 1840 drawing of the western end of the Terrace (Brindle, 2004, 24, figure. 2.12) a terrace of four-storey buildings, including a hotel, is shown. This series of cellars possibly date from this period.

Phase 2: Second Paddington Station

- 7.4.10 A series of basements seen beneath Eastbourne Terrace to the east of Cleveland Terrace, during the Bulk excavation of the Station Box, appear to be part of a later phase of activity. This part of the Terrace was only partly developed in the 1840s, but on a 1854 drawing of Paddington Station the whole of Eastbourne Terrace is covered with a long row of buildings (see above section 3.11. and Table 2 in Crossrail 2008b). The pavement lightwells of the cellars of these buildings are shown on the 1872 Ordnance Survey map (see above section 4.18. and Table 2 in Crossrail 2008b).
- 7.4.11 These brick built apsidal vaults, which were aligned east-west, were 2.36 m x 3.60 m within a 5 m wide construction cut and were built of red bricks with brick floors (upper surface of floors were 124.94 m ATD). They appear to be one cohesive build, although a number had clearly undergone some alterations i.e. side walls repaired brick floors replaced with concrete. The roofs and most of the walls had been removed down to within 0.7 m of the floor and the resulting "robber cut" filled with demolition rubble. This demolition almost certainly occurred when the south side of Eastbourne Terrace was developed in the 1960s.
- 7.4.12 These structures appear to have been used as cellars since there was evidence of whitewash on the internal surfaces. This was commonly done to help increase light levels in areas with no windows, either natural light from lightwells along the edge of the streets or artificial internal lighting.
- 7.4.13 A number of brick built main and trunk sewers as well as much smaller laterals were uncovered during the project. The largest being the egg shaped red brick built conduit with its associated brick built manholes, seen running east-west down the middle of Eastbourne Terrace at a height of c.122.40 m ATD. Most of these sewers are almost certainly part of the system of gravity brick sewer system constructed between 1858 and 1870 and begun by Joseph Bazalgette (1819-1891), who was the Chief Engineer of the London Metropolitan Board of Works in the later 19th century. The shape is ergonomical for the self-cleaning / flushing of the sewers even during lower water flow.
- 7.4.14 The construction cuts for these three structures; wall, sewer and cellars, were up to 5 m in width and had significantly truncated and mixed the deposits beneath Eastbourne Terrace. These deposits at the western end of the Site appeared to be dumps and levelling deposits, used to level out the local topography, during the development of the area from the middle of the 19th century.
- 7.4.15 The monitoring of the bulk excavations in Eastbourne Terrace showed that at the western end of the Site the "made-ground " dumps and levelling deposits, were a lot thicker (up to 3 m thick) than at the eastern end, and that they lay directly above the natural gravels or London Clay.



- 7.4.16 A wooden block roadway was uncovered beneath the modern surface of Departures Road. The wooden sett roadway was observed running from the eastern (Praed Street) limit of the Crossrail works site (up to the eastern tunnel head) to the western the end of the Departures Road Canopy. Beyond this it was replaced by granite cobbles, which was observed up the ramp to Bishop's Bridge Road at the northern end of Departure's Road. In some places, various service trenches had removed the wooden setts (Plate: 2). Apart from where they had been removed by later service trenches, the northern edge of the setts abutted the below ground edge of Departure Road's northern pavement, to the south they were constructed right up against the north-south aligned Eastbourne Terrace retaining wall. All the setts lay directly below the tarmac surface of the present carriageway and were all laid on to and not into a concrete base.
- 7.4.17 It was assumed that the granite cobbles were contemporary with the original access to Brunel's 1854 station with the addition of the wooden sett roadway around the 1870s. The dating evidence for the technology of the roadway in comparison to the development of wooden roadways is set out in Clow 2008 (Clow 2008). This coincides with more popular use of the material and some improvements in the construction (i.e. use of impregnation of creosote to prevent rotting) but pre-dates other Improvements such as the use of bitumen soaked felt between the setts and the laying base an additional safeguard against decay. A 1870 date is also supported by the dating evidence from a 0.2m thick layer of black ashy silty clay, which was discovered beneath the road's concrete sub base. This deposit, which was seen along the whole length of Departures Road, contained quantities of oyster shell and pottery, which upon analysis dated from 1850s to the 1880s (see below).
- 7.4.18 At the eastern end of Departures Road areas of the setts had been taken up and re-laid when the extensive basements of Macmillan House (Block E) were built in the 1930s.
- 7.4.19 As part of the works OAR monitored the demolition of two peripheral elements of Paddington Station. The brick built retaining wall between Departures Road and Eastbourne Terrace and the glazed Departures Road Canopy, which covered Departures Road along the length of Macmillan House Block C. Both of these were important parts of Brunel's design for the station (Brindle 2004, 114) although both have been much altered since.
- 7.4.20 The retaining wall comprised a tapered panelled brick wall with a series of stucco covered banded buttresses which supported the Departures Road Canopy. These buttresses were rectangular in plan and where topped by simple capitals supporting dentilled cornice blocks. The gaps between the piers were filled with moulded iron railings. The railings and roof are the subject of a more detailed OAR report (C254 Building Recording Departures Road, C254-OXF-TI-RGN-CRG03-50214) which incorporates an earlier report on the then in situ Canopy produced by Scott Wilson (Scott Wilson, 2009).
- 7.4.21 The wall was constructed of red, yellow and mauve bricks with shallow frogs bonded with a very hard light grey mortar with coal flecks. The main wall steps out some 0.9m on its southern side towards the base.
- 7.4.22 The monitoring demolition of the retaining wall itself confirmed that the vertical columns/buttresses that were added in beginning of the 20th century were not bonded into the battered brickwork of the main wall.



7.4.23 Elements of the foundations of the former Departure Side Offices (now Macmillan House) were also uncovered during work within the basement of Macmillan House and during works in Departures Road. The range was built in a number of phases between 1851 and 1953. Block B, the north elevation of which flanks Platform 1 and the train shed, and Block D at the western end of the Terrace were built in 1851-4 and are both integral elements of Brunel's 1850/1-station design. Gaps between the original building blocks were gradually built on in the following 150 years. Including "14 bays of plain stock-brick building" (Brindle, 2004, 112) added in 1876 at the western end of the range. Whilst an 8 bay and a higher 9 bay block faced with Greenmoor stone was added in 1880, at the eastern end of the range. In the 1933-34 a 35m long steel framed extension faced in granite extended the range up to the Great Western Hotel (Macmillan House Block E). The part of the central range (Macmillan House Block C), which was destroyed in 1941, was rebuilt as a steel and glass structure in the Post War period (Brindle 2004, 93). During the Crossrail works the brick and concrete walls of the basement of the 1930s building (Macmillan House Block E) were uncovered during the excavation of the Basement Clash Trench.

Phase 3: 1993 – Current Privatisation Era

7.4.24 A number of very modern features uncovered during the works included the surface of the modern roadway and its sub base, various services trenches and services. As well as large concrete base for the Heathrow Express "bus shelter" in Departures Road.

8. CONSTRAINTS

8.1.1 The constraints on excavation and recording work were predominantly visibility and access. The extent of visible strata was dependant on how the trench was dug, whether shoring was put in place and the restriction on time in order to clean and observe sections. This also related to the depths achieved; weather conditions; manner of work i.e.: manual or mechanical. Machine excavated trenches were often deep and precluded manual entry, similarly sections revealed by bulk excavation were often too high and in danger of shearing which meant that recording was carried out from a distance.

9. RESULTS IN RELATION TO INVESTIGATION AIMS

9.1.1 At each stage of this project, aims were established as part of the framework of investigation. After the completion of each stage the aims were re-examined and the results checked to see whether the general and Site specific objectives had been achieved. Although it is not intended to reiterate the detailed findings of this exercise, they are briefly outlined below.

9.1.2 The overall objective of the investigations was to: *establish the character, nature, date, extent and state of preservation of any surviving archaeological remains that would be impacted upon by the development.*

9.1.3 Selected research themes derived from the regional research aims outlined in *A Research Framework for London Archaeology 2002* (Museum of London, 2002) were included in the *Assessment of Archaeology Impacts Technical Report, Part 2* (Crossrail 2005), and the SSWSI (C150-CSY-T1-RGN-CR076_PT001-00005 v5). The below-ground archaeological remains predicted to survive on the Site were seen to have the potential to contribute to the following research themes:

9.1.4 The main aims of the work were;

- To recover data to address the following research objectives;



- *To record the landscape development (i.e. land construction) through assessment of the soil stratigraphy, including the definition of any survival Brickearth or Pleistocene deposits;*

9.1.5 The Archaeological Trial Trenches were excavated to:

- *Identify the presence or absence of potential Pleistocene deposits and the presence or absence of artefacts or ecofacts with in any such deposits if present.*

9.1.6 A layer of brown silt with small patches of calcareous tufa, were seen at variable depths along the whole of Eastbourne Terrace, starting at a height of between 126.58 m and 123.20 m ATD. This deposit was up to 1.5m thick at the eastern end of the Station Box but became thinner towards the west. A possible later channel running northwest-southeast across Eastbourne Terrace/Departures Road was seen cutting through this deposit.

9.1.7 The evaluation and bulk excavations also recorded a series of possible Pleistocene/early Holocene deposits. At the western end of the Site Brickearth deposits overlay London Clay, which was found at depths of 122.55 – 119 m ATD. At the centre and east an extensive (up to 7 m thick in the eastern end of the Station Box) sequence of silts, sands and gravels was present. These appear to be thickest in the east becoming progressively thinner towards the west. These deposits were interpreted as Pleistocene/early Holocene, slopewash deposits. London Clay was seen at the base of all of the Macmillan House Test Pits, the Basement Clash Trench and in the Paddington Box excavations at depths of 122.55 – 119 m ATD.

9.1.8 No artefacts or ecofacts were visible in these any of these geological deposits.

- *To identify any surviving elements of Brunel's 1845 and 1854 Paddington Station and to define and record the development of Brunel's railway and associated GWR works;*
- *To define and record surviving elements of Victorian vernacular architecture both above and below ground; and*
- *To identify the location, extent and depth of Post-Medieval and early Modern truncation of archaeology and natural deposits, particularly in relation to the construction of the GWR and Paddington Station.*

9.1.9 The archaeological works carried out by OAR in the vicinity of the future Crossrail Paddington Station demonstrated the survival of modern remains throughout the area. These remains were, mostly or although not exclusively, associated with the GWR and Paddington Station. Remains include a series of 19th century brick cellars running along the southern edge of Eastbourne Terrace, these belong to a row of building which although used by GWR as office space were not part of the Paddington Station scheme itself.

9.1.10 Much of the deposits beneath Eastbourne Terrace appeared to have been dumps and levelling deposits, used to level out the local topography during the development of the area from the middle of the 19th century. At the western end of Eastbourne Terrace these are likely to be part of the landscaping of the southern edge slope of the Entrance Yard of Brunel's 1845 station, which is known to have lain some 2-3 m below the level of the surrounding streets.

9.1.11 Structures directly associated with the 1854 Station, including the brick built retaining wall between Eastbourne Terrace and Departures Road and sections of a wooden block roadway, were also recorded. As were later elements of the Station, including parts of Macmillan House's basement walls and the Departures Road Canopy.



10. ASSESSMENT OF THE RESULTS

10.1 Assessment Criteria

- 10.1.1 The results of the watching brief have produced a body of data that can be gauged using criteria for assessing national importance. As outlined in documents such as; MoRPHE (Management of Research Projects in the Historic Environment), DCMS scheduling (Department for Culture, Media and Sport) and National Planning Policy Framework (NPPF) and in accordance with section 8.F.7 of the Method Statement (CR-PN-LWS-EN-SP-00001 – revised as CRL1-XRL-T1-RSP-CRG03-50001 (2012)).
- 10.1.2 Assessing the results of the watching brief against the original expectations may be done by comparing the results against the previous baseline.
- 10.1.3 The difficulty in assessing the results of the Paddington Station watching briefs, in terms of the original expectations, is the determination of a baseline against which to compare the results. As a starting point the known information from three sources has been outlined. Any online searches were conducted at the same time and using the same parameters.
- 10.1.4 HER data (Historic Environment Record), from the GLSMR (Greater London Sites and Monuments Record), as derived from the DDBA (Crossrail 2008. Appendix 1. CR-SD-PAD-EN-SR 00002) shows 27 sites within 0.5 km of Paddington Station (TQ 251 817) and an additional number of Listed Buildings of various grades.
- 10.1.5 In the ADS ArchSearch site there are over 10,000 entries for Post-Medieval Westminster. These entries ranged from standing buildings of various functions to below ground investigations, but produced nil results for roads.
- 10.1.6 A similar search of the English Heritage Pastscape site, conducted at the same time and using parameters as closely matched as possible (sites in the City of Westminster) produced 786 Post-Medieval entries, 1,285 entries for all periods. Within 1km of TQ 251 817 there were 25 results. The majority of these were standing buildings rather than below ground archaeological remains. Within this were six transport related entries, mainly tube and railway stations.
- 10.1.7 In comparison to entered records on the ADS ArchSearch site there are a vast majority that date to the Post-medieval period, (2698), with very few assigned to other periods (Medieval 39; Roman 27; Prehistoric 5). The Pastscape sites showed a similar pattern with the majority of recorded sites being Post-medieval (Medieval 115; Roman 21; Prehistoric 56). The DDBA noted that there were 5 Post-medieval; 5 Medieval to Post-medieval; 2 Roman; 1 Prehistoric and 2 unknown dated historic records for the immediate vicinity (0.5km). Therefore the remains recovered might be regarded as of low importance in terms of their period. However to qualify this, there are two issues. The first is that intuitively there is a bias in the preserved record, with older remains often being scarcer. Secondly it is essential to highlight that some of the research themes of past documentation consider the transition between periods of great importance (English Heritage 1997). The transition of London's 'outskirts' in the early Post-medieval period can be seen as a part of an incompletely studied aspect of the heritage environment.



10.2 Relative Completeness

- 10.2.1 Across most of the Site only the lowest deposits appear to have survived intact as originally formed. The uppermost part of the soil sequence has been were cut through by modern services and truncated or reworked during the construction of the embankment, which comprised Eastbourne Terrace. Which is currently c. 3 m above the level of the Departures Road entrance to Paddington Station. Between 2-3 m of potential Holocene/pre-modern deposits have been removed/reworked from the top of the archaeological sequence.
- 10.2.2 Of the structural remains recovered the cellars along Eastbourne Road had been partly removed along most of their length as had sections of the Wooden block roadway in Departures Road. However, the egg shaped mains sewer seen in Eastbourne Terrace, terrace retaining wall, Departures Road Canopy, Macmillan House basement walls and the granite cobbled roadway in Departures Road were more or less intact, although they had all had undergone a number later alterations.

10.3 Condition

- 10.3.1 The surviving features deposits and artefacts encountered were all in a reasonable state of preservation. The structures, mainly sewers, revetment walls, the walls and foundations of Macmillan House and the granite and wooden sett roadway in Departures Road were generally in good order. However, a number of brick built structures in Eastbourne Terrace, mainly cellars, had been damaged. But not so that their form and function were obscured.
- 10.3.2 Deposits were often very mixed and cross-contaminated and although some of the artefacts had been preserved as part of the archaeological record, their exact provenance was often unclear.

10.4 Rarity

- 10.4.1 The recorded structures, including the Eastbourne Terrace/Departures Road retaining wall the Departures Road Canopy and the remains of the cobbled and wooden block roadways in Departures Road are elements of a Grade I Listed Building protected in respect of its architectural merit and historic significance. The rarity of these structures must therefore be judged as medium/high in relation to their place as unique components of the protected building.
- 10.4.2 The survival of Pleistocene deposits recorded within the site area is of medium/low rarity, but does allow the possibility of land surfaces, ecofactual and artefactual evidence to exist within the strata. Any such archaeological, environmental or zoological evidence associated with the peri-glacial/interglacial time periods would be rare and significant, but was not found at the site.

10.5 Group Value

- 10.5.1 Some of the structural remains uncovered, the terrace retaining wall, wooden block roadway, appear to have been part of Brunel's 1854 Paddington Station. Others, such as the basement wall of Macmillan House, and most of the Departures Road Canopy, appear to be later. However all of these are important components of Paddington Station. Which is not only seen as one of the major works by Brunel, the foremost engineer of the Victorian Age but is also considered a landmark in railway architecture. Because of this association with Paddington Station their group value is higher than it would be if they were found elsewhere.



- 10.5.2 With regards to the vaulted cellars and egg shaped sewer, it is difficult to determine their exact date but their overall form and supporting cartographic evidence suggests that they belong to a phase of widespread redevelopment of the area in the middle of the 19th century.
- 10.5.3 They therefore help to characterise the middle 19th century development of the urban landscape of this area of London and contribute to the overall results of the Crossrail investigations which is positive but as a stand-alone piece of investigation the remains found within the watching brief works have a low group value.
- 10.5.4 The presence of the Pleistocene/early Holocene strata illustrates the survival of deep periglacial and interglacial sediments but its value in this instance is reduced by the re-worked nature of the deposits and the absence of artefacts and ecofacts.

11. POTENTIAL

- 11.1.1 The Paddington Watching Brief dataset characterises urban strata adjacent to Paddington Station, it confirms the low level potential for Mesolithic to post medieval archaeology and highlights the presence of late Pleistocene/early Holocene strata which itself has potential to contain artefacts and ecofacts from this period. This strata can be presumed to extend beyond the limits of the watching brief.

12. CONCLUSIONS

- 12.1.1 The watching brief recorded a seam of Pleistocene/early Holocene strata which appears to survive in (or on the edge of) a topographic low contour/hollow which may also be related to the probable paleo-channel silts containing fauna dated to the Devensian period recorded at Royal Oak Portal to the north-west. The local topography also likely influenced the course of the Holocene Westbourne River (now culverted) as well as the siting of the Paddington Station terminal. The survival of Pleistocene strata allows for the possibility of the survival of land surfaces, ecofacts and artefacts dating to this period. This possibility was further enhanced by the presence of tufa in the test pit evaluation (tufa is a calcareous deposit which can form on land surfaces when deposited by e.g. spring water. The survival of calcareous deposits is also an indicator that soil conditions favour the survival of bone). However the tufa and other Pleistocene strata were found to be reworked deposits (no in situ land surfaces) and no ecofacts or artefacts were observed.
- 12.1.2 It should be noted however that the 'seam' of Pleistocene/early Holocene deposits could also be tentatively topographically linked to the southward course of the historic Westbourne River and that Palaeolithic artefacts and contemporary fauna have been retrieved from the vicinity of the Serpentine (the Westbourne is the source of the Serpentine) and elsewhere in Hyde Park.
- 12.1.3 The post-medieval archaeological evidence appears to correspond with the early cartographic and documentary sources, indicating a gradual development of the area from the 1740s to the beginning of the 19th century followed by rapid growth from the 1840s after the construction of the GWR railway and Paddington Station.
- 12.1.4 The results of the watching brief works have identified and recorded as possible a number of features associated with this development and with the construction of the GWR and Paddington Station. Including a row of brick built cellars and segments of a wooden block roadway.



- 12.1.5 The vast majorities of deposits, within the upper 2 metres of the archaeological sequence, were mid- late 20th century and resulted from service insertions and road levelling. These overlay a series of dumps and levelling deposits, used to level out the local topography, during the development of the area from the middle of the 19th century.

13. PUBLICATION AND DISSEMINATION

- 13.1.1 The remains uncovered during the project are not of sufficient significance to warrant further publication, but are included in the Crossrail volumes (forthcoming) on the archaeology and history of West London and the Railway Heritage of London.

14. ARCHIVE/FINDS DEPOSITION

- 14.1.1 The complete project archive includes paper context records and indices, permatrace drawings, both black and white and colour photographs, digital plans and photographs, artefacts, ecofacts and sieved residues. A full list is given in Appendix 5. These will be prepared following the guidelines set out in *Environmental Standards for the Permanent Storage of Excavated Material from Archaeological Sites* (UKIC 1984, Conservation Guidelines 3) and *Guidelines for the Preparation of Excavation Archive for Long-term Storage* (Walker 1990).
- 14.1.2 The digital data will be temporarily stored on the server at OA South, which is backed up on a daily basis. For long term storage of the digital data CDs/DVDs will be used and will include the reports, plans, scanned images and digital photographs. Each disk will be fully indexed and accompanied by the relevant metadata as provenance.
- 14.1.3 The project archive and finds are currently held at the offices of Oxford Archaeology (south) in Osney Mead, Oxford, under the site code XSD10.
- 14.1.4 It is anticipated that in due course, subject to agreement with the landowner, the archive will be deposited with LAARC (London Archaeological Archive and Research Centre) at:
- Mortimer Wheeler House
46 Eagle Wharf Road
London N1 7ED
Tel: 020 7410 2200
<http://www.museumoflondonarchaeology.org.uk>
- 14.1.5 Copies of the report will be lodged with English Heritage Greater London Archaeological Advisory Service, GLHER (Greater London Historic Environment Record), the City of Westminster and Westminster City Archives.
- 14.1.6 All dry and stable finds will be packaged according to the Museum of London's specifications, in either acid-free cardboard boxes, or in airtight plastic boxes for unstable material. Each box will have a compiled list of its contents and the boxes will in general contain only one type of material e.g.: bone or ceramic etc.
- 14.1.7 It is anticipated that the finds will also be deposited with LAARC.



15. BIBLIOGRAPHY AND CARTOGRAPHIC SOURCES

Atkinson, D. and Oswald, A.	1969	'London clay tobacco pipes', Journal of the British Archaeological Association XXXII, 171-227.
Bates, M. R., Champness, C Haggart, A, Macphial, R L, Parfitt SA Schwenninger J-L	2014	Early Devensian sediments and paleo environmental evidence from the excavations at the Royal Oak Portal, Paddington, West London, UK. <i>Proc. Geologist's Association</i> . Vol. 125. Issue 1, pp. 41-55
Bridgland, D.R	1994	Quaternary of the Thames. <i>Geological Conservation Review Series</i> . (London).
Brindle, S	2004	<i>Paddington Station: Its History and Architecture</i> . (Swindon).
British Geological Survey	1994	Sheet 256, North London.
Brooksbank, B.W.L	2007	<i>London Main Line War Damage</i> . (Harrow)
Cotter, J P,	2000	<i>Post-Roman Pottery from Excavations in Colchester 1971-1985</i> , Colchester Archaeological Report 7. (Also online at: http://cat.essex.ac.uk/summaries/CAR-0007.html).
Crossrail	2008a	Archaeology Generic Written Scheme of Investigation, (CRPN-LWS-EN-SY-00001 – revised as CR-XRL-T1-GST-CR001-00003 (2012)).
Crossrail	2008b	Archaeological Detailed Desk Based Assessment Paddington Station, (CR-SD-PAD-EN-SR-00002).
Crossrail	2008c	City of Westminster Heritage Agreement – Paddington Station: Specification for RCHME (English Heritage) Recording at the London Street Deck. Multi-disciplinary consultant Works package 2 (CR-SD-WES-CN-AE-00005).
Crossrail	2009a.	Archaeological Monitoring of Ground investigations, Package 17a, Test Pit 208, (January 2009).
Crossrail	2009b	Archaeological Monitoring of Ground Investigations, Utilities Trial Trenches, near Paddington, Bonds Street and Tottenham Court Road Stations.
Crossrail	2010a	Package C130 - Paddington Station Archaeology Site-Specific Written Scheme of Investigation (C130-SWN-Z-RSI-B071-00001).
Crossrail	2010b	EWMA Archaeological Monitoring of Ground Investigations; Enabling Works, Departures Road, Paddington Station, PAD-0122. Report on the Watching Brief (March 2010. Unpublished Report).



Crossrail	2010c	C130 & C131 Paddington Station and Paddington Integrated Project (PIP) Archaeology Site-Specific Written Scheme of Investigation (C131-MMD-T1-RGN-B071-00002).
Crossrail	2011	C131 – Paddington Integrated Project Building Recording – Paddington Station Milk Ramp C131-MMD-T1-Ran-B071-00001)
Dcms	2010	Scheduled Monuments: Identifying, protecting, conserving and investigating nationally important archaeological sites under the Ancient Monuments and Archaeological Areas Act 1979. Http://www.culture.gov.uk/images/publications/ScheduledMonuments.pdf
Dewey, H	1926	Palaeolithic in Hyde Park, <i>Antiquaries Journal</i> Vol.6 .73-5.
Elrington, C.R. (Ed.), T. F. T. Baker, D. K. Bolton and P.E.C. Croot	1989	<i>A History of the County of Middlesex: Volume 9: Hampstead, Paddington.</i> Victoria County History, online at: Paddington: Communications, pp. 174-181 http://www.british-history.ac.uk/source.aspx?pubid=90
English Heritage	1991	<i>Management of Archaeological Projects.</i>
English Heritage	1997	<i>Exploring our Past: English Heritage Archaeology Division Research Agenda.</i>
Gibbard, P. L.	1985	<i>The Pleistocene History of the Middle Thames Valley.</i> CUP (Cambridge).
Godden, G A,	1980	<i>An illustrated encyclopaedia of British pottery and porcelain</i> (2nd edition).
Godden, G A,	1983	<i>The Handbook of British Pottery and Porcelain Marks.</i>
Hey, G and M, Lacey	2001	<i>Evaluation of Archaeological Decision-making Processes and Sampling Strategies.</i> Http://www.persona.uk.com/kent/Core_docs/CD-06_7_2.pdf
LAARC	2007	Post 1992 Museum of London code expansions: Post-Roman pottery. http://www.museumoflondonarchaeology.org.uk/NR/rdonlyres/F0118AAF-EF24-4228-A07A-39F89E6F092E/0/post92mol_post_roman.pdf
Latham, B	1884	<i>Sanitary Engineering; a guide to the construction of works of sewage and house drainage</i> (New York) Http://www.sewerhistory.org/articles/design/1884_abl/1884_abl_Latham.pdf
Museum of London (MoL)	2000	<i>The archaeology of Greater London an assessment of archaeological evidence for human prescience in the area now covered by Greater London.</i> (London).



Nixon, T., E. McAdam, R. Tomber and H. Swain	2003	<i>A Research Framework for London, Archaeology 2002</i> , Museum of London Archaeology Service
OAG	2010	Archaeology West - Contract No.C254 Archaeological Watching Brief at Paddington Eastbourne Utilities Diversions. Archaeology Method Statement (C254-OXF-W-GMS- CRG03_00003. Rev. 1).
OAG	2011	Archaeology West - Contract No. C254 Archaeological Watching Brief at Paddington: Macmillan House, Eastbourne Terrace and Departures Road Trial Pit Surveys Method Statement (OAG16188.R18).
OAR	2012	Archaeological Works at Paddington Eastbourne Terrace. Evaluation Trenches. Archaeology Method Statement C254- OXF-W-GMS-CRG01_00003. Rev 4.
OAR	2012	Archaeology West - Contract No.C254 Archaeological Works at Paddington Eastbourne Terrace Interim Report on Trench Evaluation (C254-OXF-T1-RGN-CRG03-50098).
OAR	2013	C254 Archaeology West Crossrail Post Excavation Assessment and Updated Project Design (C254-OXF-T1- RGN-CRG03-50160)
OAR	2014	Archaeological Works at Paddington Eastbourne Terrace Report on an Archaeological Trench Evaluation (C254-OXF- T1-RGN-CRG03-50208).
OAR	2013	Archaeology West - Contract No.C254 Archaeological Works at Paddington Eastbourne Terrace Wooden Sett Roadway Characterisation (C254-OXF-T1-RGN-CRG03-50109).
The Stationary Office (TSO)	1990	Planning Policy Guidance 16: Archaeology and Planning.
The Stationary Office (TSO)	2010	<i>Planning Policy Statement 5: Planning for the Historic Environment.</i>
Scott Wilson	2009	MULTI-DISCIPLINARY CONSULTANT WORKS PACKAGE 2. City of Westminster Heritage Agreement Paddington Station: Building Recording at Departures Road (CR-DV-PAA-X-RT-00047).
Weinreb, B and C. Hibbert	1983	<i>The London Encyclopaedia.</i> (London).
Wymer, J.J	1968.	<i>Lower Palaeolithic archaeology in Britain.</i> (London).



APPENDIX 1: ARCHAEOLOGICAL CONTEXT INVENTORY

Context	Context Type	Category	Description	Finds
6000	Deposit	Surface	Pavement modern	
6001	Deposit	Wall	Fill of construction cut for retaining wall/robbing out of cellars 6546; Demolition rubble	
6002	Cut	Wall	Construction cut; Modern retaining wall	
6003	Deposit	Surface	Bedding of modern pavement; sharp Sand	
6004	Structure	Wall	E-W modern retaining wall; Red brick	
6005	Deposit	Surface	Modern roadway; Tarmac	
6006	Deposit	Layer	Modern road makeup/sub base; Concrete	
6007	Deposit	Layer	Bedding for modern road; Loose tarmac	
6008	Deposit	Layer	Modern road bedding; Gravel and aggregate	
6009	Deposit	Layer	Makeup; Black ashy dump	Oyster shell, CBM, pottery
6010	Deposit	Layer	Makeup; Pale brown clay	pottery
6011	Deposit	Layer	Possible natural geology; sandy clay and gravel	
6012	Deposit	Layer	Makeup/ levelling; Sandy clay gravel	CBM
6013	Structure	Wall	Barrel vaulted conduit; Unfrogged red brick	
6014	Structure	Wall	Modern wall; Frogged yellow Stock brick	
6015	Deposit	Layer	Levelling road sub base; Compact mid orange brown gravel and clay	CBM
6016	Deposit	Natural	Clay brown brickearth	
6017	Deposit	Layer	Levelling deposit; Coarse sandy gravel rich clay	



6018	Deposit	Layer	Makeup material; Dark grey ashy clay silt dump	Oyster shell, pottery, CBM, pottery
6019	Deposit	Layer	Bedding; Compact silty clay gravel	
6020	Deposit	Surface	Former roadway; Wooden block/ sett	
6021	Deposit	Surface	Modern roadway; Tarmac	
6022	Deposit	Wall	Backfill of construction cut 6024 for wall	
6023	Deposit	Wall	Backfill of construction cut 6024 for wall	
6024	Cut	Wall	Construction cut for wall 6026	
6025	Deposit	Layer	Modern road sub base/bedding; Concrete	
6026	Structure	Wall	E-W outer wall of Macmillan House; Red frosted brick	
6027	Deposit	Layer	Sub base / makeup for wooden setts; Concrete	
6028	Deposit	Fill	Backfill ; Sandy clay and gravel	
6029	Cut	Drain	Drain cut, filled by 6028, 6031	
6030	Deposit	Layer	Levelling/ bedding layer; Compact yellow gravel	pottery
6031	Deposit	Fill	Fill of 6029 Drain	
6032	Deposit	Layer	Levelling layer, Black ashy gravel clay	Oyster shell, clay tobacco pipe, pottery
6033	Deposit	Surface	Concrete replacement of kerb	
6034	Deposit	Natural	Laminated coarse sandy clay	
6035	Deposit	Surface	Modern road makeup; Concrete	
6036	Deposit	Surface	Modern road makeup; Concrete	
6037	Deposit	Surface	Bedding; Concrete	
6038	Structure	Wall	E-W wall; Concrete foundations of Macmillan House	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6039	Cut	Wall	Construction trench for wall 6038	
6040	Deposit	Layer	Levelling; Yellow compact coarse sandy gravel	
6041	Deposit	Layer	Levelling; Black ashy clay silt	Oyster shell, pottery
6042	Deposit	Layer	Levelling; Redeposited brown natural clay	Pottery
6043	Deposit	Natural	Stiff grey brown clay	
6044	Deposit	Natural	Coarse sandy gravel	
6045	Deposit	Layer	Makeup; Aggregate	
6046	Structure	Wall	Outer wall of Station; Yellow stock brick	
6047	Deposit	Surface	Pavement ;Concrete	
6048	Deposit	Drain	E-W ceramic drain	
6049	Deposit	Fill	Fill for 6048	
6050	Deposit	Layer	Levelling; Compact gravel and clay	
6051	Structure	Wall	N-S internal wall; Red bricks	
6052	Deposit	Natural	Compact fine sandy gravel	
6053	Deposit	Floor	Basement floor slab; Concrete	
6054	Deposit	Floor	Basement floor slab; Concrete and masticated asphalt	
6055	Deposit	Floor	Concrete wall or slab	
6056	Cut	Wall	Construction cut Filled by 6055	
6057	Deposit	Natural	Compact coarse sandy gravel	
6058	Structure	Wall	E-W outer wall of Macmillan House; Yellow Stock brick	
6059	Structure	Wall	Construction cut for 6058	
6060	Deposit	Fill	Backfill of drain cut	
6061	Cut	Drain	Cut filled by 6060	
6062	Structure	Wall	Basement wall of Macmillan House; Red brick	
6063	Structure	Wall	N-S modern wall; Concrete	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6064	Structure	Wall	E-W modern wall; Concrete	
6065	Structure	Wall	Modern square plinth; Concrete	
6066	Deposit	Drain	N-S drain cut,	
6067	Structure	Wall	Construction cut for wall 6046	
6068	Structure	Wall	N-S basement dividing wall; Frogged red brick	
6069	Cut	Wall	Construction cut for 6068	
6070	Structure	Wall	Concrete foundation and brick pillar	
6071	Structure	Wall	E-W red brick wall	
6072	Deposit	Natural	Stiff dark brownish grey clay	
6073	Structure	Wall	Outer brick wall of Macmillan House; Red brick	
6074	Deposit	Layer	Redeposited Natural; Mid greyish brown gravelly clay	
6075	Structure	Wall	E-W outer wall of Macmillan House; Yellow Stock brick wall	
6076	Structure	Wall	E-W outer wall of Macmillan House; Concrete	
6077	Structure	Wall	E-W outer wall of Macmillan House; Brick	
6078	Deposit	Floor	Basement floor slab; Concrete and masticated asphalt	
6079	Deposit	Floor	Basement floor slab; Concrete	
6080	Deposit	Floor	Basement floor slab; Concrete	
6081	Deposit	Floor	Basement floor slab; Masticated asphalt	
6082	Structure	Wall	Basement pillar; Yellow and red bricks	
6083	Cut	Wall	Construction cut for 6083	
6084	Deposit	Wall	Backfill ; Rubble	
6085	Deposit	Natural	Dark grey clay	
6086	Deposit	Floor	Basement floor slab; Loose mid grey concrete	



6087	Structure	Wall	Backfill; gravel rich clay	
6088	Deposit	Layer	Levelling; Loose mid orange brown gravel rich clay	
6089	Structure	Wall	Construction cut	
6090	Structure	Wall	E-W outer wall of Macmillan House; Concrete foundation	
6091	Deposit	Layer	Bedding for pavement; Concrete	
6092	Deposit	Natural	Orange brickearth	
6093	Deposit	Layer	Pavement bedding layer; Coarse sand	
6094	Deposit	Surface	Pavement; Paving blocks	
6095	Deposit	Floor	Basement floor slab; Concrete	
6096	Deposit	Floor	Basement floor slab; Concrete	
6097	Structure	Wall	E-W outer wall of Macmillan House; Concrete	
6098	Structure	Wall	Construction cut for 6097	
6099	Structure	Floor	Bedding layer for Basement floor slab; Coarse sandy gravel rich clay	
6100	Cut	Wall	Construction cut, filled by 6076	
6101	Cut	Wall	Construction cut, filled by 6077	
6102	Cut	Wall	Construction cut, filled by 6073	
6103	Structure	Arched Vault	Roof of Osborne Tunnel ; Concrete	
6104	Structure	Wall	N-S wall foundations; Concrete	
6105	Deposit	Natural	Coarse sandy gravel	
6106	Deposit	Surface	Pavement; Paving slabs	
6107	Deposit	Surface	Pavement bedding layer; Sand	
6108	Structure	Wall	E-W Retaining wall; Yellow Stock and pale red bricks	
6109	Deposit	Layer	Levelling; Rubble rich sandy clay	
6110	Structure	Layer	Levelling; Grey rubble rich clayey silt	
6111	Cut	Wall	Construction cut for wall	
6112	Deposit	Wall	Backfill; Rubble rich silty clay gravel	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6113	Deposit	Natural	Stiff mid grey brown sandy silt brickearth	
6114	Structure	Wall	Backfill; Coarse sandy gravel	
6115	Structure	Wall	Backfill; Loose silty clay gravel	
6116	Structure	Wall	Construction cut for wall, filled by 6064, 6065	
6117	Deposit	Floor	Basement floor slab; Terracotta tiles	
6118	Deposit	Floor	Basement floor slab; Concrete	
6119	Deposit	Natural	Stiff dark grey clay	
6120	Structure	Wall	Wall of Basement; Red frogged bricks	
6121	Deposit	Floor	Basement floor slab; Concrete	
6122	Deposit	Natural	Gravel	
6123	Cut	Wall	Construction cut for wall filled with 6120	
6124	Structure	Wall	Backfill of 6123	
6125	Deposit	Floor	Basement floor slab; Concrete	
6126	Deposit	Layer makeup	Bedding; Greyish brown gravel and clay	
6127	Deposit	Wall	Backfill; Loose dark brownish grey coarse sandy gravel and clay	
6128	Deposit	Surface	Pavement; Tarmac	
6129	Deposit	Layer	Backfill of 6067	
6130	Deposit	Wall	Base; Concrete	
6131	Structure	Column	Construction cut for column	
6132	Structure	Column	Construction cut for column	
6133	Structure	Sewer	Brick built vaulted mains egg sewer	
6134	Deposit	Surface	Modern roadway; Tarmac	
6135	Deposit	Surface	Roadway; Wooden block/ setts	
6136	Deposit	Layer	Sub base for 6135; Pale pinkish white sandy mortar	
6137	Deposit	Layer	Sub base for 6135; Concrete	
6138	Deposit	Layer	Makeup; Fine sand	
6139	Deposit	Layer	Bedding; Crushed red brick	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6140	Deposit	Natural	Laminated sand	
6141	Structure	Wall	Retaining wall; Red brick	
6142	Deposit	Surface	Road; Rectangular granite setts	
6143	Deposit	Layer	Levelling	
6144	Deposit	Layer	Layer or infill; Demolition rubble	
6145	Deposit	Layer	Dump; Greyish brown fine sandy clay	
6146	Deposit	Layer	Levelling/dump; Compact mid brown clay	
6147	Deposit	Wall	Backfill; Rubble	
6148	Deposit	Layer	Pavement bedding; Mortar and concrete	
6149	Deposit	Iron Structure	Retaining wall; Iron railings/fence	
6150	Deposit	Surface	Pavement ; Concrete slabs	
6151	Deposit	Layer	Bedding Sub base for pavement; Sand	
6152	Cut	Wall	Construction cut for E-W retaining wall	
6153	Deposit	Layer	Bedding for cobbles; Dark grey silty clay	
6154	Deposit	Surface	Pavement; Tarmac	
6155	Deposit	Layer	Bedding for pavement; Type 1 Aggregate	
6156	Structure	Modern Disturbance	Disturbance from car park	
6157	Group	Iron Structure	Rail structure – group number	
6158	Deposit	Surface	Tarmac pavement	
6159	Deposit	Layer	Bedding for pavement; Sand	
6160	Deposit	Layer	Backfill; greyish yellow rubble rich sandy clay	
6161	Deposit	Layer	Makeup; Concrete and tarmac	
6162	Deposit	Iron Structure	Broad gauge Bridge rail	
6163	Deposit	Iron Structure	Broad gauge Bridge rail	



6164	Deposit	Iron Structure	Broad gauge Bridge rail	
6165	Deposit	Iron Structure	Broad gauge Bridge rail	
6166	Deposit	Iron	Broad gauge Bridge rail	
6167	Structure	Wall	Box /plinth for rails ; Red bricks with shallow froggs	
6168	Deposit	Iron Structure	Metal plate	
6169	Deposit	Surface	Foundation of 6167; Concrete	
6170	Deposit	Layer	Possibly Natural; Mid orange brown sandy silty clay, brickearth	
6171	Cut	Wall	N-S Construction cut	
6172	Cut	Conduit	E-W Construction cut	
6180	Deposit	Layer	Makeup; Mid greyish gravel sand and crushed red brick rubble	
6181	Deposit	Layer	Makeup; Loose Mid yellow gravelly sand	
6182	Deposit	Layer	Makeup; dark brownish yellow clayey sand	
6183	Deposit	Layer	Dump; whitish yellow sandy gravel	
6184	Deposit	Layer	Bedding for cobbles; Loose sand	
6185	Deposit	Layer	Disturbed London clay; Soft dark bluish grey clay	
6186	Deposit	Layer	Bedding for granite setts 6201; Dark brown sandy gravel	
6187	Deposit	Surface	Roadway; Tarmac	
6188	Deposit	Layer	Makeup; Mid yellow brown, sandy gravel	
6189	Deposit	Layer	Makeup; Pale greyish red gravel sand	
6190	Deposit	Layer	Bedding around manhole; Concrete	
6191	Deposit	Surface	Roadway; Tarmac	
6192	Deposit	Layer	Road sub base; Concrete	
6193	Deposit	Layer	Bedding; Black ash and sand	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6194	Deposit	Layer	Makeup; Mid yellowish brown sandy clay	
6195	Deposit	Layer	Dump; Loose yellow gravelly sand	
6196	Deposit	Layer	Makeup; Firm dark brown sandy clay	
6197	Cut	Services	Sewer construction cut, filled by 6202	
6198	Structure	Wall	Retaining wall	
6199	Deposit	Layer	Pale greyish yellow mortar like	
6200	Deposit	Layer	Black sandy clay	
6201	Deposit	Surface	Roadway; Granite setts	
6202	Structure	Services	Brick sewer	
6203	Deposit	Layer	Makeup; Firm mid reddish brown gravel sand	
6204	Deposit	Layer	Makeup; Firm reddish brown gravel sand	
6205	Structure	Wall	Exterior wall of Macmillan House; Red brick	
6206	Deposit	Layer	Pavement bedding; Sand	
6207	Deposit	Surface	Pavement; Concrete block	
6208	Deposit	Layer Makeup	Pavement bedding /sub base; gravel and bitumen	
6209	Deposit	Surface	Roadway; Tarmac	
6210	Deposit	Surface	Road / pavement; Concrete	
6211	Deposit	Layer	Brown clayey gravel	Pottery, clay tobacco pipe
6212	Deposit	Layer	Re-deposited Natural ; Brown clay,	
6213	Deposit	Natural	Stiff London clay	
6214-6334			Context range voided but contexts 6216,6261,6289,6228,6281,6298,6299,6324, 6327,6330,6333 retained as finds references for material retrieved from a layer beneath the wooden sett roadway = 6032, 66347, 6345,6405, 6408,6462	
6335	Deposit	Surface	Tarmac road	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6336	Deposit	Layer	Bedding, sand	Pottery
6337	Deposit	Layer	Makeup	
6338	Deposit	Surface	Tarmac road	
6339	Deposit	Layer	Bedding, sand	
6340	Deposit	Layer	Makeup	
6341	Deposit	Surface	Tarmac road	
6342	Deposit	Foundation	Concrete	
6343	Structure	Services	Brick sewer	
6344	Deposit	Layer	Makeup	
6345	Deposit	Layer	Makeup; Soft dark grey clayey silt	Pottery, oyster
6346	Deposit	Layer	Bedding; Crushed	Pottery, oyster
6347	Deposit	Layer	Makeup levelling; Soft dark grey ashy silty clay	Pottery
6348	Deposit	Layer	Road sub base; Compact Clay and gravel	Oyster
6349	Deposit	Wall	Backfill; Mid grey rubble rich	
6350	Cut	Foundation	E-W construction cut	
6351	Deposit	Layer	Backfill; mid greyish yellow sandy clay	
6352	Deposit	Layer	Bedding sub base; Reddish brown gravel rich clay	
6353	Deposit	Surface	Kerb	
6354	Deposit	Foundation	Footing for kerb; Concrete	
6355	Deposit	Wall	Backfill; Aggregate	
6356	Deposit	Wall	Backfill; Mid grey sandy clay	
6357	Deposit	Wall	Backfill; Yellow sand	
6358	Deposit	Surface	Roadway; Tarmac	



6359	Deposit	Layer	Bedding sub base for wooden block roadway ; Concrete	
6360	Deposit	Layer	Bedding sub base ; Gravelly clay sand	
6361	Deposit	Wall	Backfill; Loose black silty sand	
6362	Deposit	Wall	Backfill; Aggregate	
6363	Deposit	Wall	Backfill; Soft mid brown clay sand	
6364	Structure	Wall	E-W Retaining wall; Shallow frogs red brick	
6365	Deposit	Surface	Roadway; Tarmac	
6366	Deposit	Service	Backfill; Aggregate	
6367	Deposit	Service	Backfill; Loose concrete, sand and gravel	
6368	Deposit	Service	Backfill; Sand	
6369	Cut	Service	Construction cut filled with 6366 6367 6368	
6370	Deposit	Layer	Sub base of wooden block roadway; Mortar	
6371	Deposit	Layer	Sub base of wooden block roadway; Concrete	
6372	Deposit	Layer	Backfill; sandy gravel	
6373	Deposit	Layer	Black ashy clay, oyster and ceramic inclusions	Oyster shell, pottery
6374	Deposit	Layer Makeup	Backfill; Brownish yellow sandy clay	
6375	Deposit	Layer	Sub base of wooden block roadway 6370; Concrete	
6376	Deposit	Natural	Reddish brown sandy clay, Brickearth	
6377	Deposit	Surface	Roadway; Tarmac	
6378	Deposit	Service	Backfill; Loose tarmac	
6379	Deposit	Service	Backfill; Concrete	
6380	Cut	Service	Construction cut filled with 6378 6379	
6381	Deposit	Layer	Sub base of wooden block roadway; Mortar	



6382	Deposit	Foundation	Sub base of wooden block roadway; Concrete	
6383	Deposit	Layer	Sandy gravel	
6384	Deposit	Service	Backfill; Sand	
6385	Deposit	Surface	Roadway; Tarmac	
6386	Deposit	Layer	Sub base of wooden block roadway; Mortar	
6387	Deposit	Foundation	Sub base of wooden block roadway; Concrete	
6388	Deposit	Layer	Bedding layer possibly for wooden block roadway; Brown sandy gravel	
6389	Deposit	Layer	Makeup; Crushed red brick	
6390	Deposit	Layer	Makeup; Black sand ash and gravel	Oyster
6391	Deposit	Layer	Brownish yellow clayey sand	
6392	Deposit	Natural	Brickearth, reddish brown sandy clay	
6393	Deposit	Natural	Laminated sand	
6394	Deposit	Surface	Roadway; Tarmac	
6395	Deposit	Layer	Sub base of wooden block roadway; Mortar	
6396	Deposit	Layer	Sub base of wooden block roadway; Concrete	
6397	Deposit	Layer	Levelling; Greyish brown sandy gravel	
6398	Deposit	Layer	Levelling; Sand and red brick rubble	
6399	Deposit	Layer	Levelling; Sandy clay	
6400	Deposit	Natural	Laminated sand	
6401	Deposit	Layer	Bedding layer; Greyish yellow coarse sandy gravel	
6402	Deposit	Wall	Backfill; Mid greyish brown fine sandy clay	
6403	Deposit	Foundation Trench	Backfill; greyish brown sandy clay	
6404	Cut	Foundation Trench	E-W Construction trench for Macmillan House basement	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6405	Deposit	Layer	Levelling; Dark grey soft clay silt	Pottery,
6406	Deposit	Wall	Backfill; Sandy clay	
6407	Deposit	Layer	Road bedding sub base; Sandy gravel	
6408	Deposit	Layer	Levelling; Dark grey soft clay silt	Oyster shell
6409	Deposit	Wall	Backfill; Clayey sand	
6410	Deposit	Foundation	Concrete footings of Macmillan House Basement	
6411	Structure	Wall	Concrete wall Macmillan House Basement	
6412	Structure	Wall	Concrete wall Macmillan House Basement	
6413	Structure	Wall	Concrete wall Macmillan House Basement	
6414	Cut	Wall	E-W construction cut of Macmillan House Basement	
6415	Deposit	Surface	Road way; Tarmac	
6416	Deposit	Layer	Sub base for granite cobbles;Mid yellowish sandy gravel	
6417	Deposit	Natural	Light yellow soft fine gravel sub angular flint	
6418	Deposit	Layer	Levelling ; Bluish black ashy clay	
6419	Deposit	Natural	Yellowish brown fine sandy clay	
6420	Deposit	Natural	Brown coarse sandy clay and gravel	
6421	Deposit	Layer	Sub base; Crushed chalk	
6422	Deposit	Layer	Levelling; Dark grey soft clay	Oyster shell, pottery, clay tobacco pipe
6423	Deposit	Layer	Sub base for 6424; Very compact sandy gravel aggregate	
6424	Deposit	Surface	Roadway; Granite setts	
6425	Deposit	Layer	Sub base for 6424; Mid grey brown sandy gravel and concrete	
6426	Deposit	Natural	Sands	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6427	Group	Wall	E-W wall of Basement of Macmillan House ; Red brick	
6428	Group	Foundation	Construction cut for wall 6427	
6429	Deposit	Surface	Roadway; Wooden block/ setts	
6430	Deposit	Natural	Light grey sand	
6431	Deposit	Foundation	Sub base for 6415; Concrete	
6432	Deposit	Layer	Sub base for 6431; Concrete	Pottery
6433	Deposit	Layer	Pale brown clay	
6434	Structure	Roof	Canopy; single truss	
6435	Structure	Roof	Canopy; double truss	
6436	Deposit	Foundation	Blinding?; Concrete	
6437	Deposit	Layer	Levelling; Mixed brownish yellow sand clay and gravel	
6438	Deposit	Layer	Levelling; Loose mid greyish red sand gravel rich in red brick	
6439	Deposit	Layer	Mid reddish yellow; Clayey sand	
6440	Deposit	Natural	Sandy gravel	
6441	Deposit	Natural	Stiff bluish grey clay, London Clay	
6442	Deposit	Natural	Sand	
6443	Deposit	Natural	Sandy gravel	
6444	Deposit	Floor	Wooden planks	
6445	Deposit	Foundation	Concrete footings of Macmillan House Basement	
6446	Deposit	Natural	Clay	
6447	Structure	Roof	Paxton canopy	
6448	Group	Wall	Backfill of Macmillan House basement construction trench	
6449	Structure	Wall	E-W Retaining wall; Yellow slightly frogged Stock bricks	
6450	Cut	Foundation	Construction cut of retaining wall	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6451	Deposit	Wall	Backfill; Gravel	
6452	Deposit	Layer	Levelling /Made ground; clay and gravels	
6453	Deposit	Layer	Made ground	
6454	Structure	Column	Column Brick	
6455	Structure	Column	Column, Brick under canopy	
6456	Structure	Wall	Wall Brick	
6457	Structure	Wall	Wall Brick	
6458	Structure	Wall	Wall Brick	
6459	Deposit	Layer	Mid orange brown compact coarse sandy gravel sub rounded-sub angular	
6460	Deposit	Surface	Granite setts	
6461	Deposit	Layer	Sandy clay	
6462	Deposit	Layer	Black clay	Oyster shell
6463	Deposit	Layer	Yellowish brown coarse sandy clay	
6464	Deposit	Natural	Yellowish brown clay	
6465	Deposit	Natural	Gravel	
6466	Deposit	Layer	Made ground	
6467	Deposit	Layer	Tufa rich clay	
6468	Deposit	Layer	Clay	
6469	Deposit	Layer	Gravel	
6470	Deposit	Layer	Sand	
6471	Deposit	Surface	Tarmac	
6472	Deposit	Layer	Sandy clay	
6473	Deposit	Layer	Sandy clay chalk	
6474	Deposit	Layer	Sandy clay	
6475	Deposit	Layer	Black silty clay	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6476	Deposit	Layer	Bluish black clay	
6477	Structure	Uncertain	Chalk boulders	
6478	Deposit	Layer	Greyish brown clay	
6479	Deposit	Layer	Crushed red brick	
6480	Deposit	Layer	Gravel and clay	
6481	Deposit	Layer	Black clay	Clay tobacco pipe
6482	Deposit	Layer	Black clay	Oyster shell
6483	Deposit	Layer	Gravel	
6484	Deposit	Layer	Crushed chalk	
6485	Deposit	Layer	Gravel	
6486	Structure	Wall	Wall	
6487	Structure	Column	Column. Retaining wall	
6488	Structure	Wall	Wall	
6489	Structure	Wall	Wall	
6490	Structure	Cellar	Wall	
6491	Structure	Floor	Room / cellar. Retaining wall	
6492	Structure	Column	Steps. Retaining wall	
6493	Structure	Column	Column. Retaining wall	
6494	Structure	Column	Column. Retaining wall	
6495	Structure	Column	Column. Retaining wall	
6496	Deposit	Fill	Clay	
6497	Cut	Channel	North south aligned cut	
6498	Deposit	Fill	Sandy clay	
6499	Deposit	Fill	Clay and gravel	
6500	Cut	Channel	N-S aligned cut	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System



6501	Deposit	Layer/Fill	Channel fill	
6502	Deposit	Layer	Mid grey coarse sandy clay red brick inclusions	CBM
6503	Deposit	Layer	Yellow sandy sub angular flint	
6504	Deposit	Layer	Yellow clay gravel	
6505	Deposit	Natural	Grey brown clay gravel sub rounded flint	
6506	Deposit	Natural	Mid orange brown coarse sandy clay and gravel sub rounded flint	
6507	Group	Uncertain	Crushed chalk	
6508	Group	Layer	Black clay	Oyster shell
6509	Group	Layer	Bedding layer, gravel	
6510	Group	Wall	Retaining wall	
6511	Structure	Column	Column. Retaining wall	
6512	Structure	Column	Column. Retaining wall	
6513	Structure	Column	Column Retaining wall	
6514	Structure	Column	Column. Retaining wall	
6515	Structure	Column	Column. Retaining wall	
6516	Structure	Column	Column. Retaining wall	
6517	Structure	Column	Column. Retaining wall	
6518	Structure	Column	Column. Retaining wall	
6519	Structure	Column	Column. Retaining wall	
6520	Structure	Column	Column. Retaining wall	
6521	Structure	Column	Column. Retaining wall	
6522	Structure	Column	Column. Retaining wall	
6523	Structure	Column	Column. Retaining wall	
6524	Group	Wall	Wall. Retaining wall	
6525	Structure	Column	Column. Retaining wall	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6526	Structure	Column	Column. Retaining wall	
6527	Structure	Cellar	Room, breeze-block construction. Retaining wall	
6528	Structure	Wall	Column. Retaining wall	
6529	Group	Foundation	Construction cut	
6530	Structure	Wall	Wall	
6531	Structure	Wall	Wall of rough concrete	
6532	Cut	Wall	Cut for concrete wall	
6533	Cut	Wall	Basement	
6534	Deposit	Road	Tarmac	
6535	Deposit	Layer	Brick rubble	
6536	Deposit	Layer	Clinker	
6537	Structure	Drain	Brick culvert	
6538	Deposit	Layer	Brownish yellow clay	
6539	Deposit	Natural	Gravel	
6540	Structure	Foundation	Concrete	
6541	Cut	Wall	Wall cut	
6542	Deposit	Foundation	Backfill	
6543	Cut	Foundation	Construction cut	
6544	Deposit	Layer	Brown clay	
6545	Deposit	Floor	Brick floor of cellar	
6546	Structure	Cellar	Cellar	
6547	Deposit	Natural	London clay	
6548	Deposit	Fill/layer	Light grey soft coarse laminated sand	
6549	Deposit	Fill/layer		
6550	Deposit	Fill/layer	Sand and tufa	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd.
Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6551	Deposit	Fill/layer	Gravel	
6552	Deposit	Fill/layer	Gravelly sand	
6553	Deposit	Layer	Brick fragments and mortar	
6554	Deposit	Layer	Clay	
6555	Cut	River Channel	N-S channel	
6556	Deposit	Redeposited natural	Gravel and clay	
6557	Deposit	Layer	Gravel	
6558	Deposit	Fill/layer	Clay	
6559	Deposit	Fill/layer	Gravel	
6560	Deposit	Fill/layer	Sand	
6561	Deposit	Natural /layer	Light-mid orange brown sandy clay weathered London Clay	
6562	Deposit	Layer / Fill	Sand	
6563	Deposit	Layer / Fill	Clay	
6564	Cut	Channel	Channel	
6565	Cut	Cellar	Cellar cut	
6566	Deposit	Layer	Gravel	
6567	Deposit	Layer Makeup	Made ground	Clay tobacco pipe
6568	Deposit	Layer	Fine sandy clay	
6569	Deposit	Layer	Brown gravel	
6730	Structure	Wall	Barrel vaulted cellar	
6731	Structure	Wall	Barrel vaulted cellar	
6732	Structure	Wall	Barrel vaulted cellar	
6733	Structure	Wall	Barrel vaulted cellar	
6734	Structure	Wall	Barrel vaulted cellar	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6735	Deposit	Layer	Puddled clay sealant	
6736	Deposit	Layer	Levelling / infill	
6737	Structure	Cellar	Cellar	
6738	Structure	Cellar	Cellar	
6739	Structure	Cellar	Cellar	
6740	Deposit	Layer	Clinker	
6800	Deposit	Fill/layer	Light mid orange brown frequent white flecks silty clay Very frequent calcareous inclusions	
6801	Deposit	Fill/layer	Mid brown soft coarse sand	
6802	Deposit	Fill/layer	Light mid orange brown frequent white flecks silty clay frequent calcareous inclusions	
6803	Deposit	Fill/layer	Mid orange stiff clay. Occasion calcareous inclusions	
6804	Deposit	Fill/layer	Mid brown fine sandy clay	
6805	Deposit	Fill/layer	Light mid yellow coarse sandy gavel sub angular	
6806	Deposit	Fill/layer	Mid yellow soft coarse sand	
6807	Deposit	Fill/layer	Clay, tufa and sand	
6808	Deposit	Fill/layer	Light grey white coarse sand, sub angular pebbles	
6809	Deposit	Fill/layer	Light grey soft coarse sandy grave sub angular flint	
6810	Deposit	Fill/layer	Light brown silty clay frequent calcareous inclusions	
6811	Deposit	Fill/layer	Pale yellow sand	
6812	Deposit	Fill/layer	mid brown sandy clay	
6813	Deposit	Fill/layer	Sandy gravel	
6814	Deposit	Fill/layer	Pale yellowish brown silty clay	
6815	Deposit	Fill/layer	mid yellow gravel	
6816	Deposit	Fill/layer	Pale blue sandy clay	
6817	Deposit	Fill/layer	mid orange brown fine gravel	

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6818	Deposit	Fill/layer	mid yellow orange gravel	
6819	Deposit	Fill/layer	Tufa, clay	
6820	Deposit	Fill/layer	Pale blue and brown clay	
6821	Deposit	Fill/layer	Brown sand	
6822	Deposit	Fill/layer	Pale blue and brown clay	
6823	Deposit	Fill/layer	Mid brown clay and gravel	
6824	Deposit	Fill/layer	Pale blue gravel	
6825	Deposit	Fill/layer	Dark brown clay and gravel	
6826	Deposit	Fill/layer	Pale brown and bluish grey clay	

APPENDIX 2: FINDS

Ctx	Spot-date	No.	Weight	Comments
0	c.1850-1925	8	948	2x ENGS (English stoneware) including flanged lid in brown stoneware probably from a water-filter or pickle jar, also small cylindrical or drum-shaped brown ink bottle. 1x ENGS BRST large jar/bowl base with interior Bristol-type glaze & exterior brown salt glaze. 2x REFW cylindrical preserve/paste jars including smaller complete profile drum-shaped with '1 oz' mark underneath. 1 x Rockingham-type storage jar or deep bowl base (pad) with allover interior white slip (ROCK IWS). 2x ENGS cream stoneware ribbed ?tankard base (19C)
1	c.1820-1860	15	465	4x PEAR TR including willow pattern dish = borderline TPW. 4 x YELL including blue mocha dec. large bowl & flanged ?teapot lid with brown slip circle around knob. 2x PMR rims including large deep bowl with square roulette exterior under rim & 2nd deep bowl. 4x late CREA DEV. 1x MISC PM green-glazed strap ribbed strap handle looking like green-glazed Border ware (BORDG) but possibly a Farnham studio piece or flower vase?
6010	c.1825-1880	7	245	3x TPW dish sh including willow pattern & rim with wild rose pattern. 1x YELL sugarbowl bo with blue mocha band. 1x REFW. 2x CREA DEV including bo from washbasin or commode/WC?
6018	c.1825-1860?	20	314	15x TPW including willow pattern dishes & wild rose dishes. 2x YELL. 2x ROCK IWS (int white



Ctx	Spot-date	No.	Weight	Comments
				slip). 1x late CHPO dish base - probably rectangular with blue floral deco c.1800
6030	c.1820-1900	2	349	1x salt-glazed ENGS or LONS bo from large ?spirits barrel with complete arched lug handle & broad horiz bands (like barrel hoops) of dark & light brown, unglazed int. 1x basal flat bo from Tyneside-type slipware (TYNESL) rectangular dish/cutlery dish
6032	c.1830-1860?	13	273	11x TPW dishes & possibly soap tray? Including Willow & wild rose patterns. 2x REFW cylind storage jar & lid
6041	c.1830-1880	2	30	1x TPW dish vine leaf pattern. 1x PEAR TR
6042	c.1805-1900	1	61	Profile REFW small cylind jar/paste pot. Heavily rust-stained
6194	c.1820-1900	1	142	Complete small drum-shaped brown ENGS ink bottle. Ht 52mm
6211	c.1840-1880	24	621	Complete small drum-shaped brown ENGS ink bottle. Ht 48mm. 11x TPW including willow pattern dishes & grey floral decorated dish probably M19C. Green TPW jug handle. 1x ENGS cylind broken ink bottle. 3x ENPO including green transfer dec. 2x CREA DEV. 1x PEAR dish with blue feather edge dec. 4x ROCK IWS. 1x PMR flowerpot base with central hole
6216	c.1840-1880	1	139	TPW large bowl footring. Castle with turrets & dome scene int, floral (wild rose?) ext
6228	c.1825-1860?	5	336	3x TPW including willow pattern dish base (fairly pearly) & teacup rim with Chinese tree dec. 1x REFW cylind jar base. 1x ROCK IWS jar/bowl base
6261	c.1830-1880	8	276	4x TPW dishes including willow pattern. 1x near-complete small brown ENGS cylindrical ink bottle. 2x bos PMR large vessels
6281	c.1836-1866	14	819	Large bo from brown salt-glazed German selter water bottle (Fabric GERST, form BOT SELZ) with part of (HERZOG)THUM NA(SSAU) stamped inscription (Duchy of Nassau Type 2 inscription c.1836-66).8x TPW nearly all willow pattern including dishes & tureen lid & bos from angled tureen body; unusually deep footring base (34mm deep, 70mm wide) from bowl probably copying chinese forms & with printed maker's mark & pattern under 'VERMICELLI/ GRG' in cartouche & blue coral-like vermicelli design allover int/ext. 1x PEAR blue feather edge dish.1x glazed blue-bodied near-stoneware (BLUE) pot base with tripod foot. 1x ENPO square gilded candlestick base with 'DAVENPORT' & anchor mark under in faint pink letters. 1x TYNESL slipware dish rim. 1x fresh



Ctx	Spot-date	No.	Weight	Comments
				CREA DEV chamberpot rim. 1x PMR flowerpot complete base
6289	c.1830-1880	5	53	2x TPW wild rose dish. 1x ENPO. 1x PEAR dish rim, 1x CREA DEV
6296	c.1830-1880	16	756	7x TPW dishes including willow & wild rose patterns. 2x YELL (1 vess) wide bowl with grey mocha band dec. 3x PEAR plain bowl footring & base of cylind storage jar. 4x PMR flowerpot (FLP) = 1 vess
6298	c.1860-1880?	49	3178	17x blue TPW including willow pattern & classical dishes. Blue TPW including polygonal (in plan) flow blue jug rim, & a tureen lid with moulded artichoke knob 1x dish rim green TPW. 1x dish base in grey TPW floral or cherry blossom design copying Chinese & with false Chinese mark under in print plus pattern name 'OLEASTER/CM'. 5x additional TPW sherds from 1 Ironstone china dish with blue painting & gilding (painted red mark under). 5x black TPW smallish pot lids (broken) including 2 identical lids (diam 60mm) for 'JAMES ATKINSON'S BEARS GREASE/ 24 OLD BOND STREET/ LONDON/ Price 2/6' (PHOTO?), including 3 separate pot lids for 'ATKINSON'S/ ROSE/COLD CREAM (ditto address '2/6' & '1s'; at that address c1832+)). 2x YELL including jug base & blue mocha bo ?chamberpot? 1x BONE dish with lilac sprigged flowers. 6x REFW (slightly pearly) squat paste pots (3 complete) with 'oz' marks under plus REFW complete plain pot lid plus REFW bowl rim. 2 REFW bos. 1x large robust PMR (or RBOR?) storage jar/bowl with ext lid seating.
6298	c.1860-1880?	0	0	Extra (6298) Stonewares: 1x profile E19C NOTS stoneware cylindrical mug/tankard (Ht 110mm) ; 4x ENGS (BOT CYL) including 2 larger brown ginger beer/ blacking bottle types botts (rim & base) & 2 smaller slender cylind ink bottles (1 complete); 1x bo from large LONS round-shouldered flagon with brown salt glaze
6299	c.1860-1880?	29	1685	14x blue TPW mainly dishes JOINS with (6298), including 'flow blue' dec. & ironstone china (plain with blue rim border); willow pattern, & wild rose on bowl & chamberpot rim. 2x REFW including plain pot lid (complete) & inner concave rim from spittoon. 1x plain PEAR. 1x YELL jug base. 3x brown-glazed ROCK including 2 separate teapot lids & a teapot rim. Joining sherds from profile sub-rectangular dish in unusually late Staffs combed

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System



Ctx	Spot-date	No.	Weight	Comments
				slipware (STSL) fabric with orange-buff fabric (Ipswich? Balam?) with exterior clear glaze showing orange-brown, & pale brown interior combed slip on white background. 1x yellow PEAR bo with enamels. 1x BONE plain carinated cup base. 1x ROCK IWS jar/bowl rim. 1x PMR (RBOR?) jar rim. 2x LONS brown salt-glaze including large globular spirits flagon with part of proprietor's name stamp "(---TSKELL') probably with int Bristol-type glaze (c1835+); 1x odd LONS rim possibly from sub-rectang ?pickling trough with trace lug handle (or from WC cistern?)
6324	c.1850-1880?	17	626	7x brown ENGS = 2 vess (cylind ink/black bottle base & base from large jar. 4x TPW including flow blue polygonal jug rim (possibly JOINS 6298 above?), willow pattern dish rim & moulded jug/pitcher handle with grey ?peartree foliage, including bo handpainted ?vase. 1x REFW. 1x ENPO teacup with gilded rim. 1x plain PEAR ?jar base. 1x CREA GRN (green-glaze bo). 2x ROCK IWS jar bos (1 vess)
6327	c.1850-1880?	7	330	1x brown ENGS large lower wall sherd from large jar (JOINS 6324). 5x blue TPW including sub-square dish with thatched cottage & lake scene. 1x ROCK teapot footring base
6330	c.1850-1880?	28	1089	9x blue TPW mostly dishes including willow pattern & vine pattern, willow pattern with (IRON/(STONE WARE stamp under & illegible maker's initials, teacup base. 2x green TPW (1 dish rim M19C). 2x REFW cylind storage jar rim & jug rim with blue banding. 1x CREA DEV tankard base. 1x BONE teacup base. 1x BLUE moulded stoneware jug bo. 2x ROCK IWS jar bos. 10 x brown-glazed ENGS (4 vess) including jug/pitcher rim with strap handle; profile large cylind ?ink bottle; 2x cylind bottles
6333	c.1850-1880?	51	1516	12x blue TPW dish including M19C simple dec; willow etc. 8x YELL including bowl & jug base. 9x REFW including 2 paste pots & 2 cylind preserve jars. 7x CREA DEV bos - prob M19C? 6x PEAR including 2 rims from 2 blue feather-edge dec dishes. 5x brown ENGS including base cylind ink/blacking bottle & bos large jar. 1x ENGS CRUCIBLE rim (39g; diam 65mm) from brown 19C crucible with tallish barrel-shaped body & plain slightly inturned rim, wheel-turned, grey sandy fabric with rough light brownish glaze int & ext – evidence of scorching int & ext with traces of white opaque matt glaze/slag int lower down. 2x TYNESL slipware = 1 sub-rectangular dish. 1x PMR

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System



Ctx	Spot-date	No.	Weight	Comments
				(RBOR?) storage jar/deep bowl with horiz lug handle & int/ext brown glaze
6336	c.1840-1880	27	685	All fairly scrappy. 13x blue TPW including willow pattern dishes & Asiatic Pheasant dec dish rim; 2 vess in Flow Blue dec including dish or tureen lid & pitcher rim. 3x YELL = 2 sub-rectang baking dishes. 3x BONE probably = 1 dish/saucer with lilac sprigged flowers. 1x ENPO (gilded dish bo). 1x REFW (Pearly) base cylind mug? 1x PEAR dish bo. 2x CREA DEV bowl footrings (2 vess). 1x ROCK IWS. 1x worn TYNESL slipware dish base. 2x PMR = 2 vess including large bead rim storage jar & bo from another jar with square roulette dec on shoulder & distinctive light brown/amber glaze allover int with dark brown vertical iron streaking (non-London?)
6345	c.1840-1880	49	724	All fairly scrappy. 27x blue TPW including willow pattern dishes; 2-3 vess in Flow Blue dec including dish & teacup. 1x green TPW dish/saucer with small green Maltese crosses. 1x YELL bo. 1x BONE. 2x REFW = battered base of cylind storage jar/paste pot. 1x PEAR. 1x grey-green stoneware jug base in 'Relief coloured moulded stoneware' (RFMCS). 2x ENGS including blacking bottle rim & brown-glaze flagon bo. 10x ROCK IWS from 2 jars with lug handles. 3x PMR including joining flowerpot rims & large beaded storage jar rim
6347	c.1840-1880	5	139	4x blue TPW = 4 vess, fairly scrappy condition; including chamberpot rim with wild rose dec on rim & traces of pavilion domes ext; others dish bos including willow pattern. 1x profile probably ENPO socketed tea/coffee pot domed lid dec in Chinese style with low-relief floral moulding on dome & hand-painted blue Chinese saltires on flange rim & ?petals around missing knob; small perforation through dome with v small blue 'X' beside it internally - overall a high quality product - probably E19C?
6405	c.1840-1880	12	983	1x small complete vase (37g) or urn-shaped ?pepperpot or salt-cellar in Wedgwood basalt ware (BBAS) – basically conical chalice-shaped with a perforated dome - the perforations contain a red ochre-like powder or paint; at bottom of urn is a moulding where urn was attached to a stem or a saucer base – now broken-off. Max height 59mm, max diam 39mm, the perforation through stem is only 5mm diam so filling or re-filling the vessel

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System



Ctx	Spot-date	No.	Weight	Comments
				would be a problem, the dome does not unscrew (made as one); perhaps used for blotting powder - but red seems unusual choice!
6405	c.1840-1880	0	0	Extra (6405). 1x polychrome TPW dish rim - brown? Chinese design with pinkish border & small blue flower possibly with gilded details c1840/50? 4x blue TPW (or PEAR TR) including willow pattern square dish rim with unclear 'HBSB' or 'HB&B' printed mark under an urn logo on underside of rim; willow pattern tureen rim with lug handle; carinated teacup base with European landscape; bo perforated soap dish. 2x REFW including complete small paste pot with '1oz' mark under & thick base from larger cylind preserve jar. 1x ENGS BRST unusual smallish ovoid jar/jug (for polish or ink?) with pad base (diam 60mm, surviving pot height c 67mm), wheel-thrown off-cream stoneware with Bristol-type glaze allover int/ext. 1x ROCK IWS bo. 1x PMR flowerpot rim
6422	c.1842-1880	23	1239	7x blue TPW including rectang willow pattern dish. Including base of Flow Blue TPW dish with "Chinese" scene & printed 'SHAPOO' design mark with initials 'T&R - B' for T&R Boote of Burslem 1842+ (Godden 1983,43-44). Other brown & blue TPW dish. 2x ENPO = 1 teacup base with Imari design & painted 'No 1052' under. 4x YELL including brown mocha dec sugarbowl rim. 1x ROCK IWS bowl rim. 1x BONE moulded floral teapot lid knob. 2x REFW complete small squat cylind paste pots. 1x NOTS stoneware jar bo. 3x ENGS including near-complete slender cylind brown ink bottle (missing rim) & joining bos from brown salt-glaze storage jar or jug with attractive band of rouletted leaf dec on shoulder & grooving - iron-dipped upper half (possibly LONS?)
6432	c.1840-1880	14	1117	8x blue TPW dishes & bowl including willow pattern sub-rectang dish rim (possibly JOINS 6405), also large Flow Blue dish with? honeysuckle design. 1x BONE carinated teacup base with traces pink lustre dec. 1x PEAR TR tureen lid with willow pattern dec. 4x ENGS = 3 vess: 1x complete smallish cylind brown ink bottle (Ht 110mm); 1x complete unusual small cylind storage jar with bead rim (Ht 65mm, rim diam 55mm) probably Derbyshire, or Bristol?; 1x unusual skittle-shaped or baluster-shaped small bottle (2 sherds) surviving Ht 120mm, light brown glazed - ink bottle?
6481	c.1840-1880	15	451	6x blue TPW including robust chamberpot rim with traces European buildings dec ext; tureen lid with

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System



Ctx	Spot-date	No.	Weight	Comments
				wild rose dec; Flow Blue teacup. 1x bo grey TPW?bowl with yellow flowers. 4x BONE = 1 vess saucer with red TPW pagoda scene with green highlights typical M19C. 1x ENGS BRST bo from storage jar with int Bristol glaze, brown ext. 1x YELL. 1x PEAR plain chamberpot rim. 1x TYNESL slipware dish rim with notched lip
6567	c.1820-1850?	5	173	1x footring base large PEAR TR bowl with French-like scene of couple meeting by bridge probably 1820/30? 2x PEAR including carinated teacup bo & rim of moulded dish/saucer with Pratt ware highlights. Handle frag. TPW or PEAR jug with allover blue glaze. Rim Wedgwood-style engine-turned red stoneware bowl or urn - L18C? (REST ENG)
TOTAL		485	20269	

Context	Spot-date	Stem	Bowl	Mouth	Tot sherds	Tot Wt	Comments
2007	L18-E19C?	1	0	0	1	4	Fairly fresh stem. Stem bore (SB) c2mm [Label says PIP site]
2008	L18-19C	2	0	0	2	5	Stems poss from 1 pipe? SB c1.5mm. Fairly fresh but some brown staining
6032	c1867-1876	3	1	0	4	22	Complete fresh bowl of AO33 type but fuller-bodied/more globular, with spur broken off; on back of bowl a shield-shaped stamp (incuse) enclosing the maker's name 'BALME/ MILE END' for George Balme, Canal Wharf, Mile End Road (1867-1876) (Atkinson & Oswald 1969, 217). Shield with peaked top line (or double concave line) with coathanger-like serif or filler int above inscrip, & impressed star or asterisk filler in lower point of shield. Trimmed line below rim, SB c1.5mm. Probably smoked but only slight int staining. 3 other fresh stems prob 19C from 1-2 pipes [Label says 'Departures RD']. ILLUS PIPE BOWL?

This document contains proprietary information. No part of this document may be reproduced without prior written consent from the chief executive of Crossrail Ltd. Document uncontrolled once printed. All controlled documents are saved on the CRL Document System

© Crossrail Limited

CRL RESTRICTED



6211	L18-19C	1	0	0	1	5	Slender stem - prob 19C? Fresh. SB c2mm
6281	L18-19C	1	0	0	1	5	Fresh slender stem - quite curved. SB c2mm. Prob 19C?
6289	19C	1	0	0	1	6	Fresh slender stem thickening towards bowl end. SB c1.6mm
6298	c1820-1860	0	1	0	1	7	Complete but fairly worn bowl of AO28 type (but smaller like AO30), with broken spur. Oakleaf seams on front & back. Rim worn. Smoked
6299	L18-19C	1	0	0	1	6	Fresh stem. SB c2mm
6330	c1820-1860	0	1	0	1	7	Fresh but damaged bowl profile with only a small part of front rim surviving. AO28 (c1820-1860) with moulded oakleaf seams front & back. Spur with relief maker's initial 'JC' (with a proper 'J') or just possibly 'JG'? Several mid 19C contenders listed in AO 1969, p218
6333	L18-E19C?	2	0	0	2	8	Fairly fresh stems from 2 pipes. 1x SB c2mm, 1x SB c1.8mm - latter prob 19C?
6422	c1840-1910	0	1	0	1	11	Complete fresh fairly globular bowl of AO33 Irish type with broken spur. Moulded oakleaf & acorn seams front & back. Smoked. SB c2mm
TOTAL		12	4	0	16	86	

Ctx	Spot-date	Roof	Brick	Floor	Other	Tot sh	Weight	Comments
2007	19C	8				8	464	All flat roof/peg tile in fine orange-red fabrics. Includes large fresh corner frag with crude circular nailhole in v hard-fired fabric. The rest = a mix of soft very worn frags poss L18/19C incl circular nailhole, 2 with grey core
2008	L18-19C	2				2	34	Very worn flat roof tile in soft red fabric - similar to some in (2007)
6012	17-19C		2			2	114	Very worn scraps from 2 soft bricks. 1 red & shapeless. The other brown with an angle
6167	L19-20C		1			1	2501	Half brick. Frogged but latter full of hard grey cement with charcoal or coal dust inclusions. Late-looking hard granular orange-brown fabric - probably 20C. Surviving Length 170mm+, Width 110mm, Thickness 73mm . Frogged side with v thick grey cement retaining trowel marks. Brick probably machine made/moulded



6198	E-M19C		1			1	2853	Complete London stock brick in hard purplish-red fabric with leached yellow surfaces. Shallow frog partly filled with off-white lime mortar. Possible traces of stamped lettering in frog. L230mm, W106mm, T65mm
6330	19C	1				1	151	Fresh side fragment smooth orange-red post-med fabric flat roof tile
6449	L19-20C		1			1	3680	Complete v hard purplish-grey engineers-type brick. Machine-made/moulded with a shallow dumbbell-shaped frog on top with a capital 'H' stamped mid-way along the dumbbell shaft, screw-head impressions in both of the expanded dumbbell terminals (1 in each). Terminals of squared outline. L 225mm, W100mm, T64mm. Thick light grey cement containing coal dust on sides and underside. Exposed stretcher length of brick probably sooted (from trains?)
6449	L19-20C		1			1	2685	Complete London stock brick in hard dark purplish-red fabric with leached yellow surfaces. Shallow frog with illegible maker's stamp in base composed of 3 or 4 letters. L227mm, W105mm, T70mm. Probably Early-Mid 19C. Thick cream lime mortar underside and on headers. Exposed stretcher length of brick probably sooted (from trains?)
6545	E-M19C		1			1	2297	Complete London stock brick in hard dark purplish-red fabric with leached yellow surfaces. Shallow frog with illegible maker's stamp in base composed of 3 or 4 letters - one of the middle letters possibly an 'H'? L230mm, W108mm, T65mm. Unmortared but black and grimy coating underside - possibly coal dust?
TOTAL		11	7	0	0	18	14779	



APPENDIX 3: SUMMARY OF SITE DETAILS

Client name: Crossrail

Site name: Paddington Station Watching Briefs

Site code: XSD10

Grid reference: LSG (TQ 2655781358)

Type of investigation: Watching briefs, trial trench evaluation

Date and duration of project: June 2010- February 2014

Location of archive: The archive is currently held at; Oxford Archaeology, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with the Museum of London in due course.



APPENDIX 4: SMR / HER / OASIS RECORD FORMS

OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

Printable version

OASIS ID: oxfordar1-225869

Project details

Project name	Crossrail Paddington Station Watching Brief
Short description of the project	During 2010 and 2014, Oxford Archaeology, in partnership with Ramboll (OA Ramboll, Crossrail contract C254) undertook a programme of watching brief at Paddington Station London, on behalf of Crossrail.
Project dates	Start: 01-06-2010 End: 01-02-2014
Previous/future work	Yes / No
Any associated project reference codes	XSD10 - Sitecode
Any associated project reference codes	XSD10 - Museum accession ID
Type of project	Recording project
Current Land use	Other 3 - Built over
Monument type	RAILWAY INFRASTRUCTURE Modern
Significant Finds	CERAMIC Modern
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	GREATER LONDON CITY OF WESTMINSTER WESTMINSTER Crossrail Paddington Station Watching Brief
Study area	37500 Square metres
Site coordinates	TQ 26557 81358 51.516454063847 -0.175844613262 51 30 59 N 000 10 33 W Point

Project creators

Name of Organisation	Oxford Archaeology/Ramboll (OAR)
Project brief originator	Crossrail Ltd
Project design originator	Crossrail
Project director/manager	R. Brown
Project supervisor	J Gill

Project archives

Physical Archive recipient	Museum of London
Physical Archive ID	XSD10
Physical Contents	"Ceramics"
Digital Archive recipient	Museum of London
Digital Archive ID	XSD10
Digital Contents	"other"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Museum of London
Paper Archive ID	XSD10
Paper Contents	"other"
Paper Media available	"Notebook - Excavation',' Research',' General Notes"

Project bibliography 1

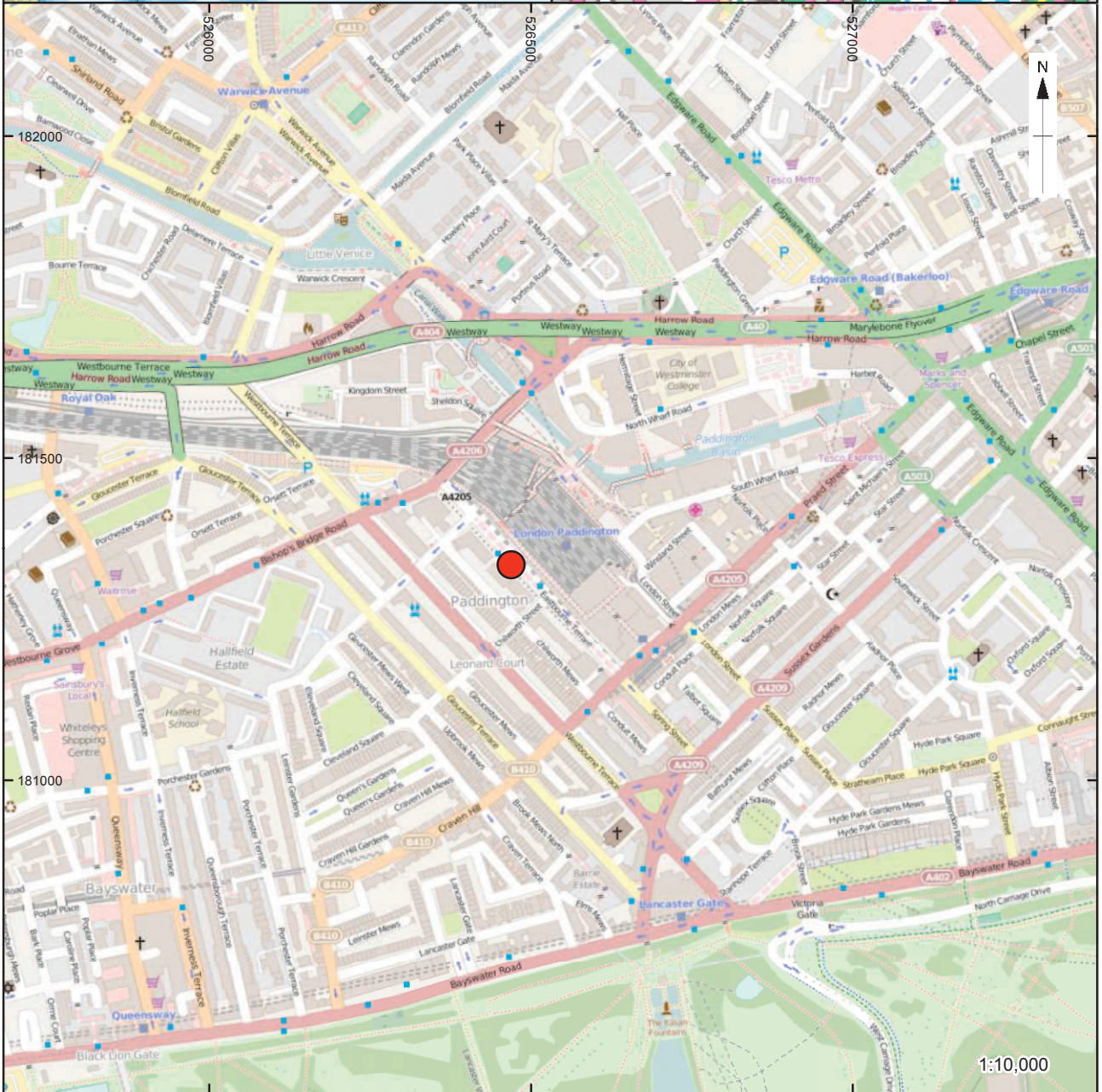
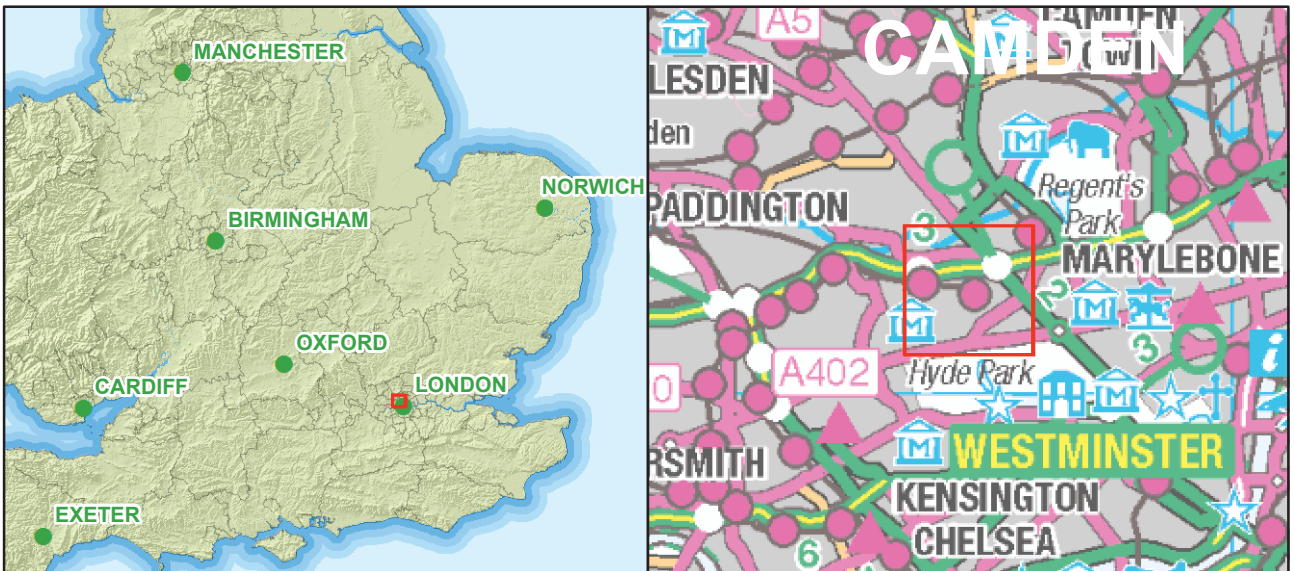
Publication type	Grey literature (unpublished document/manuscript)
Title	Crossrail Paddington Station Watching Brief Brief Fieldwork Report
Author(s)/Editor(s)	OA/Ramboll
Date	2015
Issuer or publisher	OA/Ramboll
Place of issue or publication	Oxford
Description	Client report
Entered by	Susan Rawlings (susan.rawlings@oxfordarch.co.uk)
Entered on	7 October 2015

OASIS:

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

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

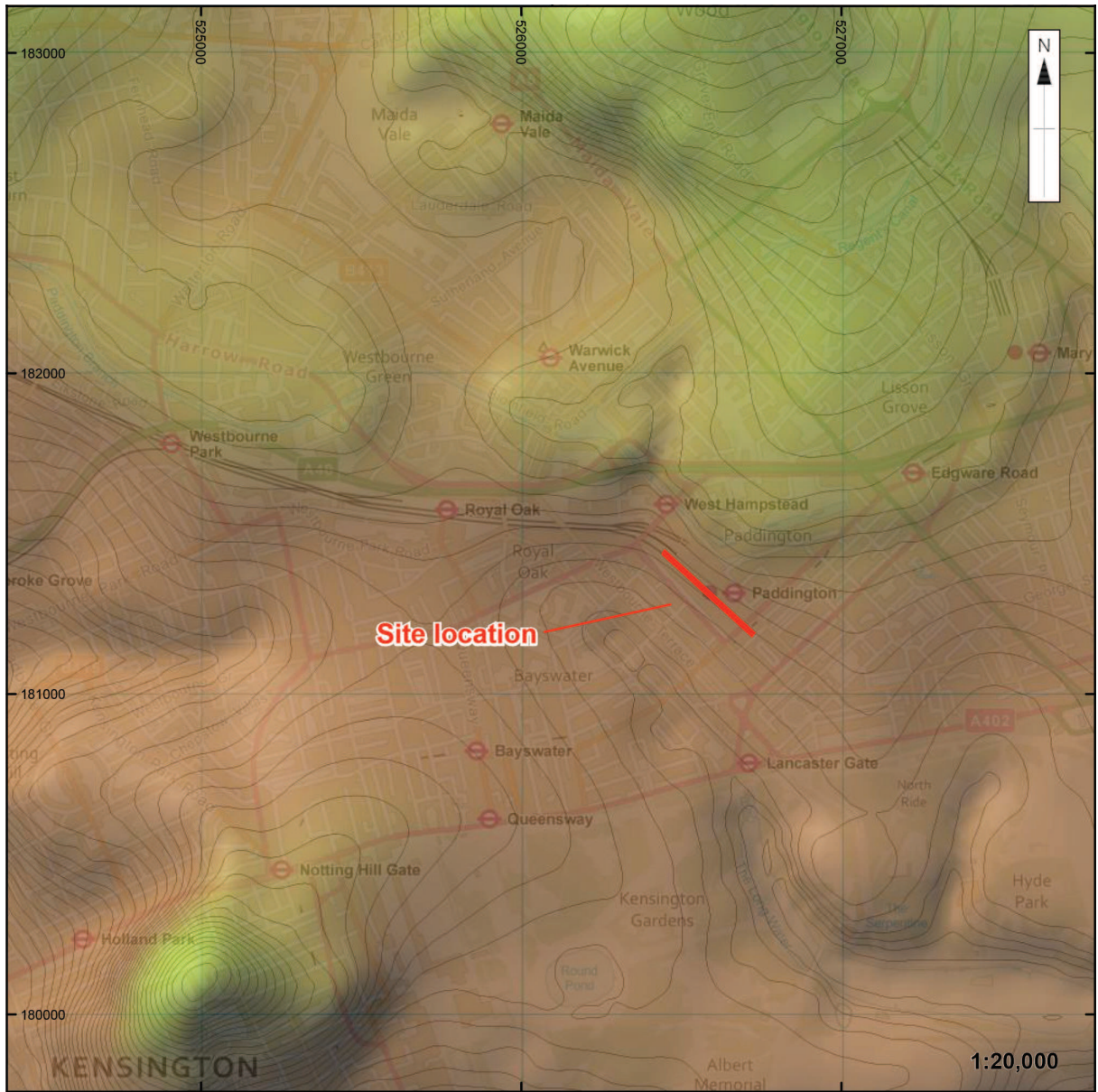
Cite only: <http://www.oasis.ac.uk/form/print.cfm> for this page



P:\X_codes\XRA\IM_Paddington\XSD10\XSD10_fig01.mxd\hannah.kennedy*24/06/2015

Contains Ordnance Survey data © Crown copyright and database right 2014
 (c) OpenStreetMap and contributors, Creative Commons-Share Alike License (CC-BY-SA)

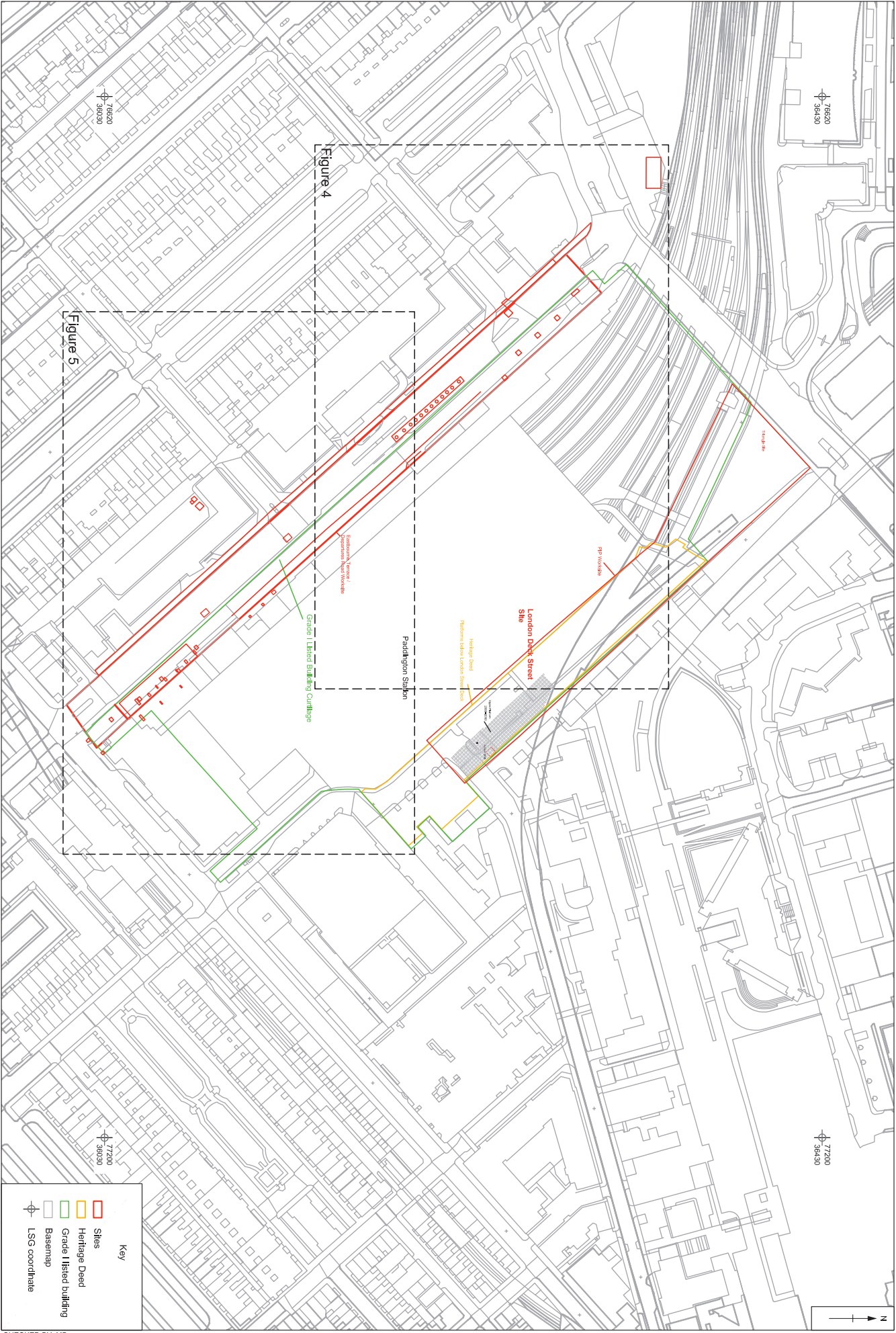
Figure 1: Site location



Contains Ordnance Survey data © Crown copyright and database right 2011

Figure 2: Site topography

A3:03 (2015) prepared by permission of the Controller of Her Majesty's Stationery Office on behalf of the Controller of Her Majesty's Stationery Office. Crown Copyright. All Rights Reserved. Licence No. 1000000000



Scale at A3 1:2000

Figure 3: Site Plan

CHECKED BY: MB

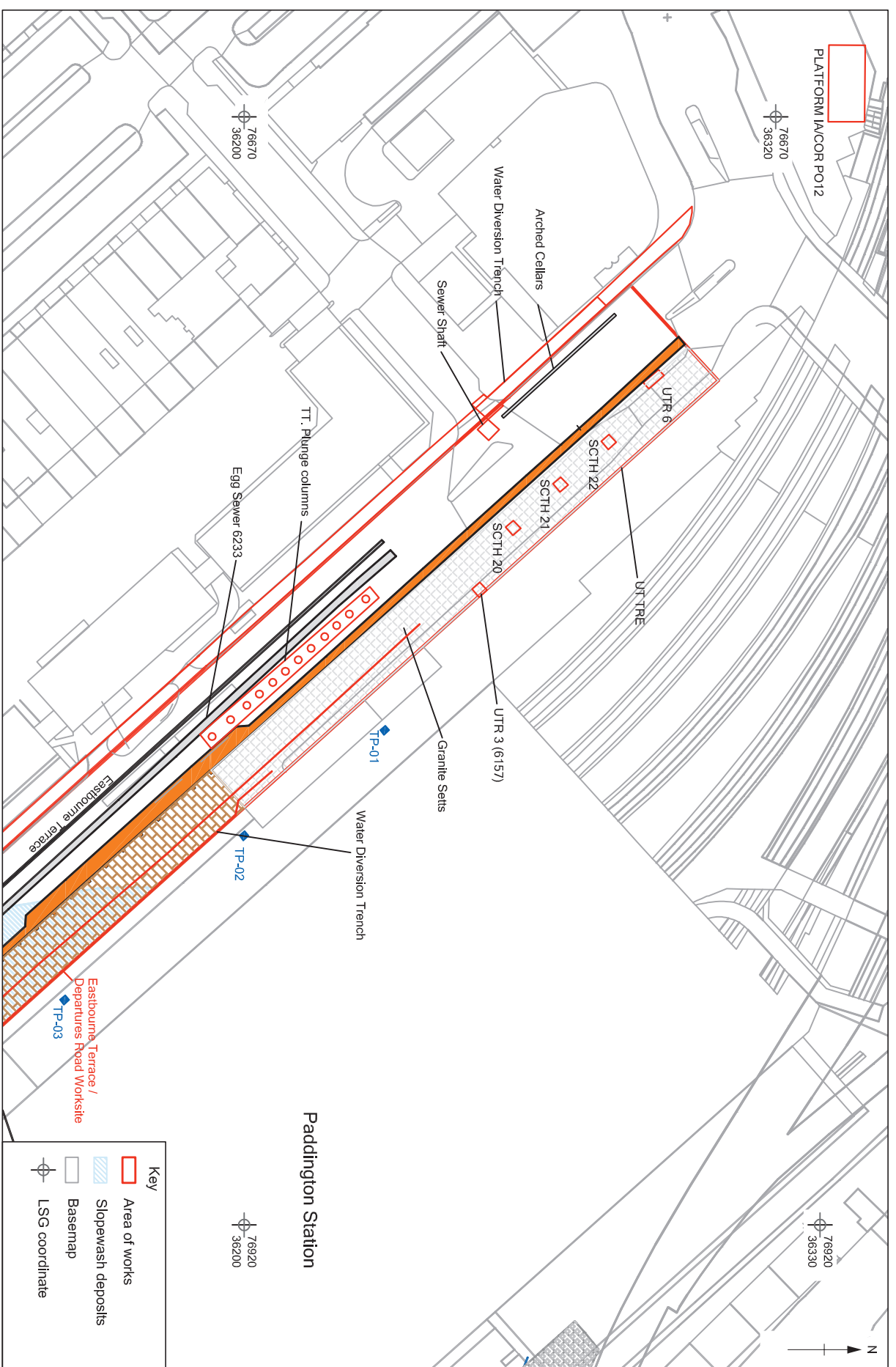


Figure 4: Detail Plan North West

CHECKED BY: MB

Scale at A4 1:1250

All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. License AL100005599

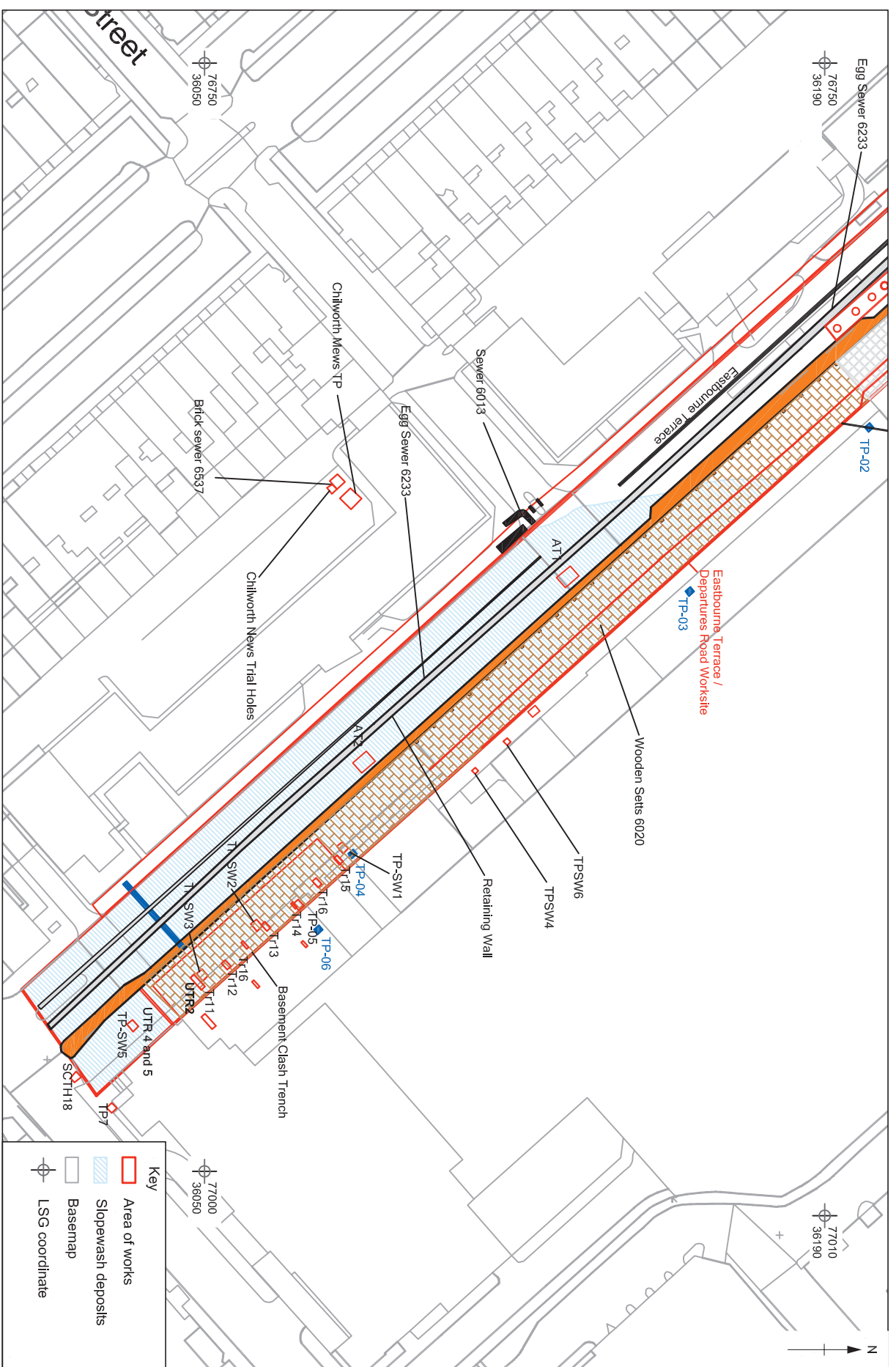


Figure 5: Detail Plan South West

Scale at A4 1:1250

50 m

All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence AL10000559

CHECKED BY: MB

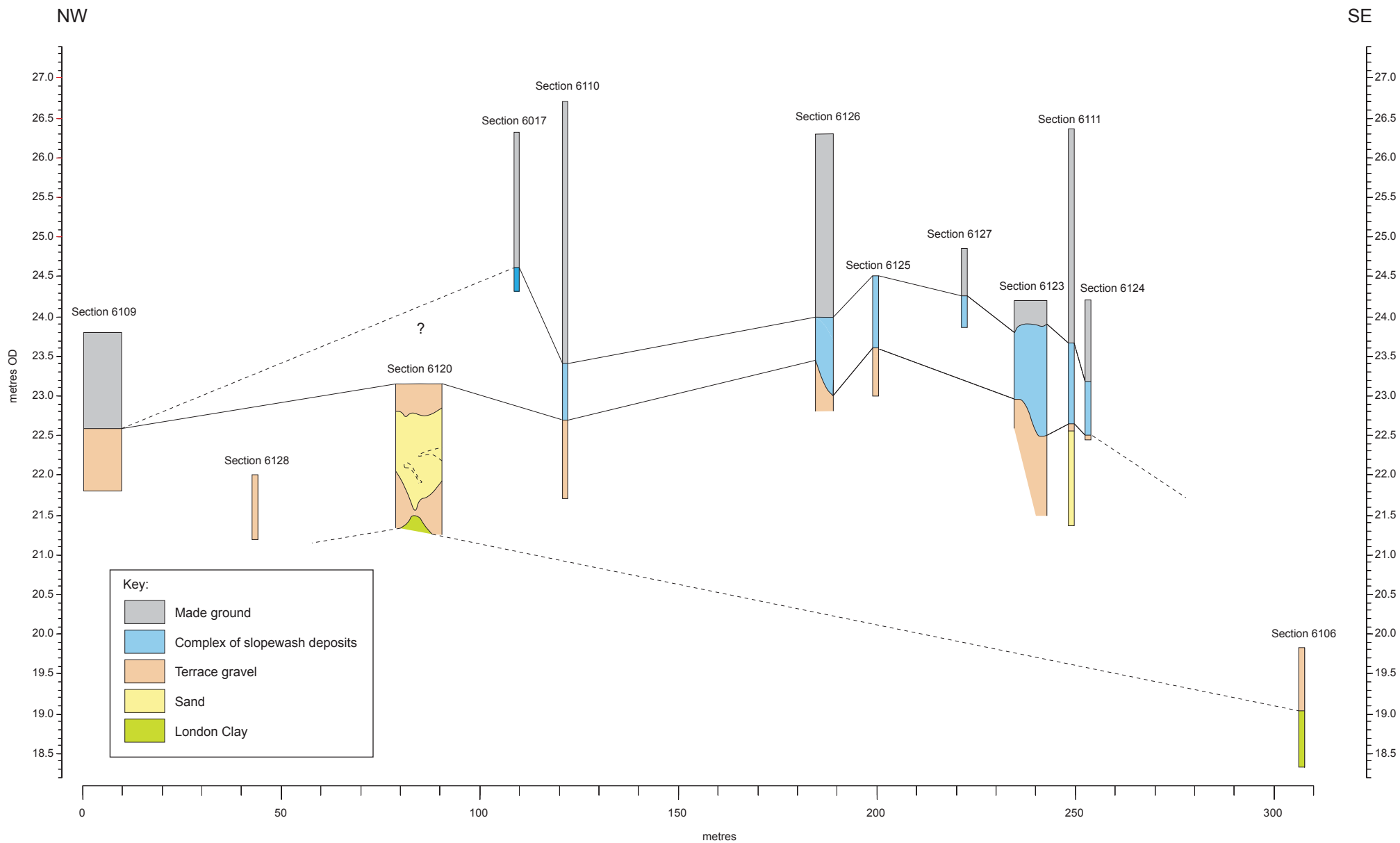
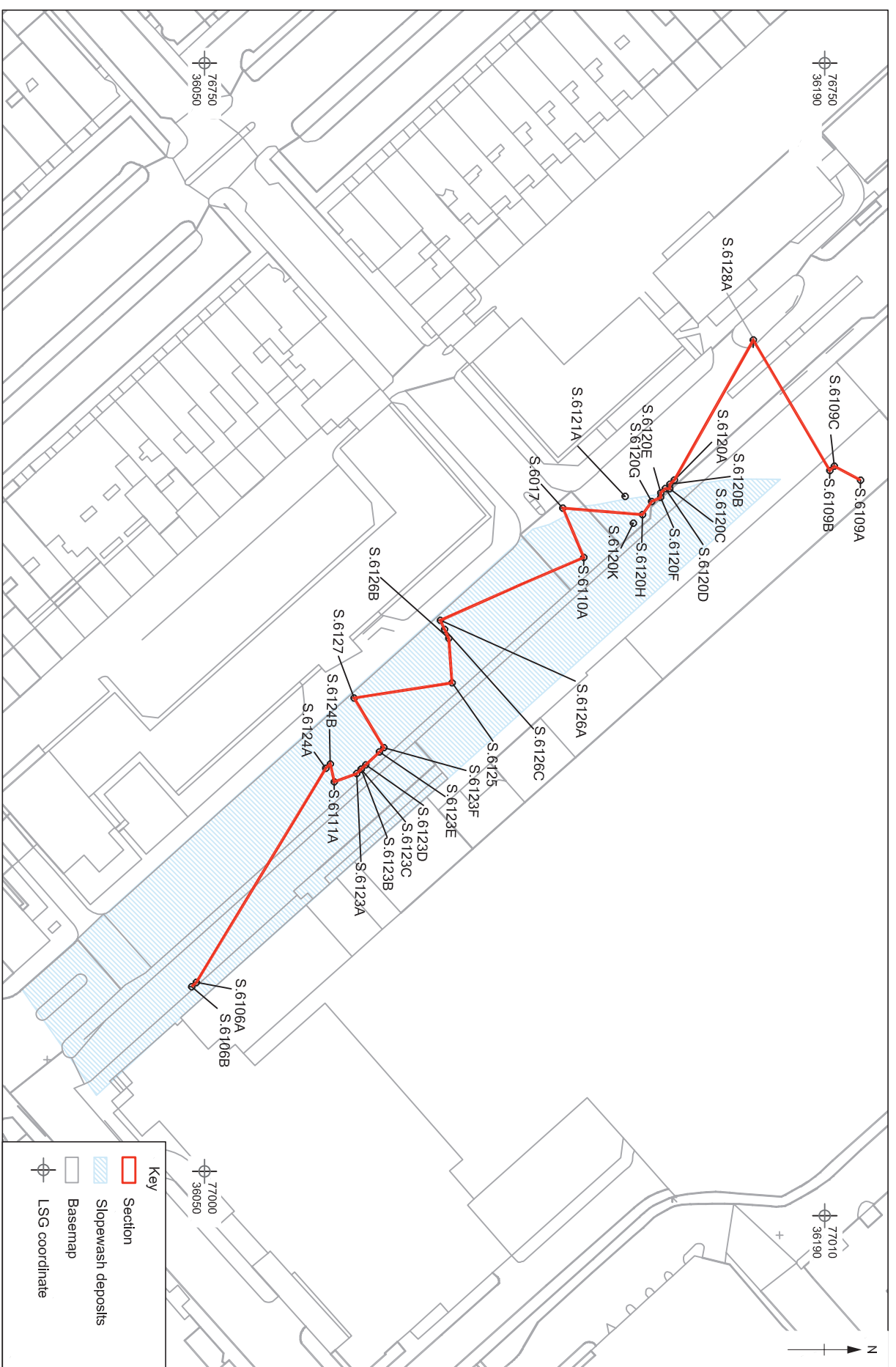


Figure 6: Composite profile through Holocene and Pleistocene stratigraphy recorded during the watching brief



Key	
	Section
	Slopewash deposits
	Basemap
	LSG coordinate

Section line

Scale at A4 1:1250

50 m

0

All OS data reproduced by permission of the Ordnance Survey on behalf of the controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence AL10000559

CHECKED BY: MB



Head Office/Registered Office/ OA South

Janus House
Osney Mead
Oxford OX2 0ES

t: +44 (0) 1865 263 800
f: +44 (0) 1865 793 496
e: info@oxfordarchaeology.com
w: <http://oxfordarchaeology.com>

OA North

Mill 3
Moor Lane
Lancaster LA1 1QD

t: +44 (0) 1524 541 000
f: +44 (0) 1524 848 606
e: [oanorth@oxfordarchaeology.com](mailto: oanorth@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>

OA East

15 Trafalgar Way
Bar Hill
Cambridgeshire
CB23 8SQ

t: +44 (0) 1223 850500
e: [oaeast@oxfordarchaeology.com](mailto: oaeast@oxfordarchaeology.com)
w: <http://oxfordarchaeology.com>



Director: Gill Hey, BA PhD FSA MIFA
*Oxford Archaeology Ltd is a
Private Limited Company, N^o: 1618597
and a Registered Charity, N^o: 285627*