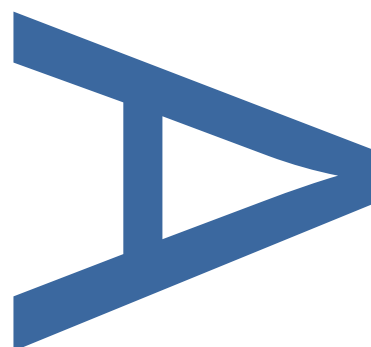
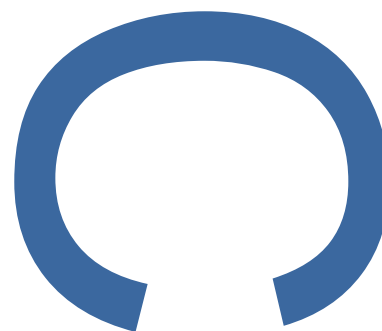


**CROSSRAIL WEST STATIONS:  
EALING BROADWAY STATION,  
LONDON BOROUGH OF EALING**

**AN ARCHAEOLOGICAL WATCHING  
BRIEF**

**MAY 2016  
REPORT NO. 12491**



**PRE-CONSTRUCT ARCHAEOLOGY**

DOCUMENT VERIFICATION

CROSSRAIL WEST STATIONS: EALING  
BROADWAY STATION, LONDON BOROUGH OF  
EALING

AN ARCHAEOLOGICAL WATCHING BRIEF

Quality Control

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**CROSSRAIL WEST STATIONS: EALING BROADWAY STATION, LONDON BOROUGH  
OF EALING:  
AN ARCHAEOLOGICAL WATCHING BRIEF**

**Museum of London Site Code:** XTO 15

**Local Planning Authority:** London Borough of Ealing

**Network Rail Contract Number:** 123215

**Central NGR:** TQ 1794 8089

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## **1 NON TECHNICAL SUMMARY**

- 1.1 This report details the results and working methods of an archaeological watching brief undertaken by Pre-Construct Archaeology Ltd. at Ealing Broadway Station, LB Ealing, in advance of development associated with a wider scheme of development encompassing a series of Crossrail West Stations. Works at the study site comprised enabling works to allow the installation of a footbridge (Network Rail WPP166, 2015).
- 1.2 The fieldwork was carried out between 14<sup>th</sup> and 24<sup>th</sup> September 2015. This comprised monitoring thirteen trial holes across the subject site. The work was commissioned by Arcadis on behalf of Network Rail.
- 1.3 The watching brief identified natural horizons overlain by late post-medieval made ground and topsoil. A number of the areas failed to identify natural deposits and exhibited truncation by modern services.
- 1.4 No archaeological features or deposits relating to the prehistoric, Roman, medieval or early post-medieval periods were encountered during the investigation.

## **2 INTRODUCTION**

- 2.1 An archaeological watching brief was undertaken by Pre-Construct Archaeology Ltd. (PCA) in advance of redevelopment at Ealing Broadway Station, LB Ealing, as one of a series of areas to be redeveloped as part of a wider improvement scheme encompassing Crossrail West Stations.
- 2.2 The site is located within the London Borough of Ealing, and centred at National Grid Reference TQ 1794 8089, and comprises a roughly triangular plot of land bound on all sides by Haven Green, with Ealing Broadway Station to the immediate east. At the time of investigation the site comprised an undeveloped area of grassland.
- 2.3 PCA was commissioned for the watching brief by Network Rail in advance of proposed redevelopment of a series of Crossrail West Stations. The site therefore forms one of a number of site locations, along this route. The site does not lie within an Archaeological Priority Area as defined by the London Borough of Ealing. The site does not encompass, nor lie within the immediate vicinity of any Scheduled Ancient Monuments.
- 2.4 The project was undertaken in accordance with an approved Written Scheme of Investigation (Owen, 2014; Carver and Hicks, 2009).
- 2.5 Following the completion of the project the site archive will be deposited in its entirety with the London Archaeological Archive and Research Centre (LAARC) identified by the unique code XTO 15.
- 2.6 The evaluation was conducted between 14<sup>th</sup> and 24<sup>th</sup> October 2015.
- 2.7 The project was monitored by Mr Pete Owen, Arcadis, on behalf of Network Rail, and project-managed for PCA by Peter Moore. The watching brief was supervised by Dave Taylor of PCA.

### **3 PLANNING BACKGROUND**

#### **3.1 National Planning Policy Framework (NPPF)**

- 3.1.1 In March 2012 the Department for Communities and Local Government issued the National Planning Policy Framework (NPPF), replacing Planning Policy Statement 5 (PPS5) 'Planning for the Historic Environment' which itself replaced Planning Policy Guidance Note 16 (PPG16) 'Archaeology and Planning'. It provides guidance for planning authorities, property owners, developers and others on the investigation and preservation of heritage assets.
- 3.1.2 In considering any planning application for development, the local planning authority will be guided by the policy framework set by government guidance, in this instance the NPPF, by current Unitary Development Plan policy and by other material considerations.

#### **3.2 Regional Guidance: The London Plan**

- 3.2.1 The over-arching strategies and policies for the whole of the Greater London area are contained within the Greater London Authority's London Plan (July 2011) which includes the following statement relating to archaeology.

Policy 7.8: Heritage assets and archaeology

Strategic

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

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

Planning decisions

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

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

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

LDF preparation

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

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

### **3.3 Local Guidance: London Borough of Ealing**

3.3.1 The relevant Local Development framework is provided by the following saved policies from the Ealing Borough Unitary Development Plan (adopted 2004) in addition to the adopted Development (or Core) Strategy adopted April 2012. These plans contain policies which provide a framework for the consideration of development proposals affecting archaeological and heritage features:

#### **UNITARY DEVELOPMENT PLAN:**

#### **4.9 Ancient Monuments and Archaeological Interest Areas**

1. The protection of Scheduled Ancient Monuments and their settings is required by law. Any development affecting such an ancient monument requires an impact evaluation, including an archaeological assessment where appropriate.

2. It is the Council's intention to also protect archaeological sites, and any proposal must:

- (i) Provide adequate opportunities for archaeological investigation prior to development;
- (ii) Be carried out in accordance with the British Archaeologists and Developers Liaison Code of Practice.

3. Where development would adversely affect Archaeological Interest Areas or archaeological remains, the applicant will normally be required to:

- (i) Modify designs to avoid adverse effects;
- (ii) Design suitable land use and management strategies to safeguard any important remains, with the option to seek an agreement covering access and interpretation arrangements;
- (iii) Preserve in situ: where this is not feasible, provide appropriate provision for excavation.

#### **ADOPTED DEVELOPMENT (OR CORE) STRATEGY:**

##### **1.2 (g)**



*To support the proactive conservation and enjoyment of Ealing's heritage assets and their significance. In this regard the Council will continue to update and revise its evidence relating to the Borough's designated and undesignated heritage assets. In particular, we will regularly review our Conservation Area Appraisals and Management Plans and review and update our Local List of heritage assets to ensure that local assets are identified and their significance properly understood during the planning process. In addition to promote heritage led regeneration, ensure a balanced approach to climate change measures, encourage greater understanding and access to heritage assets and reduce the number of assets at risk.*

*In addition to the identification and review of evidence relating to significant heritage assets, the primary method for the delivery of Ealing's heritage strategy will be area specific planning documents such as SPDs/AAPs. The level of detail contained in these documents is best suited to achieving a heritage-driven urban design programme of place shaping. Development management policies will ensure that proper consideration will be given to heritage matters when determining planning applications, and applications for listed building consent and conservation area consent.*

- 3.3.2 The study site is also subject to the Crossrail Act (2008) which set out a series of requirements to be undertaken to preserve and protect the heritage and historic environment resources along the route of Crossrail. The scope and parameters of these requirements are contained within Section 10 and Schedules 7 and 9 of the Act. Schedule 9 of the Crossrail Act details the list of sites where consents processes no longer apply, including listed buildings and Conservation Areas as has been enacted and agreed during the Parliamentary passage of the Bill.
- 3.3.3 In terms of designated heritage assets, as defined above, no Scheduled Ancient Monuments, Historic Wreck sites or Historic Battlefields lie within the immediate vicinity of the site. The site does not lie within an Archaeological Priority Area as defined by the London Borough of Ealing.
- 3.3.4 The site lies within Haven Green conservation area as defined by the London Borough of Ealing. As such policies contained within the Haven Green area management plan (2008) and Haven Green conservation area appraisal (2008) will apply to the subject site.

## **4 GEOLOGY AND TOPOGRAPHY**

### **4.1 Geology**

4.1.1 The British Geological Survey shows the site to be underlain by the London Clay formation, a clay, silt and sand horizon formed during the Palaeogene Period. These are expected to be overlain by superficial deposits of the Langley Silt Member, a formation of clay and silts formed during the quaternary period (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

4.1.2 Geotechnical information suggested that Ealing Broadway Station was underlain by made ground extending up to 1.5m in thickness, although largely extending to an average depth of 0.5m (Shipley, 2012).

### **4.2 Topography**

4.2.1 The topography around the study site indicates that Ealing Broadway Station is located within a cutting, with the surrounding streets standing at around 32-33m OD.

## **5 ARCHAEOLOGICAL AND HISTORIC BACKGROUND**

5.1 Research into the archaeological and historical background of the site has previously been carried out as part of a detailed desk-based assessment (DDBA) of Ealing Broadway Station and is summarised below (AECOM, 2012). This included the assessment of HER data, an environmental statement and archaeological impact assessment covering a study area of 500m radius from the proposed study site. The following therefore represents a summary of information contained within this document, unless otherwise stated.

### **5.2 Palaeolithic (to 10,000 BC)**

5.2.1 Much of what is known of Palaeolithic activity in the wider area of the station has emerged from finds recovered during later 19th century gravel and sand extraction works, although more recent sites have been excavated such as that at Creffield Road, c. 0.5km to the east. These generally have been out-of-situ find spots of lithic implements, and it is very rare to find material within its original context.

5.2.2 Overall, much of the Palaeolithic material recovered is in a rolled condition, suggesting redeposition within the river terrace gravels. It should also be noted that this redeposited material is likely to have accumulated over very long periods of time, making it difficult to extrapolate any concentration of density of activity based on artefact distribution. However, the general proliferation of material from this period within the Thames Valley confirms that this region was subject to activity during this period. It is assumed that the Thames Valley would have provided a rich and varied habitat in which the hunting and gathering lifestyle of the Palaeolithic could have flourished.

5.2.3 A number of assets dating to the Palaeolithic period have been recorded within the study area, all of which consist of find spots of stone tool implements. These include two Levallois flakes found approximately 30m to the northeast, and a number of flint implements from the surrounding area.

### **5.3 Mesolithic (10,000 to 4000 BC)**

5.3.1 Remains of Mesolithic date are present but in lower numbers than the Palaeolithic material. A similar form of subsistence economy would be expected, that of foraging, hunting and seasonal exploitation of the environment.

5.3.2 Within the Crossrail West study area the Mesolithic was generally only represented by residual find spots of Mesolithic material although fieldwork in the Eton and Colne valley areas. Within the Ealing Broadway study area, the Mesolithic is only represented by a single find spot of a flint core, approximately 30m to the northeast of the station.

### **5.4 Neolithic (400 to 2000 BC)**

5.4.1 Material of Neolithic date is again rarely recorded within the known archaeological resource along the Crossrail West route although further examples are spread throughout the wider region. The number of rivers and valleys in this wider area has led to suggestions that the area may have functioned as a ritual and ceremonial landscape, particularly associated with riverine sites (MoLAS report 2005). Important sites have been recorded c. 18km to the south west of Ealing Broadway, and indicate the growing social complexity of the period over the preceding Palaeolithic and Mesolithic periods and the construction of large ritual and ceremonial monuments.

5.4.2 Only a single find spot dating to the Neolithic period has been recorded within the current study area. This object, a polished stone axe discovered in 1897, was found approximately 500m to the south of the station.

## **5.5 Bronze Age (2000 to 800 BC)**

5.5.1 The Bronze Age was originally characterised by new technologies and ideologies, but is now seen more as a transitional period where Neolithic practices lingered into the early Bronze Age whilst the late Bronze Age and Iron Age are often grouped together in Regional Research Frameworks. Remains of Bronze Age origin are generally scarce within the study areas although are more prevalent elsewhere in the region with concentrations between Maidenhead, c. 15km to west, and Slough, about 10km to the west.

5.5.2 The period saw many changes, not just in artefact types and styles, but also in economy and subsistence patterns. A climatic deterioration began during the mid-point of the period which may have been, if not the driving force, at least a factor in this shift in economy and subsistence to more settled farming and sedentism. Archaeologically, this has had an effect on where to expect sites of these dates within the landscape although it is more pronounced in upland areas. Major sites of this period include those at Runnymede and Reading.

## **5.6 Iron Age (800 BC to AD 43)**

5.6.1 The Iron Age period is fairly well represented regionally although the only notable site within the Crossrail West study areas is one at Maidenhead, c. 15km to west, where a possible settlement site was excavated in the 19th century. However, across the region a number of hill forts, enclosures and other occupation and exploitation sites are known. A number of cropmarks also indicate possible sites of Iron Age or Roman date.

5.6.2 Currently there is no recorded activity dating from the Iron Age within the study area.

## **5.7 Roman (AD 43 to 450)**

5.7.1 Roman material is scattered throughout the region, although towns are more limited. A Roman road is recorded running west from London to Silchester then splitting and heading for Bath and Exeter amongst other locations (Margary 1967). However, this is located well to the south of the Crossrail West route and the nearest known towns are at Staines and St Albans, as well as that in London. Smaller settlements and farmsteads are relatively frequent and possible villas have been recorded at Maidenhead, 15km to the west, and Harmondsworth, 6km to the south west, as well as other locations.

5.7.2 No previously recorded sites or material of Roman date has been recorded within the Ealing Broadway study area.

## **5.8 Early Medieval (AD 450 to c. 1066)**

5.8.1 The early medieval record within the region is limited. This is partially a reflection of earlier Saxon-era settlement being developed by continued occupation into the medieval and post-medieval periods, its survival and the difficulty of recognising material of this date. Stray find spots have been located as have occasional sites such as a series of pits without any obvious associated settlement during the Maidenhead Flood Alleviation Scheme, 15km to the west (MoLAS 2005).

5.8.2 Many of the old manors and parishes may be able to trace back their origins to this period and etymological research has suggested a number of settlements with the suffixes 'ham', 'ton', 'bury' or 'ey' (*ibid*) date to the early medieval period. Some of the settlements with early churches, such as Slough, Langley, Ealing and Hanwell, may also have originated during the early medieval period. The most obvious evidence of this period within the region comes from the excavated cemeteries and burials such as that at Taplow and a shrine at Weedon, both in Buckinghamshire (Crawford 2010).

5.8.3 No early medieval material has been recorded within the Ealing Broadway study area.

## **5.9 Medieval (c. AD 1066 to 1500)**

5.9.1 The region was fairly well established along parish and manorial boundaries during the medieval period, and a large number of the present day towns were first established as villages in this period. Several of the stations along the Crossrail West are located near to these former medieval village cores. Other sites included large manorial centres, which are now invariably denoted by moats, farms and farmsteads, mills and ecclesiastical sites, some of which are also denoted by moats.

5.9.2 One of the better established industries of this period within the region was brick making. One of the reasons for this was the existence of brickearth (Langley Silt Complex deposits) in the region which was extensively quarried in this period. It should be noted that this industry may have had an impact on any earlier archaeological remains.

5.9.3 The Archaeological Interest Area (A11) is located immediately to the south of the station and denotes the medieval activity in this area. The former medieval settlement of Ealing and the moated site of Ealing Manor are documented here (A11). The station is on the boundary of this area and thus is likely to predominantly encounter peripheral activities, such as agriculture, rather than settlement and occupational evidence. Settlement is more frequently concentrated around the moated manor sites.

5.9.4 Only a single site of medieval date is recorded within the current study area. This is of a jar containing coins, discovered by workmen in the 1850s when work was being carried out at a church c. 180m to the south west of the site.

#### **5.10 Post-Medieval (c. AD 1500 to 1900)**

5.10.1 The post-medieval period saw large changes, both in industry and in settlement patterns. Some of these changes were driven by industrial expansion whilst others followed the expanding urban scene. Major industrial projects included the canals and railways, and the growth of factories and industries in towns and cities. Other alterations included field enclosure, creation of parks and gardens and the expansion of suburbs, particularly those in close proximity to London. These include Ealing and Acton within the Crossrail West area,

5.10.2 The Great Western Railway was established in 1835 following an Act of Parliament. The Act was backed by commercial interests in Bristol as it was desirable to retain the ports pre-eminence as the location for American trade on the Atlantic seaboard. The first section, to Maidenhead, was completed in 1838. The driving force and main reason for the success of the Great Western Railway was the architect and engineer Isambard Kingdom Brunel. This consisted of the terminus at Paddington and a temporary station at Maidenhead, although this is not the current structure. The various stations in between these were added by 1870. The line is considered a feat of engineering genius, particularly the Maidenhead Viaduct and the Wharncliffe Viaduct.

5.10.3 The railway line was constructed as a broad gauge line, much wider than the standard narrow gauge used in most of the other UK railways. This was one of Brunel's ideas to make the line faster and smoother. This obviously caused difficulties when the line came into contact with narrow gauge lines. Following the death of Brunel in 1859, narrow gauge came to dominate the UK railway system. The Great Western Railway had been converted to narrow gauge by the end of the 19th century. The Great Western Railway ended in 1947 when the railway system was nationalised and became part of British Rail.

5.10.4 The earliest mapping for the study area date to the 18th century when the settlement of Ealing was depicted as a small rural settlement a short distance to the south of the modern day railway line. Rocque's survey of 1745 shows the settlement on a north-south alignment following the road now known as the B455. The area of the station was undeveloped, although it is located at the convergence point of a number of roads. The general landscape was characterised by relatively small enclosed fields.

5.10.5 By the time of the Parish Survey of 1777, a roughly square road junction had been constructed in the area where Ealing Broadway Station now stands, with The Feathers public house marked approximately 100m to the south. A second public house known as The Bell was also shown slightly to the southeast of The Feathers.

- 5.10.6 Ealing appears to have developed significantly during the early and mid 19th century and by the time of the 1865 Ordnance Survey, the Great Western Railway line had been constructed along with the first incarnation of Ealing Broadway Station. Due to delays and problems, the station was not opened during the Great Western Railway commencement of operations, but instead opened in December 1838. The area of the station adjacent to The Feathers public house and the road junction was known as Ealing Haven, a basic station served by a two line track. To the south of the station, the settlement of Ealing had expanded to the station with a mixture of residential and commercial development evident. This included almshouses located opposite The Feathers approximately 100m to the south, along with other buildings including a church slightly further west and outside of the study area.
- 5.10.7 Few changes are shown by the time of the 1875 Ordnance Survey plan of the area. The station is depicted on the two line track with The Feathers to the south. The public house, although located in the same place and very similar in plan, had been rebuilt in 1871 and still stands today.
- 5.10.8 The next 20 years saw a number of changes so by the time of the 1896 Ordnance Survey plan, several new buildings are recorded. These include the National Westminster Bank adjacent to The Feathers public house and approximately 100m to the south, the Lyric Hall about 110m to the west, and the Methodist Chapel located some 150m to the south of the station. A large hall was built about 240m to the east of the station, later named as Girton Hall, although it is unnamed on the 1896 survey.
- 5.10.9 By 1896, a number of changes have also taken place to the station. These included the expansion of platforms and the overbridge building, a large increase in the number of tracks serving the station, and the addition of railway furniture such as signal points and unidentified structures near sidings to the north. Specific additions include a signal box c.30m to the east and a new station building to the north; both changes that date to the late 1870s/early 1880s when a branch line from the Kensington and Richmond Line was brought into Ealing Station. Further changes had been made to the track layout at Ealing Broadway Station by the time of the 1915 Ordnance Survey plan. Platform extensions are visible and a central embankment had been removed to open up the station and platforms. A new signal box was also constructed about 100m to the east, while a booking office is noted to the rear of The Feathers public house. These changes may date to the period immediately after the 1896 Ordnance Survey plan as a number of plans held by the Wiltshire and Swindon Archives dated 1896 show alterations and additions to the station including a new booking office.
- 5.10.10 The Conservation Areas, namely Haven Green immediately to the northwest of the station and Ealing Town Centre to the south are predominantly formed of structures dating to the later 19th century. These areas contain a number of the listed buildings described above and also locally listed buildings and buildings with group or facade value.

## **5.11 Modern (c. AD 1900 to present)**

- 5.11.1 Residential development was also taking place outside of the station during the early 20th century with a number of new terraces constructed north of the railway lines. To the south additional housing was also constructed, while the almshouses were demolished and replaced by a small terrace by the 1915 survey.

- 5.11.2 The 1932 Ordnance Survey plan shows further alterations to the station including new junctions added to the east of the station, evidence of extensions to the central platforms, and a large new pedestrian overbridge at the eastern end of the station. The old signal box to the north appears to have been extended, while a number of the small unnamed structures to the north of the railway had been removed. These alterations date to c. 1920 when the Ealing and Shepherd's Bush branch of the Great Western Railway was electrified.
- 5.11.3 By the time of the 1956 Ordnance Survey plan of the area further changes had been made to Ealing Broadway Station with the addition of a building to the western side of the overbridge, while all platforms appear to have been extended slightly. While the later signal box to the east of the station remains extant, it was recorded as disused, and a new tank is marked to the east of this although its purpose is unknown. Outside of the station there are very few changes, although a new sports club is marked immediately to the north of the station.
- 5.11.4 In the second half of the 20th century major changes were carried out to the station buildings with a new structure built on the overbridge. This structure, named Villagers House, was a mixed residential and commercial building and is first depicted on the 1969 Ordnance Survey of the area. These developments also seem to have resulted in the loss of the booking office and many of the platform canopies, along with the eastern signal box. Outside of the station Girton Hall, which had been referred to as Ealing College, had been demolished and replaced with a new structure named College Court.



## **6 RESEARCH OBJECTIVES AND AIMS**

### **6.1 Aims**

6.1.1 The aim of the mitigation works associated with the archaeological monitoring is to provide a record of heritage assets subject to impacts from Crossrail works. The objectives are to undertake a programme of historic building recording and general watching briefs in response to those impacts. The record created will consist of reports detailing the results of the historic building recording and watching briefs alongside accompanying archives.

### **6.2 Relevant Regional Research Aims**

6.2.1 Relevant regional research themes from A Research Framework for London Archaeology 2002 (Nixon et al, 2003) and The Solent-Thames Archaeological Research Framework (Bradley et al. 2008) include:

- Trends in subsistence strategies during the Upper Palaeolithic and Mesolithic
- The relationship between Roman hinterland and Londinium
- Identifying Saxon rural land use and agricultural exploitation
- Understanding the social and economic implications of medieval consumption patterns across the city and region as well as using the archaeological record to trace individual lives
- During the post-medieval period, understanding how the proximity of London affected the lives of people living and working in the surrounding area.

### **6.3 Site Specific Aims and Objectives**

6.3.1 The DDBA (2012) identified the potential for the survival of remains of Palaeolithic date and railway related features within the boundary of the subject site. The watching brief should therefore attempt to identify the presence or absence of remains of these and other historic periods to add to current baseline data as exists for the immediate area.

## 7 ARCHAEOLOGICAL METHODOLOGY

7.1 In accordance with the approved Written Scheme of Investigation (Owen, 2014; Carver and Hicks, 2009), a series of thirteen trial holes were excavated across Haven Green, adjacent to Ealing Broadway Station, LB Ealing, in preparation for the construction of a site compound and temporary haulage road. This entailed the machine excavation of each trial hole to a maximum depth of 1m or until natural horizons were identified.

7.2 The dimensions of the trial holes were as follows:

Trial hole	Dimensions (m)		
	N-S	E-W	Depth
TH1	2.90	0.30	0.60
TH2	1.90	0.30	0.60
TH3	2.00	0.40	0.60
TH4	2.00	0.40	0.60
TH5	0.40	15.00	0.80
TH6	2.00	0.40	1.00
TH7	2.00	0.40	0.60
TH8	0.40	2.00	0.60
TH9	1.00	1.00	0.70
TH10	0.40	2.00	0.60
TH11	1.00	1.00	0.55
TH12	0.40	2.00	0.60
TH13	0.40	3.00	0.80

7.3 All excavation took place under archaeological supervision with the machine excavated trenches taking place with a machine fitted with a ditching bucket. Discrete cut features were hand excavated as slots or half sections through the respective features.

- 7.4 The trenches were cleaned by hand, recorded and photographed. Recording of the deposits was accomplished using the Single Context Recording Method on proforma context and planning sheets, as presented in PCA's Operations Manual 1 (Taylor 2009). Contexts were numbered and are shown in this report within squared brackets. Plans and sections were drawn at a scale of 1:20.
- 7.5 The trial holes were located by means of a TST in accordance with locations specified within the WSI.
- 7.6 The completed archive, comprising all written, drawn and photographic records, will be deposited with the London Archaeological Archive and Research Centre under the unique Site Code XTO 15.

## **8 RESULTS: ARCHAEOLOGICAL SEQUENCE (FIGURES 1-3)**

### **8.1 Phase 1: Natural**

8.1.1 Natural deposits of firm light brownish-yellow silty clay (brickearth) were encountered within seven of the thirteen trial holes. This was identified as layers [3], [31], [23], [17], [20], [8] and [28] within trial holes 1, 5, 6, 7, 8, 10 and 13 respectively. These natural horizons were recorded largely at 0.60m BGL, with slightly higher elevations of 0.30m BGL and 0.40m BGL recorded within trial holes 1 and 7 respectively.

### **8.2 Phase 2: Post-Medieval**

8.2.1 A layer of grey-brown silty clay containing CBM flecks and angular gravels was observed within all trial holes barring TH12. This was interpreted as late 19<sup>th</sup> century made ground and extended between 0.15m and 0.50m in thickness. The layer was identified as deposits [2], [5], [10], [25], [30], [22], [16], [19], [12], [7], [14] and [27] within TH1-11 and TH13 respectively. The full depth of the layer could not be ascertained within TH2, TH3, TH4 and TH9 as this continued beyond the limit of excavation (beyond 0.70m BGL).

8.2.2 Deposits of redeposited brickearth were identified within TH12 and considered to be backfill around late 19<sup>th</sup>/20<sup>th</sup> century services. Layer [33] was recorded from 0.20m BGL.

### **8.3 Phase 3: Modern**

8.3.1 All trial holes were overlain by topsoil extending between 0.15m and 0.20m in thickness. This horizon was identified as deposits [1]=[4]=[9]=[24]=[29]=[21]=[15]=[18]=[11]=[6]=[13]=[32]=[26] within trial holes 1-13 respectively.

## **9 ASSESSMENT OF RESULTS**

### **9.1 Results of the watching brief:**

- 9.1.1 The watching brief identified natural horizons in the majority of the trial holes, directly overlain by late post-medieval made ground and topsoil. Truncation by modern services was also observed within a number of the trial holes.
- 9.1.2 The lack of archaeological horizons or features across the area of Haven Green might suggest that earlier landscaping works, potentially during the formation of the green, had removed pre-existing archaeological horizons. Furthermore, the lack of identified cut features truncating natural horizons, would either suggest that natural horizons had been previously impacted, or that activity prior to the post-medieval period was minimal.
- 9.1.3 The results of the investigation are of negligible archaeological value and of limited importance.

## 10 INTERPRETATIONS AND CONCLUSIONS

### 10.1 Interpretations:

10.1.1 Natural horizons consistent with the Langley silts (brickearth) were encountered within roughly half of the trial holes monitored (7 out of 13). The relative depths of this horizon (where seen) suggest a relatively level natural horizon c.0.60m BGL, where not truncated by modern intrusions.

10.1.2 Late post-medieval made ground was observed within all trial holes investigated, and in a number of locations included evidence of disturbance from services. These were observed at a consistent depth and were of comparable composition. These suggested that the entirety of the immediate area of Haven Green was landscaped and levelled during the late nineteenth century.

10.1.3 A uniform topsoil horizon sealed all trial holes investigated across Haven Green.

### 10.2 Research Objectives:

10.2.1 The archaeological investigations sought to address the following research questions:

- To determine any trends in subsistence strategies during the Upper Palaeolithic and Mesolithic:  
No evidence of Upper Palaeolithic or Mesolithic activity was encountered during the investigations across the study site.
- To establish the relationship between Roman hinterland and Londinium:  
No features or horizons were encountered during the investigations of Roman date. It is likely that the area of investigation lay at the periphery of any concentrations of activity at this time.
- To identify Saxon rural land use and agricultural exploitation:  
No features or horizons were encountered during the investigations of Saxon date.
- To understand the social and economic implications of medieval consumption patterns across the city and region:  
No features or horizons were encountered during the investigations of Medieval date. The DDBA suggested that the focus of medieval settlement lay beyond the immediate study area, to the south, during the medieval period. The lack of medieval features, or residual material, might support this notion.
- To understand how the proximity of London affected the lives of people living and working in the surrounding area:  
No evidence of activity prior to the late post-medieval period was encountered during the investigations. The evidence that was encountered was limited to levelling deposits associated with the landscaping of Haven Green. The implications for the impact such works had on the lives of people living and working in the surrounding area are therefore difficult to assess.

10.2.2 In addition the following site specific research aims were addressed:

- To establish the presence or absence of remains of Palaeolithic date:

No evidence relating to the Palaeolithic period were encountered during the investigations as either discrete features/horizons, or residual material. It is likely that either exploitation/occupation of the immediate area was minimal, in addition to extensive landscaping works having truncated and removed any surviving horizons prior to the late 19<sup>th</sup> century.

- To establish the presence or absence of railway related features:

No features, deposits, or artefacts associated with the railway were observed during the investigations across the subject site. Such activity is likely to have been limited to the immediate periphery of Ealing Broadway Station.

## **11 PUBLICATION AND DISSEMINATION**

- 11.1.1 This report is intended to form one of a number of site specific assessments detailing archaeological interventions at the Crossrail West Stations. A summary of the results will be published in the London Archaeologist yearly Round-up.



## **12 ARCHIVE DEPOSITION**

- 12.1 The site archive shall be organised to be compatible with other archaeological archives in London, or where outside the greater London area, any specific requirements of the receiving museum. This requirement for archival compatibility includes computerised databases.
- 12.2 For London archives, individual descriptions of all archaeological strata and features excavated or exposed shall be entered onto prepared pro-forma recording sheets which include the same fields of entry on the recording sheets of Museum of London Archaeology. Sample recording sheets, sample registers, finds recording sheets, registered finds catalogues and photographic record cards shall also follow the Museum of London Archaeology equivalents.
- 12.3 Archives shall be prepared to conform with current best practise (e.g. Brown and Duncan 2007; Institute of Field Archaeologists 2008f) The archive shall cover all finds, samples and records (drawn, written, photographic and electronic) collected and produced during the works. The archive shall be indexed and internally consistent. The Archaeology Contractor shall complete the site archive and submit to the Project Archaeologist within 8 weeks of completion of a fieldwork event.
- 12.4 Following the completion of the project the site archive will be deposited in its entirety with the London Archaeological Archive and Research Centre (LAARC) identified by the unique code XTO 15.

## 13 BIBLIOGRAPHY

Carver, J and Hicks, C, 2009, *Archaeology Specification for Evaluation & Mitigation (including Watching Brief): Crossrail Act 2008 (Document Number: CR-PN-LWS-EN-SP-00001)*, Crossrail, unpublished document

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Taylor, J. with Brown, G. 2009. *Fieldwork Induction Manual: Operations Manual 1*, Pre-Construct Archaeology Limited

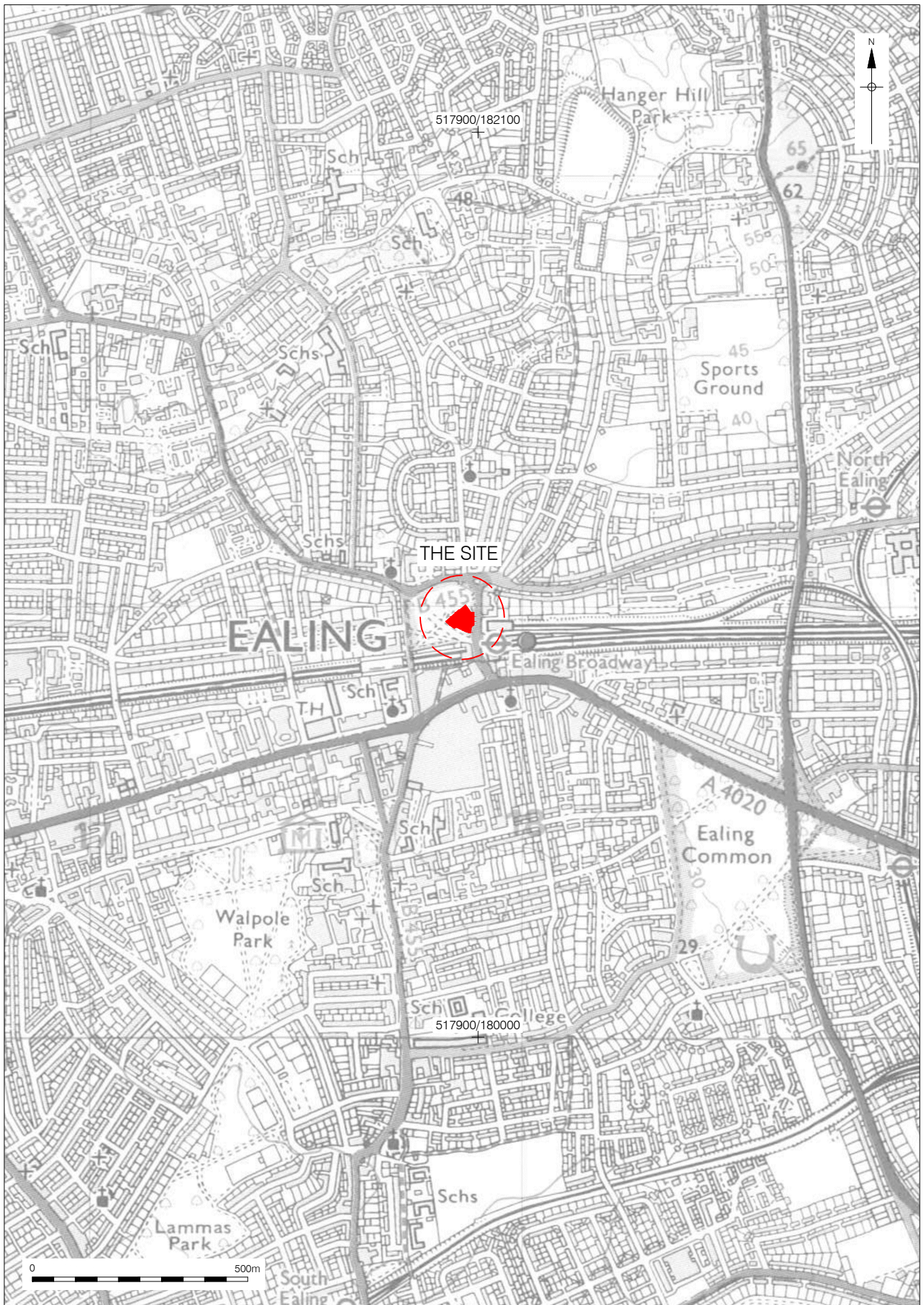
Internet Sources:

British Geological Survey map viewer:

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

## **14 ACKNOWLEDGEMENTS**

- 14.1 Pre-Construct Archaeology would like to thank Pete Owen of Arcadis for commissioning this work on behalf of Network Rail.
- 14.2 The author would like to thank Peter Moore for project management and editing, and Ray Murphy for the illustrations. Further thanks are due to Dave Taylor for supervising the watching brief

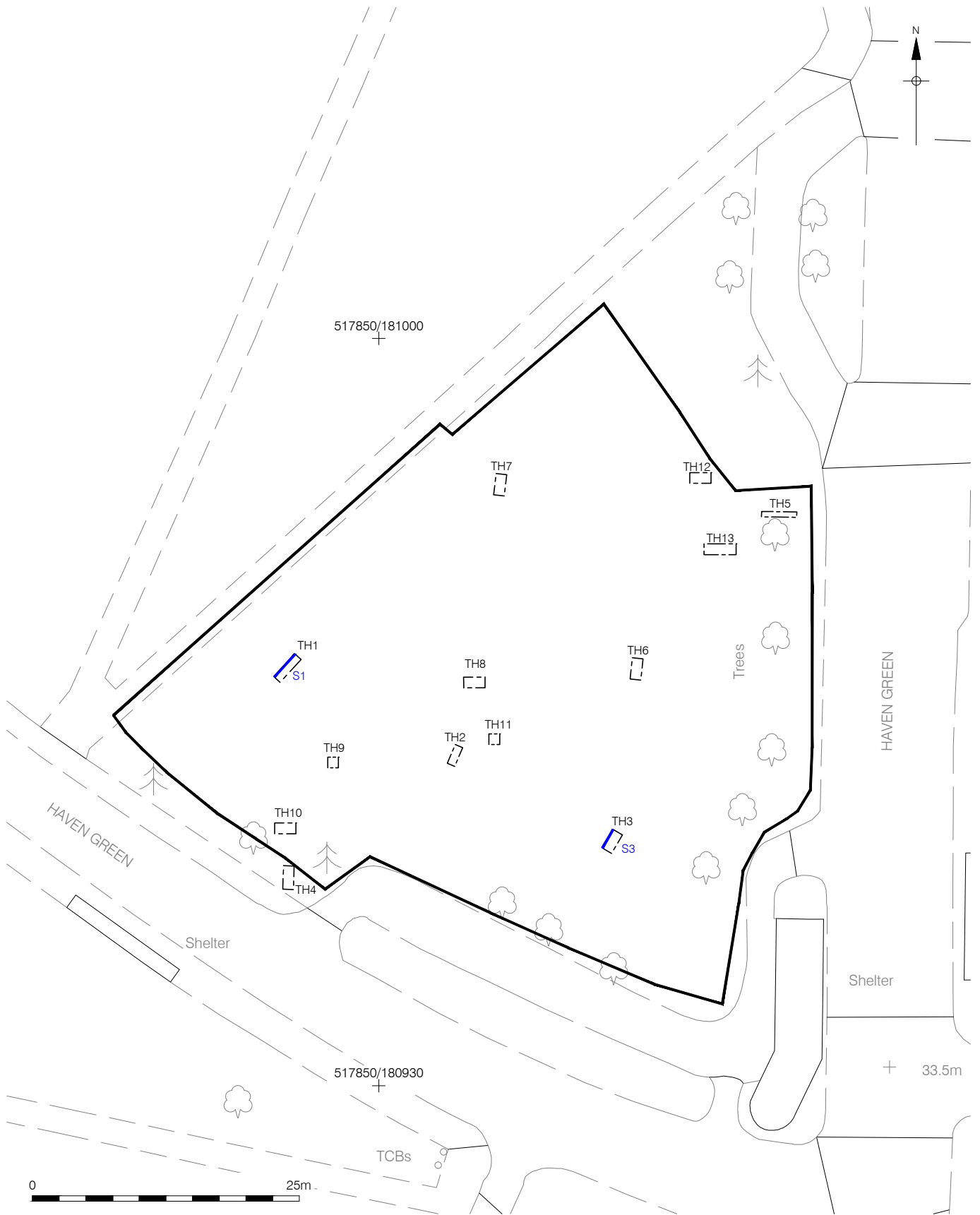


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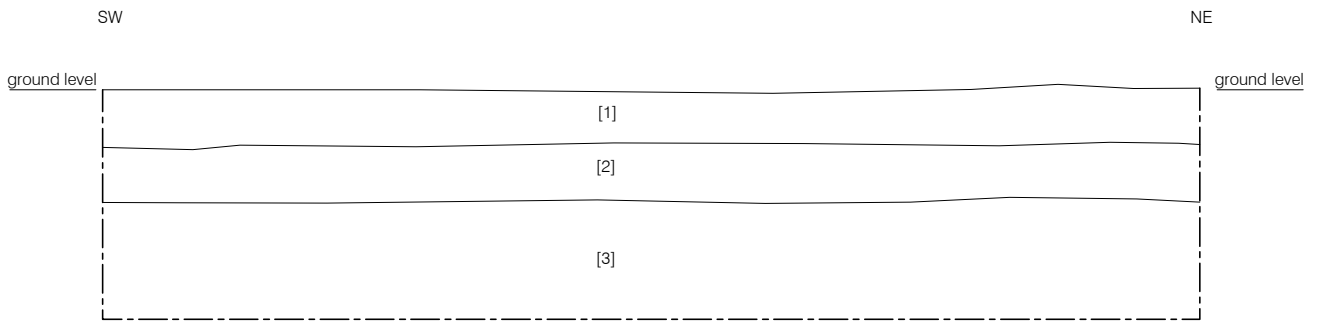
25/04/16 RM

Figure 1  
Site Location  
1:12,500 at A4

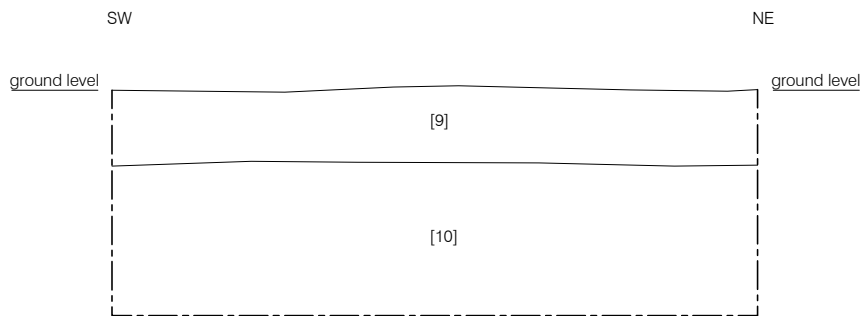


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Figure 2  
 Detailed site location  
 1:500 at A4



Section 1  
Testhole 1  
Southeast Facing



Section 3  
Testhole 3  
Southeast Facing

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## APPENDIX 1 – OASIS REPORTING FORM

### 15 OASIS DATA COLLECTION FORM: ENGLAND

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

1.1.2

15.1.1 Printable version

1.1.3

### 15.2 OASIS ID: preconst1-252063

1.1.4

1.1.5 **Project details** 1.1.6

1.1.7 Project name 1.1.8 Crossrail West Stations: Ealing Broadway Station

1.1.9 1.1.10

1.1.11 Short description of the project 1.1.12 The fieldwork was carried out between 14th and 24th September 2015. This comprised monitoring thirteen trial holes across the subject site. The watching brief identified natural horizons overlain by late post-medieval made ground and topsoil. A number of the areas failed to identify natural deposits and exhibited truncation by modern services.

1.1.13 1.1.14

1.1.15 Project dates 1.1.16 Start: 14-09-2015 End: 24-09-2015

1.1.17 1.1.18

1.1.19 Previous/future work 1.1.20 No / No

1.1.21 1.1.22



1.1.23	Any associated project reference codes	1.1.24	XTO15 - Sitecode
1.1.25		1.1.26	
1.1.27	Type of project	1.1.28	Recording project
1.1.29		1.1.30	
1.1.31	Site status	1.1.32	Conservation Area
1.1.33		1.1.34	
1.1.35	Current Land use	1.1.36	Other 13 - Waste ground
1.1.37		1.1.38	
1.1.39	Monument type	1.1.40	NONE None
1.1.41		1.1.42	
1.1.43	Significant Finds	1.1.44	NONE None
1.1.45		1.1.46	
1.1.47	Investigation type	1.1.48	"Watching Brief"
1.1.49		1.1.50	
1.1.51	Prompt	1.1.52	Planning condition
1.1.53		1.1.54	

1.1.55

1.1.56 Project location 1.1.57



1.1.58	Country	1.1.59	England
1.1.60	Site location	1.1.61	GREATER LONDON EALING EALING Ealing Broadway Station
1.1.62		1.1.63	
1.1.64	Postcode	1.1.65	W5 2PY
1.1.66		1.1.67	
1.1.68	Study area	1.1.69	3000 Square metres
1.1.70		1.1.71	
1.1.72	Site coordinates	1.1.73	TQ 1794 8089 51.514115866285 -0.300143251034 51 30 50 N 000 18 00 W Point
1.1.74		1.1.75	
1.1.76	Height OD / Depth	1.1.77	Min: 0.3m Max: 0.6m
1.1.78		1.1.79	

#### 1.1.80

<b>1.1.81</b>	<b>Project creators</b>	1.1.82	
1.1.83	Name of Organisation	1.1.84	Pre-Construct Archaeology Limited
1.1.85		1.1.86	
1.1.87	Project brief originator	1.1.88	Network Rail
1.1.89		1.1.90	
1.1.91	Project design originator	1.1.92	Network Rail

1.1.93	1.1.94
1.1.95 Project director/manager	1.1.96 Peter Moore
1.1.97	1.1.98
1.1.99 Project supervisor	1.1.100 David Taylor
1.1.101	1.1.102
1.1.103 Type of sponsor/funding body	1.1.104 Agent
1.1.105	1.1.106
1.1.107 Name of sponsor/funding body	1.1.108 Arcadis
1.1.109	1.1.110

**1.1.111**

<b>1.1.112 Project archives</b>	1.1.113
1.1.114 Physical Archive Exists?	1.1.115 No
1.1.116	1.1.117
1.1.118 Digital Archive recipient	1.1.119 LAARC
1.1.120	1.1.121
1.1.122 Digital Contents	1.1.123 "Stratigraphic"
1.1.124	1.1.125
1.1.126 Digital Media available	1.1.127 "Text"

1.1.128	1.1.129
1.1.130 Paper Archive recipient	1.1.131 LAARC
1.1.132	1.1.133
1.1.134 Paper Contents	1.1.135 "Stratigraphic"
1.1.136	1.1.137
1.1.138 Paper Media available	1.1.139 "Plan","Report","Section"
1.1.140	1.1.141
<b>1.1.142</b>	
<b>1.1.143 Project bibliography 1</b>	1.1.144
1.1.145 Publication type	1.1.146 Grey literature (unpublished document/manuscript)
1.1.147 Title	1.1.148 CROSSRAIL WEST STATIONS: EALING BROADWAY STATION, LONDON BOROUGH OF EALING:
1.1.149	1.1.150
1.1.151 Author(s)/Editor(s)	1.1.152 Fairman, A.
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1.1.172 Entered by  
1.1.173 Peter Moore (pmoore@pre-construct.com)

1.1.174 Entered on  
1.1.175 19 May 2016

1.1.176

1.1.177

## 16 OASIS:

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

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