# An Archaeological Assessment of Land at the Stratford City Development, Stratford, zones 3 - 6, London Borough of Newham

SZD 08

July 2010

PRE-CONSTRUCT ARCHAEOLOGY

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**An Archaeological Assessment of Land at the Stratford City Development, Stratford, zones 3 - 6, London Borough of Newham**

**Site Code: SZD08**
**Central National Grid Reference: TQ 379 852**

**Written and Researched by Stuart Holden and James Langthorne**
**MoLA-PCA, July 2010**

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## CONTENTS

# 1 ABSTRACT

**1.1** This report details the results of the archaeological evaluation and subsequent mitigation undertaken by Pre-Construct Archaeology and Museum of London Archaeology (MoLA-PCA) on five areas in the Stratford City Development (Figure 1). The work was completed in advance of redevelopment of the area for the 2012 Olympic Athletes Village and legacy project (zones 3 – 6).

**1.2** Twenty five trenches and four test pits across five areas were investigated to the north of Stratford City Station (Figure 2), on the northwest and northeast of a roughly triangular block of land raised during the excavation of the 'Stratford Cut'. **Frigoscandia South** is the site of the former cold stores located at the southwestern end of Clays Lane, **Frigoscandia North** comprises land between the northern end of Clays Lane and raised land to the southeast, **Temple Mills Access/Security** constituted land to the south of Temple Mills Lane to the east of the junction of Clays Lane, **Bridges B2 and B3** on land of the former Stratford Railway Depot between Leyton Road and the railway lines north of Stratford Station, the **Chobham Manor** test pits which were excavated within a narrow strip between raised land on the western side of the High Meads Loop where it converges with the railway lines north of Stratford Station (Figure 1 – 2).

**1.3** The investigations produced evidence of the prehistoric topography, lithostratigraphy as well as land-use with the discovery of six prehistoric Bronze Age cremations and a possible posthole of similar date.

**1.4** Post-medieval agrarian activities were recorded in several locations with ploughsoils and ditches, probably representing field systems, identified. Late post-medieval and modern development of the area was recorded extensively at the eastern side of the site where remains of the Stratford Railway Depot were revealed.

## 2 INTRODUCTION

**2.1** An archaeological evaluation and subsequent mitigation was undertaken by MoLA-PCA of land at five locations in the Stratford City Development area (Figure 1) in advance of redevelopment (Zones 3 – 6).

**2.2** The investigations were conducted between the 16th January and 16th April 2008 and commissioned by ARUP Consulting on behalf of Stratford City Development Limited.

**2.3** The National Grid Reference of the centre of the site is TQ 379 852

**2.4** The sites, as a whole, were issued with the unique reference code: SZD08.

**2.5** The work was supervised by Stuart Holden and the project managed by Peter Moore for Pre-Construct Archaeology Limited, the geo-archaeology by Jan Corcoran for MoLA, and the post-excavation reporting by Frank Meddens. Suzanna Pembroke, ARUP, represented Stratford City Development and David Divers of English Heritage Greater London Archaeological Advisory Service (GLAAS), monitored the archaeological fieldwork on behalf of Newham Borough Council.

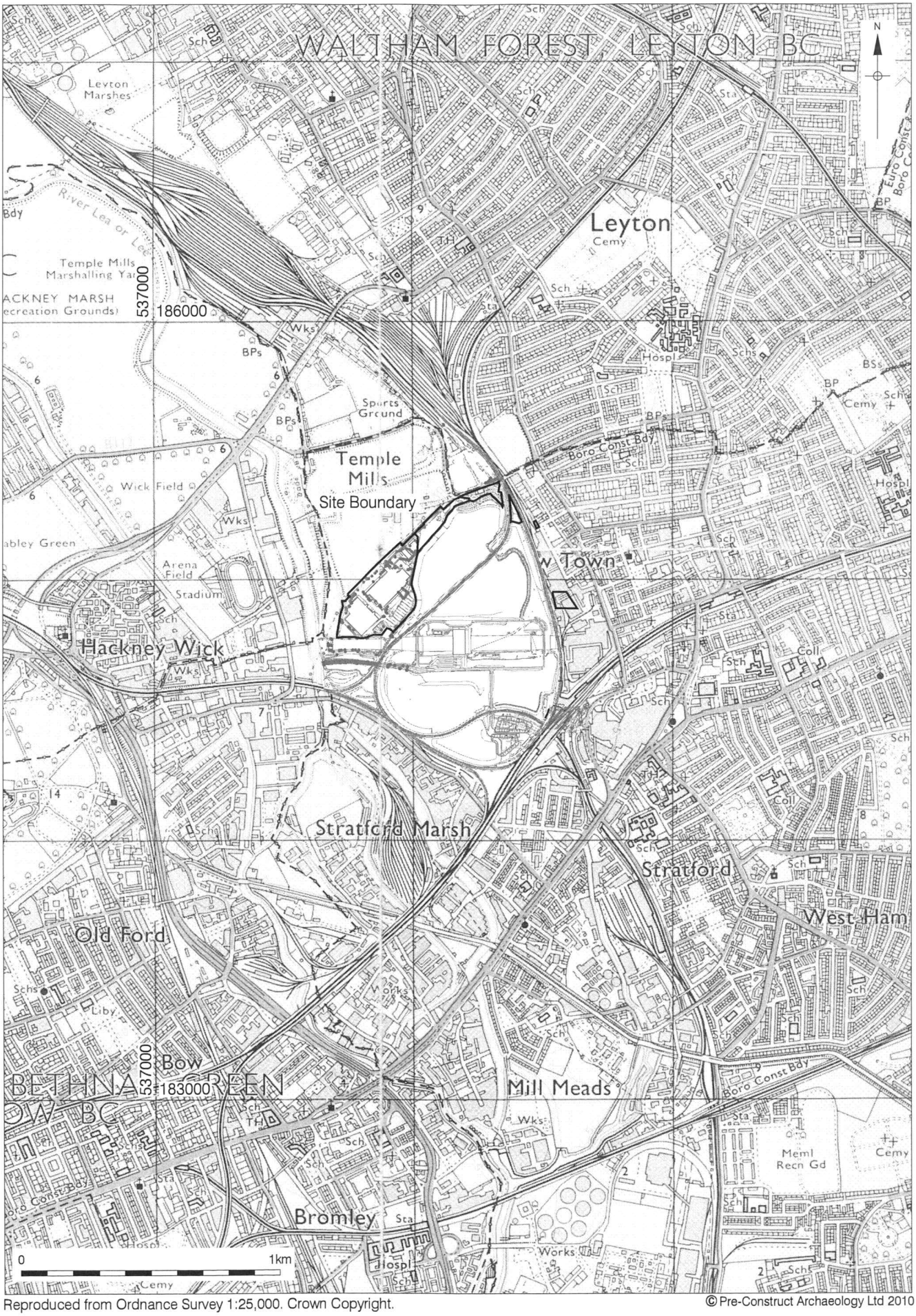





Figure 1
Site Location
1:20,000 at A4

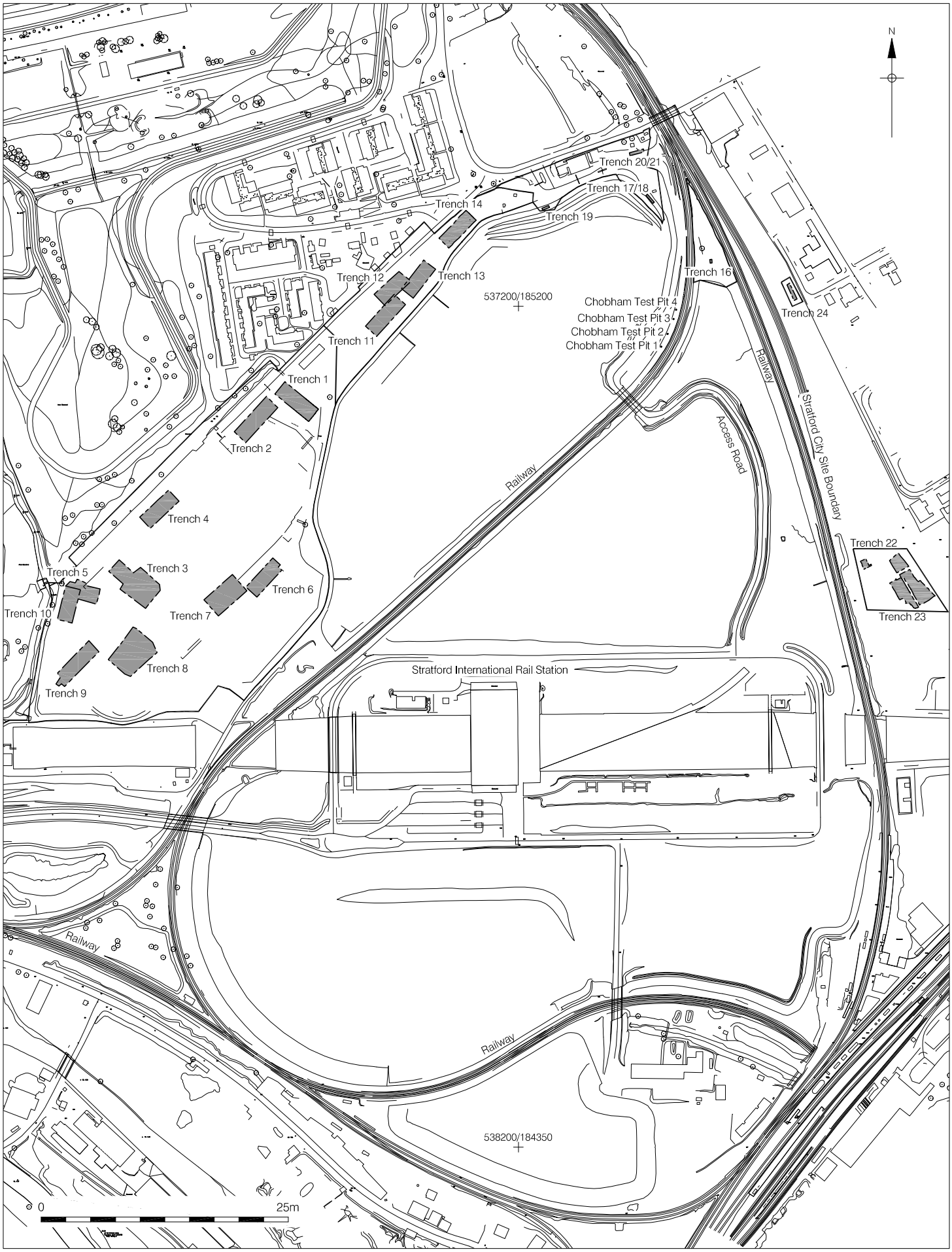





Figure 2
Trench Location
1:5,000 at A4

# 3 PLANNING BACKGROUND

## 3.1 National guidance

3.1.1 The Department of Environment document 'Planning Policy Guidance: Archaeology and Planning (PPG 16)' (1990) (recently superseded Planning Policy Statement 5 (PPS 5)) sets out the Secretary of State's policy on archaeological remains on land. This document identifies the need for early consultation in the planning process to determine the impact of the construction schemes upon buried archaeological strata. These policies place the responsibility of preserving the archaeological resource with the local planning authority.

3.1.2 PPG16 (and PPS 5) emphasise the fragility and finite nature of archaeological remains, and the desirability of preserving such remains in situ where appropriate. However, they recognise that preservation in situ is not appropriate mitigation in all cases and that archaeological field investigation and preservation by record may be acceptable in some instances.

## 3.2 Archaeology in Newham and The Unitary Development Plan (UDP)

3.1.1 The study aims to satisfy the objectives of Newham Borough Council, which fully recognises the importance of the buried heritage for which they are the custodians. The Council's deposited draft of the 'Unitary Development Plan', adopted in 2001, contains policy statements in respect of protecting the buried archaeological resource.

3.1.2 The proposed development is subject to the following considerations:

**ARCHAEOLOGY**

**Archaeology: Investigation, Excavation and Protection**

Archaeological remains often provide the only evidence of the Borough's past. They are a finite and fragile resource very vulnerable to modern development and land use. The archaeology of the Borough is a community asset which should be preserved and the needs of development balanced and assessed against this. Early consideration of and consultation on archaeological issues will maximise preservation in accordance with PPG16. The destruction of such remains should be avoided if possible and either left in situ if the remains are of national or particular local interest, or excavated and recorded prior to development, where remains are of lesser importance. Site layouts designed to retain archaeological features intact will be considered favourably by the Council.

The Greater London Archaeology Advisory Service (GLAAS - part of English Heritage) provides impartial advice to Newham Council. Sites of potential archaeological importance, to which this policy relates, can be defined as any site within an Archaeological Priority Area (APA). APAs are defined by GLAAS as areas having particular interest or value (Please refer to Map EQ6), or as sites where it can reasonably be shown from existing sources of information (most notably the Greater London Sites and Monuments Record) that remains of archaeological importance may survive. For further information, please refer to SPG Note 'Archaeological Code of Practice'. An archaeological assessment (either a desk study or a preliminary field investigation) will normally be required for any development involving a site more than 0.4 acres within an APA. The Council will also require such an assessment for smaller sites within the APAs, and sites outside the APAs, where this is clearly justified by the archaeological sensitivity of the site. Developers should undertake early consultation with the Council, and recognised archaeological organisations such as GLAAS, to avoid uncertainty and later delays.

**POLICY EQ43: THE COUNCIL WILL PROMOTE THE CONSERVATION, PROTECTION AND ENHANCEMENT OF THE ARCHAEOLOGICAL HERITAGE OF THE BOROUGH. DEVELOPERS OF SITES OF POTENTIAL ARCHAEOLOGICAL IMPORTANCE WILL BE REQUIRED TO PRODUCE A WRITTEN REPORT, AS PART OF THE APPLICATION FOR PLANNING PERMISSION, ON THE RESULTS OF AN ARCHAEOLOGICAL ASSESSMENT OR FIELD EVALUATION CARRIED OUT BY A SUITABLY QUALIFIED ARCHAEOLOGICAL CONTRACTOR; AND WHEN REMAINS OF IMPORTANCE ARE IDENTIFIED, THE COUNCIL WILL SEEK PRESERVATION OF THE REMAINS IN SITU. ON OTHER IMPORTANT SITES, WHERE THE BALANCE OF OTHER FACTORS IS IN FAVOUR OF GRANTING PLANNING PERMISSION BY MEANS OF THE IMPOSITION OF CONDITIONS ON THE GRANT OF PLANNING PERMISSION, AND POSSIBLY BY LEGAL AGREEMENTS, THE COUNCIL WILL ENSURE THAT ADEQUATE PROVISION IS MADE FOR THE PROTECTION, EXCAVATION AND RECORDING OF REMAINS, AND THE SUBSEQUENT PUBLICATION OF THE RECORDS OF EXCAVATION, PROVIDING A WRITTEN ACCOUNT OF THE ARCHAEOLOGICAL EXPLORATION, INCLUDING RECORDS OF FINDS.**

The Council will promote co-operation between landowners, developers and archaeological organisations in accordance with the British Archaeologists' and Developers' Liaison Group Code of Practice.

3.1.3 The site lies within an Archaeological Priority Area, as defined within the UDP. There are no Scheduled Ancient Monuments on site.

# 4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

## 4.1 Summary

4.1.1 This section is largely based on the *Assessment of Archaeological and Heritage Values* (2007) written by Suzanna Pembroke, ARUP Archaeological Consulting for Stratford City Development Ltd.

4.1.2 Previous archaeological investigations and finds in the vicinity of a site can give an idea of what might be expected to be found during redevelopment. For reference, the following accepted archaeological time periods are used:

| TIME PERIOD | APPROXIMATE DATE RANGE |
|---|---|
| Prehistory | |
| Palaeolithic | 450,000-10,000 BC |
| Mesolithic | 10,000-4,000 BC |
| Neolithic | 4,000-2,000 BC |
| Bronze Age | 2,000-600 BC |
| Iron Age | 600 BC-AD 43 |
| Romano-British | AD 43-410 |
| Anglo-Saxon | AD 410-1066 |
| Medieval | AD 1066-1485 |
| Post-medieval | AD 1485-1914 |
| Modern | 1914-present |

## 4.2 Prehistory

4.2.1 There is evidence that the landscape of Stratford has been a site of human activity since the Palaeolithic period. The River Lea was the main watercourse through the area, which, together with its tributaries, has moved across the landscape overtime. Where elevated areas are preserved beneath the present ground surface, there exists a high probability for locating former occupation and living horizons of prehistoric date.

4.2.2 Palaeolithic material has been located within gravel deposits lying below the modern floodplain, including hand axes and flint tool flakes labelled as coming from the Temple Mills area. Two hand axes were recovered from the bank to the north of the railway yards in the vicinity of the site.

4.2.3 Excavations at the Stratford Box during the CTRL works, located immediately to the south, revealed a series of river channels and recovered material dating from the middle-Bronze Age and included timber structures of this date and from the Iron Age. Several burials and other prehistoric activity have been found in recent excavations to the west of Carpenter's Road, to the southeast of the subject site. It is likely that prehistoric people settled on elevated land and exploited the resources of the surrounding area.

**4.3 Roman**

4.3.1 During the Roman period the River Thames would have served as the main transport and trade route for Londinium while the River Lea would have granted access to the city's hinterland. It is also possible that the London to Colchester Roman Road crossed the area. Excavations in Romford Road and to the west of the subject site have revealed evidence of earlier Roman road surfaces and associated ditches. Approximately 1km to the south of the subject site, Roman burials have been found in recent excavations.

**4.4 Saxon and Medieval**

4.4.1 Timber features associated with river channels, such as the Channelsea, were recorded during the excavations at the Stratford Box. These included a well-preserved Saxon age wattle hurdle and timbers that may have formed part of a bridge. A number of timbers, assumed to be post-medieval, were dated to the Saxon period.

4.4.2 At the time of the Norman Conquest (1066), the Manor of Ham (meaning 'low lying pasture'), positioned to the south of the subject site and believed to be the core of what are now East Ham and West Ham, was owned by '*Alestan*', a freeman of Essex. It was listed in the Domesday Survey for 1086. The old English *Stroeford*, which means 'the place where a Roman Road crosses a river' was recorded as a place name in 1087.

4.4.3 The Bow and Channelsea bridges were built between 1100 and 1118, connected by a causeway that took traffic over the Lea and the Channelsea Rivers. This causeway became the road now known as High Street/Broadway and settlements quickly developed along either side. Stratford was the final village before London for drovers bringing cattle from Essex, instigating the development of thriving butchery, tanning and leather working industries in the area. The village became an early industrial centre processing corn from the 11th century and in the 13th and 14th centuries

fulling mills became established, all making good use of the many watercourses for washing, power and transport.

4.4.4 Stratford Langthorne Abbey was founded in 1135 and its location and continual expansion had a direct influence on the people and use of the land in the vicinity.

4.4.5 John de Preston, a citizen and corder of London, founded the Manor of Chobham to the east of the subject site around AD 1329-31. It was named after Thomas de Chobham who held the title between 1343 and 1356. The estate was bought and sold many times, being held variously with Ruckholts Manor in Leyton, the manors of Burnells and West ham in West Ham and as part of the Henniker family estate. Given its status as a land holding, and the absence of obvious documentary evidence for a rich high status dwelling, it is likely that it consisted of a centralised manorial farming complex with a layout of domestic and agricultural structures evolving over time.

**4.5 Post-Medieval**

4.5.1 Early in the 17th century the area was divided into four administrative wards, one of which was Stratford. Post-medieval industrial development including the manufacturing of gunpowder and textiles, porcelain and printing resulted in a growth of the size of the settlement.

4.5.2 Chobham Manor is illustrated on John Rocque's map published between 1744-46. A pathway leading from the manor to the eastern bank of the Channelsea River is clearly shown on the First Edition Ordnance Survey map of mid-19th century date and follows the alignment of a field boundary shown on Rocque's map, suggesting the path may have been present at this earlier time.

4.5.3 The 1844 London Metropolitan Building Act restricted toxic and noxious industries within London, resulting in many of these being relocated to the Stratford region. Concurrent with this expansion was the demolition of many of the mills that housed the earlier works and raising of ground levels within marshy areas with the dumping of rubbish. The drainage system of the wider area was rebuilt towards the end of the 19th century as sewers were laid and the old channels and ditches filled in. Undated river channels were uncovered during works by the London Borough of Newham in c.1976 to the immediate south east of the site.

4.5.4 As Stratford was becoming a focus for industrial activity during the early-19th century the requirement for transport became paramount. By 1839 the Eastern Counties Railway (ECR) established a small repair depot at Stratford Station. In 1839/40 a

major junction of the ECR was constructed and the Engineering works were relocated to the north of the site in 1847. The construction of locomotives commenced in 1851 with 500 having been completed by 1890 and a further 500 in the 9 years following. In 1862 the ECR became a part of the Great Eastern Railway GER. The GER High Meads Loop was constructed here during the mid-19th century.

4.5.5 At some time between 1896 and 1920, the expansion of the railways resulted in the demolition of the buildings of Chobham Manor. By 1920, the railway depot, including the new facility at Temple Mills, occupied 133 acres and employed several thousand workers.

### 4.6 Modern

4.6.1 Stratford was heavily bombed during World War II. This included an intense aerial attack in 1940 resulting in mass evacuation, and V1 and V2 rocket attacks in 1944-45. The area to the east of the site was hit by at least 61 bombs and a V2 rocket.

4.6.2 The Frigoscandia site appears to have remained open marshland until the late-1960s and early-1970s. The only impact on the immediate area was the establishment of the railway lines. The Frigoscandia complex was constructed between 1961 and 1973 for the storage and distribution of frozen foods, comprising two main cold stores and a number of auxiliary buildings.

4.6.3 The Main Works at Stratford railway depot closed in 1962, however the running shed continued in use for locomotive repairs until it too closed in 1991.

# 5 ARCHAEOLOGICAL METHODOLOGY

## 5.1 Summary

5.1.1 Written Schemes of Investigation for four evaluations at Frigoscandia South, Frigoscandia North, Temple Mills Access/Security and Henrietta Bridge (B2) and Alma Bridge (B3) (Moore, 2008 (1-4) together with a Facilitating Investigation at the site of Chobhams Manor (Moore, 2007) were approved by the Greater London Archaeological Advisory Service acting on behalf of Newham Borough Council.

5.1.2 The trenches were assigned sequential numbers across the site. Trenches 1 to 10 were positioned within Frigoscandia South, Trenches 11 to 15 within Frigoscandia North, Trenches 16 to 21 within the Temple Mills Access/Security area, Trenches 22 and 23 at the Alma Bridge (B3) position and Trench 24 at the Henrietta Bridge (B2) position. The Chobham test pits were assigned numbers CTP1 to 4. Due to limiting factors including restricted access and the presence of live services, Trench 15 remained unexcavated whilst Trenches 17 and 18 also 20 and 21 were combined into two trenches also with approval from GLAAS .

5.1.3 Monitoring by David Divers (GLAAS) during the course of the investigations enabled mitigating measures to be designed, agreed and implemented within a rolling programme thus minimising unnecessary delays to the construction schedule.

5.1.4 All works were undertaken in accordance with the guidelines set out by English Heritage (1998) and the Codes of Practice and By-laws of the Institute of Field Archaeology (2000, 2002 and 2004).

## 5.2 Excavation

5.2.1 Each trench location was tested for live services prior to excavation by the attending engineer using a Cable Avoiding Tool with a Permit to Dig issued by the Principal Contractor. The trenches were either stepped or shored to allow safe access, the method determined by limiting factors such as working space.

**5.3** Where necessary a pneumatic breaker was employed, under archaeological supervision, to reduce concrete and hard standing. Under archaeological supervision, a mechanical excavator fitted a flat bladed ditching bucket was employed to remove modern made ground in spits. A toothed digging bucket was used on particularly compact modern made ground deposits. Where archaeological deposits were encountered these were cleaned and investigated by hand to ascertain their nature,

date, and extent Where no archaeological deposits were encountered machining continued until natural floodplain gravel deposits or formation levels were encountered.

**5.4 Recording**

5.4.1 Archaeological features (stratigraphic layers, cuts, fills, structures) were recorded in plan and where necessary in section using standard recording methods. All contexts were assigned sequential numbers (shown in this report within square brackets) and recorded onto *pro-forma* context record sheets

5.4.2 The stratigraphic relationships of all contexts were recorded within a 'Harris Matrix' diagram. This record was compiled and fully checked during the course of the excavations.

5.4.3 A photographic record was made as appropriate using 35mm black and white negative film and colour transparencies together with digital format record shots. In addition to frames showing the archaeological features, 'working shots' were taken to illustrate the conditions and methods of the interventions.

5.4.4 Temporary benchmarks were traversed onto the Frigoscandia and Temple Mills and Chobham Manor sites from the Ordnance Survey Benchmark, located on the northeast side of the bridge over the railway on Temple Mills Lane (value 11.05mOD). Temporary Bench Marks were traversed to locations at the Henrietta and Alma Bridge sites from a datum established using a global positioning system (value 6.51mOD).

**5.5 Finds**

5.5.1 Finds were recorded, cleaned and assessed following the relevant GLAAS, IFA and finds research group guidelines, recommendations, and codes of practices. The finds policies of the Museum of London were adopted with selection, retrieval and retention appropriate to the material type and date. Finds were collected and stored on site until their removal for processing, analysis and spot-dating.

5.5.2 Finds were exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in the United Kingdom Institute for Conservation's '*Conservation Guidelines No.2*' (1983) the Museum of London's '*Standards for the Preparation of Finds to be Permanently Retained by the Museum of London'* and the AAF guide '*Archaeological Archives, A guide to best practice in creation, compilation , transfer and curation*' 2007, by D.H. Brown.

5.5.3 Ceramic (pottery, clay tobacco, building material fabric and form) reference collections, housed at the offices of Pre-Construct Archaeology Limited and the Museum of London were referred to for descriptive and assessment purposes in order to ensure that the appropriate terminology and identification parameters were used in like for like comparisons..

5.5.4 Metal objects were x-rayed, as necessary, and identified for stabilisation.

**5.6 Environmental sampling**

5.6.1. A sampling procedure was employed based on the nature of the deposits or features under investigation. A high priority was given to sampling river, wetland and other anaerobic deposits, where organic structures, artefacts and environmental remains might be preserved.

5.6.2 All possible cremations were sampled in their entirety to maximise the potential for recovery of human remains and $C^{14}$ dating.

5.6.3 Bulk samples have been processed to indicate the abundance, diversity and potential of environmental indicators (plant macro-fossils, small mammal bones, insects and mollusca). Monolith samples have been obtained from a range of sequences to be assessed for pollen, diatoms, etc.

**5.7 Geoarchaeology**

5.7.1 The field team included a specialist geoarchaeologist to decide site sampling strategies aimed at reconstruction of the dynamics of the ancient topography and reconstruction of its associated environmental signatures.

5.7.2 The geoarchaeologist collated all relevant geoarchaeological information in accordance with the archaeological site records.

5.7.3 Bulk slab samples (for macrofossil remains such as seeds, mollusc and insects) were collected and have also been assessed.

5.7.4 Selected radiocarbon sample have been submitted for dating purposes.

5.7.5 Recommendations for further analysis (where appropriate) have been made and such work should take place as part of a larger programme of archaeological analysis, or constitute archaeo-environmental mitigation for the development zone.

### 5.8 Archive

5.8.1 Following completion of the post-excavation analysis through to publication, the site archive, constituting the finds and records, will be deposited with the LAARC.

# 6 GEOLOGY AND TOPOGRAPHY

## 6.1 Geology

6.1.1 London occupies part of the Thames Basin, a broad syncline of chalk filled in the centre with Tertiary sands and clays. In most of London this tertiary series of bedrock consists of London Clay. Above the bedrock the Pleistocene fluvial deposits of the Thames River are arranged in flights of gravel terraces. These terraces represent former floodplains of the river, with the highest being the oldest and with each terrace becoming progressively more recent down the valley side to the banks of the Thames itself.

6.1.2 The Geological Survey of Great Britain (2006) shows that the geology of the development site is comprised of recent (Holocene) alluvium associated with the River Lea.

## 6.2 Topography

6.2.1 The site is located within the Lea Valley, which throughout the prehistoric periods, comprised multiple channels flowing across wetland areas and meandering alongside more elevated, drier outcrops, with settled gravel terraces to the east and west. The Waterworks and Channelsea Rivers were located between the River Lea and the site with the Channelsea crossing to the south.

6.2.2 Changes in the river course and the effects of rising relative sea level, as well as the direct and indirect impact of localised human activity, created a dynamic landscape over time. For further detail see appendix 4, the Geoarchaeological Assessment.

# 7 PHASED ARCHAEOLOGICAL SEQUENCE

## 7.1 Summary

7.1.1 Five of the twenty five evaluation trenches produced archaeological remains that can, be divided into four broad phases of activity: Natural, prehistoric, post-medieval and late-post-medieval/modern. In addition, several features were identified that produced no dateable artefacts and cannot be confidently assigned to a phase although these are likely to fall into Phase 2 or 3. In some instances, the sequence can be further divided into sub-phases.

7.1.2 No archaeological remains were recovered from the four test pits.

## 7.2 Phase 1- Natural

7.2.1 At Frigoscandia South the natural sequence was characterised by Terrace Gravels overlain by silt-sand-clay brickearth.

7.2.2 Within the Frigoscandia North, Temple Mills Access and the Chobham Test Pit areas the brickearth deposits had largely been removed to the top of the Terrace gravels, presumably since the mid- to late- 19th century where 'Brick fields' are depicted on local maps as a result of the arrival and expansion of the railways.

7.2.3 An area of natural deposits measuring c.25m by 35m with localised truncation by post-medieval walls was exposed within Trench 23. In Trench 24, in the vicinity of bridge B2, Terrace gravels were identified immediately beneath modern made ground.

7.2.4 Table 1 below shows the maximum heights of the natural deposits in each trench. Those marked *indicate that the upper surface was truncated by later activity.

| Trench | Gravel | | Brickearth | |
|---|---|---|---|---|
| **1** | [47] | 3.07 | [42] | 3.20 |
| **2** | [69] | 2.97 | [70] | 3.07 |
| **3** | [24] | 2.06 | [2] | 3.19 |
| **4** | [87] | 2.22 | [50] | 2.84* |
| **5** | [136] | 1.97 | [134] | 3.35 |
| **6** | [81] | 2.30 | [58/77] | 3.17 |
| **7** | [61] | 2.60 | [117] | 2.63 |
| **8** | [149] | 2.38 | [8] | 2.99 |
| **9** | [17] | 2.51 | [6] | 3.87 |
| **10** | [91] | 1.92 | [75] | 3.05 |

| Trench | Gravel | | Brickearth | |
|---|---|---|---|---|
| **11** | [53] | 2.89 | - | - |
| **12** | [127] | 2.65 | [126] | 2.96* |
| **13** | [66] | 2.84 | - | - |
| **14** | [112] | 2.75 | [111] | 2.83* |
| **16** | [189] | 4.55* | - | - |
| **17/18** | [165] | 4.23* | - | - |
| **19** | [163] | 3.83* | - | - |
| **20/21** | [130] | 4.67* | - | - |
| **22** | [219] | 3.93* | [184] | 4.63* |
| **23** | [153] | 5.60 | - | - |
| **24** | [159] | 4.92* | - | - |
| **CTP1** | - | - | - | - |
| **CTP2** | [197] | 4.69* | - | - |
| **CTP3** | [201] | 4.37* | - | - |
| **CTP4** | [205] | 3.98* | - | - |

7.2.5 An east-west orientated cut [45] in Trench 4 with a firm mid blue grey clay and sand fill [44] was likely to have been a natural channel. This channel was encountered at 2.60m OD and it was 0.20m deep.

**7.3 Phase 2- Prehistoric** (Figure 3 - 4)

7.3.1 Evidence of prehistoric activity was encountered in Trenches 7 and 8. Six cremations were identified within two trenches in the south-west part of the Stratford City Development site. The five cremation burials recovered from Trench 8: [19], [21], [94], [96] and [100] (Figure 4) consisted of burnt bone mixed with soft, dark grey-black clay silt with frequent charcoal inclusions. None of the cremations were found within an urn. All were deliberately deposited in discrete cuts, [20], [22], [95], [97] and [101] respectively, which truncated the brickearth deposit [8]. A further cremation [63] was found in Trench 7 (Figure 3); it was also un-urned and lay in cut [64]. Since the cremated material was not contained in ceramic vessels nor were there any associated finds it was not possible to date the burials on material cultural associations. Two C14 samples were submitted for radiometric dating which produced dates of 2970 ± 35 Cal BC 1320 to 1050 (-25.8 δ13C (‰) SUERC-29389 (GU-21567)) from context [21] and 2995 ± 35 Cal BC 1380 to 1120 (--21.0 δ13C (‰) SUERC-29390 (GU-21568)) from context [63]. Both therefore relatively closely spaced Bronze Age dates.

7.3.2 The funerary tradition demonstrated by these cremations is consistent with some Bronze Age/early Iron Age disposal practices. All of the cremations were encountered between 2.80m OD-3.04m OD.

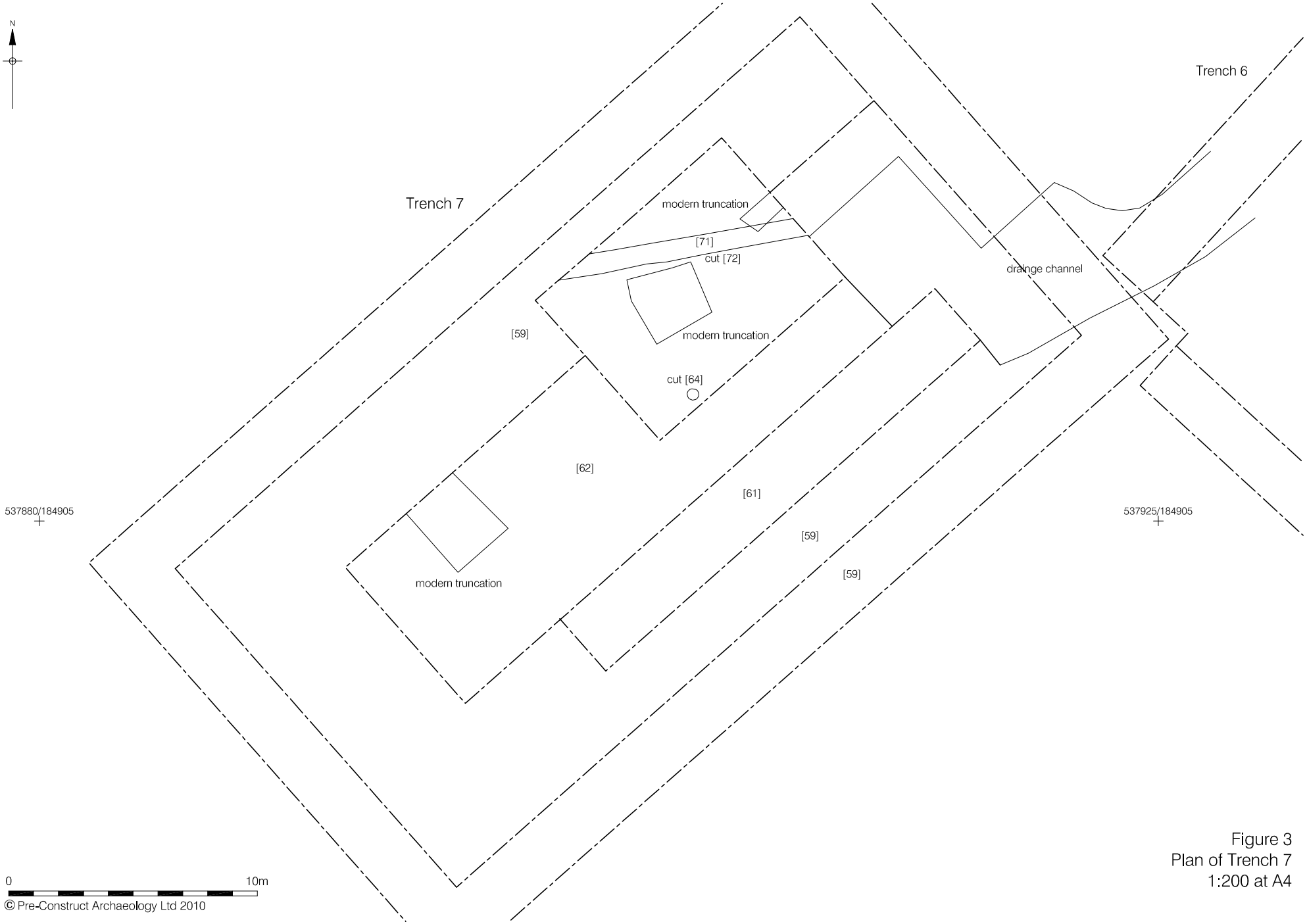





Figure 3
Plan of Trench 7
1:200 at A4

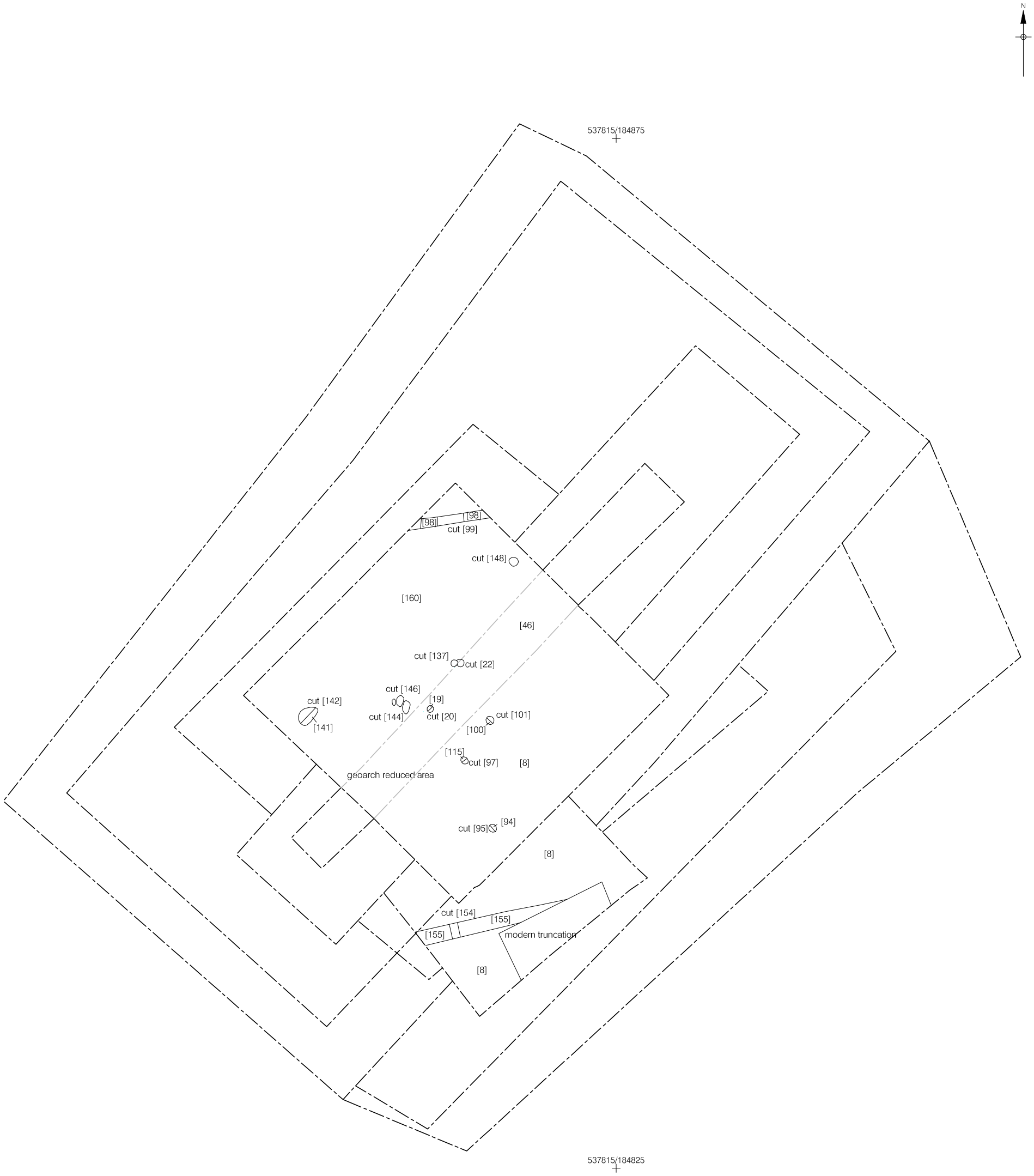





Figure 4
Plan of Trench 8
1:200 at A3

7.3.3 An assessment of the cremations indicates that all of the skeletal remains belonged to young sub-adults with the exception of cremation [21] which appears to contain more than one individual: an adult or older sub-adult and one younger sub-adult, probably an infant or neonate. No pathological or sexually dimorphic traits were found on any parts of the cremated bone.

7.3.3 Within Trench 8 the upper fill of cremation [22] was partially truncated by a posthole [137]. Three small pits, [144], [146] and [148] and a possible tree throw [142] were also encountered at this level however their fills were also sterile. A 0.40m thick layer of fairly compact, mid yellow brown brickearth with occasional flint inclusions sealed all the features and was encountered at a level of 3.19m OD.

7.3.4 A further prehistoric feature, posthole [30], was located in Trench 3. Its secondary fill [28] consisted of soft black silty clay, which was sampled because of its resemblance to the cremation fills above. No finds were recovered.

**7.4 Undated**

7.4.1 In a number of trenches across the Frigoscandia South site, features were investigated that did not yield dateable artefacts. Within Trench 1 three features are likely to have been formed as a result of natural processes [32], [34] and [38] and a further two, possibly representing stakeholes, [36] and [40] also did not produce any finds.

7.4.2 Two linear features were recorded in Trench 3 these again did not produce dateable material. The first was a northeast-southwest orientated, shallow gully [4] and the second [93] was orientated northwest-southeast and had been truncated by a post-medieval cut [11]. A feature identified as a tree throw [114] was also found here as was posthole [30].

7.4.3 A northeast-southwest orientated feature containing only burnt flint was uncovered in Trench 5, the regular nature of the cut implied that it may be of more recent origin. A 0.16m thick layer of bluish alluvium was recorded in the southern section of Trenches 6, [77], and 7, [117], indicating a depression where waterlogging/pooling occurred. Although no cultural material was present in the deposit, it is likely to have been post-Roman in date. This layer was encountered at 3.04m OD in Trench 6 and 2.63m OD in Trench 7.

10.4.4 Four features in Trench 8 yielded no cultural material but cut the same layer [8] at a similar level to that of the cremations found in this trench and on that basis have been amalgamated with the prehistoric phase. These features comprised a tree throw [142] which was filled with mid bluish green sand and clay [141] and was encountered at a level of 2.82m OD; and additionally there were three circular and concave pits, [144], [146] and [148]. All three were shallow, 0.13m-0.17m deep, and filled with firm, mid whitish yellow sand and clay with reddish brown mottling suggestive of an organic content, [143], [145] and [147]. They were uncovered between 2.80m OD-2.84m OD

**7.5 Phase 3- Post-Medieval** (Figure 5 - 6)

7.5.1 Cutting through deposit [160] which contained Roman pottery and which sealed the prehistoric features in Trench 8 was a linear ditch [99] measuring 0.50m in width and 0.25m deep and which ran 3.00m east-west. From its fill [98], sherds of post-medieval pottery, dating from 1580-1700, were recovered. This ditch was encountered at a level of 2.94m OD.

7.5.2 A linear ditch cut [68] across the northeastern end of Trench 2 in a north northwest-south southeast orientation. It measured 2.00m in length by 1.70m wide and reached a depth, in section, of 0.86m and was found at 3.14m OD. The fill [67] was a firm, mid-dark grey blue clay silt with occasional small rounded pebbles and contained post-medieval pottery, dating from 1790-1900. Ditch [68] probably related to a land division boundary associated with Chobham Manor Farm.

7.5.3 Two ditches of similar proportions orientated northeast-southwest were recorded in Trench 3, [3] and [11], both were filled with bluish grey silty clay, [14] and [10], which was overlain by mid brown grey clay silt, [4] and [9]. These contained various types of pottery including white salt-glazed stoneware, that dates from 1720-1780, biscuit-fired tin glazed ware with a date range of 1570-1846 and a residual Roman sherd. Ceramic building material, that dates from 1664-1725, was also found within [9]. Cut [3] was encountered at 3.04m OD and was 0.54m deep while cut [11] was encountered at 2.78m OD and was 0.51m deep.

7.5.4 A deposit of soft, mid grey brown silty clay [135] was identified in Trench 5 which contained small, abraded fragments of cbm. This layer, encountered at 2.97m OD, is considered to have been laid down on the margins of a channel, probably associated with the Channelsea River which is located immediately to the northwest of this trench.

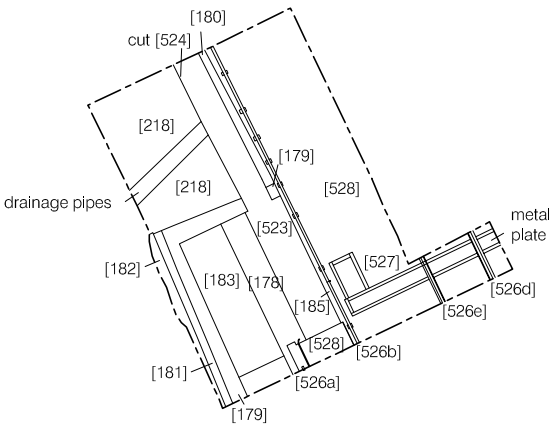
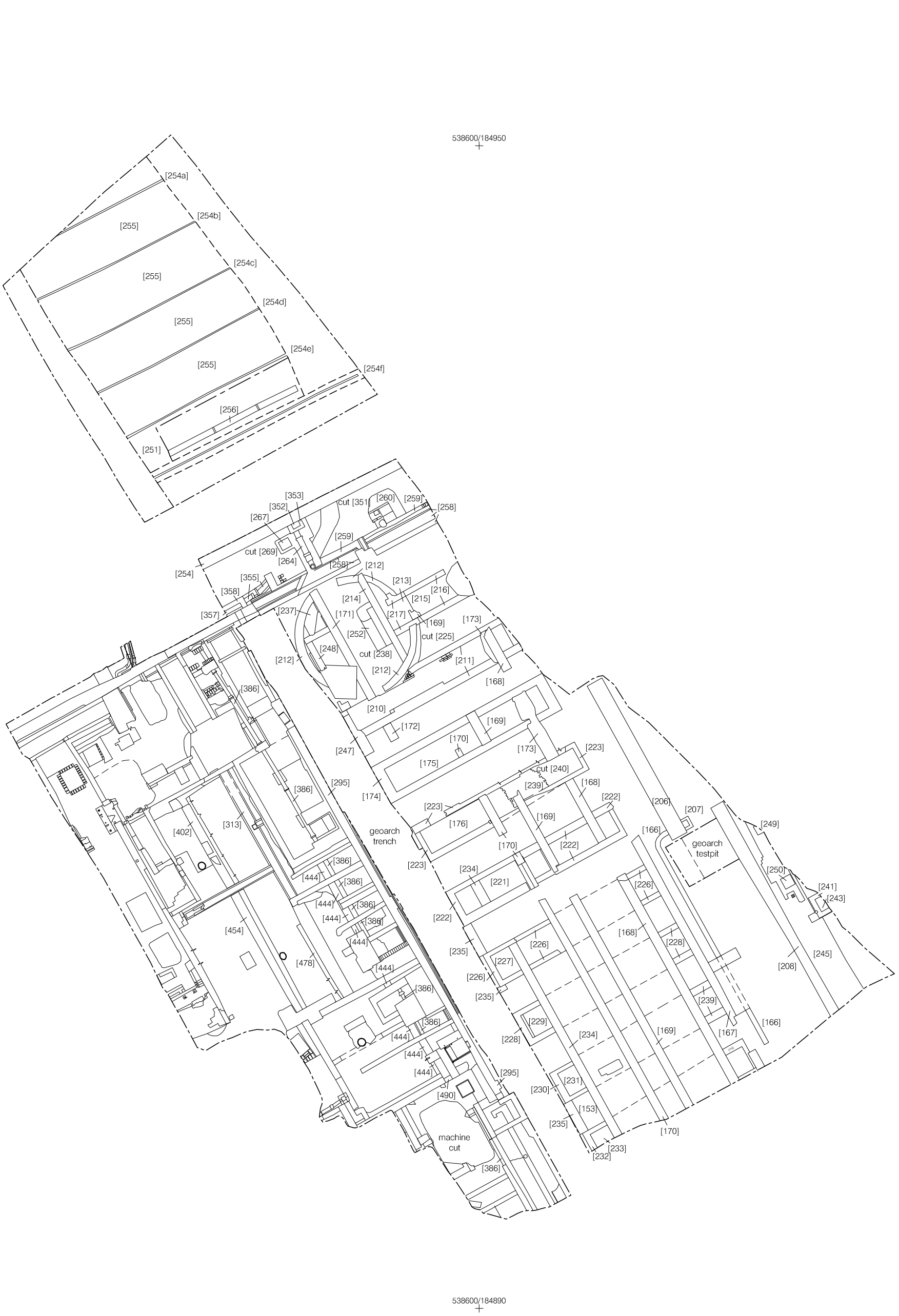




Figure 5
Plan of Trench 22
1:200 at A4




Note: Only features that are in Phase 3: Post Medieval are labeled on this drawing. All other features are modern.



Figure 6
Plan of Trench 23
1:200 at A3

7.5.5 A northeast-southwest orientated, shallow gully [72] filled with compact yellowish brown clay containing post-medieval pottery was uncovered in Trench 7. This gully, a possible land drain, was found at 2.81m OD and reached a depth of 0.21m.

7.5.6 Two parallel, east-west orientated ditches [154] and [99] were present in Trench 8. Their fills contained post-medieval pottery. Ditch [154] was filled with soft, mid-dark grey/blue silt with occasional CBM fragments [155]. It was encountered at 3.15m OD and was 0.40m deep. Ditch [99] was filled with soft, mid grey sandy clay with occasional flint inclusions and also post-medieval pottery. This ditch was found at 2.94m OD and was 0.30m deep. It was concluded that both [99] and [154] served as drainage channels.

7.5.7 A crescent shaped cut [55] filled with soft grey sandy silt [54] was identified in Trench 11. The irregular nature of the cut indicated that it represented the remnants of a tree throw; it contained post-medieval pottery and glass and was encountered at 2.90m OD.

7.5.8 A shallow linear feature [125], potentially a field drain, filled with a firm light bluish grey silty clay which contained sherds of Roman pottery [124, and was recorded running east-west within Trench 12. This feature was found at 2.96m OD and was 0.25m deep. The Roman pottery in this feature appears likely to be residual.

7.5.8 Within Trenches 2, 3, 5, 6, 7, 9 and 10 across the Frigoscandia South site, post-medieval ploughsoils and land surfaces were recorded. Soil layers containing late-post-medieval material, were recorded in Trenches 12 and 14 above the truncated gravels and are likely to have formed following the brickearth extraction. The table below summarises the levels at which these layer of ploughsoil were identified:

| Trench | Context | Highest Level |
|---|---|---|
| 2 | 119 | 3.61 |
| 3 | 27 | 2.46 |
| 5 | 132 | 3.60 |
| 6 | 120 | 3.30 |
| 7 | 15 | 3.52 |
| 9 | 23 | 4.09 |
| 10 | 74 | 3.23 |
| 12 | 122 | 3.12 |
| 14 | 128 | 3.10 |

7.5.10 Trenches 22 and 23 both revealed archaeologically significant structures of 19th and 20th century date that related to the development of the Stratford Railway Depot.

7.5.11 The major railway structure in Trench 22 was an inspection pit constructed of yellow bricks with concreted grey mortar [182], [180], [185], [177] and [520] effectively creating a cellar which had then been further reinforced with a concrete lining [178] and [181] (Figure 5). A structure comprising rails [526] with concrete [528] and timber surrounds [527] had been raised on these walls which would have facilitated access to the underside of railway vehicles for maintenance and inspection.

7.5.12 The structures encountered within Trench 23 (Figure 6) provide an insight into the development of the Stratford Railway Depot. Some of the architectural features can be recognised on relevant cartographic sources; such as the three pairs of red brick walls, [234] and [235], [169] and [170] and [166] and [167], to support tracks located in the southeast of the trench and the external walls of the buildings to the west [295] and north [258] (a brick sample dates to 1780-1900) of these. Many of the structures comprise elements of the workings within the buildings and were not elaborated on the available maps. It has been established that the trench was located over buildings that included sawmills and a machine shop, body shop, paint shop, repair shop and teak stores.

7.5.13 In addition to the building elements that match up with available cartographic sources, it has proven possible to confirm the nature of some of the other features extant in Trench 23. The eastern part of the trench contained nine east-west orientated red and yellow brick structures that each consisted of four walls in a long rectangular arrangement with a concave floor running along the length: Structure [152]. The troughs are considered to be part of a transfer table: a device that facilitated switching trains between tracks, and given their location which was directly over the natural gravels [153] they form one of the earliest structures at the Depot. The northernmost of these structures, [211], [215] and [216], had undergone modification with the addition of a circular component [212], a brick sample of which dated to 1780-1900, with a large concrete foundation [237]. This circular structure was a turntable which would have at least partially supplanted the function of the earlier possible transfer table (Figure 6) .

### 7.6 Phase 4- Late Post-Medieval

7.6.1 Other than the structures relating to the Stratford Railway Depot in Trenches 22 and 23 there were no archaeologically significant late post-medieval deposits. All earlier

features and deposits in all of the trenches were capped or backfilled by later post-medieval made ground with thickness' varying from 0.8m to 4.0m.

# 8 TRENCH SUMMARY

## 8.1 Trench 1

8.1.1 The earliest deposits encountered within Trench 1 were natural sandy gravels [47]. These gravels were overlain by natural sand [83] and subsequently by natural clay silt [82]. These unadulterated natural deposits were all sealed beneath a layer of weathered brick earth [42] into which were cut five small, shallow features: [32], [34], [36], [38] and [40] which were filled by [31], [33], [35], [37] and [39] respectively. These features may have been interpreted as pits, [32], [34], [38], and stakeholes, [36] and [40], and all were overlain by later post-medieval made ground deposits [41].

## 8.2 Trench 2

8.2.1 The earliest deposit encountered in Trench 2 was natural sandy gravel [69] which was overlain by a deposit of grey blue sand and clay [105], which was sealed by a layer of clay and silt with frequent inclusions of iron and manganese [104], in turn overlain by heavily weathered brick earth [70]. Cutting the brick earth was a ditch [68] filled with clay silt [67]. Brick earth [70] was capped by two layers of alluvium [103] and [102]. Both the ditch and the alluvial layers were further overlain by a post-medieval land surface [119] which was sealed by modern made ground [76].

## 8.3 Trench 3

8.3.1 The earliest deposits found in Trench 3 were the natural terrace gravels [24]. These were covered by a gravelly sandy clay alluvium [25], which was overlain by weathered brick earth [2].

8.3.2 Several features truncated the brick earth [2] including a gully [13] with its fill [12]; a shallow linear feature [93] which was filled with [92]; a post hole [30] with post packing clay [29] and fill [28]; a tree throw [114] which was filled with [113] and a post-medieval drainage ditch [3] filled with [14] and [4] respectively. The shallow linear cut [93] was also partially truncated by a further post-medieval drainage ditch [11] which was filled with deposit [10] and deposit [9].

8.3.3 All the features were sealed under a layer of subsoil [26], which in turn was overlain by ploughsoil [27] and ultimately by modern made ground [1].

## 8.4 Trench 4

8.4.1 The earliest deposits in Trench 4 were naturally deposited gravels [87] which were overlain by silty sand [86]. The silty sand was covered by sandy gravels [86] which

were overlain by further naturally deposited silty sands and gravels [84], natural gravels [49] and finally by weathered brick earth [50]

8.4.2 Cutting the weathered brick earth [50] was a shallow channel [45] which had been carved out by natural processes and was filled with a mixture of clay and sand [44]. The channel was sealed beneath 19th century made ground [48].

**8.5 Trench 5**

8.5.1 The earliest deposits found in Trench 5 were the naturally laid down terrace gravels which were covered by a layer of naturally deposited sands and silts [139] which were in turn overlain by weathered alluvium [134].

8.5.2 Cutting the alluvium was a post-medieval ditch [156] backfilled with [157]. Alluvium [134] was overlain by a further layer of alluvium with a significant organic content [135]. Both the ditch and the organic alluvium were overlain by a layer of subsoil [133] which was in turn covered by a post-medieval layer [132]. All deposits were sealed by modern made ground [131].

**8.6 Trench 6**

8.6.1 The earliest deposits in Trench 6 were naturally deposited terrace gravels [81] which were under a layer of alluvium [80]. The alluvium was overlain by a further natural deposit of sandy silt [79], which was in turn covered by silty clay [78]. In the northern and southern parts of Trench 6 the silty clay [78] was under a further layer of silty clay [77]/[58], which was sealed by a layer of alluvial clay [57].

8.6.2 All natural deposits were overlain by post medieval ploughsoil [120] and by a very late post-medieval/early modern dump layer [56].

**8.7 Trench 7**

8.7.1 The earliest deposit encountered in Trench 7 was natural terrace gravel [61] which was beneath natural sandy clay [118] which was in turn overlain by a light blue/grey silty clay [117] under yellow brickearth [60].

8.7.2 Two features truncated brickearth [60]: a cremation cut [64] and its fill [63] and a land drain [72] with its fill [71]. The brick earth was also partially overlain by subsoil [140]. Both the land drain and the cremation were under a layer of darker brickearth [62], which itself was overlain by ploughsoil [116]. Both the ploughsoil [116] and the subsoil [140] were sealed by late post-medieval/early modern made ground [59].

### 8.8 Trench 8

8.8.1 The earliest deposit found in Trench 8 was terrace gravel [149] which was below alluvial deposit [48] and brick earth [8]. Brick earth [8] was cut by several features; a ditch [154] with its fill [155], a tree throw [142] with its fill [141], three pits [144], [146] and [148] with their respective fills [143], [145] and [147] and five cremations [20], [22], [95], [97] and [101] and their respective fills [19], [21], [94], [96] and [100]. In cut [97], fill [96] was further overlain by fills [43] and [115].

8.8.2 All the cremations, the posthole, pits and the tree throw were sealed by a layer of brick earth [160] which was in turn truncated by a ditch [99] and its fill [98]. Both ditches [99] and [154] were sealed by ploughsoil [15] which was overlain by made ground [7].

### 8.9 Trench 9

8.9.1 The earliest deposits in Trench 9 were terrace gravels [17], which were sealed by a layer of banded sand and clay [18]. This in turn was overlain by weathered alluvium [16]. The alluvium was overlain by weathered brick earth [6]. All natural deposits were covered by ploughsoil,[23] which was in turn sealed by made ground [5].

### 8.10 Trench 10

8.10.1 The earliest deposit found in Trench 10 comprised natural gravels [91] which was overlain by a layer of clay sand [90]. This was in turn sealed by a series of silty sands [89] and [88]. These deposits were superseded by weathered silty brickearth [75]. which was overlain by ploughsoil [74] and finally by made ground [73].

### 8.11 Trench 11

8.11.1 The earliest deposit in Trench 11 was natural clay and gravel [53] which was overlain by a layer of clay silt [52], this had been truncated by a crescent shaped cut [55] filled with grey sandy silt [54]; probably a tree throw. This natural feature was sealed beneath a layer of very late post-medieval/early modern made ground.

### 8.12 Trench 12

8.12.1 The earliest deposits encountered in Trench 12 were natural sand and gravels [127] which were covered by a layer of natural brickearth and gravel [126]. This was cut by a field drain [125] which was filled with a bluish grey silty clay [124].

8.12.2 The land drain was subsequently overlain by a yellow brickearth, horizon [123] and in turn sealed beneath post-medieval ploughsoil, and ultimately by early modern made ground.

### 8.13 Trench 13

8.13.1 The earliest deposit encountered in Trench 13 was natural gravel [66] which was overlain by early modern made ground [65].

### 8.14 Trench 14

8.14.1 The initial deposit encountered in Trench 14 was natural gravel [112] overlain by deposited brick earth and gravels [111] which were in turn under two successive layers of clay and gravel,[110] and [109] respectively.

8.14.2 These natural deposits were all sealed beneath post-medieval ploughsoil [128] and ultimately by a layer of made ground [108].

### 8.15 Trench 16

8.15.1 The first deposit encountered in Trench 16 was natural gravel [189] which was overlain by early modern made ground [188].

### 8.16 Trench 17/18

8.16.1 The earliest deposit in Trench 17/18 was natural gravel [165] which was overlain by early modern made ground [164].

### 8.17 Trench 19

8.17.1 The first deposit in Trench 19 comprised natural gravel [161] sealed by alluvium [162] which was in turn overlain by early modern made ground [163].

### 8.18 Trench 20/21

8.18.1 The earliest deposit encountered in Trench 20/21 was natural gravel [130] which was overlain by early modern made ground [129].

### 8.19 Trench 22

8.19.1 The initial deposit uncovered in Trench 22 was natural sand [220] overlain by a sequence of three successive layers of natural gravel [219], natural sand [218] and natural brickearth [217].

8.19.2 Two wall foundations, [179] and [180] cut natural sand [218]. Parts of a concrete inspection pit, [181] and [178], abutted wall foundation [179]. The latter was partially truncated by the cut for a waste pipe [524]. Wall foundation [180] was abutted by wall [185], which, like waste pipe cut [524] and concrete inspection pit wall [178], was partially filled by [523], which contained the ceramic waste pipe. Both parts of the

concrete inspection chamber [181] and [178] abutted parts of the cellar wall foundations, [182] and [177] respectively. Both these cellar wall foundations were backfilled by a deposit of rubble [183].

8.19.3 Cutting the natural brick-earth [184] was a north-south aligned wall foundation which along with backfill [523] was sealed by concrete floor surface [521] which in turn had been overlain by rubble [522]. In addition to being partially overlain by fill [523] wall [185] had railway lines [526] affixed to it. These rails were tied into timber [527] and concrete [528] elements.

**8.20 Trench 23**

8.20.1 The earliest deposits in Trench 23 were natural gravel [153] to the east of the geotechnical test pit and brickearth [310] which was seen to the west of the same geotechnical pit. Sealing the gravel natural [153] was a sequence of sands and weathered sandy silts, [187], [224], [186] and [190], which were interpreted as elements of a floodplain horizon.

8.20.2 Overlying the brickearth natural [310] were a number of made ground deposits, [322], [505], [506], [467], [468] and [469] which were thought to have been laid down in preparation for the building works tied in with the railway depot in this area of the site. Traces of redeposited gravel [516] were also found overlying the brickearth [310].

8.20.3 Several trough structures were found on top of the gravel natural [153]. These were constructed of several red and yellow brick walls, [174], [230], [232], [228], [226], [222], [223], [211] and [216], and concave brick floors, [175], [221], [231], [233], [229], [227], [176], [210] and [215].

8.20.4 Abutting the brick troughs was a large circular structure, a railway turntable, which was composed of various successive elements: an unexcavated cut [225], a sandy mortar/cement floor [237], a large circular brick wall [212] a cut for a later rebuild/repair [238] a gully wall surround [217], a new floor foundation for the gully [214], backfilled material [252] and the repaired gully floor [213].

8.20.5 A manhole and associated brick chamber were encountered truncating natural gravel [153]. This structure was composed of several components: a mid 19$^{th}$ century brick wall [208] and a brick floor [245], both elements of the railway complex, abutting which were the construction cut for the manhole [244], the brick walls of the chamber [241] and the backfill of the feature [243]. The brick floor [245] abuts two foundation

elements [249] and [250] which were sealed, as is the manhole by a levelling layer of sandy clay silt [242] and a later brick floor surface [207].

8.20.6 A brickearth deposit [274], a linear brick foundation [248], a drain [166] and a wall [206] with a further drain [209], also overlay the natural gravel [153].

8.20.7 The brick troughs and the circular feature were overlain by a series of walls: [234], [168], [235], [167], [172], [169], [247], [171] and [170] which were founded over concrete bedding [173] and also over a cut [240] filled with brick rubble [239] within trough [223].

8.20.8 Successive sequences of walls and drains were seen to overlie brickearth [274] and abut circular structure [212]. Wall [259] lay in cut [271] directly above brickearth [274] and was succeeded by a series of walls [258], [357], [358], [352] and [353]; drains [351], [355] and [260]; as well as a silt trap [269]/[267] within their respective cuts and a pipe [264], and fills. Capping this series of structures were concrete supports, [261] and [257] for railway tracks [254] which were surrounded by concrete [251] and sealed by tarmac [255].

8.20.9 Truncating redeposited layers [506], [469], [468], [467] and [516] were a further series of damaged foundation and wall structures: [454], [490], [295], [444], [478] and [402] ; drains [313] and [386] and associated cuts and backfills.

8.20.10 The major structures that overlay the earlier foundations consisted of walls, drains, pipes and a variety of metal fixtures that were associated with the basements and other buildings of the Stratford Railway Depot. The structural configuration is not dissimilar to what would be expected for a traverser and associated shed, perhaps preceded by ea series of turntable mechanisms.

8.20.11 All structures were below deposits of made ground [499], [501]. [500], [309], [453], [384], [458], [438], [432], [448], [457], [349] and [324]. These made ground layers were ultimately sealed beneath a further layer of modern made ground [150].

**8.21 Trench 24**

8.21.1 The earliest deposit encountered in Trench 24 was natural gravel [159] which was overlain by early modern made ground [158].

**8.22 Chobham Test Pit 1**

8.22.1 The initial deposit encountered in Chobham Test Pit 1 was a layer of concrete rubble [193] which was overlain by a very compact deposit of gravel and CBM [192] and ultimately by modern made ground [191].

### 8.23 Chobham Test Pit 2

8.23.1 The earliest deposit in Chobham Test Pit 2 was natural gravel [197] which was underneath a layer of concrete rubble [196] which had been overlain by a very compact deposit of gravel and CBM [195] and ultimately by modern made ground [194].

### 8.24 Chobham Test Pit 3

8.24.1 The first deposit in Chobham Test Pit 3 was natural gravel [201] which was covered by a layer of concrete rubble [200] which had been overlain by a very compact deposit of gravel and CBM [199] and ultimately by modern made ground [198].

### 8.25 Chobham Test Pit 4

8.25.1 The earliest deposit encountered in Chobham Test Pit 4 was natural brickearth [205] which was under a layer of concrete rubble [204] which had been overlain by a very compact deposit of gravel and CBM [203] and ultimately by modern made ground [202].

# 9 ORIGINAL AND REVISED RESEARCH QUESTIONS

## 9.1 Original Research Questions

9.1.1 The Written Scheme of Investigation for each of the sites included a research design that reflected the findings of fieldwork and documentary research undertaken within the locality and the Lea Valley landscape (Moore, 2007 & 2008 (1-4)). The Research Questions also follow research topics cited in Exploring our Past (English Heritage, 1991) and Research Agenda – Draft (English Heritage, 1997).

9.1.2 The research designs for the site focused on activities projected to have been undertaken there. Additionally the environmental context of the site was explored as it was considered to be a significant factor in influencing settlement and other land use here.

**9.1.3 Is there any evidence for archaeological deposits, structures or artefacts?**

The most significant finds on the site relate to the prehistoric and post-medieval periods. Particularly notable are the six un-urned prehistoric cremations found in Trenches 7 and 8 one of which appears to contain two individuals, an infant and an older sub-adult or adult, and the others containing sub-adults.

Trenches 22 and 23 contained the foundations of structures related to the Stratford Railway Depot: including an inspection pit, a transfer table, a turntable and several buildings used in the maintenance of the trains and the depot itself.

Several trenches contained land drains, gullies, postholes and ditches relating to the post-medieval development of the area.

**9.1.4. Can the nature of the Bronze Age and Iron Age usage of the area be established?**

One clear indication for a specific prehistoric activity on the site comprised the cremations encountered in Trenches 7 and 8. These lacked datable artefactual associations however the manner of deposition is similar to that of some Bronze Age/early Iron Age mortuary practices and C14 dating of two of the sets of remains resulted in dates of 2970 ± 35 Cal BC 1320 to 1050 (-25.8 δ13C (‰) SUERC-29389 (GU-21567)) for context [21] and 2995 ± 35 Cal BC 1380 to 1120 (--21.0 δ13C (‰) SUERC-29390 (GU-21568)) for context [63]. The close dates obtained from these two cremations suggest a relatively short timeframe for the funerary activity demonstrated here.

**9.1.5 Can the nature of Saxon and Medieval usage of the area be established?**

There was no evidence for either Saxon or medieval period deposits or features in any of the trenches or test pits.

**9.1.6 Can the changing prehistoric and historic environment be reconstructed for this part of the lower Lea Valley? In particular the route and nature of any watercourses crossing the site, evidence for estuarine encroachment and the nature and timing of the progressive waterlogging of former dry land surfaces.**
The results of the topographic modelling have demonstrated the likely location of the streambed of a pre-decessor of the River Lea as well as the river terrace, evidence for down cutting and the presence of a depression in this part of the floodplain. The dynamic sequence of deposition and erosion has been convincingly shown.

**9.1.7 Can any relationship between landscape change and the later concentration of human use of the area approaching the eastern valley gravel terrace, immediately to the northeast of the site, better understood?**
There is evidence both for Bronze Age and Post-medieval land-use and as a result ot will be possible to establish some of the relevant factors affecting these periods. The limited surviving environmental evidence restricts the level of confidence that can be had in our interpretations of the nature of the landscape change and its impact on human activity as it occurred over time.

**9.1.8 Can it be established whether quarrying activity within the vicinity has truncated archaeological horizons?**
There was no evidence for quarry pits encountered during the course of the excavation.

**9.1.9** In addition to these research questions, the Investigation at the site of the former Chobham Manor held specific questions relating to the Manor itself:

**9.1.10 Can any archaeological deposits present be related to Chobham Manor?**
No archaeological deposits were found in any of the four test pits that related to Chobham Manor.

**9.1.11 Can it be established whether the last known location for the manorial centre is the same as for previous phases of its development?**
It was not possible to determine whether the manorial centre had migrated during I its development.

**9.1.12 Was Chobham Manor primarily a manorial farming centre or would it at different times have acted as a manorial house?**

There was no activity encountered in any of the four test pits that indicated the nature of Chobham Manor.

**9.1.13 Has railway construction activity within the vicinity truncated archaeological horizons?**

The railway structures encountered in Trenches 22 and 23 indicated that any potential previous archaeological horizons would have been severely truncated if not entirely obliterated by the construction of the various railway structures. The earliest railway structures in Trench 23, were directly located over natural gravels.

## 9.2 Revised Research Questions

9.2.1 In the light of the findings from the fieldwork it is clear that the archaeological evidence has thrown light on many of the original objectives and produced additional information. It has thus been possible to formulate a set of Revised Research Questions.

9.2.2 How does the late Bronze Age cremation group fit into our understanding of late Bronze Age settlement activity in the vicinity?

9.2.3 What environmental and topographical context would the late Bronze Age cremation cemetery have been located in?

9.2.4 How does the late Bronze Age cremation group function with respect to other late Bronze Age evidence for contemporary disposal of the dead in the region?

9.2.5 Can the landscape context in which the cremation group was found help explain the reason why these remains have been found in this particular sector of the landscape?

9.2.6 Does the railway related evidence contribute to and enhance our understanding of the later period land use of the area.

9.2.7 Were the railway related features uncovered (Fig. 6) parts of a locomotive repair workshop with turntables which were subsequently replaced by a traverser, or is this another sector of the repair workshop. Elements of pipe work may be related to the hydraulic system in place to power the mechanism. The archaeological evidence here

should be accompanied by targeted documentary research to better interpret the results of the excavations.

9.7.8 The results of the geoarchaeological research have some potential to contribute to the reconstruction of the changing landscape and ecology in this area during the Pleistocene and Holocene, landscape evolution and human impact on the landscape. The results of the deposit modelling will need to be in incorporated in the discussion of the development of the landscape. This will need to be linked into an analysis of the soil micromorphology from selected column samples to establish local soil development and deposition process. Furthermore it is recommended that a detailed analysis is carried out on the plant and insect remains from those samples which proved productive, this to enhance our understanding of local environmental conditions.

# 10 IMPORTANCE OF THE RESULTS AND PROPOSALS FOR FUTURE WORK AND PUBLICATION

## 10.1 Importance of the results

10.1.1 The investigations produced evidence of prehistoric land-use with the discovery of six prehistoric cremations two of which were closely dated and pertained to the Bronze Age and a posthole of possibly similar date with Trenches 7 and 8. The evidence for funerary activity substantially contributes to our understanding of the use made of the landscape of the Lea valley during the Bronze Age and requires inclusion in a discussion of this wider landscape exploitation.

10.2.1 Post-medieval agrarian activities were recorded in several locations with ploughsoils and ditches, probably representing field systems, identified. Late post-medieval and modern development of the area was recorded extensively at the eastern side of the site where remains of the Stratford Railway Depot were revealed. The latter deserves comparison with the documentary source material available for the Depot area.

## 10.2 Further work

10.2.1 Full analysis of the stratigraphic record and its associated finds material and their spatial distribution will result in an enhanced understanding of the activities and how they changed over time. The material needs to be analysed in the context of the other contemporary archive material generated as part of assessment and mitigation work on adjoining sites investigated as part of the 2012 Olympics development. In addition the railway related archive requires analysis based on a further study of the available documentary sources.

## 10.3 Publication

The site warrants a short summary publication in a suitable regionally focussed journal or integration in the overall publication of the material recently uncovered as a result of the 2012 Olympics archaeological mitigation works across the Lea Valley.

# 11 CONTENTS OF THE ARCHIVE

The paper archive:

| | Drawings | Sheets |
|---|---|---|
| Context sheets | - | 526 |
| Plans | 44 | 170 |
| Sections | 39 | 46 |
| Timber Drawings | 0 | 0 |

The photographic archive:

| | Number of films |
|---|---|
| Black and White print –35mm | 6 |
| Colour slide –35mm | 6 |
| Digital | 234 (frames) |

The finds archive:

| | |
|---|---|
| Cremation | 2 boxes |
| Ceramic Building Material | 3 boxes |
| Miscellaneous: including pottery, glass and animal bone | 1 box |

(Box- standard archive box 0.46m x 0.19m x 0.13m)

The environmental archive:

| | |
|---|---|
| Mono Samples | 3 |
| Bulk samples | 19 |
| C14 dating | 2 |

# 12 ACKNOWLEDGMENTS

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12.4 The geoarchaeological investigations were undertaken by Mary Nichols of Museum of London Archaeology.

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# 13 BIBLIOGRAPHY


Bishop, B. 2006 *An Assessment of the Archaeological Excavations (Phase IV) at the Oliver Close Estate, Letyon, London Borough of Waltham Forest.* Pre-Construct Archaeology Ltd unpublished client report

Department of the Environment 1990 *Planning Policy Guidance: Archaeology and Planning (PPG 16)*

Geological Survey of Great Britain 2006 *North London,* Sheet 256 (England and Wales) 1:50,000

English Heritage 1991*Exploring our Past*

English Heritage 1997 *Research Agenda*

English Heritage, Greater London Archaeology Advisory Service 1998 *Archaeological Guidance Papers: 1 Written Schemes of Investigation; 2 Desk-Based Assessments; 3 Standards and Practices in Archaeological Fieldwork in London; Archaeological Reports; 4 Archaeological Watching Brief; 5 Evaluations*

Institute of Conservation 1983 *Conservation Guidelines No. 2: Packaging and storage of freshly-excavated artefacts from archaeological sites*, UKIC, London

Institute of Field Archaeologists 2004 *Standards and Guidance for Archaeological Field Evaluation*

Moore, P. 2007 *Written Scheme of Investigation & Site Method Statement for a Facilitating Investigation at the Site of Chobham's Manor, Stratford City Development, London Borough of Newham* MoLAS-PCA unpublished client report

Moore, P. 2008 (1) *Written Scheme of Investigation for an Archaeological & Geoarchaeological Evaluation at the Non-Land Raise Area at Frigoscandia North, Stratford City Development, London Borough of Newham* MoLAS-PCA unpublished client report

Moore, P. 2008 (2) *Written Scheme of Investigation for an Archaeological & Geoarchaeological Evaluation at the Non-Land Raise Area at Frigoscandia South, Stratford City Development, London Borough of Newham* MoLAS-PCA unpublished client report

Moore, P. 2008 (3) *Written Scheme of Investigation for an Archaeological & Geoarchaeological Evaluation the Henrietta Bridge (B2) and Alma Bridge (B2), Stratford City Development, London Borough of Newham* MoLAS-PCA unpublished client report

Moore, P. 2008 (4) *Written Scheme of Investigation for an Archaeological & Geoarchaeological Evaluation at the Non-Land Raise Area at Temple Mills Access/Security, Stratford City Development, London Borough of Newham* MoLAS-PCA unpublished client report

Museum and Galleries Commission 1992 *Standards in the Museum Care of Archaeological Collections*

Payne, J. (forthcoming) *The first Olympic village; finished 300 years ahead of schedule* CBA

Society of Museum Archaeologists 1993 *Selection and Retention and Dispersal of Archaeological Collections Guidelines*

Wikipedia Contributors 2009<http://en.wikipedia.org/wiki/Transfer_table> [Accessed 14th December 2009]

http://myweb.tiscali.co.uk/gansg/2-track/02track2.htm

http://www.uktrainsim.com/jw_flv_player/tt.html traverser in action

## APPENDIX 1: CONTEXT DESCRIPTIONS

| Site Code | Context No. | Plan | Section / Elevation | Type | Description | Date | Phase |
|---|---|---|---|---|---|---|---|
| SZD 08 | 1 | N/A | 1, 19 | Layer | Made ground | Mod | 4 |
| SZD 08 | 2 | Tr.3 | 1, 19 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 3 | Tr.3 | - | Cut | Linear | PM | 3 |
| SZD 08 | 4 | Tr.3 | - | Fill | Fill of 3 | PM | 3 |
| SZD 08 | 5 | Tr.9 | 6 | Layer | Made ground | Mod | 4 |
| SZD 08 | 6 | Tr.9 | 6 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 7 | Tr.8.1, 8.2, 8.3 | 10 | Layer | Made ground | Mod | 4 |
| SZD 08 | 8 | Tr.8.1, 8.2, 8.3 | 10 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 9 | Tr.3, Tr.3 b, c | - | Fill | Fill of 11 | PM | 3 |
| SZD 08 | 10 | Tr.3, Tr.3 b, c | - | Fill | Fill of 11 | PM | 3 |
| SZD 08 | 11 | Tr.3 | - | Cut | Cut of ditch | PM | 3 |
| SZD 08 | 12 | Tr.3 | - | Fill | Fill of 13 | Undated | 2 or 3 |
| SZD 08 | 13 | Tr.3 | - | Cut | Cut of ditch | Undated | 2 or 3 |
| SZD 08 | 14 | Tr.3 | - | Fill | Fill of 3 | PM | 3 |
| SZD 08 | 15 | N/A | 10 | Layer | Ploughsoil | PM | 3 |
| SZD 08 | 16 | N/A | 6 | Layer | Weatherd allivium | Nat | 1 |
| SZD 08 | 17 | N/A | 6 | Layer | Gravel | Nat | 1 |
| SZD 08 | 18 | N/A | 6 | Layer | Channel deposits | Nat | 1 |
| SZD 08 | 19 | 20 | 3 | Fill | Fill of 20 | Prehistoric | 2 |
| SZD 08 | 20 | 20 | 3 | Cut | Cut for cremation | Bronze Age | 2 |
| SZD 08 | 21 | N/A | 4 | Fill | Fill of 22 | Bronze Age | 2 |
| SZD 08 | 22 | 20 | 4 | Cut | Cut for cremation | Prehistoric | 2 |
| SZD 08 | 23 | N/A | 6 | Layer | Ploughsoil | PM | 3 |
| SZD 08 | 24 | Tr.3 | 19 | Layer | Gravel | Nat | 1 |
| SZD 08 | 25 | N/A | 19 | Layer | Alluvial | Nat | 1 |
| SZD 08 | 26 | N/A | 19 | Layer | Subsoil | PM | 3 |
| SZD 08 | 27 | N/A | 19 | Layer | Ploughsoil | PM | 3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 28 | 30 | 2 | Fill | Fill of 30 | Prehistoric | 2 |
| SZD 08 | 29 | 30 | 2 | Fill | Fill of 30 | Prehistoric | 2 |
| SZD 08 | 30 | 30 | 2 | Cut | Cut of postpit | Prehistoric | 2 |
| SZD 08 | 31 | Tr.1 | - | Fill | Fill of 32 | Nat | 1 |
| SZD 08 | 32 | Tr.1 | - | Cut | Cut of natural weathering | Nat | 1 |
| SZD 08 | 33 | Tr.1 | - | Fill | Fill of 34 | Nat | 1 |
| SZD 08 | 34 | Tr.1 | - | Cut | Cut of natural weathering | Nat | 1 |
| SZD 08 | 35 | N/A | - | Fill | Fill of 36 | Undated | 2 or 3 |
| SZD 08 | 36 | Tr.1 | - | Cut | Cut of poss stakehole | Undated | 2 or 3 |
| SZD 08 | 37 | N/A | - | Fill | Fill of 38 | Undated | 2 or 3 |
| SZD 08 | 38 | Tr.1 | - | Cut | Cut of sm pit | Undated | 2 or 3 |
| SZD 08 | 39 | N/A | - | Fill | Fill of 40 | Undated | 2 or 3 |
| SZD 08 | 40 | Tr.1 | - | Cut | Cut of poss stakehole | Undated | 2 or 3 |
| SZD 08 | 41 | Tr.1 | 16 | Layer | Made ground | Mod | 4 |
| SZD 08 | 42 | Tr.1 | 16 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 43 | N/A | 4 | Fill | Fill of 21 | Prehistoric | 2 |
| SZD 08 | 44 | Tr.4, 45 | 5 | Fill | Fill of 45 | Nat | 1 |
| SZD 08 | 45 | Tr.4, 45 | 5 | Cut | Cut of channel | Nat | 1 |
| SZD 08 | 46 | Tr.8.1, 8.2 | | Layer | Weathered brickearth | Nat | 1 |
| SZD 08 | 47 | Tr.1 | 16 | Layer | Gravel | Nat | 1 |
| SZD 08 | 48 | Tr.4 | 20 | Layer | Made ground | Mod | 4 |
| SZD 08 | 49 | Tr.4 | - | Layer | Gravels (=84?) | Nat | 1 |
| SZD 08 | 50 | N/A | - | Layer | Brickearth patches | Nat | 1 |
| SZD 08 | 51 | Tr.11 | 36 | Layer | Made ground | Mod | 4 |
| SZD 08 | 52 | Tr.11 | 36 | Layer | Soil horizon | PM | 3 |
| SZD 08 | 53 | Tr.11 | 36 | Layer | Gravel | Nat | 1 |
| SZD 08 | 54 | 55 | - | Fill | Fill of 55 | Mod | 4 |
| SZD 08 | 55 | 55 | - | Cut | ?tree bole | Mod | 4 |
| SZD 08 | 56 | Tr.6 | 21, 22 | Layer | Made ground | Mod | 4 |
| SZD 08 | 57 | Tr.6 | 21 | Layer | Gleyed alluvium | Nat | 1 |
| SZD 08 | 58 | Tr.6 | 21, 22 | Layer | Brickearth (=77) | Nat | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 59 | Tr.7 | 28, 28.1 | Layer | Made ground | Mod | 4 |
| SZD 08 | 60 | Tr.7 | 28 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 61 | N/A | 28, 28.1 | Layer | Gravel | Nat | 1 |
| SZD 08 | 62 | Tr.7 | 28 | Layer | Brickearth | PM | 3 |
| SZD 08 | 63 | N/A | - | Fill | Fill of 64 | Bronze Age | 2 |
| SZD 08 | 64 | Tr.7 | - | Cut | Cut for cremation | Bronze Age | 2 |
| SZD 08 | 65 | Tr.13 | 37 | Layer | Made ground | PM | 3 |
| SZD 08 | 66 | Tr.13 | 37 | Layer | Gravel | Nat | 1 |
| SZD 08 | 67 | Tr.2 | 7 | Fill | Fill of 68 | PM | 3 |
| SZD 08 | 68 | Tr.2 | 7 | Cut | Cut of ditch | PM | 3 |
| SZD 08 | 69 | Tr.2 | 18 | Layer | Gravel | Nat | 1 |
| SZD 08 | 70 | Tr.2 | 18 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 71 | Tr.7 | - | Fill | Fill of 72 | PM | 3 |
| SZD 08 | 72 | Tr.7 | - | Cut | Cut of ditch | PM | 3 |
| SZD 08 | 73 | Tr.10 | 35 | Layer | Made ground | Mod | 4 |
| SZD 08 | 74 | Tr.10 | 35 | Layer | Ploughsoil | PM | 3 |
| SZD 08 | 75 | Tr.10 | 35 | Layer | Weathered brickearth | Nat | 1 |
| SZD 08 | 76 | Tr.2 | 18 | Layer | Made ground | Mod | 4 |
| SZD 08 | 77 | N/A | 21, 22 | Layer | Brickearth (=58) | Nat | 1 |
| SZD 08 | 78 | N/A | 21, 22 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 79 | N/A | 21, 22 | Layer | Poss soil | Nat | 1 |
| SZD 08 | 80 | N/A | 21, 22 | Layer | Alluvial | Nat | 1 |
| SZD 08 | 81 | N/A | 21, 22 | Layer | Gravel | Nat | 1 |
| SZD 08 | 82 | N/A | 16 | Layer | Silty clay layer | Nat | 1 |
| SZD 08 | 83 | N/A | 16 | Layer | Silty sand layer | Nat | 1 |
| SZD 08 | 84 | N/A | 20 | Layer | Silty sand and gravel(=50?) | Nat | 1 |
| SZD 08 | 85 | Tr.4 | 20 | Layer | Sandy gravels | Nat | 1 |
| SZD 08 | 86 | N/A | 20 | Layer | Silty sand | Nat | 1 |
| SZD 08 | 87 | N/A | 20 | Layer | Sandy gravels | Nat | 1 |
| SZD 08 | 88 | N/A | 35 | Layer | Channel silts | Nat | 1 |
| SZD 08 | 89 | N/A | 35 | Layer | Channel sands | Nat | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 90 | N/A | 35 | Layer | Channel deposits | Nat | 1 |
| SZD 08 | 91 | N/A | 35 | Layer | Graveld | Nat | 1 |
| SZD 08 | 92 | Tr.3 b | - | Fill | Fill of 93 | PM | 3 |
| SZD 08 | 93 | Tr.3 b | - | Cut | Cut of ditch | PM | 3 |
| SZD 08 | 94 | Tr.8.1 | 29 | Fill | Fill of 95 | Prehistoric | 2 |
| SZD 08 | 95 | Tr.8.1 | 29 | Cut | Cut for cremation | Prehistoric | 2 |
| SZD 08 | 96 | N/A | 30 | Fill | Fill of 97 | Prehistoric | 2 |
| SZD 08 | 97 | Tr.8.1 | 30 | Cut | Cut for cremation | Prehistoric | 2 |
| SZD 08 | 98 | Tr.8.1, 8.2 | 10 | Fill | Fill of 99 | PM | 3 |
| SZD 08 | 99 | Tr.8.1, 8.2 | 10 | Cut | Cut of ditch | PM | 3 |
| SZD 08 | 100 | Tr.8.1 | 31 | Fill | Fill of 101 | Prehistoric | 2 |
| SZD 08 | 101 | Tr.8.1 | 31 | Cut | Cut for cremation | Prehistoric | 2 |
| SZD 08 | 102 | N/A | 18 | Layer | Subsoil | Nat | 1 |
| SZD 08 | 103 | N/A | 18 | Layer | Alluvial | Nat | 1 |
| SZD 08 | 104 | Tr.2 | 18 | Layer | Mineral rich deposit | Nat | 1 |
| SZD 08 | 105 | N/A | 18 | Layer | Alluvial | Nat | 1 |
| SZD 08 | 106 | Void | Void | Void | Void | Void | Void |
| SZD 08 | 107 | Void | Void | Void | Void | Void | Void |
| SZD 08 | 108 | Tr.14 | 8 | Layer | Made ground | Mod | 4 |
| SZD 08 | 109 | N/A | 8 | Layer | Clay and gravel | Nat | 1 |
| SZD 08 | 110 | N/A | 8 | Layer | Gleyed brickearth | Nat | 1 |
| SZD 08 | 111 | N/A | 8 | Layer | Clay and gravel | Nat | 1 |
| SZD 08 | 112 | Tr.14 | 8 | Layer | Gravel | Nat | 1 |
| SZD 08 | 113 | Tr.3 c | - | Fill | Fill of 114 | PM | 3 |
| SZD 08 | 114 | Tr.3 c | - | Cut | Cut of tree bole | PM | 3 |
| SZD 08 | 115 | Tr.8.1 | 30 | Fill | Fill of 97 | Prehistoric | 2 |
| SZD 08 | 116 | N/A | 28 | Layer | Ploughsoil | PM | 3 |
| SZD 08 | 117 | N/A | 28 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 118 | N/A | 28, 28.1 | Layer | Sands | Nat | 1 |
| SZD 08 | 119 | N/A | 18 | Layer | Ploughsoil | PM | 3 |
| SZD 08 | 120 | N/A | 21, 22 | Layer | Ploughsoil | PM | 3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 121 | N/A | 38 | Layer | Made ground | Mod | 4 |
| SZD 08 | 122 | N/A | 38 | Layer | Ploughsoil | PM | 3 |
| SZD 08 | 123 | N/A | 38 | Layer | Brickearth | PM | 3 |
| SZD 08 | 124 | Tr.12 | 38 | Fill | Fill of 125 | PM | 3 |
| SZD 08 | 125 | Tr.12 | 38 | Cut | Cut of ditch | PM | 3 |
| SZD 08 | 126 | Tr.12 | 38 | Layer | Brickearth & gravel | PM | 3 |
| SZD 08 | 127 | N/A | 38 | Layer | Gravel | Nat | 1 |
| SZD 08 | 128 | N/A | 8 | Layer | Subsoil | Nat | 1 |
| SZD 08 | 129 | N/A | 9 | Layer | Made ground | PM | 4 |
| SZD 08 | 130 | Tr. 20/21 | 9 | Layer | Gravel | Nat | 1 |
| SZD 08 | 131 | Tr.5.1, Tr.5.2 | 11 | Layer | Made ground | Mod | 4 |
| SZD 08 | 132 | N/A | 11 | Layer | Land surface | PM | 3 |
| SZD 08 | 133 | N/A | 11 | Layer | Subsoil | Nat | 1 |
| SZD 08 | 134 | Tr.5.1, Tr.5.2 | 11 | Layer | Brickearth | Nat | 1 |
| SZD 08 | 135 | Tr.5.1, Tr.5.2 | - | Layer | alluvial | Nat | 1 |
| SZD 08 | 136 | Tr.5.1, Tr.5.2 | - | Layer | Gravel | Nat | 1 |
| SZD 08 | 137 | 137 | - | Cut | Cut of ?posthole | Prehistoric | 2 |
| SZD 08 | 138 | N/A | - | Fill | Fill of 138 | Prehistoric | 2 |
| SZD 08 | 139 | N/A | - | Layer | Channel deposits | Nat | 1 |
| SZD 08 | 140 | N/A | 28.1 | Layer | Gleyed subsoil | Nat | 1 |
| SZD 08 | 141 | Tr.8.2 | - | Fill | Fill of 142 | Prehistoric | 2 |
| SZD 08 | 142 | Tr.8.2 | - | Cut | Cut of ?tree bole | Prehistoric | 2 |
| SZD 08 | 143 | N/A | - | Fill | Fill of 144 | Prehistoric | 2 |
| SZD 08 | 144 | Tr.8.2 | - | Cut | Cut of ?pit | Prehistoric | 2 |
| SZD 08 | 145 | N/A | - | Fill | Fill of 146 | Prehistoric | 2 |
| SZD 08 | 146 | Tr.8.2 | - | Cut | Cut of ?pit | Prehistoric | 2 |
| SZD 08 | 147 | N/A | - | Fill | Fill of 148 | Prehistoric | 2 |
| SZD 08 | 148 | Tr.8.2 | - | Cut | Cut of ?pit | Prehistoric | 2 |
| SZD 08 | 149 | N/A | - | Layer | Gravel | Nat | 1 |
| SZD 08 | 150 | N/A | 14, 32 | Layer | Made ground | Autumn 1991 | 4 |
| SZD 08 | 151 | Tr.23 | 14 | Structure | N-S Rail walls | Late PM/Mod | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 152 | Tr.23 | - | Structure | E-W troughs | Late PM/Mod | 4 |
| SZD 08 | 153 | Tr.23 | 14 | Layer | Gravel | Nat | 1 |
| SZD 08 | 154 | Tr.8.3 | - | Cut | Cut of ditch | Mod | 4 |
| SZD 08 | 155 | Tr.8.3 | - | Fill | Fill of 154 | Mod | 4 |
| SZD 08 | 156 | Tr.5.1, Tr.5.2, 156 | 11 | Cut | Cut of ditch | Mod | 4 |
| SZD 08 | 157 | Tr.5.1, Tr.5.2, 156 | 11 | Fill | Fill of 156 | Mod | 4 |
| SZD 08 | 158 | N/A | 39 | Layer | Made ground | Late PM/Mod | 4 |
| SZD 08 | 159 | Tr.24 | 39 | Layer | Gravel | Nat | 1 |
| SZD 08 | 160 | Tr.8.1 | 10 | Layer | Brickearth | Prehistoric | 2 |
| SZD 08 | 161 | N/A | 12 | Layer | Made ground | Mod | 4 |
| SZD 08 | 162 | N/A | 12 | Layer | Alluvial | Nat | 1 |
| SZD 08 | 163 | Tr.19 | 12 | Layer | Gravel | Nat | 1 |
| SZD 08 | 164 | N/A | 13 | Layer | Made ground | Late PM/Mod | 4 |
| SZD 08 | 165 | Tr.17/18 | 13 | Layer | Gravel | Nat | 1 |
| SZD 08 | 166 | Tr.23 | - | Masonry | N-S drain | Late PM/Mod | 4 |
| SZD 08 | 167 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 168 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 169 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 170 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 171 | Tr.23 | - | Masonry | Rail wall | Late PM/Mod | 4 |
| SZD 08 | 172 | Tr.23 | - | Masonry | Rail wall | Late PM/Mod | 4 |
| SZD 08 | 173 | Tr.23 | - | Masonry | Concrete bedding | Late PM/Mod | 4 |
| SZD 08 | 174 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 175 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 176 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 177 | Tr.22 | - | Masonry | Brick wall | Late PM/Mod | 4 |
| SZD 08 | 178 | Tr.22 | - | Masonry | Concrete fnd for 177 | Late PM/Mod | 4 |
| SZD 08 | 179 | Tr.22 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 180 | Tr.22 | 27 | Masonry | Wall | Late PM/Mod | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 181 | Tr.22 | - | Masonry | Concrete | Late PM/Mod | 4 |
| SZD 08 | 182 | Tr.22 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 183 | Tr.22 | - | Masonry | Rubble | Late PM/Mod | 4 |
| SZD 08 | 184 | N/A | - | Layer | Brickearth | Nat | 1 |
| SZD 08 | 185 | Tr.22 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 186 | N/A | 14 | Layer | Weathered floodplain | Nat | 1 |
| SZD 08 | 187 | N/A | 14 | Layer | Channel sands | Nat | 1 |
| SZD 08 | 188 | N/A | 15 | Layer | Made ground | Mod | 4 |
| SZD 08 | 189 | Tr.16 | 15 | Layer | Gravel | Nat | 1 |
| SZD 08 | 190 | N/A | 14 | Layer | Horizon/soil | Nat | 1 |
| SZD 08 | 191 | N/A | S.23 | Layer | Type 1 road | Mod | 4 |
| SZD 08 | 192 | N/A | S.23 | Layer | Made ground | PM | 4 |
| SZD 08 | 193 | N/A | S.23 | Layer | Rubble | PM | 4 |
| SZD 08 | 194 | N/A | S.24 | Layer | Type 1 road | Mod | 4 |
| SZD 08 | 195 | N/A | S.24 | Layer | Made ground | PM | 4 |
| SZD 08 | 196 | N/A | S.24 | Layer | Rubble | PM | 4 |
| SZD 08 | 197 | N/A | S.24 | Layer | Natural gravel | Nat | 4 |
| SZD 08 | 198 | N/A | S.25 | Layer | Type 1 road | Mod | 4 |
| SZD 08 | 199 | N/A | S.25 | Layer | Made ground | PM | 4 |
| SZD 08 | 200 | N/A | S.25 | Layer | Rubble | PM | 4 |
| SZD 08 | 201 | N/A | S.25 | Layer | Natural gravel | Nat | 4 |
| SZD 08 | 202 | N/A | S.26 | Layer | Type 1 road | Mod | 4 |
| SZD 08 | 203 | N/A | S.26 | Layer | Made ground | PM | 4 |
| SZD 08 | 204 | N/A | S.26 | Layer | Rubble | PM | 4 |
| SZD 08 | 205 | N/A | S.26 | Layer | Natural gravel | Nat | 4 |
| SZD 08 | 206 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 207 | Tr.23 | 32 | Masonry | Brick floor | Late PM/Mod | 4 |
| SZD 08 | 208 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 209 | Tr.23 | - | Masonry | Drain | Late PM/Mod | 4 |
| SZD 08 | 210 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 211 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 212 | Tr.23 | - | Masonry | Circular structure | Late PM/Mod | 4 |
| SZD 08 | 213 | Tr.23 | - | Masonry | Rebuild of trough | Late PM/Mod | 4 |
| SZD 08 | 214 | Tr.23 | - | Masonry | Foundation | Late PM/Mod | 4 |
| SZD 08 | 215 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 216 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 217 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 218 | Tr.22 | 27 | Layer | Clayey sand | Nat | 1 |
| SZD 08 | 219 | N/A | 27 | Layer | Natural gravel | Nat | 1 |
| SZD 08 | 220 | N/A | 27 | Layer | Sands | Nat | 1 |
| SZD 08 | 221 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 222 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 223 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 224 | N/A | 14 | Layer | Weathered river deposits | Nat | 1 |
| SZD 08 | 225 | Tr.23 | - | Cut | Cut for 212 | Late PM/Mod | 4 |
| SZD 08 | 226 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 227 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 228 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 229 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 230 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 231 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 232 | Tr.23 | - | Masonry | Wall of trough | Mid 19th century | 4 |
| SZD 08 | 233 | Tr.23 | - | Masonry | Trough | Mid 19th century | 4 |
| SZD 08 | 234 | Tr.23 | - | Masonry | Rail wall | Late PM/Mod | 4 |
| SZD 08 | 235 | Tr.23 | - | Masonry | Rail wall | Late PM/Mod | 4 |
| SZD 08 | 236 | Tr.23 | - | Cut | Test pit | Late PM/Mod | 4 |
| SZD 08 | 237 | Tr.23 | - | Masonry | Foundation for 212 | Late PM/Mod | 4 |
| SZD 08 | 238 | Tr.23 | - | Cut | Cut for 214 | Late PM/Mod | 4 |
| SZD 08 | 239 | Tr.23 | - | Fill | Fill of 240 | Late PM/Mod | 4 |
| SZD 08 | 240 | Tr.23 | - | Cut | Truncation | Late PM/Mod | 4 |
| SZD 08 | 241 | Tr.23 | 32 | Masonry | Wall of manhole | Late PM/Mod | 4 |
| SZD 08 | 242 | N/A | 32 | Layer | Levelling | Late PM/Mod | 4 |

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|---|---|---|---|---|---|---|---|
| SZD 08 | 243 | N/A | 32 | Fill | Backfill of 244 | Late PM/Mod | 4 |
| SZD 08 | 244 | N/A | 32 | Cut | Cut of manhole | Late PM/Mod | 4 |
| SZD 08 | 245 | Tr.23 | 32 | Masonry | Trough | Late PM/Mod | 4 |
| SZD 08 | 246 | Tr.23 | - | Fill | Fill of 236 | Late PM/Mod | 4 |
| SZD 08 | 247 | Tr.23 | - | Masonry | Rail wall | Late PM/Mod | 4 |
| SZD 08 | 248 | Tr.23 | - | Masonry | Rail wall | Late PM/Mod | 4 |
| SZD 08 | 249 | Tr.23 | - | Masonry | Foundation | Late PM/Mod | 4 |
| SZD 08 | 250 | Tr.23 | - | Masonry | Foundation | Late PM/Mod | 4 |
| SZD 08 | 251 | Tr.23 | - | Masonry | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 252 | Tr.23 | - | Fill | Fill of 238 | Late PM/Mod | 4 |
| SZD 08 | 253 | Tr.23 | - | Fill | Fill of 225 | Late PM/Mod | 4 |
| SZD 08 | 254 | Tr.23 | - | Structure | E-W rail lines | Late PM/Mod | 4 |
| SZD 08 | 255 | Tr.23 | - | Layer | Bitumen surfaces | Late PM/Mod | 4 |
| SZD 08 | 256 | Tr.23 | - | Structure | Pipe | Late PM/Mod | 4 |
| SZD 08 | 257 | Tr.23 | - | Masonry | Concrete footings for 254 | Late PM/Mod | 4 |
| SZD 08 | 258 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 259 | Tr.23 | - | Masonry | Wall beneath 258 | Late PM/Mod | 4 |
| SZD 08 | 260 | Tr.23 | - | Masonry | Drain | Late PM/Mod | 4 |
| SZD 08 | 261 | Tr.23 | - | Layer | Concrete footings for 254 | Late PM/Mod | 4 |
| SZD 08 | 262 | Tr.23 | - | Cut | Construction cut for 258 | Late PM/Mod | 4 |
| SZD 08 | 263 | N/A | - | Fill | Backfill of 262 | Late PM/Mod | 4 |
| SZD 08 | 264 | Tr.23 | - | Structure | Pipe in 266 | Late PM/Mod | 4 |
| SZD 08 | 265 | N/A | - | Fill | Fill of 266 | Late PM/Mod | 4 |
| SZD 08 | 266 | N/A | - | Cut | Cut for 264 | Late PM/Mod | 4 |
| SZD 08 | 267 | Tr.23 | - | Structure | Metal plate | Late PM/Mod | 4 |
| SZD 08 | 268 | N/A | - | Fill | Fill of 269 | Late PM/Mod | 4 |
| SZD 08 | 269 | Tr.23 | - | Cut | Silt trap | Late PM/Mod | 4 |
| SZD 08 | 270 | Tr.23 | - | Cut | Construction cut for 260 | Late PM/Mod | 4 |
| SZD 08 | 271 | Tr.23 | - | Cut | Construction cut for 259 | Late PM/Mod | 4 |
| SZD 08 | 272 | N/A | - | Fill | Backfill of 266 | Late PM/Mod | 4 |
| SZD 08 | 273 | N/A | - | Fill | Backfill of 269 | Late PM/Mod | 4 |

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|---|---|---|---|---|---|---|---|
| SZD 08 | 274 | Tr.23 | - | Layer | Brickearth | Mid 19th century | 4 |
| SZD 08 | 275 | Tr.23 | 33 | Masonry | Tunnel foundation | Late PM/Mod | 4 |
| SZD 08 | 276 | Tr.23 | 33 | Masonry | Tunnel foundation | Late PM/Mod | 4 |
| SZD 08 | 277 | Tr.23 | - | Masonry | Machine/axle base | Late PM/Mod | 4 |
| SZD 08 | 278 | Tr.23 | - | Masonry | Bolts | Late PM/Mod | 4 |
| SZD 08 | 279 | Tr.23 | - | Masonry | Floor | Late PM/Mod | 4 |
| SZD 08 | 280 | Tr.23 | 34 | Masonry | Tunnel | Late PM/Mod | 4 |
| SZD 08 | 281 | Void | Void | Void | Void | Void | Void |
| SZD 08 | 282 | Void | Void | Void | Void | Void | Void |
| SZD 08 | 283 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 284 | Tr.23 | - | Masonry | Tunnel | Late PM/Mod | 4 |
| SZD 08 | 285 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 286 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 287 | Tr.23 | - | Masonry | Structure | Late PM/Mod | 4 |
| SZD 08 | 288 | Tr.23 | - | Masonry | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 289 | Tr.23 | - | Masonry | Structure | Late PM/Mod | 4 |
| SZD 08 | 290 | Tr.23 | - | Masonry | Machine housing | Late PM/Mod | 4 |
| SZD 08 | 291 | Tr.23 | - | Masonry | Drain | Late PM/Mod | 4 |
| SZD 08 | 292 | Tr.23 | - | Masonry | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 293 | Tr.23 | - | Masonry | Brick floor | Late PM/Mod | 4 |
| SZD 08 | 294 | Tr.23 | - | Masonry | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 295 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 296 | N/A | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 297 | N/A | - | Masonry | Machine housing | Late PM/Mod | 4 |
| SZD 08 | 298 | N/A | - | Masonry | Basement wall | Late PM/Mod | 4 |
| SZD 08 | 299 | Tr.23 | - | Masonry | Floor | Late PM/Mod | 4 |
| SZD 08 | 300 | N/A | - | Masonry | Recess | Late PM/Mod | 4 |
| SZD 08 | 301 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 302 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 303 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 304 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |

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|---|---|---|---|---|---|---|---|
| SZD 08 | 305 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 306 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 307 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 308 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 309 | N/A | - | Fill | Fill of basement | Late PM/Mod | 4 |
| SZD 08 | 310 | Tr.23 | - | Layer | Brickearth | Nat | 1 |
| SZD 08 | 311 | Tr.23 | 34 | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 312 | Tr.23 | 34 | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 313 | Tr.23 | 34 | Masonry | Culverted drain | Late PM/Mod | 4 |
| SZD 08 | 314 | N/A | 34 | Cut | Construction cut for 315 | Late PM/Mod | 4 |
| SZD 08 | 315 | Tr.23 | 34 | Masonry | Machine housing | Late PM/Mod | 4 |
| SZD 08 | 316 | N/A | 34 | Fill | Backfill round 315 | Late PM/Mod | 4 |
| SZD 08 | 317 | Tr.23 | 34 | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 318 | Tr.23 | 34 | Masonry | Brick floor | Late PM/Mod | 4 |
| SZD 08 | 319 | Tr.23 | 34 | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 320 | N/A | 34 | Layer | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 321 | N/A | 34 | Layer | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 322 | N/A | 34 | Layer | Made ground | Mid 19th century | 4 |
| SZD 08 | 323 | Tr.23 | 34 | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 324 | Tr.23 | 34 | Layer | Rubble | Late PM/Mod | 4 |
| SZD 08 | 325 | Tr.23 | 34 | Layer | Bedding for 326 | Late PM/Mod | 4 |
| SZD 08 | 326 | N/A | 34 | Masonry | Brick floor | Late PM/Mod | 4 |
| SZD 08 | 327 | Tr.23 | 34 | Layer | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 328 | Tr.23 | 34 | Layer | Burnt debris over 327 | Late PM/Mod | 4 |
| SZD 08 | 329 | Tr.23 | 33 | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 330 | N/A | 33 | Masonry | Render | Late PM/Mod | 4 |
| SZD 08 | 331 | N/A | 33 | Masonry | Render | Late PM/Mod | 4 |
| SZD 08 | 332 | N/A | 33 | Masonry | Render | Late PM/Mod | 4 |
| SZD 08 | 333 | N/A | 33 | Masonry | Render | Late PM/Mod | 4 |
| SZD 08 | 334 | N/A | 33 | Masonry | Render | Late PM/Mod | 4 |
| SZD 08 | 335 | Tr.23 | 33, 34 | Masonry | Machine housing | Late PM/Mod | 4 |

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|---|---|---|---|---|---|---|---|
| SZD 08 | 336 | N/A | 33 | Layer | Rubble | Late PM/Mod | 4 |
| SZD 08 | 337 | Tr.23 | 33 | Masonry | Rebuild of wall 329 | Late PM/Mod | 4 |
| SZD 08 | 338 | Tr.23 | 33, 34 | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 339 | N/A | - | Masonry | Concrete foundation | Late PM/Mod | 4 |
| SZD 08 | 340 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 341 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 342 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 343 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 344 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 345 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 346 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 347 | Tr.23 | 34 | Masonry | Rebuild of 311 | Late PM/Mod | 4 |
| SZD 08 | 348 | Tr.23 | 34 | Masonry | Machine housing | Late PM/Mod | 4 |
| SZD 08 | 349 | Tr.23 | 34 | Layer | Rubble | Late PM/Mod | 4 |
| SZD 08 | 350 | N/A | - | Fill | Fill of 351 | Late PM/Mod | 4 |
| SZD 08 | 351 | Tr.23 | - | Cut | Drain | Late PM/Mod | 4 |
| SZD 08 | 352 | Tr.23 | - | Fill | Fill of 354 | Late PM/Mod | 4 |
| SZD 08 | 353 | Tr.23 | - | Masonry | Brick drain lining | Late PM/Mod | 4 |
| SZD 08 | 354 | Tr.23 | - | Cut | Construction cut for 353 | Late PM/Mod | 4 |
| SZD 08 | 355 | Tr.23 | - | Masonry | Drain | Late PM/Mod | 4 |
| SZD 08 | 356 | Tr.23 | - | Cut | Cut for 355 | Late PM/Mod | 4 |
| SZD 08 | 357 | Tr.23 | - | Fill | Fill of 359 | Late PM/Mod | 4 |
| SZD 08 | 358 | Tr.23 | - | Masonry | Masonry within 359 | Late PM/Mod | 4 |
| SZD 08 | 359 | Tr.23 | - | Cut | Construction cut for 358 | Late PM/Mod | 4 |
| SZD 08 | 360 | N/A | - | Masonry | Rebuild of 296 | Late PM/Mod | 4 |
| SZD 08 | 361 | N/A | - | Masonry | Rebuild of 298 | Late PM/Mod | 4 |
| SZD 08 | 362 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 363 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 364 | N/A | - | Structure | Hinge | Late PM/Mod | 4 |
| SZD 08 | 365 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 366 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |

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|---|---|---|---|---|---|---|---|
| SZD 08 | 367 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 368 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 369 | Tr.23 | 34 | Masonry | Concrete block | Late PM/Mod | 4 |
| SZD 08 | 370 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 371 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 372 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 373 | Tr.23 | - | Masonry | Floor | Late PM/Mod | 4 |
| SZD 08 | 374 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 375 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 376 | Tr.23 | - | Masonry | Drain | Late PM/Mod | 4 |
| SZD 08 | 377 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 378 | Tr.23 | - | Masonry | Posthole | Late PM/Mod | 4 |
| SZD 08 | 379 | Tr.23 | - | Masonry | Grate | Late PM/Mod | 4 |
| SZD 08 | 380 | Tr.23 | - | Masonry | Pipe | Late PM/Mod | 4 |
| SZD 08 | 381 | Tr.23 | - | Masonry | Drain | Late PM/Mod | 4 |
| SZD 08 | 382 | Tr.23 | - | Layer | Bedding for 373 | Late PM/Mod | 4 |
| SZD 08 | 383 | N/A | - | Layer | Bedding for 373 | Late PM/Mod | 4 |
| SZD 08 | 384 | Tr.23 | - | Layer | Made ground | Late PM/Mod | 4 |
| SZD 08 | 385 | Tr.23 | - | Structure | Similar to 361 | Late PM/Mod | 4 |
| SZD 08 | 386 | Tr.23 | 34 | Structure | Pipe | Late PM/Mod | 4 |
| SZD 08 | 387 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 388 | Tr.23 | - | Masonry | NW-SE wall | Late PM/Mod | 4 |
| SZD 08 | 389 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 390 | Tr.23 | - | Masonry | Brick floor | Late PM/Mod | 4 |
| SZD 08 | 391 | Tr.23 | - | Masonry | Floor | Late PM/Mod | 4 |
| SZD 08 | 392 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 393 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 394 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 395 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 396 | Tr.23 | - | Masonry | Concrete block | Late PM/Mod | 4 |
| SZD 08 | 397 | Tr.23 | - | Masonry | Foundation | Late PM/Mod | 4 |

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|---|---|---|---|---|---|---|---|
| SZD 08 | 398 | Tr.23 | - | Masonry | Concrete block | Late PM/Mod | 4 |
| SZD 08 | 399 | Tr.23 | - | Timber | Horizontal | Late PM/Mod | 4 |
| SZD 08 | 400 | Tr.23 | - | Timber | Horizontal | Late PM/Mod | 4 |
| SZD 08 | 401 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 402 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 403 | Tr.23 | - | Masonry | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 404 | Tr.23 | - | Masonry | Machine housing | Late PM/Mod | 4 |
| SZD 08 | 405 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 406 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 407 | Tr.23 | - | Layer | Made ground | Late PM/Mod | 4 |
| SZD 08 | 408 | N/A | - | Masonry | Rebuild of 409 | Late PM/Mod | 4 |
| SZD 08 | 409 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 410 | Tr.23 | - | Masonry | Brick floor | Late PM/Mod | 4 |
| SZD 08 | 411 | Tr.23 | - | Masonry | Concrete floor | Late PM/Mod | 4 |
| SZD 08 | 412 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 413 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 414 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 415 | Tr.23 | - | Fill | Backfill round 413/414 | Late PM/Mod | 4 |
| SZD 08 | 416 | Tr.23 | - | Cut | Construction cut for 413/414 | Late PM/Mod | 4 |
| SZD 08 | 417 | Tr.23 | - | Masonry | Brick floor | Late PM/Mod | 4 |
| SZD 08 | 418 | Tr.23 | - | Masonry | Fill of 420 | Late PM/Mod | 4 |
| SZD 08 | 419 | Tr.23 | - | Masonry | Concrete block | Late PM/Mod | 4 |
| SZD 08 | 420 | Tr.23 | - | Masonry | Concrete wall | Late PM/Mod | 4 |
| SZD 08 | 421 | Tr.23 | - | Masonry | Pit lining | Late PM/Mod | 4 |
| SZD 08 | 422 | Tr.23 | - | Masonry | Block | Late PM/Mod | 4 |
| SZD 08 | 423 | Tr.23 | - | Masonry | Block | Late PM/Mod | 4 |
| SZD 08 | 424 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 425 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 426 | Tr.23 | - | Fill | Fill of 421 | Late PM/Mod | 4 |
| SZD 08 | 427 | Tr.23 | - | Masonry | Gutter | Late PM/Mod | 4 |
| SZD 08 | 428 | Tr.23 | - | Masonry | Concrete wall | Late PM/Mod | 4 |

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|---|---|---|---|---|---|---|---|
| SZD 08 | 429 | Tr.23 | - | Masonry | Concrete foundation | Late PM/Mod | 4 |
| SZD 08 | 430 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 431 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 432 | Tr.23 | - | Fill | Rubble | Late PM/Mod | 4 |
| SZD 08 | 433 | Tr.23 | - | Masonry | Concrete | Late PM/Mod | 4 |
| SZD 08 | 434 | N/A | - | Layer | Clinker | Late PM/Mod | 4 |
| SZD 08 | 435 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 436 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 437 | Tr.23 | - | Masonry | Block | Late PM/Mod | 4 |
| SZD 08 | 438 | Tr.23 | - | Fill | Infill of 435-7 | Late PM/Mod | 4 |
| SZD 08 | 439 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 440 | Tr.23 | - | Masonry | Floor | Late PM/Mod | 4 |
| SZD 08 | 441 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 442 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 443 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 444 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 445 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 446 | Tr.23 | - | Fill | Infill between 436, 437 & 445 | Late PM/Mod | 4 |
| SZD 08 | 447 | Tr.23 | - | Fill | Infiill between 441 & 442 | Late PM/Mod | 4 |
| SZD 08 | 448 | Tr.23 | - | Fill | Infiill between 443 & 449 | Late PM/Mod | 4 |
| SZD 08 | 449 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 450 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 451 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 452 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 453 | Tr.23 | - | Masonry | Made ground | Late PM/Mod | 4 |
| SZD 08 | 454 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 455 | Tr.23 | - | Masonry | | Late PM/Mod | 4 |
| SZD 08 | 456 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 457 | Tr.23 | - | Fill | Infill between 449 & 450 | Late PM/Mod | 4 |
| SZD 08 | 458 | Tr.23 | - | Fill | Made ground | Late PM/Mod | 4 |
| SZD 08 | 459 | Tr.23 | - | Masonry | Axle housing | Late PM/Mod | 4 |

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| SZD 08 | 460 | Tr.23 | 34 | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 461 | Tr.23 | - | Fill | Fill of cut 462 | Late PM/Mod | 4 |
| SZD 08 | 462 | Tr.23 | - | Cut | Cut for 344 | Late PM/Mod | 4 |
| SZD 08 | 463 | Tr.23 | - | Fill | Fill of 464 | Late PM/Mod | 4 |
| SZD 08 | 464 | Tr.23 | - | Cut | Cut for 454 | Late PM/Mod | 4 |
| SZD 08 | 465 | N/A | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 466 | N/A | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 467 | Tr.23 | - | Layer | Made ground | Mid 19th century | 4 |
| SZD 08 | 468 | Tr.23 | - | Layer | Made ground | Mid 19th century | 4 |
| SZD 08 | 469 | Tr.23 | - | Layer | Made ground | Mid 19th century | 4 |
| SZD 08 | 470 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 471 | N/A | - | Masonry | Rebuild for 348 | Late PM/Mod | 4 |
| SZD 08 | 472 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 473 | N/A | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 474 | Tr.23 | - | Masonry | Wall beneath 348 | Late PM/Mod | 4 |
| SZD 08 | 475 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 476 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 477 | Tr.23 | - | Structure | Iron girders | Late PM/Mod | 4 |
| SZD 08 | 478 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 479 | Tr.23 | - | Fill | Backfill round 376 | Late PM/Mod | 4 |
| SZD 08 | 480 | Tr.23 | - | Cut | Cut for 376 | Late PM/Mod | 4 |
| SZD 08 | 481 | N/A | - | Fill | Fill of 313 | Late PM/Mod | 4 |
| SZD 08 | 482 | Tr.23 | - | Cut | Cut for 313 | Late PM/Mod | 4 |
| SZD 08 | 483 | Tr.23 | - | Fill | Backfill round 313 | Late PM/Mod | 4 |
| SZD 08 | 484 | Tr.23 | - | Masonry | Brick drain | Late PM/Mod | 4 |
| SZD 08 | 485 | Tr.23 | - | Fill | Fill of cut 486 | Late PM/Mod | 4 |
| SZD 08 | 486 | Tr.23 | - | Cut | Cut for drain 485 | Late PM/Mod | 4 |
| SZD 08 | 487 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 488 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 489 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 490 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 491 | Tr.23 | - | Cut | Cut for wall 367 | Late PM/Mod | 4 |
| SZD 08 | 492 | Tr.23 | - | Fill | Fill of cut 491 | Late PM/Mod | 4 |
| SZD 08 | 493 | Tr.23 | - | Masonry | Concrete | Late PM/Mod | 4 |
| SZD 08 | 494 | Tr.23 | - | Masonry | Concrete | Late PM/Mod | 4 |
| SZD 08 | 495 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 496 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 497 | Tr.23 | - | Masonry | Brickwork | Late PM/Mod | 4 |
| SZD 08 | 498 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 499 | Tr.23 | - | Layer | Made ground | Late PM/Mod | 4 |
| SZD 08 | 500 | Tr.23 | - | Layer | Made ground | Late PM/Mod | 4 |
| SZD 08 | 501 | Tr.23 | - | Layer | Rubble | Late PM/Mod | 4 |
| SZD 08 | 502 | Tr.23 | - | Masonry | N-S wall | Late PM/Mod | 4 |
| SZD 08 | 503 | N/A | - | Masonry | Brick capping to 313/484 | Late PM/Mod | 4 |
| SZD 08 | 504 | Tr.23 | - | Layer | Redeposited gravel | Late PM/Mod | 4 |
| SZD 08 | 505 | N/A | - | Layer | Made ground | Mid 19th century | 4 |
| SZD 08 | 506 | Tr.23 | - | Layer | Made ground | Mid 19th century | 4 |
| SZD 08 | 507 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 508 | Tr.23 | - | Fill | Fill of 509 | Late PM/Mod | 4 |
| SZD 08 | 509 | Tr.23 | - | Cut | Cut for 507 | Late PM/Mod | 4 |
| SZD 08 | 510 | Tr.23 | - | Masonry | E-W Wall | Late PM/Mod | 4 |
| SZD 08 | 511 | Tr.23 | - | Fill | Fill of cut 512 | Late PM/Mod | 4 |
| SZD 08 | 512 | Tr.23 | - | Cut | Cut for wall 367 | Late PM/Mod | 4 |
| SZD 08 | 513 | Tr.23 | - | Masonry | Floor surface relating to 311 | Late PM/Mod | 4 |
| SZD 08 | 514 | Tr.23 | - | Masonry | Concrete | Late PM/Mod | 4 |
| SZD 08 | 515 | Tr.23 | - | Fill | Fill of | Late PM/Mod | 4 |
| SZD 08 | 516 | Tr.23 | - | Layer | Gravel | Mid 19th century | 4 |
| SZD 08 | 517 | Tr.23 | - | Masonry | Wall | Late PM/Mod | 4 |
| SZD 08 | 518 | Tr.23 | - | Masonry | Concrete | Late PM/Mod | 4 |
| SZD 08 | 519 | Tr.23 | - | Structure | Iron pipe, prob. cont. 313 | Late PM/Mod | 4 |
| SZD 08 | 520 | N/A | 27 | Masonry | N-S wall same as 177 | Late PM/Mod | 4 |
| SZD 08 | 521 | N/A | 27 | Masonry | Concrete floor | Late PM/Mod | 4 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SZD 08 | 522 | N/A | 27 | Fill | Brick rubble | 20th | 4 |
| SZD 08 | 523 | Tr.22 | 27 | Fill | Fill of 524 | Late PM/Mod | 4 |
| SZD 08 | 524 | Tr.22 | 27 | Cut | Cut for drainage | Late PM/Mod | 4 |
| SZD 08 | 525 | Tr.23 | - | Cut | Cut for [312] | PM | 4 |
| SZD 08 | 526 | Tr.22 | - | Structure | Rails- a&b, c&d | 20th | 4 |
| SZD 08 | 526 | Tr.23 | - | Cut | Cut for [317] | PM | 4 |
| SZD 08 | 527 | Tr.22 | - | Timber | Timbers set in 528 | 20th | 4 |
| SZD 08 | 528 | Tr.22 | - | Masonry | Concrete surface round 526 | 20th | 4 |

# APPENDIX 2: THE FINDS ASSESSMENT

By B.Sudds, B. Bishop, C.Jarrett, K. Rielly and J. Gerrard

Total number of boxes: 4
Total fragment count: 50
Total number or contexts producing finds: 15 contexts.

The finds assemblage recovered from Stratford City includes material of pre-historic, Roman, medieval and post-medieval date. The majority is post-medieval dating primarily to the 18th and 19th century (Table 1).

| Context | Material | Description | Number | Date | Suggested date of deposition |
|---|---|---|---|---|---|
| 4 | Pot | White salt-glazed stoneware plate rim | 1 | 1720 - 1780 | 1720 – 1780 |
| | CBM | Post-medieval peg tile | 4 | 1480 – 1900 | |
| | CTP | 3 stems and 1 nib | 4 | 1580 – 1910 | |
| 9 | CBM | 3032nr3033 unfrogged brick | 1 | 1664 – 1725 | 1664 – 1725 |
| 10 | Pot | Residual Roman sherd (cross-join with context [124] AD50-160 | 1 | Roman | 1650 – 1750 |
| | Pot | Tin-glazed ware | 8 | 1570 – 1846 | |
| | Pot | Post-medieval redware base | 1 | 1580 – 1900 | |
| | CBM | 3036 Dutch paving brick | 1 | 1600 – 1800 | |
| | CBM | Post-medieval peg tile | 4 | 1480 – 1900 | |
| | CTP | 1 stem | 1 | 1600 – 1850 | |
| | Glass | Fragment of green wine bottle glass | 1 | 1650 – 1750 | |
| | Animal bone | Cattle calcaneus from a juvenile individual and a | 1 | | |
| | Animal bone | Cattle-size rib | 1 | | |
| 67 | Pot | Cheam whiteware | 1 | 1350 – 1500 | 1775 - 1830 |
| | Pot | Creamware with developed pale glaze | 1 | 1760 – 1830 | |
| | Pot | Pealrware with industrial slip decoration | 1 | 1775 – 1840 | |
| 71 | Pot | Post-medieval redware | 1 | 1580 – 1900 | 1580 – 1900 |
| | Animal bone | Equid tibia from an adult medium-sized pony | 1 | | |
| 98 | Pot | Surrey-Hampshire border whiteware with olive glaze | 2 | 1550 – 1700 | 1580 – 1700 |
| | Pot | Post-medieval redware | 1 | 1580 – 1900 | |
| 124 | Pot | Roman AD50-160 | 2 | | Roman |
| 160 | Pot | Not identified | 1 | | ? |
| 212 | CBM | 3261 Firebrick (unfrogged) | 1 | 1800 – 1950 | 1800 – 1950 |
| 258 | CBM | 3032nr3035 Frogged brick. Makers mark '?MHBC' | 1 | 1780 – 1900 | 1780 - 1900 |
| 309 | Pot | Refined white earthenware with industrial slip decoration (Cornish | 1 | 1850 - 1950 | 1850 - 1950 |

| Context | Material | Description | Number | Date | Suggested date of deposition |
|---|---|---|---|---|---|
| | | blue) | | | |
| | Pot | Refined white earthenware sink (Armitage ware) | 3 | 1850 - 1950 | |
| 311 | CBM | 3032nr3035 Frogged brick. Indistinct makers mark | 1 | 1780 – 1900 | 1780 - 1900 |
| 312 | CBM | 3032 Frogged brick. Makers mark ?A BROWN BRAINTREE' | 1 | 1780 – 1900 | |
| 317 | CBM | 3032 Frogged brick. Makers mark 'THBC' | 1 | 1780 – 1900 | 1780 – 1900 |
| 414 | CBM | 3035nr3032 Frogged brick. Makers mark '?BHB/C' | 1 | 1780 – 1900 | 1780 – 1900 |

Table 1: Finds by context and material with date ranges and suggested dates of deposition. CBM = Ceramic building material; CTP = Clay tobacco pipe

## The struck and burnt flint

By Barry Bishop

### Introduction

Archaeological Investigations at the above site resulted in the recovery of 14 struck flints and 5g of unworked burnt flint.

The lithic assemblage was recovered from brickearth deposits in Trench 8 and from unstratified or Post-medieval features in Trench 3. No evidence of *in situ* flintwork was identified and the material from Trench 3 may be regarded as residual and that from Trench 8 as intrusive.

### Methodology

Each piece of struck flint was examined by eye and X10 magnification and catalogued according to a basic typological/technological scheme (see Appendix 1). No statistically based technological, typological or metrical analyses were carried out.

### Raw Materials

The struck pieces are all manufactured from flint of variable colour that includes translucent, opaque and mottled brown examples. Where identifiable, all of the pieces are made from small, rounded alluvial pebbles that retain either hard rounded surfaces or weathered rough cortex, and would be easily obtainable from the Gravel Terraces present in the locality.

**Condition**

The struck flints are generally in a good condition but all show some evidence for slight edge chipping and rounding, consistent with a limited degree of trampling, redeposition or settling within their burial matrix. None show any extensive post-depositional damage, however, and they were probably recovered from close to where they were originally discarded.

**Description**

The assemblage is small and comprises flakes, blades and three cores. No retouched pieces are present.

The four blades, were all competently produced and comprise prismatic types one of which was broken. One of the blades has convincing traces of having been used and another may have been, although this is less certain due to post-depositional damage. Both of these were recovered from the brickearth deposits in Trench 8 and this also provided a broken flake, possibly the distal end of a blade, that has a shallow notch cut into its left lateral margin. It is uncertain whether this was deliberately executed or the result of post-depositional damage. The remaining flakes vary in shape, size and in the proficiency of their production. Some are likely to be of a similar date to the blades but they also include a few that are short and thick and have wide, obtuse striking platforms, which are perhaps more reminiscent of later, Bronze Age, industries. The cores all consist of rounded pebbles that had been extensively reduced using multiple striking platforms. Consequently, extant flake scars are small and rather irregular but two of the cores retain evidence of having earlier produced blades or narrow flakes and all three display evidence of platform edge trimming. These are most suggestive of Mesolithic or Neolithic flintworking and may be broadly comparable in date to the blades.

**Discussion**

The struck flint assemblage is small and appears to be chronologically varied. The blades, cores and some of the flakes are typical of industries dating to the Mesolithic or perhaps Early Neolithic periods and indicate both core reduction and activities associated with cutting tasks took place at the site. Interestingly, the blades are relatively large and unlikely to have been produced from the cores, and therefore may have been brought to the site ready-made. Although the dating of the remaining flakes remains somewhat tentative, their technological attributes do suggest that flint use may have continued at the site into the Bronze Age.

The assemblage is comparable in terms of dating, technology and raw material use to other assemblages recovered from the lower Lea Valley floor, such as at the Olympics Sites (eg Site 26; Site PDZ 1.12 – see PCA archives) or at Stratford Market Depot (Bradley 2005), as well as along the higher ground overlooking the valley (eg Parnell Road, Bow; Oliver Close, Leyton – see PCA archives). Taken together, the flint assemblages from such sites indicate an extensive and sometimes intensive use of the valley flanks and the drier parts of the valley floor, fairly persistently from the Mesolithic to at least the Late Bronze Age.

**Recommendations**

Due to the small size of the struck flint assemblage and its probable chronological mixing, this report is all that is required for the archive and no further metrical or technological analyses are warranted.

Nevertheless, the assemblage is of significance in that it indicates prehistoric activity that significantly pre-dates the main period of occupation at the site, may in part be contemporary with the Bronze Age cremation activity, and may contribute to the further understanding of Mesolithic to Bronze Age use of the Lea Valley. No structural features were identified from these periods and the lithics provide one of the means of understanding the activity at the site during these periods. It is therefore recommended that the assemblage should be examined in greater detail and described for publication, alongside illustrations of relevant pieces.

**Bibliography**

Bradley, P. 2005 Worked Flint. In: Hiller, J. and Wilkinson, D.R.P., *Archaeology of the the Jubilee Line Extension: prehistoric and Roman activity at Stratford Market Depot West Ham 1991-1993*, 36-38. Oxford Archaeology/Museum of London Archaeology Service.

## The Roman pottery

By James Gerrard

The excavations produced three sherds of Romano-British pottery. These are all early Roman comprise [10] AHSU, 1 sherd, 1g, joins [124] AD50-160, [124] AHSU, 1 sherd, 25g, fresh joins [10], Necked cordoned jar AD50-160, [124] NKFW? 1 sherd, 5g, abraded AD50-160 and suggest Roman activity in the vicinity. No further work is required for publication.

tHE pOST ROMAN POTTERY

## The Post Roman Pottery

By B. Sudds

With the exception of as single sherd of Cheam whiteware, dated from 1350 to 1500, the post-Roman pottery is Post-medieval, predominantly of 18th and 19th century date. The feature assemblages are small, fragmented and in some cases abraded. Aside from providing dating for individual deposits little can be said about function or economic status. The fabric types and forms present occur frequently in the London region and no further work is recommended.

## The ceramic building material

By B. Sudds

A series of brick samples were taken, all of which have proven to be of similar date. Morphologically the frogged bricks from [258], [311], [317] and [414] are all very similar but display differences in the makers marks. The examples from [258] and [317] are notably comparable by carrying a very similar stamp, varying only in a single letter at the beginning. Perhaps this represents a change in ownership at the originating brickworks, maybe one within the family, perhaps from father to son. The fabric of these samples represents a cross between the local London post-fire fabric of 3032 and the north Kent yellow stocks (3035). The examples are either pinkish purple or completely yellow but the presence of clinker suggests they derive from the local 3032 tradition. A date during the 19th century is most likely.

The brick from context [312] is also in the 3032 tradition and is frogged with a makers mark. The mark in this case is '?A Brown Braintree' and a date from the late 18th to 19th century is probable. The final brick, from context [212], is in a fireclay fabric and dates to the 19th or early 20th century. Firebricks have high refractory qualities and were designed with an industrial function in mind, namely for use associated with high temperature processes. They were often used to construct 19th century kilns but have other uses and were often re-used as general building material.

A Dutch paving brick, dating from the 17th to 18th century, was recovered from context [10] and a small assemblage of non diagnostic post-medieval peg tile from contexts [4] and [10].

A tighter date for the bricks might be achieved if the marks can be pinpointed to a known maker. Aside from this no further work is recommended.

## The clay tobacco pipe

By Chris Jarrett

The clay tobacco pipe has no significance and its only potential is to date the contexts it was found in. There are no recommendations for further work.

## The glass

By Chris Jarrett

A single shoulder fragment from a green wine bottle was recovered from context [10], dated from the mid 17th to mid 18th century. No recommendations for further work are made for the glass.

## The animal bone

By Kevin Rielly

Animal bones were recovered from just two contexts, as follows:- [10] a cattle calcaneus from a juvenile individual and a cattle-size rib; [71] an equid tibia from an adult medium-sized pony (possibly 12-13 hands). The cattle calcaneus could have derived from a veal calf, suggestive of good quality meat and by inference of waste from a reasonably wealthy household, while the horse bone is probably part of a locally knackered animal. There are no cut marks on the latter bone to suggest whether any post-mortem use was made of the carcass. No further work is recommended for this small assemblage.

## APPENDIX 3: ASSESSMENT OF CREMATED HUMAN BONE

By J. Y. Langthorne

### Introduction

Six cremations were encountered within two trenches in the south-west part of the Stratford City Development site (SZD08). Despite a lack of cultural material found with these burials, none of the cremations were contained within an urn nor were there any associated finds, they were consistent with Bronze Age burial practices (Holden 2008), which was later confirmed by the C14 dates obtained.

The following report provides a summary of the cremated human bone that is present, not a full osteological analysis of the remains, of the six burials: [19], [21], [63], [94], [96] and [100].

### Methodology

The cremated bone was not contained within urns and so having been completely removed on site they were processed as one sample per context All the cremated material was sieved through a stack of 6.70, 4.75, and 2mm mesh sieves. The cremated bone was separated from the remaining organic material and gravel in the ≥6.70mm and ≥4.75mm fractions and as far as was possible in the ≥2mm fraction. The bone from the ≥2mm, ≥4.75mm and ≥6.70mm fraction sizes was weighed giving the percentage of each fragment size within the total weight of the cremation. The total weight excludes the <2mm fragment size because the bone could not be completely separated from extraneous material.

A note was made of any identifiable bone fragments, the level of oxidisation illustrated by variations in colour from the normal buff/white colour of a fully oxidised cremation, sexually dimorphic traits and ageing data, such as epiphyseal fusion and dental development.

### Results

Cremation [19]

The total weight of cremation [19] was 194g, with the ≥2mm fraction making up 64.5% of the weight of the assemblage, the ≥4.75mm fraction 18% and the ≥6.70mm fraction 17.5%.The heavily fragmented nature of the cremated bone, over three quarters of the burial contains bone of a size less than 4.75mm, meant that very few identifiable skeletal elements were found other than two possible pieces of rib shaft. No accurate aging or sexing data was noted

but the general dimensions of the identifiable rib fragments suggest a sub-adult individual, potentially a very young child or neonate. The majority of the bone is well oxidised and white in colour. Initial analysis of these remains did not indicate that there was more than one individual within the burial.

Cremation [21]

The total weight of the cremated bone in burial [21] was 3267g, with 38% within the ≥2mm fraction of the assemblage, 21% in the ≥4.75mm fraction and 41% in the ≥6.70mm fraction. As over half of the cremated fragments were over 4.75mm in length a large proportion of the skeletal elements were identifiable, such as skull, femoral/humeral head fragments, long bone shaft fragments including part of the distal radial shaft, scapula blade and spine, rib fragments including the first rib, a complete hand phalanx and part of a tooth. The dimensions of some of the bone fragments indicate a young sub-adult, perhaps a neonate or infant, while others suggest an adult or older sub-adult. This information is confirmed by the weight of the assemblage which indicated that it contained more than one individual. No sexually dimorphic traits could be located. The majority of the bone is well oxidised but there were traces of grey and blue/grey colouring on some of the elements.

Cremation [63]

The total weight of cremation [63] was 166g, with 17% within the ≥2mm fraction of the assemblage, 31% in the ≥4.75mm fraction and 52% in the ≥6.70mm fraction. As with [21] the lack of bone fragmentation, more than three quarters of the bone fragments were over 4.75mm in length, allowed for some identification of skeletal elements. These elements include skull and long bone fragments and 2 complete phalanges. No indicators of age or sexually dimorphic traits were observed. A large proportion of the bone was well oxidised although there were also a number of grey-blue and blackened fragments, indicative of fluctuating temperature. As with [19] initial analysis of these remains did not suggest that there was more than one individual within the assemblage.

Cremation [94]

The total weight of cremation [94] was 36g, with 44% within the ≥2mm fraction of the assemblage, 31% in the ≥4.75mm fraction and 25% in the ≥6.70mm fraction. The bones within this assemblage were well oxidised with occasional traces of blue-grey mottling and a high degree of fragmentation. No identifiable skeletal elements were found.

Cremation [96]

The total weight of cremation [94] was 16g, with 62.5% within the ≥2mm fraction of the assemblage and 37.5% in the ≥4.75mm fraction The bones within this assemblage were well oxidised and heavily fragmented. No identifiable skeletal elements were found.

Cremation [100]

The total weight of cremation [100] was 10g, with 50% within the ≥2mm fraction of the assemblage and 50% in the ≥4.75mm fraction The bones within this assemblage were well oxidised and heavily fragmented. No identifiable skeletal elements were found.

**Discussion**

Studies from modern crematoria suggest that the average weight of a modern adult cremation, with the <2mm fraction removed, is 1625.9 g, with a range of 1001.5 – 2422.5g (McKinley, 1993). The weight to an extent depends on the sex and age of the individual although there is an area of overlap (McKinley, 1993). Archaeological cremations tend to have lower total weights than modern cremations due to the more controlled conditions that modern cremated remains are collected in nevertheless the results from the studies of modern cremations can give an idea of the proportion of remains that were finally buried from archaeological cremations. The total weights of five of the six cremations range from 194g to 10g, all well short of the threshold for an adult archaeological burial which would indicate that these burials were either disturbed or contained young sub-adult burials as was indicated by the rib fragments encountered within burial [19]. Only [21] contained sufficient skeletal material to posit an adult cremation, and at over 3kg, despite the presence of some residual inorganic material within the ≥2mm fraction, the indications are that cremation [21] contained more than one body. The larger fragments found within burial [21] indicated that this multiple cremation probably contained at least one adult or older sub-adult and at least one young sub-adult: potentially an infant or neonate.

Studies on modern cremations have also provided data on the fragment size that can be expected from an adult cremation. As with weight the fragment size from archaeological cremations is usually less than those found with modern studies, often caused by damage such as ploughing. The majority of fragments from modern cremations are over 10mm (McKinley, 1994), The low weights and large number of bone fragments within the ≥2mm fraction within cremations [94], [96] and [100] and particularly the entire lack of cremated bone larger than 6.70mm within cremations [96] and [100] indicated that these cremations have been disturbed. The more substantial amount of larger bone fragments within the ≥6.70mm

fraction of burials [19], [21] and [63] indicated that these cremations have been much less disturbed.

No pathology or sexually dimorphic traits were observed on the remains.

No further work is recommended on any of the cremations.

A summary of the assessment results should be included in any publication of the remains.

**Bibliography**

Holden, S. 2008 *Stratford City Development: A Brief History of Time.* Pre-Construct Archaeology unpublished report.

McKinley, J.I. 1994 Bone fragment size in British cremation burials and its implications for pyre technology and ritual *Journal of Archaeological Science* Vol. 21 P339-342

McKinley, J.I. 1993 Bone fragment size and weights of bone from modern British cremations and the implications for the interpretation of archaeological cremations. *International Journal of Osteoarchaeology,* Vol. 3 P283-287

# APPENDIX 4: GEOARCHAEOLOGICAL ASSESSMENT

By Mary Ruddy and Graham Spurr

**Summary**

The site lies on an area of high ground within the floodplain of the Lea. The palaeotopographic map has been built up by interpreting the landscape types within the valley from borehole records and archaeological investigations from work on the Lea Valley Mapping Project and the Olympics. The model shows the cold store area lies at the edge of the low terrace: a higher, drier tract of land within the floodplain. The Lea flowed along further to the west and to the east the valley rises up the gravel terrace.

The palaeoenvironmental assessment consisted of plant macrofossil assessment of bulk samples and loss on ignition (LOI) and pollen assessments from monolith samples. These were coupled with radiometric dating of cremations and Optically Stimulated Luminescence (OSL) dating of selected sediments.

The OSL dating and LOI established that the low terrace is of great antiquity and was subject to long periods of erosion and weathering. The radiometric dating of the cremations indicates that the western area of the low terrace remained open until alluvium began to accumulate by the later prehistoric / early historic period.

Unfortunately, plant macrofossil remains from the bulk samples and the pollen from the monoliths were generally poorly preserved and proffered little information or potential. However, tying the stratigraphic information from SZD08 into the information recovered from the surrounding area which, when linked to historic map evidence and dating will contribute to our wider understanding of the evolving river regime of the Lower Lea.

# 1 INTRODUCTION TO THE GEOARCHAEOLOGY

## 1.1 Aims and objectives

The aim of a geoarchaeological assessment is to provide sufficient information to determine whether the sediments sampled are of enough value to warrant further, more detailed, archaeological or palaeoenvironmental investigation.

Data obtained from the monolith and bulk samples will relate to the date of the deposits, the sediment characteristics and the conditions under which they accumulated, the preservation of microfossil and macrofossil remains and the identification of any trends within the profile.

The value of this data will be assessed in terms of their potential to address archaeologically driven research questions. These are most likely to be concerned with the reconstruction of the changing landscape and ecology in this area during the Pleistocene and Holocene, landscape evolution and human impact on the landscape.

## 1.2 Geoarchaeological background (see glossary for highlighted terms)

The modern river Lea and its tributaries are canalised, modified and culverted in places and this disguises the fact that these rivers were major topographic landscape features in the past.

Current BGS mapping records river **alluvium** covering the area, with **Leyton Gravels** at roughly 0 to 5m above ordnance datum (OD) and **Leytonstone Gravels**, outcropping on the eastern valley side at +10m OD or more (Gibbard, 1994). The terraces are defined by their height OD and are correlated to well-studied **Kempton Park** and **Taplow** gravel terraces of the Thames. These deposits belong to the **Devensian** (**Marine Isotope Stage** (MIS) 5-2, dating to c 115 – 23 thousand years ago [ka BP]) and 'Wolstonian'/Saalian glaciation (MIS6, c 150 ka BP) respectively.

Although Palaeolithic implements have not been found from within the Olympics area, some *in situ* finds are known from the Leytonstone Gravels near Palmers Green and in Edmonton, Tottenham Hale and Enfield in overlying Enfield Silts (often called 'brickearths') (Burton *et al*, 2004). Leyton/Kempton Park Gravels are unlikely to yield contemporary artefacts as humans were apparently absent from Britain during this period, that is the last interglacial period MIS 5e fauna (Stringer, 2006), but may

contain earlier, re-worked finds. The term Lea Valley Gravel comprises that of the present floodplain and the Low Terrace, deposited during the Late Devensian.

Regardless of the present state of archaeological discoveries, the Lea Valley sequence deserves detailed investigation. The terraces in the Middle and Lower Thames have been interpreted in the context of the last five climate cycles recognized in marine cores (numbered MIS 12 to 2) on the basis of faunal and archaeological evidence (Bridgland, 1994). However, beyond the BGS mapping and Gibbard's work (1994), little is known about the Lea Valley terraces. The terrestrial sequence is complex and fragmentary and terraces have been named and dated on the basis of their height above sea level and equivalents to the Thames sequence drawn. As outlined by Gibbard (1994, p109) 'it is clearly of considerable importance to establish the relationship of the Lea Valley gravel units to those of the Thames for purposes of establishing the contemporary environment and possible dating'.

Evidence of full glacial conditions have been discovered within the Lea valley further to the north and would offer a means of correlation should similar deposits be found at other locations. Full-glacial plant assemblages called the Lea Valley Arctic Beds, first identified by Warren (1912), relate to the cold period before the Last Glacial Maximum and are known from a number of sites in the area including Ponder's End and the former Lea Valley cycle circuit 200m to the north of SZD08 (Gibbard, 1994). These are described as 'clays and sands (usually laminated) with layers of matted twigs and leaves, but not including any true peat' (Warren 1912). Arctic Bed deposits were also found by Warren at Temple Mills and Hackney Wick (Warren, 1915). Arctic beds are though to be extensive beneath a 'Low Terrace' on the western side of the Lea 1-2m above the modern floodplain, possibly within a buried channel cut through the terrace.

Mapping of the low terrace has continued with funding from Aggregates Levy Sustainability Fund (the Lea Valley Mapping Project [LVMP]) and through the work on the Olympics site. The low terrace runs along the east edge of the valley from Stratford to Temple Mills, and is now buried by alluvial clays deposited from the late prehistoric right up until the post medieval period. During prehistory (Mesolithic to Bronze Age) this feature would have been dry land, prominent within the floodplain in close proximity to the resources of the Lea, and is known as an area of high archaeological potential for these periods. Several sites record prehistoric activity on the low terrace attesting to a thriving Bronze Age community in the area. To the south lies the Stratford Box site (SBX00) (WA, 2002) notable for the evidence of Bronze Age cut features, a late Iron Age wood chipped surface (dated to 380-160

BC), Saxon revetments and palaeochannel deposits, while Bronze Age occupation including a ring-ditch, pits, post-holes and various fencing alignments was recorded on the east bank of the Lea at Oliver Close (PEM, 1992; PCA, 2001). Recently struck flakes were excavated from a relict land surface nearby at the DLR platform development (SZA07) (Johnson and Nicholls, in prep). Further south at the Warton Road (OL-00305) and at the Carpenters Road site (OL-00105) (Halsey and Hawkins, 2007) prehistoric and Roman cut features were excavated. A watching brief carried out at the Channelsea culvert (GNF06) to the north of the station identified possible Iron Age willow tip fence or revetment stakes as well as elm drains and timber associated with reclamation, modification of the river and railway construction (Eastbury and Nicholls, 2007). As well as the projected line of the London to Colchester Roman road and Medieval roads that cross the area, both the Lea and the Channelsea provided navigable waterways as well as defensive features for much of the prehistoric and historic periods.

# 2 THE EVALUATION

## 2.1 Methodology

### 2.1.1 On site

Each trench in the evaluation was monitored by a MOLA geoarchaeologist and sediments logged on site according to standard practice (Jones et al, 1999). This characterises each deposit by colour, compaction, texture, structure, bedding, inclusions, clast-size and dip. The depths and nature of the interfaces were also recorded. Lithostratigraphic units of common formation processes noted in each trench were grouped as **facies** and deposits correlated. This enabled basic reconstruction of the depositional environments across site (laterally) and through time (at depth).

Furthermore, monolith and bulk samples were taken from selected trenches. Each monolith tin was placed vertically into the side of a section exposed during the excavation to retrieve continuous stratigraphic samples. The number of tins used was dependent upon the depth and/or significance of the stratigraphic sequence and the suitability of the stratigraphy for sampling. The monolith tins were then sealed and together with the bulk samples were transported to the MoLAS Environmental laboratories for assessment.

### 2.1.2 Off site

The following procedures were carried out on each sample taken, as appropriate.

Sediments sampled in the monolith tins were recorded in the laboratory and subsamples were taken for further assessment. All the monolith samples were described using standard sedimentary criteria (relating to colour, compaction, texture, structure, bedding, inclusions, and clast-size) and the nature of the contacts between adjacent distinct units was noted.

Sub-samples for pollen assessment were taken at selected locations within key sedimentary units. The aim of assessment was to determine the preservation, presence, abundance and diversity of pollen grains within the profile; and their potential to identify differences and trends, particularly in terms of changes in the on-site and regional vegetation and its relationship to the depositional environment.

The bulk samples were processed for plant macrofossils in order to evaluate the botanical potential for revealing different environments across the site both spatially and chronologically.

Dating was carried out on both sediments sampled in the field and upon cremated human bone. Sub-samples were taken in the field from sedimentary deposits for Optically Stimulated Luminescence (OSL) dating by Dr. Phil Toms at the University of Gloucester. The two cremation samples were dated by accelerator mass spectrometry AMS, carried out by the Scottish Universities Environmental Research Centre (SUERC).

The results of the different types of assessment outlined above have been drawn together in this geoarchaeological evaluation section. This has produced an outline of the development of the site and an assessment of its potential for further archaeological and palaeoenvironmental investigation.

## 2.2 Results of the evaluation

### 2.2.1 The sediment sequence

Tables showing the lithostratigraphy for each trench are presented in Appendix 1. A site wide facies attribution is outlined in the table below (Table 1).

| Facies number | Interpretation | Height of top of facies (m OD) | Trenches observed |
|---|---|---|---|
| **Facies 9** | made ground | 5.5 to 6.0 | All |

| Facies number | Interpretation | Height of top of facies (m OD) | Trenches observed |
|---|---|---|---|
| **Facies 8** | 19th century archaeology | 5.4 | 23 |
| **Facies 7** | post medieval soil / plough soil / landsurface | 3.3 to 3.7 | 2, 3, 5, 6, 7, 8, 9, 10, 11, 12 |
| **Facies 6** | Sandy clay with weathering and rooting (Mn and Fe) (post medieval subsoil) | 2.96 to 3.3 | 2, 3, 5, 7, 9 |
| **Facies 5** | Alluvium, often gleyed (historic overbank flood deposits) | 2.74 to 3.0 | 1, 2, 6 |
| **Facies 4** | Plastic silty clays, often gritty, sandy and sterile in appearance ('brickearth'-like) alluvial/fluvial deposits from channel belt of the former Lea. Prehistoric land surface 'hidden' within this facies. Bronze Age cremations cut into prehistoric land surface. | 2.59 to 2.86 | 1, 2, 3, 5, 6, 7, 8, 9, 10, 12, 19 |
| **Facies 3** | Weathered and sterile ('brickearth'-like) sandy sometimes clay silt. Lateglacial or possibly Early Holocene (prior to early Holocene down-cutting) fluvial sediments deposited within a channel belt of the former Lea. | 2.1 to 2.87 | 2, 3, 5, 6, 8, 9, 10, 11, 12 |
| **Facies 2** | Soliflucted silts and clays probably dating to an Early Devensian cold sub-stage | 5.21 | 23 |
| **Facies 1** | Channel sands of Early Devensian interstadial (warmer or temperate within mainly cold-stage around MIS4 - MIS5 transition) | 4.71 | 22, 23 |
| **Facies 0** | Terrace gravel (Early-Devensian to Lateglacial) | from 2.8 to 4.5 | All |

Table 1: Across site facies attributions and interpretations

#### 2.2.1.1 Trench 1

In trench 1, a weathered coarse-grained alluvium or brickearth-like deposit (facies 4) probably building up in the late Holocene (prehistoric and Roman period onwards), overlies gravel (facies 0) at +2.24m OD. The brickearth/alluvium is overlain by silt clay with gravelly sand (facies 5) and modern made ground.

#### 2.2.1.2 Trench 2

Gravels (at approximately +2.87m OD) were overlain by layers of mixed gravelly clay and gravelly silt fining up from the terrace (facies 3). Moving along the trench from north east to southwest, a firm, dark orange brown silt clay brickearth [70] with heavily iron-stained root casts (facies 3 / 4) disappears and an (overlying) plastic gleyed alluvial silt clay [103] with manganese (Mn) emerges (facies 5). A post medieval plough soil [119] overlay both over length of trench (with underlying subsoil/gleysol [102]) (facies 6 and 7).

#### 2.2.1.3 Trench 3

Trench 3 showed a sand/brickearth sequence over gravels [024] capped by the post medieval soil. Two Post Medieval ditches were found and a Bronze Age cremation [28] and [29]. The gravel surface (facies 0) was at +1.84m OD buried by sandy clay [025], probably fluvial flood basin sheet sands (facies 3). This is overlain by a massive and weathered, mottled gritty silty clay, thought to be a late Devensian or early Holocene alluvium [002] (facies 4). The cremation was found cut into this deposit from the excavated step (+2.64m OD), was probably cut from slightly higher up, and it appears to have been sealed by the brickearth-like material [002]. A weathered sandy clay (facies 6) and dark brown silty clayey loam (facies 7) overlie [002].

#### 2.2.1.4 Trench 4

Trench 4 was recorded by PCA field archaeologists. The earliest deposits were loose, mid grey naturally deposited gravels [87] which were overlain by light orange grey silty sand [86]. The silty sand was covered by dark grey sandy gravels [85] which were overlain by further naturally deposited mottled mid grey-brown silty sands and gravels [84], patches of loose mid yellow natural sand and gravels [49] and finally by patches of firm, mid yellow-orange weathered brickearth [50].

Cutting the weathered brickearth [50] was a shallow channel [45] which had been carved out by natural processes and was filled with a mixture of firm mid blue-grey clay and sand [44]. The channel was sealed beneath loose, black 19$^{th}$ century made ground [48].

#### 2.2.1.5 Trench 5

Loose to moderate brown and orange coarse sand and fine gravel [136] was recorded below approximately +2m OD. Medium fine horizontal bedding was noted and a clear upper boundary with a soft mid-brown clayey silt [139]. This measured approximately 0.20m thick and coarsened upwards into a moderate soft plastic mid-greyish brown silt clay/clay silt with detrital wood fragments [134]. Small snails (possibly terrestrial) appeared common to abundant in this context and iron-stained root casts. Assessment of plant remains indicated poor preservation (sample <11> taken at approximately +2.5m OD) but occasional fruit/seeds were noted [135], from material described as a moderate mixed and mottled orange gritty sandy clay/silt, which may have eroded across [134]. The sediments of these three contexts overlying terrace gravels are interpreted as fairly sterile (organic-poor), weathered alluvium (facies 2 and 3), forming within a channel belt of the former Lea.

The Post Medieval land surface and subsoil ([132] and [133]) covered all underlying deposits, and were described as a moderate mid brown grey 'dirty' slightly gritty silty clay with abundant red/brown mottling and charcoal. At c 2.2m thick, modern made ground [131] overlay the sequence. A straight-edged ditch feature was identified and sampled <12>, cut from the post medieval soil. The sample yielded mainly fragments of wood and snails, with moderate seeds or fruit.

#### 2.2.1.6 Trenches 6 and 7

Trenches 6 and 7 were adjoining. The sequence in Trench 6 was made ground [56] over ploughsoil [120] over gleyed alluvium [57] over 'brickearth' [77], [78], [79] [80] and coarse sandy gravel [81] at about +2.2m to 2.3m OD. These can be interpreted as the following: (facies 0) Devensian (low terrace) river gravels [81] rising towards the west overlain by fluvial and alluvial channel belt (facies 3) clayey silt [80] and the Mn-rich sandy silt, blue grey clayey silt and silty clay with sand (facies 4) [77], [78], [79]. The heavy mottling of context [79] may indicate a period of stabilisation and weathering. This may be equivalent to the possible land surface in trench 8. Over these lay gleyed alluvium and soft, dark blue grey silt clay, heavily mottled with small Mn speckles [57] and [56] (facies 5). A clear/sharp boundary separates the facies 5 alluvium from the post medieval subsoil and plough soil (facies 6 and 7), which were described as soft wet plastic very dark gritty brownish black clay and silt with organic/wood inclusions.

In trench 7, features cut into the 'weathered alluvium' [60] (facies 4) (moderate soft plastic yellow orange silt clay with gritty orange concretions heavily mottled) include a ditch [72] and [71] and a probably Bronze Age cremation [64] and [63] equivalent to those in Trench 8. The weathered alluvium is directly overlain by post medieval soil (facies 6 and 7) [62] moderate soft, plastic, dirty grey brown silty clay with occasional gritty texture and [116] (moderate slightly friable mid grey brown silty clay with some sand/grit, occasional small flint clasts and flecks of CBM and charcoal).

#### 2.2.1.7 Trench 8

The sequence in Trench 8 from the gravels to the post medieval deposits was sampled by monolith and associated bulks. Two small Bronze Age cremations were excavated and the entire fills were sampled from this trench. The land surface horizon or soil from which these features were cut was not clearly visible in section, due to weathering within the sandy profile.

The gravel, surface recorded at approximately +2.3m OD [149] (facies 0), is overlain by bedded silts and sands becoming massive [046] (facies 3). These were probably deposited in a channel in shallow water. A soft, massive very sandy silt clay (facies 4) 'weathered alluvium' [008] is overlain by [160] a soft moderate 'dirty' yellow brown very sandy silty clay or clayey sand heavily mottled black with Manganese. This may be a facies 4 type deposit, but is probably indistinguishable or overprinted by the post medieval subsoil (facies 6). The cremations appeared to be cut from this layer. The overlying (015) soft dark orange brown silt clay loam with grit/sand and recent inclusions mottled black and red is probably a soil (facies 7). Nearly 2.5m of made ground (facies 9) [007] comprising black silt/clay with abundant modern inclusions overlies the soil (from approximately +3.41m to 5.89m OD). The three monoliths <17>, <18> and <19> were taken through this sequence from gravels to the post medieval soil. These were taken with a view to further interpret the depositional environments on site and the timing of events. The monolith sample sequence from trench 8, is listed below.:

| **Elevation and thickness of unit** | **Trench 8 Monolith Sample sequence: [17][18] & [19] Sedimentary description** | **Context /Facies** | **Microfossil subsamples** |
|---|---|---|---|
| +3.41mOD to+3.28mOD | Dark grey to black silt with slight fine sand element. Occasional charcoal and brick fragments. Contact with the unit below is clear and horizontal. | 015/7 | LOI: 3.41;3.37;3.33 & 3.29mOD<br>Pollen 3.37mOD |
| +3.28mOD to +3.12mOD | Greenish grey silty clay with ironstaining and possible fine root channels. Contact with the unit below is clear and horizontal. | 015/7 | LOI: 3.25 & 3.21mOD<br>Pollen: 3.25mOD |
| +3.12mOD to +2.58mOD | Dark orange, iron stained fine sandy silt with possible laminations. Contact with the unit below is graded. | 008 & 160/4 | LOI: 3.17;3.13;3.09;3.05; 3.01;2.96;2.92;2.88; 2.84;2.8;2.76;2.72;2.68; 2.64; & 2.6mOD<br>Pollen 3.13; 3;3;2.88;2.76 & 2.64mOD |
| +2.58mOD to +2.44mOD | Dark orange mottled with discrete patches of dark brown sandy clay with calcium carbonate element. Contact with the unit below is graded. | 046/3 | LOI: 2.56;2.52;2.48 & 2.44mOD<br>Pollen 2.56 & 2.44mOD |
| +2.44mOD to +2.27mOD | Banded dark orange bands of sand and clay. | 046/3 | LOI: 2.4;2.36;2.32 & 2.28mOD<br>Pollen 2.4 & 2.28mOD |

Table 2: Monolith sequence with subsample locations, trench 8.

#### 2.2.1.8 Trench 9

In trench 9 the gravel surface [017] lay at c +2.75m OD and was overlain by finely bedded (with wavy sub-horizontal ripple beds) alternating clays and sands generally fining up upward (facies 3) [018] likely to have been deposited in a shallow channel. This in turn was overlain by a very coarse sandy silty clay (facies 4, [016]). Over this a light grey and orange patchy silty, clayey coarse sand [006] comprised the weathered upper horizon of the silty clay below, thought to form the post medieval subsoil (facies 6). The post medieval ploughsoil, a friable dark reddish brown and grey very sandy silt loam with CBM, was recorded at about 0.30m thick (facies 7 [023]).

#### 2.2.1.9 Trench 10

Trench 10 was right next to trench 5. The sequence comprised gravels (at about +1.95m OD) (facies 0 [091]), coarse and fine sands and silts (parallel fine-bedded approximately 10-30mm thick) (facies 3 [089] and [090]); massive fine 'sticky' sandy silt (facies 4 [088]) interpreted as coarse, weathered alluvium; and post medieval soil (dark brown silt clay with occasional gravel, charcoal and CBM) capped by made ground (facies 9 [073]).

#### 2.2.1.10 Trench 11

Trench 11 The sequence was as follows: loose yellow gravel in clayey sandy matrix [53] (facies 0) at approximately +2.77m OD, overlain by a soft grey clay silt with occasional post medieval brick fragments [52] (facies 7) to a height of +3.26m OD. Made ground (facies 9) approximately 2.3m thick capped the profile.

#### 2.2.1.11 Trench 12

Gravels at the base of the sequence (facies 0) [126] and [127] (at approximately +2.81m OD) fine up into soft friable yellow grey silty sand [126], representing very weathered fluvial silts and sands (facies 2) or the interface between facies 0 and facies 2. This was followed by a moderate slightly friable orange very coarse sandy clay mottled orange with bright orange-stained root casts [123] a very weathered coarse alluvium (facies 4). This was overlain by a firm mid dark brown grey mottled black with Mn and clinker, flint, CBM flecks [122], possibly the fill of a feature and a loose dark orange brown sand of ash, concrete, clinker and brick [121] (facies 9). Context [122] was noted to be an uneven silt loam layer filling features. It had quite an organic content but may not be a ploughsoil.

#### 2.2.1.12 Trench 13

In trench 13 gravels [066] (at approximately +2.59m OD) were overlain by modern made ground [65] loose dark orange brown sand with ash, concrete, clinker and brick with dinner plates and bottles.

#### 2.2.1.13 Trench 14

Trench 14 had made ground [108] (facies 9) over clay and gravel [109] / [128] (facies 7), over firm blue grey black flecked silt clay becoming moderate and orange in colour [110] (facies 4). This overlay a moderatly soft, orange brown very sandy clay or clay sand with vertical root channels [111] (facies 3), which in turn overlay sand and gravel [112] (facies 0) at approximately +3.1m OD. A matrix-supported gravel lag that might be a possible historic flood deposit was noted in the west end of the trench within firm and slightly friable silt clay. Flecks of CBM and burnt clay were noted.

#### 2.2.1.14 Trench 17

Coarse angular to sub angular clast supported sandy gravel at +4.22m OD represents the Early Devensian (Kempton Park) river terrace gravels (facies 0 [165]). These were probably truncated and covered by made ground (facies 9) to approximately +5.22m OD.

#### 2.2.1.15 Trench 19

Gravels [163] (facies 0) at approximately +3.83m OD was overlain by [162] moderate soft very patchy blue, orange and grey very sandy clay with occasional to frequent, poorly sorted, unevenly distributed flint gravel (facies 2).

#### 2.2.1.16 Trenches 20 and 21

As with trench 17, trenches 20 and 21 displayed coarse angular to sub angular clast supported sandy gravel (facies 0, [130], approximately +4.67m OD) probably truncated by modern made ground consisting of a black silt with ash and abundant modern inclusions (facies 9, [129]).

#### 2.2.1.17 Trench 23 (plus Trenches 22 and 24)

On the east side of the trench, river terrace gravels were visible between the masonry of the 19$^{th}$ century Great Eastern Railway engine sheds (at ca. +5.3m OD), whereas on the west and central part of the trench gravel lay buried beneath sandy channel deposits at a level of approximately +3.8m OD.

Gravels are clast-supported medium and large flint in a coarse sand matrix, with thick bedding noted. On the basis of their height they are interpreted as gravels of the Leyton Member. The thick sand body overlying gravels in the middle of the trench is thought to have represented a channel, apparently running along the braid- or floodplain (now the terrace), cutting through the gravel body. Planar or horizontal bedding was observed within the sands with clear light grey silt-rich bands, traceable along both north-south and east-west sections.

The upper horizon of the sand body was disturbed and weathered with no structure. This represented post-depositional bio- and possibly cryoturbation. At the north end of the trench, the sediment was clearly deformed by cryoturbation. Stiff, massive silt clay overlay the sands with a sharp or clear contact separating the two. The clay may have been deposited by solifluction or colluviation down the valley side onto soft sediment on the braidplain, causing or adding to deformation. The weathering, compaction colour and minerogenic nature of the clay suggests deposition under sparsely vegetated, cold, tundra conditions, probably during a periglacial phase of the Devensian (after 72 ka BP).

The sharp contact suggests erosion took place before clay deposition. It is therefore unclear whether sand bed deformation took place before erosion and colluviation or by the weight of the sediments themselves. It is likely that the sands were deposited within a channel bedload, and became eroded on exposure as water levels dropped (with down-cutting) then deformed (perhaps by loading of removed sediment body) before more erosion and the deposition of the soliflucted sediments. This would be if it was deformed by the colluviated sediments, where the contact would be undulating and not flat.

## 2.2.2 Deposit modelling

### 2.2.2.1 Introduction and methodology

The sediment constituents of each trench have been entered into a stratigraphic database (Rockworks 2006). The modeling has created a pre-Holocene surface which approximates to the landscape topography at the start of the Holocene (Mesolithic), upon which the alluvial/colluvial deposition subsequently took place. This has been overlain upon a modern street map to assist location finding. Examination of the pre-Holocene topography enables ‘highs’ and ‘lows’ to be identified within the floodplain that may indicate where islands, promontories, palaeochannels and so on may have existed, which would have been attractive to prehistoric people and may therefore have archaeological potential. It also helps identify possible hollows where pools, lakes, bogs and so on could have existed (which would have palaeo-

environmental potential). In addition, it helps to consider the implications of the more irregular landsurface that existed prior to the levelling-up of the landscape by the accumulation of alluvium and colluvium during the Holocene. Results for trench 17 were not included as this area is known to have been truncated in recent history.

#### 2.2.2.2 Results and discussion

The results of the topographic modelling have been portrayed in (Fig ). The modelling of the pre-Holocene surface clearly shows an upward slope (SW to NW / W) from the valley at about 2mOD to the terrace at approximately 4mOD. This underscores the difficulty in defining the lower terrace area which would have been 'smoothed out' over the long period of its existence through both hillwash / down slope aggradation of material and the interplay of the river with its flood deposits and erosional events affecting the lower areas through time. The dating of the sediments in Trench 23 should help to bring some definition to the extent of the low terrace in this area.

Certainly, Trenches 3, 5, 6-10 on the lower ground would have been close to the river and clearly would have been exposed to the rising water levels and subsequent flooding events in the Holocene earlier than the other trenches. This is evident in the trench logs with, for example, Trench 10 with its 'sticky' sandy silts (facies 4/5, [88]) beginning to accumulate at about 2.5mOD. The dating of the cremations in Trench 8 should help to shed some light on the timing of the inundation of the low terrace here, thought to be post Bronze Age.

At the other extreme, trenches 11-13 and 19 in particular would have been high and dry for the majority of the Holocene. The middle area depression (around Trenches 1 and 2) however indicates that either a tributary was picked up here running off the higher ground (perhaps to the north of trench 19) or a hollow in the landscape formed through Pleistocene erosion on the low terrace. The trench 2 log certainly indicates this area to have been low lying and poorly drained, probably in the late prehistoric / historic period.

Overall the nature of the topography at the start of the Holocene, as represented in the topographic modelling, is very much characteristic of a broad low terrace identified elsewhere along the western flank of the Lea (Burton et al, 2004) where Pleistocene and Holocene deposits interface and, prior to inundation in the late prehistoric, an area of intensive occupation.

### 2.2.3 Loss on ignition

#### 2.2.3.1 Introduction

The total organic carbon and calcium carbonate content (CaCO3) of the sediment was measured by the routine palaeoecological technique of Loss on Ignition (L.O.I.). This was undertaken in the MoLA Environmental Laboratories. The preparation of the samples was made following the method below (from Gale and Hoare, 1991 p. 263-4). This combination of tests can provide indications of possible occupation surfaces and/or palaeosol development and provide an invaluable tool in the determination of archaeological potential as well as complementing other analyses such as lithostratigraphy and pollen.

#### 2.2.3.2 Methodology

Twelve subsamples were taken throughout the monoliths for loss on ignition assessment. Each subsample was pulverised with a pestle and mortar and put into a crucible of a known weight that was then weighed again to determine the weight of the sample. The samples were then dried in an oven at 40 Celsius and reweighed. The heating took place in two phases: the initial heating was for 4 hours at 550 Celsius, after which they were weighed to determine the loss on ignition of the organic content, then 2 hours at 1100 Celsius after which they were weighed to determine the loss on ignition of the CaCO3 content.

#### 2.2.3.3 Results

The loss on ignition results for trench 8 show largely parallel readings for both organics and calcium carbonates. In general the wavy shape of the graph in Figure indicates how the sediments have built up probably through flood deposits and accretionary soil development but also how leaching and bioturbation of material through the predominantly sandy clays has brought the CaCO3 in particular downward through the profile.

The highest results for organic material are at the top of the sequence in facies 7 (3.3mOD) which, when coupled with a subsequent rise in calcium carbonates (at 3.28mOD) seems to substantiate the possibility of pedogenisis (soil development) but it should also be borne in mind that more anthropogenic material (like flecks of charcoal) was seen in section at this level which will have affected the results. This is of course in context [015] which had post medieval material in it and therefore is likely to have developed during or just prior to this period. Interestingly, further down the profile, a peak of organic content followed by a relatively high CaCO3 reading

(2.76/2.72mOD) could also be suggestive of a possible period of stabilisation / soil development as considered in the field observations in Facies 4, contexts 008 and 016 with which the BA cremations are associated.

The highest reading for calcium carbonates was found near the base of the profile at 2.44mOD in facies 3. This reading is indicative of the cumulative effects of leaching throughout the profile with CaCO3 (and organics to some degree) finally peaking at these levels, probably because of the relatively impermeable clays of the lower part of facies 3 below.

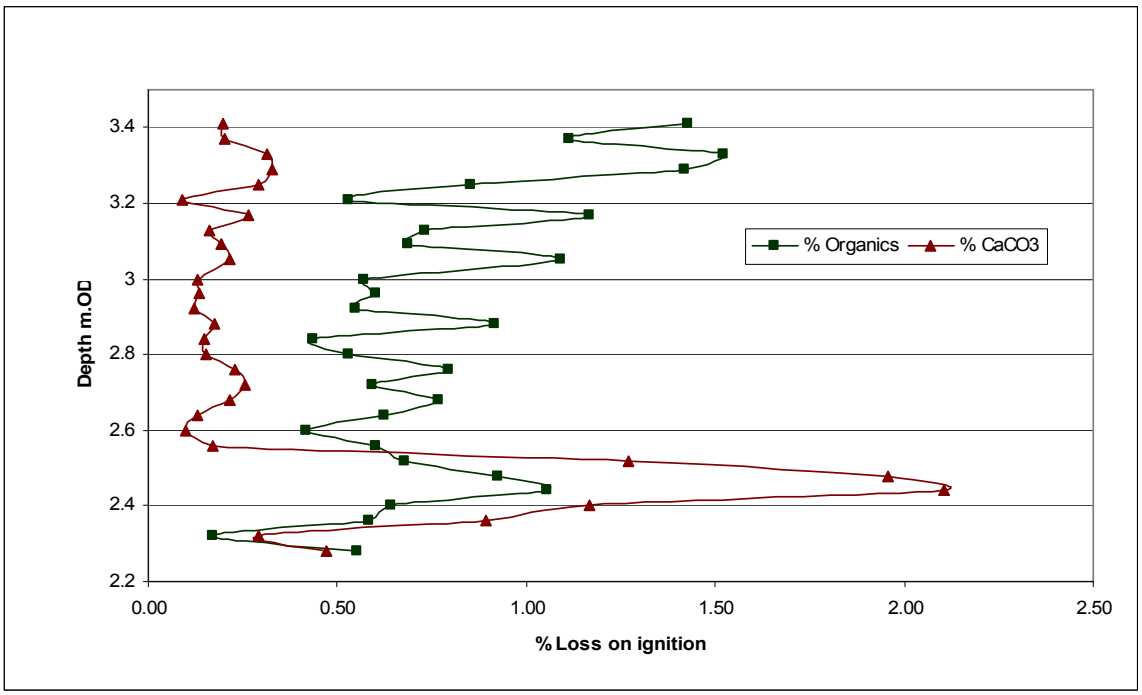



**Figure 8: Graph of loss on ignition results from trench 8.**

### 2.2.3.4 Conclusion & Recommendations

Overall, the LOI results indicate a leached profile of accretionary deposits. It is likely that microfossil assessment such as pollen and diatom analysis would be heavily compromised by the leaching process. As a consequence, there is little potential for further chemical (or biological) sedimentary analysis of these sediments although perhaps soil micro morphological analysis might shed light on the possible pedogenisis / periods of stabilisation episodes highlighted through LOI, particularly associated with the Bronze Age cremation layers.

## 2.2.4 Plant macrofossils

### 2.2.4.1 Introduction and methodology

During excavations at SZD08, environmental bulk soil samples were collected for the potential recovery of macro-biological remains, for information on the character of the local environment and possible evidence of human activities in the area. The aim of the evaluation was to establish the presence and/or absence of biological remains and whether a full assessment of any materials within the samples should be carried out.

In total fourteen bulk samples was processed and evaluated, with each sample being twenty litres in size with the exception of those taken from trench 23 which were ten litres. Samples three to twelve derived from archaeological features, such as the fills of a prehistoric post pipe, a 16th century ditch, of two unknown features and from an undated layer. Samples 13 to 16 were taken to accompany the monolith samples from trench 8. Samples 20 to 24 were taken from trench 23. Each sample was sub sampled, with half the total sample being processed and half retained. The processing of samples 3 to 16 involved eight litres floated onto a 0.25mm sieve and the residue wet-sieved through a 0.5mm mesh in order that plant and insect remains could be recovered. The remaining two litres were wet sieved separately, through a 0.25mm mesh for the potential recovery of molluscs and ostracods. Samples 20 to 24 involved four litres floated onto a 0.25mm sieve and the residue wet-sieved through a 0.5mm mesh in order that plant and insect remains could be recovered. The remaining one litre was wet sieved separately, through a 0.25mm mesh for the potential recovery of molluscs and ostracods. It should be noted that all fractions could contain all these and other biological remains and/or artefactual remains. The flots that contained organic material were stored wet to prevent possible deterioration. The >0.5mm wet-sieved fractions were dried and sorted. The residue from the >0.25mm wet-sieving was dried but not sorted.

A visual examination of part of the flots and all of the >0.5mm residues was then carried out to establish the potential for the survival of different forms of biological and artefactual evidence. Small fractions of the wet flots were scanned using a binocular microscope although this does not class as a detailed assessment and thus only general comments can be made on item frequency and species diversity.

### 2.2.4.2 Results

A full summary of the results is presented in

Table 3. Only two samples produced artefacts. These included one from the ditch fill samples from sample <5> (context [67]) and the bulk taken to accompany the monolith <17>, - <13>, [15]. These artefacts included occasional fragments of CBM, clay pipe, clinker and glass.

Two samples (<11> [135] and <12> [157]) produced organic plant remains, however most of this material consisted of varying amounts of fragmented wood and plant stems.

One flot from sample <5> (context [67]) produced occasional flecks and very small fragments of charcoal. Identifiable fruits and seeds were present in three samples with moderate quantities present in sample <12> (context [157]) and low quantities in the remaining two samples (<5> and <11>).

Samples 3, 10, 14 to 24 were found to be sterile.

| Sample | Context | Soil Proc (l) ≥0.5 | Soil Proc (l) ≥0.25 | Soil Retained (l) | Flot Vol (ml) | Wood/roots | Seeds/ Fruit | Mammal | Insects | Molluscs | Finds | Environ. Potential |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | 28 | 8 | 2 | 10 | 0 | | | | | | | **Sterile** |
| 5 | 67 | 8 | 2 | 10 | 60 | ChdWd frag + | + | | | | Clinker + CBM + | **Poor** |
| 10 | 138 | 8 | 2 | 10 | | | | | | | | **Sterile** |
| 11 | 135 | | | | 20 | Wood frags + Roots +++ | + | | Beetle + | Ter? + | | **Poor** |
| 12 | 157 | 8 | 2 | 10 | 130 | Wood frags + Roots +++ | ++ | | Beetle + | Frags + | | **Moderate** for **seeds** |
| 13 | 15 | 8 | 2 | 10 | 0 | | | | | | Clinker + CBM + | **Sterile** |
| 14 | 160 | 8 | 2 | 10 | 0 | | | | | | | **Sterile** |
| 15 | 8 | 8 | 2 | 10 | 0 | | | | | | | **Sterile** |
| 16 | 46 | 8 | 2 | 10 | 0 | | | | | | | **Sterile** |
| 20 | 187 | 4 | 1 | 5 | 0 | | | | | | | **Sterile** |
| 21 | 187 | 4 | 1 | 5 | 0 | | | | | | | **Sterile** |
| 22 | 224 | 4 | 1 | 5 | 0 | | | | | | | **Sterile** |
| 23 | 186 | 4 | 1 | 5 | 0 | | | | | | | **Sterile** |
| 24 | 190 | 4 | 1 | 5 | 0 | | | | | | | **Sterile** |

Table 3: Plant macrofossil remains in environmental bulk samples.

#### 2.2.4.3 Insect remains

Two samples produced insect remains, but only in low numbers.

#### 2.2.4.4 Molluscs

Samples: <11> (context [135]) and <12> (context [157]) produced low numbers of molluscs

#### 2.2.4.5 Faunal remains

No faunal remains were observed in the residues.

#### 2.2.4.6 Recommendations

On the basis of this evaluation it is recommended that a detailed assessment be carried out on the plant and insect remains from the productive samples: sample <12> (context [157]). Given the small number of samples coupled with the small size of the flots from samples <5> (context [67]) and <11> (context [135]), it would also be worth assessing the seeds from these samples. The presence of both plant and insect remains in these samples shows that there is good potential for recovering information on the character of the local environment. This information coupled with the environmental remains from other sites in the area may make a valuable contribution towards a wider landscape reconstruction.

### 2.2.5 Pollen

#### 2.2.5.1 Introduction

A pollen assessment was carried out on a series of deposits from monolith samples <17>, <18> and <19> from Trench 8, SZD08. The subsamples were taken from contexts and facies listed in the table below.

The aim of the pollen assessment is to investigate to what extent and state of preservation pollen is preserved, the nature of the pollen and the environments it represents, and whether there is any potential for further pollen analytical work.

#### 2.2.5.2 Methods

The samples were prepared using standard pollen extraction techniques by Robyn Christie of Royal Holloway, University of London.

Preparation of samples of 2ml. volume were prepared using standard pollen extraction procedures (Moore and Webb 1978; Moore *et al.* 1991) with the addition of micromesh sieving (10u) for removal of fine/clay deposits in the alluvial sediments. Chemical techniques involved: KOH deflocculation; sieving at 150u for removal of coarse debris; 10u sieving as noted; hydrofluoric acid for digestion of silica and

Erdtman's acetolysis for removal of cellulose (Erdtman, 1960). The concentrated pollen was stained with safranin and mounted in silicon oil.

The slides were scanned at 400x magnification and pollen recorded. Pollen identifications were made using Moore, Webb and Collinson (1991).

#### 2.2.5.3 Results

The results of the pollen assessment are summarised in Table 4.

| Sample | OD height (m) | Facies / Context | *Pollen Taxa & Spores* | Concentration | Quality of preservation |
|---|---|---|---|---|---|
| P1 | 3.37 | 7/015 | None | - | - |
| P2 | 3.25 | 7/015 | None | - | - |
| P3 | 3.13 | 4/008 & 160 | None | - | - |
| P4 | 3.01 | 4/008 & 160 | None | - | - |
| P5 | 3.00 | 4/008 & 160 | None | - | - |
| P6 | 2.88 | 4/008 & 160 | None | - | - |
| P9 | 2.76 | 3/046 | None | - | - |
| P10 | 2.64 | 3/046 | None | - | - |
| P11 | 2.56 | 3/046 | None | - | - |
| P12 | 2.44 | 3/046 | None | - | - |

Table 4: Summary of the pollen assessment results from Trench 8, SZD08.

#### 2.2.5.4 Interpretation

Unfortunately no pollen was retrieved from samples taken from Trench 8 probably as a result of deterioration as a result of a poor preservational environment and antiquity of the deposit.

#### 2.2.5.5 Conclusion & Recommendations

As a consequence of the poor preservation of pollen at SZD08, no further work is recommended.

### 2.2.6 Radiocarbon dating

#### 2.2.6.1 Introduction

Sediment suitable for radiocarbon dating was absent on site however bone from the cremations was sent for dating by accelerator mass spectrometry (AMS).

#### 2.2.6.2 Results

| MOLA ref. | Lab no | Sample type | δ13C (‰) | Uncalibrated date (BP) | Calibrated date (2σ) (95% probability) | Period |
|---|---|---|---|---|---|---|
| SZD08/CREM/21 | SUERC -29389 (GU-21567) | Cremated Bone : Human | -25.8 | 2970 ± 35 | Cal BC 1320 to 1050 | Bronze Age |
| SZD08/CREM/63 | SUERC -29390 (GU-21568) | Cremated Bone : Human | -21.0 | 2995 ± 35 | Cal BC 1380 to 1120 | Bronze Age |

Table 5: Dates returned for cremations, Trench 8, SZD08.

#### 2.2.6.3 Discussion

The cremations both date to the Bronze Age indicating prehistoric activity locally on the low terrace. Indeed, a wide range of Bronze Age to Roman features including burials, ditches and enclosures were excavated in other locations on the low terrace including CTRL Stratford Box (Wessex Archaeology 2003) and WON05 (Perry, in prep). In contrast to the lower-lying parts of the valley floor which were probably marshy and crossed by a network of streams channels, the low terrace is likely to have been largely dry land in the prehistoric period.

### 2.2.7 Optically stimulated luminescence dating

#### 2.2.7.1 Introduction and method

Optically Stimulated Luminescence (OSL) is a dating method increasingly used in archaeology. The age of the sediment is determined by measuring the amount of naturally occurring ionizing radiation that has built up or become trapped in the crystalline lattice of particular minerals, especially quartz and feldspars, since burial. The technique measures the luminescence emitted from the most light-sensitive electron traps following exposure to light. It is applicable to sediments dating from around 1000 years ago to as far back as the last glacial-interglacial cycle (Lowe and Walker, 1997).

A sample <25> was taken for OSL from basal sands (context [187]) in Trench 23 at approximately +4.05m OD.

#### 2.2.7.2 Results

| Table: date of gravels on Frigoscandia site, Angel Lane | | | |
|---|---|---|---|
| **Site Code** | **Laboratory Code** | **Age (ka)** | **± (ka)** |
| SZD08 | GL08006 | 72 | 6 |

Table 6: Date returned for OSL dating of sediments, Trench 23, SZD08.

#### 2.2.7.3 Discussion

This OSL date spans the period from approximately 78-66ka BP. It places the sands on the gravel terrace in Trench 23 within the Early Devensian (or Early Weichselian), at the transition from MIS5 to MIS4 (see Table 7). This is dated to around c 75-80 ka BP by the GRIP ice core (Greenland Ice-core Project) (GRIP members, 1993). Although essentially an episode of cold climate conditions in mid- and high latitudes, the last cold stage was also characterised by a number of short-lived warmer intervals of interstadial status (Lowe and Walker, 1997). It is likely that the sands were deposited on the gravel braid- or floodplain during a more temperate phase such as the Brimpton interstadial.

| **Marine Oxygen Isotope Stage (MIS)** | **Britain** | | **Stage** | **Climate** | | **Approximate date (ka BP)** |
|---|---|---|---|---|---|---|
| **1** | Flandrian | | Holocene | warm | Interglacial | 10 - present |
| **2** | Late Devensian | | Late Weichselian | cold | Glacial | 23-10 |
| **3** | Middle Devensian | | Middle Weichselian | temperate interstadial | | 58-23 |
| **4** | Early Devensian | | | cold | | 75-58 |
| **5a** | | Brimpton | Early Weichselian | temperate interstadial | | 79-75 |
| **5b** | | | | cold | | 96-79 |
| **5c** | | Chelford | | temperate interstadial | | 103-96 |
| **5d** | | | | cold | | 115-103 |
| **5e** | Ipswichian | | Eemian | warm | Interglacial | 120-115 |
| **6** | | | Saalian | cold | Glacial | |

Table 7: Correlation of Late Quaternary stratigraphies of Britain and Europe with deep-sea isotope stages, approximate date and climate

## 2.3 Synthesis of results

### 2.3.1 Early Devensian

The stratigraphic logs are considered in the context of both the large body of geoarchaeological work carried out within the area, described by the LVMP (Burton *et al*, 2004) and the deposit modelling in the current report.

A series of gravel terraces exists under alluvial sediments lying at approximately +2m OD in the main area on the west side of the site (trenches 1-13), rising to +2.94 and +2.56m OD in trenches 12 and 14, +3.83m OD in trench 19 and a minimum of +4.5m OD in trenches 20 and 22 (the latter may have undergone some truncation) to +5.5m OD in trench 23. There appears to be a gradual, stepped rise of 3.5m over 1 km from the low terrace (as mapped by the LVMP and Olympics database) to the base of the Leytonstone/Taplow Gravels to the east.

OSL samples taken through fine sand-sized sediments at the base of this channel provide a temporal marker of 72 000 ± 6000 years (see section 2.2.7). This relates to the Early Devensian (around the transition from MIS5 to 4) correlated with the Kempton Park Gravel. From the height of the gravel surface (the pre-Holocene surface) the cold store area is mapped at the edge of the low terrace within the floodplain of the Lea. To the west runs the present river, incised during the Lateglacial to interglacial transition (LGIT), and to the east the valley rises to what is mapped under alluvium as Taplow Gravels with a small outcrop of Kempton Park Gravels.

The Kempton Park (Leyton) Gravels were deposited during the Devensian. This is a long period of time spanning nearly 100 ka. The height difference between the gravel in the north east (Trenches 11-23) and the low terrace gravels in the south west of site (Trenches 1-10) can be explained by the combination of river down-cutting and eustatic change over the Devensian. Bridgland's terrace model suggests that minor down-cutting and the main phase of gravel terrace aggradation accompany the cold/cooling limb of the climate cycle (e.g. Bridgland 2006). This may indicate that gravels underlying channel sands towards the east (Trench 23) may have been deposited early in the Devensian while the low terrace may have been deposited at the end of a later, comparatively warmer interstadial stage (such as MIS3).

#### 2.3.1.1 Later Devensian

Sediments exposed directly over gravels appear to pertain to a channel belt of the former Lea. Channel belts are floodplain areas containing active and abandoned channels and channel bars that record the activity of individual channel systems (Aslan, 2007). Particle-size varies across the cold store part of the site (Trenches 1-19) from clays to sands and represents a continuum of fluvial and alluvial sediment types. Flow conditions at the time of deposition dictate the type of sediment/sediment size with the finer particulate material (silts and clay) deposited from suspension

where flow velocity decreases. However, here sands dominate, indicating a predominance of channel deposits. These would have formed bars, channel fills and thick sheet sands associated with the channel belt. In all profiles grain size decreases upwards, which is typical of channel-fill vertical profiles. Deposition must therefore have taken place within a flood basin prior to the river down-cutting in the early Holocene. The deposits may therefore represent part of the Devensian valley floor or part of the early Holocene river moving across the Devensian floodbasin.

### 2.3.2 Early and Mid Holocene (Mesolithic to Bronze Age)

After Early Holocene or LGIT down-cutting, the sands would have been left in a relatively raised position on the floodplain in relation to the river. Being well-drained, the sediment would have been subject to weathering, erosion and soil formation. It appears that little sediment accumulated after sand deposition. Due to weathering by exposure or from later (e.g. post medieval) soil formation, earlier soil horizons are difficult to distinguish.

It is on a later land surface such as this that the Bronze Age archaeology is situated, cut into the upper horizons of the sand. Within the sand in trenches 3 and 8 cremations were found (context [28] in trench 3, contexts [20] and [22] in trench 8). They were very small circular pits (approximately 0.25m or 0.30m diameter and 0.30m deep) and recorded on context sheet and with sections by PCA archaeologists.

The cremations must be cut from a former land surface on which soil formation took place, now weathered out or invisible to the naked eye. Indeed, LOI assessment indicated both the heavy leaching of the sediments and possible pedogenisis at or near the level of the cremations and concluded that closer investigation through soil micromorphology would be beneficial. Cremations were excavated and monoliths taken through sequence from post medieval soil to the terrace gravels. These are Trench 8 monoliths <17>, <18> and <19>. The dates returned from both cremations were Bronze Age indicating that the area was probably open throughout the bulk of the Holocene, only to be flooded later in the prehistoric or early historic period.

### 2.3.3 Mid and Late Holocene (Iron Age to Post medieval)

In several trenches (1, 2 and 6), generally located on the east side of the cold store area, plastic gleyed alluvial silt clay with Manganese mottling indicating a poorly drained overbank flood alluvium (ground water gley). Deposition probably relates to Iron Age (late prehistoric / historic deposition) inundation with the alluvium collecting

in possible depression where elevated water levels allow reducing conditions. Rates of sedimentation and repeated flood episodes are typically difficult to assess and differentiate although there seemed some indication of these in the LOI profile. Interestingly, the topographic modeling suggests the depression in the landscape around Trenches 1 and 2 could be a result of Pleistocene erosion on the low terrace possibly because of a previous, now redundant, tributary running NE/SW across the low terrace during this period.

In the drier trenches to the west side of the cold store area late prehistoric and historic alluviation is not represented in the sediment profile. This may be a depositional hiatus in which net erosion took place prior to the post medieval period. Alternatively, it may be that a typical alluvial gley soil formed from the Iron Age onwards, but due to the relatively dry location of the site, accreted slowly and was subject to erosion. Certainly these soils were weathered and bioturbated and poor in both macrofossil and microfossil remains. This would suggest that the gley soil sealing the sand developed over two thousand years, and was overprinted in the post medieval period.

Post medieval soil caps the sequence. This is described as a soft to moderate dark orange brown silt clay with sand, grit and post med inclusions mottled black and red (manganese and iron) with occasional blackened root casts. It overlies alluvium in trenches 2, 4, 5, 6 (in places) and 7 and directly overlies sandy sequence with the 'hidden' land surface in trenches 3, 6 (in places), 8 and 9.

### 2.3.4 Recommendations for analysis

Given the results of the LOI in particular and the poor preservation of both plant macro and microfossil remains, it is suggested that soil micromorphology should be undertaken from selected monolith samples. Further palaeoecological work in terms of plant macrofossil analysis is recommended, but on a limited number of samples. There is the potential for tying the stratigraphic information from SZD08 into the information recovered from the surrounding area which, when linked to historic map evidence and dating, should contribute to our wider understanding of the evolving river regime of the Lower Lea.

# 3 BIBLIOGRAPHY


Aslan, A., 2007. Fluvial Environments / Sediments *In*: S. A. Elias, Editor-in-chief Encyclopedia of Quaternary Science (4 volumes, 3376 pp). Elsevier, Amsterdam, 627-685

Bridgland, D.R., Schreve, D.C., Allen, P. and Keen, D.H. 2000. *Key Middle Pleistocene localities of the Lower Thames: site conservation issues, recent research and report of a Geologists' Association excursion*. Proceedings of the Geologists' Association, 114, 211-225

Bridgland, D.R. 2006. *The Middle and Upper Pleistocene sequence in the Lower Thames: a record of Milankovitch climatic fluctuation and early human occupation of southern Britain*. Proceedings of the Geologists' Association, 117, 281-305

Burton, E, Corcoran, J, Halsey, C, Jamieson, D, Malt, D and Spurr, G. 2004. *'The Lea Valley Mapping Project'* MoLAS unpublished report

Eastbury, E., and Nicholls, M. 2007. *Channelsea River Culvert, Stratford, London, E15, London Borough of Newham: An Archaeological Watching Brief Report*. MoLAS-Pre-Construct Archaeology Limited. Unpublished Report

English Heritage Greater London Archaeology Advisory Service, June 1998 *Archaeological Guidance Papers 1-5*

Erdtman, G. (1960) The acetolysis method. *Botaniska Tidskrift* 54, 561-564.

Gibbard, PL, 1994 Pleistocene History of the Lower Thames Valley, Cambridge University Press

GRIP Greenland Ice-core Project Members (1993): Climate instability during the last interglacial period recorded in the GRIP ice core. Nature, 346, 203-207

Halsey, C. and Hawkins, N. 2007. Site 26 Carpenters Road, Newham, N15. An Archaeological Evaluation Report. MoLAS-Pre-Construct Archaeology Limited. Unpublished Report

Institute of Field Archaeologists (IFA), rev. 2001 By-Laws, Standards and Policy Statements of the Institute of Field Archaeologists, Standard and guidance: Desk Based Assessment

Johnson, W., and Nicholls, M. in prep. *Archaeological and geoarchaeological excavation report, DLR platform, Stratford*. MoLAS-Pre-Construct Archaeology Limited. Unpublished Report

Jones, A P, Tucker, M E, and Hart, J H, 1999 *The description and analysis of Quaternary stratigraphic field sections* Technical Guide No.7, Quaternary Research Association, London

Lowe, J.J. and Walker, M.J.C. 1997. *Reconstructing Quaternary Environments* 2nd ed. Pearson Education Limited, Essex.

Maddy, D., Bridgland, D. and Westaway. R. 2001. *Uplift-driven valley incision and climate-controlled river terrace development in the Thames Valley, UK*. Quaternary International 79, 23-36

Merritts, D.J., 2007. Terrace Sequences *In*: S. A. Elias, Editor-in-chief Encyclopedia of Quaternary Science (4 volumes, 3376 pp). Elsevier, Amsterdam, 694-704

Moore, P.D. and Webb, J.A. (1978) *An illustrated guide to pollen analysis*. London: Hodder and Stoughton.

Moore, P.D., Webb, J.A. and Collinson, M.E. (1991) *Pollen analysis*. Second edition, Blackwell, Oxford, 216pp.

Museum of London, 1994 *Archaeological Site Manual* 3rd edition

PCA, 2001. *Archaeological evaluation at Oliver Close, Leyton*. London Archaeologist Round-up

PEM, 1992. *Archaeological watching brief at Oliver Close, Leyton*. London Archaeologist Round-up

Perry, J, in prep Excavation report, Warton Road, Southern Archaeological Services, unpub report

Rose, J., Lee, J.A., Kemp, R.A. and Harding, P.A. 2000. Palaeoclimate, sedimentation and soil development during the Last Glacial Stage (Devensian), Heathrow Airport, London, UK. *Quaternary Science Reviews* 19 827-847

Stringer, C. 2006 *Homo Britannicus*. The incredible story of human life in Britain. Penguin Books Ltd, London

Warren, S.H., 1912. A Late Glacial stage in the valley of the River Lea, subsequent to the epoch of River Drift Man. *Q.J. Geol. Soc. Lond.* 68, 213-51

Wessex Archaeology, 2002. *Channel Tunnel Rail Link, Stratford Box, Leyton Road (Stratford Station), Stratford New Town, E15.* London Archaeologist Round-up

Wessex Archaeology 2003 Channel Tunnel Rail link: Archaeological works at Stratford Box: Archaeological fieldwork assessment report, unpub Wessex Archaeol rep

West, R.G. 1977 Flora and Fauna, Early and Middle Devensian flora and vegetation *Phil. Trans. R. Soc. Lond* B **280**, 229-246

**Geoarchaeological glossary**

**Alluvium:** a broad term referring to material deposited in a river channel or floodplain. Alluvial sediments are usually fine-grained and well-sorted although there is no diagnostic particle size as deposition depends on the energy of the water transport (i.e. from sands and gravels deposited by fast flowing water to clays that settle out of suspension during overbank flooding). Alluvium is frequently laminated or exhibits bedding structures will often oxidise and change colour following exposure and may be rich in environmental remains such as molluscs or pollen. Impeded drainage leads to peat development and can also be considered to be alluvium, while tufa accumulates where calcium carbonate-saturated water issues from springs.

**Colluvium:** or hillwash sediments eroded and transported down-slope, mainly by gravity. Colluvium often accumulates at the break of slope on valley sides, at the junction of valley side and valley floor and can interleave with alluvium deposited by a river on the floodplain.

**Devensian:** the last glacial complex in Britain (MIS4-2) equivalent to the northern European **Weichselian** and the Alpine **Wurmian**.

**Facies:** Reading's (1996) definition follows 'A *facies* is a body of rock with specified characteristics... A facies should ideally be a distinctive rock that forms under certain conditions of sedimentation, reflecting a particular process or environment.' In sedimentology, lithofacies are defined, based on characters such as grain size and mineralogy that reflect depositional processes.

**Gley:** greenish grey and bluish waterlogged soil or sediment. The greenish colour indicates the presence of iron phosphates or secondary iron alumino-silicates, and bluish tints are caused by the formation of vivianite (ferrous phosphate). Groundwater gleys are influenced from underneath by groundwater, surface water gleys are water-saturated from above, often with water ponding on the surface.

**Holocene:** or 'Postglacial' is the most recent epoch (part) of the Quaternary, covering the past 10,000 years, characterised by an interglacial climate. The Holocene in Britain is often referred to as the 'Flandrian'.

**Kempton Park Terrace:** (previously 'Upper Floodplain Terrace') comprises river gravels mapped at approximately +5m OD. Kempton Park gravels are thought to have been deposited during the Devensian and incorporate Ipswichian Interglacial (MIS5e).

**Late Glacial:** or Devensian Lateglacial, the period following the Last Glacial Maximum lasting until the start of the Holocene. This period is subdivided into a warm interstadial episode (called the Windermere Interstadial in Britain), followed by a cold snap (the Loch Lomond Stadial/**Younger Dryas**) in which local ice re-advance occurred.

**Last Glacial Maximum:** the peak of the most recent glaciation (Devensian), from between approximately 22,000 to 18,000 years ago. In Britain this is referred to as the Dimlington Stadial.

**Lea Valley Gravels:** gravel body in the Lea valley equivalent to the Shepperton Gravels of the Thames sequence **(**Gibbard, 1994)

**Leyton Gravels:** gravel body in the Lea valley equivalent to Kempton Park Gravel of the Thames sequence **(**Gibbard, 1994)

**Leytonstone Gravel:** gravel body in the Lea valley equivalent to the Taplow Gravels of the Thames sequence **(**Gibbard, 1994)

**Marine Isotope Stage (MIS):** the widely used scheme of glacial and interglacial stages as recorded in the deep ocean cores. The oxygen isotope trace (or signal) obtained from marine microfossils within ocean sediments acts as a proxy for global ice volume and therefore records glacial/interglacial fluctuations, providing a climatic signal of global significance. Each isotopic stage has been assigned a number, even numbers denoting 'glacial' (cold) episodes and odd numbers denoting 'interglacial' (warmer) phases.

**OSL:** optically stimulated luminescence. A dating technique allowing age determination of sediments deposited within the last glacial-interglacial cycle. The OSL signal builds up over time in quartz and feldspar minerals through naturally occurring ionizing radiation. This signal is 'reset' by exposure to light. If the signal can be measured, the time since sediment burial can be determined.

**Pleistocene:** referring to the part of the Quaternary pre-dating the climatic amelioration at the start of the Holocene (approximately 2.6 million years ago to 10,000 BP).

**Quaternary: t**he most recent major sub-division (series) of the geological record, extending from around 2.6 million years ago to the present day and characterised by climatic oscillations from full glacial to warm episodes (interglacial), when the climate was as warm as if not warmer than today. The observed pattern is of long glacial stages with cold and warm perturbations (stadials and interstadials) and short interglacials (usually less than 10,000 years). Human evolution has largely taken place within the Quaternary period.

**Shepperton Gravel:** or 'buried channel' infill (previously 'Lower Floodplain Terrace') on the floodplain of the Thames deposited during glacial outwash following the last Glacial Maximum (approximately 15 -10 ka)

**Soliflucted sediment:** In periglacial environments, surface thawing results in a saturated surface layer overlying a frozen substrate. Where this occurs on valley sides it can result in the surface layers sludging down-slope over the frozen subsoil.

**Taplow Terrace:** or 'Upper Floodplain Terrace' comprises gravels thought to have accumulated during the Wolstonian (MIS 6-8, about 128,000-280,000 years ago) and lies at approximately +10m OD.

**Younger Dryas:** an end Pleistocene cold climate period (named after the alpine / tundra wildflower *Dryas octopetala*) at approximately 12,800 to 11,500 years Before Present. The Younger Dryas followed the Bölling/Allerød interstadial and preceded the Preboreal of the early Holocene.

# 4 LITHOLOGY TABLES FROM TRENCHS 1 – 23

| North east facing section at west end of Trench 1 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.50m OD clear boundary** | | | |
| **Facies 9 context 41** | 2.76 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | made ground - modern |
| ***c* +2.74m OD clear boundary** | | | |
| **Facies 5 context 42** | 0.15 | silt clay with gravelly sand | weathered alluvium |
| ***c* +2.59m OD gradational boundary** | | | |
| **Facies 4 context 83 and 82** | 0.25 | Loose mid-brown mottled clay/silt with lenses of small gravel | weathered coarse-grained alluvium - probably building up in the late Holocene (prehistoric and Roman period onwards) |
| | ***c* +2.34m OD clear boundary** | | |
| | 0.10 | Mid orange brown silty sand with lenses of mottled clayey silt with sub-rounded to rounded sandy gravel | |
| ***c* +2.24m OD** | | | |
| **Facies 0 context 47** | >0.10 | gravel | Fluvial gravels of low terrace (Devensian) |

| north west facing section at south west end of Trench 2 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| **Facies 9 context 76** | >2.00 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | made ground - modern |
| ***c* +3.30m OD** | | | |
| **context 119 Facies 7** | 0.30-0.50 | Firm to moderate brown friable sandy silt with gritty texture CBM, clinker and burnt flint. Ditch [67] with firm dark blue clay silt fill with occ post medieval pottery cut from subsoil or Post medieval soil layer | Post medieval land surface/soil (clay-rich). Compact and gravelly at east end of trench |
| ***c* +3.10m OD** | | | |
| **Facies 6 context 102** | 0.10 | dark bluish grey silty clay | weathering and alteration of gleyed material below probably indicating soil development (post medieval / historic subsoil) |
| ***c* +3.00m OD** | | | |
| **Facies 5 context 103** | 0.30 | compact light blue grey silty clay | Poorly drained alluvium (ground water gley) collecting in possible depression where elevated water levels allow reducing conditions. Late prehistoric / historic deposition |
| ***c* +3.00m OD** | | | |
| **Facies 4 context 70** | 0.25-0.30 | very firm dark orange brown silt clay with abundant heavy iron stained root casts | compacted, weathered, sterile prehistoric alluvium |
| ***c* +2.65m OD** | | | |
| **Facies 3 contexts 105 and 104** | 0.10 | Moderate to hard/compact layer of friable very red/orange and black mottled silt/sand with some clay. Heavily concreted with Mn and Fe | weathered / bioturbated fluvial silts and sands. Deposition on low terrace (probably Late Devensian) |
| | ***c* +2.55m OD** | | |
| | 0.10-0.20 | Soft to moderate grey blue clayey SAND mottled orange in places | gleyed, weathered fluvial sands of low terrace (probably Devensian) |
| ***c* +2.35m OD** | | | |

| | | | |
|---|---|---|---|
| **Facies 0 context 69** | | Compact clast-supported fairly well sorted small to large flint gravel in coarse sand matrix | fluvial sand, sand gravels of low terrace (Devensian) |

| east facing section at south end of Trench 3 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.60m OD clear boundary** | | | |
| **Facies 9 Context (001)** | 2.34 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.26m OD clear boundary** | | | |
| **Facies 7 Context (027)** | 0.30 | Soft friable dark brown black very silty clayey loam with CBM and occ rounded pebbles | Ploughsoil - Post medieval |
| ***c* +2.96m OD clear boundary** | | | |
| **Facies 6 Context (026)** | 0.10 | Moderate friable orange and reddish brown very silty sandy clay mottled reddish orange and black (iron and manganese) | Subsoil developing in top of underlying clays |
| ***c* +2.86m OD gradational boundary** | | | |
| **Facies 4 Context (002)** | 0.50 | Moderate soft orange very plastic clayey very silty slightly gritty sandy clay with red and orange concretions slight greyish/darker colour in upper 100mm | as below but weathered, coarse material and more plastic (higher clay content) indicating alluvial sedimentation |
| ***c* +2.36m OD** | | | |
| **Facies 3 Context (025)** | 0.30 | Moderate soft orange and light grey mottled very sandy clay with occ - freq small unsorted gravel clasts, manganese concretions and dark colouration | massive mottled weathered coarse fluvial sediments mixed with gravels. Deposited in or associated with channel belt of late Devensian Lea. Gravel content may indicate sporadic flood/colluvial input. Holocene weathering |
| ***c* +2.06m OD** | | | |
| **Facies 0 Context (024)** | | Compact, clast-supported orange and grey medium to small sub-angular to sub-rounded mainly flint gravel with sandy clay matrix. Top of gravels reached | Fluvial gravels of low terrace (Devensian) |

| North west facing section at west end of Trench 5 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.60m OD clear boundary** | | | |
| **Facies 9 Context (131)** | 2.30 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.30m OD clear boundary** | | | |
| **Facies 7 Context (132)** | | Moderate plastic dark brown grey gritty silty clay with CBM, clinker, flint clasts, brick, roots and charcoal | mixed, buried post medieval soil / land surface |
| ***c* +3.30m OD clear boundary** | | | |
| **Facies 6 Context (133)** | | moderate mid brown grey 'dirty' slightly gritty silty clay with abundant red/brown mottling and charcoal. Abundant red root casts blur boundary | sub soil under post medieval plough soil |
| ***c* +3.00m OD gradational boundary** | | | |
| **Facies 4 Context (134) and (135)** | 0.6 | Soft, heavily mottled orange and grey silty clay with molluscs to soft plastic bluish grey brown silt clay with iron concretions and organic fragments. Sample <11> taken for molluscs/plants | weathered fluvial grading into alluvial-type sediment. Fairly sterile (detrital organics) channel deposits. Later (post medieval) ditch features cut through these deposits |
| | ***c* +2.8m OD** | | |
| | 0.60 | which were overlain by light orange grey silty sand [86]. The silty sand was covered by dark grey sandy gravels [85] which were overlain by further naturally deposited mottled mid grey-brown silty sands and gravels [84], patches of loose mid yellow natural sand and gravels [49] and finally by patches of firm, mid yellow-orange weathered brick earth [50]<br><br>Cutting the weathered brickearth [50] was a shallow channel [45] which had been carved out by natural processes and was filled with a mixture of firm mid blue-grey clay and sand [44]. The channel was sealed beneath loose, black 19th century made ground [48]. | |
| ***c* 2.1m OD diffuse convoluted boundary** | | | |

| | | | |
|---|---|---|---|
| **Facies 3 Context (139)** | 0.10 | moderate soft mid bluish grey fine sand silt with vertical roots | fluvial silt with root penetrating from overlying deposits |
| ***c* +1.8m or 1.9m OD clear boundary** | | | |
| **Facies 0 Context (136)** | >0.10 | Loose brown coarse sand and sub rounded fine gravel with orange colour. Bedded medium fine gravel horizontal beds | Fluvial gravels of low terrace (Devensian) |

| North west facing section at west end of Trench 6 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.60m OD clear boundary** | | | |
| **Facies 9 Context (056)** | 2.30 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.30m OD clear boundary** | | | |
| **Facies 7 Context (057)** | 0.10 | very soft (wet) plastic very dark gritty brownish black clay and silt with wood inclusions | remnant of Post medieval ploughsoil truncated and slightly mixed with made ground |
| ***c* +3.20m OD clear/sharp boundary** | | | |
| **Facies 5 Context (057)** | 0.20 | soft plastic wet (v. sticky) dark blue grey silt clay heavily mottled with small Mn speckles | Gleyed alluvium on south side of trench |
| ***c* +3.00m OD gradational boundary** | | | |
| **Facies 4 Contexts (077), (078) and (079)** | 0.15 | Moderate sticky mid orange brown/bluish grey silty clay with some sand content. Frequent mottling. Unit becomes more compact/stiff and slightly friable with depth | weathered alluvium. Band of Mn and Fe mineral concentrations may represent period of stabilisation or zone of elluviation? Seen in Tr8 at approximately same height above OD |
| | ***c* +2.85m OD** | | |
| | 0.20 | Moderate - firm orange brown/blue grey heavily mottled slightly gritty clayey silt | |
| | ***c* +2.65m OD** | | |
| | 0.15 | Moderate mid grey brown sandy silt with abundant black and dark brown concretions (iron and manganese) concentrated in a sub-horizontal layer | |
| ***c* +2.40m OD** | | | |
| **Facies 3 Context (080)** | 0.20 | Moderate to soft mid grey brown clayey silt with lighter lenses of grey sand | Sedimentation within shallow channel, fining up from terrace gravels. Sediment structure weathered out |
| ***c* +2.20m OD clear boundary** | | | |

| | | | |
|---|---|---|---|
| **Facies 0 Context (081)** | >0.10 | Moderate coarse brown sand and gravel c 0.1m visible above water table | Fluvial gravels of low terrace (Devensian) |

| north west facing section at east end of Trench 7 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.46m OD clear boundary** | | | |
| **Facies 9 Context (59)** | 1.76 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.70m OD clear boundary** | | | |
| **Facies7 Context (116)** | 0.34 | Moderate slightly friable mid grey brown silty clay with unsorted inclusions of sand, grit, flint clasts, flecks of CBM and charcoal | post medieval ploughsoil |
| ***c* +3.36m OD gradational boundary** | | | |
| **Facies 6 Context (62)** | 0.10 | Moderate soft very sticky/plastic 'dirty' grey brown silty clay with occ gritty texture | subsoil |
| ***c* +3.26m OD very gradational/diffuse boundary** | | | |
| **Facies 4 Context (60) and (117)** | 0.62 | Moderate soft plastic yellow orange silt clay with gritty orange concretions heavily mottled | weathered coarse alluvial silts and clay |
| | ***c* +2.64m OD clear boundary** | | |
| | 0.34 | Soft plastic very light blue grey mottled orange very gritty silty clay. Gritty with small Fe concretions visible, root casts and black Mn concretions | |
| ***c* +2.30m OD limit of excavation** | | | |
| **Facies 0 Context (024)** | | Gravels seen at level of water table in trench 6, described as moderate coarse brown sand and gravel | Fluvial gravels of low terrace (Devensian) |

| South facing section at west end of Trench 8 SZD08 | | | | |
|---|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** | |
| ***c* +5.89m OD clear boundary** | | | | |
| **Facies 9 Context (007)** | 2.48 | Black silt/clay with clinker, ash broken brick, concrete, glass, metal, tar etc | Made ground/over burden - modern | |
| ***c* +3.41m OD clear boundary** | | | | |
| **Facies 7 Context (015)** | 0.25 | Soft to moderate dark orange brown silt clay loam with sand, grit and post med inclusions mottled black and red (manganese and iron) with occ blackened root casts visible | soil developing in top of weathered alluvium, possibly ongoing processes. Features cut from this horizon, profiles weathered out. | **mono <17>** |
| ***c* +3.16m OD clear boundary** | | | | |
| **Facies 4 Context (008) and (160)** | 0.12 | Soft moderate 'dirty' yellow brown very sandy silty clay or clayey sand heavily mottled black with Mn. Features cut from this level with core found by tin <17> | weathered alluvium relating to river activity of underlying coarse sand. Poss period of stabilisation or zone of elluviation (B horizon?) represented by Mn and Fe mineral concentration (band also noted in Tr 6) | |
| | ***c* +3.04m OD very gradational boundary** | | | **mono <18> (+3.04m OD)** |
| | 0.30 | Soft massive orange and yellow brown very coarse sandy silty clay. Band with heavy concentration of Manganese/Iron concretions | | |
| ***c* +2.74m OD gradational boundary** | | | | |
| **Facies 3 Context (046)** | 0.50 | Soft yellowish orange brown weakly bedded sub-horizontal/sub-parallel wavy, discontinuous bands of sand (100mm thick) with silty sand and very coarse sand to fine gravel. Becoming massive towards top of unit | sediments deposited in a possibly broad, shallow channel with periods of slack water. Thought comparable to Tr9 but sediment structure weathered out. | **mono <19> (+2.78m OD)** |
| ***c* +2.24m OD** | | | | |
| **Facies 0 Context (049)** | | Moderate compact clast-supported grey brown and black medium sub-angular flint | Fluvial gravels of low terrace (Devensian) | |

| East facing section at south end of Trench 9 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.60m OD clear boundary** | | | |
| **Facies 9 Context (005)** | 2.34 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.26m OD clear boundary** | | | |
| **Facies 7 Context (023)** | 0.30 | Friable dark reddish brown and grey very sandy silt loam with CBM flecks | Ploughsoil - Post medieval |
| ***c* +2.96m OD clear boundary** | | | |
| **Facies 6 Context (006)** | 0.10 | Soft heavily mottled orange brown with black light grey silty clayey coarse sand with orange patches | Weathered upper horizon of underlying alluvium with root growth and colour indicating likely soil formation |
| ***c* +2.86m OD gradational boundary** | | | |
| **Facies 4 Context (016)** | 0.50 | Moderate soft massive orange mottled grey very coarse sandy silt clay | Weathered coarse alluvium - late Devensian / early Holocene alluviation |
| ***c* +2.36m OD** | | | |
| **Facies 3 Context (018)** | 0.30 | Thinly/finely bedded sub-horizontal/sub-parallel, wavy ripple beds of alternating soft light grey and orange silty clay and coarse loose orange sand beds (100mm thick to <10mm) with gravel. Generally fines up | ripple beds deposited in shallow channels on floodplain (prior to downcutting) with periods of slack water - Late Devensian |
| ***c* +2.06m OD** | | | |
| **Facies 0 Context (017)** | | Compact, clast-supported coarse orange medium sub-angular to sub-rounded flint gravel with coarse sand | Fluvial gravels of low terrace (Devensian) |

| East facing section at south end of Trench 10 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.60m OD clear boundary** | | | |
| **Facies 9 Context (73)** | 2.50 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.10m OD** | | | |
| **Facies 7 Context (075)** | 0.25 | Firm/compact clayey silts with occ angular to sub-angular gravels, mottled showing weathering and root action frequent mid-brown iron and manganese staining | soil forming perhaps under (truncated) ploughsoil or within top of alluvium (088) |
| ***c* +2.85m OD** | | | |
| **Facies 4 Context (88)** | 0.40 | Loose/soft 'sticky' light orange/grey sandy silt with bands of grey sandy silt | weathered coarse alluvium |
| ***c* +2.45m OD** | | | |
| **Facies 3 Contexts (089) and (090)** | 0.35 | Light orange brown massive sandy silt w occ mottling and grey sandy lenses | fluvial silts and sands fining up from river terrace gravels (deposited Late Devensian, weathered during Holocene) |
| | ***c* +2.10m OD** | | |
| | 0.15 | Mid brown clayey coarse sand inclusions with fine parallel bedding of coarse sand in places | |
| ***c* +1.95m OD** | | | |
| **Facies 0 Context (091)** | >0.10 | Angular and sub-angular gravels (10 - 40mm) in sand and clayey sand matrix | Fluvial sands and gravels of low terrace (Devensian) |

| South west facing section of Trench 11 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.60m OD** | | | |
| **Facies 9 Context ()** | 2.34 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.26m OD** | | | |
| **Facies 7 Context (052)** | 0.25 | Soft grey clay silt with occ pottery and medieval brick fragments | post medieval soil or remnant land surface |
| ***c* +2.77m OD** | | | |
| **Facies 3 Context (053)** | 0.30 | Loose yellow coarse gravel in clay and sand matrix | top of low terrace gravels / interface between facies 0 and facies 3 (Devensian) |

| Section at north east end of Trench 12 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* >+3.5m OD** | | | |
| **Facies 9 Context (121)** | >0.29 | Loose dark orange brown sand of ash, concrete, clinker and brick with dinner plates and bottles | Made ground - modern |
| ***c* +3.21m OD** | | | |
| **Context (122) Facies 7** | 0.10 | Firm dark brown grey silty loam with clinker, flint and some CBM. Cut into (122) is E-W linear [125] filled with (124) described as firm mid-dark brown grey mottled black silt with Mn, clinker, flint and CBM flecks. | soil / post medieval land levelling / dumping / land surface deposit. |
| ***c* +3.11m OD very clear boundary** | | | |
| **Facies 4 Context (123)** | 0.24 | Moderate slightly friable orange very coarse sandy clay mottled orange with bright orange-stained root casts | very weathered coarse alluvium |
| ***c* +2.87m OD** | | | |

| | | | |
|---|---|---|---|
| **Facies 3 Context (126)** | 0.06 | Soft friable yellow grey silty sand over sandy gravels (fining up sequence) | very weathered fluvial silts and sands / interface between facies 0 and facies 2 |
| ***c* +2.81m OD** | | | |
| **Facies 0 Context (127)** | >0.10 | Compact mottled yellow and blue grey clast-supported medium sub rounded flint gravel in coarse sand matrix | Fluvial gravels of low terrace (Devensian) |

| South east facing section at south end of Trench 13 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* >+3.09m OD clear boundary** | | | |
| **Facies 9 Context (065)** | >0.5 | Loose dark orange brown sand of ash, concrete, clinker and brick with dinner plates and bottles | Made ground - modern |
| ***c* +2.59m OD clear boundary** | | | |
| **Facies 0 Context (066)** | >0.30 | loose yellow gravel | Fluvial gravels of low terrace (Devensian) |

| Trench 14 section SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.95m OD** | | | |
| **Facies 9 Context (108)** | | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +3.28m OD** | | | |
| **Facies 7 Context (109) (128)** | | clay and gravel | |
| ***c* +3.06m OD** | | | |
| **Facies 4 Context (110)** | | firm blue grey black flecked silt clay becoming moderate and orange in colour | |
| ***c* +2.83m OD** | | | |
| **Facies 3 Context (111)** | | moderate soft orange brown very sandy clay or clay sand (gravelly 'brickearth') with vertical root channels | |
| ***c* +2.75m OD** | | | |
| **Facies 0 Context (112)** | >0.20 | sand and gravel | Fluvial gravels of low terrace |

| Section at east end of Trench 17 SZD08 |
|---|

| Phase | Thickness (m) | Description | Interpretation and period |
|---|---|---|---|
| ***c* >+5.22m OD** | | | |
| **Facies 9 Context (164)** | >1 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +4.22m OD** | | | |
| **Facies 0 Context (165)** | >0.1 | coarse angular to sub angular clast supported sandy gravel | Fluvial gravels of low terrace/Kempton Park terrace (Devensian) |

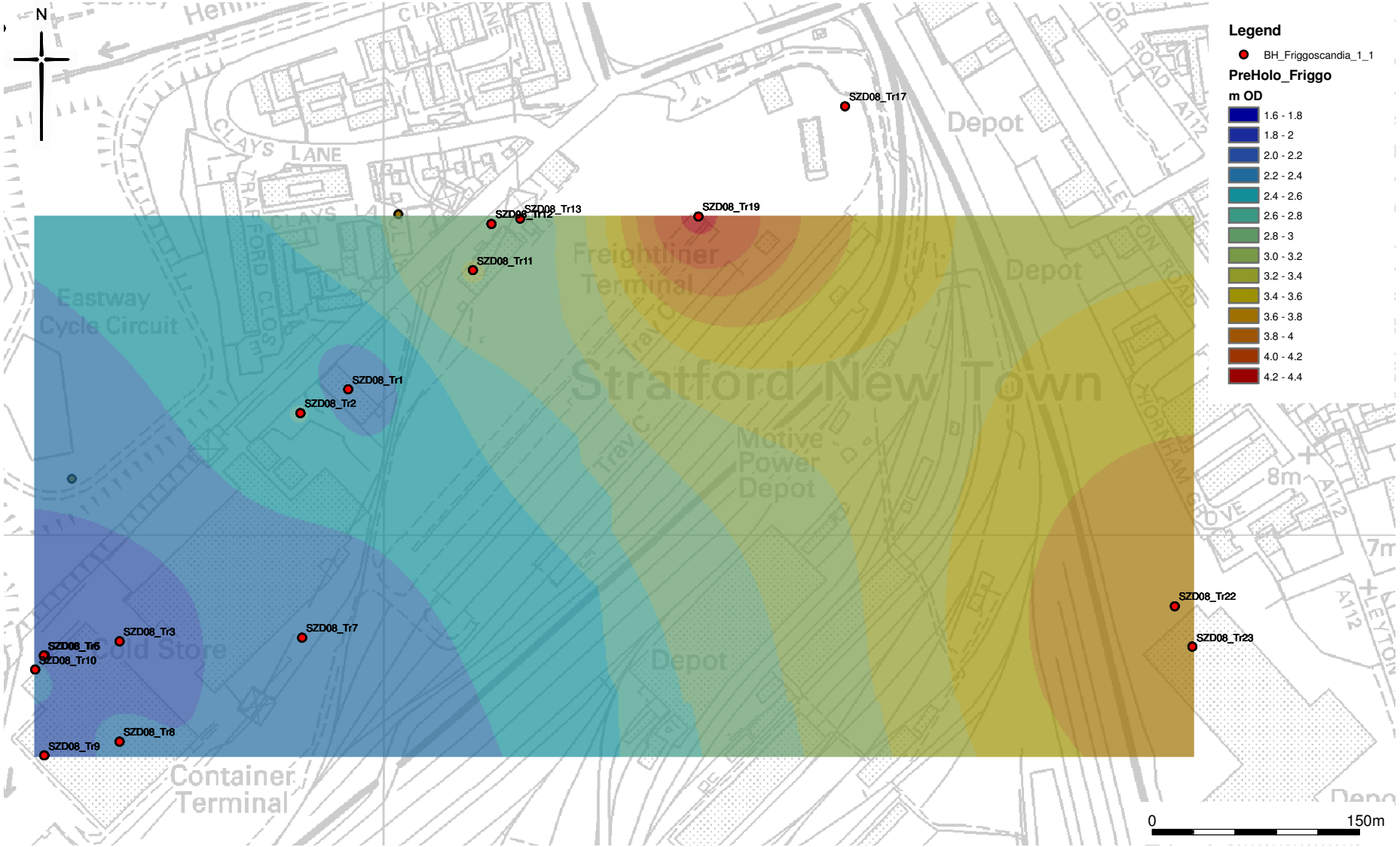
| section at east end of Trench 19 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* >+5.23m OD** | | | |
| **Facies 9 Context (161)** | >1.00 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar behind trench Shoring | Made ground - modern |
| ***c* +4.23m OD** | | | |
| **Facies 3 Context (162)** | 0.40 | Moderate to soft very patchy blue, orange and grey very sandy clay with occ-freq poorly sorted unevenly distributed flint gravel clasts | fluvial floodbasin deposit fining up from gravel |
| ***c* +3.83m OD** | | | |
| **Facies 0 Context (163)** | >0.1 | coarse angular to sub angular clast supported sandy gravel | Fluvial gravels of low terrace/Kempton Park terrace (Devensian) |

| south west facing section at north east end of Trench 20/21 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.20m OD** | | | |
| **Facies 9 Context (129)** | 0.53 | Black silt of ash with clinker broken brick, concrete, glass, metal, tar etc | Made ground - modern |
| ***c* +4.67m OD** | | | |
| **Facies 0 Context (130)** | >0.10 | coarse angular to sub angular clast supported sandy gravel | Fluvial gravels of low terrace/Kempton Park terrace (Devensian) |

| West facing section of Trench 22 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* >+5.35m OD** | | | |
| **Facies 7 Context (151)** | >1 | Concrete slab over aggregate fill | modern brick building |
| ***c* +4.35m OD sharp boundary** | | | |
| **Facies 1** | 0.30 | Soft orange occ mottled light bluish grey sandy silty clay with occ Mn speckles and poorly sorted flint clasts | Largely weathered bedded fluvial channel sands as in trench 23. Channel possibly cutting into gravel braidplain. Thought to be deposited during Interstadial deposit (warmer or temperate within mainly cold-stage) of Early Devensian (MIS5/MIS4 transition). Truncated by concrete slab. |
| | ***c* +4.05m OD relatively clear boundary** | | |
| | 0.25 | Soft-moderate medium coarse orange sand and silt/clayey sand. Occ light bluish grey clayey patches giving mottled appearance. Remnant of structure (thin-medium bedding) evident. Occ black Mn mottling in sand lenses. Sediment structure more obvious at base of unit (lower 0.20m) wavy, sub-horizontal bands of bluish grey silt visible esp directly over undulating/wavy gravel surface | |
| ***c* +3.70m OD** | | | |
| **Facies 0 (153)** | | Loose clast-supported fairly well-sorted dark orange brown small and medium flint gravel in coarse-medium fine sand matrix. Medium sub horizontal bedding dipping slightly to east occ beds of coarse orange sand | Kempton Park Gravels. Early Devensian cold stage (before MIS4) or possibly previous cold stage, (Saalian MIS6) prior to Ipswichian/Eemian |

| Section on east side of Trench 23 SZD08 | | | |
|---|---|---|---|
| **Phase** | **Thickness (m)** | **Description** | **Interpretation and period** |
| ***c* +5.50m OD** | | | |
| **Facies 9 Context (151) (152)** | >0.20 | concrete slab | modern made ground |
| ***c* +5.41m OD** | | | |
| **Facies 8 Context (151) (152)** | c 0.20 | brick structure | mid-19th century brick structure of engine shed |
| ***c* +5.21m OD** | | | |
| **Facies 2 Context (186) and context (190)** | 0.10 | Moderate mid-brown very mottled orange with common Fe staining sandy silt with common-occ unsorted poorly distributed medium, small and occ large gravel. | weathered upper boundary of (186). Soil forming stable land surface within soliflucted clays and silts |
| | ***c* +5.11m OD** | | |
| | 0.40 | Moderate to firm light yellowish grey fine sandy very silty clay / clay silt mottled orange. Large patches of poorly sorted, poorly distributed small and medium sub angular to sub rounded flint gravel. Small gravel lag at lower boundary. At north end of trench: compact massive orange, yellow and light grey mottled very sandy silt with abund poorly sorted gravel | Soliflucted silts and clays, stiffened by compaction. Probably deposited during Early Devensian cold sub stage over erosional boundary, i.e. after scour-type event. |
| ***c* +4.71m OD clear/well-defined erosional boundary** | | | |
| **Facies 1 Context (187) and (224)** | 0.48 | Moderate dark orange medium coarse sand with abundant Mn mottling. No structure. At north end of trench blackened Mn-rich and Fe-stained cryoturbation features (flame structures and involutions) filled with loose, matrix-supported yellow/brown coarse sand with abundant small and occ medium flint gravel clasts. Areas of soft-moderate, light mid-brown bedded sandy silts, tilted by deformation. | bioturbated and cryoturbated channel sands, as below, but with sediment structure weathered out or deformed |
| | ***c* +4.23m OD fairly diffuse boundary** | | |

| | | | |
|---|---|---|---|
| | 0.38 | Moderate dark orange medium coarse sand with small Mn speckles and occ Fe staining in upper horizons. Fine horizontal planar sand beds interspersed with occ thin beds (10mm) grey silt and white silt (calcite-rich) beds in upper 0.20m. OSL sample <25> from bed of sand @ c+4.1m OD | Bedded channel sands (within-channel flow). Upper beds (224) weathered and turbated (lack structure). Beds of fine-grained material indicate periods of slack water/changes in flow conditions. Channel cutting into gravel braidplain (possibly flowing down valley side). Likely deposited during interstadial (warmer or temperate within mainly cold-stage e.g. Brimpton interstadial) fluvial deposit of Early Devensian around MIS5/MIS4 transition |
| ***c* +3.85m OD** | | | |
| **Facies 0 Context (153)** | | Moderately compact clast-supported fairly well-sorted dark orange brown medium to large (cobble-sized) predominantly flint gravel with coarse sand matrix | Kempton Park Gravels. Early Devensian cold stage (before MIS4) or possibly previous cold stage, (Saalian MIS6) prior to Ipswichian/Eemian |




File storage location path

## APPENDIX 5: OASIS FORM

## OASIS DATA COLLECTION FORM: ENGLAND



4.1.1 Printable version

### 4.2 OASIS ID: preconst1-80005

**Project details**

| | |
|---|---|
| Project name | Archaeological Assessment Stratford City site |
| Short description of the project | The archaeological evaluation and mitigation comprised the excavation of Twenty five trenches and four test pits. It produced evidence of the prehistoric topography, lithostratigraphy as well as land-use including six un-urned Bronze Age cremations and a possible posthole. Post-medieval agrarian activities were recorded in several locations with ploughsoils and ditches, probably representing field systems. Late post-medieval and modern development of the area along the eastern side of the site consisted of remains of the former Stratford Railway Depot. |
| Project dates | Start: 16-01-2008 End: 16-04-2008 |
| Previous/future work | Yes / No |
| Any associated project reference codes | SZD08 - Sitecode |
| Type of project | Recording project |
| Site status | Local Authority Designated Archaeological Area |
| Current Land use | Community Service 2 - Leisure and recreational buildings |
| Monument type | UF Middle Bronze Age |
| Monument type | SN Modern |
| Significant Finds | N/A None |

| | |
|---|---|
| Significant Finds | N/A None |
| Investigation type | 'Part Excavation','Part Survey','Test-Pit Survey' |
| Prompt | Planning condition |

## Project location

| | |
|---|---|
| Country | England |
| Site location | GREATER LONDON NEWHAM STRATFORD Stratford City Development, Stratford, zones 3 - 6 |
| Postcode | E15 |
| Study area | 1.20 Hectares |
| Site coordinates | TQ 379 852 51.5483213910 -0.01094658456970 51 32 53 N 000 00 39 W Point |
| Lat/Long Datum | WGS 84 Datum |
| Height OD / Depth | Min: 1.50m Max: 3.70m |

## Project creators

| | |
|---|---|
| Name of Organisation | MoLAS-PCA |
| Project brief originator | Land Lease Development Ltd |
| Project design originator | Peter Moore |
| Project director/manager | Peter Moore |
| Project supervisor | Stuart Holden |
| Type of sponsor/funding body | Olympic Delivery Authority |

| | |
|---|---|
| Name of sponsor/funding body | ODA |

## Project archives

| | |
|---|---|
| Physical Archive recipient | LAARC |
| Physical Contents | 'Animal Bones','Ceramics','Glass','Human Bones' |
| Digital Archive recipient | LAARC |
| Digital Contents | 'Animal Bones','Ceramics','Environmental','Glass','Human Bones','Stratigraphic','Survey' |
| Digital Media available | 'Images raster / digital photography','Spreadsheets','Survey','Text' |
| Paper Archive recipient | LAARC |
| Paper Contents | 'Animal Bones','Ceramics','Environmental','Glass','Human Bones' |
| Paper Media available | 'Context sheet','Drawing','Matrices','Photograph','Plan','Report','Survey','Unpublished Text' |

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|---|---|
| Entered by | Frank Meddens (fmeddens@pre-construct.com) |
| Entered on | 22 July 2010 |

# P C A

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