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**Assessment of an Archaeological Evaluation and Excavation at Land  
adjacent to 17 St Andrews Road, Lower Coombe Street, London Borough  
of Croydon**

**Site Code: LCS05  
National Grid Reference: TQ 532263 164886**

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## 1 ABSTRACT (Figs. 1 & 2)

- 1.1 This document details the results and working methods of a secondary phase of archaeological works at land adjacent to 17 St Andrews Road, Lower Coombe Street, London Borough of Croydon (Taylor 2005). The secondary archaeological evaluation and excavation were conducted between 21st March and 15<sup>th</sup> April 2005, in advance of the redevelopment of the site for residential accommodation by Mansell Construction Services Ltd on behalf of Wandle Housing Association. The redevelopment site was centred around National Grid Reference TQ 532263 164886.
- 1.2 The site is divided in two by St Andrews Road with the eastern portion of the site (Area A) bounded to the north by Lower Coombe Street, to the east by properties fronting onto Lower Coombe Street and to the south by properties fronting on to St Andrews Road. The western portion of the site (Area B) is bounded to the north by Lower Coombe Street, to the west by St Andrews Church and to the south by properties fronting onto Southbridge Road and St Andrews Road.
- 1.3 The initial evaluation of the site consisted of four trenches and demonstrated that archaeological preservation in Area B was minimal and no further archaeological work has been scheduled to take place there (Taylor 2005). As part of the continued evaluation of Area A six additional trenches were excavated to assess the archaeological horizon within the development footprint. The archaeological preservation within the eastern half of Area A was assessed by Trenches 5, 6 and 7 and was found to be largely minimal or, that when present, it would not be impacted on by the development of the site.
- 1.4 An additional three trenches, Trenches 8, 9 and 10, were excavated in the western part of Area A which found further evidence of the archaeological horizon seen in the initial evaluation of the site (Taylor 2005). The trenches came to form part of the defined excavation area and are described as integral to the excavation phase of archaeological works.
- 1.5 The two phases of evaluation found no evidence for the preservation of archaeological deposits predating the late post-medieval period in the northeast of Area A. Whilst archaeological deposits were encountered in the southeast and southern areas of Area A these were positioned below the formation level of the development and it was agreed that the deposits should remain *in situ*. The consequent excavation area comprised of the northwest corner of the site, centred above and around Trench 3 (Taylor 2005), with Trenches 8, 9 and 10 adjoining the area to the south. The area measured 139m<sup>2</sup> and was bounded to the north by Lower Coombe Street and to the west by St Andrews Road.

- 1.6 Natural gravel was found across the southern half of the excavation area at a level of c.45.70m OD. Immediately to the north the natural horizon had been heavily impacted upon by five 1<sup>st</sup> century quarry pits the excavation of which may possibly have been associated with the construction of a nearby Roman road. The pits remained open throughout the 1<sup>st</sup> and early 2<sup>nd</sup> centuries and environmental analysis suggests that they were in use as ponds at this time and were integral to farming practices in the vicinity of the site. The presence of a N/E aligned ditch, three postholes and two E/W orientated curvilinear gullies indicated that a change of use may have taken place during the 2<sup>nd</sup> and 3<sup>rd</sup> centuries.
- 1.7 The upper deposits within the ponds and ditch, and a dumped layer seen across the site, contained abundant quantities of cultural material deposited during the 4<sup>th</sup> century. The cultural material collected from the deposits, including a bronze lion's head, imported pottery and hypocaust tiles, indicate that the settlement producing the waste was, or had been, potentially one of wealth and status.
- 1.8 The remainder of the archaeological sequence consisted of a homogenous layer, largely devoid of cultural material, indicating the site had been largely abandoned in the post-Roman period. Two ditches of post-medieval date were encountered during the excavations, however, the general lack of features and deposits dating to this period indicates that the site was situated beyond the limit of settlement activity. The excavation found evidence to indicate that the site was developed in the Victorian period with the presence of dumped deposits and foundations associated with the properties that once fronted onto Lower Coombe Street. The excavations found evidence to indicate that the Victorian properties were demolished and levelled in the 20<sup>th</sup> century before being sealed by the concrete and tarmac surfaces that exist on site today.
- 1.9 This report outlines the results of the excavation and assesses their importance. Recommendations for further analysis are also made, along with proposals for the publication of the results

## **2 INTRODUCTION (Figs. 1 & 2)**

- 2.1 An archaeological field evaluation and excavation were undertaken by Pre-Construct Archaeology Ltd between 21<sup>st</sup> March and 15th April 2005 and formed the continuation of an earlier evaluation of the site in February 2005 (Taylor 2005).
- 2.2 The earlier evaluation of the site demonstrated that archaeological preservation in Area B was minimal and no further archaeological work was undertaken here. This report documents the second phase of archaeological work within the confines of Area A (hereafter known as "The Site") with reference to any applicable findings from the initial evaluation of Areas A and B.
- 2.3 The commissioning client was Mansell Construction Services Ltd on behalf of Wandle Housing Association. The fieldwork was undertaken by Pre-Construct Archaeology Ltd under the supervision of Joanna Taylor, the project management of Tim Bradley and post-excavation management of Lorraine Darton and Frank Meddens.
- 2.4 The site is divided in two by St Andrews Road with the eastern portion (Area A) bounded to the north by Lower Coombe Street, to the east by properties fronting onto Lower Coombe Street and to the south by properties fronting on to St Andrews Road. The western portion (Area B) is bounded to the north by Lower Coombe Street, to the west by St Andrews Church and to the south by properties fronting onto Southbridge Road and St Andrews Road.
- 2.5 The site at the time of the investigations consisted of tarmac surfaces associated with its recent use as a car park.
- 2.6 A temporary benchmark (TBM 46.86m OD) was transferred from the Ordnance Survey Bench Mark located on the south side of Tanfield Road (BM 47.73m OD).
- 2.7 The completed archive comprising written, drawn and photographic records and artefactual material will be deposited at the Museum of London under the site code LCS05.



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Figure 1  
 Site Location  
 1:10,000

### **3 PLANNING BACKGROUND**

- 3.1 The site is located within one of the London Borough of Croydon's Archaeological Priority Zones (APZ) and the following is a brief summary of the Borough's Unitary Development Plan (see Askew, 2003 for the complete planning background to the site):

*Para. 6.3:* Archaeological remains are the main surviving evidence of Croydon's past. They are important to local identity, and are valuable for their role in education, recreation and tourism. Archaeological remains are a finite and fragile source easily destroyed by development. Once they are gone, part of the Borough's past is lost forever.

*Para. 6.4:* The archaeology of the Borough can best be protected if as much information as possible is available at the planning application stage. The evaluation, which may involve fieldwork, is needed so that the Council can assess the archaeological implications of proposals. Where appropriate the evaluation may also show how development can be designed so that they do not harm a site. The Council will also seek the advice of English Heritage on the competency and expertise of the organisations intending to undertake archaeological site evaluation.

*Para. 6.6:* The national importance of some remains may be such to warrant their preservation in situ. Archaeological remains are often highly fragile and vulnerable to damage and irreplaceable evidence may be lost as a result of development or even as a result of prior archaeological excavation. Preservation by record involves excavation of a site to record archaeological remains in advance of development.

*Para. 6.7:* Other archaeological sites contain information which is vital to an understanding of Croydon's past. This can only be retrieved through proper excavation, analysis and recording. The information cannot be used as a local educational and cultural recourse unless finds are looked after and results published. The Council will encourage landowners, archaeologists and developers to co-operate in accordance with the Code of Practice agreed by the British Archaeologists and Developers Liaison Group. In line with this code, and in place of a local alternative, the approved museum for the donation or lodging of archaeological finds is currently the Museum of London.

*POLICY ARC4:* On sites where archaeological remains do not need to be preserved in situ, the Council will make sure there is investigation, excavation, recording, analysis and publication to a specification agreed by the Council, secured where appropriate by the use of agreements.

### **4 GEOLOGY AND TOPOGRAPHY**



- 4.1 Croydon is located on outcrops of solid rock (Upper Chalk) which form the hills of the North Downs and date to approximately 80 million years ago when a shallow sea covered the region. The upper geological sequence consists of sandy sediments (Thanet Beds), shelly, sandy clays (Woolwich and Reading Beds), rounded pebbly shores (Blackheath Beds) and dark grey silty clays (London Clay) (Askew 2003).
- 4.2 Croydon is built on one of the lowest and youngest of the sand and gravel terraces (Taplow Gravel) which were formed during the last quarter of the Pleistocene by the River Wandle. The site itself lies on the eastern side of the terrace towards the base of the river valley (Askew 2003; Anon. 2004).
- 4.3 The earlier archaeological evaluation of the site revealed evidence for natural terrace gravels in all of the evaluation trenches and found the natural topography to be present across the site at heights ranging between 45.60m OD and 45.70m OD (Taylor 2005).
- 4.4 The current ground surface of the site ranges between c.46.90m OD in the east of the site to c.46.30m OD in the west. Natural gravels were encountered in all four of the earlier evaluation trenches at between 45.60m OD and 45.70m OD suggesting that the slope in the modern topography of the site is not a consequence of the natural topography underlying it.

## **5 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

### **5.1 Introduction**

5.1.1 As part of the Desk-Based Assessment (DBA), compiled for the site in 2003, a complete check of the London Borough of Croydon's Sites and Monuments Record (SMR) was conducted to assess the archaeological potential of the site. The following is a brief summary of the initial assessment with the inclusion of relevant information from watching briefs, evaluations and excavations conducted by Pre-Construct Archaeology Ltd in the London Borough of Croydon.

### **5.2 Prehistoric**

5.2.1 Mesolithic and Neolithic flint tools, once belonging to nomadic hunter-gatherer groups seasonally exploiting the area near or along the banks of the River Wandle, have been found in the vicinity of the site at St Peters Road, 2-4 Coombe Street, Church Road and Park Lane (Askew 2003).

5.2.2 Bronze Age pits and gulleys have been found c.0.5km to the northwest of the site at 82-86 Park Lane and it has been suggested that scattered settlement existed at a number of locations along the line of the Wandle Valley with further evidence found at Purley Way and Brighton Road (Askew 2003).

5.2.3 There is little evidence to suggest the presence of Iron Age activity within the vicinity of the site although small amounts of Late Iron Age pottery were found during excavations at 3-7 Park Street, 700 metres to the north of the site (Askew 2003).

5.2.4 During the earlier evaluation of the site two features, a possible pit and a gully, were seen to truncate the natural horizon and whilst no dating evidence was retrieved from the associated fills it was deemed possible that they may represent prehistoric activity on site (Taylor 2005).

### **5.3 Roman**

5.3.1 Whilst the site lies relatively close to the Roman road from London to Portslade Way the exact route of the road is poorly known to date (Brown 1992). However, it may have followed the line of North End and High Street which would bring it in close proximity to the site (Askew 2003).

- 5.3.2 The SMR has shown that there is a lack of excavated sites in the area under study and most evidence has come from chance finds such as pottery, coins and jewellery in the vicinity (Askew 2003).
- 5.3.3 The closest excavated site of Roman date is c.600m to the southeast at 17-19 Brighton Road. The excavations found evidence for ditches, large quantities of pottery and a mid 4<sup>th</sup> century coin hoard. In addition a number of Roman burials have been found around the George Street/High Street junction spreading to Park Street (Askew 2003).
- 5.3.4 The Roman features on the east side of the site were sealed by a large dump layer encountered at 45.67m OD. The layer contained abundant Roman pottery and animal bone and it was noted that contemporary cut features truncated its surface (Taylor 2005).
- 5.3.5 Whilst it is generally considered that a well-established settlement existed in Croydon in the Roman period it has not been possible to date to establish the nature or extent of this settlement although evidence has been found in the areas around George Street, Surrey Street, Park Street and Whitgift Street (Askew 2003). Recent archaeological investigations to the north (Clough, 2003; Proctor, 1999; Wooldridge 1999), the northwest (Duckering 2002) and the south of the site (Brown 1992) found no evidence for *in situ* Roman deposits which may suggest that the Roman settlement did not extend this far to the north, south or northwest.
- 5.3.6 It is suggested that as Croydon lies approximately ten miles south of central London it may have been used as the site of a posting station or *mutatio*. Had there been a posting station at this point a settlement would have inevitably developed and the discovery of deposits dated to the 2<sup>nd</sup> to 4<sup>th</sup> centuries at 14 Whitgift Street may suggest a possible period for the development of the site (Askew 2003).
- 5.3.7 During the primary evaluation of the site, two rubbish pits and a possible pond-type feature were identified as truncating the natural horizon. All three features contained abundant quantities of Roman pottery and animal bone and strongly suggest that Roman occupation exists on, or in the near vicinity of, the site (Taylor 2005).

#### **5.4 Saxon**

- 5.4.1 A 5<sup>th</sup>/6<sup>th</sup> century Saxon cemetery was discovered in the 1890's, c. 250 metres from the site at Edridge Road and additional evidence of Saxon occupation in Croydon is known from excavations at 82-86 Park Lane (Askew 2003).

- 5.4.2 It is thought that the late Saxon settlement may have been in the vicinity of the parish church which itself is thought to be built on the site of a Saxon predecessor (Askew 2003).
- 5.4.3 No evidence is known to suggest that the Saxon settlement encroaches on to the study site (Askew 2003).
- 5.4.4 The primary evaluation of the site suggested that a wide spread homogenous deposit containing abraded Roman pottery indicated that the site was largely abandoned in the post-Roman period before being reused in the post-medieval period possibly for agricultural purposes (Taylor 2005).

## **5.5 Medieval**

- 5.5.1 The earliest documentary reference to Croydon dates to the 9<sup>th</sup> century when Archbishop Aethred exchanged land in 'Crogedene' for land belonging to Aelfred at Chartham in Kent (Askew 2003).
- 5.5.2 By the time of the Domesday Survey in 1086 the Manor of Croydon, 'Croindene', belonged to the Archbishop of Canterbury (Askew 2003).
- 5.5.3 Few finds dating to the medieval period have been found in the vicinity of the site and it is probable that the ground surrounding the town, on which the site is situated, was mainly utilised for agricultural purposes (Askew 2003).
- 5.5.4 No features of medieval date were encountered during the earlier evaluation of the site and it is considered that it was largely abandoned in the medieval period (Taylor 2005). However, a post-medieval fence line constructed from reused chalk blocks, possibly originally of medieval date (K. Sabel pers. comm.), may indicate a human presence on or near the site in the medieval period.

## **5.6 Post-medieval**

- 5.6.1 Croydon continued to develop through the later medieval period and by the 16<sup>th</sup> century it had become a large market town at the centre of a the nearby charcoal burning industry of the 'Great North Wood' (Askew 2003).
- 5.6.2 Maps indicate that the site was situated on open ground within a sparsely occupied area away from the main settlement area in the early post-medieval period (Askew 2003).

- 5.6.3 The earlier evaluation found evidence for NW/SE drainage ditches indicating that human modification of the landscape became increasingly prevalent in the post-medieval period. The features notably lacked cultural material within their fills and the site appears to have been situated beyond the fringe of settlement during this period with its most probable use being agricultural (Taylor 2005).
- 5.6.4 The 1868 Ordnance Survey Map is the first to show development of the site whereby it was occupied by a mixture of tenements, gardens and yard areas. Whilst there was some further redevelopment throughout the late 19<sup>th</sup> century the site remained largely unchanged until the middle of the 20<sup>th</sup> century (Askew 2003).
- 5.6.5 Unlike much of Croydon this part of the town did not sustain heavy bomb damage in the Second World War (Askew 2003).
- 5.6.6 In the post-war years the site remained largely unchanged although the 1955 Ordnance Survey Map shows that there had been increased industrialisation with the western half becoming occupied by an upholstery works. By the 1960's the tenements on the eastern half of the site had been demolished and the area of land came to be used as a car park from the 1970's onwards (Askew 2003).
- 5.6.7 A number of boreholes were put across the site in 2004 and whilst they do not specify the deposits present they do indicate the depth of 'made ground'. In the eastern half natural deposits were encountered at between 1.20m and 1.60m below ground surface whilst in the west natural deposits were encountered at between 1.50m and 2.00m below ground surface (Anon. 2004). Whilst the dates of the deposits are not known the borehole data suggested that stratified deposits may be present throughout the site.
- 5.6.8 The earlier evaluation trenches provided abundant evidence to indicate that the site was redeveloped in the Victorian period with the presence of dumped deposits and N/S wall foundations associated with the properties that once fronted onto Lower Coombe Street apparent in all of the evaluation trenches. The Victorian properties were demolished and levelled in the 20<sup>th</sup> century before being sealed by the concrete and tarmac surfaces that exist on site today (Taylor 2005).

## 6 ARCHAEOLOGICAL METHODOLOGY (Fig. 2)

- 6.1 The archaeological evaluation was comprised of six trenches located within the footprint of the proposed development. Of these Trenches 5, 6 and 7 were recorded as separate evaluation trenches whilst Trenches 8, 9 and 10 were recorded as integral to the open area excavation.
- 6.2 The secondary evaluation strategy was designed to clarify the extent in plan and depth of archaeological deposits in advance of the open area excavation of archaeological deposits encountered during the primary phase of evaluation (Taylor 2005). Trenches 5, 6 and 7 demonstrated a lack of archaeological deposits pre-dating the post-medieval period and as a consequence they were not incorporated into the consequent excavations on site.
- 6.3 The open area excavation, which incorporated Trenches 8, 9 and 10, was located in the northwest corner of the site and measured 139m<sup>2</sup>.
- 6.4 The positions of all services were checked before locating the trenches on the ground and trenches were CAT scanned before work commenced. When necessary the extent, axis and location of the trenches were changed to avoid live services and physical obstructions.
- 6.5 The removal of ground level surfaces and subsequent mechanical excavation were undertaken using a 360° mechanical excavator fitted with a flat bladed ditching bucket under archaeological supervision.
- 6.6 Mechanical excavation continued through undifferentiated deposits in spits of no greater than 200mm until either significant archaeological, or natural, undisturbed deposits were encountered.
- 6.7 Following fill clearance, all faces of the excavation areas that required examination were cleaned using appropriate hand tools. All investigation of archaeological deposits was by hand, with cleaning, examination and recording both in plan and section.
- 6.8 Recording was undertaken using the single context recording system as specified in the Museum of London Site Manual. Plans were drawn at a scale of 1:20, and full or representative sections at a scale of 1:10. Contexts were numbered sequentially and recorded on *pro-forma* context sheets.

- 6.9 A temporary benchmark (TBM 46.86m OD) was transferred from the Ordnance Survey Bench Mark located on the south side of Tanfield Road (BM 47.73m OD).
- 6.10 The site was given the code LCS05
- 6.11 Areas of excavation were fenced off during the excavation to protect the archaeology and the public and were all backfilled on the last day of the excavation.

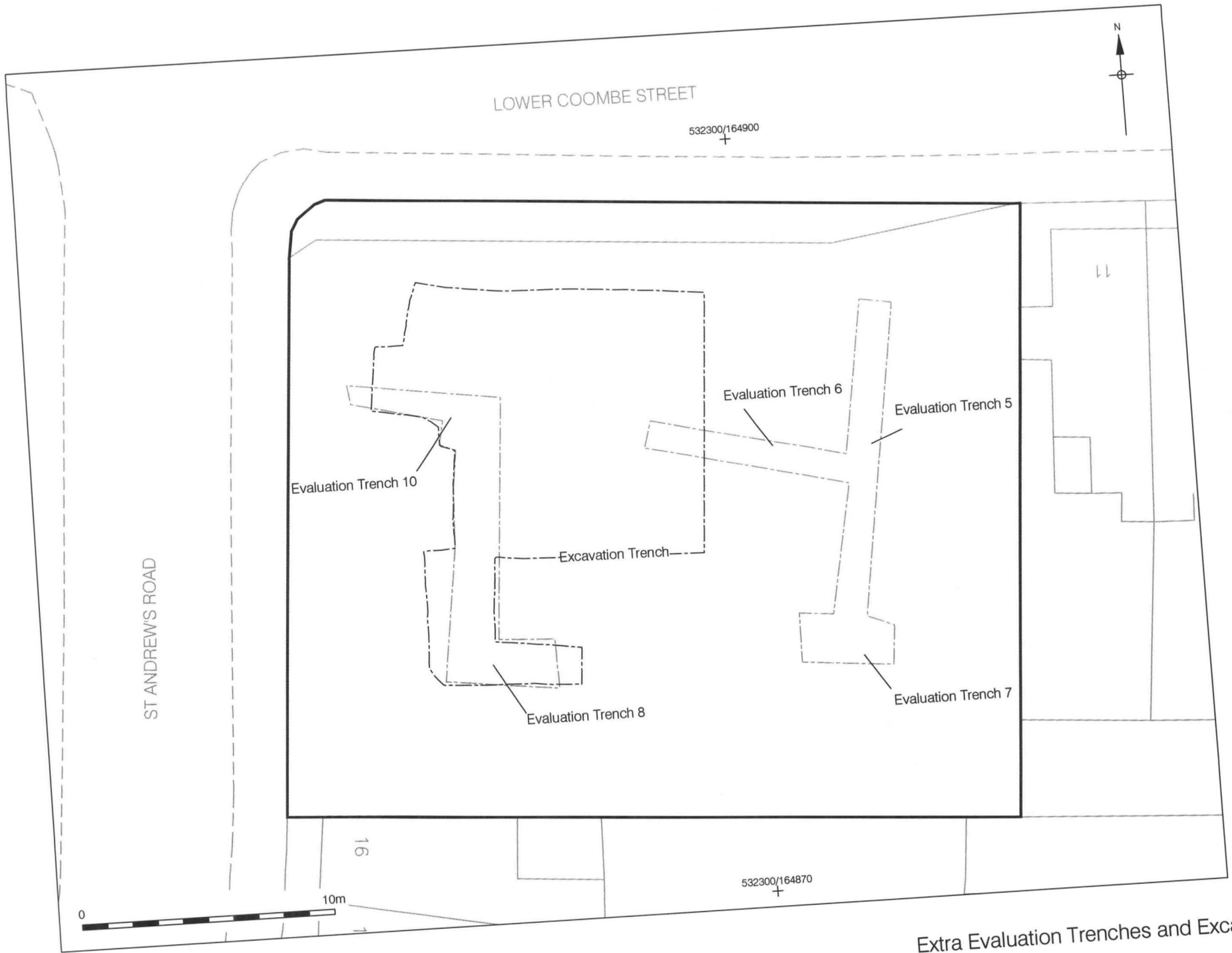


Figure 2  
Extra Evaluation Trenches and Excavation Trench  
1:200



## **7 THE ARCHAEOLOGICAL SEQUENCE**

### **7.1 Introduction**

7.1.1 The following description of the stratigraphy details the main characteristics of each context and its position in the phased stratigraphic matrix. Ordnance Datum levels and physical dimensions are referenced when relevant to an understanding of the archaeological sequence and when not cited can be found referenced in Appendix 1.

### **7.2 Phase 1: Natural (Fig. 6)**

7.2.1 The earliest deposit encountered during the secondary evaluation and excavation of the site was a naturally formed sandy gravel layer, [105], thought to comprise part of the eastern side of a valley terrace. The horizon was encountered at 45.66m OD and showed little variation in height across the areas of excavation although in the most north-western section spot levels could not be considered representative of the natural horizon as it had been heavily truncated in antiquity.

### **7.3 Phase 2: Natural Features/Prehistoric**

7.3.1 One flint blade of possible Mesolithic/Neolithic date was retrieved from the surface of the natural horizon [105]. Its abraded nature indicates that it had been moved from its original point of deposition. It may however represent evidence for prehistoric activity within the vicinity of the site (Appendix 6).

### **7.4 Phase 3a: Mid 1<sup>st</sup> century (Figs. 3 & 5)**

7.4.1 Within the excavation area, and truncating the natural horizon, were gravel extraction pits [89], [114], [115], [122] and [147]. These represent the earliest Roman presence on site and it is possible that they may be associated with road construction in the near vicinity during the period following the Roman conquest.

7.4.2 Pit [89], which represents the same feature recorded as [14] in the first evaluation (Taylor 2005), was sub-ovoid in plan with gradually sloping edges and a flat base. It feature was encountered at 45.53m OD, measured 5.00m N/S by 5.30m E/W and had been excavated to a depth of c. 0.70m. As part of the methodology of the excavation the feature was sampled to provide a representative section through the sequence of its fills.

- 7.4.3 Three pits, [114], [122] and [147], initially thought to form part of cut [89], were found to constitute separate features when excavated. They were located to the north, west and south of pit [89] and represent a concentrated episode of gravel extraction. At no point was it possible to recognise any intercutting of the features and it appears that they were all open at the same time. None were seen in their entirety because they were either truncated by later intrusions or their edges were located beyond the limits of excavation. Whilst the full dimensions of the features are unknown it remained clear that they were substantially smaller and shallower than pit [89], none were deeper than 0.25m.
- 7.4.4 To the northeast of pit [89], physically separated by a later intrusion, was an additional quarry pit [115]. Its full plan was not seen as it had been truncated by later intrusions, lay partially beyond the limits of excavation and, as part of the excavation methodology, was only sampled to provide a representative section through the sequence of its fills. Whilst little is known of the physical characteristics of the cut, the fills which it contained were very similar to those seen within pits [89], [114], [122] and [147] suggesting that the feature belongs to the same concentrated phase of gravel extraction on site.
- 7.4.5 A moderately compacted, silty clay fill, [129] and [138], was seen to cap the base and edges of pit [89]. The deposit was c. 0.10m thick and would have acted as a sealant around the edges of the pit. Similar fills were not seen within the other smaller gravel extraction pits and it is suggested that the primary fill may be evidence for deliberate lining of quarry pit [89] to ensure its secondary use as a pond throughout the later 1<sup>st</sup> and early 2<sup>nd</sup> centuries.
- 7.4.6 Evaluation Trenches 5, 6 and 7 found no evidence for Phase 3a activity.

## **7.5 Phase 3b: Mid 1<sup>st</sup>/early 2<sup>nd</sup> century (Fig. 5)**

- 7.5.1 Contained within gravel extraction pit [89] were a number of fine dark black, silt fills, [123], [124], [127] and [128], all of a highly organic nature and in excess 0.30m in depth. The fills contained moderate quantities of unabraded pottery that yielded a date range between AD50 and AD120, suggestive of a late 1<sup>st</sup> to early 2<sup>nd</sup> century period of deposition. Analysis of the ceramic building material assemblage has further supported the dating of these deposits with types dating to between AD50-AD120 present throughout the assemblage (Appendix 5).
- 7.5.2 Gravel extraction pit [115] also contained a sequence of fine dark black silt fills, [107], [108] and [112], of an organic nature. A small quantity of pottery retrieved from fill [108] yielded a date range between AD60 and AD80 suggesting that a number of gravel

extraction pits may have been serving a secondary use as ponds during the latter part of the 1<sup>st</sup> century.

- 7.5.3 Pits [114] and [122] also showed evidence of reuse as water ponds in later periods. Both features contained fine dark black silty fills, [113] and [121], from which pottery date ranges of AD100–AD150 and AD50–AD100 were obtained, whilst in addition analysis of ceramic building material suggests a date range of AD170-AD230 (Appendices 3 & 5). Whilst the date ranges are wider, and somewhat later, than seen elsewhere on site, only one discrete fill was recognised within each feature and it is to be expected that each recorded fill probably represents a number of discrete episodes as recognised in ponds [89] and [115]. In addition the secure position of pit [121] in the stratigraphic matrix may imply that contamination of the feature occurred during its excavation thus accounting for the discrepancies, or different origins, of the pottery and CBM encountered in the fills.
- 7.5.4 Gravel extraction pit [147] was seen in section and one dark black silty fill [146] was recognised as being contained within it suggesting it was in use as a pond. The small quantity of pottery collected from the feature yielded a date range of AD90-AD105 and again suggests that the quarry pits on site served as ponds during the late 1<sup>st</sup>/early 2<sup>nd</sup> century.
- 7.5.5 It has been proposed that the gravel extraction pits had probably evolved in to ponds soon after their initial excavation. Environmental analysis of the lower silt fills contained within pits [89], [114] and [115] yielded results indicative of developed farming practices on site. Contained within the fills was a high frequency of partially carbonised cereal remains, charcoal and ash, apparently resulting from the combustion of large quantities of cereals, possibly as part of the harvesting process. Whilst the individual fills were interspersed with fine lenses of lighter grey organic silt, possibly defining episodes of burning, no other supporting evidence for episodic accumulation within the ponds was apparent (Appendix 7).
- 7.5.6 Animal bone retrieved from the excavated Phase 3b pond fills indicates that the assemblage is not typical of domestic refuse. The main species included in the assemblage were horse, cattle and sheep/goat suggesting that these species were present near by with the lack of pig bone within the assemblage implying that the settlement proper was some distance from the site at this time (Appendix 4).
- 7.5.7 Evaluation Trenches 5, 6 and 7 had no evidence for Phase 3b activity.

## **7.6 Phase 3c: Early 2<sup>nd</sup> century (Fig. 5)**

- 7.6.1 Sealing the lower fills of [89] were mixed deposits of silty gravelly sand, [120] and [126], which contained sizable quantities of pottery with a date range of AD70 to AD120+. The fills were different in composition to those that preceded them and indicated of deliberate use of the ponds for disposal of small amounts of waste material. The high quantities of carbonised cereals found within fills attributed to Phase 3b were not present in the same quantities in Phase 3c (Appendix 7). However, the presence of some charred organic material in fill [120] suggests that similar farming practices continued into this period though possibly in a reduced form.
- 7.6.2 Two mixed gravelly fills, [91] and [117], sealed the lower deposits in pond [115] and pottery retrieved from the fills yielded deposition dates of between AD90 and AD150. It is suggested that pond [115] also fell out of use in the early 2<sup>nd</sup> century possibly reflecting a transitional period of land use on site (see Phase 3).
- 7.6.3 A fragment of a human skull was retrieved from context [91]. Roman law prohibited the burial of human remains within settlements and given the sites location near to a Roman road and apparently on the edge of the settlement it is not improbable that a cemetery, on the outskirts of the main occupation areas, existed in the vicinity of the site prior to the 2<sup>nd</sup> century. The presence of a human skull fragment suggests that a burial ground from which it originated was in use for a short period of time in the vicinity. Alternatively the skull fragment was deposited on purpose as part of ritual activity.
- 7.6.4 Evaluation Trenches 5, 6 and 7 found no evidence for Phase 3c activity.

#### **7.7 Phase 4a: 2<sup>nd</sup>/3<sup>rd</sup> century (Figs. 4 & 5)**

- 7.7.1 Truncating the uppermost fill of pond [115] was an E/W aligned "V" shaped ditch, [109] and [111], which was excavated in two slots and was seen to continue beyond both the eastern and western limits of excavation. The ditch measured 2.30m in width and contained a grey, clayey silt fill, [106] and [110], from which a sizable quantity of pottery was retrieved. The pottery was a mixture of fresh and abraded sherds and indicated a deposition date range between AD170 and AD250.
- 7.7.2 To the south of the site two curvilinear gullies, [93] and [95]/[101], and three postholes, [97], [99] and [103], containing blackish grey, sandy gravelly fills, [92], [94]/[100], [96], [98] and [102], were excavated. Contamination during the machining of the site had affected the upper fills of the features and due to the lack of cultural material within them no secure dating was possible. However, the positioning of the gullies and the postholes respected the arrangement of the ponds and it is presumed that the features post date

the construction of the ponds and probably relate to the change in land use on site as implied by the introduction of ditch [109]/[111].

7.7.3 Evaluation Trenches 5, 6 and 7 found no evidence for Phase 4a activity.

## **7.8 Phase 4b: 4<sup>th</sup> century (Fig. 5)**

7.8.1 Sealing the earlier phases of fills in pond [89] was a mixed blackish brown, gravely sand deposit, [88], [119] and [125], which contained abundant cultural material within its matrix and was encountered at a highest level of 45.64m OD. Analysis of the pottery demonstrated that a wide range of vessels, including imported wares, were included in the assemblage and a date range of AD300-AD400 is indicated.

7.8.2 Several comb scored box flue tiles, two fragments of *opus spicatum* and a fragment of moulded stone were retrieved from contexts [119] and [125] and suggest the presence of a well appointed building, possibly with a hypocaust, nearby. The concentration of mid 1<sup>st</sup> to mid 2<sup>nd</sup> century fabrics within the Phase 4b building material assemblage indicates that nearby buildings were probably in existence, prior to Phase 4b, and the consequent redeposition of the material may denote the disuse/destruction of the structures during the intervening phases (Appendix 5).

7.8.3 Environmental analysis of the upper fills of pond [89] found the quantities of cereal, ash and charcoal, present in Phase 3b and 3c deposits, to be largely absent from the later fills of the ponds, indicating that farming practices, evident in the 1<sup>st</sup> and 2<sup>nd</sup> centuries, were no longer employed on the site or in the vicinity (appendix 7).

7.8.4 A grey, sandy silt deposit, [90], was present in pond [122] and whilst firmly compacted was not considered to form part of a surface. A sizable assemblage of pottery was retrieved from the fill and indicated a deposition date of AD300- AD400.

7.8.5 A wide spread dumped layer, [104] and [139], was present throughout the area of excavation at a level of 45.99m OD and was seen to seal the earlier features when viewed in section. The layer obscured the earlier features and was largely removed with the use of a mechanical excavator. Whilst few finds were retrieved from the deposit it would appear that it represents the same dumping episode present within the upper fills of ponds [89] and [115].

7.8.6 Dark grey black, silty gravel dumped layers, [64], [65] and [77], were encountered during the excavation of evaluation Trenches 5, 6 and 7 at c.46.07m OD. The layer was removed with the use of a mechanical excavator. Whilst no finds were retrieved from

the deposit it would appear that it represents the same dumping episode discussed above. No archaeological features were present below this horizon and no further excavation of Trenches 5, 6 and 7 took place.

- 7.8.7 The animal bone recovered from Phase 4b deposits suggests a similar land use in the 4<sup>th</sup> century with the discard of domestic bone not being a large-scale occurrence. However, the lack of stained bone in Phase 4b deposits, as compared to Phase 3b, suggests waste material was no longer accumulating in standing water by this time. Included in the animal bone retrieved from context [119] was a sawn red deer metacarpal and a fragment of antler, possibly indicating bone working in the vicinity of the site (Appendix 4).

### **7.9 Phase 5: Post-Roman (Fig. 5)**

- 7.9.1 Two sherds of early Saxon pottery were retrieved whilst cleaning the surface of [88] (Phase 4b) which may suggest that the site remained in use into the very early post-Roman period. However, no other finds of this date were retrieved on site, suggesting that the use of the site was minimal at best and did not continue long in to this period.

- 7.9.2 Truncating ditch [109] was a heavily truncated pit [118] measuring 0.50m N/S and containing a greyish brown, silty clay fill [116]. A small assemblage of pottery was retrieved from the fill and whilst the date range was given as AD300-AD400 the abraded nature of the pottery indicates a later date of deposition. Whilst the exact date is unknown it is probable that the feature represents some form of activity on site in the post-Roman/pre post medieval period.

### **7.10 Phase 6a: Post-medieval (Fig. 5)**

- 7.10.1 Sealing the post-Roman horizon was a, mid brownish black, silty gravel layer [136], [137], [140] and [141] encountered at 46.42m OD. The layer contained very little cultural material with the exception of occasional fragments of ceramic building material and formed a clear and noticeable break in the stratigraphy on site.

- 7.10.2 A similar layer [63] was encountered in evaluation Trench 5 at 46.42m OD, although it was not found to be present in Trench 6. As a group the horizontal stratigraphy appears to represent a change of use on site, possibly to an agricultural role and on the fringe of a settlement, in the post-medieval period.

### **7.11 Phase 6b: Post-medieval (Fig. 5)**

- 7.11.1 Truncating the central area of the site was a large NW/SE orientated ditch [87] which had previously been recorded as [23] during the initial evaluation of the site (Taylor 2005). The ditch measured 2.90m in width, had gradually sloping edges and continued beyond the eastern and western limits of excavation. Whilst the base of the feature was not encountered during the excavation the ditch was seen to contain four accumulated fills, [84], [85], [86] and [142], each of which contained minimal quantities of cultural material.
- 7.11.2 The continuation of the ditch was encountered during the excavation of Trenches 5 and 6 and recorded as [70] and [80] respectively. Once again the fills within the ditch, [68], [69], [78] and [79], contained minimal quantities of cultural material indicating that the site appears to have been situated beyond the fringe of settlement activity during this period with its most probable use being agricultural.
- 7.11.3 An additional ditch, [133], [135] and [145], on a NE/SW alignment was seen in the sections of the excavation trench. The ditch contained a greyish brown humic silt fill, [132], [134] and [144], which once again were noticeable for the absence of cultural material. The juxtaposition of the two alignments seen to be present on site during this period is such that the features may be representative of contemporary post-medieval field boundaries.

## **7.12 Phase 7: Victorian**

- 7.12.1 Dump layers, [60] and [76], were seen to seal the post-medieval deposits at 46.57m OD in evaluation Trenches 6 and 7 and probably relate to ground consolidation in advance of the construction of terraced houses fronting Coombe Street in the late 19<sup>th</sup> century.
- 7.12.2 Truncating the lower archaeological horizons and representing the latest archaeologically recorded features on site were four construction cuts [62], [67], [72] and [75], which contained concrete foundations [61], [66], [71] and [74] and formed part of the Victorian properties fronting Lower Coombe Street.
- 7.12.3 Immediately to the south of the masonry remains was construction cut [83] which contained the north, south and western walls of a subterranean building [82] and corresponds to context [18] from the primary evaluation. The feature contained a fill of dumped waste material [81] and may represent a coal cellar, or similar, located to the rear of a property that once fronted Lower Coombe Street.
- 7.12.4 The remainder of the excavated areas of the site were comprised of modern deposits including a 0.15m thick brick hardcore levelling layer and a 0.06m thick tarmac surface.

The height of the tarmac surface was c. 46.69m OD and represents the current ground surface of the site in the vicinity at the time of the excavations.



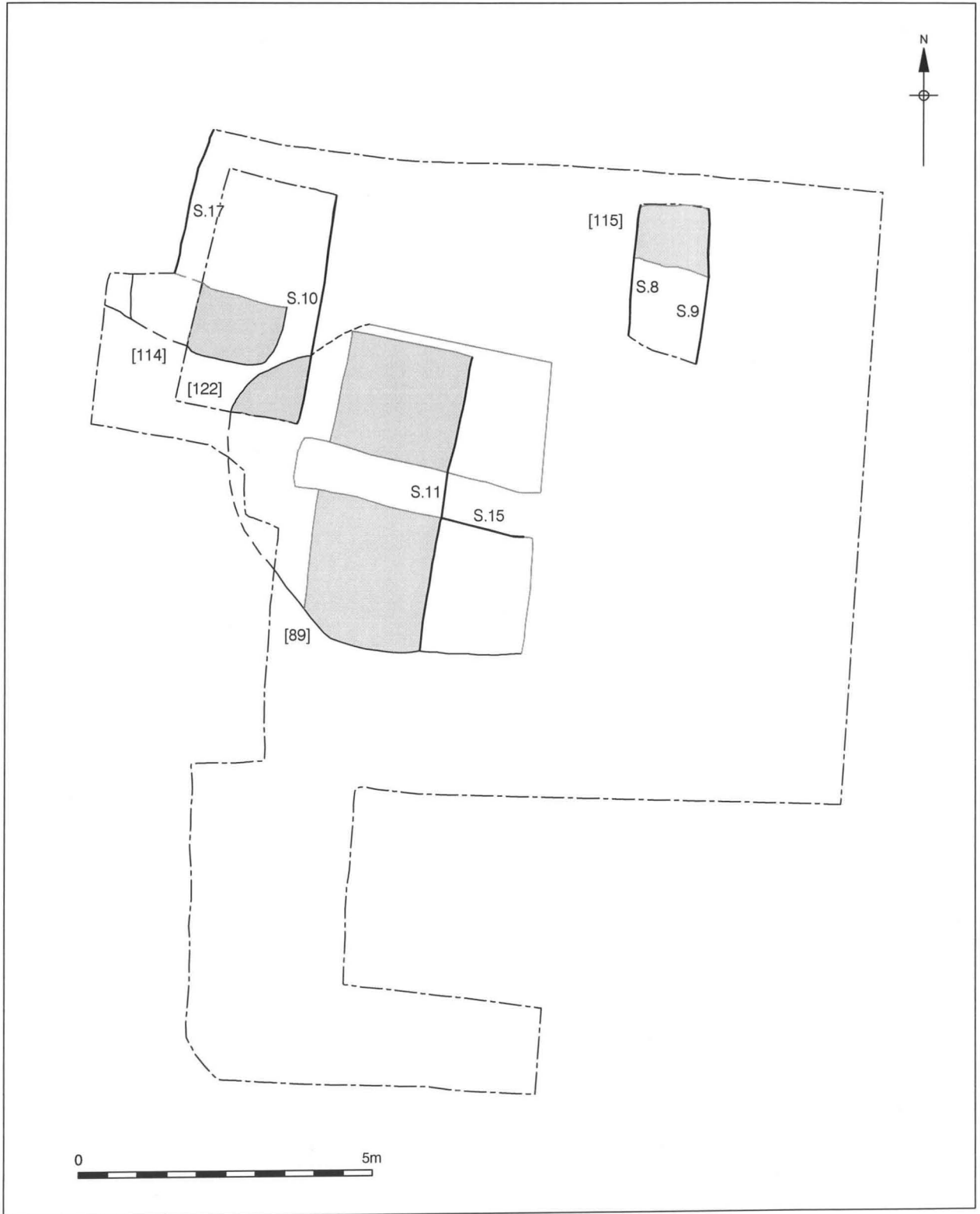


Figure 3  
Phase 3a  
1:100

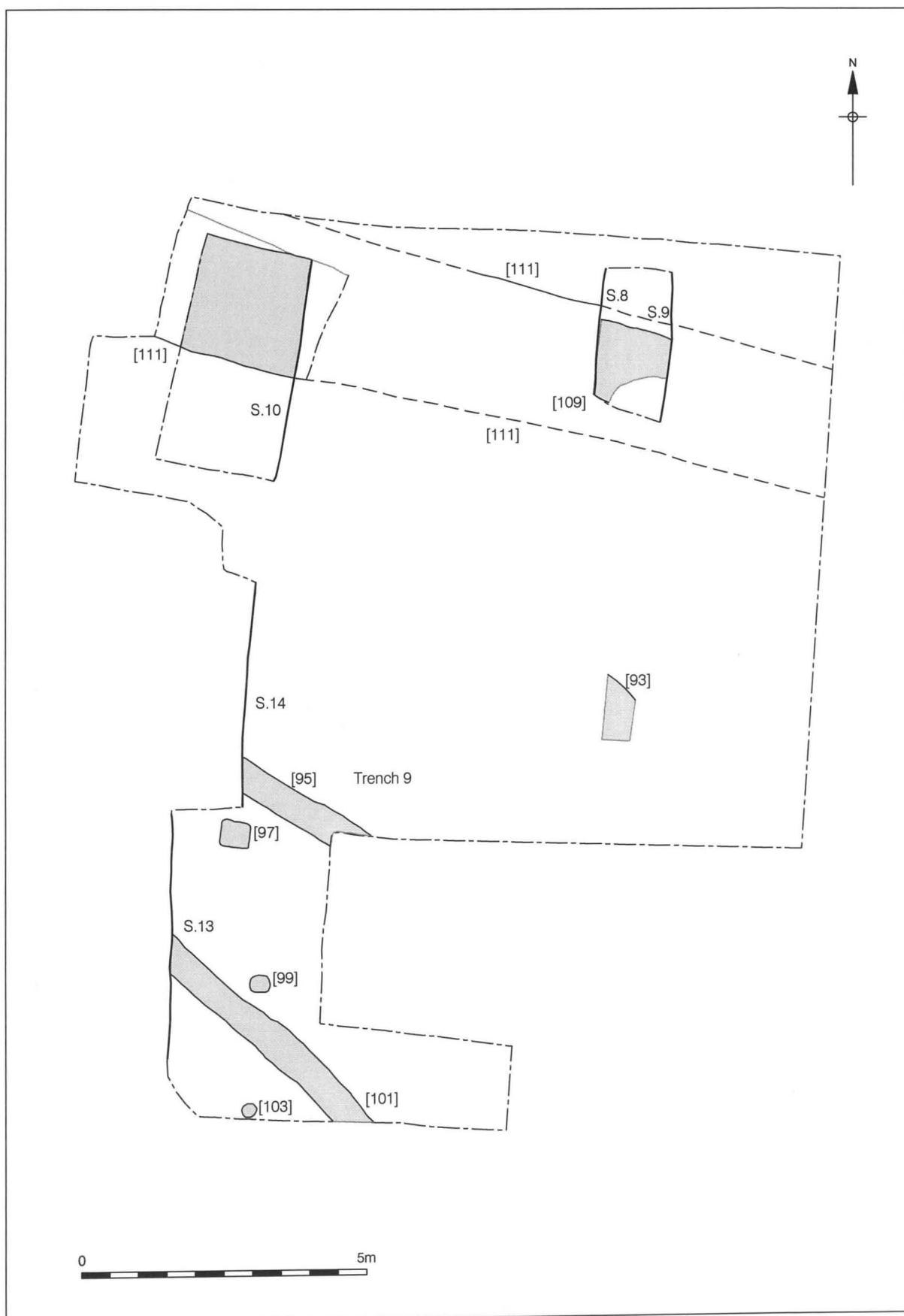


Figure 4  
 Phase 4a  
 1:100

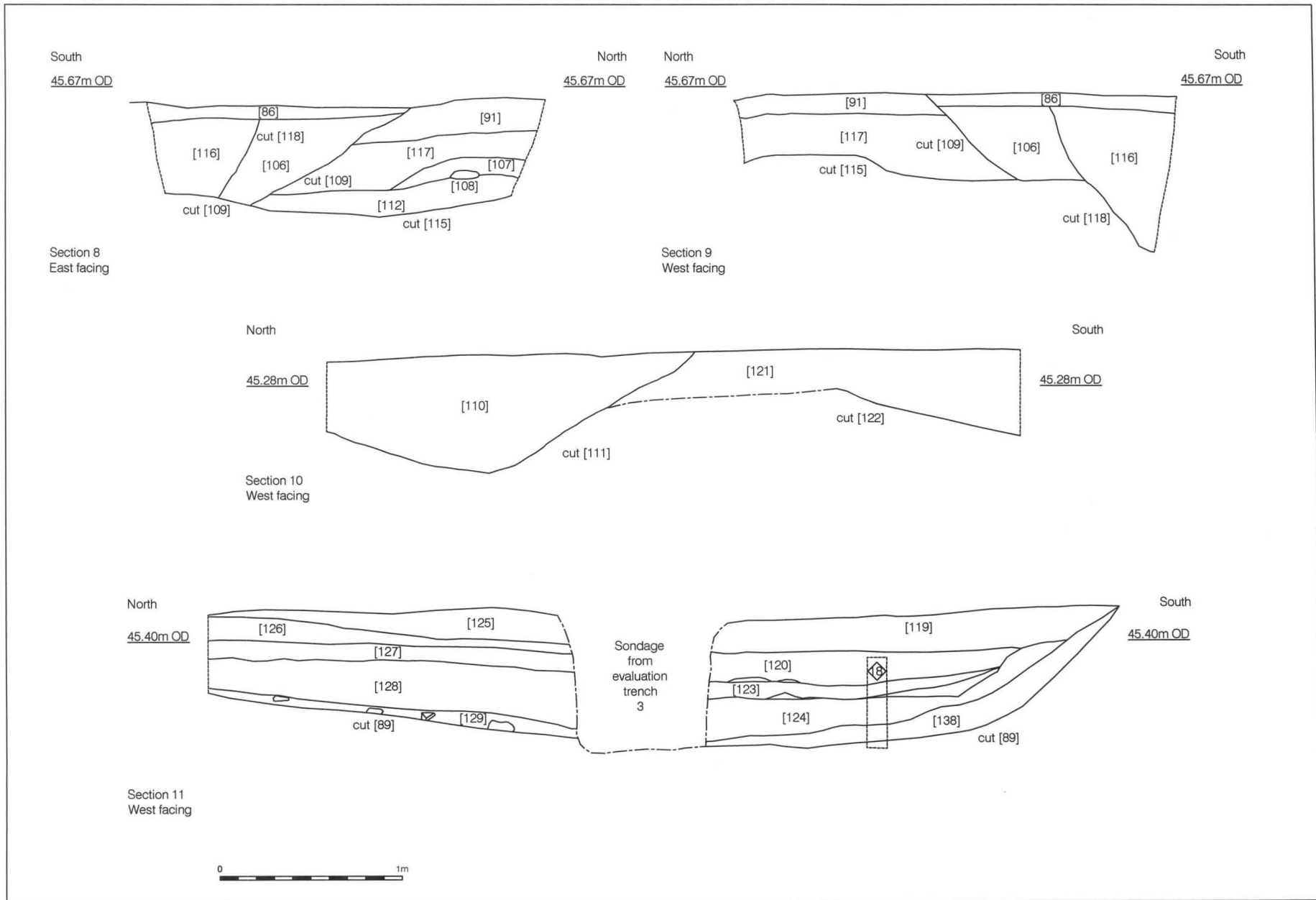


Figure 5  
Sections 8, 9, 10 and 11  
1:30

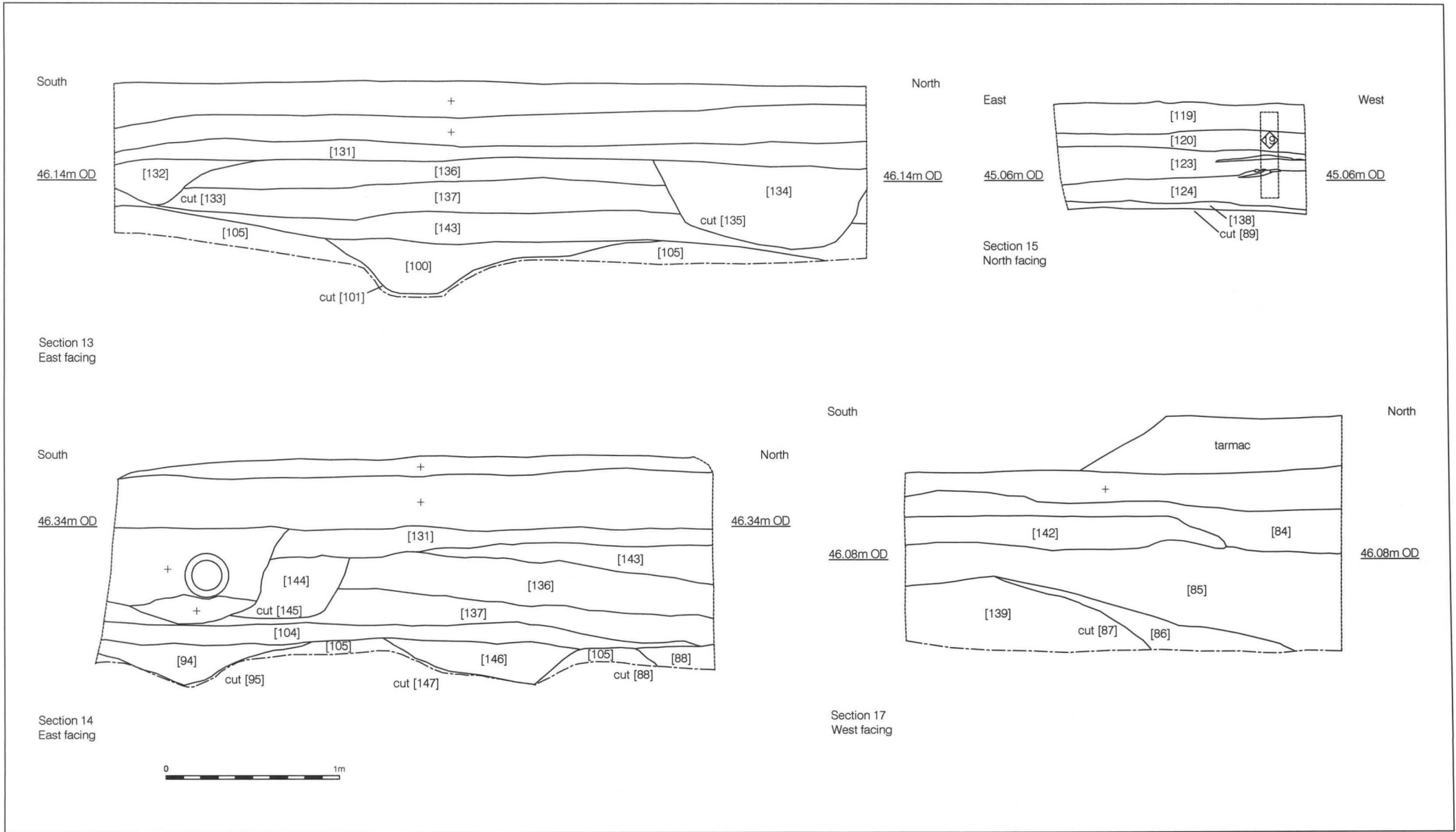


Figure 6  
 Sections 13, 14, 15 and 17  
 1:30

## **8 RESEARCH OBJECTIVES**

### **8.1 Original research objectives**

8.1.1 Whilst, specific research objectives for the site were not laid out as part of the original Method Statement, a number of generic research questions were applied to the site and these are discussed below.

### **8.2 To determine the presence, absence and/or nature of prehistoric activity on site**

8.2.1 The two phases of evaluation, and the consequent open area excavation, found no definitive evidence to indicate human activity on site in the pre-Roman periods. Two possible prehistoric features were excavated and recorded during the earlier evaluation and whilst it is possible that they may represent evidence for prehistoric activity on site the lack of cultural material and their amorphous form strongly suggest that they were tree throws or undulations in the natural topography.

8.2.2 The retrieval of a number of struck flints of possible Mesolithic or Neolithic date indicates that there is prehistoric activity in the vicinity. However, the highly abraded nature of the flints suggests that they may have moved some distance from their original place of deposition and whilst they are interesting finds they are not considered to have a wider significance to the understanding of the site as a whole.

### **8.3 To determine the presence, absence and/or nature of activity during the Roman period**

8.3.1 The archaeological work revealed an abundance of material dating to the Roman period and further analysis of the material assemblage suggests that the site was in use from the mid 1<sup>st</sup> century through to the late 4<sup>th</sup> century.

8.3.2 A number of phases were recognised during the excavation of the Roman deposits which will potentially facilitate a greater understanding of the Roman period in Croydon. An extended discussion of the research potential for the Roman period is discussed below.

### **8.4 To establish the presence, absence and/or nature of post-Roman activity on site**

8.4.1 The two phases of evaluation, and the consequent open area excavation, found no definitive evidence to indicate a human presence on site in the post-Roman periods. Whilst, two sherds of possible early Saxon date, retrieved whilst cleaning the surface of

the upper fill of pond [89], and a small pit containing abraded late Roman pottery may indicate a human presence no other evidence to suggest use of the site during the post-Roman period (Saxon, medieval and early post-medieval) was recognised.

## **8.5 To establish the presence, absence and/or nature of post-medieval activity on site**

8.5.1 The latter half of the post-medieval period was typified by a gradual reuse of the land for agricultural purposes with widespread accumulated layers, typified by an absence of cultural material, present throughout Area A.

8.5.2 Truncating this horizon were two ditches, one on a NW/SE orientation and one orientated NE/SW both of which contained accumulated fills within which a minimal quantity of cultural material was present. In Area B an additional ditch on a NW/SE alignment was recorded in the primary evaluation of the site (Taylor 2005) and together the features probably represent field boundaries relating to the later post-medieval period.

8.5.3 A fence line, constructed from reused chalk blocks and revetting the southern edge of the ditch in Area B further suggests that the features are of post medieval date for it is probable that the reused chalk originally dates to the early post-medieval period. The general lack of evidence for a human presence suggests that it was located away from settlement during these periods with its most probable use being agricultural.

8.5.4 The archaeological work on site also confirmed the presence of Victorian buildings fronting Lower Coombe Street within the areas of excavation. Whilst the buildings had impacted on the underlying archaeological deposits the extent of truncation was minimal and it is be anticipated that archaeological deposits remain in situ elsewhere on Lower Coombe Street.

## **8.6 Revised research objectives**

8.6.1 Given the complexity of the archaeological sequence a number of research objectives have emerged and these are detailed below.

## **8.7 To what extent can evidence for gravel quarrying on site be considered part of a localised construction programme?**

8.7.1 The excavation of gravel quarry pits represents the first recognisable human impact on the environment of the site. Pottery analysis suggests that the features gradually silted up from the mid 1<sup>st</sup> century onwards which would suggest that the pits were excavated a

short period before this time. Whilst the date of excavation for the pits is impossible to distinguish the lack of evidence for a local settlement prior to the Roman conquest suggests that the excavation of the quarry pits was during the early pre-conquest period (AD43-AD50).

8.7.2 It is known that a Roman road passes close to the site and it is possible that the extracted gravel may have been destined for use in the construction of this road. The Roman road network constituted part of the infrastructure relied on by the Roman army and the large scale construction of roads would presumably have been under an organised directorate which may indicate a temporary military presence in the Croydon area in the early Roman period.

8.7.3 Alternatively, the gravel extracted from the site may have been used for small scale building projects in the vicinity of the site for it is speculated that Croydon is the site of a *muncio*. The excavations on site have demonstrated the possible presence of a well appointed building nearby and it is to be expected that metalled surfaces would have been associated with any such buildings.

8.7.4 Whilst it is not known to what extent the excavation of gravel on site can be attributed to the construction of the road infrastructure or to the development of a nearby settlement, it is apparent that the extraction pits denote a human presence on site soon after the Roman conquest.

## **8.8 To what extent was the secondary use of the quarry pits as ponds governed by nature or human intervention?**

8.8.1 The excavation of Quarry pit [89] found it was lined with a clay sealant suggesting deliberate manipulation of the pre-existing feature to facilitate its secondary purpose as a pond. The pit had originally been excavated deep into the natural gravel horizon and it seems improbable, given its size and depth, that it would be possible for water to accumulate without the provision of a seal around the base and sides.

8.8.2 Whilst the contemporary pits also demonstrated a secondary use as ponds they had not been lined in the same manner. It is possible that the smaller size and shallower depth of the features did not necessitate the same provision to enable water accumulation and these appear to have developed in to ponds in a more organic nature.

8.8.3 It appears clear that pit [89] was deliberately modified to enable its secondary role as a pond in the later 1<sup>st</sup> and early 2<sup>nd</sup> centuries. Whilst it is possible that the smaller pits naturally accumulated standing water after their excavation, thus encouraging the

modification of pit [89] to facilitate its secondary use alongside the contemporary features, it is not known to what extent the smaller pits may have developed into ponds as a consequence of the modification of pit [89].

## **8.9 What are the implications when considering Roman farming practices in the 1<sup>st</sup> and early 2<sup>nd</sup> century?**

8.9.1 The environmental analysis of accumulated deposits within the ponds has highlighted the potential importance of the results when considering farming practices in the 1<sup>st</sup> and 2<sup>nd</sup> centuries. Whilst no pollen grains or spores were preserved, abundant quantities of partially carbonised cereal grain were retrieved from samples taken on site.

8.9.2 A large percentage of the deposits within the ponds were comprised of ash, cereals and charcoal and were suggestive of the combustion of large quantities of grass such as hay or straw. It was initially considered that the high density of cereal matter may have been a by product of field burning nearby, however, it has since been suggested that the ponds may have been integral to the farming processes being utilised.

8.9.3 It is noted in the environmental analysis that for glume wheat parching is required to separate the grain from the waste products and that the assemblage may represent harvests that caught fire (Branch et al 2005, Appendix 7). If the crops required heat treatment to enable their eventual collection, it would have been logical to provide a sustainable water source close by.

8.9.4 Before storage, crops undergo a series of processing stages to enable the separation of the grain from the waste product and analysis of the environmental assemblage may provide evidence relating to the stage attained in the crop processing before combustion and the nature of the agricultural practices employed (Branch et al 2005, Appendix 7).

8.9.5 The absence of farming deposits in the 3<sup>rd</sup> and 4<sup>th</sup> century indicates that the site experienced a change of use at this time. Significantly the transition from agriculture coincides with an increase in redeposited 1<sup>st</sup> and 2<sup>nd</sup> century building materials which further confirms that land use within the vicinity of the site was subject to change at this time.

## **8.10 What are the implications of the excavations at Lower Coombe Street when considering the Roman settlement at Croydon?**

8.10.1 Whilst there is extensive evidence for a Roman presence in Croydon the location, duration and nature of the settlement remains largely unknown. The presence of



multiple phases of deposition on site and the sizable quantities of pottery, building materials, bone and various small finds strongly suggest that the settlement was one of both longevity and, at times, sophistication.

8.10.2 The recovery of 1<sup>st</sup>/2<sup>nd</sup> century ceramic building material, including a number of hypocaust tiles, from later deposits implies that a sophisticated building existed in the vicinity of the site. In addition the range of imported wares from central Britain and from the continent implies that the settlement was part of the interacting trade networks throughout the 1<sup>st</sup> and 2<sup>nd</sup> century.

8.10.3 The increasing quantities of ceramic building material in later deposits, much of it dating to earlier phases, suggests that the Roman settlement at Croydon, or at least the building from which the ceramic building material originated, suffered a period of upheaval/change of use in the late 2<sup>nd</sup>/3<sup>rd</sup> centuries. It should be noted that this shift is paralleled by the abandonment of farming practices on site.

8.10.4 The abundance of 4<sup>th</sup> century pottery clearly indicates that the area remained in use throughout this time although the absence of farming practices on site may indicate more far-reaching changes to the organisation and scale of the settlement.

8.10.5 Without locating the settlement itself it is difficult to speculate on what may have constituted these changes, however, it is nonetheless apparent that the Roman settlement at Croydon experienced a number of shifts in its development from the 1<sup>st</sup> century to the end of the 4<sup>th</sup> century which when considered alongside additional data may significantly contribute to our understanding of the Roman settlement at Croydon.

### **8.11 To what extent can changes in land use on site be attributed to shifts in power on the continent?**

8.11.1 A period of upheaval took place at the end of the 2<sup>nd</sup>/early 3<sup>rd</sup> centuries throughout Roman Britain and changes in land use have been noted on many sites. These changes may relate to political conflict in the wider Empire whereby succession to the governorship of Rome's principalities was fought over by a number of claimants. The rivals for the title of Caesar included Clodius Albinus governor of Britain who clashed with Severus near Lyon in AD 197. Albinus was comprehensively defeated and it is probable that those landowners in Britain who had supported him would have suffered under the rule of Severus.

8.11.2 It is possible that shifts in land use during the late 2<sup>nd</sup>/early 3<sup>rd</sup> century, as witnessed on site, may have been a consequence of this political situation. Further consideration of

the cultural material retrieved, paralleled with other assemblages from Roman Britain, may allow changes to land use on site to be contextualised to the political situation on the continent.

**8.12 What interpretations can be applied to the general absence of land use of the site in the post-Roman periods?**

8.12.1 The presence of two sherds of possible early Saxon date may yet allude to a temporary reuse of the site but the general absence of features and finds of this date suggests that any continued presence on site was short lived.

8.12.2 The absence of Saxon, medieval and early post-medieval deposits on site suggest that following the abandonment of the Roman settlement minimal reuse of the land took place. In many ways the hiatus is not unexpected for similar patterns of abandonment are known elsewhere in the country and it is possible that developed land was less desirable during the early post-Roman periods, a selective process which may have established a precedent throughout the later periods.

## **9 CONTENTS OF THE ARCHIVE**

### **9.1 PAPER RECORDS**

Contexts	1 - 147
Plans	46 sheets
Sections	31 sheets
Photographs:	
Colour Prints (medium format)	3 films
Black and White Prints (medium format)	3 films
Black and white prints (35mm)	4 films
Colour slide (35mm)	4 films

### **9.2 THE FINDS**

Pottery	6 boxes
Ceramic building material	3 boxes
Stone building material	3 boxes
Bone	6 boxes
Lithics	2 boxes
Metal	1 box
Glass	1 box

## **10 IMPORTANCE OF RESULTS AND PUBLICATION OUTLINE**

### **10.1 Importance Of The Results**

10.1.1 Whilst it has long been considered that a Roman presence existed in Croydon, the excavation of deposits dated to the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> centuries has provided evidence for a complex stratigraphic sequence not recorded elsewhere in the area. As such, the results of the excavation are both significant to a local understanding of Croydon in the Roman period and to a wider discussion of Roman occupation in Britain.

10.1.2 The retrieval of significant organic remains from the ponds on site and the potential that they provide to discuss farming practices in the early Roman period should not be underestimated. Organic remains of this type are rare and their preservation at Lower Coombe Street will provide important insights into the organisation and implementation of refined farming practices at this time.

10.1.3 The artefactual assemblage retrieved from the Roman deposits at Lower Coombe Street alludes to changes and shifts in the fortunes of the settlement that would have created the waste material. Particularly interesting are the concentrations of 1<sup>st</sup> and 2<sup>nd</sup> century building materials, found within 3<sup>rd</sup> and 4<sup>th</sup> century deposits, which suggest that a well-appointed building may have once existed in the vicinity of the site. In addition the presence of imported wares from central Britain and the continent indicate that the settlement at Croydon was privy to far reaching trade in the 1<sup>st</sup> and 2<sup>nd</sup> centuries.

10.1.4 Whilst it was beyond the capacity of the excavation to place the location of the Roman settlement, the comprehensive artefactual assemblage including pottery, bone, ceramic and stone building material, organic remains and a number of small finds are potentially document the changes and shifts for the settlement that discarded them. The transition from quarrying, to agricultural, to, what essentially came to be, a waste ground must have implications when considering the development and decline of the settlement at Croydon and it is of particular importance that the findings from this site be assimilated with other excavations in the Croydon area.

### **10.2 Further work**

10.2.1 The specialists' reports list the specifics of potential further work, but an outline of the additional research required is given below.

10.2.2 The pottery assemblage from the Phase 3b deposits will be written up with illustrations. The Phase 4b pot will also be written up with particular reference to contexts [88] and

[119] in the top of pit [89] and 10 further illustrations. The graffito on the sherd from context [88] will be shown to Mark Hassall, the stamp decorated sherd from Trench 10 to Joanna Bird and the two South Gaulish Samian stamps to Brenda Dickinson.

10.2.3 The nature of the building material from the site indicates the presence of a well-appointed building, perhaps with a tiled hypocaust, *opus spicatum* floor and carved stonework. As the Roman settlement at Croydon has yet to be located the building material from the site is of particular significance for an understanding of the archaeology of the area.

10.2.4 Due to its size and lack of chronologically diagnostic artefacts, this report is all that is required of the lithic material for the purposes of the archive and no further analytical work is proposed. Nevertheless, the struck flint does contribute to the body of evidence for prehistoric activity in the area and a short description of the assemblage will be included in any published account of the fieldwork.

10.2.5 The animal bone assemblage will be summarised for publication but further analysis of the assemblage will not provide additional evidence for the use of area in the Roman period.

10.2.6 With regards the environmental assemblage, analysis of the following contexts will provide further, quantitative information on Roman crop processing, agricultural practices and storage, enabling a fuller discussion of the issues raised: Phase 3b, contexts [13], [107], [112], [113], [123] and [124], and Phase 4a, context [120]. Although charcoal was recorded during the assessment, preliminary identifications were not made, and therefore the charcoal from contexts [13] and [124] will be submitted for identification to provide information on Roman fuel wood utilisation and woodland composition.

10.2.7 Most of the small finds retrieved on site were uninspiring in themselves, however the lion's head mount and the sandstone quern will both be illustrated. Further parallels for the form of the quern should be sought, and it is recommended that that the stone type is identified by a geologist. In addition the Roman ironwork will be further X-rayed to assist in identification.

### **10.3 Publication outline**

10.3.1 Following the completion of the further work outlined above, the resulting paper will be peer reviewed and published as an article in Surrey Archaeological Collections.

## **11 ACKNOWLEDGMENTS**

- 11.1 Pre-Construct Archaeology Limited would like to thank Mansell Construction Services for commissioning the work on behalf of Wandle Housing Association and Mark Stevenson (English heritage) for monitoring the site.
- 11.2 The author would like to thank Douglas Killock, Denise Mulligan, Ellie Sayer and Faith Cairns for all their assistance during the evaluation. The author would also like to thank Natalie Barrett for the surveying, Adrian Nash for the illustrations, Cheryl Blundy for the photography and John Brown, Malcolm Lyne, Lisa Yeomans, Nick Branch and Marit Gamster for their respective reports. Furthermore, the author would like to thank Tim Bradley for his project management and editing and Frank Meddens and Lorraine Darton for their post-excavation management.

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## APPENDIX 1: SITE REGISTER

Context	Trench	Plan	Section	Phase	Type	Description	Highest	Lowest	Sample
Number	/Grid Square	Number	Number						
1	Tr 3 (eval)	*	1	6a	Layer	Dump/levelling layer, mid brown black, silty gravel	46.2	45.67	*
2	Tr 3 (eval)	Tr 3	1	4b	Layer	Dump/levelling layer, dark black, silty gravel	45.67	45.32	3
3	Tr 3 (eval)	*	*	5a	Fill	Fill of [4], dark black, sandy silt	45.5	*	*
4	Tr 3 (eval)	Tr 3	*	5a	Cut	Pit? (possibly a dump line in [14])	45.5	45	*
5	Tr 4 (eval)	Tr 4	3	4b	Layer	Dump/levelling layer, dark black, silty gravel	45.74	*	2
6	Tr 3 (eval)	*	1	7	Masonry	N/S Foundation within [7]	46.64	*	*
7	Tr 3 (eval)	*	1	7	Cut	Construction Cut for [6]	46.64	46.22	*
8	Tr 3 (eval)	*	1	6b	Fill	Fill of [9], mid brown, sandy silt	46.52	*	*
9	Tr 3 (eval)	*	1	6b	Cut	NW/SE Ditch/Channel	46.52	45.64	*
10	Tr 3 (eval)	*	1	6a	Layer	Ploughsoil, mid brown, sandy silt	46.52	*	*
11	Tr 3 (eval)	*	1	3b	Fill	Fill of [14], dark black, sandy organic silt	45.32	*	*
12	Tr 3 (eval)	*	1	3b	Fill	Fill of [14], mid yellow brown, silty sand	45.39	*	*
13	Tr 3 (eval)	*	1	3b	Fill	Fill of [14], dark black, silty peat	45.27	*	1
14	Tr 3 (eval)	*	1	3a	Cut	Gravel Extraction Pit/Pond	45.39	44.82	*
15	Tr 3 (eval)	Tr 3	1	1	Layer	Natural Gravel	45.02	44.82	*
16	Tr 3 (eval)	Tr 3	*	7	Fill	Backfill of [17], mid brown, silty sand	46.63	*	*
17	Tr 3 (eval)	Tr 3	*	7	Cut	Construction Cut for [18]	46.63	45.44	*
18	Tr 3 (eval)	Tr 3	*	7	Masonry	N/S Foundation/Wall within [7]	46.63	45.44	*
19	Tr 3 (eval)	Tr 3	2	6b	Fill	Fill of [20], mid brown grey, silty clay	46.28	*	*
20	Tr 3 (eval)	Tr 3	2	6b	Cut	NW/SE Ditch/Channel	46.28	45.38	*
21	Tr 3 (eval)	Tr 3	2	6b	Fill	Fill of [23], mid grey brown, gravely sandy clay	46.16	45.38	*
22	Tr 3 (eval)	*	2	6b	Fill	Fill of [23], dark grey brown,	45.8	45.38	*



						sandy gravelly clay			
23	Tr 3 (eval)	Tr 3	2	6b	Cut	NW/SE Ditch/Channel	46.13	45.38	*
24	Tr 3 (eval)	Tr 3	2	1	Layer	Natural Gravel	45.63	*	*
25	Tr 4 (eval)	*	3	7	Masonry	N/S Foundation within [26]	46.48	*	*
26	Tr 4 (eval)	*	3	7	Cut	Construction Cut for [25]	46.48	46.28	*
27	Tr 4 (eval)	*	3	7	Layer	Dump/levelling layer, mid brown, clay silt	46.48	*	*
28	Tr 4 (eval)	*	3	6a	Layer	Dump/levelling layer, dark brown, sandy silt	46.23	46.13	*
29	Tr 4 (eval)	*	3	6a	Layer	Dump/levelling layer, mid brown black, silty gravel	46.03	*	*
30	Tr 4 (eval)	*	3	4a	Fill	Fill of [31], dark brown black, silty sandy gravel	45.63	*	*
31	Tr 4 (eval)	*	3	4a	Cut	Pit	45.63	45.39	*
32	Tr 4 (eval)	*	3	4a	Fill	Fill of [33], dark brown black, silty sandy gravel	45.63	*	*
33	Tr 4 (eval)	*	3	4a	Cut	Pit	45.63	45.06	*
34	Tr 4 (eval)	Tr 4	3	1	Layer	Natural Gravel	45.63	*	*
35	Tr 4 (eval)	Tr 4	*	2	Fill	Fill of [36], light grey, silty clay	45.61	*	*
36	Tr 4 (eval)	Tr 4	*	2	Cut	Gulley?	45.61	45.31	*
37	Tr 4 (eval)	*	3	7	Layer	Dump/levelling layer, mid brown yellow, clay	46.28	46.13	*
38	Tr 4 (eval)	*	3	7	Masonry	N/S Foundation within [39]	46.48	*	*
39	Tr 4 (eval)	*	3	7	Cut	Construction Cut within [38]	46.48	45.78	*
40	Tr 1 (eval)	Tr 1	4	5a	Fill	Fill of [42], dark brown black, sandy gravel	45.7	45.65	*
41	Tr 1 (eval)	Tr 1	4	6a	Layer	Water deposited layer, mid grey brown, sandy silty peat	45.81	*	4
42	Tr 1 (eval)	Tr 1	4	5a	Cut	NW/SE Ditch?	45.7	45.35	*
43	Tr 1 (eval)	Tr 1	4	1	Layer	Natural Gravel	45.67	45.35	*
44	Tr 2 (eval)	Tr 2	5	1	Layer	Natural Gravel	45.59	45.36	*
45	Tr 2 (eval)	Tr 2	5	5a	Fill	Fill of [47], dark brown black, sandy gravel	45.7	*	*
46	Tr 2 (eval)	Tr 2	*	5a	Fill	Fill of [47], dark brown black, sandy gravel	45.59	*	*
47	Tr 2 (eval)	Tr 2	5	5a	Cut	NW/SE Ditch?	45.69	45.29	*

48	Tr 2 (eval)	Tr 2	*	5a	Fill	Fill of [49], dark grey black, silty sand	45.59	*	*
49	Tr 2 (eval)	Tr 2	*	5a	Cut	Pit	45.59	*	*
50	Tr 1 (eval)	Tr 1	4	5b	Fill	Backfill of [52], dark grey brown, clayey peaty silt	45.65	*	*
51	Tr 1 (eval)	Tr 1	4	5b	Masonry	Chalk Foundation for Fence(?) within [52]	45.65	*	*
52	Tr 1 (eval)	Tr 1	4	5b	Cut	Construction Cut for [51]	45.65	45.28	*
53	Tr 2 (eval)	*	5	6a	Layer	Water deposited layer, mid grey brown, sandy silty peat	45.92	45.89	*
54	Tr 2 (eval)	*	5	6a	Layer	Water deposited layer, mid grey brown, sandy silty peat	45.79	*	*
55	Tr 2 (eval)	Tr 2	*	2	Fill	Fill of [65], mid brown yellow, sandy silt	45.32	*	*
56	Tr 2 (eval)	Tr 2	*	2	Cut	Pit/Natural Feature	45.32	45.12	*
57	Tr 1 (eval)	*	4	6a	Layer	Water deposited layer, mid grey brown, sandy silty peat	46	45.98	*
58	Tr 3 (eval)	*	1	7	Layer	Dump/levelling layer, mid brown, clay silt	46.67	*	*
59	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID
60	Tr 5 (eval #2)	*	6	7	Layer	Demolition layer, light brown rubble	46.57	*	*
61	Tr 5 (eval #2)	*	6	7	Fill	Fill of [62], brick rubble foundation	46.57	*	*
62	Tr 5 (eval #2)	*	6	7	Cut	Construction cut for [61]	46.57	46.07	*
63	Tr 5 (eval #2)	*	6	6a	Layer	Ploughsoil, mid brown, sandy silt	46.42	*	*
64	Tr 5 (eval #2)	*	6	4b	Layer	Subsoil, compact, dark black, silty gravel	46.07	*	*
65	Tr 5 (eval #2)	*	6	4b	Layer	Dump/levelling layer, loose, black, silty gravel	45.87	*	*
66	Tr 5 (eval #2)	*	6	7	Fill	Fill of [67], brick rubble foundation	46.57	*	*
67	Tr 5 (eval #2)	*	6	7	Cut	Construction cut for [66]	46.57	46.02	*
68	Tr 5 (eval #2)	*	6	6b	Fill	Fill of [70], loose, dark brown, sandy silt	46.12	*	*

69	Tr 5 (eval #2)	*	6	6b	Fill	Fill of [70], firm, light brown, clay silt	46.1	45.62	*
70	Tr 5 (eval #2)	*	6	6b	Cut	NW/SE Ditch/Channel	46.12	45.62	*
71	Tr 5 (eval #2)	*	6	7	Fill	Fill of [72], loose, mid brown, sandy silt and drain pipe	46.57	*	*
72	Tr 5 (eval #2)	*	6	7	Cut	Construction cut for drain containing [72]	46.57	46	*
73	Tr 6 (eval #2)	*	7	7	Layer	Demolition layer, light brown rubble	46.9	*	*
74	Tr 6 (eval #2)	*	7	7	Fill	Fill of [75], loose, light brown grey, silty mortar	46.4	*	*
75	Tr 6 (eval #2)	*	7	7	Cut	Robber cut	46.4	45.65	*
76	Tr 6 (eval #2)	*	7	7	Layer	Ploughsoil, mid green grey, sandy silt	46.45	*	*
77	Tr 6 (eval #2)	*	7	4b	Layer	Subsoil, compact, dark grey black, silty gravel	46.05	*	*
78	Tr 6 (eval #2)	*	7	6b	Fill	Fill of [80], friable, light yellow brown, silty sand	46.35	*	*
79	Tr 6 (eval #2)	*	7	6b	Fill	Fill of [80], firm, light green grey, clay silt	46.1	45.8	*
80	Tr 6 (eval #2)	*	7	6b	Cut	NW/SE Ditch/Channel	46.35	45.6	*
81	105/210, 105/215	pre-ex	*	7	Fill	Infill of [82], firm, dark grey brown, chalky clayey sand	45.51	*	*
82	105/210, 110/210, 105/215, 110/215	pre-ex	*	7	Masonry	Trench built foundations of subterranean room within [83]	45.51	*	*
83	105/210, 110/210, 105/215, 110/215	pre-ex	*	7	Cut	Construction cut for [82]	45.51	*	*
84	100/215, 105/215	pre-ex	16, 17	6b	Fill	Fill of [87], stiff, mid orange brown, silty clay	46.6	*	*
85	100/215, 105/215, 110/215, 100/220, 105/220	pre-ex	16, 17	6b	Fill	Fill of [87], stiff, dark brown grey, silty clay	46.5	*	*
86	110/210, 100/215,	pre-ex	8, 9, 16, 17	6b	Fill	Fill of [87], firm, light grey yellow, silty gravel	45.96	*	*

	105/215, 110/215, 105/220								
87	110/210, 100/215, 105/215, 110/215, 105/220	pre-ex	8, 9, 16, 17	6b	Cut	NW/SE Ditch/Channel	46.56	45.65	*
88	100/210, 105/210, 100/215, 105/215	pre-ex	14	4b	Fill	Fill of [89], firm, dark grey black, sandy silty gravel	45.64	*	*
89	100/210, 105/210, 100/215, 105/215	pre-ex, 89multi	11, 12, 14	3a	Cut	Gravel Extraction Pit/Pond	45.64	44.82	*
90	100/215	pre-ex, 90	*	4b	Layer	Dump/levelling layer, compact, mid grey, sandy silt gravel	45.47	*	*
91	105/215, 110/215, 105/220, 110/220	pre-ex	8, 9	3c	Fill	Fill of [115], firm, mid grey yellow, sandy gravel	45.6	*	*
92	110/210	*	*	4a	Fill	Fill of [93], loose, dark black grey, sandy gravel	45.47	*	*
93	110/210	93	*	4a	Cut	Gully/pit	45.47	45.29	*
94	100/205, 105/205, 100/210, 105/210	pre-ex	14	4a	Fill	Fill of [95], loose, dark brown, silty gravel	45.66	*	*
95	100/205, 105/205, 100/210, 105/210	pre-ex, 101multi	14	4a	Cut	Gully	45.66	45.44	*
96	100/205	pre-ex	*	4a	Fill	Fill of [97], loose, dark brown, silty gravel	45.61	*	*
97	100/205	pre-ex, 101multi	*	4a	Cut	Posthole	45.61	45.54	*
98	100/205	pre-ex	*	4a	Fill	Fill of [99], loose, dark yellow brown, silty gravel	45.64	*	*
99	100/205	pre-ex, 101multi	*	4a	Cut	Posthole	45.64	45.54	*
100	105/200, 100/205, 105/205	pre-ex	13	4a	Fill	Fill of [101], loose, dark brown, silty gravel	45.8	*	*
101	105/200,	pre-ex,	13	4a	Cut	Gully	45.8	45.43	*

	100/205, 105/205	101multi							
102	100/200	pre-ex		4a	Fill	Fill of [103], loose, dark brown, silty gravel	45.69	*	*
103	100/200	pre-ex, 103	*	4a	Cut	Posthole	45.69	45.59	*
104	100/205, 100/210	*	13, 14	4b	Layer	Dump/levelling layer, loose, dark grey brown, silty sand gravel	45.99	*	*
105	100/200, 105/200, 100/205, 105/205, 100/210, 105/210, 110/210, 105/215, 110/215	pre-ex, 105	11, 13, 14	1	Layer	Natural Gravel	45.66	45.64	18
106	105/215, 110/215	*	8, 9	4a	Fill	Fill of [109], firm, mid yellow grey, sandy gravel	45.57	*	*
107	105/215, 110/215	*	8	3b	Fill	Fill of [115], soft, dark black, peaty silt	45.27	*	11
108	105/215, 110/215	*	8	3b	Fill	Fill of [115], soft, yellow grey, silt	45.12	*	12
109	105/215, 110/215	109	8, 9	4a	Cut	E/W Ditch	45.57	45.03	*
110	100/215	111multi	10	4a	Fill	Fill of [111], compact, mid green grey, clayey silty sand	45.53	*	*
111	100/215, 105/215, 110/215	89multi, 111multi	10	4a	Cut	E/W Ditch	45.53	44.77	*
112	105/215, 110/215	*	8	3b	Fill	Fill of [115], firm, dark black, silt	45.17	*	13
113	100/215	*	*	3b	Fill	Fill of [114], firm, dark grey black, sandy silt	45.4	*	10
114	100/215	89multi, 114multi	*	3a	Cut	Gravel Extraction Pit/Pond	45.19	45	*
115	105/215, 110/215	115	8	3a	Cut	Gravel Extraction Pit/Pond?	45.6	44.99	*
116	105/215, 110/215	*	8, 9	5a	Fill	Fill of [118], sticky, grey brown, silty clay	45.47	*	*
117	105/215, 110/215	*	8, 9	3c	Fill	Fill of [115], firm, mid grey brown, sandy silt	45.42	*	*

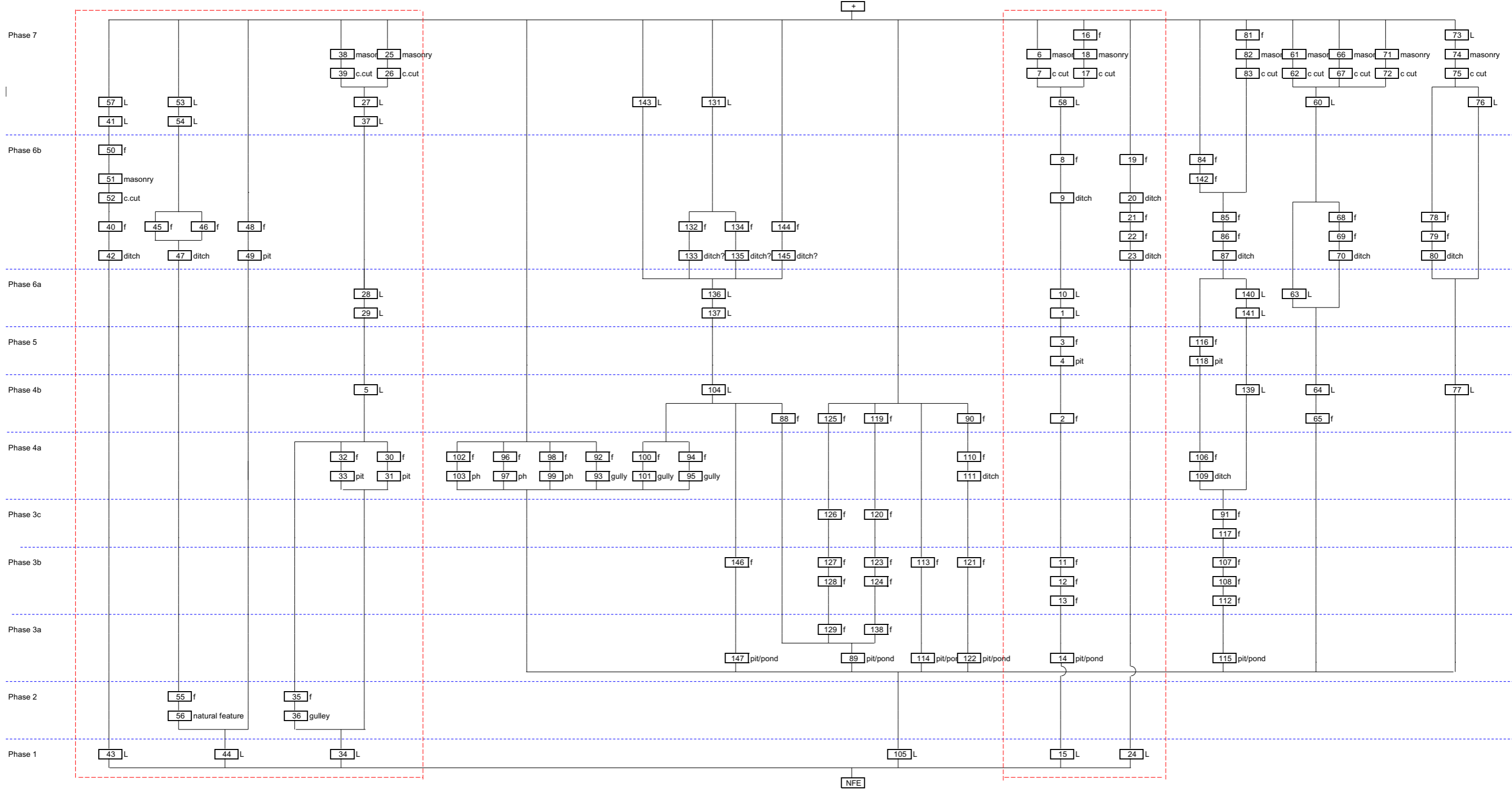
118	105/215, 110/215	118	8, 9	5a	Cut	Pit?	45.47	44.73	*
119	100/210, 105/210	89multi	11, 12, 15	4b	Fill	Fill of [89], loose, dark grey black, gravely sandy silt	45.54	45.47	14, 19
120	100/210, 105/210	*	11, 12, 15	3c	Fill	Fill of [89], soft, mid grey, sandy silt	45.33	*	15, 18, 19
121	100/215	*	10	3b	Fill	Fill of [122], firm, dark grey black, sandy peaty silt	45.48	*	*
122	100/215	89multi, 114multi	10	3a	Cut	Gravel Extraction Pit/Pond?	45.13	45.03	*
123	100/210, 105/210	*	11, 12, 15	3b	Fill	Fill of [89], soft, dark black, sandy silt	45.34	45.27	16, 18, 19
124	100/210, 105/210	*	11, 12, 15	3b	Fill	Fill of [89], soft, dark black, sandy silt	45.33	44.99	17, 18, 19
125	100/210, 105/210	*	11, 12	4b	Fill	Fill of [89], compact, mid brown grey, silty sand	45.58	45.55	*
126	100/210, 105/210	*	11, 12	3c	Fill	Fill of [89], friable, dark yellow brown, gravely sand	45.55	*	*
127	100/210, 105/210	*	11, 12	3b	Fill	Fill of [89], loose, dark black, silt	45.4	*	*
128	100/210, 105/210	*	11, 12	3b	Fill	Fill of [89], loose, dark black, silt	45.3	*	*
129	100/210, 105/210	*	11, 12	3a	Fill	Fill of [89], firm, mid grey, silty clay	45.12	44.92	*
130	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID
131	100/205, 100/210	*	13	7	Layer	Ploughsoil, firm, mid grey brown, sandy silt	46.37	*	*
132	100/205	*	13	6b	Fill	Fill of [133], soft, dark grey brown, sandy humic silt	46.26	*	*
133	100/205	*	13	6b	Cut	Pit/ditch	46.26	45.99	*
134	100/205	*	13	6b	Fill	Fill of [135], loose, mid grey orange, sandy silt	46.26	*	*
135	100/205	*	13	6b	Cut	Pit/ditch	46.26	45.74	*
136	100/205, 100/210	*	13, 14	6a	Layer	Ploughsoil, firm, mid brown grey, sandy silty gravel	46.26	45.99	*
137	100/205, 100/210	*	13, 14	6a	Layer	Ploughsoil, friable, dark grey brown, sandy gravely silt	46.14	*	*

138	100/210, 105/210*		11, 12, 15	3a	Fill	Fill of [89], loose, dark grey black, clayey sand gravel	45.6	44.85	18, 19
139	105/220, 110/220*		16, 17	4b	Layer	Dump/levelling layer, firm, dark brown, clayey sand	46.18	*	*
140	105/220, 110/220*		16	6a	Layer	Ploughsoil, firm, mid brown, sandy clay	46.6	*	*
141	105/220, 110/220*		16	6a	Layer	Ploughsoil, firm, mid brown, sandy clay	46.42	*	*
142	100/215, 100/220*		17	6b	Fill	Fill of [87], firm, mid brown, sandy silt gravel	46.33	*	*
143	100/210	*	14	7	Layer	Ploughsoil, firm, mid grey brown, sandy silt gravel	46.23	*	*
144	100/210	*	*	6b	Fill	Fill of [145], loose, mid grey orange, sandy silt	46.16	*	*
145	100/210	*	*	6b	Cut	Pit/ditch	46.16	45.79	*
146	100/210	*	14	3b	Fill	Fill of [147], soft, dark black, silt	45.69	*	*
147	100/210	*	14	3a	Cut	Gravel Extraction Pit/Pond?	45.69	45.46	*

## APPENDIX 2: SITE MATRIX



LCS05  
Excavation & Evalation matrix combined



## **APPENDIX 3: POTTERY ASSESSMENT (MALCOLM LYNE)**

### **INTRODUCTION**

The site yielded 695 sherds (16582 gm) of Roman pottery from 40 contexts, of which 94 sherds are unstratified or residual in post-Roman contexts. A further 48 sherds (229 gm) were recovered through sieving of environmental samples. Much of the material is either late 1<sup>st</sup>-to-early 2<sup>nd</sup> century or Late Roman date, with c.AD.150-250 material only present as residual in later contexts

### **METHODOLOGY**

All of the assemblages were quantified by numbers of sherds and their weights per fabric. These fabrics were identified using a x8 magnification lens in order to determine the natures, frequencies, forms and sizes of added inclusions. The fabric codings for imported wares are those formulated by Museum of London Archaeological Services (Anon 2000): a further numbered fabric series was drawn up for wares of more local manufacture

### **THE ASSEMBLAGES**

#### **Phase 3b & 3c. Mid 1<sup>st</sup>- early 2<sup>nd</sup> century**

The lower fills of the various gravel pits yielded small pottery assemblages, most of which can be dated between c.AD.60 and 100: the assemblage from Context 113 in Pit 114 does, however, include a little early 2<sup>nd</sup> century material. None of these assemblages are large enough for any meaningful form of quantification: they do, however, show that pottery supply to the East Croydon area during the late-1<sup>st</sup> century was from a variety of sources, including a variety of wares (Fabrics 5,9,11,12,13 and 15) from Keston (Cooper and Parfitt 1991,199-205), Otford (Patchgrove ware), Alice Holt, London (Highgate Wood Fabrics B and C and Fine Micaceous Ware) and North Kent Fine Ware from the Medway marshes. A few fragments from Verulamium Region Whiteware and Greyware amphorae, flagons, mortaria, honey jars and lid-seated bowls, as well as a Gillam 238 mortarium, South Gaulish Samian vessels and South Spanish Dressel 20 olive oil amphorae are also present. The Keston material includes joining fragments from an imitation Pompeian Red platter in Fabric 15 with internal pink colour-coat from Contexts 120, 123 and 127.

#### **Phase 4a. Later Roman**

The period between c.AD.150 and 250 is poorly represented on the site and largely restricted to three residual BB2 cooking-pot and bowl sherds from the Phase 4b Context 110. The various ditch context assemblages include both derived Phase 3b and Late Roman sherds, but nothing which can be regarded as later than Phase 4a

#### **Phase 4b: 4<sup>th</sup> century**

The upper fills of the various gravel pits yielded small assemblages of Late Roman pottery. Pit 89 is particularly interesting in that its lower fills yielded Phase 3B type material but its uppermost fill (Context 88) produced 68 fragments of Late Roman pottery: this assemblage and the 61 sherds from Context 119 below show that by far the biggest pottery supplier to the area after AD.270 was the Alice Holt/ Farnham grey kitchen ware producing industry on the Hampshire/Surrey border. More than half of all of the Late Roman pottery from the site comes from this source. The Context 88 material also includes fragments from Oxfordshire Red Colour-coat bowls and beakers, as well as four vessels in both coarse and fine Overwey/Portchester D buff fabric (c.AD.330-420). Of particular interest are two small fragments in very-fine-sanded handmade brown-black fabric of possible Early Saxon date (c.AD.450-650). The pottery from the dump layers 5, 90 and 104 to the south of the ditch is of similar Late Roman date to that from the top fills of the gravel pits and also includes post-AD.330 Overwey/Portchester D wares. Much of this material is, however, abraded and suggests that this dump may have been reworked by later agricultural activities.

## RECOMMENDATIONS

This is an interesting site: the Phase 3b material from the pits should be written up with perhaps 13 pot illustrations. The Late Roman Phase 4b pot should also be written up with particular reference to Contexts 88 and 119 in the top of Pit 89 and 10 further illustrations. The graffito on the sherd from Context 88 should be shown to Mark Hassall, the stamp decorated sherd from Trench 10 to Joanna Bird and the two South Gaulish Samian stamps to Brenda Dickinson.

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## APPENDIX 1: FABRICS

### MOLAS FABRIC CODINGS

AHFA. Alice Holt/Farnham ware  
AHSU. Alice Holt/Surrey greyware  
AMPH. Miscellaneous amphorae fabrics  
BAET. Baetican DR 20 amphora fabric  
BB2. North Kent Black Burnished ware  
BBS. Miscellaneous Black Burnished ware  
DORBB1. Dorset Black-Burnished ware  
ERMS. Early Roman Micaceous sandy ware  
ERSA. Early Roman handmade grey/black sand-tempered ware  
FMIC. Fine grey to black mica-dusted fabric  
G238. Gillam 238 mortarium fabric  
GROG. Late Roman Grog-tempered wares  
HOO. Hoo St Werburgh oxidised fabric  
HWB. Highgate Wood B fabric  
HWC. Highgate Wood C fabric  
LNVCC. Lower Nene Valley Colour-coat  
MICA. Mica-dusted sandfree pink-orange fabric.  
MISC. Miscellaneous wares  
MOSL. Moselkeramik  
NKFW. North Kent Fine Ware  
NKSH. North Kent Shell-tempered ware  
OXID. Miscellaneous oxidised wares  
OXMO. Oxfordshire Whiteware Mortarium fabric  
OXRC. Oxfordshire Red Colour-coat  
PATCH. Patchgrove ware  
PORD1. Sandy buff Overwey/Portchester D fabric  
PORD2. Sandy orange fired pimply blue-grey Overwey fabric  
PORD3. Very-fine-sanded buff Overwey/Portchester D fabric  
RDBK. Cream ring-and-dot beaker fabric  
SAMLG. South Gaulish La Graufesenque Samian  
SAMLZ. Central Gaulish Lezoux Samian  
SAMMV. Martres-de-Veyre Samian  
SAND. Miscellaneous greywares.  
TSK. Thameside sandy greyware  
VCWS. Verulamium Coarse White-Slipped ware  
VRG. Verulamium Region Greyware  
VRW. Verulamium Region Whitewares

### LOCAL FABRIC CODINGS

1. 'Belgic' grog-tempered wares
2. Handmade grog-tempered black fabric with profuse up-to 3.00mm siltstone grog filler, fired rough-smoothed buff externally
3. Wheel-turned grog-tempered fabric with profuse up-to 2.00mm rounded vesicles, fired patchy buff/black/grey.
4. Handmade deep-pink fabric fired rough black to grey with profuse up-to 0.50mm iron-stained quartz filler
5. Wheel-turned patchy buff/black fabric with silt and coarse shell filler
6. Very-fine-sanded whiteware with smooth black exterior
7. Silt-tempered micaceous grey to brown fabric
8. Sandfree pink fabric with stamped ovolo and palm frond decoration
9. Sandfree patchy fired blue-grey/orange/pink with red ferrous inclusions
10. Sandfree patchy pink/cream fabric with red ferrous inclusions
11. Sandfree pink-orange wheel-turned fabric fired buff-grey with external black slip
12. Very-fine-sanded patchy buff/grey/black fabric with profuse 0.10mm quartz and sparse up-to 2.00mm vesicles
13. Very-fine sanded blue-grey fabric with additional dark ferrous inclusions
14. Silt tempered red fabric with external cream slip
15. Hard brittle grey fabric with profuse up-to 0.50mm multi-coloured quartz filler and occasional larger black ironstone inclusions with polished pink interior surface

## APPENDIX 2: CATALOGUE

Context	Fabric	Form	Date-range	No of sherds	Weight in gm	Comments	
+	3	Closed		2	27	Abraded	
		AHFA	3B-10 jar	AD.270-400			
			Cl 3C jar	AD.300-400			
			5B-6 bowlx2	AD.270-400			
			8-14 flagon	AD.270-400			
			Closed		29		405
	BAET	DR20	AD.170-350	1	107		
	DORBB	Open form	AD.200-300	1	9		
	1			1	15		
	FMIC	Jar	AD.270-400	1	46		
	GROG	Closed	AD.43-250	1	8		
				38	717gm		
Tr 5	AHFA		AD.200-400	2	28gm		
Tr 6	9	Closed		1	6		
	AHFA	1C-6 store-jar	AD.350-400+	1	142	v.abraded	
	SAND			1	10	encrusted	
				3	158gm		

Tr 6 or 128 +	AHFA	Closed	AD.270-400	1	6gm	
Tr 9	1	Lid	50BC-AD.80	1	29	Fresh
	AHFA	3B-10X3	AD.270-400	5	125	Fresh
				6	154gm	
Tr 9+	AHFA	CI 3C jar	AD.300-400	1	25	
	BAET	DR20		1	115	Abraded
				2	140gm	
Tr 10+	8	Closed		1	8	c.be SAMEG Research
	AHFA	6A-12 dish	AD 270-400	1	102	Large fresh
	BAET	DR20		1	176	
	ERMS	Necked jar	AD.50-80	2	33	
	HWC	Jar	AD 70-160	1	6	
				6	325gm	
1	AHFA	Store-jar	AD.200-400	2	100	Abraded
	OXRC	Mortarium	AD.240-400	2	22	
	SAND	Jar	L.I.A.-AD.70	1	41	
			AD.240-400	5	163gm	Phase 6a
2	AHSU	1-12 Jar	AD.50-120	1	10	
	AHFA	3B-10 jar	AD 270-400			
		5B-5 bowl	AD 270-350			
		5B-6 bowl	AD.270-400			
		5B-10 bowl	AD 270-400			
		6A-6 dishx2	AD.270-400			
		beehive	AD 200-400			
		Beaker			42	1094
	BB2	Open form	AD.170-250	2	11	
	GROG	Jars	AD 270-400	4	210	
	HWC	Beaker	AD 70-160	1	4	
	LNVCC	Bead-rim beaker	AD 250-370	1	22	
	MISC			5	81	
	OXID	Ev.rim jar	AD 270-400	1	15	
	OXRC	C84 bowl	AD 350-400			
		Beaker base	AD 240-400		6	79
	PORD1	Rilled jar	AD 330-420	4	70	
PORD2	Ev.rim jar	AD 330-420	5	175		
SAMLZ	Dr 31	AD 150-200	1	28		

	VRW ?med	2H jar cooking-pot	AD 130-200	3 1	33 8	
			AD.270-400 with some residual material. But ? medieval sherd	77	1840 gm	Phase 4b
3	AHFA BB2 DORBB 1 GROG OXID OXRC PORD1 PORD2 SAMLZ SAND	5B-6 bowl 6A-4 dish 6A 10 dish open form open form dog dish  C29 beaker C61 bowl Rilled jar Everted rim jar    	AD.270-400 AD 270-370 AD.330-420 AD 170-250 AD 200-300 AD 270-370  AD 270-360 AD 350-400 AD 330-420 AD 330-420 AD 120-200   	  34 2 1 1 3  2 5 7 1 6	  434 14 11 31 42  18 40 205 5 27	     Fresh       Fresh
			AD270-400	62	827gm	Phase 5a
5	AHFA BB2 GROG LNVCC OXID PORD2	1-30 jar 3C jar store-jar 2F jar storage jar open form closed jar	AD 200-300 AD 200-300 AD 200-400 AD 150-250  AD 270-400  AD 330-420	  8 1 1 1 1 1	  117 6 3 5 15 14	Fresh       Abraded
			AD.200-400 Mainly 3 <sup>rd</sup> c.	13	160gm	Phase 4b
11	NKFW	3F beaker	AD.70-190	1	9gm	Fresh phase 3b
13	SAMLG	Dr 18	AD 43-90	1	52gm	Fresh Phase 3b
30	AHFA DORBB 1 SAND	3C jar dog-dish dog-dish  	AD 200-300 AD 200-300   	2 1 1	8 11 4	

			AD 200-300	4	23gm	Phase 4a
32	AHFA	Store-jar	AD 200-400	2	18gm	Abraded Phase 4a
41	SAMLG		AD 43-110	1	1	V abraded
	SAND	Closed	AD 43-70	1	6	
	Post-Med	Jug	17 <sup>th</sup> -18 <sup>th</sup> c	4	21	Fresh
				6	28gm	Phase 6a
45	AHFA	3B-10 jar etc	AD.270-400	6	71	Abraded
	BB2		AD 110-370	1	9	Abraded
	GROG	jars	AD 270-400	3	34	Fresh
	OXID			1	3	Abraded
	OXRC	bowl	AD 240-400	1	6	Abraded
	SAND	jar base		1	40	v.abraded
	VCWS	closed	AD 140-250	1	4	abraded
			Late Roman or residual	14	167gm	Phase 5a
48	OXRC	Bowl	AD 240-400	2	33gm	Phase 5a
85	2	Jar	AD.270-400	1	73gm	Abraded Phase 6b
88	6	Closed	AD.150-270	1	4	
	AHFA	CI 5B-4 bowl	AD.270-330			
		CI 5B-6 bowl	AD.270-400			
		Storage jar	AD.200-400			
		CI 3B-10 jar	AD 270-400	32	578	
	BAET	DR20		3	444	
	BBS	Str-sided dish	AD.170-300	4	50	
	GROG	Jars	AD.270-400	4	93	
	HWC	2E jar	AD.70-160	1	14	abraded
	NKFW	jar base etc	AD.150-250	3	43	Fresh
	OXID			1	14	
	OXRC	Beaker	AD.240-400			
		C51 bowl	AD.240-400	6	38	
	PATCH	Storage jar	AD.30-250	3	40	
	PORD1	Jar without rilling	AD.330-420	5	128	
	PORD3	Necked jarsx2	AD.330-420			Fresh
4M bowl		AD.330-420	3	104	fresh	
SAND			2	6		
?Early		AD.450-650	2	24		

	Saxon					
			AD 330-450+	70	1580gm	Phase 4b
90	AHFA	Store-jar	AD.200-400	7	209	
	BAET	DR20		1	323	Abraded
	BB2	2F jar	AD.110-200	1	11	
	DORBB	closed	AD.200-300	1	14	Abraded
	1			2	27	Abraded
	OXID	closed	AD.240-400	1	11	Abraded
	OXRC	hook-rim jar	AD.330-420	1	13	
	PORD1					
			AD 300-400	14	608gm	Phase 4b
91	14	Flagon	AD.50-150	1	2	
	BAET	DR20		1	70	
	ERSA		AD.50-80	1	8	
	GROG	Store-jar	AD 50-150	6	112	
	HWB	Jar	AD 40-100	1	34	
	HWC	2E jar	AD 70-160			
		3F beaker	AD 70-100	16	104	
	MISC			3	18	
	NKSH	jar	AD 50-140	1	19	
	OXID			1	24	
	SAMLG	Dr 18/31	AD 90-110	4	43	
	SAMMV		AD 90-120	1	3	
	SAND	Jars		12	89	
	VRW	Butt beaker	AD 50-100			
		Mortarium	AD 50-150			
		Flagon	AD 50-150	15	342	
			AD 90-150	63	868gm	Phase 3c
98	SAMMV	Dr 37	AD90-120	1	11gm	Phase 4a
104	9	Beaker base		1	30	?Keston
	GROG	Ev rim store-jar	AD50-250	1	71	
	SAND	Jar	AD50-120	1	13	
			AD.50-120	3	114gm	Phase 4b
106	13	Jar		1	13	Abraded ?Keston
	GROG	Ev rim store-jar	AD.50-250	2	36	
	HWC	2E jar	AD.70-160	1	16	
	SAND	2E jar base s/s	AD.50-100	1	23	



		2E jar	AD.70-160	2	23	Fresh joining
			AD.70-100	7	111gm	Phase 4a
108	PATCH	Storage jar	AD.30-250	3	145	
	SAMLG	Dr 27	AD 60-80	1	2	
			AD.60-80	4	147gm	Phase 3b
110	13	3G1-9 jar	AD.60-110	3	40	
	BAET	DR20		1	123	
	BB2	3J9 jar	AD170-230			Fresh
		misc jar	AD110-200			fresh
		4H5-7 Bowl	AD170-250	3	53	Fresh
	MICA	closed	AD50-120	1	1	Abraded
	SAMLG	Dr 18/31	AD90-110	2	18	Abraded
	SAND	Indented beaker etc	AD140-260	2	25	
			c.AD.170-250	12	260gm	Phase 4a
113	4	Handmade jar	c.AD.50-70	1	64	
	10	Closed	c.AD.50-150	2	35	
	13	Bowl	c.AD.50-100	1	20	fresh
	15	Closed		1	50	fresh
	BAET	DR20		21	3287	
	DORBB	2F jar	c.AD.110-160	2	22	Fresh
	1	mortarium	c.AD.80-150	1	62	
	G238	store-jarsx2	c.AD.50-250	4	138	
	GROG	2E jar	c.AD.70-160	2	15	
	HWC			3	32	
	OXID	store-jar	c.AD.30-250	1	18	
	PATCH	Dr 18/31	c.AD.120-150			
	SAMLZ	Dr 37	c.AD.120-200	5	40	
		Dr 18/31	c.AD.90-120	1	28	
	SAMMV	Closed		3	19	
	SAND					
			c.AD.100-150	48	3830gm	Phase 3b
116	AHFA	Storage jar	c.AD.270-400			Abraded
		Beehive	c.AD.200-400			Abraded
		CI 3C jar	c.AD.300-400	3	53	Abraded
	AMPH	Amphora		5	36	
				8	89gm	Phase 5a

117	12	2E jar	c.AD.50-70	1	18	
	13	bead-rim jar	c.AD.50-170	1	35	Fresh
	RDBK	beaker	c.AD.50-90	1	7	Fresh
			c.AD.50-70	3	60gm	Phase 3c
119	AHFA	CI 6C-1 dish	c.AD.330-400			
		CI 5B-6 bowl	c.AD.270-400			
		CI 3B-10 jar	c.AD.270-400	33	336	
	BB2	Open form	c.AD.110-250	1	17	
	GROG	Storage-jar		2	31	
	LVNCC	Jar base	c.AD.270-400	1	28	
	MOSL	Beaker base	c.AD.200-276	1	4	
	OXID	Flagon base		1	4	
	OXMO	M22 mortarium	c.AD.300-400	1	28	
	0XRC	C51 bowl	c.AD.240-400			
		Rouletted bowl	c.AD.300-400	16	89	
	SAND	Closed		4	18	
VRW	Closed		1	1		
			c.AD.250-400	61	556gm	Phase 4b
120	1	Combed store-	L.I.A.-AD.80	1	19	
	9	jar	c.AD.50-85	5	46	
	10	Closed	c.AD.50-85	1	17	
	12	Closed	c.AD.50-85	1	18	
	13	Necked jar	c.AD.50-85	1	7	
	15	Closed	c.AD.50-85	1	8	
	AHSU	GB platter copy	c.AD.50-250	3	30	
	BAET	Jar		2	255	
	PATCH	DR20	c.AD.30-250	1	17	
	SAMLG	Storage jar	c.AD.43-85			
		Dr 15/17	c.AD.70-110	2	13	
	SAND	Dr 37		1	18	
	VRG	Necked jar		1	18	
			c.AD.50-80	20	466gm	Phase 3c
121	C13	Bead-rim jar	c.AD.50-85	1	18	
	BAET	DR20		5	487	
	HWC	3F beaker	c.AD.70-100	1	8	
	NKFW	closed	c.AD.43-250	1	8	
			c.AD.50-100	8	521gm	Phase 3b

123	5	Closed	c.AD.50-100	1	12	Fresh
	13	Closed	c.AD.50-85	1	14	Fresh
	15	GB platter copy	c.AD.50-85	1	9	Fresh as in 120
	AHSU	Elaborate bowl	c.AD.80-120	3	46	Fresh joining
	BB2	2F jar	c.AD.110-200	1	7	
	FMIC	beaker	c.AD.50-120	1	3	Fresh
	SAMLG	Dr 37	c.AD.70-110	1	10	Fresh
	VRW	Amphora	c.AD.50-150	2	78	Fresh joining
			c.AD.50-120	11	179gm	Phase 3b
124	4	Closed	c.AD.50-85	1	11	Fresh joining
	11	Beaker	c.AD.50-85	5	24	
	AHSU	Closed	c.AD.50-140	1	5	
	ERSA	Jar	c.AD.50-80	1	9	Fresh
	HWB	Jar	c.AD.40-100	1	16	Fresh
			c.AD.50-100	9	65gm	Phase 3b
125	HWC		c.AD.70-160	2	13	Same as in 119
	OXID	Jar		1	9	
	OXMO	M22 mortarium	c.AD.300-400	1	25	
	SAMLG	Dr 18	c.AD.43-90	4	37	
	TSK	2F jar	c.AD.110-170	3	26	
	VRW	closed		2	16	
			c.AD.70-400	13	126gm	Phase 4b
126	AHSU	Jar	c.AD.50-140	1	6	Fresh
	BAET	DR20		2	387	Abraded
	DORBB	2F jar	c.AD.110-160	1	8	
	1	lid	c.AD.50-120	1	7	
	FMIC	store-jar	c.AD.50-250	2	51	
	GROG	4F bowl	c.AD.70-140	5	57	
	HWC	Dr 33	c.AD.120-200	1	8	
	SAMLZ			2	24	
	SAND	Flagon base	c.AD.50-150			
	VRW	Mortarium	c.AD.50-150			
		4A bowl	c.AD.70-100	10	230	
			c.AD.70-120+	25	778gm	Phase 3c
127	5	Bead-rim jar	c.AD.70-150	2	44	
	9		c.AD.50-85	1	8	
	10	Butt-beaker	c.AD.50-85	1	8	

	12	base	c.AD.50-120	1	28	
	15	Bead-rim jar	c.AD.50-85	2	10	Fresh as in 120 and 123
	AHSU	GB platter copy	c.AD.90-120	8	127	fresh
	ERSA	Cl 1-28 jar	c.AD.40-80	6	32	fresh
	HWB	Bead-rim jar	c.AD.40-100	2	43	
	HWC	Jar	c.AD.70-100	1	2	fresh
	OXID	Dot barbotine		1	2	
	SAMLG		c.AD.75-90	7	128	COSRVF
	SAND	Dr 18	c.AD.50-70	7	114	Fresh
	VRG	Rusticated jar		1	9	Fresh
	VRW	Closed	c.AD.60-120			
		Honey jar		4	115	
		Amphora				
			c.AD.50-100	44	670gm	Phase 3b
128	1	Jar basal	L.I.A.-AD.80	1	45	
	5	Bowl	c.AD.70-150	1	22	abraded
	13	4A jar	c.AD.60-120	3	126	Fresh joining
	AHSU	Cl 1-20 jarx2	c.AD.50-120	7	56	fresh
	FMIC	Beaker	c.AD.50-120	1	7	
	HWC	Closed	c.AD.70-160	1	3	
	SAMLG	Dr 18	c.AD.60-80	3	219	CRICVR fresh
	SAND	Jar		4	53	
	VRW	Closed		1	8	
			c.AD.50-120	22	539gm	Phase 3b
146	VRG	4A bowl	c.AD.90-105	3	73gm	Frere 341 Phase 3b

### SIEVED POTTERY

Context	Fabric	Form	Date-range	No of sherds	Weight in gm	Comments
2	AHFA	Beaker	c.AD.270-350	5	32	
	BB2		c.AD.110-250	1	2	
	SAND			1	3	
			c.AD.270-350	7	37gm	
5	AHFA		c.AD.270-400	3	18	Abraded
	OXRC		c.AD.240-400	2	26	Abraded
	PORD1	Rilled jar	c.AD.330-420	1	2	

			c.AD.270-400	6	46gm	
41	OXRC		c.AD.240-400	1	9gm	
108	12	2E jar	c.AD.50-70	26	71gm	As in 117 one pot
113	AHSU	Closed	c.AD.50-140	2	2	Fresh
	BAET			1	47	
	GROG			1	9	
	SAND			2	5	
				6	63gm	
119	NKFW		c.AD.43-250	1	1	
	SAND			1	2	
				2	3gm	

## APPENDIX 4: BUILDING MATERIAL ASSESSMENT (JOHN BROWN)

### QUANTITY AND CONDITION

Total No. Assessed boxes: 10

Total No. Assessed contexts producing Building material: 28

Total Count: 202

Total Weight kg: 37.677

Total No. Complete pieces: N/A

Total No. Masonry Samples: N/A

### INTRODUCTION

The majority of the material assessed consisted of Roman ceramic building materials. The remainder of the material was comprised of stone building materials and worked stone fragments of probable Roman date and in conjunction with some of the Roman tile forms indicate a well-appointed building in the vicinity of the site. However, much of the Roman assemblage was recovered from 'pond' features, and none of the material was recovered from in-situ masonry features of obvious Roman date. Occasional fragments of medieval or post-medieval ceramic building materials represent 'background material' reflecting the development of the St Andrews Road area during the Post-Roman periods. Materials of different periods and forms are discussed below. Fabrics that appear both in medieval and post medieval forms are described in the first instance and noted in the second. The phase discussion follows the excavator's phasing where possible.

### METHODOLOGY

The building materials were examined using the London system of fabric classification. examples and descriptions of the fabrics can be found in the archives of PCA and/or the Museum of London. The post-depositional effects of water-borne deposits meant that many fabrics were stained and therefore not easy to identify, and fabrics may therefore appear superficially dissimilar to archive examples.

Quantification of items was undertaken and the data recorded and entered onto a computer database (Microsoft Access 2000). After analysis common fabric types were discarded, with a type sample kept for archive. Unusual pieces or uncommon fabrics were also kept for archive.

### BUILDING MATERIAL TYPES

Fabrics and forms are tabulated below and shown in order of period, source and form occurrence. Roman CBM forms follow Brodrigg (1987). Medieval and post-medieval forms follow the Museum of London DUA guide to identifying ceramic building material.

Table 1: Ceramic Building Materials

Period	Source	Fabric	No	Form	Description
ROMAN	Daub (usually local clay sources)	3102	1	DA	Daub
	Eccles fabric group, Kent	3022	1	IM	Imbrex
			1	RB	Roman brick
	Local London fabric group 2815	2452	4	FLUS	Box flue, scored
			2	FLU	Box flue tile

Period	Source	Fabric	No	Form	Description
			1	RT	Roman tile
		2459a	3	R	Roman tile/brick
			1	FLUS	Box flue, scored
		2815	38	RB	Roman brick
			32	R	Roman tile/brick
			5	RT	Roman tile
			1	IM	Imbrex
		3004	3	R	Roman tile/brick
		3006	6	RB	Roman brick
			4	TEG	Tegula
			2	R	Roman tile/brick
			1	FLUS	Box flue, scored
	Local London fabric group 2815 variant	2815va	1	RB	Roman brick
		3004va	1	IM	Imbrex
			1	RT	Roman tile
	London/Essex (Formerly 2815)	2459b	3	TEG	Tegula
			1	RB	Roman brick
	Radlett, Hertfordshire	3060	34	RB	Roman brick
			6	R	Roman tile/brick
			5	RT	Roman tile
			3	IM	Imbrex
		3060b	6	RB	Roman brick
			1	TEG	Tegula
	Uncertain Source	3011	2	RB	Roman brick

Period	Source	Fabric	No	Form	Description
	Uncertain Source - unidentified fabric	3500	9	R	Roman tile/brick
	Uncertain Source – unidentified fabric	3500	1	RB	Roman brick
MED/PMED	Local London clay sources	2586	2	T	Roof tile (uncertain form)
PMED	Local London clay sources	2276	1	T	Roof tile (uncertain form)
	Uncertain Source	pmedb	5	B	Brick (uncertain form)

#### UNCOMMON FABRICS/FORMS

Several fragments of box flue tile were recovered in a variety of fabrics from the London fabric group 2815, all with comb-scored patterns, mostly from context [119]. A related context [125] contained two fragments of *opus spicatum* bricks. Most of the fabrics are typical for Roman assemblages in the Greater London area, but the presence of fabrics 2459b and a later version of Hertfordshire fabric 3060b indicate the presence of a later 2<sup>nd</sup> to 3<sup>rd</sup> century building. Two fragments of Roman brick may be fabric 3011, which is uncommon and the source is unknown.

Table 2: Stone Building Materials

Period	Source	Fabric	No	Form	Description
ROMAN	Limestone, Chalk (East/southeast England)	3116	3	STATUE	Statuary
	Limestone, Kentish Rag	3105	2	SU	Unfaced stone (rubble or abraded)
	Metamorphic, Flint	3117	1	SF	Faced stone (squared)
	Reigate Stone, Surrey	3107R	2	SA	Ashlar faced stone
			1	SM	Moulded stone
			1	SU	Unfaced stone (rubble or abraded)
	Sandstone medium laminated	3108	1	SU	Unfaced stone (rubble or abraded)

#### UNUSUAL STONE FABRICS/FORMS



Three fragments of carved chalk were sampled from a linear masonry foundation feature, the fill of which contained substantial amounts of chalk fragments and occasional flint [51]. The sampled pieces were very abraded, but in some areas tool marks were still visible, particularly on two of the fragments. These fragments give the impression of statuary carved in high relief, and the angles formed by the carving indicate a possibility that they were positioned within a pediment. One fragment of Glauconitic soft sandstone (Reigate stone), probably from the Upper Greensand, was also moulded and may have come from a decorative architectural element. All the Reigate type stone came from the fill [126] of a gravel extraction pit or pond [89] and are therefore likely to be associated with each other, probably from the same building/demolition.

## **DISTRIBUTION**

### **Phase 3b: Mid 1<sup>st</sup> – early 2<sup>nd</sup> centuries**

Roman brick (non-diagnostic) and roof tile (imbrex) were recovered from the backfills [113], [123], [127], [146] of early Roman gravel extraction pits, indicating the presence of a building in the vicinity. Fabrics included Hertfordshire group and London group 2815, suggesting the construction of any building to be within 50-120 AD. A squared block of worked flint with dressed faces, and fragments of glauconitic white malmstone similar to Reigate stone were also recovered, indicating the transport and/or use of non-local stone building materials. Material from the fill [121] from cut [122] may be later than this phase, as it contains later Hertfordshire-type fabrics, and fabric 2459b, both of which date to between the second half of the 2<sup>nd</sup> century and the first half of the 3<sup>rd</sup> century AD.

### **Phase 3c/4a/4b: 2<sup>nd</sup> – 4<sup>th</sup> centuries**

The majority of the assemblage came from several fills [88], [90], [119], [120], [125], [126] of the earlier pit cut [89], indicating that this feature had remained open for some time. Most of the material from these fills was abraded, indicating residual deposition. Several fragments of scored box flue were recovered from the fill [119] (above) in addition to two *spicatum* bricks from the fill [125], both types indicating a well-appointed building in the vicinity; additionally the box flue tiles indicate the presence of a hypocaust. All of the material from this group was of mid-1<sup>st</sup> to mid 2<sup>nd</sup> century date, with the exception of some brick fragments in fabric 2459b from fill [88]. Also from the fill [126] of this pit came three fragments of glauconitic malmstone similar to Reigate Stone, one of which (wsn1) was from a moulded stone. The stone was too fragmentary to ascertain the nature of the decoration however. A deposition layer [2] contained later Hertfordshire fabric 3060b dating from 170 to 230 AD.

### **Phase 5b: Post-Roman**

The three carved chalk fragments sampled from the rubble fill [51] (above) of linear feature [52] represent the only significant feature in this phase.

### **Phase 6a: Post-medieval**

Small amounts of post-medieval peg roofing tile fabrics were recovered from layers [1] and [41] and represent locally procured ceramic building material used in the gradual development of Croydon during the post-medieval period.

### **Phases 6b/7: Post-medieval to Victorian**

Very small amounts of residual Roman material were recovered from the later phases.

## **SIGNIFICANCE AND POTENTIAL**

The Roman settlement at Croydon has yet to be located, so the building material is locally significant in that the nature of the material indicates the presence of a well-appointed building, perhaps with a tiled hypocaust, *opus spicatum* floor and carved stonework.

The chalk fragments are very abraded, and came from a part of the site that was investigated during the evaluation but not returned to in the current excavation. If further work is to be undertaken in this area attempts should be made to recover more of the material from the fill [51] to see if better-preserved examples of carved chalk remain. Additionally the material is not particularly well dated, and may be of medieval or post-medieval date. If this material does

represent carved statuary of the Roman period than it indicates a very well appointed building in the vicinity.

Nearly all of the assemblage is heavily abraded and is likely to represent material that has been water borne or redeposited. The use of this material for dating purposes should be taken as an indication only as the date of deposition is questionable.

### RECOMMENDATIONS FOR FURTHER WORK

The Post-Roman assemblage is unremarkable and very limited, therefore no further work is recommended on this material.

A second opinion could be sought regarding the identification of chalk fragments as statuary.

A brief discussion of the Roman assemblage should be included in any publication, as it may help to elucidate any further discoveries in the area.

The remaining assemblage should be prepared for archive.

### DATE RANGES

The **Date range** is the earliest date for the earliest CBM within the context and the latest date of the latest CBM in the context. The **Latest Date** represents the range for the latest dated CBM fabric. The **Best-fit date** compares the latest date for the earliest CBM and the earliest date for the latest CBM (note that if residual material appears in a context contradictions will be apparent in the later date of this field). The **Deposition Date** is the suggested date of deposition for the materials in the context. Also noted is the **Size** (number of sherds) and **Weight** (grams) of each context. Groups are determined as small (1-30 sherds), medium (31-100 sherds), large (over 100 sherds), very large (over 10 boxes).

Table 3: CBM by context with size/weight and date ranges

Phase	Context	Size	Weight	Date Range	Latest Date	Best fit date	Deposition Date
6a	<b>1</b>	3	228	50 1900	1480 1900	1480 250	1480 to 1800 [R]
4b	<b>2</b>	4	502	-1500 1666	170 230	170 230	170 to 230
5a	<b>3</b>	2	281	50 160	50 160	50 160	50 to 160
4a	<b>30</b>	2	110	50 250	50 250	50 250	50 to 160
4a	<b>32</b>	3	166	50 1500	50 1500	50 250	50 to 160
6a	<b>41</b>	1	42	1180 1800	1180 1800	1180 1800	1180 to 1800
5a	<b>45</b>	1	24	50 250	50 250	50 250	50 to 160
5b	<b>51</b>	3	5656	50 1800	50 1800	50 1800	50 to 400 [R]
6b	<b>85</b>	1	96	50 250	50 250	50 250	50 to 160
4b	<b>88</b>	7	908	50 250	120 250	120 160	120 to 250 [R]
4b	<b>89(88)</b>	2	320	50 400	50 400	50 400	50 to 400

Phase	Context	Size	Weight	Date Range	Latest Date	Best fit date	Deposition Date
4b	<b>90</b>	9	724	50 400	50 400	50 160	50 to 160 [R]
3c	<b>91</b>	9	680	50 250	50 250	50 120	50 to 120 [R]
4a	<b>100</b>	5	16	1400 1940	1400 1940	1400 1940	1850 to 1940
4a	<b>106</b>	4	116	50 250	50 250	50 250	50 to 250 [R]
4a	<b>110</b>	5	356	50 250	50 250	50 160	50 to 160 [R]
3b	<b>113</b>	50	12351	50 400	200 400	200 120	60 to 120 [R]
5a	<b>116</b>	6	492	50 250	50 250	50 120	50 to 120 [R]
3c	<b>117</b>	1	270	50 120	50 120	50 120	50 to 120
4b	<b>119</b>	10	810	50 250	50 250	55 120	55 to 120 [R]
3c	<b>120</b>	3	574	50 160	50 160	50 80	50 to 80
3b	<b>121</b>	10	976	50 250	170 250	170 230	170 to 230
3b	<b>123</b>	1	36	50 120	50 120	50 120	50 to 120 [R]
4b	<b>125</b>	32	4449	50 400	50 400	50 120	50 to 120
3c	<b>126</b>	17	5720	50 1590	200 1590	200 80	50 to 120 (200 to 250)
3b	<b>127</b>	2	270	50 120	50 120	50 120	50 to 120
3b	<b>146</b>	2	400	50 120	50 120	50 120	50 to 120

*Contexts in italic are samples from masonry contexts.*

[!] Possibly inclusive material

[r] Residual material

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## APPENDIX 5: SMALL FINDS ASSESSMENT (H. MAJOR)

### INTRODUCTION

A small number of metal and stone finds were recovered from the excavation. Most of the ironwork was very concreted, and will need to be X-rayed before firm identifications can be made.

The finds from early Roman contexts were a copper alloy hairpin and needle and a few iron nails.

The finds from later Roman contexts include a copper alloy lion's head mount, iron nails and possible knife fragments, and four quern fragments, three lava and one sandstone. The sandstone quern is an unusual form, with a collar round the hopper. The only other Roman querns of this form known to the writer are made from Millstone Grit. The lion's head mount, which may have been a box fitting, is fairly well modelled for the type.

The post-Roman finds include a possible iron chisel.

### RECOMMENDATIONS FOR FURTHER WORK

The Roman ironwork should be further X-rayed to assist in identification.

Only two of the finds from the site are worth publishing in detail, the lion's head mount and the sandstone quern. Both should be illustrated. Further parallels for the form of the quern should be sought, and it is recommended that the stone type is identified by a geologist.

### CATALOGUE

#### Phase 3b: 1<sup>st</sup>-2<sup>nd</sup> century

Iron

Context	Description
113	Nail.
113	From sample 10. One nail shaft and a probable hobnail. The rest of the fragments are probably natural concretions and mineralised wood, plus one unworked pebble.

#### Phase 3c: 2<sup>nd</sup> century

Copper alloy

Context	SF No	Description
91	2	Hairpin, button-and-cordon head. Point damaged. This belongs to Cool's Group 6, which dates to the second half of the 1st century to the early 2nd century (Cool 1990, 157; very similar to fig. 5.3). L. 90mm.
91	2	Needle, broken across the bottom of the hole. Bent, point damaged. L. 122mm.

#### Phase 4a: 2<sup>nd</sup>-3<sup>rd</sup> century

Slag

Context	Description
102	Five pieces of lightweight, silvery slag. Possibly intrusive. Wt. 2g.

## Phase 4b: 4<sup>th</sup> century

### Stone

Context	Description
90	Two pieces of quern. Lava. Fragment from the edge of an upper stone with vertical grooves on the edge. The grinding surface is smooth. The top is irregular, and has been damaged or reworked. One of the broken edges has been smoothed, with an area of polish. Probably re-used as a whetstone. Th. at edge 44mm. Wt. 276g. Fine-grained Sandstone. Fragment from the centre of an upper stone. The grinding surface has widely spaced grooves. The top has a collar round the hopper; the profile of the collar is incomplete due to ancient damage. Th. at edge 22mm. Wt. 400g.
89 (88?)	Two pieces of lava quern. Fragment from the edge of an upper stone with traces of a very low, wide kerb. Vertical grooves on edge, top eroded, worn grinding surface with no trace of grooves. Th. at edge 37mm, W. of kerb c 50mm. Wt. 196g. Fragment from the edge of a lower stone with a grooved grinding surface. Lower surface fairly well finished. Th. at edge 22mm. Wt. 124g.

### Copper Alloy

Context	SF No	Description
119	4	Lion's head boss. The surface is somewhat pitted, with some loss of detail on the face and mane. The cylindrical, hollow back contains iron corrosion, probably the remains of an iron shank. A collar round the face, with stylised hair, represents the mane. There is the stub of a projection under the chin, with a second one at one side of the mouth. This is possibly a broken ring, though it is not symmetrically placed. Lion's head bosses such as these were commonly used as box decorations, although this one is relatively long, and may have had a different use, possibly as a pole tip. Diam. 40mm, L. 32mm.

### Iron

Context	Description
88	Possibly a knife tang, broken across the start of the blade. Details obscured by corrosion.
119	Four probable nails. Two fragments of ?knife blade. Heavily concreted.

## Phase 5a: Post-Roman

### Slag

Context	Description
116	Partly vitrified slag, fused onto fired clay. Wt. 186g.

## Phase 6a: Post-medieval

### Slag

Context	Description
41	From sample 4. Twelve small pieces of non-ferruginous slag and clinker. Wt. 48g.

## Phase 6b: Post-medieval

### Iron

Context	Description
85	Chisel? Object in two pieces, details masked by corrosion. The blade has a rectangular section, and the head appears to be expanded. L. c 118mm.

***Unstratified***

Iron

Context	Description
Machining in vicinity of [89]	Two nails and a nail shaft A possible nail Strip fragment with a broken ?oval terminal. L. 64mm, W. 22mm.
Trench 6	Fragment. Not identifiable.
	Part of an unidentified fitting. There is a small shard of clear glass embedded in the corrosion. Probably modern.

References

Cool, H.E.M., 1990 'Roman Metal Hair Pins from Southern Britain', *Archaeol. J.* 147, 148-182

## APPENDIX 6: LITHIC ASSESSMENT (BARRY JOHN BISHOP)

### INTRODUCTION

Excavations at the above site recovered six struck flints and 249g of burnt flint fragments. This report quantifies (see Table 1) and describes the material, offers some comments on its significance and recommends any further work required. The material was recovered from a variety of contexts, none of which was likely to be prehistoric in date and the material can therefore be regarded as residually deposited.

### QUANTIFICATION

Context	Flake	Blade	Blade-Like Flake	Concoidal Shatter	Burnt (no.)	Burnt (wt:g)
005	1					
045			1			
085	2					
102				1		
105		1				
113					5	88
119					2	88
123					9	73

Table 1: Quantification of lithic material by Context

### BURNT FLINT

The flint was variably burnt but all to the degree that it had changed colour and become 'fire-crazed', consistent with burning in a hearth. It all was recovered from gravel extraction pits of Romano-British date, later used as dumps, and it presumably represents the deposition of hearth waste, possibly emanating from domestically orientated activities as indicated by other artefact categories.

### STRUCK FLINT

Six struck pieces were recovered. One piece, an undiagnostic concoidally shattered chunk, was recovered from an undated posthole, whilst the others were recovered from contexts dateable to the Romano-British or later contexts where they had presumably been residually deposited. One blade of Mesolithic/Neolithic appearance came from natural [105].

### CONDITION

The struck pieces exhibited a high degree of edge chipping and abrasion, consistent with their presumed residuality.

### RAW MATERIAL

All of the pieces consisted of flint which had become mineral stained to a brown/yellow colour. Cortex, where present, consisted of a slightly rolled and weathered chalky kind, with some pieces also exhibiting ancient thermal scars. The raw materials were likely to originate from the North Downs chalk, as present in the vicinity, but had become displaced by fluvial action and incorporated into gravel deposits, such as those identified at the site.

## **TECHNOLOGY, TYPOLOGY AND DATING**

None of the pieces was typologically diagnostic although on technological grounds the blade and blade-like flake would be most consistent with Mesolithic or Early Neolithic industries. The flakes can be less certainly dated and could have been manufactured anytime from the Mesolithic to Bronze Age.

## **DISCUSSION**

The burnt flint most probably represents the disposal of hearth waste, presumably generated from the suggested Romano-British settlement activity. The struck flint may have been manufactured over a long period of time although on technological grounds at least two of the pieces were most likely to be of Mesolithic/Early Neolithic derivation. Due the size of the assemblage and lack of diagnostic pieces, very little can be concluded about nature of the prehistoric activity represented by the struck flints, although it most likely represents short term visitation by transient groups, rather than more-intensive settlement. The area along the North Downs dip slope, especially between Carshalton and Croydon, is notable for its intensity of prehistoric remains, with Mesolithic and later Bronze Age activity being particularly well-represented, and this assemblage is likely to reflect that use of the wider landscape.

## **RECOMMENDATIONS**

Due to its size and lack of chronologically diagnostic artefacts, this report is all that is required of the material for the purposes of the archive and no further analytical work is proposed. Nevertheless, the struck flint does contribute to the body of evidence for prehistoric activity in the area and a short description of the assemblage should be included in any published account of the fieldwork.



## **APPENDIX 7: ANIMAL BONE ASSESSMENT (LISA YEOMANS)**

### **INTRODUCTION**

The excavation at 17 St Andrews Road produced a relatively small faunal assemblage. The preservation of the bone was moderate to good with some material dark-stained having remaining in waterlogged conditions for long periods. This animal bone was preserved in better condition than the rest of the material.

### **METHODOLOGY**

The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebral fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered.

### **RESULTS**

The bulk of the animal bone derived from the deposits that had infilled the gravel extraction pits. These deposits had formed as the pits developed into ponds explaining the presence of the dark-stained bones typically found in waterlogged deposits from phase 3b and 4a contexts. Not all of the bone from phase 4a was stained suggesting that the upper fills of the pits were dryer than the lower deposits.

Horse, cattle and sheep/goat were the main animals represented by the faunal remains in both phase 3b and phase 4b. Some of the smaller equid bones may belong to donkey but the majority were probably horse. The environmental samples taken indicate that there was a bias against the smaller animals in the hand-recovered assemblage but both methods of recovery suggest the presence of adult animals so young animals do not appear to be under-represented. No bird bone was recovered from the environmental samples which is slightly surprising given the other environmental evidence indicating a habitat ideal for waterfowl. The mammal bone seems to be indicate that areas of land around the site had been used for the keeping of cattle, horse and sheep. Although the sample size was not large, anthropogenic modifications to the bone were absent. Together with the high incidence of horse bone and a lack of pig remains (which are often kept close to settlements so they can be fed on human refuse), shows that the faunal assemblage is not typical of domestic refuse. It seems to be occasional bone that has become incorporated into the ponds as they naturally silted up. One piece of evidence contrary to this interpretation, however, is a piece of bone working waste from [119] (phase 4b). The distal shaft of a red deer metacarpal was sawn through with cuts initiated from many sides with the central portion of the bone then snapped. From the same phase a small fragment of antler was also recovered but it was too small and fragmented to suggest if it was waste from antler working. This evidence, together with the abundance of other cultural material (Taylor 2005) suggests that human activity was responsible for the bone found in the ponds but that the discard of domestic bone was not a large-scale occurrence.

Phase 3b produced one piece of calcined bone whilst 2 fragments from phase 4b were calcined and one carbonised. These are not the result of cooking or actively burning waste but may be bone that got caught up in the cereal and grass burning episodes that occurred nearby (Taylor 2005).

A small fragment of human skull was recovered from pond infill [91]. This probably represents a residual piece of bone from earlier land use.

The species represented by the bone from phase 4a suggests a similar use of the land as in the previous phases. Bone was recovered from the ditch truncating the earlier pit fills but did not display the same dark-stained waterlogged surfaces suggesting that it was not just residual from the underlying features.

Minimal bone was recovered from the post Roman deposits preventing interpretation.

Species/Animal Size Class	Phase						
	3b	4a	4b	5a	5b	6a	6b
Horse ( <i>Equus caballus</i> )	8	6	8	1		1	1
Small-medium equid ( <i>Equus sp.</i> )	2	2	1				
Cattle ( <i>Bos taurus</i> )	30	17 (1)	28	1	1		
Red Deer ( <i>Cervus elaphus</i> )			1				
Large cervid			1				
Pig ( <i>Sus scrofa</i> )		2	1				
Sheep/Goat ( <i>Ovis aries/Capra hircus</i> )	4 (2)	4 (2)	9				
Sheep ( <i>Ovis aries</i> )	1		1				
Dog ( <i>Canis familiaris</i> )		1					
Human			1				
<b>Total</b>	<b>47</b>	<b>35</b>	<b>51</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>
Indeterminate (horse/cattle size)	43 (3)	41 (1)	55 (2)	3		5	2
Indeterminate (pig size)	6	1	5				
Indeterminate (sheep/goat/dog size)	1 (4)	2 (3)	7 (3)				1

Table 1: Number of identified specimens (NISP) values by phase. Numbers given in brackets were from environmental samples

### RECOMMENDATIONS FOR WORK

The results presented here should be summarised for publication but further analysis of the assemblage will not provide additional evidence for the use of area in the Roman period.

### REFERENCES

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## APPENDIX 8: ENVIRONMENTAL ARCHAEOLOGICAL ASSESSMENT

C.P. Green, A. Vaughan-Williams, G.E. Swindle and N.P. Branch

### INTRODUCTION

This report summarises the findings arising out of an environmental archaeological assessment undertaken by *ArchaeoScape* in connection with the proposed development at Lower Coombe Street, Croydon (Site Code: LCS05; National Grid Reference: TQ 322 648). Recent excavations by Pre-Construct Archaeology Ltd uncovered a series of archaeological contexts, divided into seven phases: **Phase 1: Natural**, Phase 2: Prehistoric/natural features, Phase 3a: Mid 1<sup>st</sup> century, **Phase 3b: mid 1<sup>st</sup>-early 2<sup>nd</sup> century**, Phase 3c: Early 2<sup>nd</sup> century, **Phase 4a: 2<sup>nd</sup>-3rd century**, **Phase 4b: 4<sup>th</sup> century**, **Phase 5a: Post-Roman**, Phase 5b: Post Roman, Phase 6a: Post medieval, Phase 6b: Post medieval, Phase 7: Victorian. An examination of the sedimentary successions associated with five of these phases (highlighted) provided an opportunity to assess the potential of the deposits for reconstructing the nature of human activities at the site. Of particular interest was an extensive enigmatic black deposit of unknown origin assigned to Phases 3b, 3c and 4b.

### GEOLOGICAL CONTEXT

The Lower Coombe Street site is in the valley of the River Wandle, a left (south) bank tributary of the Thames that passes northward through Croydon to join the Thames at Wandsworth. The headwaters of the River Wandle drain the dip slope of the Chalk of the North Downs, and the valley network within and upstream from Croydon is largely dry. The site is close to the boundary between the Chalk to the south and the overlying Thanet Sand Formation to the north. Near the site, there is no permanent channel on the valley floor, probably because the valley is naturally dry, but in addition, flow may have been culverted within the urban area. The British Geological Survey (BGS) Sheet 270 South London (1998) shows the valley floor of the Wandle occupied at the Lower Coombe Street site by Hackney Terrace Gravel. In the stratigraphy of the Thames terraces, the Hackney Terrace occupies a position between the Lynch Hill and Taplow Terraces and the gravels that immediately underlie its surface are probably of Marine Isotope Stage 8 age (Green *et al.*, 2005). This interpretation of the valley-floor sediments of the Wandle is difficult to accept as it requires a cessation of geomorphological activity on the valley-floor from MIS 8 onwards, i.e. throughout cold stages MIS 6, 4 and 2, which elsewhere on the Chalk of south-east England are known to have been periods of intense geomorphological activity and large-scale sediment mobilisation. At the Lower Coombe Street site, the gravel underlying the valley floor is much more likely to be either a Late Devensian (MIS 2) fluvial deposit or a Holocene 'dry valley' deposit of mainly colluvial origin. Overlying archaeological horizons may represent ongoing semi-natural sedimentation on the valley floor, or accumulation in features of artificial origin.

### METHODS

#### *Sampling strategy*

Two column samples, <18> and <19>, and a series of bulk samples, captured the main contexts uncovered at the site.

#### *Lithostratigraphic descriptions*

The lithostratigraphy of column samples <18> and <19> were described using standard procedures for recording unconsolidated sediment, noting the physical properties (colour), composition (gravel, sand, clay, silt and organic matter), unit boundaries and inclusions (e.g. artefacts) (Tables 1 and 2 and Figure 1).

#### *Organic matter determinations*

Sub-samples were taken from column samples <18> and <19> for determination of the organic matter content (Table 3, and Figures 2a and 2b). The organic matter content was determined by standard procedures involving:

1. Drying the sub-sample at 110°C for 12 hours to remove excess moisture
2. Placing the sub-sample in a muffle furnace at 550°C for 2 hours to remove organic matter (thermal oxidation)

3. Re-weighing the sub-sample obtain the 'loss-on-ignition' value (see Bengtsson and Enell, 1986).

#### **Pollen assessment**

Sub-samples taken from column samples <18> and <19> were subject to the following pollen extraction method:

1. Sampling a standard volume of sediment (5ml)
2. Deflocculation of the sample in 1% Sodium pyrophosphate
3. Sieving of the sample to remove coarse mineral and organic fractions (>125 $\mu$ )
4. Removal of finer minerogenic fraction using Sodium polytungstate (specific gravity of 2.0g/cm<sup>3</sup>)
5. Mounting of the sample in glycerol jelly

Each stage of the procedure is preceded and followed by thorough sample cleaning in filtered distilled water. Quality control was maintained by periodic checking of residues, and assembling sample batches from various depths to test for systematic laboratory effects. Pollen grains and spores were identified using the Royal Holloway (University of London) pollen type collection and the following sources of keys and photographs: Moore *et al* (1991); Reille (1992). Plant nomenclature follows the Flora Europaea as summarised in Stace (1997). The assessment involved scanning the microscope slides at 2mm intervals and recording the main taxa, and providing a qualitative assessment of the pollen concentration and state of preservation (Table 4).

#### **Plant macrofossil assessment**

Pre-Construct Archaeology Ltd processed sub-samples from the bulk samples by flotation with 1mm and 300-micron mesh sieves. *ArchaeoScape* sorted the dried residues 'by eye', and the flots were scanned using a low power zoom-stereo microscope. Identifications were made with reference to the modern seed collection at Royal Holloway University London, and Berggren (1981) and Anderberg (1994). Recommendations for further analysis were based on the diversity, concentration and standard of preservation of the plant remains. Plant nomenclature follows Stace (1997) (Table 5).

#### **Phytolith assessment**

Two sub-samples obtained from column samples <18> and <19> were subject to the following extraction method:

1. Sub-sampling 5ml of sediment
2. Dispersion of the sub-sample in 5% Calgon solution for 12 hours
3. Removal of organic matter using 15-30% Hydrogen peroxide
4. Sieving through 250 micron-mesh
5. Dispersion of the sub-sample in 5% Calgon solution and repeated centrifuging
6. Heavy liquid separation (using Cgl<sub>2</sub>, KI)
7. Dehydration using 50% and 100% ethanol
8. Mounting in benzyl benzoate

The assessment involved scanning the microscope slides at 2mm intervals and recording the presence/absence of phytoliths, and providing a qualitative assessment of the concentration and state of preservation (Table 6).

## **RESULTS AND INTERPRETATION OF THE LITHOSTRATIGRAPHIC DESCRIPTIONS**

Column samples <18> and <19> (spanning Phases 3b and 4b) represent the same horizon of carbonised plant material resting on coarse flint gravel and overlain by similar material. Microscopic examination of the carbonised material suggests that it comprises ash (organic matter content varies between 5-41% because of variations in mineral content) resulting from the combustion of a large quantity of grass (e.g. hay or straw). The presence of burnt flint tends to confirm that this is the site of one or more fires. The colour variations within the ash may indicate several episodes of burning but there is no other evidence of episodic accumulation. The overlying gravelly horizon probably represents redistribution of soil material across the site of the fire(s) and there is some evidence for soil formation with root penetration into the carbonised layer.

## RESULTS AND INTERPRETATION OF THE POLLEN ASSESSMENT

Unfortunately, no pollen grains and spores were preserved. This may be due to combustion of the plant material.

## RESULTS AND INTERPRETATION OF THE PLANT MACROFOSSIL ASSESSMENT

### **Phase 3b: Mid 1<sup>st</sup> - early 2<sup>nd</sup> century**

Seven bulk samples were taken from gravel extraction pits dated to Phase 3b. The samples from contexts (013), (107), (112), (123) and (124) provided abundant and dense assemblages of charred wheat grain (*Triticum* sp.) and chaff including some tentatively identified as spelt (*Triticum spelta*). Context (013) also contained occasional glumes of the free-threshing bread wheat (*Triticum aestivum*) and grass seeds (Poaceae sp.). Occasional weed seeds were present in context (113) including the arable weed seed chamomile (*Anthemis* sp.). Contexts (108) and (113) contained frequent remains with the same taxa and general composition. Charcoal was occasional to frequent with large fragments preserved in contexts (013) and (124).

### **Phase 3c: Early 2<sup>nd</sup> century**

Context (119) was sampled from gravel extraction pit [89] and contained only containing frequent to abundant charred spelt glumes, weed seeds and occasional grains. Charcoal was occasional and moderately preserved.

### **Phase 4b: 4<sup>th</sup> century**

Three bulk samples were assessed from this Later Roman phase. Context (002) was taken from a layer and contained only occasional charred remains in the form of wheat grains, chaff and grass seeds. Preservation was poor. Context (005) was sampled from a layer and contained no archaeobotanical remains. Context (120) was sampled from gravel extraction pit [89] and contained occasional charcoal.

### **Phase 5b: Post Roman**

Context (041) was sampled from a layer. No archaeobotanical remains were preserved. Anthracite was occasional.

The charred plant assemblages recovered from gravel extraction pits [89], [114] and [115] were generally rich in material, though preservation ranged from poor to good. The assemblages provide evidence for cultivation of cereals during Phases 3b and 4a. In addition, the composition provides evidence for the nature of crop processing practices. Prior to storage, a crop undergoes a series of processing stages involving separating the prime grain from the waste by-products i.e. chaff and weed seeds (Hillman, 1981, 1984). The presence/absence and proportion of products and by-products in an archaeological charred plant assemblage can provide evidence on: (1) the stage attained prior to combustion; (2) the nature of the crop processing and general agricultural practices, and (3) whether the prime grain was stored clean or semi-clean. The samples from Phase 3b and 4a (Earlier Roman to Later Roman) provided assemblages with no or very occasional weed seeds, frequent chaff and abundant wheat grain. In some instances, the lemma and palea (the parts that enclose the grain) and the glumes remained attached to the grain. This is surprising, because chaff is less robust than weed seeds and is often destroyed during burning at high temperatures (Boardman and Jones, 1990). For glume wheat, such as spelt wheat, parching is required to separate the grain from the chaff because it makes the parts brittle. Therefore, the plant assemblages from the site may represent a semi-cleaned harvest that caught fire during parching. Alternatively, the assemblage represents the combined waste by-products of cereal processing and domestic occupation that were discarded onto a bonfire, and were burnt at relatively low temperatures over a prolonged period. This would account for the good preservation of chaff.

## RESULTS AND INTERPRETATION OF THE PHYTOLITH ASSESSMENT

To follow.

## CONCLUSIONS AND RECOMMENDATIONS

The examination of column samples <18> and <19> has provided evidence for high concentrations of carbonised material resulting from the combustion of a large quantity of grass (e.g. hay or straw). This interpretation is supported by the results of the charred plant macrofossil assessment, although it remains unclear whether the prime grain and by-products were charred accidentally (during parching or cooking) or deliberately (as waste products of processing), or both. Nevertheless, the results provide evidence for the cultivation of spelt wheat and some bread wheat.

Analysis of the following contexts will provide further, quantitative information on Roman crop processing, agricultural practices and storage, enabling a fuller discussion of the issues raised: Phase 3b, contexts (013), (107), (112), (113), (123) and (124), and Phase 4a, context (120). Although charcoal was recorded during the assessment, preliminary identifications were not made, and therefore it is recommended that the charcoal from contexts (013) and (124) be submitted for identification to provide information on Roman fuel wood utilisation and woodland composition.

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## APPENDIX 9: OASIS REPORT

OASIS ID: preconst1-9142

### Project details

Project name An Archaeological Evaluation and Excavation at land adjacent to 17 St Andrews Road, Lower Coombe Street, Croydon

### Short description of the project

This report details the results of a secondary phase of archaeological works at land adjacent to 17 St Andrews Road, Lower Coombe Street, London Borough of Croydon. Natural gravel was found throughout the southern half of the excavation area at a height of c.45.70m OD. Immediately to the north the natural horizon had been heavily impacted on by five 1st century quarry pits whose introduction is possibly associated with the construction of a nearby Roman road. The pits had remained open throughout the 1st and early 2nd centuries and environmental analysis suggests that they were in use as ponds at this time and were integral to farming practices on site. The presence of a N/E aligned ditch, three postholes and two E/W orientated curvilinear gullies indicated that a change of use may have occurred on site during the 2nd and 3rd centuries. The upper deposits within the ponds and ditch, and a dumped layer seen across the site, contained abundant quantities of cultural material deposited during the 4th century. The cultural material collected from the deposits, including a bronze lion's head, imported pottery and hypocaust tiles, indicate that the settlement producing the waste was, or had been, potentially one of wealth and status. The remainder of the archaeological sequence consisted of a homogenous layer, largely devoid of cultural material, indicating the site had been largely abandoned in the post-Roman period, post-medieval ditches and masonry associated with Victorian terraces fronting Lower Coombe Street.

Project dates	Start: 01-03-2005 End: 14-04-2005
Previous/future work	Yes / No
Any associated project reference codes	LCS05 - Sitecode
Type of project	Field evaluation
Site status	Local Authority Designated Archaeological Area
Current Land use	Other 15 - Other
Monument type	QUARRY PITS Roman
Monument type	PONDS Roman
Monument type	DITCH Roman
Monument type	GULLIES AND POSTHOLES Roman
Monument type	FIELD BOUNDARIES Post Medieval
Significant Finds	BRONZE LIONS HEAD Roman



Significant Finds	BRONZE PIN Roman
Significant Finds	COIN Roman
Significant Finds	HYPOCAUST TILE Roman
Methods & techniques	'Environmental Sampling', 'Metal Detectors', 'Sample Trenches', 'Targeted Trenches'
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Direction from Local Planning Authority - PPG16
Position in the planning process	After full determination (eg. As a condition)
<b>Project location</b>	
Country	England
Site location	GREATER LONDON CROYDON CROYDON Land adjacent to 17 St Andrews Road, Lower Coombe Street, London Borough of Croydon
Study area	3113.00 Square metres
National grid reference	TQ 53226 16488 Point

Height OD                      Min: 45.60m Max: 45.60m

**Project creators**

Name of  
Organisation                      Pre-Construct Archaeology Ltd

Project brief  
originator                              Greater London Archaeological Advisory Service

Project design  
originator                              Tim Bradley

Project  
director/manager                      Tim Bradley

Project supervisor                      Joanna Taylor

Sponsor or funding  
body                                      Wandle Housing Association

**Project**

**bibliography 1**

Grey literature (unpublished document/manuscript)

Publication type

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Andrews Road, Lower Coombe Street, London Borough of Croydon

Author(s)/Editor(s) Taylor, J

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Issuer or publisher Pre-Construct Archaeology

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Entered by Joanna Taylor (jtaylor@pre-construct.com)

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