

73 High Street, Orpington, Kent

Evaluation report

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Summary

An evaluation was conducted by the Canterbury Archaeological Trust between 2 and 8 July 2014 on land to the rear of No. 73 High Street Orpington, Kent BR6 0JF (NGR 546518 166635 centred). The works were commissioned by Kent and Sussex Properties in advance of proposed development of the land for the erection of 5 two-storey terraced houses and associated car parking.

The proposed development area (PDA) lying on a relatively flat plateau of unstratified Middle Thames River Terrace gravels is situated within an area of known high archaeological potential. Deposits, features and finds dating from the pre-historic, roman, Anglo-Saxon and medieval periods have been discovered within a 2km radius.

The evaluation comprised two trenches approximately 15m in length both located within the footprint of the proposed development area (PDA). The results identified the natural geology as Taplow Gravel at a height of 52.00m OD approximately 1m below the existing ground surface. The gravel was cut by a 'dry' natural stream gully aligned south-east to north-west. The gully and the south of the site were covered with a deposit of colluvium that was in turn overlaid by a Head sandy clay deposit.

The natural geological surface may have been truncated in the late nineteenth century and was further cut by at least three small pits. A thick layer of garden and plough soil sealed the earliest pits and the remainder of the natural. Cutting the soil deposits were a number of late nineteenth- to early twentieth-century pits that contained refuse material with concentrations of fish bone. The area was overlaid by modern leveling deposits.

No significant archaeological features were encountered.

Introduction

1.1 Project background

- 1.1.1 An evaluation was undertaken by the Canterbury Archaeological Trust between 2 and 8 July 2014 on land to the rear of No. 73 High Street Orpington, Kent BR6 0JF (NGR 546518 166635 centred). The proposed development is for demolition of existing car tyre sales buildings, change of land use to residential (Class C3) and the erection of 5 two-storey terraced houses with accommodation in roof space and associated car parking. The proposed development was granted planning permission on 16 January 2014 (Application No; Bromley London Borough Council DC/13/03607/FULL1).
- 1.1.2 The archaeological works were commissioned by Kent and Sussex Properties in response to conditions (16 and 23) of the planning consent that stated:
 - (16) No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved in writing by the Local Planning Authority.

Grounds: To ensure that features of archaeological interest are properly examined and recorded.

(23) No demolition or development shall take place until the applicant has secured the implementation of a programme of archaeological works in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the Local Planning Authority. The development shall only take place in accordance with the detailed scheme pursuant to this condition. The archaeological works shall be carried out by a suitably qualified investigating body acceptable to the Local Planning Authority.

Reason: The development of the site is likely to damage archaeological remains. The applicant should therefore submit detailed proposals in the form of an archaeological project design. The design should be in accordance with appropriate English Heritage guidelines.

1.1.3 A written scheme of investigation (WSI) dated 18/06/2014 was submitted and approved by the Local Planning Authority (LPA) detailing a programme of archaeological works. Canterbury Archaeological Trust (CAT) were commissioned to implement an archaeological evaluation within the footprint of the proposed development area (PDA) in order to satisfy the aims and objectives set out within the WSI and to ascertain the presence/absence of a potential archaeological resource across the site. This report outlines the results of that investigation.

1.2 Location, topography and geology

- 1.2.1 Location The PDA is located to the rear of 73 High Street, Orpington, now in the London Borough of Bromley. The PDA comprises an area to the rear of two houses and shops towards the street frontage, within areas of hard standing or car park. The total extent of the PDA is approximately 24m north-east to south-west at its widest point by 32m north-west to southeast, an area of approximately 770m2.
- 1.2.2 Topography and geology The area of the proposed development is relatively flat with present ground level at about 53m OD. The geology is recorded as Seaford and Newhaven Chalk formation overlain by undifferentiated River Terrace deposits Sand and Gravel (British Geological Survey 1:50,000 digital map, accessed 30 May 2014).

1.3 Heritage potential

- 1.3.1 The PDA lies within an area of high archaeological potential. The following is a summary of sites recorded within a radius of approximately lkm and recorded in *The Archaeology of Greater London*, Museum of London (2000). References are to the gazetteer entries for each period (Borough code and site number) and the Greater London Heritage Environment Record (GLHER) number.
- 1.3.2 Palaeolithic and Mesolithic A number of finds of Palaeolithic date are recorded within the study area (GLHER 070696, 070870, 070871, 070873, 070875, 070877). These discoveries largely represent a scatter of finds of single artefacts. The nearest discovery of which, in respect of the PDA, comprises a Levallois flake found in Bruce Grove, c100m to the southwest (GLHER 070874). Further afield, at Tintagel Road situated c1km south-east of the PDA, a number of Acheulian handaxes was discovered (GLHER 070697). Evidence for activity within the area during the Mesolithic period is well represented (GLHER MLO76538,070741, 070863, 070948, 070964). Immediately to the east of the PDA, an assemblage of struck flint was found within the Priory Gardens (GLHER 070742). Mesolithic flints were recovered at Bruce Grove (GLHER 070856) and, c200m to the north-east of the PDA, a tranchet axe was found in the garden of 14 High Street (GLHER 070740). A potential focus for activity may be indicated by a series of discoveries in the Lower Road area, situated c700m north-east of the PDA (GLHER 070961, 071040, 071042, 071046).
- 1.3.3 *Neolithic* Neolithic finds are recorded from Bark Hart Road (GLHER 070951), Lancing Road and Felsted Road, to the south of the PDA (GLHER 070950, 070969). At the North Orpington Water Treatment Works, situated *c*650m north of the PDA, a Neolithic or early Bronze Age pit was recorded (GLHER MLO77462).
- 1.3.4 Bronze Age There is a reference to a possible barrow situated in the area of Footbury Hill, c400m north-west of the PDA. However no evidence for this has been found (GLHER 070691). Finds of struck flint of possible Bronze Age date have been made north of the PDA at Anglesea Road and Wellington Road (GLHER 071037, 071036, 070845). A tree-throw with associated Bronze Age pottery and struck flint was examined at Bellefield Road, c950m north of the PDA (GLHER MLO99155).
- 1.3.5 *Iron Age* Very little Iron Age material has been identified in the study area. Pottery of Iron Age date was recovered from Kelsey House, Perry Hall Road, *c*350m north-west of the PDA (GLHER MLO103525) and, also to the north-east of the PDA, a late Iron Age coin was found near Footbury Hill (GLHER 071028).
- 1.3.6 Roman Immediately north of the PDA, at the road entrance to Priory Gardens, Roman pottery and a silver denarius of Nero was recovered (GLHER 070963). Just 40m south of the PDA a Roman sestertius was found in the garden of 9 Aynscombe Angle (GLHER 070946). There is a record of a Roman cremation cemetery situated c400m north-west of the PDA, near Footbury Hill and Perry Hall Road. However the precise location is uncertain (GLHER 070672). Another cemetery is recorded at Northfield Road, c750m north-east of the PDA (GLHER 070666). Nearby in Wellington Road evidence of ditches, pits and post-holes have been recorded (GLHER 070844) and features, finds of pottery and coins are recorded from the Lower Road area (GLHER MLO78389, 070671, 070841, 070843, . 070942, 070962, 071041, 071043, 071045, 071890). Approximately 650m north of the PDA a Roman ditch was discovered at the North Orpington Water Treatment Works (GLHER MLO77465). A Roman masonry building, thought to be a bath-house, is located in the area of Poverest Road and Bellefield Road, situated c950m to the north of the PDA. Archaeological excavations in the area have revealed elements of this building and evidence for industrial activities at the site (GLHER MLO560, MLO76545, 070773, 070833, 071158; BY9). The site is a Scheduled Ancient Monument (EH List Entry 1001973). In nearby Bridge Road, pottery and coins were

found (GLHER 070836, 070675, 070940). To the north-east of the PDA further Roman activity is represented by the discovery of a corn drying kiln in Lower Road (GLHER 070842) and, pits, ditches and other chance finds in the area of Kent Road (GLHER 070664, 070674, 070840, 070693, 071383, MLO78076). Also in this locality finds of pottery, plaster and a quern stone of Roman date were recovered from the gardens of 10 and 12 Chelsfield Road (GLHER 070846, 070848). Approximately 550m north-east of the PDA a coin of Constantius II was found east of Highlands Road (GLHER 070934). To the south-east of the PDA, at Ramsden School evidence of a ditched enclosure probably late Iron Age to early Roman was recorded (GLHER 070690) and, in Ramsden Road pottery, a coin and a cremation burial have been discovered (GLHER 070966, 070953, 070695).

- 1.3.7 Anglo-Saxon period All Saints Church located *c*250m south-east of the PDA is possibly Saxon in origin as it is mentioned in Domesday. A late Saxon sundial was found at the church (GLHER 070265). Approximately 900m north-east of the PDA, at10-20 Kent Road, a fifth-century Grubenhaus is recorded (GLHER 070839). The Scheduled Ancient Monument noted above was also the site of an Anglo-Saxon cemetery (GLHER MLO25014).
- 1.3.8 *Medieval period* Located 125m south-east of the PDA, the building known as The Priory is a Grade II* listed building that was once Orpington Rectory. Largely fifteenth century in date and enlarged in the seventeenth century, some records suggest that the core of the building dates to the thirteenth century (EH List Entry 1001444, 1064330). Coins of medieval date have been found within the Priory Gardens and medieval pottery was found immediately north of the PDA (GLHER 071002, 070983). The nave of All Saints Church is twelfth-century in origin (EH List Entry 1083559). The area adjacent to All Saints Church is the site of a medieval Manor House, Bark Hart House (GLHER 070790; BY12, BY19). Two medieval furnaces were discovered beneath the foundations of the house dating to *c*1275-1300 (GLHER 070820). To the south-east, near Ramsden School a medieval sword was found (GLHER 070949, MLO103530) and a medieval hearth was recorded at the Scheduled site at Poverest Road (GLHER 070838).
- 1.3.9 Post-medieval and modern period The Priory is situated within the Grade II listed Priory Gardens, a public park and garden developed in the late nineteenth century and acquired by Orpington District Council in 1947 (GLHER MLO103742). Evidence of a post-medieval pond was found at 58-74 High Street (GLHER 071940). Percival Hart acquired the Manor of Orpington, situated adjacent to All Saint's Church, from Henry VIII and built Bark Hart House on the site (GLHER 0707900). During the demolition of this building a shaft was found which contained seven or more dismembered human skeletons. This feature is thought to be a plague pit. A further discovery of a shallow grave was made in the forecourt (GLHER 070975, 070975). The site of three almshouses lies within the north part of All Saints churchyard (GLHER 070825). Archaeological investigations have recorded evidence of post-medieval ploughsoil, pits, post-holes and other deposits to the north of the PDA (GLHER MLO76018, MLO103524, MLO103529). Deneholes have been recorded to the west and south-west at Broom Hill and Orchard Grove (GLHER 070768, 071639).

1.4 Aims and objectives

- 1.4.1 The project addressed the following site specific aims as set out in the WSI dated 18/06/2014, which referenced the research priorities established in the Museum of London's *A research framework for London Archaeology*, 2002 (McAdam *et al* 2003):
 - Develop an understanding of the natural landscape prior to any development (TL1 Framework objectives).

- Determine at what depth are, and the nature of, any exposures of Taplow Gravel on the site (P1-P3 Framework objectives).
- Should finds of Roman date be encountered they may add to a growing body of data relating to *Londinium* and its hinterland (R1 Framework objective).
- To determine the nature of any Saxon settlement if present, particularly in relation to the origins of rural settlements such as Orpington (S1 and S3 Framework objectives).
- Medieval settlement evidence is quite likely close to the site. Finds of this period would allow a greater understanding the way in which man has affected the London hinterland (M2/TD2Framework objectives).
- Medieval finds would help inform the relationship between medieval London and its region (M6 Framework objective).
- 1.4.2 The principal objective of the evaluation was to establish the presence or absence of any elements of archaeological resource within the proposed development area.
- 1.4.3 The investigation would ascertain the extent, depth below ground surface, depth of deposit if possible, character, date and quality of any such archaeological remains by limited sample excavation.
- 1.4.4 The investigation would determine the state of preservation and importance of the archaeological resource if present.
- 1.4.5 In addition, the investigation would seek to place and assess any archaeological resource within the context of other recent archaeological investigations in the immediate area and within the setting of the local landscape and topography.

1.5 Excavation methodology

- 1.5.1 The archaeological evaluation was conducted in accordance with accepted professional standards as set out in the Institute for Archaeologists, *Standard and Guidance for archaeological field evaluation* (2008). It consisted of the machine excavation of two evaluation trenches within the footprint of the proposed development (Figure 1). The first aligned north-west to south-east was to be 10m in length while the second aligned north-east to south-west was to be 15m in length. Based on the results of the evaluation and through discussion with the LPA's representative and the client the first trench was further extended to 15m in order to confirm previous results.
- 1.5.2 Mechanical excavation was limited to the removal of topsoil/overburden to expose the uppermost archaeological deposits or the natural geological surface, whichever was the higher. Ground reduction was undertaken using a 360° tracked machine with a flat-bladed bucket in 100mm spit intervals under constant archaeological supervision. Following the mechanical clearance of overburden, excavation was undertaken by hand to expose the top of any significant archaeological horizon.
- 1.5.3 Excavation was limited to a depth of 1.2m below the existing ground surface as required by health and safety regulations (see below).
- 1.5.4 Any archaeological features encountered were mapped, recorded and photographed.

- 1.5.5 Archaeological features or layers were partly hand excavated to elucidate the stratigraphic sequence and secure datable materials for assessment. Full excavation was not undertaken at this stage.
- 1.5.6 Care was taken not to damage archaeological deposits or structures by unnecessary excavation. In particular the underlying geological deposits were not reduced but identified and recorded in terms of extent and depth below the present surface (also expressed as height above the Ordnance Datum).
- 1.5.7 A general site safety strategy was formulated and implemented prior to the commencement of all fieldworks. Safety procedures follow the guidelines established by the Institute for Archaeologists in *Policy statement on Health and Safety* and in the *Standards and guidance* and the practical guidance in the SCAUM manual *Health and Safety in field archaeology*.
- 1.5.8 CAT personnel abided by the CAT's own general safety policy which has been drawn up with advice from:-

Construction Safety (South East) Ltd, 46 College Road, Maidstone, Kent. ME15 6YF Tel: 01622 681487

- 1.5.9 Staff wore suitable protective clothing i.e.; Safety helmets complying with BS5240: 1967, high visibility coat or vest protective, work boots
- 1.5.10 All necessary precautions to the satisfaction of the Statutory or other Service Authorities and the landowner concerned were taken to avoid interference with or damage to their services, and to comply with any of their Codes of Practice that may be applicable. Prior to excavation all trench locations were scanned using a CAT scanner. Any services uncovered during the course of the investigation were left intact.
- 1.5.11 The site lay within an existing fenced enclosed area that had restricted access via a secure entry.
- 1.5.12 Each trench was backfilled with the spoil generated from it. The spoil was compacted by pressing down with the jib of the mechanical excavator and by tracking over.
- 1.5.13 *Insurance* The Canterbury Archaeological Trust Ltd is currently covered by:

Employers Liability Insurance and Public Liability Insurance, cover with Towergate Risk Solutions, Fareham, Hants on behalf of AVIVA Policy No 000188: Agreement No: 24765101CHC.

1.6 Recording methodology

- 1.6.1 All archaeological contexts were recorded individually on CAT *pro forma* context record sheets. A plan and one long section from each trench were drawn at 1:20 scale on polyester based drawing film.
- 1.6.2 A unique-number site code was agreed with the LAARC before fieldwork commenced.
- 1.6.3 The recording systems adopted during the investigations were compatible with those systems which have been in use the longest and most extensively across London that is those developed out of the Department of Urban Archaeology Site Manual, published by the Museum of London Archaeology Service (MOLAS 1994).

- 1.6.4 The site archive was organised to be compatible with other archaeological archives produced in the Local Authority area. Individual descriptions of all archaeological strata and features excavated or exposed were entered onto prepared pro-forma recording sheets which include the same fields of entry as are found on the recording sheets of the Museum of London Archaeology Service. Sample recording sheets, sample registers, finds recording sheets, accession catalogues, and photo record cards will also follow the Museum of London equivalents. This requirement for archival compatibility extends to the use of computerised databases.
- 1.6.5 All survey was undertaken and tied to the Ordnance Survey National Grid and Datum using differential GPS (Leica Viva GS08) connected to Ordnance Survey correctional data in real time via live internet feed from Leica SmartNet. A positional accuracy of within 50mm (3D) is anticipated using the ETRS89 to OSGB conversion via the OSTN02 projection and the OSGM Geoid.
- 1.6.6 Trenches were levelled in respect to Ordnance Datum with a temporary bench mark established on site with a value of 53.08m OD set up using differential GPS.
- 1.6.7 A full colour digital photographic record of all phases of the excavation works was produced. The photographic record will comprise part of the site archive.
- 1.6.8 All structures, deposits and finds were recorded according to accepted professional standards using appropriate recording systems. The site archive will be prepared according to the guidelines set out in: *Management of archaeological of projects: appendix 3* (English Heritage, 2nd edn, 1991).

1.7 Treatment of finds and samples

- 1.7.1 A site specific sampling strategy was employed in consultation with the Regional Scientific Advisor. Samples would be processed as required to help further the understanding of depositional activities at the site.
- 1.7.2 The finds retrieval policies of the appropriate recipient museum were adopted. All identified finds and artefacts were retained according to the stated selection retention and retrieval policy appropriate to the material type and date. No finds were discarded without the prior approval of the nominated representative of the local planning authority.
- 1.7.3 All finds and samples were treated in a proper manner and to standards agreed in advance with the approved recipient museum (see 5.1). Where required they were exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in the United Kingdom Institute for Conservation's 'Conservation Guidelines No. 2' and the Museum of London's 'Standards for the Preparation of Finds to be permanently retained by the Museum of London' (where this Museum is to be the recipient museum). Any metal objects were x-rayed and then selected for conservation (except in those cases where the nominated representative of the local authority has agreed that this was not necessary).

1.8 Reports and archives

- 1.8.1 Finds and records were curated by a single organization, and are currently stored at Canterbury Archaeological Trust, 92a Broad Street, Canterbury, Kent. They are available for consultation prior to request. The site archive is compatible with other archaeological archives in the LAARC and adheres to standards set out in the following:
 - Archaeological Archive Forum, Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (2007)

- Museum of London, General Standards for the preparation of archaeological archives deposited with the Museum of London (2009)
- Museums and Galleries Commission's Standards in Museum Care of Archaeological Collections (1992)
- Society of Museum Archaeologist's draft Selection, Retention and Dispersal of Archaeological Collections (1992)
- United Kingdom Institute for Conservation, *Guidelines for the preparation of excavation archives for long term storage* (1990)

1.9 Publication and dissemination of results

1.9.1 A short summary of the results of the work are attached with the final client report and an OASIS report form has been completed.

2 Results

- **2.1 Trench 1** (*Figure 2*; *plates 1–3*)
- 2.1.1 Trench 1 was located on the north-eastern side of the PDA aligned north-west to south-east. After consultation with the LPA heritage representative and the client the trench was extended further to the north-west in order to assess the level of archaeology closer to the street frontage. Trench 1 measured 16.50m by 1.50m wide and was 1.10m deep. Due to on site constraints the Trench was formed of two parts joined by a single running section.
- 2.1.2 Natural geology (113) consisting of firm orangey brown and grey sandy silt mixed with medium and large angular flints was observed at a height of 52.10m OD. The surface of this layer was uneven and rose to a peak approximately 11.7m from the north-western end of Trench 1 before sloping gradually to 51.84m OD at the south-east end of the trench.
- 2.1.3 A 0.15m thick layer of dark grey clayey silt (105) was observed at the south-eastern end of the trench filling a slight depression within the underlying natural gravel (113). The deposit continued south-eastwards beyond the confines of the trench.
- 2.1.4 A deposit of grey sandy silt mixed with predominately large angular flint (112) overlaid natural (113) through the centre of Trench 1. The layer extended within the south-west facing section for a total length of 6.36m. It formed an irregular predominately horizontal layer of unsorted flint with an uneven surface that was more than 0.21m thick.
- 2.1.5 A 0.22m thick deposit of orangey brown silty clay (104) formed a level horizontal horizon that overlaid (112) and sealed deposit 105 at the south-eastern end of the trench. Inclusions consisted of occasional small and medium sub-angular flints and a single struck flint. The deposit continued south-eastwards beyond the confines of the trench and was observed within the base of Trench 2 further to the south-east.
- 2.1.6 Two small rubbish pits, observed in the south-west facing section, cut soil horizon (104) at the south-eastern end of Trench 1. The first pit (103) was situated at the south-eastern end of the trench. It was 0.30m deep and 1m wide with a curved bowl shaped profile. Pit 103 was filled by a sequence of three thin deposits of concentrated fish bones each separated by three very similar backfills (115), (114) and (102) of grey clayey silt. Inclusions of oyster shell were observed mixed within the lens of fish bone between backfill deposits (115) and (114). A fragment of coal and a piece of china was retrieved from the uppermost backfill (102). The second pit (107) was 0.10m deep and 0.75m wide with a shallow curved bowl shaped profile.

- It was filled by a single fill (106) of firm grey silty clay with inclusions of occasional small and medium angular flints and a rare small peg tile fragments.
- 2.1.7 Both pits (103 and 107) were overlaid by 0.40m thick horizontal deposit (101) of dark grey clayey loam with inclusions of small medium and large flints, occasional small fragments of coal, chalk, brick and the base of a small square glass bottle.
- 2.1.8 Three rubbish pits (118), (109) and (111), observed in the south-west facing section only, cut levelling layer (101). The pits were clustered together approximately 6.40m south-east of the north-west end of Trench 1. They averaged 1.05m wide and up to 0.30m deep with steep convex shaped sides and flat bases. Each pit contained a similar fill (117), (108) and (110) that included a thin primary lens of concentrated fish bone overlaid by a deposit of loose friable clayey silt. The fish bone in fill 110 was augmented with iron fragments. The fills contained a mix of material that included small, medium and large sub-angular flints, fragments of wood, rare fragments of china and ceramic building material (CBM) that may have been intrusive. The fill (110) within pit (111) also contained a capping layer of concentrated oyster shells that was sealed by a 0.07m thick final fill (116) of grey moderate silty clay.
- 2.1.9 The rubbish pits (107), (109) and (111) were sealed by a 0.33m thick laminated sequence of modern levelling layers (100) observed across the entire trench that form the present ground surface at a maximum height of 53.06m OD.
- **2.2 Trench 2** (*Figure 3*; *plates 4–7*)
- 2.2.1 Trench 2 was located to the north-east of the site aligned north-east to south-west and was 13.50m long, 1.50m wide and approximately 1m deep.
- 2.2.2 Natural geology (231), consisting of grey silty gravel with predominantly large sub-angular flints, was revealed at the north-east end of the trench. Further natural orange sandy gravel (233) was identified at the south-western end of the trench. Located in approximately the centre of the trench was a natural linear gully that cut through the gravel deposits. The gully was aligned roughly north-west to south-east and measured approximately 4.5m wide and 0.40m deep with gradual sloping sides and a flat base. A small sondage made on the north-eastern side of the gully revealed that the feature contained a 0.06m thick primary deposit (234) of fine blue grey clay. This was overlaid by a 0.14m thick deposit (230) of dark grey clay silt that abutted the sides of the gully cut and extended beyond the gully to the north-east above deposit 231. Across the top of the gully deposit 230 was overlaid by a 0.23m thick deposit (229) of yellow orangey brown sandy clay. The surface of the latter deposit was crossed by several rivulets and channels of sand and small quartz gravel.
- 2.2.3 The natural clay (229) and gravel (233) at the south-western end of the trench was overlaid by a 0.10m thick patchy yellow clay deposit (232) and (237). This was cut by a small pit (228) identified in the north-west section and base of the trench. The pit was 0.50m wide and 0.10m deep with steep sides and a flat base and contained a single fill (227) of mid brown silty loam with occasional flint inclusions.
- 2.2.4 The natural clay (229) and deposit (233) was overlaid across the majority of the trench by a 0.20m thick mixed deposit (235 and 236) of greyish, yellow silty clay. The mixed deposit and pit 228 was overlain throughout the trench by a 0.18m thick horizontal deposit (225 and 226) of dark grey clay silty loam with occasional small to medium flint.
- 2.2.5 The upper surface of deposits (225 and 226) was cut by a number of features that appeared to be aligned along the length of the trench. Located 3m from the north-eastern end of the trench was a cluster of three pits. The first pit (205) measured 0.44m wide and 0.10m deep with steep sides and a flat base containing a single fill (203) of black clay silt with a primary lens of

concentrated fish bone. The second pit (210) measured 1m wide and 0.50m deep with steep sides and a rounded base containing a sequence of laminated fills (209, 208, 207 and 206). The fills consisted of thin lenses of concentrated fish bone deposited between thick fills of black silty loam. The third pit (212) measured 1.1m wide and 0.30m deep with steep sides and a flat base containing a single fill (211) of dark grey brown silty loam.

- 2.2.6 Located at the south-west end of the trench were a further three pits. The first (214) measured 0.95m wide containing a single fill (213) of dark black silty loam with no datable material. The second pit (217) was 0.49m wide and 0.20m deep with a steep sided 'U'-shaped profile containing a fill (216) of concentrated fish bone sealed by a thick deposit of (215) of dark silty clay. The third pit (222) measured 0.60m wide and 0.40m deep with a similar 'U'-shaped profile. The pit contained a sequence of laminated fills (221, 220, 219 and 218) with thin lenses of concentrated fish bone deposited between thick fills of black silty loam.
- 2.2.7 All six of the pits were overlaid by a horizontal deposit (202) that extended throughout the trench. With a maximum thickness of 0.60m and a minimum thickness of 0.20m this formed an uneven deposit that consisted of black silty clay loam with occasional small to medium flint, CBM, and glass inclusions. Deposit 202 was overlain across the majority of the trench by a 0.30m thick laminated deposit (201) of cement rubble and crushed building hardcore. The north-eastern end of the trench was overlain by a 0.10m thick deposit of concrete. The surface of the last two deposits formed the present ground level at 53.08m OD.

2.3 The finds

- 2.3.1 Struck flint (Context 104)
- 2.3.2 A single worked flint was recovered during the course of the evaluation. The flint forms part of a core with evidence for a striking platform, the flint was fresh with limited evidence of movement related damage. The flint was located on the surface of the natural sandy clay (104) and likely represents a residual find, though potentially from nearby.
- 3 Archaeological interpretation, conclusion and development impact

3.1 Interpretation

3.1.1 Natural geology consisting of orangey grey unsorted sub-angular sandy gravel was identified in both Trenches 1 and 2 (represented by deposits 113 and 233). The gravel was predominantly located to the south of the site at a height of 52.00m OD, approximately 1m below the current ground surface and was consistent with the undifferentiated river terrace gravels identified on the BGS. To the north of the site, identified in both trenches, further gravel (112 and 231) was exposed that consisted of large unsorted sub-angular flint in a grey silty matrix. The silty nature of the gravel indicates that it may have been formed under wet boggy conditions in a low energy environment. A gully was identified cutting into the gravel deposits in Trench 2, aligned roughly south-east to north-west this may represent a small stream channel, now dry that would have fed into the larger River Cray valley to the northwest (Figure 4). The current River Cray is smaller and rises immediately to the north-east of the site feeding into the River Darent and on to the River Thames in the north-east. The gully was filled by a deposit (234) of clean blue clay and capped by a colluvium deposit (230) that was also observed within Trench 1 (105). The colluvium extended beyond the gully to the north-east. Environmental sampling of this deposit identified abundant sub-angular grit along with intrusive burnt flint, CBM and glass. The sub-angular nature of the grit along with intrusive material indicates that the deposit may have been laid down through low energy erosion events and may have formed part of a boggy environment.

- 3.1.2 A sandy clay Head deposit was observed across much of Trench 1 (104) and also capping the colluvium within Trench 2 (229). The surface or upper contact of this deposit was observed in both trenches and appeared to have thin rivulets of sandy gravel that may have derived from erosion activity. The level of this surface was relatively flat across both trenches dipping slightly from 52.31m OD in Trench 1 to 52.25m OD in Trench 2. A single worked flint was discovered lying on the surface of the clay deposit (104) within Trench 1, this was part of a core and likely represents discarded intrusive material the lack of visible wear on the flint suggests that it had not been moved far. The presence of river terrace gravel with evidence for boggy ground, colluvium and Head clay deposits is broadly consistent with the Taplow gravels of the middle Thames Valley (Strange 1992).
- 3.1.3 The natural geology was cut in Trench 2 by a single pit (228) that contained no datable material. In Trench 1 the natural geology was cut by two pits (107 and 103) that contained lenses of fish bone and oyster shell along with small fragments of coal and china. The majority of the natural and the pits were sealed across both trenches by a deposit of mixed natural and clayey loam (235, 236 and 101) that appears to have formed a thick buried garden soil in the north-west becoming less thick in the south-east where it appears to have been disturbed possibly through plough action.
- 3.1.4 The upper surface of the garden and plough soil was cut by eleven small to medium pits (205, 210, 212, 214, 217, 228, 222, 224, 111, 109 and 118) the majority of which contained lenses of abundant fish bone. The pits from each trench most likely represent small refuse pits that appear to have been interspersed with a period of deliberate ground levelling activity to form a garden soil. Material from the garden soil and from the fills of the pits included glass, CBM, tile, wood, coal and ceramics dated to the late nineteenth and early twentieth century. The abundance of fish remains may represent small scale fish processing on or near the site during this period.
- 3.1.5 All of the pits identified within each trench was sealed by a layer of made ground (202, 201 and 100) consisting of crushed CBM and soil. This modern deposit was overlaid in the north-eastern half of the site by a thin layer of concrete that formed hard standing for temporary sheds.

3.2 Conclusion

- 3.2.1 The archaeological survey provided a roughly 5% sample of the total PDA, the confidence rating for this evaluation is HIGH.
- 3.2.2 The survey identified geology consistent with the sandy gravel Taplow formation of the middle Thames Valley located at a height of 52.00m OD approximately 1m beneath the present ground surface. A natural gully appears to have traversed the site aligned south-east to north-west and likely formed a small stream channel. Sediments from within the gully appear to have formed from fluvial deposits and colluvium suggesting an environment with slow flowing water/or land erosion and boggy ground. A sandy clay deposit capped the alluvium and appeared to have further evidence for water flow on its upper surface. The level of this surface was relatively flat across both trenches dipping slightly from 52.31m OD in Trench 1 to 52.25m OD in Trench 2 approximately 0.70m and 0.90m respectively below the current ground surface.
- 3.2.3 The lack of historic ground surfaces identified within the evaluation indicates that a degree of truncation may have taken place to the natural ground levels possibly during the nineteenth century, but the extent and nature of this is unclear. There was no evidence of modern disturbance.

3.2.4 The natural surface was cut by at least three pits that were covered by a thick garden and plough soil. The majority of the archaeological features identified related to nineteenth century garden activity with occasional refuse pitting and possible evidence for small scale fish processing. The *c*.1840 Tithe map of Orpington indicates that the land within the PDA was open ground at that time.

3.3 Development impact

- 3.3.1 The presence of later post-medieval archaeology has been confirmed across the PDA, and this has been sampled and categorised within this evaluation. The significance of this archaeology within the context of the late medieval and modern development of Orpington is considered to be low.
- 3.3.2 No archaeological features of high significance were identified and the density of archaeological features of low significance was moderate across the PDA suggesting that the potential impact to the archaeological resource of the proposed development is minimal.

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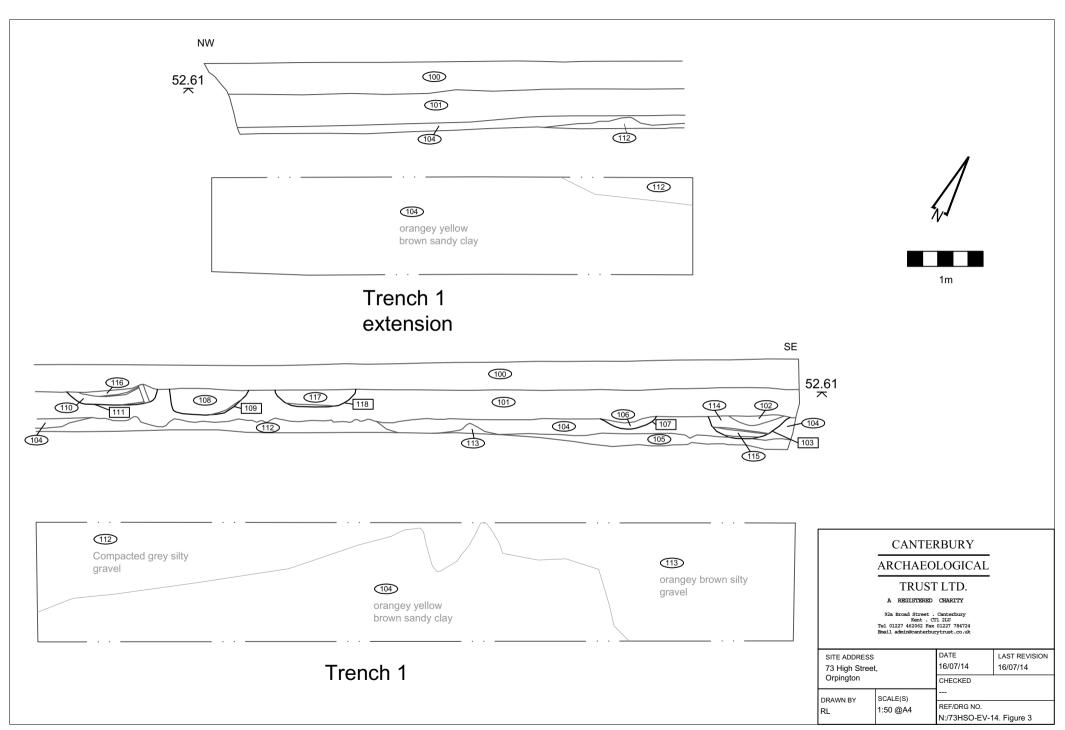


Figure 2: Trench 2 plan and section

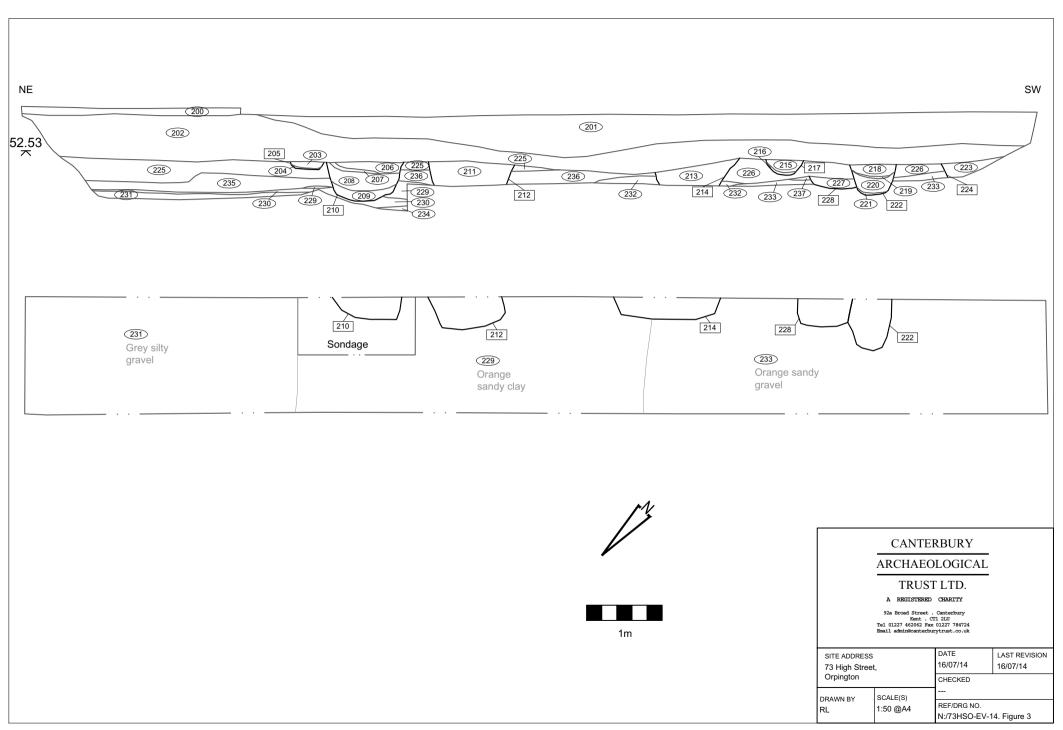
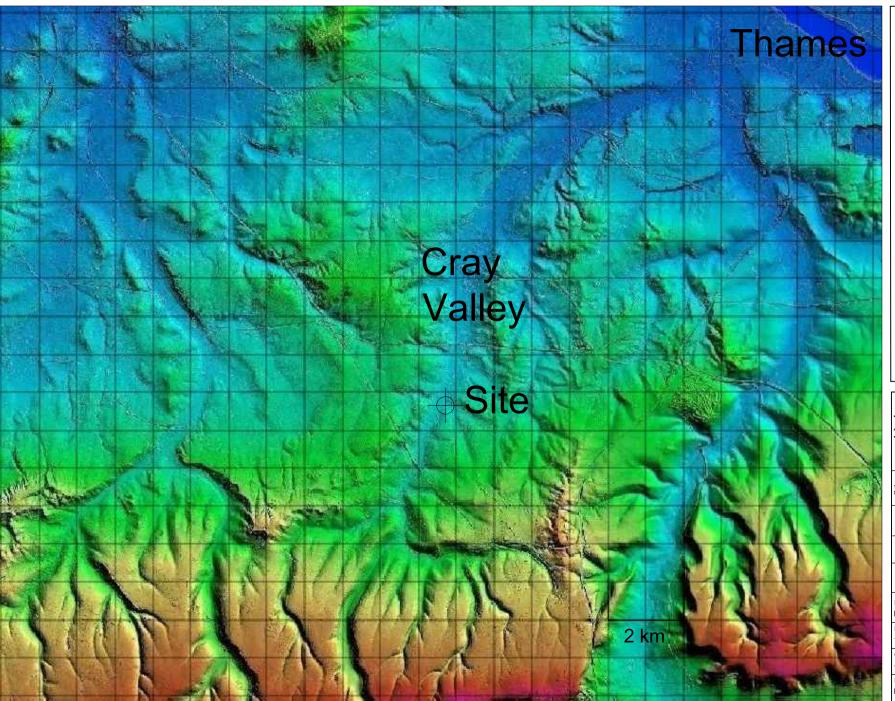


Figure 3: Trench 2 plan and section





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PROJECT NAME High Street Orpington

PROJECT CODE HSO-EV-14

SITE ADDRESS

73 High Street, Orpington

DRAWN BY RL	SCALE(S) 1:100000 @A4
DATE 16/07/14	LAST REVISION 16/07/14
CHECKED	

REF/DRG NO.

N:/HSO-EV-14. Figure 4

Figure 4 Digital terrain model (@Astrium Ltd. Bluesky; COWI AS) geostore.com



Plate 1 Trench 1 extension looking north-west showing natural clay (104), scale 1m



Plate 2 Trench 1 looking north-west showing clay at north-west end and gravel (112), scale 1m



Plate 3 Trench 1 south-west facing section, looking north, scale 1m





Plate 5 Trench 1 north-west facing section, looking east, scale 1m



Plate 6 Trench 1 pit (210) with fish bone lenses, looking south-east, scale 0.5m



Plate 7 Trench 1 sondage showing edge of natural gulley with clay deposit (234), colluvium (230) and clay (229) cut by pit (210), looking south-east, scale 1m