East Thamesmead Business Park (Phase 2a), Bexley, Greater London

Archaeological Evaluation Report

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Tilfen Land & Gazeley UK Ltd

East Thamesmead Business Park (Phase 2a)
Bexley
Greater London

NGR TQ 488 797

ARCHAEOLOGICAL EVALUATION REPORT

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SUMMARY

In December 2006, Oxford Archaeology (OA) undertook an archaeological field evaluation at East Thamesmead Business Park, Bexley, Greater London (NGR TQ 485 798) on behalf of Tilfen Land and Gazeley UK Ltd. The area evaluated was Phase 2a of a proposed three phase development of a business park. The fieldwork comprised the excavation of twelve trenches supplemented by four deep machine-excavated test pits. These revealed a sediment sequence similar to that recorded by the Phase 1 evaluation representing successive phases of marine transgression and regression. Two levels of peat were recorded reflecting the periods of marine regression possibly equating to the known peat deposits of Neolithic and Bronze Age date within the Thames estuary. The only archaeological feature encountered was a ditch likely to be associated with the historical draining and division of Erith Marsh during recent periods. No archaeologically significant deposits or finds were encountered within any of the excavated trenches or test pits.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 In December 2006, Oxford Archaeology (OA) carried out an archaeological field evaluation at East Thamesmead Business Park, Bexley, Greater London (NGR TQ 485 798 on behalf of Tilfen Land and Gazeley UK Ltd (Fig. 1). The area evaluated was Phase 2a of a proposed three phase development of a business park.

1.1.2 OA was originally commissioned by Scott Wilson Kirkpatrick Ltd in 2002 to undertake the Archaeology and Heritage chapter of an Environmental Impact Assessment (EIA) concerning the whole East Thamesmead Business Park development (Phases 1, 2 and 3). This study highlighted the potential for the development to affect palaeoenvironmental and archaeological remains. A programme of staged evaluation was agreed in principal with English Heritage to further assess the archaeological and palaeoenvironmental potential of the site. This consisted of a programme of environmental sampling and trenches targeted to investigate known features and deposits that would be affected by the development. This phase of evaluation would be carried out as a condition to planning consent and would inform on the necessity of any further mitigation work. An evaluation of the Phase 1 area was carried out in February 2005 (OA 2005a) and was followed by a watching brief undertaken in June 2005 during the excavation of a new drainage ditch (Allders Dyke Diversion) located between the Phase 1 and 2a boundaries (OA 2005b).

1.1.3 The proposed development of Phase 2a encompasses an area of 2.9 hectares and involves the construction of an ASDA Service Centre with associated car parking and access roads and an additional building plot to the south of ASDA (and not related to the ASDA Scheme). The woodland to the south of the site will be retained and a

small wetland area will be created as part of the remediation of an area of identified contamination.

1.1.4 The evaluation was carried out according to a Written Scheme of Investigation (OA 2006) agreed in consultations with Mark Stevenson, Archaeological Advisor for the Greater London Archaeology Advisory Service (English Heritage) and Jane Sidell, English Heritage Science Advisor (University College London).

1.2 Geology and topography

1.2.1 The development site lies at TQ 485 798, within the historic parish of Erith in Kent, now within Erith and Crayford Borough Council which lies within the London Borough of Bexley. The site comprised part of Erith Marshes *c* 1.2 km south of the River Thames and *c* 400 m from the gravel terrace, and had hitherto been used as pasture. The modern ground surface slopes very gently from *c* 0.9 m OD in the northern part of the site to *c* 0.6 m OD to the south.

1.2.2 The drift geology of this area is Alluvium over Blackheath Beds in the north of the site and Alluvium over Thanet Beds in the south of the site (BGS 271 & 257).

1.3 Archaeological and historical background

1.3.1 A detailed archaeological, historical and palaeoenvironmental background and potential was produced as part of the Environmental Statement (ES). The following sections represent only a summary of this data.

Palaeolithic to Early Medieval

1.3.2 In the late Palaeolithic period to the middle Mesolithic, the site would have been dry ground. During the early Holocene the landscape of the Lower Thames floodplain saw a number of changes, largely attributed to a rise in sea-level caused by the continued shrinking of the polar ice caps and tectonic subsidence. The Lower Thames Valley was subject to a number of *marine transgressions*, during which low-lying areas beside the river became inundated with estuarine muds and clays, and *marine regressions*, when the land was characterised by plant growth and the formation of peat, with numerous small creeks.

1.3.3 The currently adopted stratigraphic sequence for the Lower Thames is based on work undertaken by Devoy (1977, 1979, 1982). Borehole stratigraphies were integrated with biostratigraphic studies to infer successive phases of marine transgressions (Thames 1-V) represented by clay/silt units and regressions (Tilbury 1-V) represented by peat units. Devoy constructed two age-altitude curves of relative sea level movement, one for Tilbury (outer estuary) and one for Crossness, Dartford and Broadness (inner estuary). The model suggests transgressions occurred in the Palaeolithic/early Mesolithic periods, the late Mesolithic/early Neolithic periods, throughout the Bronze Age, in the middle Iron Age and at the beginning of the 4th century AD (Devoy 1980). The 'Thames-Tilbury' model is regarded as the seminal

work in this area (Haggart 1995) and has been widely applied by researchers outside the original study area in the absence of regional models. However, recent work (Haggart 1995 in Sidell et al 2000:16) has highlighted several problems, such as the need for two age/ altitude curves, suggesting it cannot always be easily applied to the whole of the Thames Estuary, both in terms of lithology and age/ altitude analysis. (Sidell et al 2000:16). This reflects the complex nature of the floodplain environment during this period, consisting of peat forming communities, migrating channels and sand eyots (Sidell 1998). Bates (1998,1999, 2000, 2004) points out that Devoy's work has resulted in a view of sediment accumulation being controlled within the area by a combination of factors dominated by sea-level change and tectonic depression, taking no account of palaeogeography, sedimentary basin size and local to regional sedimentation.

1.3.4 Past archaeological investigations within the area of Erith marshes below the later medieval and post-medieval alluvial deposits have discovered evidence of Mesolithic, Neolithic and Bronze Age activity relating to the exploitation and utilisation of the marshland landscapes. Such evidence includes flint tools of Mesolithic date, a Neolithic log boat (TQ 495 792, NMR 407927) the remains of Bronze Age prehistoric trackways (TQ 4820 7913 to TQ 4830 7913, SMR 071351, 071352 and 071353) and a Romano-British farmstead (TQ 485 810, SMR 070515, NMR 408165).

Later Medieval Period (AD1066-1550)

1.3.5 During the medieval period the marshes would have been wet and at least periodically flooded. Excavations at Summerton Way *c* 1km to the north west of the Application Site record that pottery lying within the latest alluvial deposits suggests a slow build up of alluvial silts with medieval pottery present throughout the deposit with 20th century material present only in its upper layers. Embanking and landscaping known to have occurred throughout the medieval and post-medieval periods would have checked the alluvial and flooding sequence.

1.3.6 The site contains no known archaeological sites as identified from the SMR and NMR although a number of historic landscape features have been identified from aerial photographs, the walkover and historic mapping studied. These include a possible sea wall (s), former paths, drainage ditches and field boundaries. These features are likely to date from the phases of marsh reclamation, in the medieval and post-medieval periods.

1.3.7 The historic core of the village of Erith dates to this period, with permanent settlement located on the higher, well-drained ground overlooking the marsh. Manor houses and churches would have provided focal points for the surrounding communities, although there may have may have been secondary settlement in the form of isolated farms located on the periphery of the parishes and possibly on higher ground within the marshes.

1.3.8 Worsening climate and flooding from the late 11th century onwards led to the development of sea walls. Sea walls would have been built to protect the marshes against periodic flooding and allow their use for more intensive economic activities, primarily rough grazing of livestock on newly created pasture. Once the sea walls were built channels would have been constructed around parcels of land in order to drain the land within each parcel. It is possible that the material excavated from these channels was used for banks around the edges of the fields for further protection. The sea walls themselves are likely to have been built of clay possibly with timber piles to aid stability. Spurrell (1885) suggests these walls would have been built by throwing up the underlying clay, so would have been easily ploughed away when they were no longer needed. This process of reclamation would have continued throughout the later medieval and post-medieval periods.

1.3.9 A 'possible sea wall' was mapped by Spurrel as being present in 1885 within the Phase 2 development area. This is no longer present as a visible feature on the ground today but can be seen as a linear parchmark on aerial photographs dating to the pre-1970s (OA 2002: OA 47, H/4). It is also recorded on the 1801 and 1805 maps of the area as a field boundary and can be traced as a linear feature on maps to 1938. On the Tithe Map of 1843 a field boundary to the east of sea wall OA H/4 appears to mirror the approximate line of this old bank and may be an earlier or later version of the sea wall (OA 2002: OA H/14).

1.3.10 A road was identified within the location of the Wetland Area to the south (OA 2002: OA 43, H/10). It is orientated north-south with a dogleg shape turning along the limit of the Wetland area and stopping at the edge of the Phase 2 development area. Where this road terminates is a location known today as Manor Farm. No historic farm was identified on the historic maps studied in this location but the name may reflect the fact that there may have originally been an outbuilding here associated with a manor located on the terrace to the south or it may just reflect that this is just another Manor Way. On the Tithe Map of 1843 a path (OA 2002: OA H/19) can be seen joining this road with a sea wall located further to the west, which may originally therefore have linked OA 43 to the Thames.

1.3.11 It is not known exactly which parts of the Erith marsh were reclaimed at what time, or how effective these attempts proved to be. However, from the evidence examined above it appears to suggest that the majority of the marshes in the Development Site were initially reclaimed in the medieval period and used for the grazing of sheep. It is likely that the Manor Ways, with drainage channels to either side were the spine around which the reclamation occurred, with sea walls built to keep the water out.

Post-medieval Period (AD1550-present)

1.3.12 The pattern of settlement in the post-medieval period is likely to have remained largely unchanged from the later medieval period (and earlier), with continued occupation of the gravel terrace and utilisation of the marsh. The draining of the marsh is likely to have become more effective and widespread during this period with

the continual modification of drainage channels around individual parcels of land. Throughout the post-medieval period the marshes would have continued to be used for grazing and fattening of sheep.

1.3.13 Examination of the post-medieval maps of the area show how this landscape remained virtually unchanged from the earliest maps studied to the last. Only in the last 50 years have changes occurring in the form of industrial development and the loss of field boundaries and drainage ditches.

1.3.14 The Tithe Map of 1843 shows a north-south boundary/drainage channel (OA 2002: H/14) crossing the Phase 2 site, which had disappeared by 1870. This boundary appears to mirror the shape of the sea wall (OA H/4) and may possibly be an earlier or later phase of sea wall building. A large area of disturbance also appears on the site at OA H/16, but the quality of the map is not sufficient to tell if this 'feature' is damage to the map or an actual feature.

1.3.15 A possible building was also identified by aerial photographs as a parch mark (OA 2002: OA H/6).

2 EVALUATION AIMS

2.1.1 The aims of the evaluation were to:

- Establish the presence/absence of archaeological remains within the proposal area and any palaeoenvironmental remains associated with these. Good quality and extensive palaeoenvironmental remains are known to exist within the evaluation area although these would only be investigated in detail should associated archaeological remains be encountered.
- Determine as far as possible the extent, condition, nature, character, quality and date of any archaeological and associated palaeoenvironmental remains present.
- Establish the requirement for further mitigation strategy.
- Establish the ecofactual and environmental potential of archaeological deposits and features.
- Make available the results of the investigation.

3 EVALUATION METHODOLOGY

3.1.1 The Phase 2a area will be the location of two new buildings with accompanying parking and access. The buildings will have pile foundations located at intervals of 6 m round the long edges of the building and beneath the slab. Pile density will be at 2% or less. The pile caps will be inserted to depths of 1.5 m and the piles themselves will be driven displacement piles.

3.1.2 A 2% sample of the area of the proposed development was investigated through 12 machine excavated trenches, each measuring 30 m x 1.8 m. The trench locations (Fig.

2) were designed to provide a representative sample of the development site and were agreed in advance with the English Heritage Archaeological Advisor for the area. The trenches were excavated by a 360° mechanical excavator fitted with a toothless bucket and working under close archaeological supervision. Below the topsoil a sequence of alluvial deposits of presumed recent date were exposed, and in the absence of any identifiable archaeological horizon each trench except Trench 17 was excavated to a depth of 1.5 m, this being the limit of the ground reduction associated with the proposed insertion of pile caps. Excavation of the central part of Trench 17 was stopped at a depth of 1.3 m due to the presence here of an archaeological feature, ditch 1707. The south western end of Trench 21 was extended by 8 m and a sondage dug to a depth of 1.98 m in order to clarify the stratigraphy here.

3.1.3 A total of four test pits were excavated to investigate the deep stratigraphy below the upper alluvial deposits (Fig. 2). The test pits were excavated to the maximum reach of the machine arm to establish the depth and sequence of alluvial and peat deposits. The spoil generated during this exercise was thoroughly examined for artefacts to identify any archaeological horizons.

3.1.4 All deposits encountered were issued a unique context number. A plan was drawn of each trench at a scale of 1:100, and section drawings showing the stratigraphic sequence revealed in each trench were recorded at 1:20. Colour transparency and black-and-white photographs were taken of each section, as well as more general shots of each trench. All recording was conducted in accordance with the procedures detailed in the OA Fieldwork Manual (OAU 1992).

3.1.5 No samples for palaeoenvironmental remains were retrieved during the Phase 2a evaluation. The sequence of alluvial and peat deposits was comprehensively sampled for palaeo-environmental remains during Phase 1 to the east. This included the retrieval of intact monoliths and bulk disturbed samples from open trench sections along with the four purposive archaeological boreholes through the entire Holocene sediment sequence. These samples have been retained at OA's offices and are available for future analysis should this be warranted in the light of the results of the Phase 2 evaluation.

4 RESULTS

General

4.1.1 In all twelve trenches the topsoil overlay thick deposits of alluvial material which typically extended below 1.5 m and were consequently the only deposits encountered. This 'Upper Alluvium' comprised brown silty clays with some limited variation in hue and in the proportion of silt to clay between and within trenches. Within it were intercalated two thin bands of yellow sandy silt which are likely to have been deposited by individual flooding events. The only trenches in which deposits beneath the Upper Alluvium were exposed were Trench 13, located within a low point in the topography of the site and consequently excavated to a lower

absolute level, and Trench 21, within a sondage excavated at the south-west end of the trench. The only archaeological remains encountered was a single ditch in Trench 17. Only the stratigraphic sequences recorded in Trenches 13, 17 and 21 and the four test pits are therefore described in detail below. The sediment sequences recorded in the four test pits have been correlated to create a cross section through the site (Fig. 5). Brief descriptions of all contexts recorded in the course of the evaluation can be found in the Context Inventory (Appendix 1).

Trench 17

4.1.2 Trench 17 (Figs 2 and 3) was located near the southern corner of the site. It was oriented NW-SE and measured 30 m x 1.80 m. It was excavated to a depth of 1.50 m (-0.85 m OD) except for the central part, where excavation was terminated on discovery of a ditch (1707).

4.1.3 The earliest deposit encountered in this trench was part of the Upper Alluvium, comprising two layers of mid brown silty clay (1709, 1710), the lower of which had a slightly darker hue. The Upper Alluvium was cut by ditch 1707, which crossed the trench on an approximate N-S alignment and measured 3.8 m wide and 0.75 m deep. It was filled by a single deposit of brownish grey silty clay (1708) and yielded no artefactual material. The ditch was sealed by a former topsoil horizon 0.30 m thick (1703/1704) above which lay a dump of re-deposited topsoil containing much stone and modern brick fragments (1702). This layer was 0.40 m thick at the north-western end of the trench but became progressively thinner to the south-east and is likely to have been a levelling layer associated with the overlying gravel surface (1701). The surface extended throughout the length of the trench and was composed of yellow sandy grave 0.15 m thick, and was overlain by the current topsoil (1700).

Trench 21

4.1.4 Trench 21 (Figs 2 and 4 section 50) was located in the central southern part of the site. It was oriented NE-SW and measured 38 m x 1.80 m, having been extended at its south-western end in order to clarify what appeared to be a large feature. Excavation of a sondage at the end of the trench to a depth of 1.98 m revealed this to be the upper part of the deposits forming part of the sediment sequence beneath the Upper Alluvium.

4.1.5 The earliest deposit encountered was a layer of soft grey alluvial silt (2109), which was exposed in the sondage at a depth of 1.82 m (-1.34 m OD). This was overlain by a thin band of alluvial sediment comprising a light grey to yellow sandy silt with orange mottling (2108), above which lay a layer of brown silty clay 0.10 m thick (2107) that resembled the Upper Alluvium. Above this was a layer of soft grey estuarine/alluvial silt 0.12 m thick (2106) similar to 2109, which was in turn overlain by a second layer of brown silty clay (2105). A layer of dark blackish brown organic silt 0.02 m thick (2104) overlay this, and may have been a former soil layer. These deposits were sealed by the Upper Alluvium (2101, 2102, 2103), which in this trench

was 1.48 m thick and was overlain by a thin layer of yellow gravel (2110) and the modern topsoil (2100).

Test Pit 1

4.1.6 Test Pit 1 (Figs 2 and 5) was excavated within the north-western end of Trench 11. It was dug to a depth of 5.40 m, the maximum reach of the machine arm.

4.1.7 The earliest deposit encountered was a layer of greenish grey sand (1112) exposed at a depth of 5.15 m and extending to a greater depth than that achieved by the test pit. It was overlain by a layer of blue grey minerogenic silt 0.75 m thick (1114), probably a lateral equivelent to the lower clay-silt recorded in the Phase 1 boreholes to the southwest. Overlying the silt was a layer of spongy, somewhat friable reddish brown peat 0.90 m thick (1111). A single piece of heat-effected flint with a diameter of 20 mm was recorded within the peat at a depth of *c* 4.2 m below ground surface (*c* -3.28). The peat was sealed by a second layer of blue grey silt (1110), which was 1.10 m thick and contained frequent reed stems preserved by waterlogging. Above this lay a layer of compact, black peat 0.25 m thick (1109), overlain by a layer of soft grey alluvial silt 0.10 m thick (1113). This sediment sequence was sealed by Upper Alluvuim with a total thickness of 1.80 m, comprising brown silty clays (1108, 1104, 1103, 1102, 1101) within which were intercalated two thin bands of yellow sandy silt alluvial sediment (1107, 1106). The modern topsoil sealing this was 0.25 m thick.

Test Pit 2

4.1.8 Test Pit 2 (Figs 2 and 5) was excavated within the south-western end of Trench 16. It was dug to a depth of 5.80 m, the maximum reach of the machine arm.

4.1.9 The earliest deposit encountered in Test Pit 2 was a layer of blue grey silt (1613), which was exposed at a depth of 5.00 m (-4.07 m OD) and was more than 0.80 m thick, extending to a greater depth than that achieved by the test pit. It was overlain by a deposit of friable dark brown peat 1.10 m thick (1612), above which lay a layer of silt 1.30 m thick (1611). The silt was overlain by a layer of compact black peat 0.30 m thick (1610). Over this peat lay a layer of grey alluvial silt 0.15 m thick (1609) above which was a thin band of black peat 0.04 m thick (1608). This sequence was sealed by Upper Alluvium with a total thickness of 1.88 m, comprising brown silty clays (1607, 1604, 1603, 1601), within which were intercalated two thin bands of yellow sandy silt alluvial sediment (1606, 1601). This was sealed by the modern topsoil (1600), which was 0.25 m thick.

Test Pit 3 and Trench 13

4.1.10 Test Pit 3 (Figs 2, 4 and 5) was excavated within the south-eastern end of Trench 13. It was dug to a depth of 5.40 m, the maximum reach of the machine arm. In addition to the test pit the upper part of the sediment sequence sealed beneath the Upper Alluvium was also encountered at the north-western end of the trench (Fig. 4 section 41), which was located within a low point in the topography of the site and was

consequently excavated to a lower absolute level. Only the upper deposits (1300-1310) are present on section 41 (Fig. 4).

4.1.11 Natural gravel (1316) was exposed at the base of the test pit at a depth of 5.10 m (-4.43 m OD) and was overlain by a deposit of soft blue grey silt 0.30 m thick (1315). Above this lay two distinct layers of peat; a lower deposit 0.40 m thick composed of brown woody material (1314) overlain by more friable, black peat 0.90 m thick (1313). Two small rounded flint pebbles measuring 20 mm and 40 mm in diameter were recorded within layer 1313 at a depth of *c* 4.00 m below ground level (*c* -3.33 m OD). The peat was overlain by a layer of soft blue grey silt 1.1 m thick (1312), above which was a layer of compact black peat 0.10 m thick (1311). This peat layer was overlain by a layer of grey silt 0.37 m thick (1310), which was exposed in the base of the north-western end of the trench as well as in the test pit.

4.1.12 Within the test pit this layer was overlain by an alluvial sediment 0.26 m thick composed of whitish sandy silt (1317) with orange mottling and discontinuous patches of organic peaty material, above which was a thin layer of greyish brown silty clay (1309). This layer was sealed by a second deposit of alluvial sediment (1308). Layer 1309 was not present at the north-western end of the trench, where only a single layer of alluvial sediment 0.08 m thick was recorded.

4.1.13 The earliest part of the Upper Alluvium was represented by a layer of light brownish grey silty clay (1306) that was 0.05 m thick at the north-western end of the trench but increased in thickness eastward to a maximum of 0.52 m in the test pit. This was overlain by a possible soil layer (1305). At the north-western end of the trench this appeared as a layer of dark brown silty clay 0.07 m thick with Fe and Mg mottling, but it became progressively paler eastward along the trench until it was indistinguishable from the underlying deposit, and could not be identified within the test pit. Above this lay a thickness of up to 1.20 m of Upper Alluvium, within which four distinct layers (1304, 1303, 1302, 1301) could be identified at the north-western end of the trench based on slight variations in hue and in the proportion of silt to clay. The Upper Alluvium was sealed by a layer of topsoil 0.25 m thick (1300).

Test Pit 4

4.1.14 Test Pit 4 (Figs 2 and 5) was excavated within the south-western end of Trench 18. It was dug to a depth of 5.60 m, the maximum reach of the machine arm.

4.1.15 The earliest deposit encountered in Test Pit 4 was a layer of blue grey silt (1812), which was exposed at a depth of 5.10 m (-4.18 m OD) and was more than 0.50 m thick, extending to a greater depth than that achieved by the test pit. It was overlain by a layer of peat 0.95 m thick (1811), within which two flint pebbles were recorded *c* 4.8 m below ground level (*c* -3.88). The smaller pebble was rounded with a diameter of 20 mm and the larger had an irregular shape, having broken off a larger piece in antiquity, and measured 50 mm x 30 mm. Above the peat was a second layer of estuarine silt 1.8 m thick (1810). The silt layer was overlain by a layer of compact

black peat 0.10 m thick (1809), which was sealed by a layer of grey estuarine silt 0.10 m thick (1808). Above this lay the Upper Alluvium with a total thickness of 1.98 m, comprising brown silty clays (1807, 1802, 1801) within which was intercalated a thin band of yellow sandy silt alluvial sediment (1803). This was sealed by the modern topsoil (1800), which was 0.17 m thick.

5 DISCUSSION AND INTERPRETATION

5.1.1 The evaluation revealed a sediment sequence (Fig. 5) similar to that recorded in the Phase 1 evaluation.

5.1.2 The surface of the Pleistocene river gravels (1316) was encountered in Test Pit 3, at a height of -4.43 m OD. The sand layer (1112) encountered at -4.25 m OD at the base of Test Pit 1 most likely represents a lateral equivalent of this unit. Overall this lies at the upper limit of the height range identified in a previous geotechnical investigation of the Phase 1 area (Soil Mechanics 2004). It is also a similar level to that recorded in BH102 from the Phase 1 evaluation (-4.58m OD) and is likely to represent a high point in the Pleistocene topography.

5.1.3 The Holocene sediments consisted of a sequence of thick layers of minerogenic silt and clays representing successive phases of marine transgression resulting from rising sea levels, alternating with peat deposits formed during phases of regression. Two main peat units were recorded, comprising a lower horizon 0.95 m - 1.30 m thick, the surface of which was encountered at between -2.60 m OD and -3.23 m OD, and an upper layer 0.10 m - 0.30 m thick encountered at between -1.20 m OD and -1.40 m OD.. The piece of heat-effected flint recovered from the lower peat unit in Trench 11 may be evidence for human activity associated with this horizon, and it is possible that the flint pebbles recorded in the same layer in Trenches 13 and 18 were also introduced by human activity.

5.1.4 The Upper Alluvium is likely to date from the historic period, two pieces of ceramic building material having been recovered from context 2202 at a depth of 0.90m below ground level in Trench 22.

5.1.5 A possible former soil layer (1305, 2104) was identified in the central part of the site in Trenches 13 and 21, but remains undated beyond being stratigraphically later than the upper peat unit.

5.1.6 The only archaeological feature discovered during the course of the evaluation was the ditch recorded in Trench 17. The ditch (1707) contained no datable artefacts but is likely to be of fairly recent origin as it cut the Upper Alluvium, and is presumably associated with the draining and division of Erith Marsh during the medieval and later periods.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

Ctxt No	*Type*	*Depth (m)*	*Comment*
Trench 11			
1100	Layer	0-0.24	Modern topsoil
1101	Layer	0.24-50	Mid brownish grey clay silt (Upper Alluvium)
1102	Layer	0.50-0.58	Mid greyish brown clay silt (Upper Alluvium)
1103	Layer	0.60-1.05	Mid-light brownish grey clay silt (Upper Alluvium)
1104	Layer	1.05-1.52	Mid-light brownish grey clay silt. (Upper Alluvium). Similar to 1103 but with much Fe mottling
1105	Layer	0.30-0.50	Mid-light brownish grey clay silt (Upper Alluvium). Possibly the same as 1102.
1106	Layer	0.58-0.60	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1107	Layer	1.52-1.56	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1108	Layer	1.56-2.02	Mid brown silty clay (Upper Alluvium)
1109	Layer	2.12-2.40	Compact black peat
1110	Layer	2.40-3.50	Soft blue-grey silt
1111	Layer	3.50-4.40	Spongy reddish brown peat
1112	Layer	5.15->5.40	Soft greenish grey sand
1113	Layer	2.02-2.12	Mid grey silt
1114	Layer	4.40-5.15	Soft blue-grey silt
Trench 12			
1200	Layer	0-0.30	Modern topsoil
1201	Layer	0.30-0.73	Mid brownish grey clay silt (Upper Alluvium)
1202	Layer	1.05-1.20	Light yellow silty sand alluvial sediment within (Upper Alluvium).
1203	Layer	0.77-1.19	Mid brownish grey silty clay (Upper Alluvium)
1204	Layer	1.20->1.50	Mid brownish grey silty clay (Upper Alluvium). Probably same as 1203
1205	Layer	0.73-1.05	Light brownish grey silty clay (Upper Alluvium).
1206	Layer	0.73-0.77	Light yellow silty sand alluvial sediment within (Upper Alluvium).
1207	Layer	1.19-1.40	Light brownish grey silty clay (Upper Alluvium).
Trench 13			
1300	Layer	0-0.25	Modern topsoil
1301	Layer	0.25-0.55	Mid brown silty clay. Re-deposited?
1302	Layer	0.35-0.57	Buried topsoil
1303	Layer	0.57-1.03	Mid greyish brown silty clay (Upper Alluvium).

Ctxt No	*Type*	*Depth (m)*	*Comment*
1304	Layer	1.03-1.38	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1305	Layer	1.38-1.45	Dark brown silty clay soil layer at NW end of trench.
1306	Layer	0.65-1.17	Light brownish grey silty clay (Upper Alluvium).
1307	Layer	0.55-0.65	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1308	Layer	1.17-1.43	White/light grey sandy silt with orange mottling. Alluvial sediment.
1309	Layer	1.43-1.47	Mid greyish brown silty clay (Upper Alluvium).
1310	Layer	1.73-2.10	Soft mid grey silt
1311	Layer	2.10-2.20	Compact black peat
1312	Layer	2.20-3.30	Blue grey silt.
1313	Layer	3.30-4.20	Black peat
1314	Layer	4.20-4.60	Brown woody peat
1315	Layer	4.60-5.10	Soft blue grey silt.
1316	Layer	5.10->5.40	Sandy gravel
Trench 14			
1400	Layer	0-0.40	Modern topsoil.
1401	Layer	0.40-0.84	Mid brownish grey silty clay (Upper Alluvium).
1402	Layer	0.84-0.94	Light yellow sandy silt alluvial sediment,
1403	Layer	0.94-1.20	Mid brown clay silt (Upper Alluvium).
1404	Layer	1.20->1.50	Mid-dark brownish grey silty clay (Upper Alluvium.)
Trench 15			
1500	Layer	0-0.30	Modern topsoil
1501	Layer	0.30-0.60	Mid brownish grey silty clay (Upper Alluvium).
1502	Layer	0.60-0.68	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1503	Layer	0.68-1.20	Mid brownish grey silty clay (Upper Alluvium).
1504	Layer	1.20->1.50	Mid-dark brownish grey silty clay (Upper Alluvium).
Trench 16			
1600	Layer	0-0.25	Modern topsoil.
1601	Layer	0.25-0.80	Mid brownish grey silty clay (Upper Alluvium).
1602	Layer	1.10-1.15	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1603	Layer	1.15-1.30	Mid brownish grey silty clay (Upper Alluvium).
1604	Layer	1.30-1.90	Mid-dark brownish grey silty clay (Upper Alluvium).
1605	Layer	0.80-1.10	Mid brownish grey silty clay (Upper Alluvium). Probably a variation within 1601.

Ctxt No	*Type*	*Depth (m)*	*Comment*
1606	Layer	1.90-2.10	Yellow sandy silt alluvial sediment within (Upper Alluvium).
1607	Layer	2.10-2.13	Mid brown clay silt (Upper Alluvium).
1608	Layer	2.13-2.17	Dark brown peat
1609	Layer	2.17-2.30	Blue grey silt.
1610	Layer	2.30-2.60	Compact black peat
1611	Layer	2.60-3.90	Blue grey silt.
1612	Layer	3.90-5.00	Dark brown peat
1613	Layer	5.00->5.80	Blue grey silt.
Trench 17			
1700	Layer	0-0.40	Modern topsoil.
1701	Layer	0.40-0.60	Yellow sandy gravel made ground.
1702	Layer	0.60-0.70	Black brown sandy clay, frequent stones. Made ground.
1703	Layer	0.70-0.80	Buried topsoil
1704	Layer	0.80-1.00	Same as 1703
1705	Cut		Cut of field drain
1706	Fill		Fill of field drain
1707	Cut		Ditch
1708	Fill		Fill of ditch 1707.
1709	Layer	1.00-1.25	Mid greyish brown silty clay (Upper Alluvium).
1710	Layer	1.25->1.50	Mid brownish grey silty clay (Upper Alluvium).
Trench 18			
1800	Layer	0-0.17	Modern topsoil.
1801	Layer	0.17-0.38	Mid brown silty clay (Upper Alluvium).
1802	Layer	0.38-1.36	Light brown silty clay (Upper Alluvium).
1803	Layer	1.36-1.68	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1804	Layer	0.38-0.40	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1805	Layer	0.80-1.05	Light brown silty clay (Upper Alluvium). Probably a variation within 1802.
1806	Layer	1.05-1.36	Light brown silty clay (Upper Alluvium). Probably a variation within 1802.
1807	Layer	1.68-2.15	Mid brown silty clay (Upper Alluvium).
1808	Layer	2.15-2.25	Mid grey estuarine silt.
1809	Layer	2.25-2.35	Compact black peat
1810	Layer	2.35-4.15	Soft blue grey silt.

Ctxt No	*Type*	*Depth (m)*	*Comment*
1811	Layer	4.15-5.10	Black brown peat.
1812	Layer	5.10->5.60	Soft blue grey silt.
Trench 19			
1900	Layer	0-0.40	Modern topsoil.
1901	Layer	0.40-0.60	Mid greyish brown silty clay (Upper Alluvium).
1902	Layer	0.60-1.03	Mid brownish grey silty clay (Upper Alluvium).
1903	Layer	1.03-1.16	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
1904	Layer	1.16=-1.34	Mid brownish grey silty clay (Upper Alluvium).
1905	Layer	1.34->1.50	Light greyish brown silty clay (Upper Alluvium).
Trench 20			
2000	Layer	0-0.20	Modern topsoil.
2001	Layer	0.20-0.37	Mid greyish brown silty clay (Upper Alluvium).
2002	Layer	0.37-0.74	Mid greyish brown silty clay (Upper Alluvium).
2003	Layer	0.74->1.50	Yellowish brown clay silt (Upper Alluvium).
Trench 21			
2100	Layer	0-0.60	Modern topsoil.
2101	Layer	0.65-1.00	Mid brownish grey silty clay (Upper Alluvium).
2102	Layer	1.00-1.38	Light brownish grey silty clay (Upper Alluvium).
2103	Layer	1.38-1.48	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
2104	Layer	1.48-1.50	Dark black brown organic silt. Possible soil layer.
2105	Layer	1.50-1.55	Light brownish grey silty clay (Upper Alluvium).
2106	Layer	1.55-1.68	Soft grey silt
2107	Layer	1.68-1.78	Orange brown silty clay (Upper Alluvium).
2108	Layer	1.78-1.82	Light yellow sandy silt alluvial sediment.
2109	Layer	1.82->1.98	Soft mid grey silt
2110	Layer	0.60-0.65	Yellow sandy gravel made ground. Same as 1701.
Trench 22			
2200	Layer	0-0.30	Modern topsoil.
2201	Layer	0.30-0.92	Mid brownish grey silty clay (Upper Alluvium).
2202	Layer	0.92-1.02	Light yellow sandy silt alluvial sediment within (Upper Alluvium).
2203	Layer	1.02-1.42	Mid brownish grey silty clay (Upper Alluvium).
2204	Layer	1.42-1.54	Mid greyish brown silty clay (Upper Alluvium).
2205	Layer	1.54->1.66	Light yellow sandy silt alluvial sediment within (Upper Alluvium).

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APPENDIX 3 SUMMARY OF SITE DETAILS

Site name: East Thamesmead Business Park (Phase 2a), Bexley, Greater London

Site code: ETB 05

Grid reference: TG 485 798

Type of evaluation: Twelve trenches measuring 30 m x 1.8 m and four machine-excavated test pits (= 2% sample)

Date and duration of project: 6/12/2006-19/12/2006

Area of site: 2.9 hectares

Summary of results: In December 2006, Oxford Archaeology (OA) undertook an archaeological field evaluation at East Thamesmead Business Park, Bexley, Greater London (NGR TQ 485 798) on behalf of Tilfen Land and Gazeley UK Ltd. The area evaluated was Phase 2a of a proposed three phase development of a business park. The fieldwork comprised the excavation of twelve trenches supplemented by four deep machine-excavated test pits. These revealed a sediment sequence similar to that recorded by the Phase 1 evaluation. The surface of the Pleistocene fluvial gravel was encountered in Test Pit 3, at a height of -4.43 m OD, and may represent a localised high point in the Pleistocene topography. A sand layer encountered at -4.25 m OD in Test Pit 1, immediately to the north may represent a lateral variation of this unit. The Holocene sediments consisted of a sequence of minerogenic silts and clays representing successive phases of marine transgression resulting from rising sea levels, alternating with peat deposits formed during phases of regression. Two main peat units were recorded. Although undated, the peat may be equivalent to Devoy's Tilbury III and Tilbury IV peat deposits of Neolithic and Bronze Age date (Devoy 1977, 1979). The only evidence for human activity associated with this sequence was a single piece of heat-effected flint recovered from the lower peat horizon. The only archaeological feature discovered was a ditch that is likely to be associated with the draining and division of Erith Marsh during recent periods.

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Bexley Heritage Trust, Hall Place Museum, Bourne Road, Bexley, DA5 1PQ in due course.

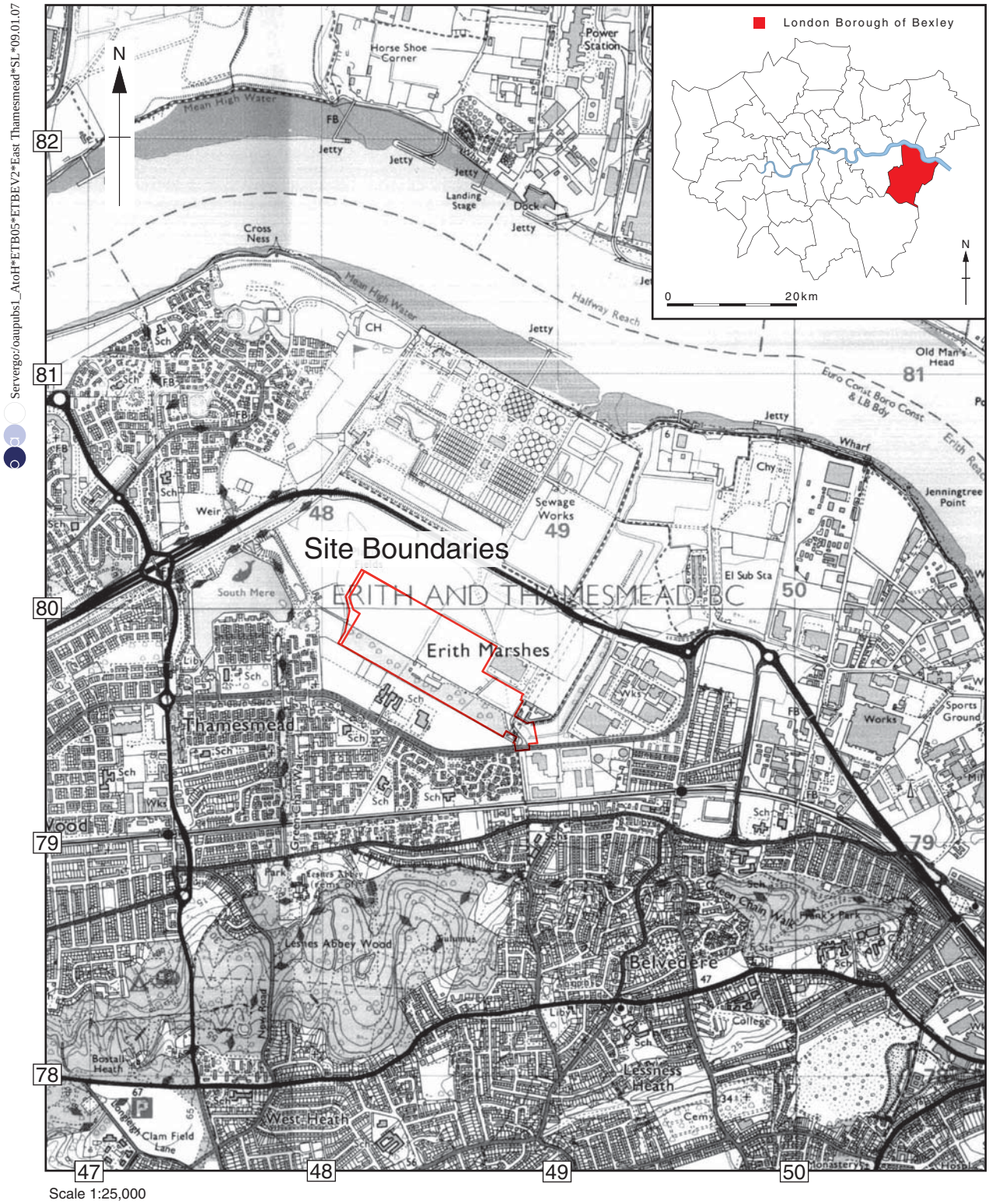

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Figure 1: Location of East Thamesmead Business Park

\\Server1\Projects\ETBEV East Thamesmead Business Park\Geomatics\CAD\current\ETBEV current*RL*04.02.05*

Phase 2a
Evaluation Area

Phase 2b

Phase 1
Watching Brief Area

Phase 1
Evaluation Area

Trench 15
Test pit 1
Trench 11
Trench 16
Test pit 2
Trench 14
Trench 12
Trench 22
Trench 13
Test pit 3
Trench 19
Trench 21
Trench 20
Trench 18
Test pit 4
Trench 17

CROSS DYKE 2
ALLDERS DYKE
ASDA ASC
WOODLAND WAY
YARNTON WAY
VALIANT WAY
EASTERN WAY
Erith Marshes
Manor Farm
Games Court
Thamesmead Community College
Riverside School
Depot
Drain

548200
180000
548500m
548800
179500
179800

BEXLEY LB
THAMESMEAD
THAMESMEAD EAST WARD
GREATER LONDON
ERITH AND THAMESMEAD BORO CONST
ERITH AND CRAYFORD BORO CONST
LONDON SOUTH EAST EURO CONST
ERITH

Phase 2a Evaluation trench locations

N

0 50 m

Scale at A3 1:2500

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ETB 05

East Thames Business Park

Drawing No.	ETBEV/oa/1
Date printed	04.02.05
Drawing title	

Figure 2:
Trench locations

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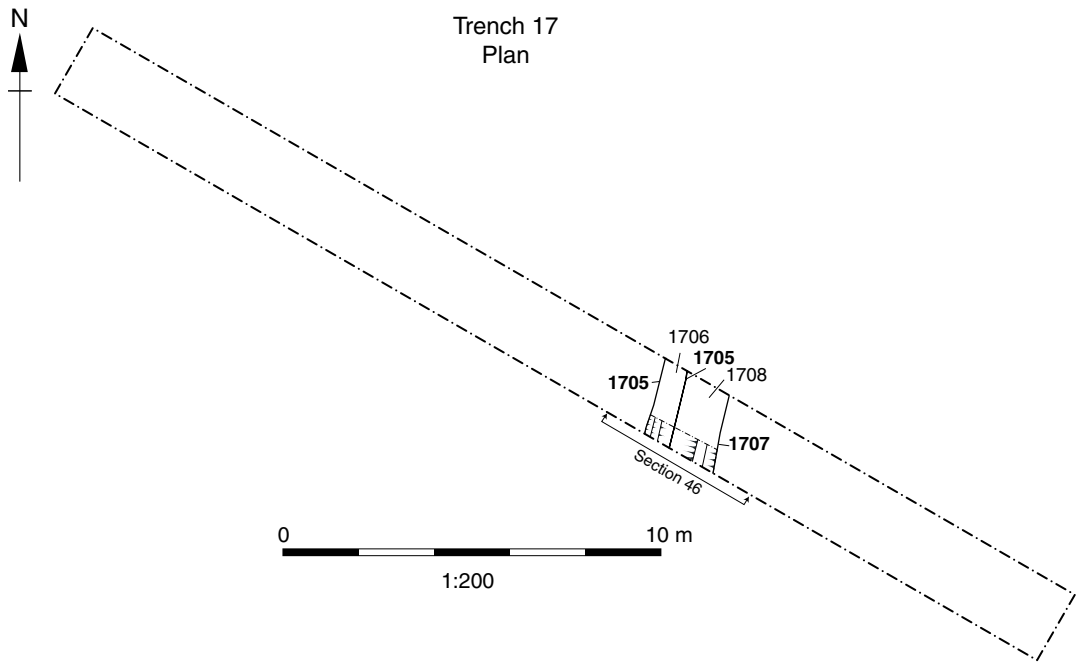


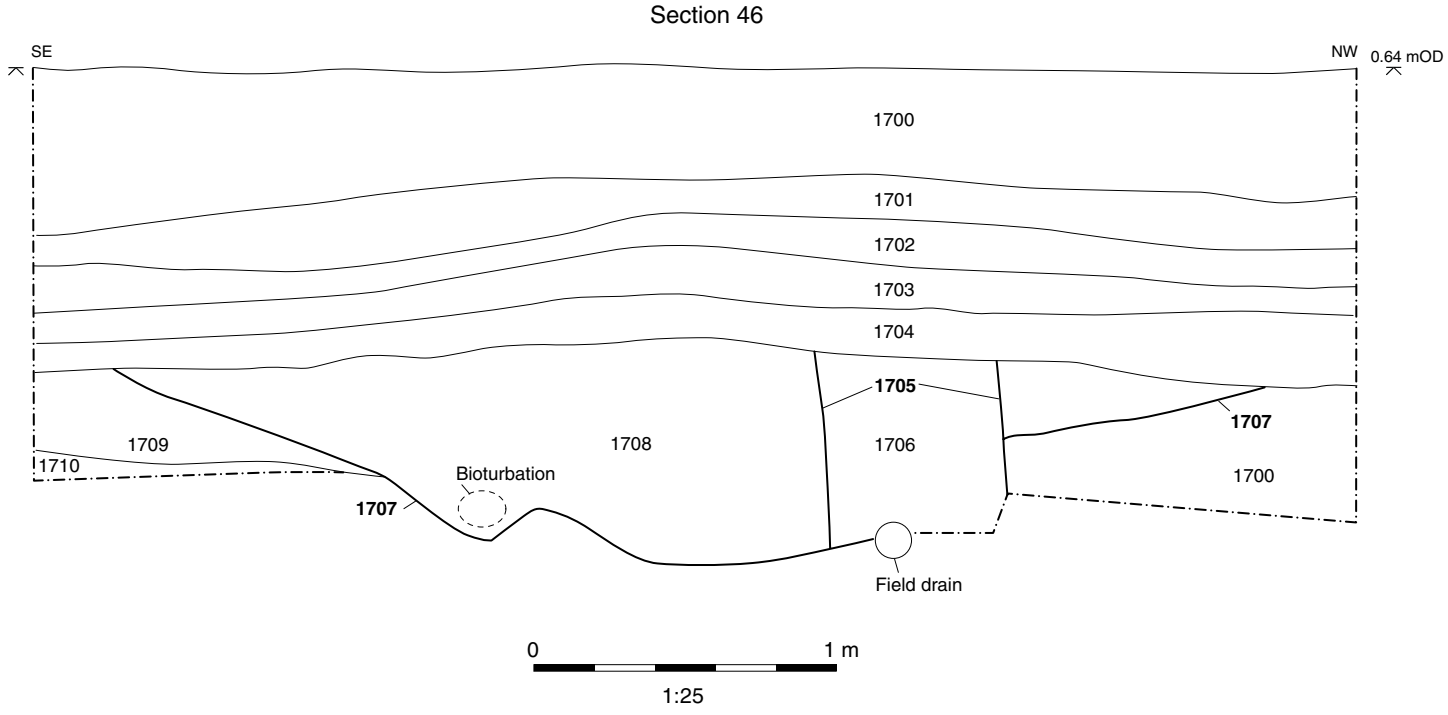
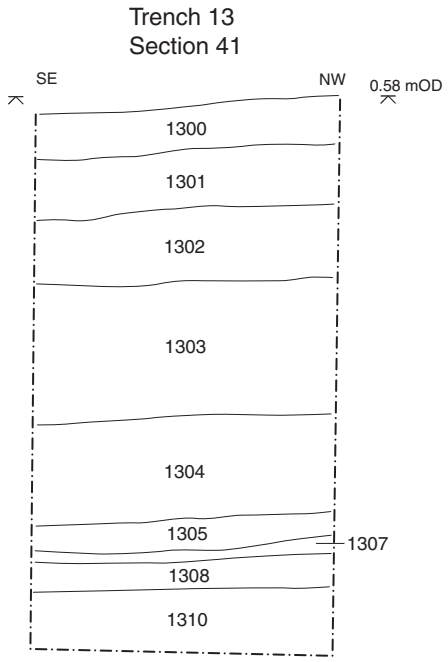


Figure 3 : Plan of Trench 17 and section across ditch 1707



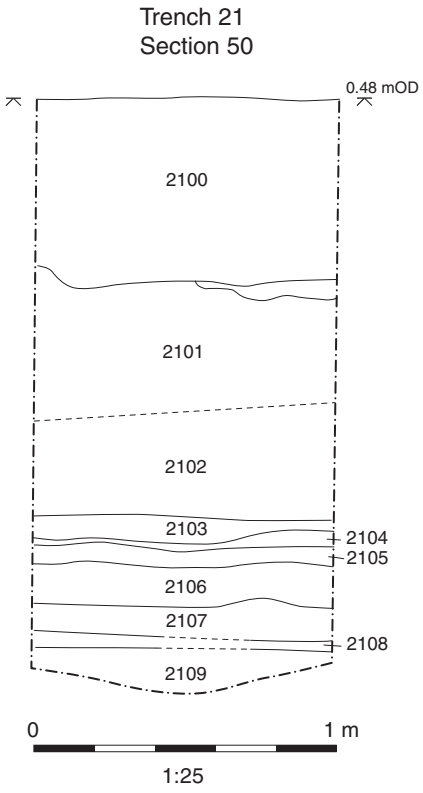


Figure 4 : Sections 41 and 50

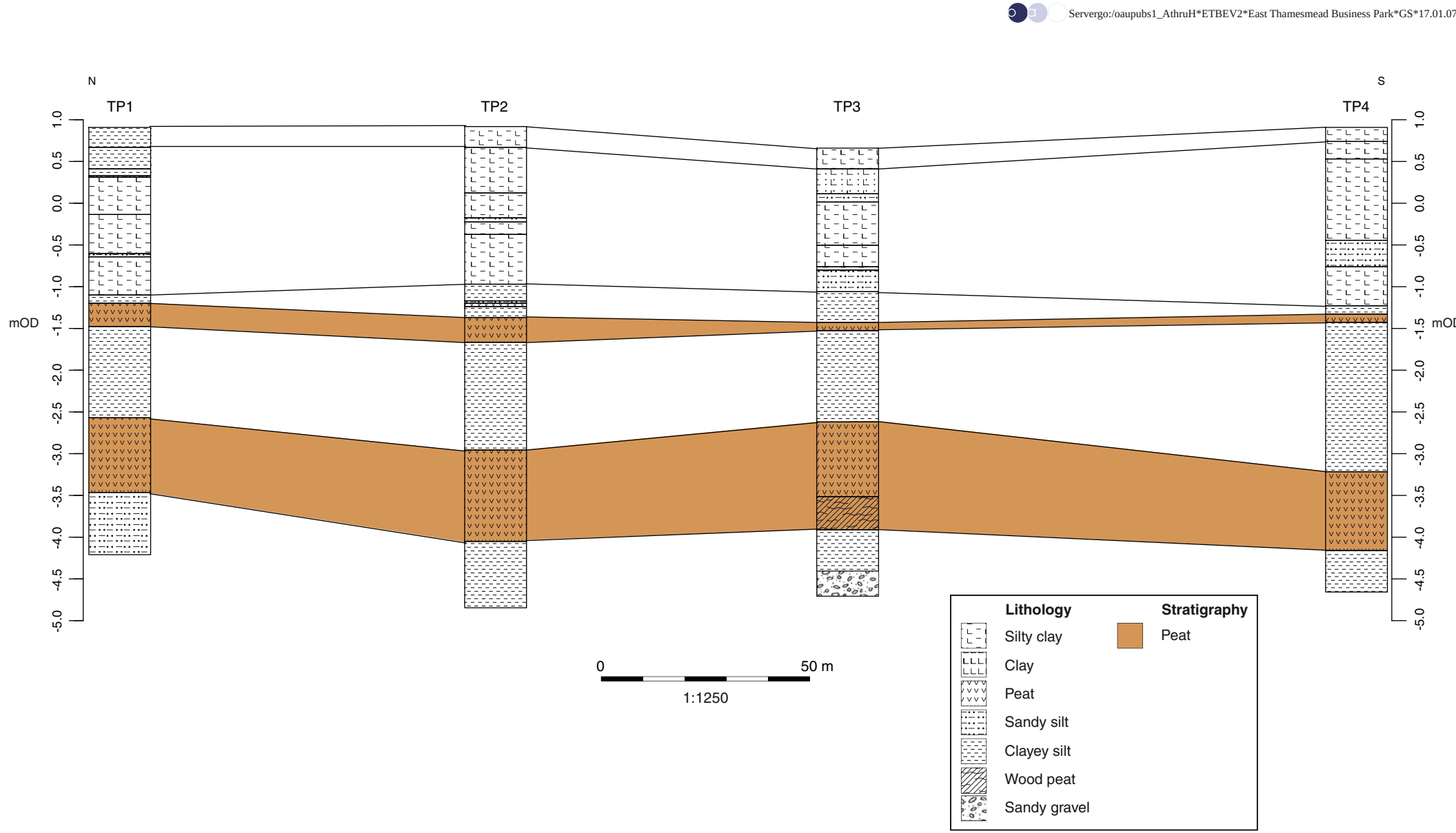


Figure 5: Cross section through the sediment sequence recorded in the test pits

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