

Report 2645



nps archaeology

## Archaeological Watching Brief at the College of West Anglia, King's Lynn Campus, Norfolk

ENF127647



**Prepared for**  
CWA Developments Ltd  
Tennyson Avenue  
King's Lynn  
Norfolk  
PE30 2QW



Steve Hickling BA MA AIfA

May 2012



[www.nps.co.uk](http://www.nps.co.uk)

<b>PROJECT CHECKLIST</b>		
Project Manager	David Whitmore	
Draft Completed	Steve Hickling	10/04/2012
Graphics Completed	David Dobson	10/05/2012
Edit Completed	Jayne Bown	17/05/2012
Signed Off	David Whitmore	21/05/2012
<i>Issue 1</i>		

## **NPS Archaeology**

Scandic House  
85 Mountergate  
Norwich  
NR1 1PY

T 01603 756150

F 01603 756190

E [jayne.bown@nps.co.uk](mailto:jayne.bown@nps.co.uk)

<http://nau.nps.co.uk/>

BAU2645

© NPS Archaeology

## Contents

---

<i>Summary</i> .....	1
1.0 Introduction .....	1
2.0 Geology and Topography .....	3
3.0 Archaeological and Historical Background.....	3
4.0 Methodology .....	4
5.0 Results.....	4
5.1 Piles.....	4
5.2 Stanchion Pits .....	6
5.3 Service Trenches.....	7
5.4 Ring-beams .....	9
5.5 Rain water tank.....	9
6.0 Finds .....	11
6.1 Pottery .....	11
6.2 Ceramic Building Material.....	13
6.3 Clay Pipe .....	13
6.4 Glass .....	15
6.5 Metal Finds.....	15
6.6 Faunal Remains .....	15
6.7 Shell .....	15
7.0 Conclusions .....	16
<i>Acknowledgements</i> .....	17
<i>Bibliography</i> .....	17
<i>English Delftware</i> . Faber & Faber .....	17
Appendix 1a: Context Summary .....	18
Appendix 1b: OASIS Feature Summary .....	18
Appendix 2a: Finds by Context .....	19
Appendix 2b: Oasis Finds Summary.....	19
Appendix 3: Pottery Catalogue .....	20
Appendix 4: Ceramic Building Material Catalogue.....	21
Appendix 5: Clay Pipe Catalogue .....	22
Appendix 6: Piling Data.....	24

## **Figures**

- Figure 1 Site location
- Figure 2 Site plan
- Figure 3 Piling plan

## **Plates**

- Plate 1 Piling in progress
- Plate 2 A typical stanchion pit
- Plate 3 Ditch [4] facing south-west (the ditch is black)
- Plate 4 The ring-beams
- Plate 5 The rain water tank trench facing west, showing Nordelph peat towards the base

## **Tables**

- Table 1 Pottery quantification by fabric
- Table 2 Pottery types present by feature (\* contains later ceramic building material)

Location:	College of West Anglia, King's Lynn Campus. Norfolk
District:	Borough of King's Lynn and West Norfolk
Planning Ref.:	Pre-application
Grid Ref.:	TF 6259 2035
HER No.:	ENF127647
OASIS Ref.:	125981
Client:	CWA Developments Ltd
Dates of Fieldwork:	5 October 2011 - 1 March 2012

---

## **Summary**

*An archaeological watching brief was conducted for CWA Developments Ltd. during groundworks associated with the construction of a new technical block at the College of West Anglia, King's Lynn in Norfolk.*

*Although this project only produced archaeological features of limited significance (a pit and a ditch) it may cast light upon the post-medieval landscape history of the area. A fine assemblage of 16th-18th century artefacts was collected including imported pottery and tobacco pipe remains.*

*The earliest deposits encountered were Bronze Age Nordelph peats, followed by subsequent Terrington Beds, formed by marine inundations up to the late 18th century at least. This suggests that the development area had been salt marsh and rough grazing until the late 18th century.*

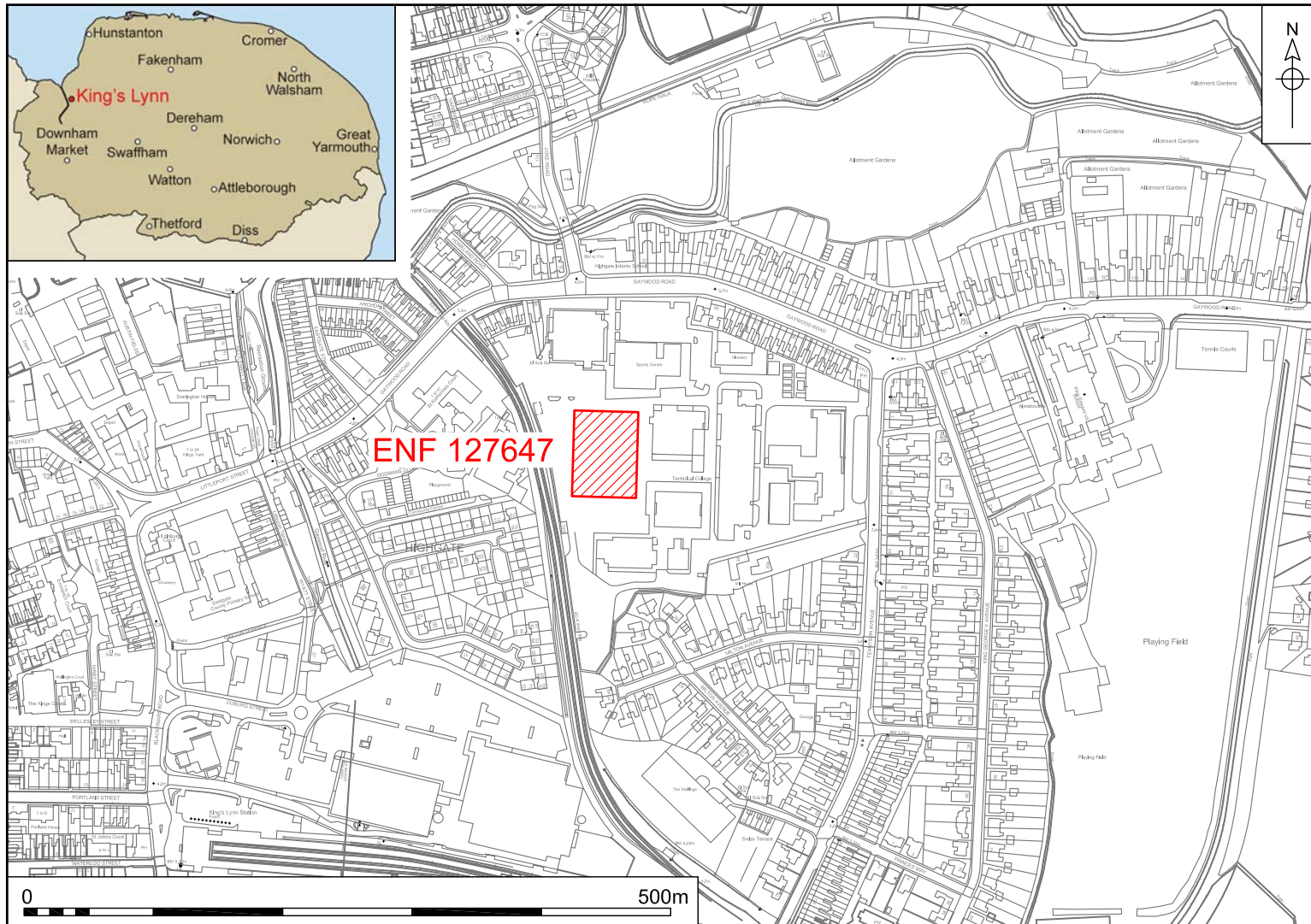
*The pit and ditch appear to have fallen out of use in the late 18th century, and a soil rich in artefacts was deposited over the whole area. This may be due to a brief phase of arable agriculture, or simply the deposition of material in an effort to raise the land level. Historic mapping suggests that subsequent use of the site was as part of an orchard, until the construction of the present college buildings.*

## **1.0 INTRODUCTION**

Archaeological monitoring was maintained over all groundworks associated with the construction of a new technical block at the College of West Anglia, King's Lynn (Fig. 1). It is thought that during the siege of King's Lynn in 1643 the Parliamentary besiegers threw up a series of earthworks in this area, located 240m east of the main East Gate to the town.

This work was undertaken to fulfil a pre-application planning requirement from the Borough Council of King's Lynn and West Norfolk and a Brief issued by Norfolk Historic Environment Service (Ref. CNF43047). The work was conducted in accordance with a Project Design and Method Statement prepared by NPS Archaeology (Ref. NAU/BAU2645/NP). This work was commissioned and funded by CWA Developments Ltd.

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment area, following the guidelines set out in the *National Planning Policy Framework* (Department for Communities and Local Government 2012).



© Crown copyright and database rights 2011 Ordnance Survey 100019340

Figure 1. Site location. Scale 1:5000

The site archive is currently held by NPS Archaeology and on completion of the project will be deposited with the Norfolk Museums and Archaeology Service (NMAS), following the relevant policies on archiving standards.

## **2.0 GEOLOGY AND TOPOGRAPHY**

The site lies on geology which consists of Flandrian Alluvium (Marine, estuarine and freshwater sands, silts clays and peats (BGS 1991) above Upper Jurassic Kimmeridge Clays (BGS 1985).

The development site lies within the campus of the College of West Anglia, c.1km east of King's Lynn town centre, just south of Gaywood Road at a height of c.2.7m OD. The Gaywood River is located 100m north of the development site (Fig. 1).

## **3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

The Norfolk Historic Environment Record (NHER) and historic mapping sources have been consulted during the preparation of this section.

It is thought that a series of earthworks were created in the area of the campus during the siege of 1643. The heaviest fighting during the siege took place at the East Gate, 240m west of the development site.

Littleport Street Bridge (NHER 5485) lies 150m to the east of the present development site and is a 16th-century two-arched bridge underlying the modern road. It still spans the town ditch allowing access into the town through the East Gate. There has been a bridge on this site since at least the 14th century.

The King's Lynn town defences (NHER 5486), located 150m east of the present development site date back to the 13th century and were probably on the same site as an ancient sea bank predating the foundation of the town. The part around the East Gate, closest to the development site originally had a stone wall. The defences were modernised in the 16th century and again before the siege of 1643. After the siege the defences were rebuilt and up-to-dated (including bastions) but predominantly still occupied the line of the medieval defences; parts of these can still be traced on the ground.

During demolition of a house in 1903, fragments of the medieval East Gate were found (NHER 39601) adjacent to the Littleport Street Bridge.

The New Gaywood River (NHER 28800), an artificial watercourse dug in 1425 and redirected during the Civil War to form a town moat is located 100m north of the development site.

Part of the 1849 King's Lynn Dock Railway (NHER 13592) still runs along the western edge of the West Anglia College site.

A Second World War spigot mortar mount (NHER 32384) lies 50m north-west of the development site.

On the southern boundary of the campus is the site of a post mill (NHER 14990) depicted on a 16th-century map (Norfolk Records Office (NRO) BL 71) and last used in 1900. The mill house still stands and has mill stones by the gate.

Wenceslaus Hollar's town plan of c.1660 (Higgins 2005, plate 40) and subsequent copies by Henry Bell in 1670 (*ibid*, plate 41) and Rastrick in 1725 (NRO BL 4.1) show no detail in the area of the development.

The First Edition Ordnance Survey map (c.1885) shows the Campus site as an orchard labelled Highgate (<http://www.historic-maps.norfolk.gov.uk/Emap/EMapExplorer>).

The 1946 Aerial photograph shows the West Anglia Campus site as mainly wooded, possibly an old orchard (<http://www.historic-maps.norfolk.gov.uk/Emap/EMapExplorer>).

## **4.0 METHODOLOGY**

The objective of this watching brief was to record any archaeological remains exposed during groundworks associated with the development and to retrieve artefacts and ecofacts.

The Brief required that all groundworks be monitored (Fig. 2).

Machine excavation was carried out with wheeled JCB-type excavators and a seven-tonne hydraulic 360° excavator under constant archaeological supervision.

Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds, other than those which were obviously modern, were retained for inspection.

No environmental samples were taken as no suitable deposits were present.

All archaeological features and deposits were recorded using NPS Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Colour, monochrome and digital photographs were taken of all relevant features and deposits where appropriate.

All levels and depth measurements were taken from the top of the hardcore piling platform which was 2.675m OD.

Site conditions were good, with the work taking place in fine weather.

## **5.0 RESULTS**

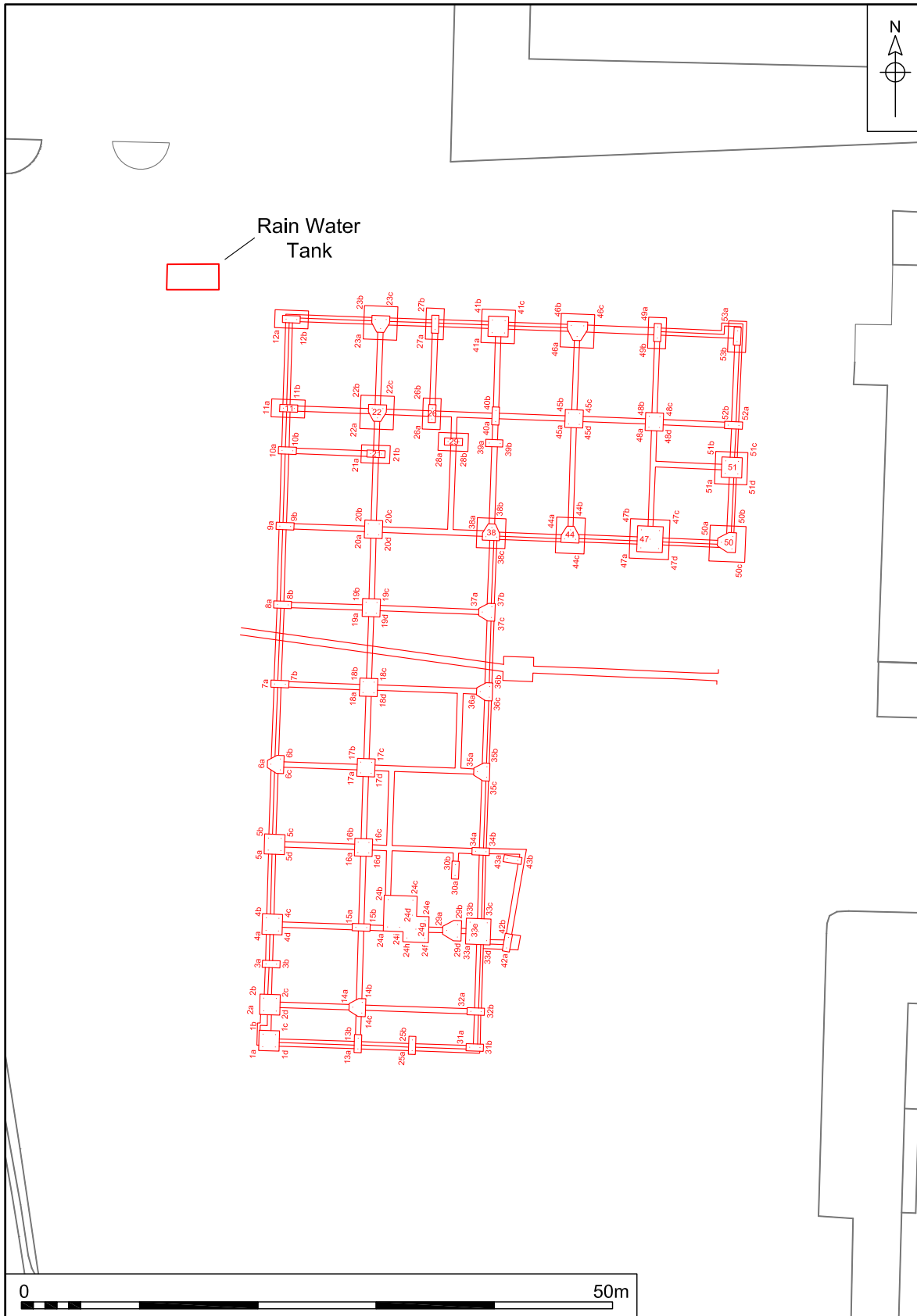
Observations made during monitoring of the site are described below, separated into the five main groundworks elements i.e. piles, stanchion pits, service trenches, ring-beams and the rain water tank,

### **5.1 Piles**

A bore-hole survey of the site (Ground Engineering 2011) had encountered natural glacial sand at a depth of 0.0--1.5m OD, overlaying firm grey Kimmeridge Clay. Above the glacial sand was a 1.5-1.9m thick layer of Nordelph peat with a layer of dark grey organic clay Terrington beds (marine inundation) above that.

The arisings from the piles (Plate 1, Appendix 6) consisted of primarily Kimmeridge clay, with peat and rare deposits of clean yellow sand. Three of the piles produced finds, Pile 28A produced a fragment of medieval brick, Pile 11B contained a sherd of 18th-century Tin Glazed Earthenware and Pile 34A produced a sherd of Tin Glazed Earthenware dating to the 16th-18th century.





© Crown copyright and database rights 2011 Ordnance Survey 100019340

Figure 2. Site plan. Scale 1:500



Plate 1. Piling in progress

## 5.2 Stanchion Pits

Following the piling operation, the tops of several of the piles were partially excavated in order to trim and prepare them for the ring beams (Figs 2 and 3, Plate 2).



Plate 2. A typical stanchion pit hole



The stratigraphy that was exposed consisted of the following (bgl=below ground level):

- 0.00-0.15m bgl      Modern piling platform (8)
- 0.15-0.30m bgl      Black silt with flints and 20th-century demolition rubble (9)
- 0.30-0.60m bgl      Black silt with occasional fragments of mortar and ceramic building material (10)
- 0.60m+ bgl          Pale brownish grey clay with rare marine shell (11).

The stanchion pit excavated around piles 12A and 12B revealed a large pit ([6]) that was 0.6m deep and in excess of 2.8m long and 1.5m wide (Fig. 3). One side of the pit was exposed and was found to be almost vertical. Deposit (7) that filled pit [6] was identical to layer (10) except in this case it contained a large number of finds including clay tobacco pipe and pottery. The pottery was mainly Tin Glazed Earthenware dating to the late 18th century or later, along with a few earlier pieces.

### 5.3 Service Trenches

The excavation of two service trenches was monitored. The new water main, skirting the southern end of the new building was dug to a depth of 1.2m bgl and demonstrated the same stratigraphy as that encountered in the service trenches (described above). No archaeological features were encountered.



Plate 3. Ditch [4] facing south-west (the ditch appears as a black deposit at the base of the trench

A drain running east to west through the centre of the new building (Fig. 3) was excavated, and also revealed the same stratigraphic sequence that is described above.

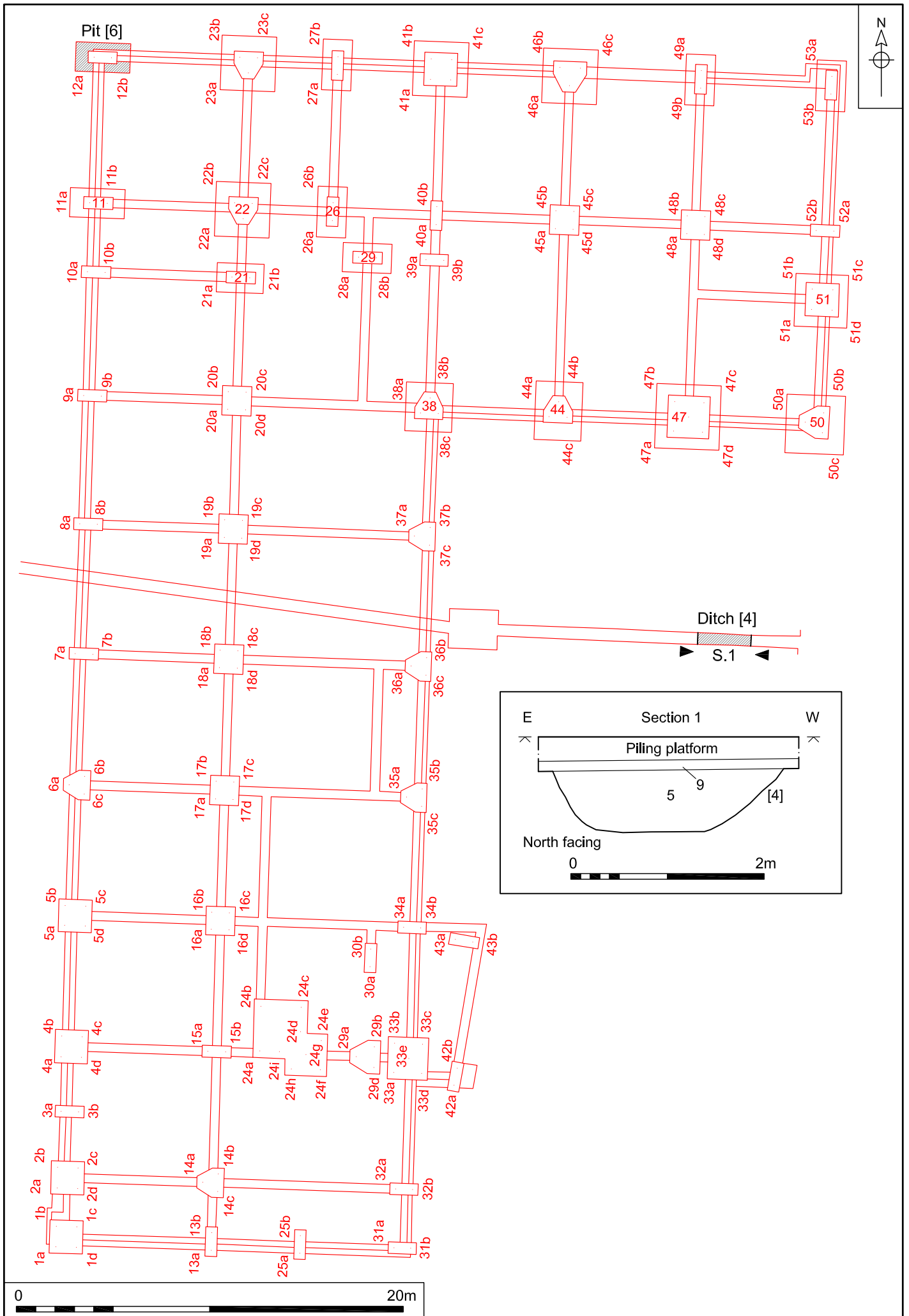


Figure 3. Piling plan. Scale 1:250. Inset of section 1 at 1:50

A ditch ([4]) was observed below layer (9) (Fig. 3).

Ditch [4] appeared to be aligned north to south and 2.9m wide and 0.8m deep with a flat base and moderately sloping sides. Its fill (5) was a black silty peat with occasional pieces of ceramic building material well as 18th-century clay tobacco pipe and pottery.

## 5.4 Ring-beams

The excavation of trenches for the ring-beams was of insufficient depth to reveal any significant archaeological deposits.



Plate 4. The ring-beams

## 5.5 Rain water tank

The trench for the rain water collection tank was located just to the north-west of the main area of groundworks that contained the grid of trenches (Fig. 2). It was rectangular and measured 6m long east to west, 2.5m wide north to south and was 3.5m deep.

The upper part of the stratigraphic sequence revealed in the section of the trench for the rainwater tank was generally the same as that revealed elsewhere on the site (see Sections 5.2 and 5.3 above) with additional deposits exposed below.

0.00-0.15m bgl	Modern piling platform (8)
0.15-0.30m bgl	Black silt with flints and 20th-century demolition rubble (9)
0.30-0.60m bgl	Black silt with occasional fragments of mortar and ceramic building material (10)
0.60-1.75m bgl	Pale brownish grey clay with rare marine shell (11)



- 1.75-2.40m bgl      Mid bluish grey clay with rare occurrences of marine mollusc shell (12)
- 2.40-3.25m bgl      Black peat with frequent reeds and wood (13)
- 3.25m+ bgl          Mid bluish grey clay (14)



Plate 5. The rain water tank trench facing west, showing Nordelph peat towards the base

## 6.0 FINDS

All finds were processed and recorded by count and weight, and an Excel spreadsheet was produced outlining broad dating. Each material type has been considered separately and is included below organised by material and then chronologically within that category. A list of finds ordered by context can be found in Appendix 2a.

### 6.1 Pottery

by Sue Anderson

#### 6.1.1 Introduction

One hundred and twenty-six sherds of pottery weighing 1,486g were collected from six contexts. Table 1 shows the quantification by fabric; a summary catalogue by context is included as Appendix 3.

Description	Fabric	Code	No	Wt/g	Eve	MNV
Dutch-type whitewares	DUTW	7.22	5	139		1
Glazed red earthenware	GRE	6.12	9	242	0.14	6
Border Ware?	BORD?	6.22	1	1		1
Tin glazed earthenwares	TGE	6.30	67	686	1.24	21
Post-medieval slipwares	PMSW	6.40	3	65		1
Staffordshire-type Slipware	STAF	6.41	8	107	0.30	7
Frechen (or London?) Stoneware	GSW4	7.14	3	69		1
Westerwald Stoneware	GSW5	7.15	1	4		1
<b>Total post-medieval</b>			<b>97</b>	<b>1313</b>	<b>1.68</b>	<b>39</b>
Industrial slipware	INDS	8.02	1	2		1
Refined white earthenwares	REFW	8.03	8	23	0.08	7
Creamwares	CRW	8.10	1	1		1
English stoneware	ESW	8.20	15	128	0.10	7
English stoneware Staffordshire-type	ESWS	8.23	2	7		2
Porcelain	PORC	8.30	1	2	0.06	1
Staffordshire white salt-glazed stonewares	SWSW	8.41	1	10	0.07	1
<b>Total modern</b>			<b>29</b>	<b>173</b>	<b>0.31</b>	<b>20</b>
<b>Total</b>			<b>126</b>	<b>1486</b>	<b>1.99</b>	<b>59</b>

Table 1. Pottery quantification by fabric

#### 6.1.2 Methodology

Quantification was carried out using sherd count, weight, estimated vessel equivalent (eve) and minimum number of vessels (MNV). A full quantification by fabric, context and feature is available in the archive as an MS Access database. All fabric codes were assigned from the author's post-Roman fabric series, which includes East Anglian and Midlands fabrics, as well as imported wares. Imports were identified from Jennings (1981). Form terminology follows MPRG (1998). Recording uses a system of letters for fabric codes together with number codes for ease of sorting in database format.

### 6.1.3 Pottery by Period

#### 6.1.3.1 Post-medieval

Ninety-seven sherds from 39 vessels were of broadly 16th– to 18th-century date, although in this group it is likely that most belonged to the end of this date range.

Potentially the earliest wares were a tiny body fragment of ?Border Ware, three sherds of a Frechen stoneware bottle with a moulded medallion (or possibly an English copy), and a yellow-glazed whiteware handled bowl. The latter is comparable with Dutch and French examples from Norwich (*cf.* Jennings 1981 nos 924 and 1017) and is likely to be of 16th-/17th-century date. A few sherds of GRE, including a jar with a beaded rim, a dish with a hammerhead rim and some body sherds of a mug and two jars, may be contemporary. Three sherds of a slipware vessel, possibly a chamber pot had a wavy line design similar to a bowl from a production site in Ely (Cessford et al. 2006, fig. 58 no.2) and is likely to be contemporary with, if not a product of, that 17th-century kiln.

Pottery of probable 18th-century date in this group included fragments of up to 21 tin-glazed earthenware vessels, most of which were found in pit fill (7). A few of these, such as a drug jar base, a pedestal base and some abraded sherds which had lost much of their glaze, may be slightly earlier. Most of the identifiable forms in this group were plates, saucers or dishes, and there was a variety of hand-painted decoration including floral and striped designs, and one base fragment which depicted a horse. A portion of a plate in a form typical of Bristol and Liverpool in the early to mid 18th century showed a tree and part of the sky and ground, and is comparable with an example from Bristol dated to the 1720s (Garner 1948, pl. 38B). Twenty-six sherds were from a single large plate with a sponged floral design.

Eight sherds of Staffordshire slipware included several fragments of press-moulded flatwares and mugs, as well as an unusual domed lid, possibly from a coffee pot. A Westerwald stoneware body sherd with combed decoration was also of this approximate date.

#### 6.1.3.2 Modern factory-made wares

Factory wares of mid 18th-century date and later were relatively frequent. The earliest were a body sherd of creamware and a rim fragment of Staffordshire white salt-glazed stoneware, both mid to late 18th-century. Several English stoneware sherds were parts of mugs or tankards, again probably of 18th-century date. A porcelain saucer rim, probably Chinese, may also be contemporary. The few sherds of refined whitewares were generally undiagnostic, but are perhaps more likely to belong to the 19th century rather than the 18th. The same is true of the single sherd of industrial slipware.

### 6.1.4 Pottery by Context

A summary of the pottery by feature is provided in Table 2.

Feature	Context	Identifier	Fabrics	Spotdate
	2	Finds	TGE (same in (7))	18th c.
	3	Finds	GRE	16th–18th c.
4	5	Ditch	GRE, STAF, ESWS, REFW	L.18th c.+



Feature	Context	Identifier	Fabrics	Spotdate
6	7	Pit	GRE, DUTW, GSW4, PMSW, TGE, STAF, SWSW, GSW5, PORC, CRW, ESW, INDS, REFW	L.18th c.+
	10	Layer	BORD, TGE, REFW	L.18th c.+

Table 2. Pottery types present by feature (\* contains later ceramic building material)

Apart from a few sherds recovered as unstratified finds, a silt layer and a ditch, most of this assemblage was recovered from pit [6]. As a group, the latter is dominated by wares which were in use in the first to third quarters of the 18th century, but the presence of INDS and REFW suggest that the pit may have been filled in the late 18th or early 19th century. A similar range of pottery, albeit in smaller quantities, was recovered from the other contexts.

### 6.1.5 Discussion

A few vessels from the site can be dated as early as the 16th/17th centuries, and there are some small sherds which may belong in the 19th century, but the overwhelming majority of vessels in this assemblage are of 18th-century date. Much of this pottery was recovered from a single feature and it includes a wide variety of wares which might be expected in a middle to high status household of the period. The group contains very few food preparation vessels, being dominated by tablewares. However, the number of tankards in the group might indicate that the pottery derived from a tavern, which might also account for the variety of tablewares present.

## 6.2 Ceramic Building Material

by Sue Anderson

Five fragments of ceramic building material (CBM) (161g) were collected from three contexts (Appendix 4). An abraded fragment of medieval 'early' brick in an estuarine fabric was found in deposit (1). A fragment of a white-firing gault clay roof tile of post-medieval date was collected from pit fill (7). Silt layer (10) contained a small fragment of pantile, a piece of field drain and a white-firing roof tile, all of post-medieval date.

## 6.3 Clay Pipe

by Rebecca Sillwood

### 6.3.1 Introduction

A total of 122 fragments of clay tobacco pipe weighing 734g were recovered from three contexts, a pit, a ditch and a silt layer (Appendix 5).

Tobacco was first introduced into England during the second half of the 16th-century (Atkin 1985, 118) and its initial spread was likely due to sailors returning from voyages to the Americas. Atkin states that the earliest reference to tobacco coming into Norfolk is in 1612, 'when twenty pounds of pudding tobacco was brought into Lynn from Dordrecht' (1985, 119). The major ports were the main centres for the import of tobacco, and the tobacco was filtered inland from these places (such as Great Yarmouth and Lynn).

### **6.3.2 The Assemblage**

The assemblage collected from watching brief monitoring at the College of West Anglia is a very interesting one. The majority of the pieces recovered are undiagnostic stems (105 fragments), however a fair number of complete bowls were also recovered and most of these had makers' marks of some kind embossed either side of the heel. The majority of the pieces came from pit [6] (fill (7)), although there were also pieces found in ditch [4] (fill (5)) and black silt layer (10). Layer (10) contained no diagnostic pieces, however, those from ditch fill (5) and pit fill (7) could be more closely dated.

There is very little variation in the form of the bowls, which fits with the narrow time frame in which they were apparently made. The form is fairly upright and straight-sided, with heels ranging in form between sub-oval to sub-circular. The form is a Type 25 in the DUA type series (Grove 1984), which is described as the most common type in the south-east during the first half of the 18th century.

The most prolific maker of the pipes from the College of West Anglia is Robert Dunn, who was active in King's Lynn in the early to mid 18th century. Atkin (1985) lists him as being apprenticed to R. King in 1708-9 and active in Purfleet Street; he died in 1737. His initials are most commonly found, however, it also appears to be a device of Dunn's to use a rosette above his initials, and in the case of some examples here the rosette alone is used.

Other makers represented in the assemblage include Joseph Alderson, also based in King's Lynn, who was active from 1708 through to 1732. A Robert Whitehead is also likely to be one of the makers of one of the bowls; Atkin shows him as being active from 1672 onwards. In 1708 his son Edward was his apprentice, and in 1712 Francis Holmes became his apprentice. It is possible that one piece can be attributed to Francis Holmes himself - although his first initial is somewhat unclear. Holmes is recorded as producing pipes from 1709 (when he was apprenticed to R. King) and in 1712 he was apprenticed to R. Whitehead (as stated above).

A single fragment of decorated stem was recovered from pit [6] (fill (7)), and consisted of a piece which was broken at both ends, with the decoration within a rouletted square border at the tapering end. The decoration consists of a name 'I. POWELL' above which there is a tree or branches. No reference to a maker of this name is known in King's Lynn however there is a John Powell in London (<http://www.kieronheard.com/pipes/westminster/oldpyestreet.htm>). Powell is known to have resided at 54 Old Pye Street in London, although the location of his workshop is not known. His will was proved in 1746, and therefore he was active in the pipe making industry in years prior to this date, which fits well with the rest of the tobacco pipe assemblage.

### **6.3.3 Conclusions**

The clay pipe from the site is an interesting assemblage, with a reasonably tight time frame, as evidenced by the historical evidence of pipe makers and their marks. Most of the makers are local to King's Lynn, with the possible exception of John Powell, who was a London maker. It is fascinating to encounter the overlapping of makers, such as Francis Holmes, apprenticed to another maker, Robert Whitehead and subsequently producing pipes in his own name. All of the makers were in operation from around 1708 to 1746 at the latest, giving a span of

nearly forty years for pipes datable from the assemblage. This date ranges supports the pottery evidence which was predominantly of 18th-century date.

It is perhaps significant that the pottery (mostly representing tankards and tableware) from this site could be the product of a tavern and the clay pipe could clearly derive from the same source. The nearest inn to the site would have been the Woolpack Inn, on the corner of Tennyson Road and Gaywood Road, which may have been in existence at the time the finds were deposited.

## **6.4 Glass**

by Rebecca Sillwood

A total of eight fragments of glass were recovered from the site and came from two contexts.

Seven pieces came from pit [6] (fill (7)) and consist of four fragments which come from the same type of vessel (a wine bottle - a neck is present within the assemblage); all of the pieces are curved, and may have come from a single vessel. This bottle is of olive-green glass. A more delicate vessel fragment, of opalescent glass was also found along with two flat pieces of glass, one clear and one opaque, which cannot be assigned a function.

The single piece which came from layer (10) is another flat piece which is opaque.

## **6.5 Metal Finds**

by Rebecca Sillwood

The metalwork from the site came from a single fill (7) (the fill of pit [6]). The finds consist of two fragments of lead window came, which could be medieval or early post-medieval in date, and an iron nail, which remains undated.

## **6.6 Faunal Remains**

by Julie Curl

Four fragments of animal bone (14g) were recovered from two contexts on the site, pit [6] (fill (7)) and layer (10). All of the fragments are likely to have been food waste, although no obvious signs of butchering could be seen.

## **6.7 Shell**

by Rebecca Sillwood

Eleven fragments of shell were recovered from the site (926g) and came from two contexts. Six large oyster shells came from pit [6] (fill (7)) and five oyster, cockle and land snail pieces came from layer (10). It seems likely that the pieces are the product of food waste.

The shells have subsequently been discarded.

## 7.0 CONCLUSIONS

The results of the watching brief monitoring may cast light on the post-medieval landscape history of the area.

The earliest deposits encountered remain undated (but predate layer (10) of late 18th-century origin) and consist of predominantly grey silts with occasional marine mollusc shells, with at least one layer of organic peat. Peat layer (13) appeared to be the Nordelph peat layer, which started forming at the beginning of the Bronze Age (2000BC). It is thought that the later silt deposits (11) and (12) were of the Terrington Beds and were still being deposited through marine inundation into the modern period. Perhaps this area had been used as grazing marsh. Marshland grazing was valuable in the medieval and post-medieval periods as it was possible to graze this kind of land earlier in the year than drier land, and therefore possible to fatten livestock for the market earlier thus maximising profits.

The 'Plan of the Town of Lynn' included in Faden's Map of Norfolk (Faden 1797) labels the area outside the eastern side of the town as 'Marshes'. Likewise John Wood's 'Plan of Kings Lynn' of 1830 (Higgins 2001, 41) also shows the area as what appears to be rough ground - perhaps marsh or rough grazing.

Ditch [4] may be evidence of an early attempt to drain this area to improve the quality of the pasture. This ditch fell out of use possibly as early as the late 18th century. The absence of recuts in its profile, or of earlier, residual finds in its fill, suggest that this ditch did not have a particularly long active life.

Pit [6] (of unknown function) and layer (10) (probably a topsoil) contained a high density of finds of late 18th-century date or later, just like ditch [4]. This deposition of large quantities of material at this time suggests either deliberate dumping of material to raise the ground level or alternatively intensive manuring possibly during a phase of arable agriculture. There was no apparent build-up of inundation material after this phase, and it is likely that the area became the orchard depicted on the First Edition Ordnance Survey map of c.1885.

## **Acknowledgements**

The author would like to thank CWA Developments Ltd for funding commissioning and funding the work and Mark Cudbertson and the staff and subcontractors of Carter for their co-operation.

The monitoring was carried out by the author assisted by Dr Fran Green. The finds were processed by Lucy Talbot and recorded by Rebecca Sillwood. The pottery and ceramic building material were reported on by Sue Anderson. The clay pipe, metalwork, glass, shell and faunal remains were reported on by Rebecca Sillwood.

The illustrations for this report were completed by David Dobson and the report edited by Jayne Bown

## **Bibliography**

- |   |      |  |
|---|------|--|
| Atkin, S.                                       | 1985 | <i>The Clay Pipe-Making Industry in Norfolk.</i> Norfolk Archaeology XXXIX, Part II                                      |
| (BGS) British Geological Survey                 | 1985 | <i>East Anglia Sheet 52N 00 Solid geology</i>  |
| (BGS) British Geological Survey                 | 1991 | <i>East Anglia Sheet 52N 00 Quaternary</i>   |
| Cessford, C., Alexander, M. & Dickens, A.       | 2006 | <i>Between Broad Street and the Great Ouse: waterfront archaeology in Ely.</i> East Anglian Archaeology 114              |
| Department for Communities and Local Government | 2012 | <i>National Planning Policy Framework (2012),</i> TSO, Norwich   |
| Faden, W.                                       | 1797 | <i>A Topographical Map of the County of Norfolk</i> Reprinted in 2004 as 'Faden's Map of Norfolk' by Barringer, J.C.     |
| Garner, F.H.                                    | 1948 | <i>English Delftware.</i> Faber & Faber  |
| Ground Engineering Ltd.                         | 2011 | <i>Report on a Site Investigation at The College of West Anglia, Tennyson Avenue, King's Lynn, Norfolk</i> Report C12274 |
| Grove, J.                                       | 1984 | <i>Guide to the DUA Clay Tobacco Pipe Type Series.</i> Museum of London, Department of Urban Archaeology                 |
| Higgins, D.                                     | 2005 | <i>The ingenious Mr Henry Bell</i>   |
| Higgins, D.                                     | 2001 | <i>The Antiquities of King's Lynn from the Sketchbooks of the Rev. Edward Edwards</i>                                    |
| Jennings, S.                                    | 1981 | <i>Eighteen Centuries of Pottery from Norwich.</i> East Anglian Archaeology No. 13                                       |
| MPRG  | 1998 | <i>A Guide to the Classification of Medieval Ceramic Forms.</i> Medieval Pottery Research Group Occasional Paper 1       |

## Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description	Period
1	Deposit			Find from pile 28A	13th-15th c.
2	Deposit			Find from pile 11B	18th c.
3	Deposit			Find from pile 34A	16th-18th c.
4	Cut	Ditch		Ditch	
5	Deposit		4	Fill of ditch [4]	18th-20th c.
6	Cut	Pit		Pit	
7	Deposit		6	Fill of pit [6]	18th-20th c.
8	Deposit			Modern piling Platform	
9	Deposit			Black silt and rubble	
10	Deposit			Black silt	18th-20th c.
11	Deposit			Pale brownish grey clay	
12	Deposit			Mid bluish grey clay	
13	Deposit			Peat	
14	Deposit			Clay below peat	

## Appendix 1b: OASIS Feature Summary

Period	Type	Number
Post-medieval	Pit	1
	Ditch	1

## Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
1	Ceramic Building Material	1	10g	Medieval	13th-15th-century
2	Pottery	1	13g	Post-medieval	18th-century
3	Pottery	1	3g	Post-medieval	16th-18th-century
5	Clay Pipe	6	38g	Post-medieval	Bowl x 1; 18th-century
5	Pottery	10	196g	Post-medieval	16th-20th-century
7	Animal Bone	3	12g	Unknown	
7	Ceramic Building Material	1	107g	Post-medieval	
7	Clay Pipe	102	635g	Post-medieval	Bowls x 13; 18th-century
7	Glass	7	256g	Post-medieval	Bottle & Vessel
7	Iron	1	40g	Unknown	Nail
7	Lead	2	9g	Unknown	Window came
7	Pottery	109	1,263g	Post-medieval	16th-20th-century
7	Shell	6	831g	Unknown	Oyster - DISCARDED
10	Animal Bone	1	2g	Unknown	
10	Ceramic Building Material	3	44g	Post-medieval	
10	Clay Pipe	14	61g	Post-medieval	Bowl x 1; 18th-century
10	Glass	1	1g	Post-medieval	
10	Pottery	5	11g	Post-medieval	16th-20th-century
10	Shell	5	95g	Unknown	Oyster , cockle & land snail - DISCARDED

## Appendix 2b: Oasis Finds Summary

Period	Material	Total
Medieval	Ceramic Building Material	1
Post-medieval	Ceramic Building Material	4
Post-medieval	Clay Pipe	122
Post-medieval	Glass	8
Post-medieval	Pottery	126
Unknown	Animal Bone	4
Unknown	Iron	1
Unknown	Lead	2
Unknown	Shell	11

### Appendix 3: Pottery Catalogue

Context	Fabric	form name	Rim	No	Wt/g	Spotdate
2	TGE	plate	PL	1	13	18th c.
3	GRE	mug?		1	3	16th-18th c.
5	GRE	large storage vessel		3	130	16th-18th c.
5	GRE	jar?		2	36	16th-18th c.
5	GRE	dish?	HH	1	18	16th-18th c.
5	ESWS	tankard?		1	5	L.17th-M.18th c.
5	ESWS			1	2	L.17th-M.18th c.
5	STAF	press-moulded flatware	PL	1	2	L.17th-18th c.
5	REFW			1	3	L.18th-20th c.
7	GRE			1	33	16th-18th c.
7	GRE	jar	SQBD	1	22	16th-18th c.
7	PMSW	hollow ware		3	65	17th-19th c.
7	DUTW	bowl: handled	INT	5	139	16th-17th c.
7	STAF	lid	FLAN	1	23	L.17th-18th c.
7	STAF	mug		1	15	L.17th-18th c.
7	STAF	mug		1	13	L.17th-18th c.
7	STAF	press-moulded flatware		1	13	L.17th-18th c.
7	STAF	press-moulded flatware	PL	1	21	L.17th-18th c.
7	STAF	mug		2	20	L.17th-18th c.
7	GSW5			1	4	E.17th-19th c.
7	GSW4			3	69	16th-17th c.
7	PORC	saucer?	PL	1	2	18th-20th c.
7	SWSW	plate?	FTEV	1	10	18th c.
7	ESW			1	19	17th-19th c.
7	ESW	mug		7	46	17th-19th c.
7	ESW			3	9	17th-19th c.
7	ESW	mug		1	24	17th-19th c.
7	ESW	mug		1	18	17th-19th c.
7	ESW	mug		1	10	17th-19th c.
7	ESW	cup	UPPL	1	2	17th-19th c.
7	CRW			1	1	1730-1760
7	INDS			1	2	L.18th-20th c.
7	REFW			1	1	L.18th-20th c.
7	REFW	bowl?	EV	1	8	L.18th-20th c.
7	REFW			1	2	L.18th-20th c.
7	REFW			1	1	L.18th-20th c.
7	TGE			1	33	16th-18th c.



Context	Fabric	form name	Rim	No	Wt/g	Spotdate
7	TGE	drug jar		2	34	16th-18th c.
7	TGE			5	27	16th-18th c.
7	TGE	plate		1	14	16th-18th c.
7	TGE	plate	FLAR	1	77	1710-70
7	TGE	plate	EV	26	293	16th-18th c.
7	TGE	plate	EV	1	5	16th-18th c.
7	TGE	dish		3	55	16th-18th c.
7	TGE	plate	EV	8	59	16th-18th c.
7	TGE	plate	EV	2	8	16th-18th c.
7	TGE	plate	EV	3	21	16th-18th c.
7	TGE			3	10	16th-18th c.
7	TGE			4	8	16th-18th c.
7	TGE			1	6	16th-18th c.
7	TGE	saucer	PL	2	18	16th-18th c.
7	TGE	saucer	PL	1	2	16th-18th c.
7	TGE	drug jar?	FLAR	1	1	16th-18th c.
10	BORD			1	1	16th-18th c.
10	TGE			1	2	16th-18th c.
10	REFW			1	2	L.18th-20th c.
10	REFW	plate	EV	2	6	L.18th-20th c.

#### Appendix 4: Ceramic Building Material Catalogue

context	fabric	form	no	wt/g	abr	date
1	est	EB	1	10	+	13-15
7	wfx	RTP	1	107		pmed
10	fs	PAN	1	9		pmed
10	mscp	DP	1	21		pmed
10	wfs	RTP	1	14		pmed

## Appendix 5: Clay Pipe Catalogue

Context	Form	Qty	Wt	Completeness	Inscription	Description	Date
5	Stem	4	20	stem fragments	none		Post-medieval
5	Bowl	1	13	complete bowl; no stem	obscured/worn	large with sub-oval heel slightly protruding from base	18th-century
5	Bowl	1	5	incomplete bowl; no stem	R//D; Robert Dunn	missing much of bowl; no stem; sub-oval heel present as is makers' mark for Robert Dunn of Lynn; iron staining on interior and part of exterior; see no. 71	1708-1737
7	Bowl	1	22	bowl and part of stem	I//A; ?Joseph Alderson	large with sub-circular heel; 70mm of stem still intact; see no. 72	1708-1732
7	Bowl	1	26	bowl and part of stem	rosette on each side of heel; ?Robert Dunn	same form as the rest; sub-circular heel; 100mm of stem intact; see no. 67-8	1708-1737
7	Bowl	1	17	bowl; no stem	unmarked	same form as the rest; sub-oval heel; thick body	18th-century
7	Bowl	1	21	part of bowl and part of stem	unmarked	upper edge of bowl missing; sub-oval heel; 90mm of stem intact	18th-century
7	Bowl	1	9	part of bowl and part of stem	W//R; Robert Whitehead	much of bowl missing; 30mm of stem intact; circular heel	1672-1712
7	Stem	1	7	part of stem and heel only	rosette on each side of heel; ?Robert Dunn	48mm of stem only with part of heel	1708-1737
7	Bowl	1	14	bowl only	rosette on each side of heel; ?Robert Dunn	bowl form as the rest, no heel present	1708-1737
7	Bowl	1	14	bowl only	?T//D; Robert Dunn	bowl form as the rest, sub-oval heel; see no. 68	1708-1737
7	Bowl	1	14	bowl only	I//D; ?Robert Dunn	bowl form as the rest, sub-oval heel; see nos. 70-1	1708-1737
7	Bowl	1	13	bowl only	I//A; ?Joseph Alderson; with rosette above so poss. Robert Dunn	bowl form as the rest, oval heel	1708-1732

Context	Form	Qty	Wt	Completeness	Inscription	Description	Date
7	Bowl	1	12	bowl only	?D//H, first initial not clear, poss. Francis Holmes	bowl form as the rest, sub-oval heel	1709-
7	Bowl	1	6	incomplete bowl; no stem	?//D with rosette above; Robert Dunn	bowl form as the rest, sub-oval heel	1708-1737
7	Bowl	1	5	part of bowl only	M//?	most of bowl missing, sub-oval heel	18th-century
7	Bowl	2	3	parts of body of 2 bowls; not adjoining	not seen	parts of body of two bowls only	Post-medieval
7	Stem	1	7	stem fragment	I. POWELL	80mm of stem, broken at both ends; decorated at tapering end with name 'I.POWELL' below branches and between rouletted border; possibly John Powell of London: <a href="http://www.kieronheard.com/pipes/westminster/oldpyestreet.htm">http://www.kieronheard.com/pipes/westminster/oldpyestreet.htm</a>	1740s?
7	Stem	86	445	stem fragments	none		Post-medieval
10	Stem	13	58	stem fragments	none		Post-medieval
10	Bowl	1	3	bowl fragment	not seen	only small part of bowl present	Post-medieval

## Appendix 6: Piling Monitoring

Pile No.	Date	Depth	Notes	Findings
1A	11/10/11	7.7m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
1B	12/10/11	7.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present.	None
1C	11/10/11	7.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
1D	12/10/11	7.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
2A	11/10/11	8.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present.	None
2B	12/10/11	8.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
2C	11/10/11	8.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
2D	12/10/11	10.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
3A	10/10/11	Unknown	Not observed	None
3B	10/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
4A	11/10/11	9.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
4B	12/10/11	9.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
4C	11/10/11	9.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present.	None
4D	12/10/11	9.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt.	None
5A	11/10/11	10.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present.	Brick fragments
5B	12/10/11	10.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
5C	11/10/11	10.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
5D	12/10/11	10.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
6A	7/10/11	13.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural sand	None
6B	10/10/11	13.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
6C	10/10/11	13.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
7A	6/10/11	14.3m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
7B	7/10/11	14.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural sand	None
8A	6/10/11	14.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present. Marine mollusc shell present	None

Pile No.	Date	Depth	Notes	Findings
8B	7/10/11	14.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Lots of water present	None
9A	6/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
9B	7/10/11	14.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present. Hint of natural sand	None
10A	6/10/11	12.3m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	Clay tobacco pipe present
10B	7/10/11	12.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
11A	5/10/11	12.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
11B	6/10/11	12.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	Pot (2)
12A	5/10/11	11.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
12B	6/10/11	11.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
13A	7/10/11	10m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural sand.	None
13B	10/10/11	9.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Very wet. Natural sand present	None
14A	10/10/11	13.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
14B	10/10/11	13.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
14C	7/10/11	13.7m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural sand	None
15A	7/10/11	12m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
15B	10/10/11	12m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
16A	10/10/11	13.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
16B	7/10/11	13.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
16C	10/10/11	13.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
16D	7/10/11	13.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural sand	None
17A	6/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
17B	7/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
17C	6/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water and natural sand present	None
17D	7/10/11	14.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
18A	6/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None

Pile No.	Date	Depth	Notes	Findings
18B	7/10/11	14.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
18C	6/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
18D	7/10/11	14.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present. Hint of natural sand	None
19A	6/10/11	14.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
19B	7/10/11	14.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
19C	6/10/11	14.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
19D	7/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural sand	None
20A	6/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
20B	6/10/11	14.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
20C	6/10/11	14.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
20D	7/10/11	14.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present. Hint of natural yellow sand	None
21A	6/10/11	14.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
21B	6/10/11	14.3m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water and natural sand present	None
22A	6/10/11	13.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural sand	None
22B	5/10/11	13.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
22C	5/10/11	13.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
23A	5/10/11	10.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural yellow sand	None
23B	6/10/11	10.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
23C	5/10/11	11m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Wet yellow sand natural in base 5m?	None
24A	7/10/11	10m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
24B	7/10/11	8.3m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
24C	10/10/11	9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
24D	11/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
24E	10/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
24F	10/10/11	9.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None

Pile No.	Date	Depth	Notes	Findings
24G	11/10/11	9.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
24H	11/10/11	9.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
24I	10/10/11	9.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
25A	10/10/11	11.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
25B	10/10/11	9.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
26A	5/10/11	15m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
26B	6/10/11	14.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
27A	6/10/11	12m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water and natural sand present	None
27B	5/10/11	12.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
28A	6/10/11	12.3m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	CBM (1)
28B	5/10/11	12m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
29A	11/10/11	10.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
29B	11/10/11	10.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
29C	10/10/11	10.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
30A	10/10/11	9.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
30B	10/10/11	9.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
31A	10/10/11	8.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
31B	10/10/11	8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
32A	10/10/11	13.3m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
32B	10/10/11	13.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
33A	11/10/11	9.3m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
33B	11/10/11	9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
33C	11/10/11	9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
33D	11/10/11	9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand and marine mollusc present	None
33E	11/10/11	9.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None

Pile No.	Date	Depth	Notes	Findings
34A	10/10/11	13.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	Pot (3)
34B	10/10/11	13.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
35A	10/10/11	13.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
35B	6/10/11	13.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
35C	7/10/11	13.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
36A	7/10/11	13.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of natural yellow sand	None
36B	10/10/11	13.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
36C	6/10/11	13.7m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand and marine mollusc present	None
37A	7/10/11	13.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand at base	None
37B	10/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
37C	6/10/11	13.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
38A	7/10/11	14.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
38B	10/10/11	14.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
38C	6/10/11	14.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
39A	6/10/11	13.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
39B	5/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of yellow sand natural	None
40A	5/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
40B	10/10/11	13.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
41A	11/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
41B	12/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
41C	11/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
41D	12/10/11	9.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
42A	10/10/11	7.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present	None
42B	10/10/11	8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
43A	10/10/11	7.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None



Pile No.	Date	Depth	Notes	Finds
43B	10/10/11	7.9m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
44A	10/10/11	12.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
44B	10/10/11	12.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
44C	7/10/11	13m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
45A	6/10/11	13.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
45B		Unknown	Not observed	None
45C	6/10/11	13.8m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water present. Hint of natural sand	None
45D		Unknown	Not observed	None
46A		Unknown	Not observed	None
45B	5/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
45C		Unknown	Not observed	None
45D	5/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
46A	11/10/11	11.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Water and natural sand present	None
46B	12/10/11	11.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
46C	11/10/11	11.6m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
47A	11/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
47B	11/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
47C	11/10/11	9.7m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
47D	11/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
47E	11/10/11	9.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
48A	6/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
48B	5/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
48C	6/10/11	Unknown	Not observed	None
48D	5/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
49A	5/10/11	14m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
49B	6/10/11	14.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
50A	11/10/11	8.25m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None

<b>Pile No.</b>	<b>Date</b>	<b>Depth</b>	<b>Notes</b>	<b>Findings</b>
50B	11/10/11	7.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Very wet. Could not drill down to 8.5m	None
50C	11/10/11	8.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
51A	12/10/11	8.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
51B	11/10/11	8.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
51C	12/10/11	8.1m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
51D	11/10/11	8.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Natural sand present	None
52A	5/10/11	12.2m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
52B	5/10/11	12.4m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt	None
53A	5/10/11	10.75m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. Hint of yellow sand natural	None
53B	5/10/11	10.5m	Mainly wet mid grey silty clay with a lens of peat and a lens of hard silt. No natural	None