
**ARCHAEOLOGICAL MONITORING AND
RECORDING AT
THE BOSTON BARRIER,
BOSTON,
LINCOLNSHIRE
(BOBA16)**

**Work Undertaken For
MOTT MACDONALD LTD**

September 2016

Report Compiled by
Mark Peachey BA (Hons)

National Grid References:
TF 3272 4293 - TF 3324 4297
The Collection Accession No: LCNCC: 2016.91
OASIS Record No: archaeo11-259331

APS Report No. **54/16**

**ARCHAEOLOGICAL
PROJECT
SERVICES**



Quality Control

Archaeological Watching Brief at the Boston Barrier, Boston, Lincolnshire

Project Coordinator	Gary Taylor
Site Supervisors	Neil Parker, Fiona Walker, Andy Failes, Gary Taylor
CAD Illustration	Mark Peachey
Photographic Reproduction	Mark Peachey
Post-excavation Analyst	Mark Peachey

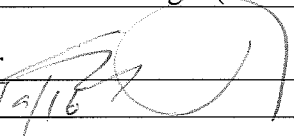
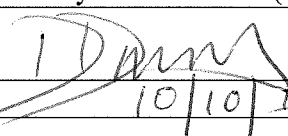
Checked by Senior Manager (Archaeology)	Approved by Team Leader (Archaeology)
Gary Taylor 	 Denise Drury
Date: 29/9/16	Date: 10/10/16

Table of Contents

List of Figures

List of Plates

1.	SUMMARY	1
2.	INTRODUCTION.....	1
2.1	BACKGROUND.....	1
2.2	TOPOGRAPHY AND GEOLOGY.....	1
2.3	ARCHAEOLOGICAL SETTING	1
3.	AIMS	2
4.	METHODS	2
5.	RESULTS	2
6.	DISCUSSION	4
7.	CONCLUSION	5
8.	ACKNOWLEDGEMENTS	5
9.	PERSONNEL	5
10.	BIBLIOGRAPHY	6
11.	ABBREVIATIONS	6

Appendices

1. Context Descriptions
2. Environmental Assessment *by James Rackham*
3. Glossary
4. The Archive
5. OASIS Form

List of Figures

- Figure 1 General location plan
- Figure 2 Site map, showing locations of examined areas
- Figure 3 Core profiles
- Figure 4 Composite plan of boreholes and trial pits from BOBA16 and previous sites
- Figure 5 Plan showing postulated areas of significant peat deposits in the Haven
- Figure 6 Composite plan of boreholes and trial pits from BOBA16 and previous sites showing postulated medieval river wall and scour horizons

List of Plates

- Plate 1. The general rig set-up seen from the bridge
- Plate 2. Taking bore SC 9 as fishing fleet returns to port
- Plate 3. Bringing in samples from bore SC 7
- Plate 4. Cutting core from bore SC 1
- Plate 5. Examples of sample cores, SC 6
- Plate 6. Recording the sample cores

1. SUMMARY

A programme of geo-archaeological monitoring and recording was required prior to construction work for the Boston Barrier project in The Haven, Boston, Lincolnshire.

Previous works within The Haven have recovered finds from the medieval period and peat deposits of Neolithic date. Additionally, there were indications that the river had probably been confined by a wall in the medieval period, and this had led to scouring and deepening of the channel.

The current investigation involved monitoring and recording of sediment samples recovered during coring operations from a boat. No archaeological remains or deposits were identified. At several locations there was evidence of river bed scouring, perhaps associated with the deepening of the channel resulting from the installation of the medieval river wall. A variety of natural river bed deposits were also identified. There was no evidence of the Neolithic peat previously identified.

2. INTRODUCTION

2.1 Background

As part of the Boston Barrier Project, The Environment Agency carried out ground investigations to determine the nature of the sediment for possible archaeological and geological evidence as well as possible further uses of sediment after dredging works.

Archaeological Project Services was commissioned by Mott Macdonald Ltd on behalf of the Environment Agency (the Client) to undertake archaeological palaeoenvironmental examination of a number of the cores resulting from the geotechnical borehole investigations. The

work was undertaken between 19th and 27th July 2016.

2.2 Topography and Geology

Boston is located 45km southeast of Lincoln and 7km from the northwestern coast of The Wash in the county of Lincolnshire (Fig. 1). The investigation area is along The Haven, opposite the port of Boston, between national grid references TF 3272 4293 and TF 3324 4297 (Fig. 2).

The geology of the site consists of mudstone of the Amptill Clay Formation with overlaying clay and silt tidal flat deposits (BGS 1995).

The full list of borehole locations (grid references) is given in the table below and shown on Figure 2.

Site	National Grid reference
SC 1	TF 32726 42917
SC 2	TF 32728 42866
SC 3	TF 32784 32846
SC 4	TF 32873 42831
SC 5	TF 32917 42814
SC 6	TF 32972 42852
SC 7	TF 33040 42912
SC 8	TF 33136 42958
SC 9	TF 33248 42983
SC 10	TF 33436 42982
SC 11	TF 33918 42630

2.3 Archaeological Setting

The site is in the historic core of medieval and later settlement at Boston. Evidence of Roman occupation has also been found just southeast of the Haven Bridge. During the medieval period the core of the town on the east bank of the river was enclosed by a significant boundary, the Barditch, which met the river close to Norfolk Street on the north side, and by Skirbeck Road in the south. Archaeological and documentary evidence indicates the former presence of medieval occupation, burgage plots and several friaries. The Dominican,

Franciscan and Austin friaries were on the east bank of the river, while the Carmelite house was on the west bank, a little north of Haven Bridge. Later medieval and post-medieval mercantile and industrial structures, including several windmills, were also located close to the river, near to Skirbeck Road and the South Forty Foot Drain. Previous investigations close to the river in Boston have revealed good preservation of organic remains, including medieval structural timbers, due to waterlogging (Cope-Faulkner *et al.* nd). Earlier organic peat deposits, some dated to *c.* 3000BC, have also been recorded at greater depth (Taylor 2010; 2011; 2012; Cope-Faulkner and Peachey 2014).

Other investigations have also shown that previously the river was wider than at present, but had been confined by a river wall in the medieval period, and this had led to scouring and deepening of the channel. Although the exact locations of the river walls were not established it was found that the western was between 5m and 20m back from the present river defence and the eastern between 5m and 35m (Peachey 2004; Taylor 2012). A series of hulks were recorded at the Haven prior to being removed. Although these were all early modern (Cope-Faulkner 2014), their existence indicates the potential for earlier vessels to be present in the watercourse.

3. AIMS AND OBJECTIVES

The aim of the investigation was to record the deposits and any archaeological features exposed during the core sampling.

The objectives of the investigation were to:

- Determine the nature of natural and possible archaeological deposits;
- Identify the potential presence and, if possible, the form and function of,

archaeological remains;

- As far as practicable, recover dating evidence from the archaeological remains and deposits;
- Identify deposits with the potential for further analysis and recover such samples; and
- Establish the sequence of the natural and archaeological remains and deposits present on the site.

4. METHODS

The monitoring and recording was undertaken as part of a sediment sampling strategy, using a boat set up for sediment sampling employing a vibrocore rig, to identify any geoarchaeological evidence.

Sampling was undertaken at 11 locations with several boreholes drilled at each site. A core of around 4m was taken using the vibrocore equipment then cut and capped at 1m lengths. Core samples were observed to identify and record any geoarchaeological evidence that was exposed and to record changes in the geological conditions. It was not possible to record heights relative to Ordnance Datum during the column sampling. As a result, all deposit measurements were made relative to the top of each bore column, as recovered.

A single sample was retrieved for environmental assessment (Appendix 2).

5. RESULTS (Fig. 3)

Deposits examined during the study are described and interpreted in the accompanying table (Appendix 1). Identification codes for the boreholes are as provided by the client. Several boreholes were drilled and cores taken at each location.

SC1 (Plate 4)

This was the most westerly of the boreholes, adjacent to Black Sluice. The natural grey silty boulder clay (103) was encountered in four of the five boreholes at a depth of around 2m. This was overlain, in SC1C, by coarse sand and gravel (104), and in SC1E by dark grey silty clay (106) and brown grey silt sand tidal deposit (105). In the other boreholes it was overlain by dark grey clayey silt (102). This was topped, in boreholes SC1A/B/C/D, by around a 0.6m thickness of grey black organic silt with brown grey bands (101).

SC2

Also adjacent to Black Sluice, natural mid grey boulder clay (204) was reached in all four boreholes. In SC2B and C it was overlain by brown organic clay river deposit (203). There was a 40mm localised deposit of yellow brown gravelly silt (202) above this in SC2B. Dark grey organic tidal silt (201) sealed these deposits in SC2B, C and D while similar silt (200) was directly over the boulder clay in SC2A.

SC3

Natural mid grey boulder clay (303) was reached in all four boreholes. In SC3B and C, it was overlain by mid yellow brown sand and gravel (302), a probable scour horizon. In SC3F, it was overlain by brown grey clay with chalk (305), also a probable scour horizon, and brownish grey slightly sandy clay (304). Above these deposits was dark grey/black tidal silts (301) which was overlain by a 0.1m thickness of gravel in SC3B and C.

SC4

Once again, all four boreholes reached mid grey clay with fine chalk boulder clay (404). In SC4A and D, it was overlain by grey silty clay river deposits (403) above which, in the former, was grey black clayey silt (402). A half metre thickness of almost black organic tidal silts (401) was present in the top of all the boreholes.

SC5

Four of the five boreholes SC5A, C, D and E encountered mid grey natural boulder clay (503). This was overlain in SC5A and E by organic clayey silt river deposit (502). This was also present in SC5B. Above this was dark grey gravelly tidal silt (501) which contained a fragment of 18th - 19th century brick. There was a probable scour horizon in SC5F.

SC6 (Plate 5)

Dark grey clay with chalk boulder clay (604) was revealed in the four deepest boreholes. It was overlain by a different deposit in each of them. This was yellow grey silty sand (603) in SC6A, yellow slightly clayey sand silt (606) in SC6B, yellow brown sand (607), representing a scour horizon, in SC6C and grey brown sandy clay (605) in SC6F. These layers were overlaid by dark grey silt (602) and grey black organic silt (601), these deposits also being recorded in SC6D and E respectively.

SC7 (Plate 3)

The natural boulder clay (703) was revealed in all five boreholes. In SC7A and D, this was overlain by yellow sand (702). Blackish grey tidal silt (701) was the top layer in all the boreholes.

SC8

Natural boulder clay, either (802), (803) and (805), was present in all the boreholes. In SC8A and D it was sealed by dark grey tidal silts (801). In SC8E and F, it was overlain by dark grey gravelly silt (804), possibly part of a shingle bank.

SC9 (Plate 2)

All four boreholes contained natural boulder clay (904). In SC9A, this was overlain by more pebbly boulder clay (903) and more brownish grey fine clayey silt (902) which contained a piece of ceramic building material (CBM). The top layer in all the bores was dark grey brown tidal silt (901).

SC10

In this group of boreholes, close to the dock lock entrance, the natural boulder clay (1004) was encountered in the base of SC10A and B but yellow brown sand was recorded in SC10C. In all three boreholes was a layer of mid brownish grey clayey silt (1003). Above this, in SC10A and B was grey black organic silt (1002) and then black organic silts (1001), which directly overlay (1003) in SC10C.

SC11

This borehole was located 300m to the east, close to the north bank of the Haven. All four boreholes reached fine black sands and organic silts (1104). In SC11A and B this was overlain by a soft near black organic silt (1103) from which a sample was taken (Appendix 2). It contained preserved insect fragments, rare seeds and occasional moss stems along with various contaminants including what appeared to be synthetic coloured fibres and pieces of plastic that indicated an early modern date. This deposit was sealed by a layer of dark brown clayey silt (1102). Yellowish brown clayey tidal silt (1101) was present in the top of all four boreholes.

6. DISCUSSION

Most of the boreholes reached the natural boulder clay, a firm mid to dark grey clay with chalk flecks and pebbles. At several locations (bores SC1, 3, 5, 6 and 9) there was evidence of a scour horizon at the top of the boulder clay. Within the columns these appeared as a very stony dark grey silty clay layer with frequent chalk and flint gravel.

Comparable stony scour horizons have been identified at other locations adjacent to the river previously. To the northwest, close to where the river bends away from High Street, scour horizons were recorded at 7.20m and 7.45m below ground level. Similarly, to the southwest, near where the

Black Sluice meets The Haven, scour horizons were recorded immediately north of The Haven at -2.80m and at -2.90m OD, and at -5.53m OD on the southern edge of the channel. At both High Street and north of The Haven artefacts of late medieval date were recovered from the scour deposits. In consequence, the scour deposits were considered to have been formed by the deepening of the channel that resulted from the imposition of river walling in the medieval period, although the walling itself was not observed (Fig. 6; Peachey 2004; Taylor 2012). While the scour horizons identified in the latest investigation are undated they probably equate to the medieval erosion and deepening of the channel caused by the installation of the river wall.

This scour horizon, and the boulder clay, was overlain by river deposits of clayey silt and gravels which were sealed by dark grey/black organic tidal silts.

Localised variations occurred in the river silts. These are probably natural tidal river deposits, occurring in banks, and resulting from differing water flow rates or stabilisation due to plant growth. The gravel deposit in SC8 was possibly part of a shingle bank.

In the easternmost boreholes, a sample was taken from a layer of near-black organic silts. The nature of this organic deposit was not established though it contained very fine fibrous material. Although its identity was obscure it was not a peat nor a typical organic river silt. It appeared to contain synthetic coloured fibres and pieces of plastic that indicated that it was modern or contaminated by modern materials. The sands and silts were deeper at this point, the boulder clay not being reached.

There was no evidence in any of the columns for the prehistoric peats that had previously been identified adjacent to the river. Those previous investigations had

recorded peat horizons at about -2.7m OD south of The Haven, and closer to -2.0m OD at several other locations including by London Road bridge, south of the Dock and on either side of the Lock leading to the dock (Fig. 5). The peats at -2.7m OD were radiocarbon dated and found to be of the Middle Neolithic period, c. 3000 BC (Taylor 2011). The higher level peats, at around -2.0m OD, are of unknown date but perhaps Iron Age. Although peats were identified on either side of the lock, and are shown as extending across it (Fig. 5), it is very probably that the lock channel has cut through and removed the peat within its confines.

Moreover, with boulder clay and scour horizons cut into it being identified in most of the present boreholes, it appears that the river channel has cut through, eroding and removing any prehistoric peats or other ancient land surfaces within its confines that may have been present previously.

Due to the present core sampling being unrelated to Ordnance Datum it is not possible to correlate any deposits identified in the current study with those recorded in earlier investigations.

The locations of previous boreholes in The Haven area are shown in Figure 4 while Figure 5 shows the postulated areas of significant peat deposits extrapolated from the previous borehole results. Locations of scour horizons identified in the present and previous investigations, and the approximate areas of the postulated medieval river walls are shown in Figure 6.

7. CONCLUSION

Examination of borehole columns and samples from The Haven at Boston was undertaken to investigate evidence of early landscapes and archaeological remains at depth.

No archaeological remains or deposits were identified. There was no evidence of the Neolithic peat previously recorded adjacent to the river and it seems likely that the channel has cut through and removed this deposit within the confines of the water course.

Scour horizons at the top of the natural boulder clay were observed and probably relate to the erosion caused by the deepening of the channel when the river was provided with walls in the medieval period. However, the levels, above Ordnance Datum, of the columns taken from the boat are unknown and therefore, the results, including scour horizons, cannot be shown in profile form.

Variations in the river silts represent natural banks of material resulting from differential water flow rates and stabilisation by plants.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Maurice Hopper of Mott Macdonald Ltd for commissioning the fieldwork and post-excavation analysis. The work was coordinated by Gary Taylor who edited this report along with Denise Drury. Jenny Young, the Historic Environment Officer for Boston Borough Council, kindly allowed access to the parish files and library maintained by Heritage Lincolnshire.

9. PERSONNEL

Project Coordinator: Gary Taylor
 Site Supervisors: Neil Parker, Fiona Walker, Andy Failes, Gary Taylor
 Environmental Specialist: James Rackham
 CAD Illustration: Mark Peachey
 Post-excavation Analysis: Mark Peachey

10. BIBLIOGRAPHY

BGS, 1995 *Boston; Solid and drift edition*, 1:50 000 map sheet **128**

Cope-Faulkner, P, 2014 *Photographic Recording of Hulks along the Witham Foreshore, Boston, Lincolnshire (BOHA13)*, unpublished APS report **25/14**

Cope-Faulkner, P, Hambly, J and Young, J, nd *Boston Town Historic Environment Baseline Study*

Cope-Faulkner, P and Peachey, M, 2014 *Archaeological Monitoring and Recording at the Port of Boston, Boston, Lincolnshire (BOPO14)*, unpublished APS report **132/14**

Peachey, M, 2004 *Archaeological Evaluation, Boston Southern Economic Corridor, Boston Docks Link Road, Boston, Lincolnshire (BSEC04)*, unpublished APS report **54/04**

Taylor, G, 2010 *Archaeological Examination of Bore Columns from Investigations at the Boston Barrier, alongside the River Witham, Boston, Lincolnshire (BORW10)*, unpublished APS report **82/10**

Taylor, G, 2011 *Radiocarbon dating of bore columns and geotechnical samples from investigations alongside the River Witham, Boston, Lincolnshire (BORW10)*, APS report **26/11**

Taylor, G, 2012 *Archaeological Examination of Bore Columns from Investigations at the Boston Barrier, alongside the River Witham, Boston, Lincolnshire (BOBA12)*, unpublished APS report **26/12**

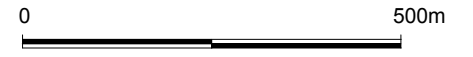
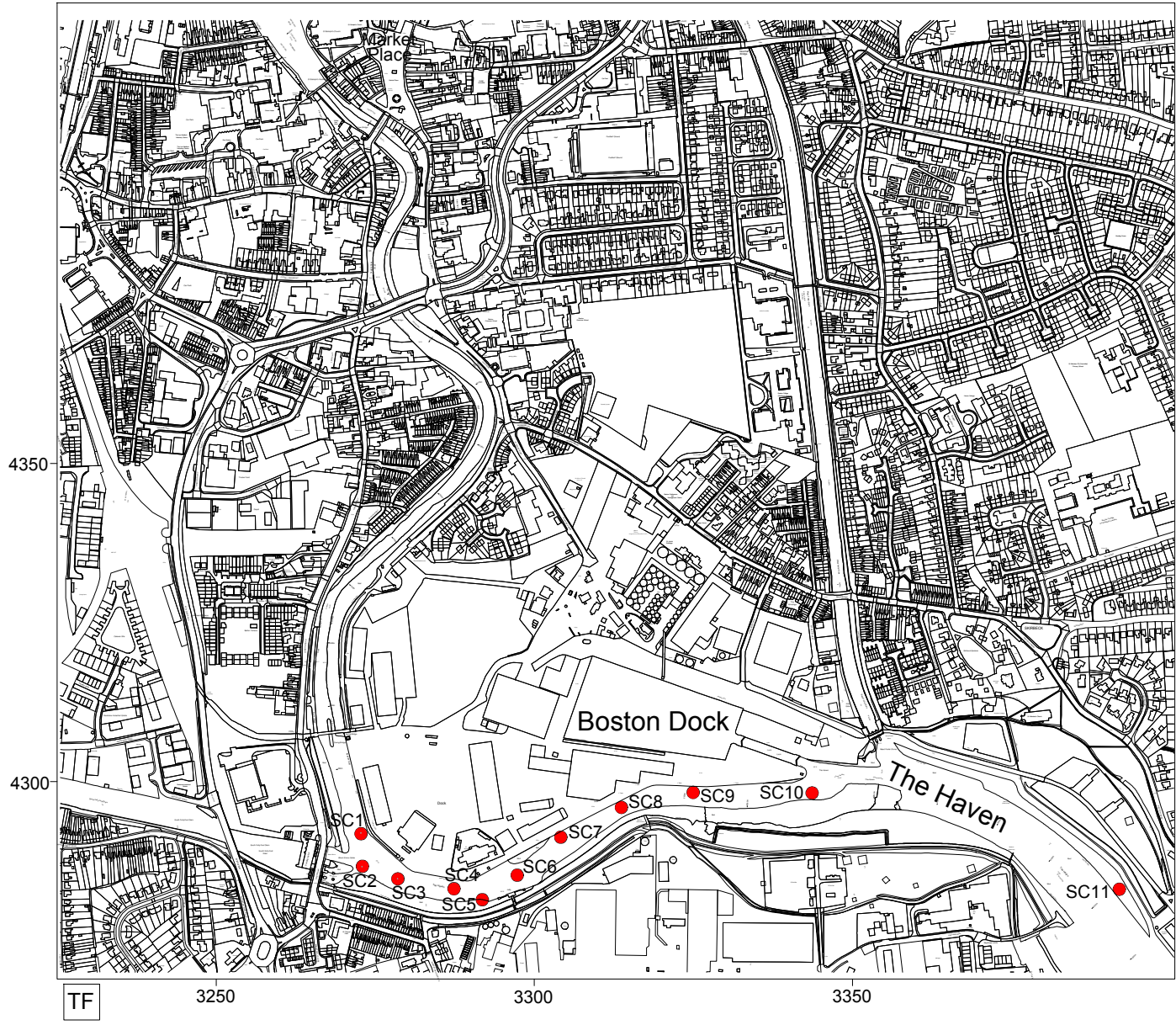
11. ABBREVIATIONS

APS Archaeological Project Services

BGS British Geological Survey



Figure 1. General location plan



Reproduced from the Ordnance Survey digital mapping.
© All Rights Reserved. Licence Number 100020146


	Archaeological Project Services	
Project Name: Boston Barrier BOBA16		
Scale 1: 10000	Drawn by: MJP	Report No: 54/16

Figure 2. Site Location Map

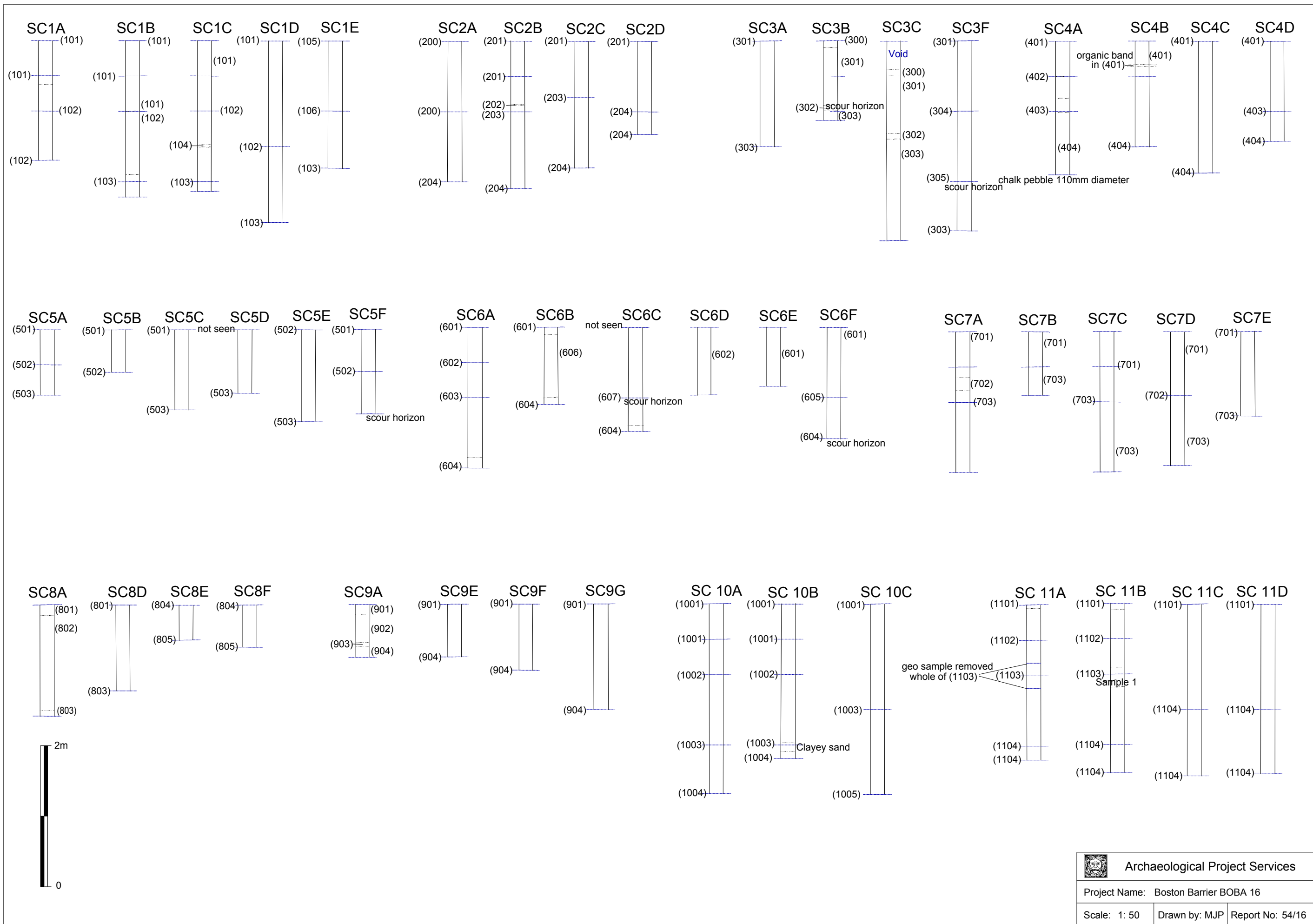
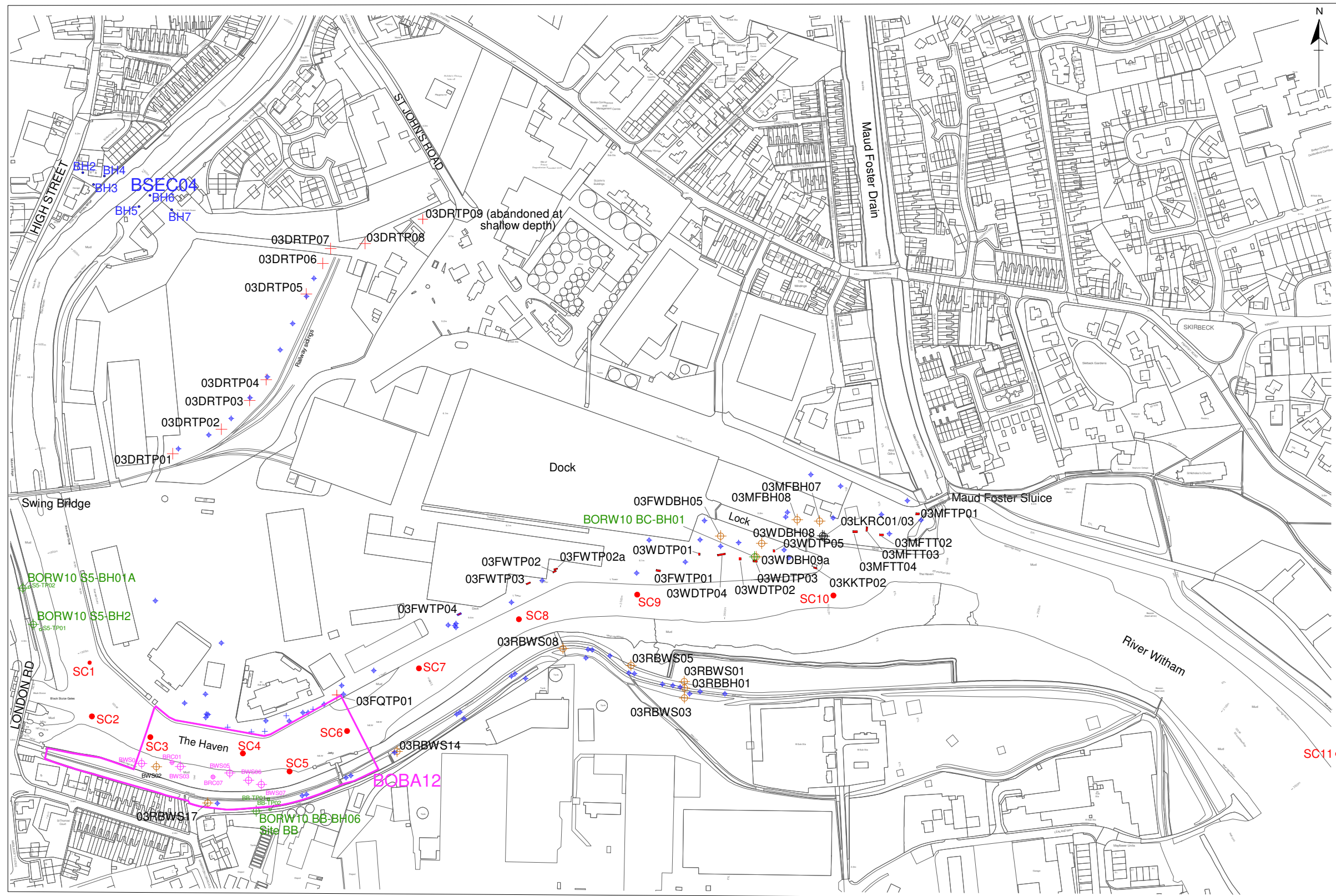


Figure 3. Core profiles



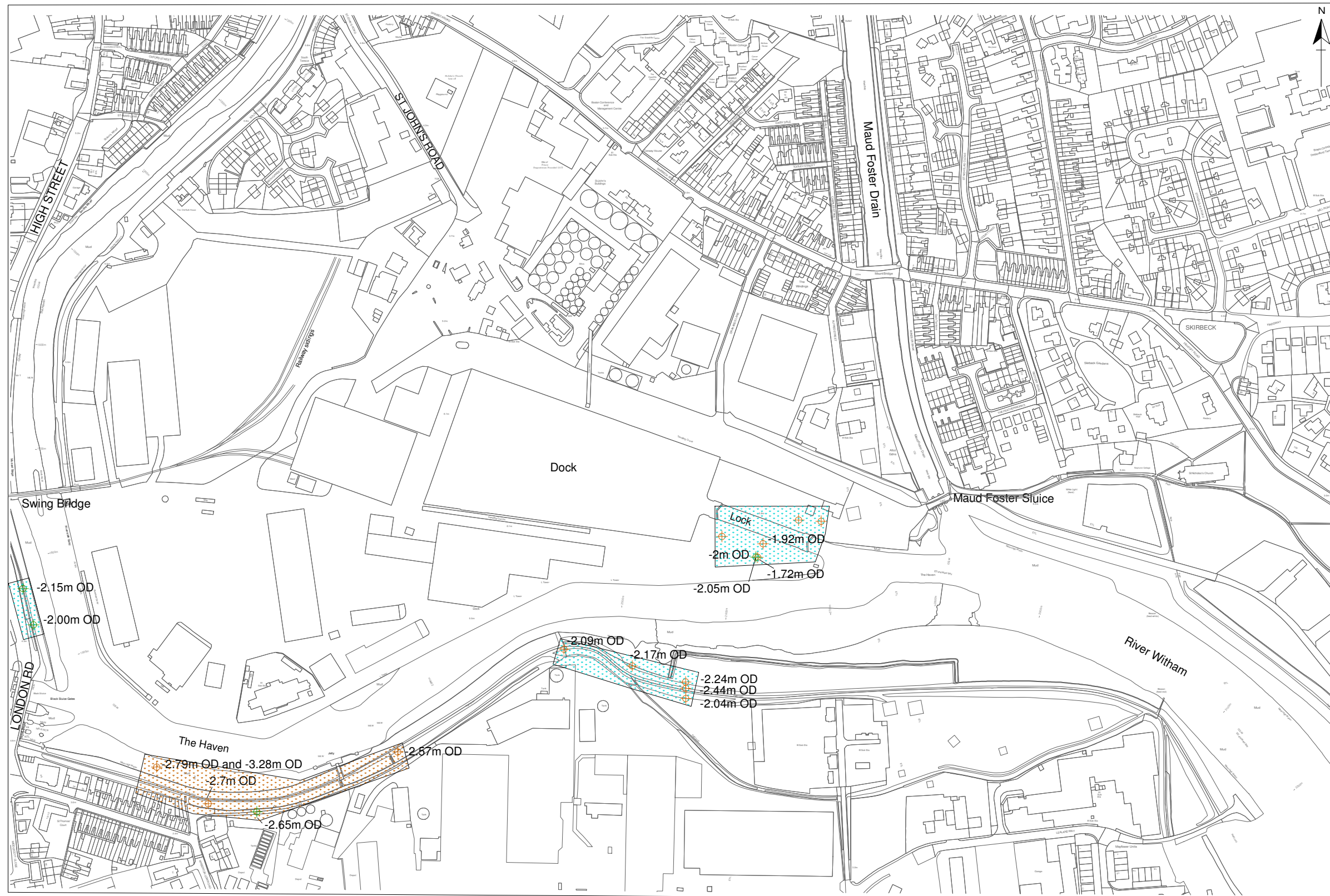
Reproduced from the Ordnance Survey digital mapping.
© All Rights Reserved. Licence Number 100020146



KEY		BOBA12		BOPO14		BOBA16	
BSEC04	BH6 • Borehole	BWS05 ⊕ Examined window column	BOBA12	03DRTP02 - Trial pit	03LKR01 ⊕ Rotary core	BOBA16	SC11 ● Borehole
BORW10	BB-BH06 ⊕ Borehole revealing deep peat	BRC07 ⊕ Examined bore column	BOBA12	03LKR01 ⊕ Rotary core	03RBWS08 ⊕ Borehole revealing deep peat		
BB-TP01	BB-TP01 Trial pit	BWS02 ⊕ Borehole revealing deep peat		03RBWS08 ⊕ Borehole revealing deep peat	Other borehole		

	Archaeological Project Services		
Project Name: Boston Barrier BOBA16			
Scale: 1:4000	Drawn by: MJP	Report No: 54/16	

Figure 4. Composite plan of boreholes and trial pits from BOBA16 and previous sites



Reproduced from the Ordnance Survey digital mapping.
© All Rights Reserved. Licence Number 100020146



KEY

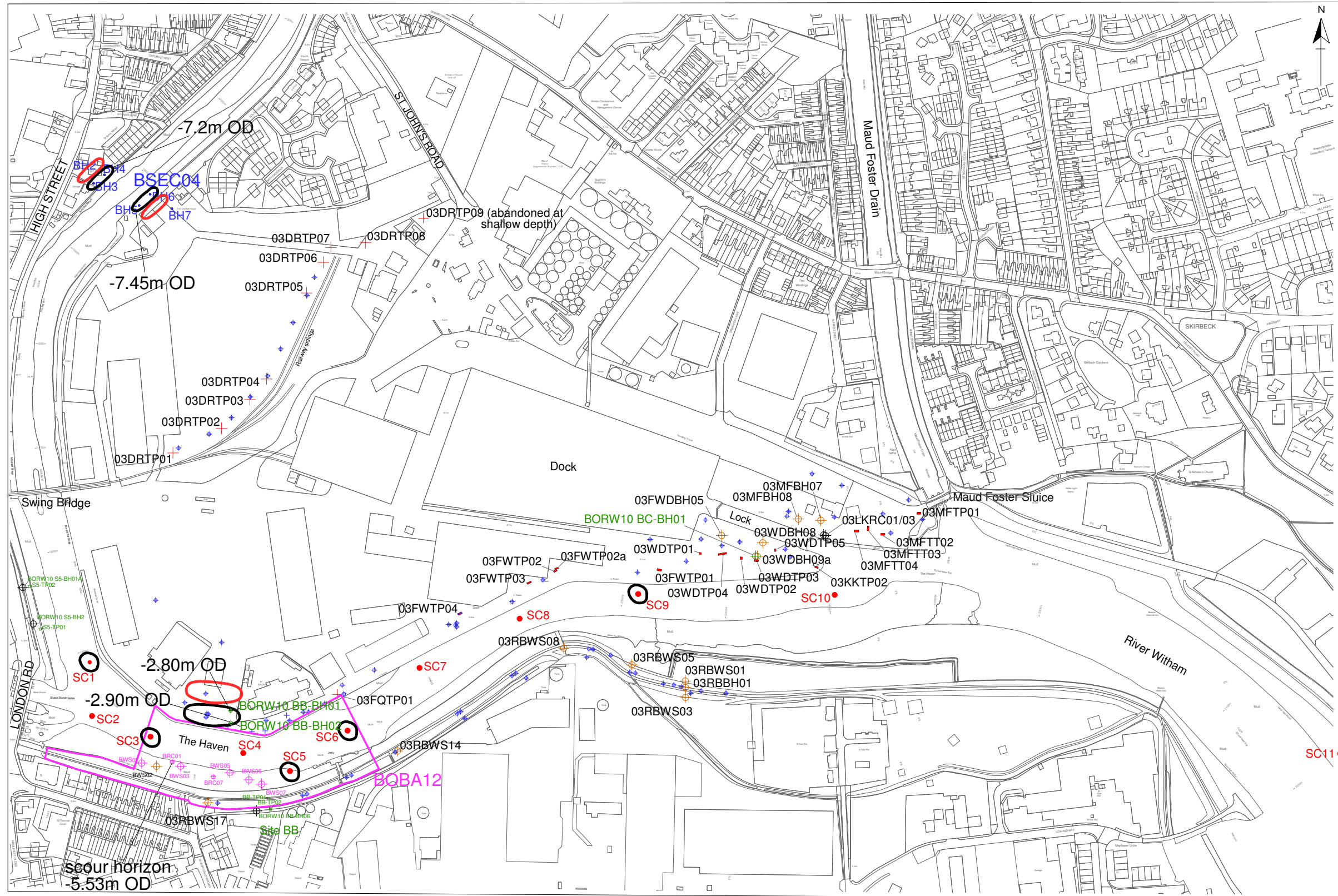
- Boreholes revealing deep peat
- Postulated areas of significant peat deposits:
 - Middle Neolithic land surface of 3300-2900 BC
 - Probable Iron Age peat

Archaeological Project Services

Project Name: Boston Barrier BOBA16

Scale: 1:4000 | Drawn by: MJP | Report No: 54/16

Figure 5. Plan showing postulated areas of significant peat deposits in the Haven



KEY		BOBA12		BOPO14		BOBA16	
BSEC04	Examined window column	03DRTP02	Trial pit	03LKR01	Rotary core	SC11	Borehole
BH6 • Borehole	Examined bore column	03LKR01	Rotary core	03RBWS08	Borehole revealing deep peat	(Red circle)	Area of postulated medieval wall
BORW10	Borehole revealing deep peat	03RBWS08	Borehole revealing deep peat	(Red circle)	Area of scour horizon	(Black circle)	Area of scour horizon
BORW10 BB-BH01	Borehole revealing scour horizon	BB-TP01	Trial pit				
BB-TP01	Trial pit						

Reproduced from the Ordnance Survey digital mapping.
© All Rights Reserved. Licence Number 100020146

Archaeological Project Services		
Project Name: Boston Barrier BOBA16		
Scale: 1:4000	Drawn by: MJP	Report No: 54/16

Figure 6. Composite plan of boreholes and trial pits from BOBA16 and previous sites showing postulated medieval river wall and scour horizons



Plate 1. The general rig set-up seen from the bridge



Plate 2. Taking bore SC 9 as fishing fleet returns to port



Plate 3. Bringing in samples from bore SC 7



Plate 4. Cutting core from bore SC 1



Plate 5. Examples of sample cores, SC 6



Plate 6. Recording the sample cores

Appendix 1

CONTEXT DESCRIPTIONS

Context	Description	Interpretation
(101)	Wet, dark grey- black organic silt with bands of soft brown grey and dark grey black silt with organics. Deposit 0.62m thick	Tidal silts.
(102)	Soft- moderate, mid- dark grey clayey silt with some organic. Deposit seen 1.08m thickness	River deposits
(103)	Firm, mid grey silty clay- clay with chalk pebbles. Deposit seen 0.32m thickness not bottomed.	Natural boulder clay.
(104)	Coarse sand and fine rounded gravel	River deposits
(105)	Dark brown grey silt sand, 1m thick	Tidal silts
(106)	Dark grey silty clay, very slightly gritty	River deposits
(200)	Very dark grey/black silt, at least 1m thick	Tidal silts
(201)	Soft, black/ dark grey organic silt	Tidal silts.
(202)	Soft-moderate, brown- yellow brown gravelly silt. Deposit 0.04m thick.	Localised silting or dump
(203)	Soft- moderate, mid- dark brown organic clay. Deposit seen 0.2m thickness	River deposits
(204)	Firm pliable, light- mid grey clay with moderate chalk flicks and occasional chalk pebbles. Deposit seen 0.33m thickness, but not bottomed	Natural boulder clay.
(300)	Loose gravel. Deposit 0.1m thick	Localised layer
(301)	Soft, dark grey/ black silts. Deposit c.0.35m thick.	Tidal silts.
(302)	Soft- moderate mid yellow brown sand and gravel. Deposit thickness unknown.	Localised natural deposits.
(303)	Firm, mid grey clay with chalk. Deposit seen to 0.1m thickness but not bottomed.	Natural boulder clay.
(304)	Moderate, light brownish grey slightly sandy clay with chalk. Deposit thickness unknown.	?Re-deposited natural.
(305)	Moderate, light brown grey clay with chalk and flint gravel. Deposit thickness unknown.	?Re-deposited natural.
(401)	Soft, near black organic silt. Deposit 0.5m thickness.	Tidal silts.
(402)	Soft, dark grey black clayey silt with organics. Deposit thickness unknown.	River deposits
(403)	Soft- moderate, mid – dark grey silty clay. Deposit thickness unknown.	River deposits
(404)	Firm, mid grey clay with fine chalk. Deposit seen 0.9m thickness but not bottomed.	Natural boulder clay.
(501)	Soft, dark grey gravelly silt with fragment post medieval brick and occasional fine grit. Deposit thickness unknown.	Tidal silts.
(502)	Soft-moderate, dark organic clayey silt with fine grit. Deposit thickness unknown.	River deposits
(503)	Firm, mid grey clay with fine chalk. Deposit seen 0.15m thickness but not bottomed.	Natural boulder clay.
(601)	Soft, dark grey- black organic silt- mud. Deposit 0.1m thick.	Tidal silts.
(602)	Soft, dark grey silt with gravel.	River deposits
(603)	Soft, dark yellow grey silty sand.	River deposits
(604)	Moderate, mid- dark grey clay with chalk.	Natural boulder clay.

(605)	Soft- moderate, mid –dark grey brown sandy clay.	River deposits
(606)	Soft, yellow slightly clayey sand silt with fine gravel.	River deposits
(607)	Soft- moderate, mid yellow brown sand with gravel.	River deposits
(701)	Soft very wet, dark grey/ black to blackish grey, with depth occasional small rounded stones. Deposit 0.66m thick.	Tidal silts.
(702)	Moderate, light yellow sand with moderate small round pebbles. Deposit 0.18m thick.	River deposits
(703)	Firm pliable, mid grey clay with occasional small and medium flint and chalk pebble and moderate fine chalk grit.	Natural boulder clay.
(801)	Friable crunchy, Dark grey silt with some fine shell, CBM. Deposit 0.15m thick.	Tidal silts.
(802)	Mid- dark mixed brownish and blueish silty clay with moderate chalky flecks and pebbles.	Natural boulder clay.
(803)	Light-mid grey clay with angular chalky stone.	Natural boulder clay.
(804)	Moderate, Dark grey silt with moderate gravel and occasional shell	Possible part of a shingle bank.
(805)	Moderate- firm, dark grey clay.	Natural boulder clay.
(901)	Soft wet, dark grey brown silt	Tidal silts.
(902)	Soft-moderate, Dark brownish grey fine clayey silt with frequent chalk and piece CBM.	River deposits.
(903)	Stiff, Mid bluish grey silty clay with chalk flecks and pebbles.	Natural boulder clay.
(904)	Moderate-firm, blue grey clay with chalk stones.	Natural boulder clay.
(1001)	Soft, black organic silt	Tidal silts.
(1002)	Soft- moderate, mid- dark grey black – black organic silt- silt with slight clay.	River deposits.
(1003)	Moderate, mix mid brownish grey clayey silt, clay sand and sandy clay with slight organic and some gravel.	River deposits.
(1004)	Firm, grey clay with chalk grit occasional chalk pebbles and small sharp pebbles	Natural boulder clay.
(1005)	Moderate, yellow brown- brown yellow sand.	River deposits
(1101)	Soft wet, light- mid yellowish brown clayey silt	Tidal silts.
(1102)	Soft, mid- dark grey clayey silt	River deposits
(1103)	Very silky soft, near black- black organic silt. Sample taken. Deposit 0.26m thick.	River deposits
(1104)	Soft, near black fine sands and silts with organics.	River deposits

Appendix 2

ENVIRONMENTAL ASSESSMENT

A single sample collected from an apparent organic deposit about 1m below the floor of the River Witham in Boston was processed for assessment. The sample was washed on a 250 micron mesh sieve and the residue caught on the sieve studied under a binocular microscope.

A sub-sample was taken for potential future study for pollen or radiocarbon dating.

The washed sample produced a very small 250 micron residue with a very small silt crumb component, no sand but a scatter of coal 'grains' and a small organic fraction dominated by very fine fibrous material. The organic component includes preserved insect fragments, rare seeds (including *Rubus* sp.) and occasional moss stems (without leaves).

There is another component that I cannot at present identify. It has the appearance of very fine (<1-2mm) white plastic shavings but burns as if it is organic. It is the second most common material in the residue. Neither this nor the fine fibrous matter has been identified and since these represent the majority of the sample caught on the sieve it has not been possible to determine the character of the deposit.

We can nevertheless say that it is not a peat layer and it is not a typical component of an organic river silt, although the silts that have been washed out may have been. There are no obvious aquatic or marine components except for a single tiny juvenile cockle valve. The fibrous and white material could be fairly recent contaminants, possibly not a natural component of the sediments, but further conjecture is not useful.

Without a more confident identification of the material in the deposit a radiocarbon date on the organic component cannot be justified.

A provisional 'guess' is that the deposit may be of fairly recent origin.

The sample was submitted to Beta Analytic for potential radiocarbon dating. They advised that the sample had what appeared to be tiny synthetic coloured fibres and pieces of plastic, and further noted that they could not recommend dating of the sample.

With the presence of synthetic coloured fibres and plastic the material is clearly modern or contaminated by modern materials.

James Rackham

December 2016

Environmental Archaeology Consultancy

Appendix 3

GLOSSARY

Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> [004].
Layer	A layer is an accumulation of soil or other material that is not contained within a cut
Medieval	The Middle Ages, dating from approximately AD 1066-1500.
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity
Neolithic	The 'New Stone Age' period, part of the prehistoric era, dating from approximately 4500 - 2250 BC.
Post-medieval	The period following the Middle Ages, dating from approximately AD 1500-1800.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Appendix 4

THE ARCHIVE

The archive consists of:

17	Trench record sheets
1	Section record sheet
12	Daily record sheets
1	Photographic record sheet

All primary records are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

The Collection
Art and Archaeology in Lincolnshire
Danes Terrace
Lincoln
LN2 1LP

Accession Number:	LCNCC: 2016.91
Archaeological Project Services Site Code:	BOBA 16
OASIS record number	archaeo11-259331

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

Archaeological Project Services shall retain full copyright of any commissioned reports under the *Copyright, Designs and Patents Act* 1988 with all rights reserved; excepting that it hereby provides an exclusive licence to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.

OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

Printable version

OASIS ID: archaeol1-259331

Project details

Project name	Archaeological Monitoring and Recording at Boston Barrier, Boston, Lincolnshire
Short description of the project	Palaeoenvironmental examination of a number of cores resulting from geotechnical borehole investigations was carried out from a boat in The Haven, Boston, adjacent to the docks. No archaeological remains or deposits were identified. At several locations there was evidence of river bed scouring, perhaps associated with the deepening of the channel resulting from the medieval river wall. A variety of natural river bed deposits were also identified.
Project dates	Start: 19-07-2016 End: 27-07-2016
Previous/future work	Yes / Not known
Any associated project reference codes	BOBA 16 - Sitecode
Any associated project reference codes	2016.91 - Museum accession ID
Type of project	Recording project
Site status	None
Current Land use	Coastland 2 - Inter-tidal
Monument type	NONE None
Significant Finds	NONE None
Investigation type	""Watching Brief""
Prompt	Environmental (unspecified schedule)

Project location

Country	England
Site location	LINCOLNSHIRE BOSTON BOSTON Boston Barrier
Postcode	PE21 7SZ
Study area	20000 Square metres
Site coordinates	TF 3272 4293 52.966951031511 -0.023571854869 52 58 01 N 000 01 24 W Line

Site coordinates TF 3324 4297 52.967181170653 -0.015816756861 52 58 01 N 000 00 56 W
Line

Project creators

Name of Organisation Archaeological Project Services

Project brief originator Environment Agency

Project design originator Gary Taylor

Project director/manager Gary Taylor

Project supervisor Fiona Walker, Neil Parker

Project supervisor Andrew Failes, Gary Taylor

Type of sponsor/funding body Environment Agency

Name of sponsor/funding body Mott Macdonald Ltd on behalf of the Environment Agency

Project archives

Physical Archive Exists? No

Digital Archive recipient The Collection

Digital Archive ID LCNCC:2016.91

Digital Contents "Stratigraphic"

Digital Media available "Images raster / digital photography","Text"

Paper Archive recipient The Collection

Paper Archive ID LCNCC:2016.91

Paper Contents "Stratigraphic"

Paper Media available "Context sheet","Diary","Photograph","Report"

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title Archaeological Monitoring and Recording at Boston Barrier, Boston, Lincolnshire

Author(s)/Editor(s) Peachey, M.

Other bibliographic details 54/16

Date 2016

Issuer or publisher Archaeological Project Services

Place of issue or publication Heckington

Description	A4 comb bound
Entered by	Mark Peachey (info@apsarchaeology.co.uk)
Entered on	11 October 2016