ARCHAEOLOGICAL MONITORING REPORT:
SOUTH DELPH RIGHT BANK, OFF MIDDLE FEN LANE, HEIGHINGTON, LINCOLNSHIRE

Planning Reference: N/A
NGR: TF 0642 7148 to 0718 7153
AAL Site Code: SODR 18
Museum Accession Number: LCNCC: 2019.118
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Report prepared for J.N. Bentley Ltd

By
Allen Archaeology Ltd
Report Number AAL 2019073

June 2019
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Cover image: Working shot during excavation of Slip 3, looking west
Executive Summary

• Allen Archaeology Limited was commissioned by J.N. Bentley Ltd to undertake a programme of archaeological monitoring and recording during slip repair works on the River Witham South Delph Right Bank, off Middle Fen Lane, Heighington, Lincolnshire.

• The site lies in an area of archaeological potential, with nationally significant prehistoric finds found near the river, including the Fiskerton Iron Age causeway and a Bronze Age wooden platform near Washingborough. Roman finds include a billhook or cleaver found c.200m west of the west end of the route, whilst post-Roman finds are rarer.

• The groundworks involved repairs to the bank of the South Delph dyke at three separate locations where slips had occurred. The monitoring recorded evidence for either former bank stabilisation efforts or construction material related to the former 19th century sluice and pumping station in the area of Slip 1, at the east end of the works. A layer of undated peat-like material was also recorded, which may be related to the outlet from the pumping station or evidence of former marshland.

• The other two slip locations revealed no evidence of archaeological activity. Excavated deposits were devoid of archaeological finds.
1.0 Introduction

1.1 Allen Archaeology Limited was commissioned by J.N. Bentley Ltd to undertake a programme of archaeological monitoring and recording during slip repair works on the South Delph Right Bank, Washingborough, Lincolnshire.

1.2 The fieldwork, recording and reporting conformed to current national guidelines, as set out in the Chartered Institute for Archaeologists ‘Standards and Guidance for Archaeological Watching Briefs’ (CIfA 2014), the Historic England document ‘Management of Research Projects in the Historic Environment’ (Historic England 2015), as well as regional guidelines set out in the ‘Lincolnshire Archaeological Handbook’ (LCC 2016). The archaeological monitoring was also undertaken in accordance with a specification prepared by this company (AAL 2018).

1.3 The documentation and records generated by the scheme of works will be assembled in accordance with the UK Institute for Conservation guidelines for the ‘Preparation of Excavation Archives for Long-Term Storage’ (Walker 1990) and regional guidelines set out in the ‘Lincolnshire Archaeological Handbook’ (LCC 2016). The archive will be submitted to The Collection in October 2019 after completion of the report and stored under the museum accession code LCNCC: 2019.118.

2.0 Site Location and Description

2.1 The area of works is located on the right (south) bank of the River Witham South Delph, in Heighington parish, running from approximately NGR TF 0642 7148 to TF 0718 7153 (Figure 1). The site is accessed off Middle Fen Lane, Heighington.

2.2 The bedrock geology comprises Bilsworth Clay Formation mudstone, which is typical of marginal coastal plains with lakes and swamps that were periodically inundated by the sea, with the overlying superficial deposits comprising alluvium deposits formed up to two million years ago by rivers depositing mainly sand and gravel (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

3.0 Planning Background

3.1 The scheme benefits from permitted development rights under The Town and Country Planning (General Permitted Development) (England) Order 2015, specifically Part 13: Water and Sewerage:

A. Development for the purposes of their undertaking by statutory undertakers for the supply of water or hydraulic power consisting of—

(a) development not above ground level required in connection with the supply of water or for conserving, redistributing or augmenting water resources, or for the conveyance of water treatment sludge;

(b) development in, on or under any watercourse and required in connection with the improvement or maintenance of that watercourse;

(c) the provision of a building, plant, machinery or apparatus in, on, over or under land for the purpose of survey or investigation;
(d) the maintenance, improvement or repair of works for measuring the flow in any watercourse or channel;

(e) the installation in a water distribution system of a booster station, valve house, meter or switch-gear house;

(f) any works authorised by or required in connection with an order made under section 73 of the Water Resources Act 1991 (power to make ordinary and emergency drought orders)(a);

(g) any other development in, on, over or under operational land other than the provision of a building but including the extension or alteration of a building.

4.0 Archaeological and Historical Background

4.1 An archaeological desk-based assessment was prepared for a larger scheme of works, running from Washingborough to Branston Island (AAL 2017). The assessment identified areas of high, moderate, and low risk, with the current work falling into an area of low risk.

4.2 Significant evidence for prehistoric activity was identified, particularly at the west end of the route around Washingborough Pumping Station and immediately south of Fiskerton village, with the Iron Age wooden causeway recorded at Fiskerton, and a late Bronze Age wooden platform and associated activity at Washingborough. The nearest evidence of prehistoric activity to the site comprised two late Bronze Age axe hammers, one found north of the river and one to the south, both c.500m west of the west end of the works.

4.3 Roman activity has also been recorded around the Fiskerton causeway as well as further north within the village itself. The nearest find of this date to the current works was an iron billhook or cleaver found c.200m to the west of the west end of the works. The Roman Car Dyke canal, which ran from the river at Washingborough to the River Nene in Cambridgeshire, passes c.1.5km to the southwest of the site.

4.4 Activity post-dating the Roman period is more limited, although further finds scatters of Saxon and medieval date have been recorded in and around Fiskerton, and medieval ridge and furrow has been recorded immediately to the south of the current works.

4.5 In the early 19th century, the renowned civil engineer John Rennie improved the drainage along the river Witham by straightening the river and constructing the South Delph to carry the draining water from the river (Hills 1967, Williams, 1889, Trinder 2013). The new drain cut through Branston Island which formed the makeup material for the banks of the South Delph (Wheeler 1895). Drainage was originally conducted by a wind engine. Despite replacing this with a later 30 hp horizontal steam engine and associating pumping station in 1862, it did not prevent the floods in the same year and later years, when sections of the South Delph flood bank failed. This was largely due to poor maintenance which was under the control of the Great Northern Railway (ibid). The disused Lincoln-Boston railway is one of the grander traces of the post-medieval activity in the landscape along the Witham and the South Delph.
5.0 Aims and Objectives

5.1 Evidence was gathered to establish the presence/absence, nature, date, depth, quality of survival and importance of any archaeological deposits to enable an assessment of the potential and significance of the archaeological remains, and to allow for the determination of any appropriate strategies to mitigate the effect of the proposed development upon the archaeological resource, were any unexpected and significant remains to be present.

6.0 Methodology

6.1 The monitoring of groundworks during slip repair works along the South Delph took place on three consecutive days starting on Wednesday 5th of December 2018, at three separate slip locations (Figure 2). The works were undertaken using a tracked excavator fitted with a smooth ditching bucket. Each slip measured approximately 150m long. The bank was machined at an angle of c.30° to where it abutted the water surface, whereupon the excavation changed to a steeper 70° excavation until the limit of excavation was reached. Soft material was removed from the base of the dyke. All works were monitored by an experienced field archaeologist.

6.2 A written record of the archaeological deposits was made on standard AAL context recording sheets. Archaeological deposits were drawn in section at a scale of 1:20 and were located on a site plan (Figure 2). Digital photography formed an integral part of the recording strategy, some photos have been reproduced in the results section below.

6.3 Each deposit or layer was allocated a unique three digit identifier (context number), and accorded a written description. A summary of these are included in Appendix 1.

7.0 Results (Figure 2 and Figure 3)

7.1 Slip locations 2 and 3 revealed no archaeological deposits, but showed a sequence of mid-brown silty clay topsoil, c.0.25m thick, sealing c.0.30m of light to mid brown silty clay subsoil. This in turn sealed a light brown natural clay.

7.2 At slip location 1, a mid-brown silty clay topsoil sealed a stone wall, 008, cut into the subsoil and probably the result of an earlier bank stabilisation effort (Plate 1). The wall was made of unhewn limestone with no coursing, in two north-south orientated sections, approximately 8m and 2m long and set directly into the bank, running along the edge of the dyke. It was c.1.75m high, extending c.1m below the water level. There was no dating associated with the wall.
7.3 At the bottom of the dyke at Slip 1, c.1m below the water level, groundworks revealed a layer of dark reddish brown peat.

8.0 Discussion and Conclusions

8.1 The groundworks revealed no significant archaeological findings. At Slips 2 and 3, no archaeological deposits were identified. Slip 1 revealed evidence of an undated previous bank revetment or structure, likely to be associated with the pumping station and sluice erected in 1862. The station was visible on Ordnance Survey maps of late 20th century date but is not currently visible on Google Earth, suggesting it was removed in the late 1990s or early 2000s.

8.2 The peat-like layer which was exposed at Slip 1 could either be related to an outlet from the pumping station or suggest that the area was previously marshland rather than under water. This layer was not seen at Slips 2 and 3 although this may be due to the differing depth of the groundworks. No archaeological finds were recovered from any of the machine excavated material.

9.0 Effectiveness of Methodology

9.1 The recording methodology was appropriate to the scope of works and has demonstrated that the development has not impacted upon any archaeological deposits of significance.

10.0 Acknowledgements

10.1 Allen Archaeology Ltd wishes to thank J.N. Bentley Ltd for this commission as well as the groundworkers and plant operatives for their cooperation during the monitoring.
11.0 References

AAF, 2011, Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation, Archaeological Archives Forum


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Wheeler, W.H., 1896, A history of the fens of South Lincolnshire, being a description of the rivers Witham and Welland and their estuary and an account of the reclamation, drainage and enclosure of the fens adjacent thereto. doi:10.1680/ahotfosl2e.50358.

Williams, J.E., 1889, The Witham new outfall channel and improvement works. Minutes of the Proceedings. 95 (1889): 78. doi:10.1680/imotp.1889.20832
## Appendix 1: Context Summary List

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<th>Context</th>
<th>Slip</th>
<th>Type</th>
<th>Description</th>
<th>Length (m)</th>
<th>Width (m)</th>
<th>Thickness/ depth (m)</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>3</td>
<td>Layer</td>
<td>Friable, mid brown silty clay with occasional glass and plastic fragments</td>
<td></td>
<td></td>
<td>0.25</td>
<td>Topsoil</td>
</tr>
<tr>
<td>002</td>
<td>3</td>
<td>Layer</td>
<td>Firm, light to mid brown silty clay</td>
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<td></td>
<td>0.30-0.50</td>
<td>Subsoil</td>
</tr>
<tr>
<td>003</td>
<td>3</td>
<td>Layer</td>
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<td>&gt;0.25</td>
<td>Natural superficial geology</td>
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<tr>
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<td>Layer</td>
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<td></td>
<td>0.25</td>
<td>Topsoil</td>
</tr>
<tr>
<td>005</td>
<td>2</td>
<td>Layer</td>
<td>Firm, light to mid brown silty clay</td>
<td></td>
<td></td>
<td>0.30-0.50</td>
<td>Subsoil</td>
</tr>
<tr>
<td>006</td>
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<td></td>
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<td>Natural superficial geology</td>
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<td>Layer</td>
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<td>Topsoil</td>
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<td>Masonry</td>
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<td>Structure: 10m Limestone: 0.3m</td>
<td>Structure: &gt;0.40m Limestone: 0.3m</td>
<td>Structure: &gt;1.75m Limestone: 0.3m</td>
<td>Retaining wall within construction cut [013]</td>
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<tr>
<td>009</td>
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<td>Layer</td>
<td>Friable, mid brown silty clay with occasional glass and plastic fragments</td>
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<td>0.25</td>
<td>Topsoil</td>
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<tr>
<td>010</td>
<td>3</td>
<td>Layer</td>
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<td></td>
<td>0.30-0.50</td>
<td>Subsoil</td>
</tr>
<tr>
<td>011</td>
<td>3</td>
<td>Layer</td>
<td>Firm, light brown clay</td>
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<td></td>
<td>&gt;0.25</td>
<td>Natural superficial geology</td>
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<tr>
<td>012</td>
<td>3</td>
<td>Layer</td>
<td>Firm to loose, dark reddish brown peat with very frequent small to medium wood fragments</td>
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<tr>
<td>013</td>
<td>3</td>
<td>Cut</td>
<td>North-south orientated linear construction cut with vertical straight sides and an unknown break of slope to an unexcavated base</td>
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<td>&gt;0.40</td>
<td>&gt;1.75</td>
<td>Construction cut for retaining wall</td>
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Figure 1: Site location outlined in red

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Figure 2: Site location plan showing approximate location of slips and representative sections (base plan provided by the client)
Figure 3: Representative sections