Penwortham Bridge, Preston: Archaeological Watching Brief Report

28th February 2007

On behalf of: Lancashire County Council
Environment Directorate
Winckley House
Cross Street
Preston
PR1 8RD

National Grid Reference (NGR): SD 3530 4282

AOC Archaeology Project No: 20435

Prepared by: Victoria Clements

Graphics: Alan Hunter Blair

Timing: Fieldwork January-February 2007
Report February 2007

Enquiries to: AOC Archaeology Group
Edgefield Industrial Estate
Edgefield Road
Loanhead
Midlothian
EH20 9SY

Tel. 0131 440 3593
Fax. 0131 440 3422
Email. admin@aocscot.co.uk

On behalf of:	Lancashire County Council Environment Directorate Guild House Cross Street Preston, PR1 8RD
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Prepared by:	Victoria Clements
Illustrations by:	Victoria Clements
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Enquiries to:	AOC Archaeology Group Edgefield Industrial Estate Edgefield Road Loanhead Midlothian EH20 9SY *Tel.* 0131 440 3593 *Fax.* 0131 440 3422 *Email.* admin@aocscot.co.uk

1 NON TECHNICAL SUMMARY

1.1 An archaeological watching brief was undertaken by AOC Archaeology Group during January and February 2007 on the Scheduled Ancient Monument (SAM) of Penwortham Bridge, Broadgate, Preston (NGR: SD 3530 4282). The watching brief was carried out to record the process of the removal of existing street lights and installation of nine new street lights along the northern side of the bridge and on the eastern approach and to record any significant archaeology encountered during this work (Figure 2) The watching brief established that the cobbled surface seen on the bridge continued under the modern pavement on the north side of the bridge, but encountered no other features or artefacts of archaeological significance.

2 INTRODUCTION

2.1 Background and Location

2.1.1 AOC Archaeology Group was commissioned by Lancashire County Council to undertake an archaeological watching brief on works within the Scheduled Area at Penwortham Bridge, Broadgate, Preston (Scheduled Monument No LA 170), a statutorily protected site as covered by the Ancient Monuments and Archaeological Areas Act (1979). The archaeological works were designed to fully satisfy the conditions of Scheduled Monument Consent as specified by the Department for Culture, Media and Sport (HSD/9/2/8494) and were undertaken in accordance with PPG16 (Department of Environment 1990).

2.1.2 The development area is centred on NGR: SD 3530 4282. The Scheduled Area is bounded on the west side by Riverside Road and to the east by Broadgate. The eastern approach to the bridge to the west of Broadgate is not part of the Scheduled Area (Figures 1 and 2).

2.1.3 This bridge over the River Ribble was constructed in 1759. The build consists of five unequal segmented arches, rising towards the centre, with V-shaped cutwaters continued to the parapets to form refuges on both sides of the deck. The parapets are moulded at the top; they turn and continue as walls on the south bank of the river approximately 40 m eastwards and approximately 130 m westwards. At the centre of the south parapet the uppermost stone is incised with the date 1759.

2.1.4 The current bridge replaced the first bridge on this site, which was constructed in 1755 but collapsed in 1756. Until the early 20th century Penwortham Bridge was the lowest bridge over the River Ribble. It was intermittently maintained by tolls but is now used solely as a footbridge.

3 OBJECTIVES

3.1 The objectives of the watching brief were:

i) To record the process of the works by photography, before the start of the work, at the key stages during the work and on completion;

ii) To determine the character, extent and quality, date and condition of any archaeologically significant remains that may be disturbed by the installation works in accordance with Scheduled Monument Consent;

iii) To fully record any significant archaeological remains encountered in accordance with Scheduled Monument Consent.

4 METHODOLOGY

4.1 Photographs were taken of the bridge before any work was carried out showing the condition of the bridge and existing street lights.

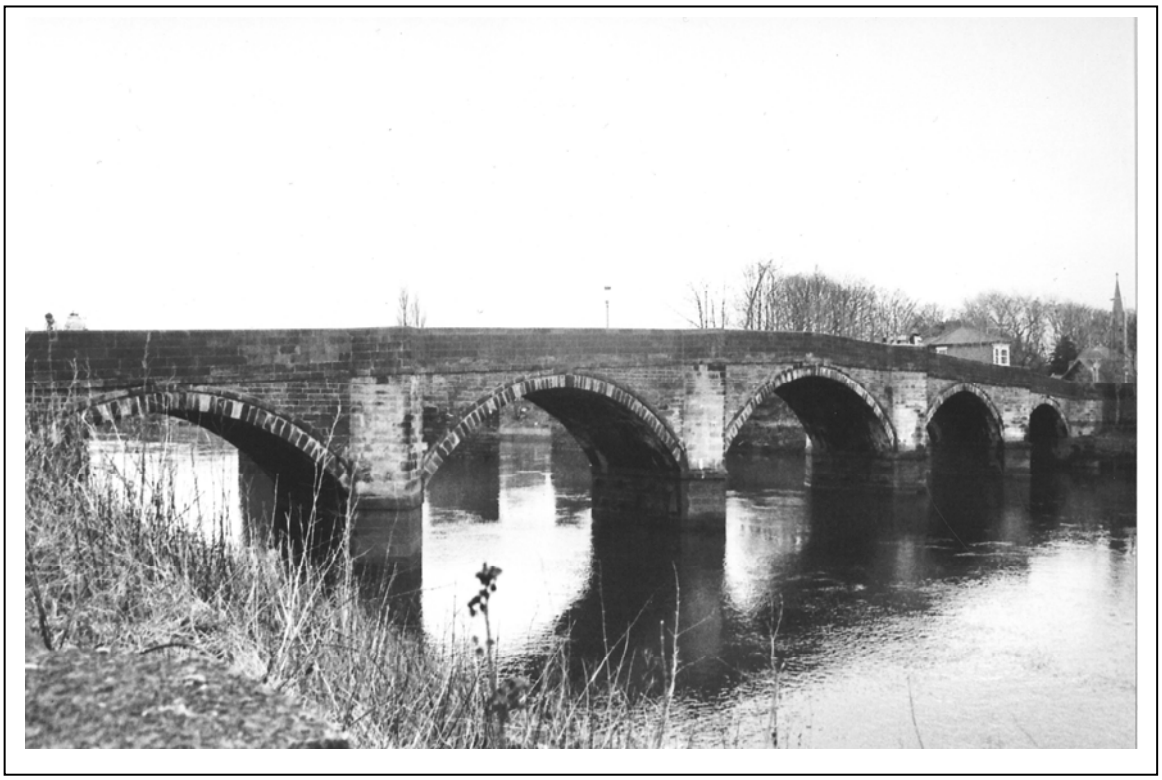


Figure 3: Penwortham Bridge prior to works

4.2 All pits for street lights and trenches for ducts on the SAM were excavated by hand. Trenches for ducts outwith the scheduled area were excavated by mini-digger. All works were carried out under the direct supervision of an experienced field archaeologist and recorded by photography.

4.3 The existing street lights were removed and the holes backfilled before the erection of the new lamp-posts

4.4 Photographs were taken of the bridge after the work was completed and the new lamp-posts were erected (Figure 4).

Figure 4: Lamp-post 3 from south

4.5 All recording was carried out according to AOC Archaeology Group's standard practice. Black and White print and colour slide photographic shots were taken during the watching brief (Appendix 2).

5 RESULTS

5.1 The following should be read together with the various data gathered from the watching brief presented in Appendices 1-3 and Figure 2.

5.2 A total of nine foundation pits were excavated, but only four of these, for Lamp-posts 2, 3, 4, and 5 occurred within the area of the SAM. The pits were generally approximately 0.60 m by 0.60 m, and aligned N/S, with a further 0.40 m excavated behind the pits to link them to the duct trenches. The test pits were generally excavated to a depth of approximately 0.85-1.00 m in order to allow sufficient depth for the bases of the lamp-posts to be bedded in

securely. The areas behind the pits linking them to the duct trenches were only approximately 0.30-0.40 m in depth.

Figure 5: Penwortham Bridge from west following works

5.3 Stratigraphy varied between the pits. Pit 1 revealed 0.20 m of disturbed ground over approximately 0.80 m of dark brown silty soil. The pits for Lamp-posts 2 -5 all revealed the same stratigraphy - approximately 0.10 to 0.13 m of tarmac was removed to reveal a stone kerb and stone setts identical to those observed on the rest of the road surface over the bridge, suggesting that the pavement on the north side of the bridge was laid directly on top of the original cobbled surface. The setts and kerb were removed within the area of the pits and were observed to have a depth of 0.15 m. Underlying the setts approximately 0.26 m of light brown sandy silt with occasional small rounded stones subsequently overlay approximately 0.50 m of light sandy silt with frequent small rounded stones. In the northern section of Pits 2 and 3 a 0.21 m diameter cast iron pipe was observed running east to west at a depth of approximately 0.54 m. It probably represents an old gas or water main. Directly below this at a depth of 0.75 m was a thin layer of concrete, probably the base for the pipe.

5.4 Of the pits outside the Scheduled Area, Pit 6 revealed 0.20 m of tarmac overlying 0.70 m of light brown sandy silt with moderate small rounded stones and very occasional lenses of light red clay. Pit 7 showed a layer of turf and topsoil 0.20 m thick overlying light brown silty sand with occasional rounded stones. Pit 8 revealed 0.11 m of tarmac over 0.24 m of disturbed ground overlying 0.50 m of light brown sand with moderate small rounded stones. Pit 9 revealed 0.14 m of tarmac overlying 0.28 m of disturbed mid brown silty material over red sandstone blocks which appeared to have been mortared

together. The pit was excavated to a depth of 0.90 m with and the sandstone blocks continuing below this depth.

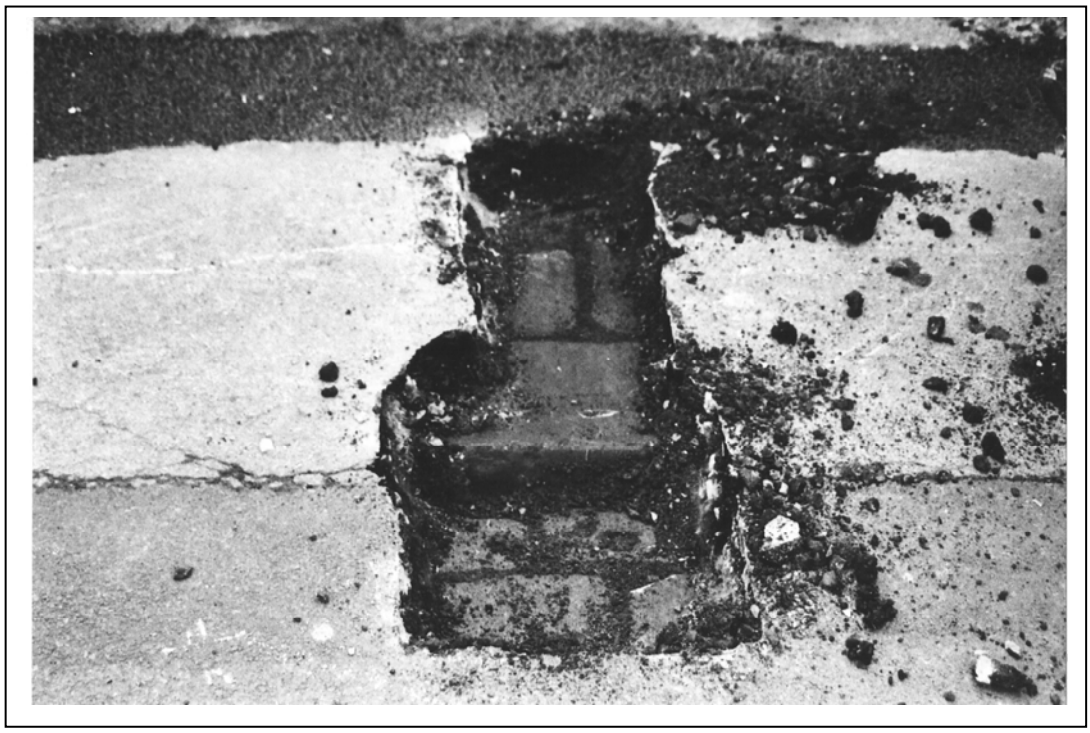


Figure 6: Lamp-post 3 - stone setts and kerb beneath modern pavement

5.5 Duct trenches were excavated by hand from the western end of the bridge up to Lamp-post 3 and from the eastern up to Lamp-post 4. These were excavated within an existing service trench along the very northern edge of the bridge and were approximately 32.10 m and 35.80 m long respectively and 0.20 to 0.40 m wide. In the eastern trench a BT cable was observed at a depth of 0.25 m and the duct for the lighting laid over this. The same cable was observed at a depth of 0.15 m up against the wall of the bridge in the western trench and the lighting duct was laid to the side of this at a depth of approximately 0.33 m. Both trenches revealed light brown sandy silt with moderate rounded stones and in both trenches stone setts were observed in the south section, some of which were removed in the western trench.

5.6 Duct trenches outside the Scheduled Area were excavated by mini-digger on the eastern approach to the bridge in linking the lamp-posts. These were approximately 0.30 to 0.40 m wide and between 0.27 and 0.60 m deep. The western N/S trench was excavated through an existing trench and revealed only backfilled material. The eastern N/S trench revealed 0.15 m of turf and topsoil over light brown silty sand; at the southern corner the setts and kerbstones of the road surface were seen and a small row of setts removed. The E/W trench across the road revealed 0.20 m of tarmac overlying 0.40 m of light grey brown sand.

6 CONCLUSION

6.1 The watching brief on the street lighting works established that the cobbled surface seen on the deck of the bridge continued beneath the modern pavement on the north side of the bridge, but no other significant archaeological features or artefacts were encountered.

APPENDIX 1: FOUNDATION PIT DESCRIPTIONS

Pit 1

Dimensions	0.60 m x 0.60 m
Orientation	N/S
Depth of overburden	0.20 m (backfill)
Depth of excavation	1.00 m
Features	None
Subsoil	0.80 m of dark brown silty soil.

Pit 2

Dimensions	0.60 m x 0.60 m
Orientation	N/S
Depth of overburden	0.13 m (tarmac)
Depth of excavation	1.00 m
Features	A cast iron pipe seen in north section at depth of 0.54 m, diameter c. 0.21 m. also thin (0.05 m) layer of concrete just below this at 0.75 m. Stone setts and kerb below tarmac 0.15 m deep, overlying 0.26 m of light brown sandy silt with occasional stones, overlying 0.50 m of light brown sandy silt with frequent rounded stones.

Pit 3

Dimensions	0.60 m x 0.60 m
Orientation	N/S
Depth of overburden	0.11 m (tarmac)
Depth of excavation	1.00 m
Features	A cast iron pipe seen in north section at depth of 0.54 m, diameter c. 0.21 m. also thin (0.05 m) layer of concrete just below this at 0.75 m. Stone setts and kerb below tarmac 0.15 m deep, overlying 0.26 m of light brown sandy silt with occasional stones, overlying 0.50 m of light brown sandy silt with frequent rounded stones.

Pit 4

Dimensions	0.60 m x 0.60 m
Orientation	N/S
Depth of overburden	0.13 m (tarmac)
Depth of excavation	1.00 m
Significant Features	None
Subsoil	Stone setts and kerb below tarmac 0.15 m deep, overlying 0.26 m of light brown sandy silt with occasional stones, overlying 0.50 m of light brown sandy silt with frequent rounded stones.

Pit 5

Dimensions	0.60 m x 0.60 m
Orientation	N/S
Depth of overburden	0.12 m (tarmac)
Depth of excavation	1.00 m
Significant Features	None
Subsoil	Stone setts and kerb below tarmac 0.15 m deep, overlying 0.26 m of light brown sandy silt with occasional stones, overlying 0.50 m of light brown sandy silt with frequent rounded stones.

Pit 7

Dimensions	0.50 m x 0.50 m
Orientation	N/S
Depth of Topsoil	0.20 m
Depth of excavation	1.00 m
Significant Features	None
Subsoil	Light brown silty sand with occasional rounded stones.

Pit 8

Dimensions	0.50 m x 0.60 m
Orientation	N/S
Depth of overburden	0.11 m (tarmac)
Depth of excavation	0.85 m
Significant Features	None
Subsoil (?)	0.24 m of backfill over c. 0.50 m of light brown sand with moderate small rounded stones.

Pit 9

Dimensions	0.50 m x 0.50 m
Orientation	N/S
Depth of overburden	0.14 m (tarmac)
Depth of excavation	0.90 m
Significant Features	At a depth of 0.42 m red sandstone blocks were encountered which appeared to be mortared together. Continued below the depth of pit. Approx 0.28 m of disturbed mid brown silty material over sandstone.

APPENDIX 2: PHOTOGRAPHIC RECORD

Black & White Print and Colour Slide Film No.1

Shot No.	Description	From
1	Registration shot	
2	General of bridge from west	W
3	General of west end of bridge with old Lamp-post	SW
4	General of west end	SE
5	General of site for Lamp-post 2	S
6	General of west end	SW
7	General of site for Lamp-post 3	S
8	General of mid-point of bridge	SW
9	General of mid-point of bridge	SE
10	General of site for Lamp-post 4	S
11	General of east end	SW
12	General of site for Lamp-post 5	S
13	General of east end	SW
14	General of east end	SE
15	General of bridge from east	E
16	General of north side of bridge	NE
17	Test pit for duct trench with setts and BT duct	E

Black & White Print and Colour Slide Film No.2

Shot No.	Description	From
1	Registration shot	

2	Pit for lamp-post 3 showing old kerb and setts	S
3	Pit for lamp-post 3 south facing section	S
4	Pipe trench for duct	E
5	West trench - setts being removed	E
6	Shot of date-stone '1759' on centre of bridge	N
7	East duct trench excavated	W
8	Duct laid before back-filling	W
9	West trench mid-excavation with duct in place	E
10	East duct trench backfilled	W
11	West trench mid-excavation	E
12	South side of bridge	NW
13	Setts and kerb in pit 5	S
14	West facing section of pit 5 post-ex	W
15	Base set into pit 5	W
16	Setts and kerb in pit 4	S
17	West facing section of pit 4	W
18	Pit 4 back-filled	S

Black & White Print and Colour Slide Film No.3

Shot No.	Description	From
1	Registration shot	
2	West-facing section pit 3	W
3	Setts and kerbstone in pit 2	E
4	Setts and kerb in pit 2	E
5	West facing section pit 2	W
6	Pit 1	S
7	Pit 3 backfilled with base	S
8	Pit 7 south facing section	S
9	Pit 8 south facing section	S
10	Pit 9 sandstone blocks	S
11	Pit 6 north-facing section	N
12	Pit 9 south-facing section	NW
13	N/S duct trench being excavated by mini-digger	S
14	Pit 7 backfilled	W
15	West end of bridge south side	NE
16	Removal of old lamp-post by pit 1	E
17	Head of old lamp-post showing rusted through	
18	Removal of old lamp-post by pit 1	E

Black & White Print and Colour Slide Film No.4

Shot No.	Description	From
1	Registration shot	
2	Another rusted and sheared segment of old post	
3	New post 2 being lifted into position	W
4	New post 2 in position	W
5	New post 3 in position	W
6	Post 2 temporary back-fill complete	S
7	Post 3 temporary back-fill complete	S

8	Stone setts being removed from trench off bridge	SW
9	Post 4 temporary back-fill complete	S
10	Stone kerbstones in west facing section of trench	W
11	Post 5 temporary back-fill complete	S
12	Post 1 temporary back-fill complete	SW
13	Old post opposite 4 before removal	NE
14	Post 1 with lantern	SW
15	Post 2 with lantern	S
16	Post 3 with lantern	S
17	E/W duct trench across road	W
18	Post 5 with lantern	S

Black & White Print and Colour Slide Film No.5

Shot No.	Description	From
1	Registration shot	
2	Pole 6 in situ and old pole before removal	NE
3	Pole 4 with lantern	S
4	Old pole opposite 4 removed	N
5	West end of bridge complete with new posts	SE
6	Penwortham Bridge complete with new posts	W
7	Pole 6 with lantern	N
8	Pole 7 with lantern	W
9	East end of bridge complete with new posts	SW
10	Penwortham Bridge complete with new posts	E
11	Pole 9 with lantern	W
12	Road leading to bridge with posts 9, 7, 6	N
13	Penwortham Bridge Complete	NE

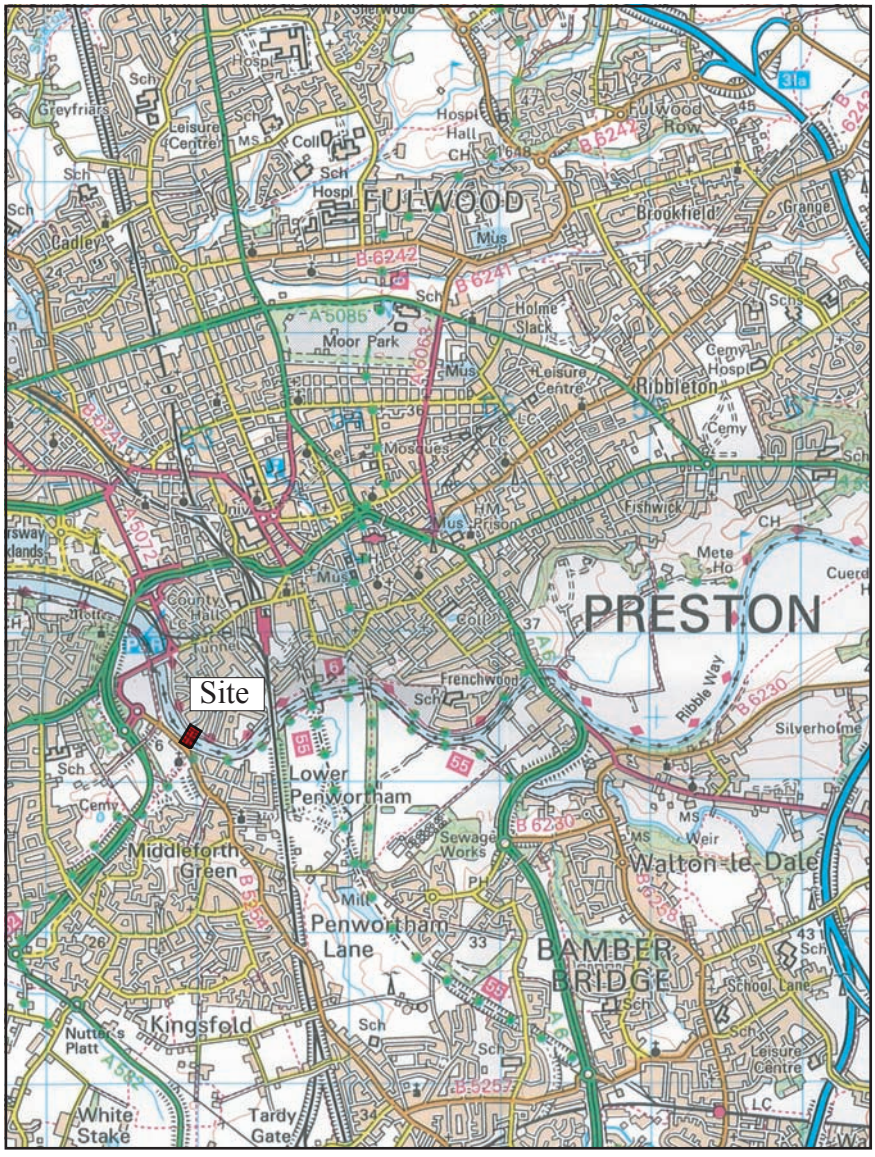
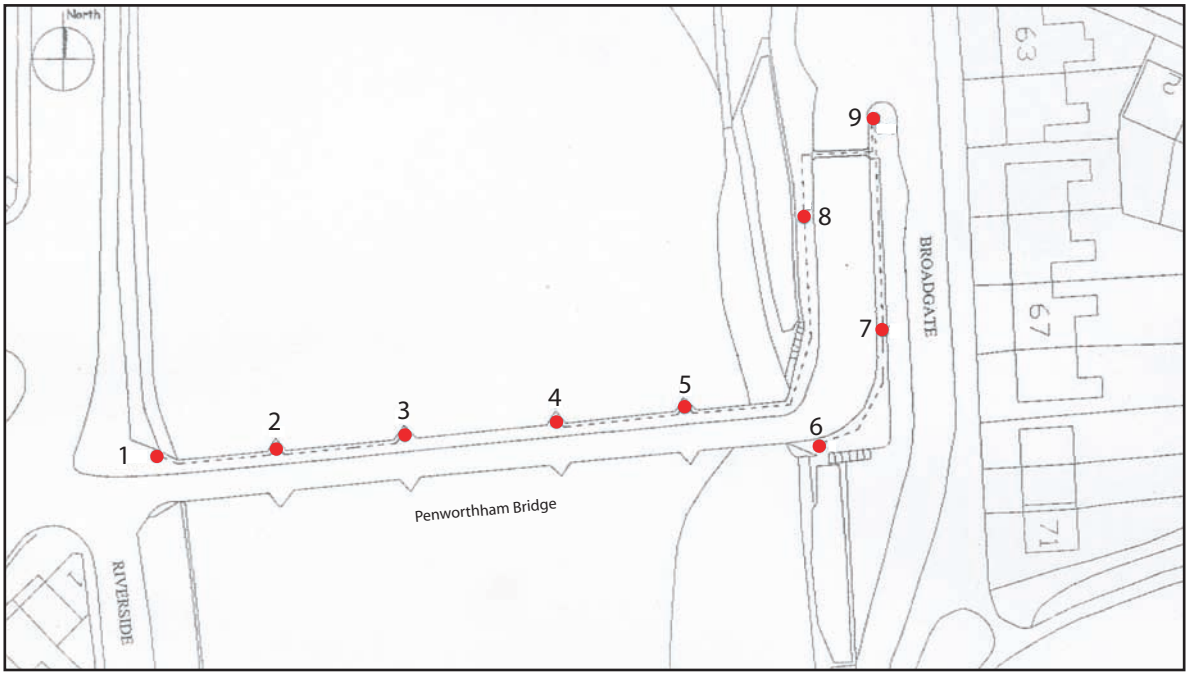


Figure 1: Site Location



Based on a drawing supplied by client

Figure 2: Location of new Lamp-posts

AOC ARCHAEOLOGY GROUP