



Northern Gas Networks

Old Elvet Bridge, Durham

Archaeological Watching Brief Report

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NON-TECHNICAL SUMMARY

An archaeological watching brief was undertaken by RSK in February 2017 during the replacement of a gas pipeline within Old Elvet Bridge, Durham. The bridge is a Scheduled Monument dating to the Medieval period.

The works had scheduled monument consent (number S00141668) with a condition for archaeological monitoring to take place.

No significant archaeological remains were encountered during the watching brief.

1 INTRODUCTION

RSK was commissioned by Northern Gas Networks (hereafter 'The Client') to undertake an archaeological watching brief during the instalment of a gas pipe through Old Elvet Bridge, Durham (centred on NGR 427539, 542419).

The proposed gas pipe was intended to replace the existing one, following the same route (Figure 1).

The bridge is a scheduled monument dating to the Medieval period (12/13th centuries) and subsequently modified. The works had scheduled monument consent (number S00141668) with a condition for archaeological monitoring to take place.

The watching brief was required to ensure that any archaeological remains exposed during construction ground works were investigated and recorded appropriately. This monitoring was undertaken to mitigate the development impact on any archaeological remains which may have been present at the site.

This document is the watching brief report detailing the results of the watching brief on the section of the pipe work which crosses the bridge.

Acknowledgements

This report has been prepared in consultation with Lee McFarlane, Inspector of Ancient Monuments at Historic England and George Howey, Operations Manager at Northern Gas Networks.

Archaeological field work was undertaken by Gerry Martin of Gerry Martin and Associates.

The RSK staff involved in the project were Rowena Henderson (liaison with Historic England, preparation of report text and figures) and Andy Towle (technical review).

2 BACKGROUND

The site location, geology and history

The bridge is located in Durham, NGR 427539, 542419 and crosses the River Wear. The route of the pipe is shown in Figures 1-7.

The underlying bedrock consists of Pennine Middle Coal Measures Formation with superficial deposits of sand, gravel and silt from River Terrace Deposits (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

The bridge dates from the early 13th century, incorporating an arch from the late 12th century. The central three arches were renewed after a flood in 1771. It is made of coursed squared sandstone with ashlar dressings with a total of 7 river arches and 2 land arches. There are two west land arches beneath the present road, the easternmost of them was adapted as a house of correction in 1632. The south-east arch supported the Medieval chapel of St Andrew, part of which may survive under N. 97 Elvet Bridge (<https://historicengland.org.uk/listing/the-list/list-entry/1121355>).

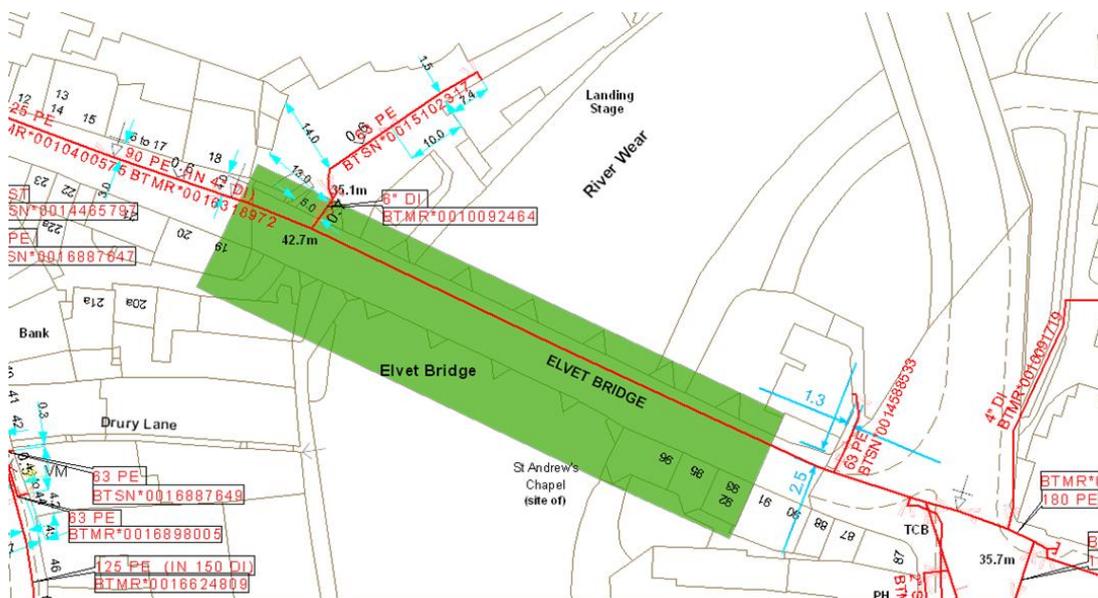


Figure 1. The location of the gas pipe over Elvet Bridge (scheduled area shown in green)

3 THE SCHEME

The scheme involved the replacement of a gas pipe along a 136.4m stretch between Intervention 1 to 0, the connection of the gas supplies to the main at properties 87-95 Elvet Bridge (interventions 3-7), the replacement of the connection to the Boat House public house (interventions 2 and 9) and connection to the gas main at New Elvet (intervention 8).

The new gas main possessed a narrower gauge than the existing cast iron gas pipe allowing the new pipe to slip inside the sheath of the earlier pipe. The principal tasks that required monitoring under the terms of the Scheduled Monument Consent (SMC) were as follows:

- Identifying and isolating the reception holes for the new replacement gas pipe (Interventions 1, 8 and 0).
- Identifying and isolating the connections to business premises along Elvet Bridge (Interventions 3-7).
- Replacement of the old cast iron pipe that served the Boat House public house (Interventions 2 and 9).
- Attendance whilst the new pipe was pulled through between Interventions 1 and 8 in case further excavation was required.

4 METHODOLOGY

Aims and Objectives

The aims of a watching brief were:

- To meet the requirements of the scheduled monument consent for archaeological monitoring of the works
- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works; and
- To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard. A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits¹.

The specific objectives of this watching brief were to:

- Establish the presence/absence, character and preservation state of any archaeological remains exposed during the intrusive ground works
- Record the trench stratigraphy to see if there is evidence of modern strengthening of the bridge deck and historic fill make-up
- Make a competent record of the location and character of any such remains
- Recover any archaeologically significant artefacts disturbed during the works for specialist examination and reporting.
- Recover samples of any material which has potential for the survival of palaeoenvironmental evidence from secure archaeological context.
- Prepare a report on the findings and material recovered for the Client and Historic England, and
- Deposit the archive with an appropriate repository.

¹ CfA (2014). Standard and Guidance for an Archaeological Watching Brief.

Table 1. Description of the interventions

Intervention	Grid reference	Size	Depth	Description	Status
0	NZ 27623 42388	4m x 1m	1.00m	Pipe encased in concrete and sand	Archaeologically Sterile
1	NZ 27501 42443	3m x 1.20m	0.70m	Top 0.50m post-1978 concrete, remaining material 0.20m of coarse light brown sand, backfill to pipe trench	Archaeologically Sterile
2	NZ 27510 42440	1.90m x 1.80m	0.70m	Top 0.35m post-1978 concrete and asphalt then pebbles and shingle within the pipe cut	Archaeologically Sterile
3	NZ 27568 42408 Connects 96 Elvet Bridge	1.40m x 1m	0.80m	Asphalt 0.25m below surface then reinforced concrete with mesh developing into buff sand and occasional modern brick	Archaeologically Sterile
4	NZ 27578 42405 Connects 95 Elvet Bridge	1.30m x 1m	0.60m	Gas pipe immersed in concrete	Archaeologically Sterile

5	NZ 27587 42402 Connects 91 Elvet Bridge	1.40m x 1.20m	0.70m	Asphalt horizon with concrete before redeposited brown silt with C19 brick at base	Archaeologically Sterile
6	NZ 27597 42399 Connects 89 Elvet Bridge	1.20m x 0.90m	0.50m	Concrete over pipe and then modern buff silty sand	Archaeologically Sterile
7	NZ 27601 42397 Connects 87 Elvet Bridge	2m x 1.40m	0.70m	Concrete over pipe and then redeposited grey-brown silt	Archaeologically Sterile
8	NZ 27617 42394 Junction of main at New Elvet	2.50m x 2m	1.00m	Modern golden sand	Archaeologically Sterile
9	NZ 27514 41447 Connects Boat House public house	1.80m x 0.90m	0.50m	Modern pea-grit and overburden within cut for electric cable	Archaeologically Sterile



Figure 3. Intervention 0



Figure 4. Intervention 1



Figure 5. Intervention 2



Figure 6. Intervention 3



Figure 7. Intervention 4



Figure 8. Intervention 5



Figure 9. Intervention 6



Figure 10. Intervention 7



Figure 11. Intervention 8



Figure 12. Intervention 9

6 CONCLUSION

The conditions of the Scheduled Monument Consent (SMC) were met in compliance with the WSI agreed with Historic England.

No significant archaeological remains were identified.

An archaeologist was in attendance during all works that penetrated the ground surface within the Scheduled Monument.

The gas main traversed the course of the widened bridge corridor constructed between 1804 and 1805 rather than the Medieval bridge, no deposits of a Medieval date were encountered.

The monitored works were confined to ground disturbed by the original gas main construction and installation of subsequent services. The exposed deposits were all of recent date, no earlier than the late 19th century and in most cases mid to late 20th century, and are considered not to be archaeologically significant.

Archive deposition

RSK will produce a digital data archive of all primary field data produced during the works in accordance with ADS guidelines (Richards and Robinson 2001). The digital archive will be deposited with Historic England and OASIS.

REFERENCES

CIfA, 2014, *Standard and Guidance for an Archaeological Watching brief*

CIfA, 2014, *Code of Conduct*

Richards J. D and Robinson, D (eds), 2001, *Digital archives from excavation and fieldwork: guide to good practice, 2nd Ed.* Archaeology Data Service

RSK, 2017, *Old Elvet Bridge, Durham. Written Scheme of Investigation for an Archaeological Watching Brief*

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>