

**Land near Bradbourne Mill,
Bradbourne, Matlock**

Watching Brief Report



ARS Ltd Report No. 2007/34
Planning Application No. 05/01038/FUL
May 2007

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Executive Summary

Archaeological Research Services Ltd was commissioned by Derbyshire County Council to undertake a watching brief on the excavation of land near Bradbourne Mill, Bradbourne, Matlock in May 2007. The work involved monitoring the construction of a new public footpath, cycleway and the excavation of two trenches for abutments that will support a new bridge that traverses the Haverhill Dale Brook. No archaeological features were encountered.

1. Introduction

- 1.1 The watching brief on groundworks on land near Bradbourne Mill, Bradbourne was undertaken by Brian Marshall of Archaeological Research Services Ltd (ARS Ltd) for Derbyshire County Council during the construction of a new public footpath, cycleway and the excavation of two trenches for bridge abutments.

2. Location, Background and Geology

- 2.1 The village of Bradbourne is situated c.7km north of Ashbourne and c.11km south-west of Matlock (Fig. 1).

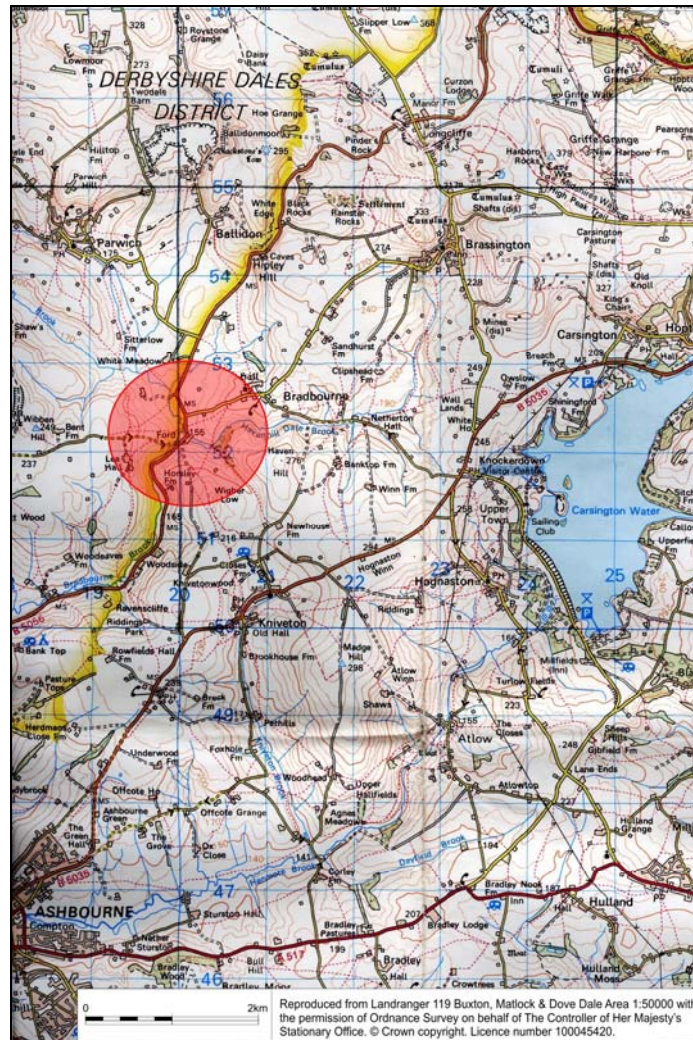


Fig. 1 Location Map of the Development Site

- 2.2 Bradbourne Mill is situated near Tissington Ford on a bend of the B5056 road between Ashbourne and Matlock. The development site is located at SK20174 52259 to the east of the mill and the proposed footpath will run through the fields in this area (Fig. 2). Bradbourne Mill is entered in the Derbyshire Sites and Monuments Record (SMR 2016) as a medieval and post-medieval water-powered corn mill. The mill was built in the 18th century and carries the date of 1726. It is known as the oldest surviving water-powered corn mill in Derbyshire and is the only mill which has two water wheels which stand side by side in a wheel pit.

Furthermore, Bradbourne Mill still retains most of its original machinery, which will be kept and restored *in-situ* during the forthcoming restoration and development of the mill into residential homes.

- 2.3 The Havenhill Dale Brook flows through the site and diverges into two channels, the Havenhill Brook and the original mill race, near Bradbourne Mill. The proposed footpath runs through the fields to the east of the mill and crosses the Havenhill Brook and subsequently the mill race from the south. At these crossing points, two bridges will be constructed. The watching brief will monitor the localised excavations of the abutments required for these bridges.
- 2.4 Land drainage works to the east of Bradbourne Mill and c.100m east of the proposed crossing at Havenhill Dale Brook at a disused mill dam in Springs Bridge uncovered a number of well preserved oak timbers, presumably from the sluice gate of the dam wall. A dendrochronological study provided a felling date of AD 1580. However, more recently, these timbers were radiocarbon dated which suggested that the trees had been felled in the winter of 1836-37 and were therefore fairly modern in origin (Gifford 1999).
- 2.5 The earliest documented evidence of Bradbourne is in AD1086 with an entry in the Domesday Book when the village was known as Bradeburne (Morris 1978). Bradbourne later also contained a Medieval Grange run by Dunstable Priory (Hart 1984, 155).
- 2.6 Bradbourne lies on the border between two geological zones, the Widmerpool Formation (consisting of mudstone with limestone and occasional sandstone deposits) and Hopedale Limestones (BGS 1978).

3. Aims of the Project

- 3.1 The project was an archaeological watching brief as requested by Derbyshire County Council. The aim of the watching brief was to observe the excavation of the abutments required for the construction of two bridges crossing the Havenhill Dale Brook and the mill race for the proposed footpath. If any archaeological features were discovered, they were to be fully recorded and excavated.

4. Method Statement

- 4.1 The entire process was monitored by an archaeologist from ARS Ltd. All stratigraphic layers were context recorded on pro-forma sheets and a context register completed. A photographic register was produced for inclusion in the archive. Any features or structures were to be fully cleaned and recorded in accordance with the standards stipulated by the Institute of Field Archaeologists (IFA).

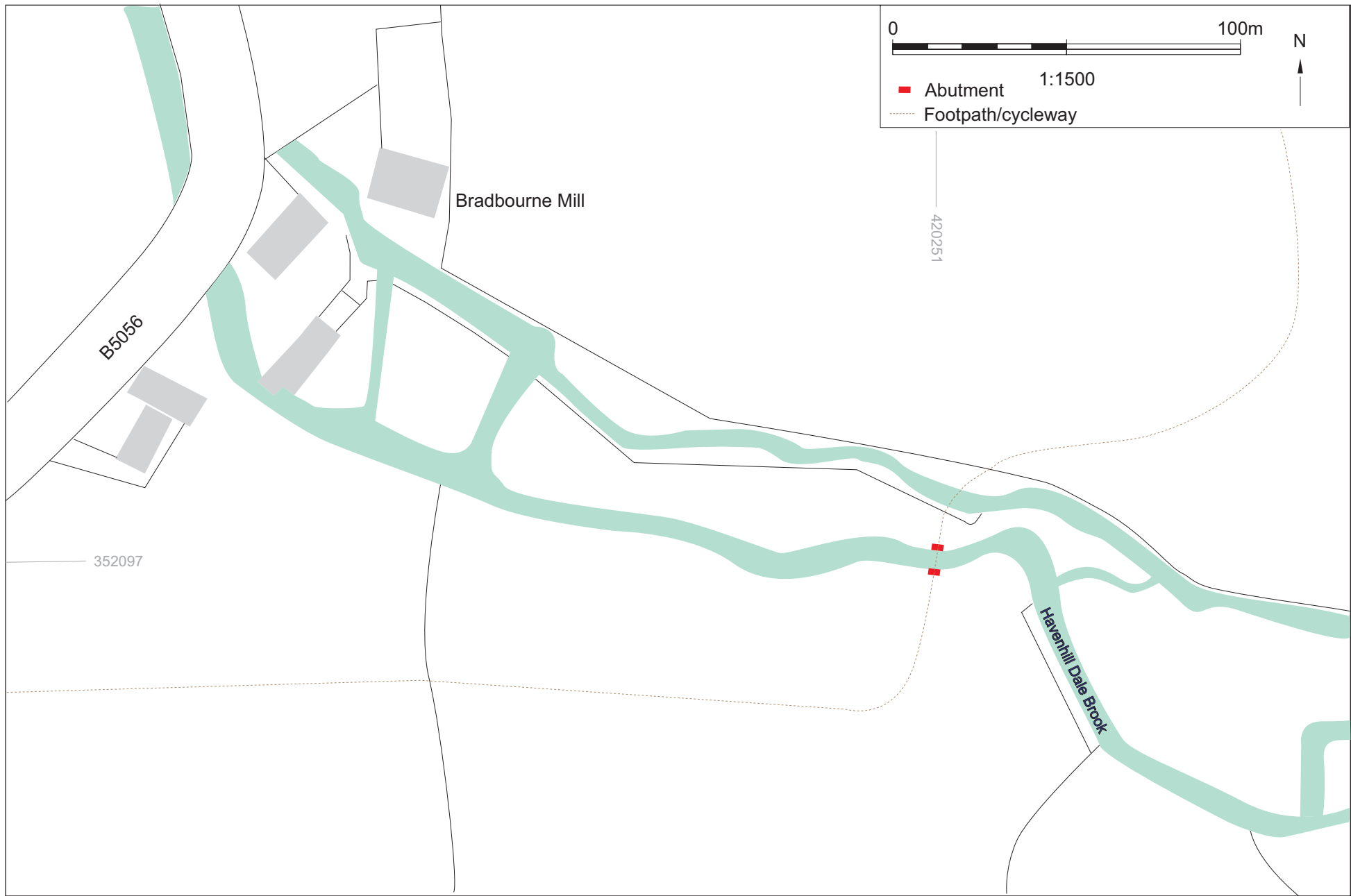


Fig. 2. Bradbourne Mill Site plan



Fig. 3 Completed footpath/cycleway to the south of the stream (facing west)

5. Summary of Results

- 5.1 Arrival on site revealed the construction of the footpath/cycleway to be under way. A two metre wide channel approximately 0.2m deep had been excavated and filled with dolomite hardcore which terminated just 1m before the position of the abutment on the south bank. The stream at this point was approximately 5.2 wide and was fast running. The northern bank raised steeply up to a man made goit and above this was a grassy field. The goit was part of the water management system for the mill, but has not been in operation for some time and was overgrown with vegetation. The watching brief entailed the excavation of two trenches for the abutments at Havenhill Dale Brook.
- 5.2 To facilitate the excavation of the trenches the stream was diverted away from the bank side, which was achieved by using large boulders and imported clay to construct diverting walls which narrowed the stream channel to 1.7m (Fig 4). Trench 1 on the northern bank was excavated to a size of 3.6m in length, 2.2m in width and 1.7m in depth. A layer of topsoil 0.2m in depth (context 201) was removed which revealed the natural clay (204). The clay was reddish-brown in colour with sandstone inclusions at a lower level. In the northern section of the trench the depth of this layer was 1.4m and overlay sandstone bedrock (205). As the trench sloped down to the stream bed the clay became interspersed with a layer of black mudstone and shale (203) with inclusions of large sandstone fragments 0.6m in depth which again overlay the sandstone bedrock (205)



Fig. 4 Construction of stream diverting walls (facing NE)



Fig. 5 Trench 1 facing east

- 5.3 Trench 2 (Fig.6) on the southern side of the stream was excavated to a size of 4m in length, 2.2m in width and 1.5m in depth (Fig. 4). Topsoil in this trench varied from 0.2m to 0.4m in depth and overlay a deposit of black mudstone and shale. This layer was 0.7m in depth and had inclusions of small to medium sandstone and overlay a deposit of clay (204) which was red and black coloured with pockets of yellow clay present in the NW corner.



Fig. 6 Trench 2 (facing east)



Fig. 7 Trench 2 (facing east)



Fig: 8. Post excavation photograph of the trenches (facing north-east)

6. Conclusions

- 6.1 During the course of the archaeological watching brief no significant archaeological remains were encountered.

7 Publicity, Confidentiality and Copyright

- 7.1 Any publicity will be handled by the client.
- 7.2 Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

8. Statement of Indemnity

- 8.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

9. Acknowledgements

- 9.1 Archaeological Research Services Ltd would like to thank all those involved with the smooth running of the project, especially Garrie Tiedman from the Peak District National Park Authority, Andy Myers the Development Control Archaeologist for Derbyshire County Council and the on-site staff of Amos Developments

10. References

British Geological Survey. 1978. *Ashbourne. England and Wales Sheet 124. Solid and Drift Edition.*

English Heritage. 2003. *Archaeological Science at PPG16 Interventions.* London, English Heritage.

Gifford, A 1999. *Derbyshire Watermills -Corn Mills.* Midlands Wind and Water Mills Group

Hart, C.R. 1984. *The North Derbyshire Archaeological Survey.* Sheffield, The Derbyshire Archaeological Society and Sheffield City Museums.

Morris, J. 1978. *Domesday Book: Derbyshire.* London, Phillimore.

Myers, A. 2007. *Brief for an Archaeological Watching Brief.* Unpublished

Appendix One: Catalogue of Digital Images supplied on CD

Cat. No.	Description	Facing	Date	Scale
1	Constructing the stream diverting banks		24/5/07	
2	Line of the footpath/cycleway	W		
3	Boulders used for diverting banks			
4	Trench 1 excavated	N		
5	Stream bank section of trench 2	N		
6	Trench 2 excavated	E		
7	Trench 2 completed	E		1 & 2 m
8	Trench 2 completed	E		1& 2 m
9	Digger working in trench 1	S		
10	Trench 1 completed	S		1 & 2 m
11	Trench 1 stream bank section	S		2m
12	Trench 1 cay wall section	N		
13	Trench 1 cay wall section	N		
14	Filling with concrete	S		
15	Trench 2 half filled with concrete	W		
16	Completed trenches	NE		

Appendix Two: Brief for Contained Archaeological Watching Brief

SITE NAME: Land near Bradbourne Mill, Bradbourne, Matlock, Derbyshire
PLANNING APPLICATION NUMBER: 05/01038/FUL
NGR: SK 20174 52259
ISSUED BY: A. M. Myers (Development Control Archaeologist)
ISSUED TO: Garrie Tiedeman
DATE: 29th January 2007

1.0 Introduction

1.1 Planning application 05/01038/FUL has received planning consent for the construction of a new public footpath and concessionary cycleway with new road access points and bridge construction at land near Bradbourne Mill, Bradbourne, Matlock, Derbyshire.

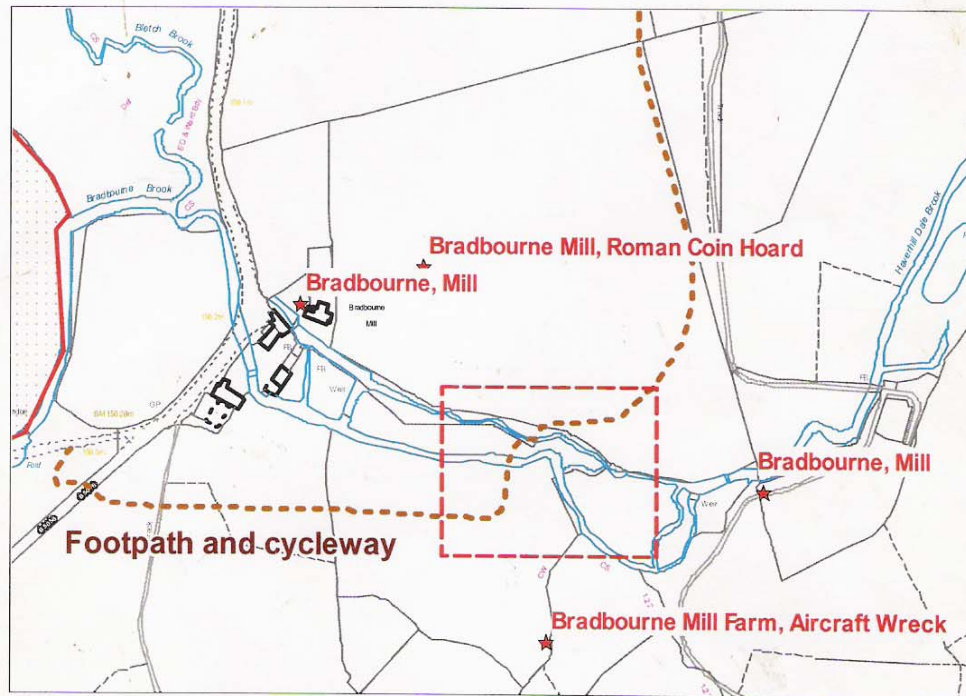


Fig. 1: Location of the development site

1.2 The consent requires that an archaeological watching brief be maintained during the development on excavations and earthmoving.

1.3 No archaeological desk-based assessment has been produced.

1.4 This document is a brief for an archaeological watching brief. The watching brief is to be maintained within the area indicated by the red-dashed box (fig.1).

1.5 The appointed archaeological contractor will produce a written scheme of investigation and submit this in advance of the fieldwork for approval by the Development Control Archaeologist.

2.0 Background

2.1 The proposed footpath runs through fields south and east of Bradbourne Mill, the site of a medieval and post-medieval water-powered corn mill which is entered on the Sites and Monuments Record (SMR 2016). In 1975-6 drainage works in the bed of the disused mill dam, c.100m to the east of where the new footpath crosses Havenhill Dale Brook and the

mill-race, exposed a series of oak timbers relating to early water management. These timbers were subsequently the subject of two published papers, from which a dendrochronological study provided a felling date of A.D. 1580.

2.2 The construction of the route will require groundworks, including topsoil stripping, to establish the Suretrack or limestone surface, and to achieve the desired gradients in specific locations. Where the route crosses Havenhill Dale Brook and the mill race the route will be carried by two small bridges. The construction of abutments to support the ends of the bridges will be required. The abutment construction will require localised excavations.

2.3 In the area of the watching brief (fig 1: red-dashed line) the footpath will approach Havenhill Brook from the south. A bridge will carry the footpath over the brook onto a narrow finger of land, and another bridge will then carry the footpath across the mill lade to the fields beyond. Mapping evidence suggests that the area of the development has seen little change since the 1st Edition Ordnance Survey (fig.2).

2.4 Recent work at the mill and the mill house suggests that the existing buildings date back to the eighteenth century. No earlier features have been identified. The dendrochronology dates from the timbers found to the east indicate that there was a water management feature present in the sixteenth century. Presumably this also served a mill. We do not know where this earlier mill was located or how the water was channelled.

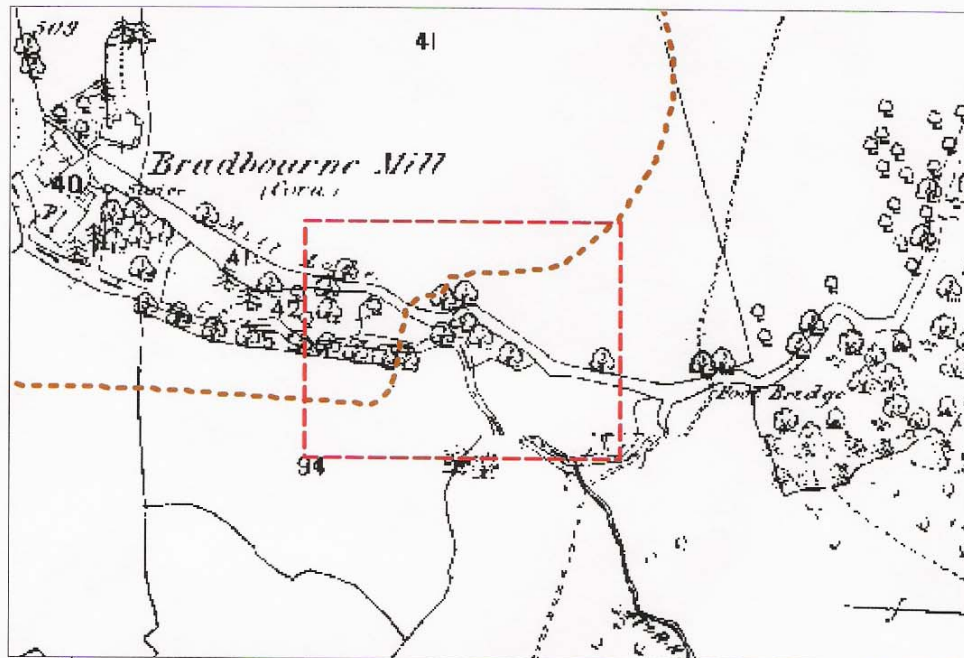


Fig. 2: 1st Edition Ordnance Survey

3.0 Objective

3.1 The watching brief should provide for achieving an appropriate level of *preservation by record* for any archaeological or palaeo-environmental deposits exposed during the development excavations and groundworks.

4.0 Fieldwork

4.1 The appointed archaeological contractor shall maintain a watching brief during all groundworks, including earthmoving, excavation and activity that may cause significant disturbances to the ground surface.

4.2. During the watching brief should any potential layers, features, structures or finds be exposed the archaeological contractor should be afforded sufficient time to clean, excavate, sample and record the archaeology. If old structural timbers are exposed these will be recorded, analysed and their suitability for sampling and dating assessed.

4.3 All archaeological fieldwork, recording of archaeological features and deposits and post-excavation analysis should be carried out to acceptable archaeological standards. The contractor will be expected to abide by the Code of Practice of the Institute of Field Archaeologists, and to follow the guidance provided in "Archaeological Science at PPG16 Interventions" (English Heritage 2003).

4.4 The appointed archaeologists should undertake a site risk assessment and operate at all times with due regard to health and safety regulations.

5.0 Monitoring

5.1 During the course of the fieldwork the Development Control Archaeologist (DCA) may undertake monitoring visits.

5.2 Should significant archaeological deposits be encountered the archaeological contractor should contact the DCA and arrange a convenient date and time for a site visit. Your contact will be:

Dr. Andrew Myers,
Development Control Archaeologist,
Derbyshire County Council,
Shand House,
Dale Road South,
Matlock,
Derbyshire DE4 3RY

Andy.myers@derbyshire.gov.uk
Tel: 01629 585146
Mob: 07781 850742
Fax: 01629 585507

6.0 Finds

6.1 Artefact collection policy should be concerned with the provision of adequate samples for meeting the objectives of the work. Discarded artefactual materials should be described and quantified through assignment to broad categories in the field. Analysis of finds will be undertaken, as necessary, by suitably qualified specialists. Retained finds should be cleaned, marked, catalogued and packed in materials, as appropriate, for long term storage (see **9.0 Archive Deposition** below).

7.0 Human Remains

7.1 In the event of human remains being encountered site works will cease and the Coroner's office notified. Such remains will remain *in situ* until authorised to continue by the Coroner and a Home Office licence obtained. The Coroner for Derby and South is,

Mr P. G. Ashworth,
St Katherins House,
St. Marys Wharf,
Mansfield Road,
Derby DE1 3TQ
Tel: 01332 294942

7.2 Analysis of any human remains will be undertaken, as necessary, by suitably qualified specialists.

8.0 Report

8.1 The preparation of the report should follow the guidelines published by the Institute of Field Archaeology.

8.2 Upon completion of the fieldwork a full report will be produced and copies submitted to the Local Planning Authority, the DCA and the Derbyshire SMR.

8.3 The report should include as a minimum,

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- An objective summary statement of results
- Conclusion
- Supporting illustrations at appropriate scales
- Supporting data – tabulated or in appendices, including as a minimum a basic quantification of all artefacts, ecofacts and structural data.
- Index to archive and details of archive location
- References
- Statement of intent regarding publication (see 8.5, 10.1)
- Confirmation of archive transfer arrangements (see 9.3)
- Copy of this brief

8.4 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts should be supplied to the SMR and deposited with the archive either as colour slides, or as digital images on a CD ROM.

8.5 A short summary report (see notes attached) should be supplied as hard copy and a PDF to the DCA along with the evaluation report. The appointed archaeological contractor should also provide the DCA with a written statement on how the project is to be published. *Where no further publication is envisaged then the short report will be published in an annual round-up on Developer Funded Archaeology in Derbyshire Archaeological Journal.*

9.0 Archive Deposition

9.1 Arrangements should be made from the outset of the project for the full and final archive to be deposited in Buxton Museum and Art Gallery in accordance with their deposition and archiving standards. Your contact will be:

Ros Westwood,
Buxton Museum and Art Gallery,
Terrace Road,
Buxton,
Derbyshire,
SK17 6DA

Tel: 01298 24658

9.2 At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> must be initiated and key fields completed on Details, Location and Creators forms. All parts of the OASIS online form must be completed for

submission to the SMR. This should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

9.3 Written confirmation of the archive transfer arrangements, including a date (confirmed or projected) for the transfer, must be included as part of the final report.

10.0 Publication

10.1 A summary of the project, with selected drawings, illustrations and photographs, should be submitted within 2 years of the completion of the project to Derbyshire Archaeological Journal for publication (see 8.5). The results of the work should be published at least in summary form in Derbyshire Archaeological Journal. A sheet of instructions for contributors is attached.

Guidance notes for contributors to the *Derbyshire Archaeological Journal* of interim and short reports on developer funded archaeology:

The aim is to publish annual compilations of short reports on developer funded archaeology in the county on a regular basis in the *Derbyshire Archaeological Journal*, in order to better inform the public of the results of the work being undertaken.

It is envisaged that the reports will take one of two forms;

- 1 Interim reports – short interim descriptions of an excavation or survey that will eventually be subjected to fuller publication.
- 2 Definitive reports – summaries of archaeological work which will not be pursued further. Note that even if the results were negative, if valid questions were posed then a brief explanation will be worthwhile.

MODEL – see ‘Some Fieldwork in Derbyshire by the Trent & Peak Archaeological Unit in 1998-9’ edited by Graeme Guilbert and Daryl Garton, *DAJ* vol. 121 (2001): 223-5. Number 18 is an example of an Interim report and numbers 19 to 20 are examples of definitive reports.

DETAILED NOTES

Set individual reports out in alphabetical order of site names.

NGR should follow site name, followed by names of those responsible for the report and/ or fieldwork.

Give due acknowledgement to sponsors of project within text.

Definitive reports should include whereabouts of the related written, drawn and photographic archive, as well as any artefacts.

Illustrations – include line drawings and/or photographs if appropriate.

References – include where appropriate at the end of each report.

FUNDING

The Derbyshire Archaeological Society will require an offer of grant-aid towards the printing costs of short reports submitted in order to guarantee publication. Costs will be determined from the printer's estimate. A contribution towards these costs of around 60% will be sought from the relevant contracting archaeological organisation. For further information contact Pauline Beswick (Hon. Editor), 4 Chapel Row, Froggatt, Calver, Hope Valley, S32 3ZA or tel. 01433 631256.

DEADLINE

Reports received by the end of July will be considered for inclusion in *DAJ* in the year following. If too late they will be saved for consideration for the succeeding year.

Reports to be submitted in hard copy and on disc to:

Andy Myers at Environmental Services Department, Derbyshire County Council, Shand House, Dale Road South, Matlock, Derbyshire DE4 3RY.