

Dale Abbey to Hopwell Greenway: Results of an archaeological watching brief



View of the woods from the new greenway, looking east

ARS Ltd Report 2012/11
March 2012

Oasis no: archaeol5-120759

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EXECUTIVE SUMMARY

Between January and March 2012 Archaeological Research Services Ltd were commissioned by Derbyshire County Council to undertake an archaeological watching brief on a new greenway being constructed between Dale Abbey, Derbyshire and Hopwell, Derbyshire. The monitoring was carried out during ground works for the greenway, which involved a topsoil strip and the reduction of any sharply elevated areas into a smooth road surface.

The excavation extended from the front gate of Hopwell Hall (SK43920 36102) around and through the woodland, then continued north across open fields to Potato Pit Lane (SK44494 37927). It consisted of an area approximately 2.5m in width and 3km in length.

No features of archaeological significance or buried land surfaces were revealed.

1. INTRODUCTION

1.1. Location and scope of work

1.1.1. Between January and March 2012 Archaeological Research Services Ltd (ARS Ltd) were commissioned by Derbyshire County Council (DCC) to undertake an archaeological watching brief between Dale Abbey and Hopwell (Fig. 1). The work was carried out during groundworks for the construction of a new greenway between Hopwell Hall and Potato Pit Lane.



Fig. 1: Site location

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1.1.2 The excavation ran between SK43920 36102 and SK44494 37927. The proposed route of the Greenway included part of the former Hopwell Park associated with Hopwell Hall. No known archaeological sites would have been impacted by the works, however the surrounding landscape has known archaeological sites particularly of Romano-British and medieval date, for example the Romano-British Settlement at Giant's Hill, Hopwell (DHER 23825) and the medieval hermitage at Dale Abbey (DHER 18715) (Derbyshire HER 2011). It was therefore determined that there was potential for previously unknown heritage assets to be present along the route of the Greenway.

1.2. Geology and preservation

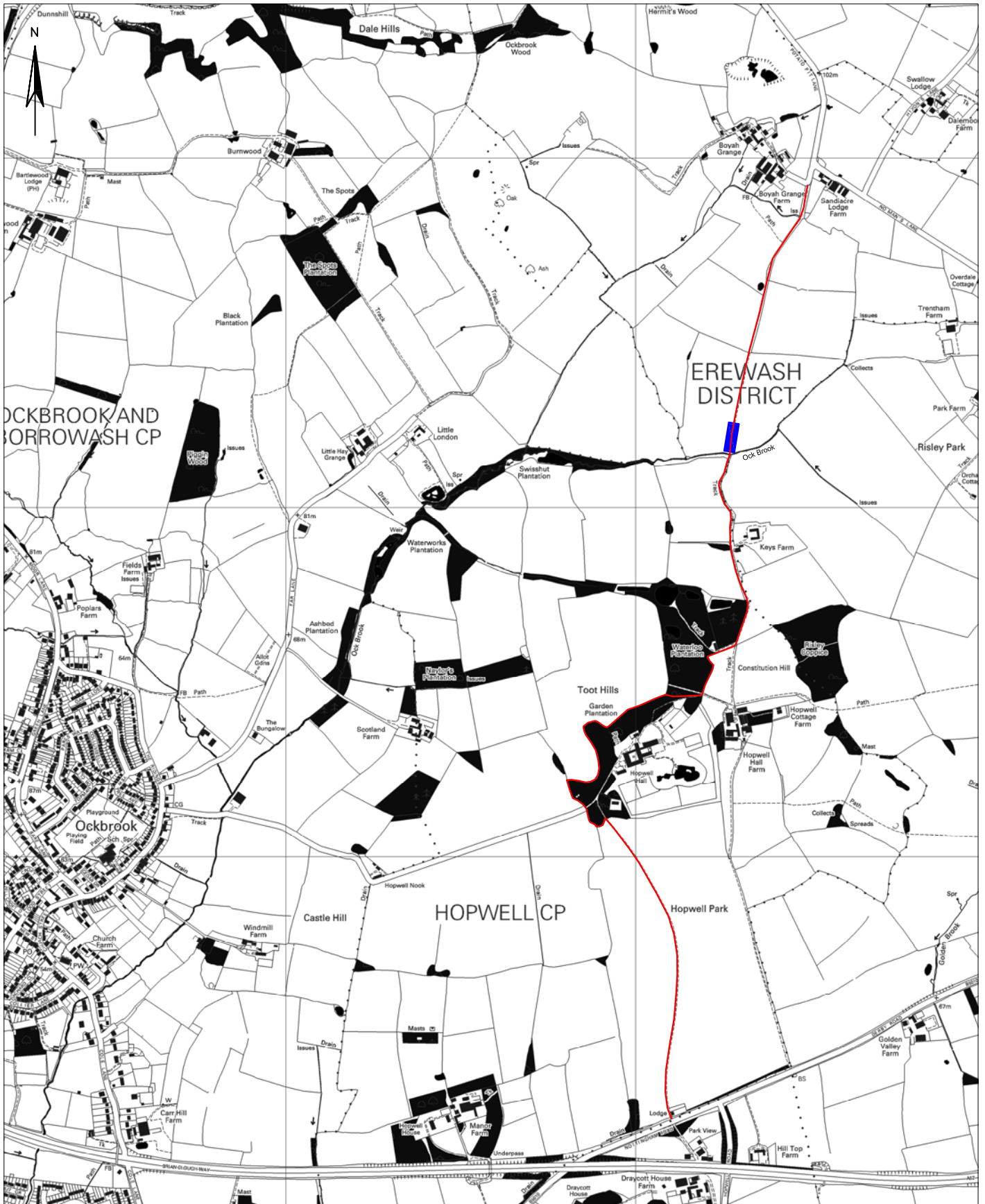
1.2.1 The solid geology of the site consisted of Mercia Mudstone group and the drift geology consisted of mid-Pleistocene Till (British Geological Survey 2012).

2. METHODOLOGY

2.1 The specification required that a watching brief should be carried out to observe any ground works taking place for the proposed development, in order to identify any potential archaeological remains. This involved monitoring the excavation of one trench, interrupted in places by existing roads.

2.2 The trench was excavated by machine, using a back-acting toothless ditching bucket under continuous archaeological supervision. The machine removed the topsoil (001) in level spits until the first potential archaeological horizon (002) was exposed. The surface was then cleaned using hand tools in order to expose any archaeological features.

2.3 A single context recording system was employed. Each layer encountered was given a unique context number and a full written description. Photographs were taken in black and white print and digital in order to record the ground work.



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Figure 2
 Site plan

Key:
 — Line of greenway
 ■ Area of trackway

Copyright/Licensing:
 This drawing
 © A.R.S. Ltd

Site Code: HOP '11
 Date: 14/03/2012
 Drawn: KM
 Scale: 1:15000 at A4

Notes:

Ordnance Survey data if applicable
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3. RESULTS

3.1 *Topsoil*

The topsoil (001) covered the whole of the site and varied between 0.05m and 0.3m in depth, with the shallowest deposit being situated within the woodland area. It consisted of a moderately fine dark orange-grey clayish silt based soil, with a low amount of inclusions of small stones and pebbles. The composition of the deposit differed slightly in relation to its location, for example, at the southern end of the site in the wooded area, the deposit was very organic and darker in colour with the inclusion of humic and organic materials, whereas at the northern end, in the fields, it was more clayey and paler in colour.

3.2 *Trackway*

At the northern end of the site, in the first field north of the brook, a disused trackway (003) was uncovered below the topsoil (fig. 3). This consisted of a compressed layer of crushed hardcore with occasional fragments of broken ceramic building material and slate. These fragments were contained within a matrix of medium brown clayey silt. The trackway extended from the eastern side of the trench for approximately 2 metres, although the exact width is unknown as it continues eastward under the remaining topsoil. The trackway does not appear to continue south of the Ock Brook although there was an area approximately 5m in length of lightly compacted, disorganised rubble immediately south of the brook. The trackway can be dated as coming from the modern period, as it has inclusions of modern brick and tile within the deposit.



Figure 3: Modern track way (003) visible directly below the topsoil (001), facing north.
Scale = 2m

3.3 *Subsoil*

Directly below the topsoil across the non-wooded areas of the site was a layer of subsoil (004). The depth of this layer is unknown, as it was not excavated to its fullest extent. It can be seen however, that it was not present in the area of the woods around Hopwell Hall. This is probably because the woodland area has never been ploughed, whereas the fields have been ploughed repeatedly. In the area near Key's Farm however, the subsoil appeared very shallow (approximately 0.1m) and the natural substratum was visible in patches. Also in this area was evidence that the area of excavation had been used as a trackway for a number of years, as two compressed ruts were visible after stripping.

The subsoil deposit consisted of a moderately fine mid orangey-brown silty clay, similar in composition to the natural substratum. Some small fragments of modern pottery were recovered from within the deposit.

3.4 *Natural Substratum*

Directly below the topsoil (001) in the wooded area the natural substratum could be seen. This consisted of a bright medium pinkish-orange silty clay with a low percentage of small stones included within it. The depth and spread of the deposit is unknown.



Figure 4: Stripped area through the woodland, with paler patches of natural clay showing through.

4. CONCLUSION

4.1 The wooded area around Hopwell Hall appears to have been relatively undisturbed by human activity as clean natural substratum was visible directly below the topsoil. The areas of excavation across the open fields north of Hopwell Hall show that the area has been repeatedly ploughed. The excavations did not extend deep enough to show any archaeological features that may have been present beneath the subsoil.

4.2 Evidence that the trackway had been used continuously as a thoroughfare was present around the area of the brook in the form of a surface composed of crushed hardcore north of the brook, and compressed wheel ruts south of the brook. This usage appears to be modern.

4.3 There was no evidence recovered from the excavations to suggest that the area was related to the nearby Romano-British and medieval sites previously mentioned. However it must be stated that deeper investigations may have produced finds or features of this nature and so the theory of medieval or earlier occupation on the site cannot be conclusively rejected.

4.4 There were no significant archaeological features, deposits, buried land surfaces or small finds located within the trenches.

5. PUBLICITY, CONFIDENTIALITY AND COPYRIGHT

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

6. ARCHIVING AND PUBLICATION

- 6.1. A digital and paper archive will be prepared and deposited with Derby Museum and Art Gallery by July 2012. This will consist of all primary written documents, plans, sections, photographs and electronic data associated with the project.
- 6.2. A summary of the project, with selected drawings, illustrations and photographs will be submitted within 2 years of the completion of the project to the Derbyshire Archaeological Journal for publication. The results of the work will be published at least in summary form in the Derbyshire Archaeological Journal.

7. STATEMENT OF INDEMNITY

- 7.1. 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.

8. ACKNOWLEDGEMENTS

- 8.1. Archaeological Research Services Ltd would like to thank all those involved in this project, in particular Ajit Mehta and Dave Barrett of Derbyshire County Council.

9. REFERENCES

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APPENDIX I: SPECIFICATION

Dale Abbey to Hopwell: Construction of a Multi-user Greenway

Written Scheme of Investigation for an Archaeological Watching Brief



Archaeological Research
Services Ltd

1 Introduction

1.1 Derbyshire County Council has applied for planning permission to construct a multi-user greenway between Hopwell (SK 4410035262) and Dale Abbey (SK4448937922) as part of the Midshires Way. The route will run for a total of 3.3km and the work will involve the repair of the existing track and the construction of new areas of pathway.

1.2 Given the historic importance of the area a condition has been placed on the planning permission by Dave Barrett, County Archaeologist for Derbyshire County Council, that a programme of archaeological monitoring (an active and continuous watching brief) be carried-out during the redevelopment.

1.3 The County Archaeologist has issued a specification for the programme of archaeological monitoring to be carried out during all groundworks likely to extend beneath modern surface and levelling deposits.

1.4 This Written Scheme of Investigation has been prepared for the County Archaeologist for Derbyshire County Council to answer that brief.

1.5 The objective of the watching brief is to ensure that any heritage assets encountered during the works in the specified area are recorded and understood.

2 Background

2.1 The proposed route of the Greenway runs through open countryside including part of the former Hopwell Park associated with Hopwell Hall. No known archaeological sites would be impacted by the works, however the surrounding landscape has known archaeological sites particularly of Romano-British and medieval date, for example the Romano-British Settlement at Giant's Hill, Hopwell (DHER 23825) and the medieval hermitage at Dale Abbey (DHER 18715) (www.heritagegateway.org.uk). It has therefore been determined that there is potential for previously unknown heritage assets to be present along the route of the Greenway.

3 Objectives

3.1 The objective of the watching brief is to ensure that any archaeological features encountered during the course of the groundworks are recorded and interpreted.

4 Fieldwork Methodology

4.1 All relevant groundworks will be undertaken by a suitable mechanical excavator

fitted with a toothless ditching bucket once any overlying concrete and stone has been removed (see Figure 1). Archaeological monitoring will be continuous unless otherwise agreed with the County Archaeologist, and will not entail excavation beyond the total areas exposed by the development works. Arrangement will be made to avoid any tracking of machinery across recently stripped areas until the areas have been checked and cleared by a representative of Archaeological Research Services Ltd (ARS Ltd). If significant archaeological features are identified the County Archaeologist of Derbyshire County Council will be notified and a decision taken as to the best method of proceeding.

4.2 Excavation will be carried out in spits. This will provide the maximum visibility of cut features such as postholes and pits and will allow for minimum disturbance of buried masonry structures. The attending archaeologist will supervise mechanical excavation to ensure maximum archaeological visibility.

4.3 ARS Ltd will provide a suitably qualified archaeologist at all times during any ground works on the site to undertake a watching brief. The on-site archaeologist will be given the opportunity to stop site work in order to investigate potential archaeological features and adequate time will be allowed for recording any such features.

4.4 A written, drawn and photographic record will be maintained during the watching brief plus all significant archaeological remains will be recorded and/or retrieved. All excavations will be recorded in accordance with normal principles of archaeological evaluation upon pro forma context sheets (this will include at a minimum trench record sheets, an accurate site plan and record photography where no archaeological features are present).

4.5 Where archaeological features and/or deposits are identified during the watching brief, then a sufficient quantity of the said features will be investigated by hand to allow their date, nature and degree of survival to be ascribed. All features thus investigated will be recorded in plan and section and significant archaeological finds recovered will be retained for analysis. Any archaeological features identified will be photographed and drawn in plan at a scale of 1:20 and in section at a scale of 1:10. The stratigraphy, where relevant and apparent, will be recorded. All significant archaeological features will be photographed (with scale) *in situ* and their location recorded on a plan of the site.

4.6 For brick structures, the record will include details of brick dimensions and type (handmade/machine-made, plain/frogged), mortar (colour, composition, hardness) and the extent of structures (number of courses, thickness in skins). Brick samples will be taken for structures likely to pre-date the mid 19th century.

4.7 Site photography will be in 35mm b/w print film, duplicated by high resolution (7 megapixel or greater) colour DSLR photography. Photography will include general site shots, shots of each trench, and shots of individual features and groups of features. All photographs will include a suitable photographic scale and will be recorded on a photographic register with the subject and direction of each shot.

4.8 Where features have the potential to contain palaeoenvironmental or datable remains, a sampling strategy will be adopted in order to extract necessary samples to answer key research questions about the deposits. Where deposits have the potential to contain palaeoenvironmental remains or datable material, the entire fill, or a

representative sample of larger deposits, will be floated. Flotation of all feature fills with organic content will be undertaken on site employing graduated brass sieves, with 300µ as the smallest fraction. Where deposits have the potential to contain industrial residues, these will be retained for specialist analysis. This strategy and approach will be refined dependent on on-site conditions. Samples will be assessed by a suitable specialist with provision for further analysis as required. If required on site, specialist advice on the collection of industrial residues will be sought.

4.9 A plan of the excavated areas will be maintained, features noted and section lines recorded. All drawings will be carried out at an appropriate scale and all contexts will be recorded using a single context recording system. The site archive will include plans and sections at an appropriate scale, a scale photographic record, and full stratigraphic records on recording forms/context sheets or their electronic equivalent. Should archaeological features be present then the locations and height AOD of the features will be accurately fixed, surveying in either the planning baselines or the features themselves.

4.10 The watching brief will be undertaken in accordance with the Institute for Archaeologists *Standards and Guidelines for Archaeological Watching Briefs* (2008).

4.11 Any human remains discovered will initially be left *in-situ* and, if removal is deemed necessary, this will be undertaken in accordance with the relevant Ministry of Justice regulations.

4.12 Archaeological Research Services Ltd will ensure that heavy plant or machinery will not be operated in the immediate vicinity of archaeological remains until the remains have been recorded. Contractors and plant operators will be notified that any observations of archaeological remains must be reported immediately to the archaeologist on site.

4.13 Risk assessment will be undertaken before commencement of the work and health and safety regulations will be adhered to at all times.

4.14 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.

4.15 The Project will be managed by Jim Brightman (MIfA) whose details have previously been supplied to DCC. As an IfA Registered Organisation, all ARS Ltd work is undertaken by suitably qualified staff to the standards stipulated in relevant IfA guidance (2000; 2008). It is intended that the fieldwork staff will be Kate Mapplethorpe, whose c.v. has previously been provided to DCC.

5 Artefact and Ecofact collection and Recording

5.1 Artefact collection policy will be concerned with the provision of adequate samples for meeting the objectives of the work. All finds of 18th century and earlier date will be collected as a matter of course. All retained finds and palaeo-environmental samples will be treated in accordance with the EH guidance document *A strategy for the care and investigation of finds* (1995) Discarded artefactual materials will be described and quantified through assignment to broad categories in the field. Retained finds will be cleaned, marked,

catalogued and packed in materials, as appropriate, for long term storage (see 8 Archive Deposition below).

5.2 Unstratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest. Finds of 'treasure' will be reported to the Coroner in accordance with the Treasure Act (1996).

5.3 Collection and policies for structural remains and industrial residues have been set out by the Society of Museum Archaeologists (SMA, 1993). The presence of such materials within a context will be recorded even where comprehensive retention is not considered appropriate.

5.4 The representative from Archaeological Research Services Ltd will inspect and monitor the upcast spoil from the site investigations, and unstratified pottery will be retained only if it is of 18th century date, or earlier.

5.5 If significant waterlogged deposits are found, which are judged to be of palaeoenvironmental significance in relation to archaeological deposits, then contingency will be set aside to allow for retrieval and assessment of such samples.

5.6 As an IfA Registered Organisation, ARS Ltd only use specialists who can provide the required level of expertise. The following specialists will be employed where required:

- Medieval and post-medieval pottery – Chris Cumberpatch
- Clay Pipe – Suzie White
- Prehistoric finds – Dr. Clive Waddington (ARS Ltd)
- Botanical Macrofossils – Angela Walker
- Human Bone – Kate Mapplethorpe (ARS Ltd)
- Animal Bone – Louisa Gidney
- Pollen – Dr. Charlotte O'Brien (ASDU)
- Glass – Dr. Hugh Willmott
- Industrial Metallurgist – Rod Mackenzie

6 Monitoring Arrangements

6.1 Reasonable prior notice of the commencement of the ground works will be given to the Derbyshire County Council County Archaeologist. The DCC contact will be:

Dave Barrett,
Derbyshire County Council,
Shand House,
Dale Road South,
Matlock,
Derbyshire DE4 3RY
Tel: 01629 539774

6.2 Archaeological Research Services Ltd. will liaise with the Derbyshire County Archaeologist at regular intervals throughout the course of the work.

7. Report

7.1 Following completion of the watching brief Archaeological Research Services Ltd will produce a report which will include,

- Non-technical summary
- Introductory statement
- Aims and purpose of the project
- Methodology
- A location plan showing all excavated areas and any archaeological features with respect to nearby fixed structures and roads
- Illustrations of all archaeological features with appropriately scaled hachured plans and sections.
- An objective summary statement of results
- Conclusions
- Supporting data – tabulated or in appendices
- Index to archive and details of archive location
- References
- Statement of intent regarding publication
- Confirmation of archive transfer arrangements
- A copy of the DCA brief
- A copy of the OASIS form

7.2 Copies of the final report will be deposited with the Derbyshire Historic Environment Record.

8. Archive Deposition

8.1 A digital, paper and artefactual archive will be prepared by Archaeological Research Services Ltd, consisting of all primary written documents, plans, sections, photographs and electronic data (in a format to be agreed by the repository museum which in this case is the Derbyshire City Museum and Art Gallery). The archive will be deposited within two months of the completion of the fieldwork. The accession number for this site is DBYMU 2011-105. The County Archaeologist and Museum Curator will be notified in writing on completion of the fieldwork with projected dates for the completion of the report and deposition of the archive. The date for deposition of the archive will be confirmed in the report and the County Archaeologist informed in writing on final deposition of the archive.

8.2 All artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive (see above).

8.3 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be supplied to the HER and deposited with the archive as digital images on a CD ROM along that will be attached with the report.

8.4 At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> will be initiated and key fields completed on

Details, Location and Creators forms. All parts of the OASIS online form will be completed for submission to the HER. This will include an uploaded .pdf version of the entire report (a paper copy will also be included within the archive).

9. Changes to Methodology or Work Programme

9.1 Changes to the approved methodology or programme of works will only be made with prior written approval of the County Archaeologist.

10. Publication

10.1 A summary of the project, with selected drawings, illustrations and photographs, will be submitted within 2 years of the completion of the project to Derbyshire Archaeological Journal for publication. The results of the work will be published at least in summary form in Derbyshire Archaeological Journal.

References

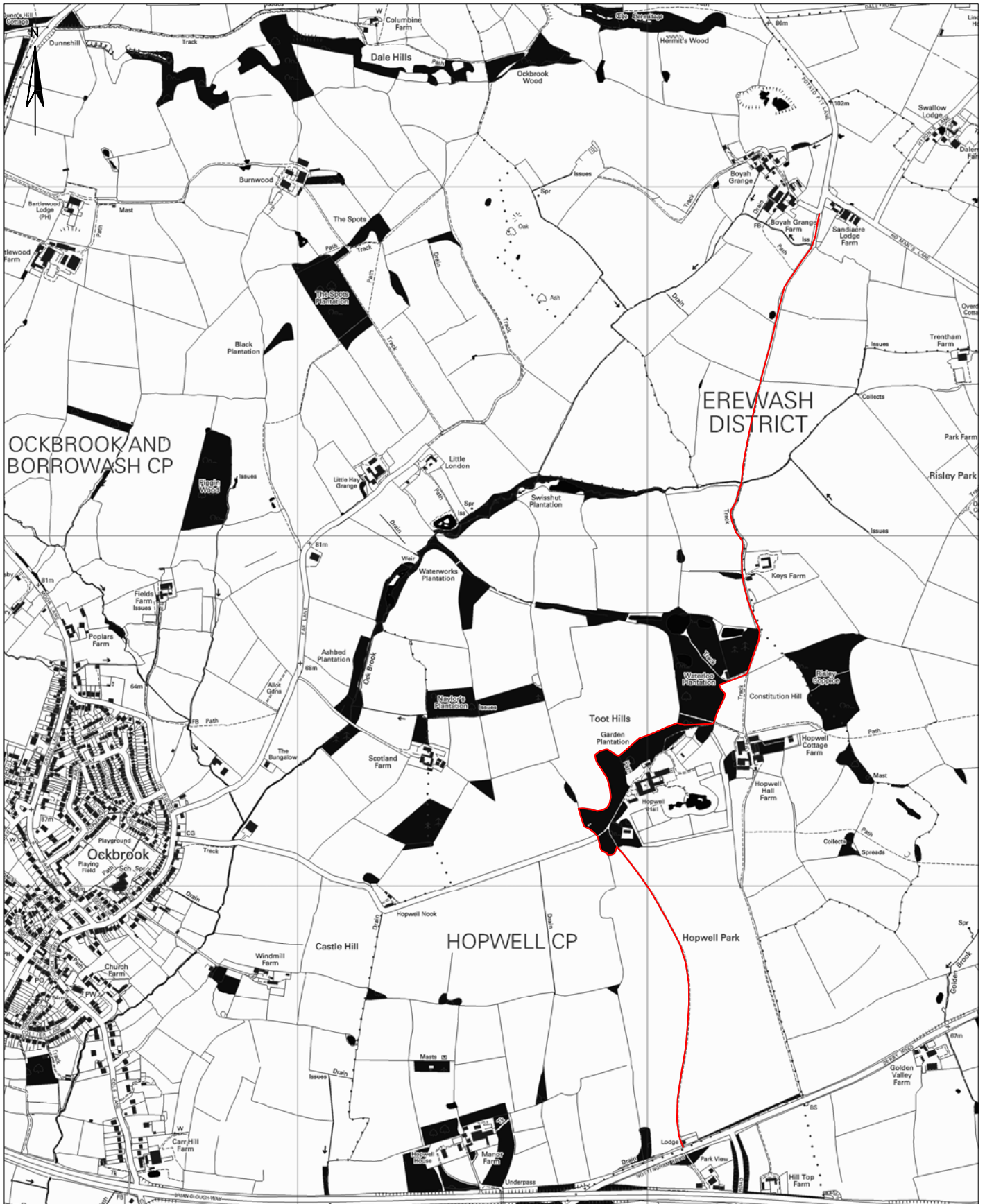
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Archaeological Research Services Ltd Angel House Portland Square Bakewell Derbyshire DE45 1HB	Figure 2	Key:  Line of greenway	Copyright/Licencing: This drawing © A.R.S. Ltd Ordnance Survey data if applicable © Crown Copyright, all rights reserved reproduced with permission. Licence No. 100045420
Site Code: DAH '11 Date: 08/11/2011 Drawn: KM Scale: 1:15000 at A4	Notes:		