

Archaeological Monitoring at Fradley Marina, Daisy Lane, Alrewas, Staffordshire



Topsoil strip, phase 1

ARS Ltd Report No. 2020/85

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Compiled By:

Sophie Boyadjieva
Stephanie Blues
and Robert Cole

Archaeological Research Services Ltd
Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB

Checked By:

Reuben Thorpe MCIFA, FSA

Tel: 01629 814540

Fax: 01629 814657

admin@archaeologicalresearchservices.com

www.archaeologicalresearchservices.com



Archaeological Research
Services Ltd

**Archaeological Monitoring at Fradley Marina,
Daisy Lane, Alrewas,
Staffordshire**

ARS Ltd Report 2020/85



July 2017, 2018 and June 2020

Archaeological Research Services Ltd

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Chronology (calendar years BC-AD)	Glacial Eras	British Archaeological Periods	Climatic Phases	Environment			
AD 1901	Holocene	modern	Sub-atlantic (climatic warming)	Open landscapes with forested areas. Mixed farming widespread			
AD 1837		Victorian					
AD 1714		Georgian					
AD 1485		post-medieval					
		medieval					
AD 1066		early medieval					
AD 410		Roman Britain					
AD 43		Iron Age					
0							
500 BC		Bronze Age				(abrupt climatic deterioration)	
700 BC 800 BC						(climatic warming)	
1800 BC		Beaker period			Sub-boreal (episodes of abrupt climatic deterioration, colder and wetter)	Deciduous woodland clearance for agriculture	
2400 BC		Neolithic (advent of farming)					Last of large North Sea islands submerged
3800 BC		Late Mesolithic				(climatic optimum)	Elm decline
4000 BC						Atlantic	Mixed deciduous forest (oak, elm, pine, alder, hazel and full range of trees) Increased amount of alder
4200 BC	Storegga Slide tsunami Britain becomes an island						
6175 BC			(Abrupt climatic deterioration, colder and drier)	Mixed forest (hazel, birch, pine, willow, heather)			
6400 BC	Boreal	Preboreal (very rapid decadal warming)	Temperate forest (birch, pine, willow)				
7000 BC	Early Mesolithic						
9700 BC	Pleistocene	Loch Lomond Stadial (known as Younger Dryas across NW Europe)	Late Upper Palaeolithic Ahrensburgian	Arctic	Tundra		
11500 BC		Windermere Interstadial or 'Late Glacial Interstadial'	Upper Palaeolithic Creswellian/ Magdalenian	Sub-arctic	Plains and woodland (dwarf birch, willow) Mammoths in Britain		
15000 BC		Devensian 'LGM' (Last Glacial Maximum)	Upper Palaeolithic	Arctic	Ice and tundra steppe		
18000 BC							

EXECUTIVE SUMMARY

Project Name: Archaeological Monitoring at Fradley Marina, Daisy Lane, Alrewas, Staffordshire

Site Code: DLF'18

Planning Authority: Lichfield District Council

Planning Ref: 15/00974/FULM

NGR: SK 15374 31409

Date of Fieldwork: July 2018/June 2020

Date of Report: November 2019/July 2020

Archaeological Research Services Ltd was commissioned by Fradley Marina Ltd. to undertake an archaeological watching brief at Daisy Lane, Alrewas, Staffordshire. A series of watching briefs took place, initially starting in 2017, with the latest and final watching brief in 2020.

This entailed the archaeological monitoring of the intrusive ground works involved in the construction of a series of ponds to serve as a 60 berth canal boat marina and boathouse adjacent to the Trent and Mersey Canal. The monitored ground works comprised the machine excavation of topsoil over a total area of 2.8ha. Excavation of the topsoil provided ground-truthing for the previous phase of works which comprised a geophysical survey of the site. No archaeological features were encountered during the project.

1 Introduction

1.1 Circumstances of the Project

1.1.1 Archaeological Research Services Ltd was commissioned by Fradley Marina Ltd. to undertake an archaeological watching brief during development at Daisy Lane, Alrewas, Staffordshire, NGR: SK 15374 31490. The watching brief comprised the second phase of archaeological works on the site, following on from a prior Geophysical Survey (ARS Report 2016/188).

1.1.2 The works were undertaken in fulfilment of an archaeological condition attached to planning consent (15/00974/FULM) for the construction of a 60 berth canal boat marina including mooring jetties, walkways, workshop/toilet block, service quay, facilities building, parking, landscaping and associated works.

1.1.3 The watching brief was undertaken in accordance with the Chartered Institute for Archaeologists Code of Conduct (2014) and Standards and Guidelines for Archaeological Watching Brief (2020).

1.1.4 The watching brief consisted of three phases, taking place in 2017, 2018 and 2020. The work has concentrated on three main areas (named area 1, area 2 and area 3 see figure 2). None of these areas revealed any archaeology.

1.2 Site Location

1.2.1 The proposed development area (hereafter 'PDA') comprises one roughly triangular field encompassing c.2.8ha and accessed via an unmetalled track from Daisy Lane. The PDA is bounded to the north by the Trent and Mersey Canal; in the north-east corner by the boundary of a private residential dwelling and on all other sides by agricultural land. The site is centred at NGR SK 15374 31490 (Figure 1). This generally flat field lies at approximately 57m aOD.

1.3 Landform, Geology and Soils

1.3.1 The underlying solid geology of the PDA consists of mudstone of the Mercia Mudstone Group a sedimentary bedrock formed approximately 200 to 251 million years ago in the Triassic Period. This bedrock is overlain by superficial river terrace deposits of sand and gravel which were formed up to 3 million years ago in the Quaternary Period when the local environment was previously dominated by rivers (BGS 2020).

2 Archaeological and Historical Background

2.1 The Scheduled remains of a Neolithic causewayed enclosure are recorded in the fields immediately to the south of the proposed scheme and crop mark evidence (recorded on the Staffordshire HER) to the east indicates the presence of further linear features and enclosures. While undated, it is likely that many of the nearby crop marks relate to later prehistoric activity as has been revealed elsewhere in the Trent Valley during modern mineral extraction operations (i.e. Whitemoor Haye Quarry, Barton Quarry, Tucklesholme Quarry). The Staffordshire Historic Environment Record also records the line of the Trent and Mersey Canal – , forming the northern site boundary, being an important post-medieval transport route and now designated as a Conservation Area.

2.2 A geophysical survey was undertaken of the PDA in December 2016 (ARS Report 2016/188). Only a small number of anomalies were recorded and these are most likely to be non-archaeological, although an archaeological origin could not be completely discounted. The results suggest the presence of natural (alluvial) or recent deposits of which the latter is less likely but could be associated with gravel extraction or the construction of the canal. An area of disturbance which was detected in the north-east corner could be associated with the former Fradley (plaster) Mill (or the demolition thereof). According to the 1st edition OS map this building was probably located at the very edge of the PDA.

2.3 Due the results of the survey and the scale of the proposed scheme the Staffordshire County Council Principal Archaeologist advised that a detailed archaeological watching brief be maintained across the site during the site strip phase of works.

3 Aims and Objectives

3.1 Regional Research Aims and Objectives

3.1.1 *The Archaeology of the West Midlands: A Framework for Research (Watt (ed.) 2011)* recognises that “the Early Bronze Age has attracted little attention in the region until recently” (Garwood 2011, 80) and that “the dating and local character of [Bronze Age and Iron Age landscape development] is still poorly understood due to limited evidence of sites and especially from environmental evidence” (Hurst 2011, 118). Research topics identified in the *NERRF* identify that “there needs to be a clearer understanding of whether later prehistoric sites can be identified by other means than aerial photography” (Hurst 2011, 118).

3.2 Watching Brief Objectives

3.2.1 The objectives of the watching brief were to gather sufficient evidence to establish, supplement, improve and make available information about any archaeological remains existing within the area of investigation, and to provide an appropriate post-excavation assessment, analysis, reporting, archiving and dissemination.

3.2.2 If survival of archaeological deposits or features is demonstrated the objectives would be to:

- ◆ Excavate and record the archaeological features and deposits encountered.

- ◆ Establish a relative chronological sequence and if possible a dating framework for excavated deposits and features.
- ◆ Establish the character, extent, form, function and likely status of surviving archaeological deposits to inform research aims outlined in section 3.1.

4 Method Statement

4.1 Coverage

4.1.1 The watching brief involved archaeological supervision of all ground works for the proposed development down to the level at which any archaeological remains were preserved or to the formation level of the development, and the investigation and recording of any archaeological remains and finds exposed.

4.2 General Statement of Practice

4.2.1 The watching brief was undertaken in accordance with the works specified in a Written Scheme of Investigation produced by Archaeological Research Services Ltd (ARS Ltd, 2017) which is reproduced in Appendix II at the rear of this report.

4.2.2 In all circumstances the ground works were undertaken in accordance with the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* (2014a) and the CIfA's *Standards and Guidance for Archaeological Watching Briefs* (2020).

4.2.3 All staff employed on the project were suitably qualified for their respective project roles and have substantial experience of archaeological excavation and recording. All staff were made aware of the circumstances and potential archaeological importance of the work and were fully briefed on the requirements of this specification.

4.2.4 All ground work covered under this specification was undertaken with a suitable mechanical excavator fitted with a toothless ditching bucket or by hand.

4.2.5 Contractors and plant operators were notified that any observations of archaeological remains had to be reported immediately to the archaeologist on site. Regular contact was maintained between ARS Ltd and the site project manager to ensure that ARS Ltd was kept up to date with site works and given the chance to respond appropriately and in line with the Staffordshire County Council Principal Archaeologist's requirements.

4.2.6 All site operations were carried out in a safe manner in accordance with ARS Ltd's health and safety policy. A risk assessment was prepared before commencement on site.

4.2.7 The on-site archaeologist was fully apprised of the archaeological potential of the site and was given, at his/her request, the opportunity to stop site work to investigate potential archaeological features. Adequate time was negotiated and allowed for recording any such features.

4.2.8 A full written record was compiled for all excavated features and deposits.

4.2.9 All features were tied into Ordnance Survey and all deposits were levelled and their spot heights calculated in metres above Ordnance Datum (aOD).

4.2.10 Site photography was undertaken using a Nikon W100 (13.2 megapixel resolution). Photographic images comprise general site working shots, area shots and images of the excavated foundation trench.

5 Results

5.1 Introduction

5.1.1 Three areas within the PDA were stripped (see figure 2), in none of which archaeology was observed. Area 2 contained a linear feature (aligned N-S) with very dark fill (figures 9 and 10). As it was interpreted as modern, it was not fully excavated, and its full depth is uncertain.

5.2 Results

5.2.1 The initial phase of intrusive groundworks was the excavation of the foundations for the boathouse (Figure 2). This comprised the machine removal of topsoil over an area measuring 60m x 32m to a depth of c. 0.2m below ground level, c. 55.6 aOD. In some places this exposed the natural geology but in the majority of the area the formation level fell within the topsoil. No archaeological features were encountered during the excavation but a large quantity of CBM was observed. A land drain with E-W alignment and dating to recent times was also observed.

5.2.2 The second phase (Area 2) similarly produced no archaeological evidence (Figure 2). It was stripped to a similar ground level, c. 55.4-55.6m aOD (c. 0.2m BGL). The overall stripped area measured approximately 77.6m x 36.7m. A linear feature, with N-S alignment and measuring 33.6m x 0.43m was observed. It was investigated and determined to be of modern character, and consequently not fully excavated. The relatively recent date of this feature was also suggested by its very dark grey clay fill. Similarly to area 1, land drains were also observed in area 2.

5.2.3 The third phase (Area 3) involved monitoring the excavation of the third pond area (Figure 2). Topsoil was removed over the area measuring c. 112m x 62m to a ground level of c. 55.14m-55.34m aOD (c. 0.39m BGL). The natural geology was reached in all areas of the PDA. No archaeological features were encountered during the excavation. As with areas 1 and 2, numerous modern land drains and tree boles (Figure 17) were observed across the extent of the area.

5.3 Conclusion

5.3.1 The three phases of the watching brief have revealed no archaeology. In areas 1 and 2 this could be due to level of machining, as the top of the natural was not reached in all areas. However, wherever the correct level was reached (including area 3), no archaeology was observed either, suggesting that the PDA has little archaeological potential.

6 Publicity, Confidentiality and Copyright

6.1 Any publicity will be handled by the client.

6.2 Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

7 Archive

7.1 A final digital, PDF/A copy of this report will be deposited with the Potteries Museum and Art Gallery.

7.2 An OASIS online record <http://ads.ahds.ac.uk/project/oasis/> has been initiated and completed for this work and all parts of the OASIS online form completed for submission to the HER (Appendix III). This includes an uploaded pdf version of the entire report.

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.

8.2 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 this work, in particular Fradley Marina Ltd, who commissioned the work. The watching briefs were undertaken on behalf of ARS Ltd by Robert Cole, Sophie Boyadjieva and Stephanie Blues. The project was managed for ARS Ltd by Tony Brennan and Reuben Thorpe.

10 References

- British Geological Survey 2020. Geology of Britain viewer. Available online at: <http://mapapps.bgs.ac.uk/geologyofbritain/home/html>[Accessed 12th June 2020].
- Chartered Institute for Archaeologists (CIfA) 2014. *Code of Conduct*. Reading, Chartered Institute for Archaeologists.
- Chartered Institute for Archaeologists (CIfA) 2020. *Standards and Guidance for Archaeological Watching Briefs*. Reading, Chartered Institute for Archaeologists.
- Garwood, P. 2011. 'The earlier prehistory of the west midlands.' In: Watt, S. (ed.). *The Archaeology of the West Midlands. A Framework for Research*. Oxford, Oxbow Books, 9-99.
- Hurst, D. 2011. 'Middle Bronze Age to Iron Age: a research assessment overview and agenda.' In: Watt, S. (ed.). *The Archaeology of the West Midlands. A Framework for Research*. Oxford, Oxbow Books, 101-26
- Watt, S. (ed). 2011. *The Archaeology of the West Midlands: A Framework for Research*. Oxford, Oxbow Books.

Appendix I: Figures

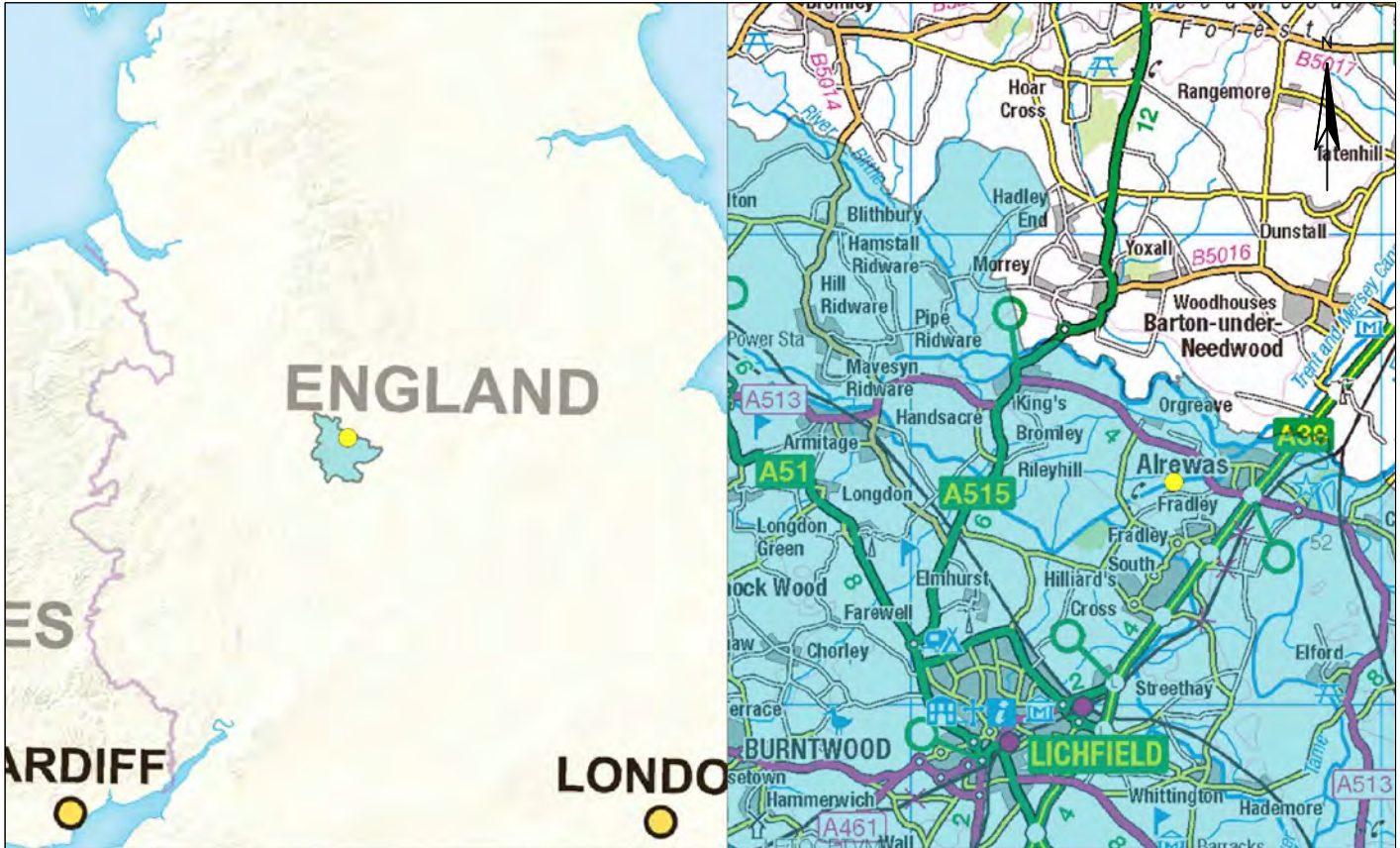




Figure 1
Site Location

Key:
 Site Location
 PDA






Copyright/Licencing:
 This drawing
 © A.R.S. Ltd
 Ordnance Survey ©
 Crown Copyright
 2014. All rights
 reserved. Licence No.
 100022432.

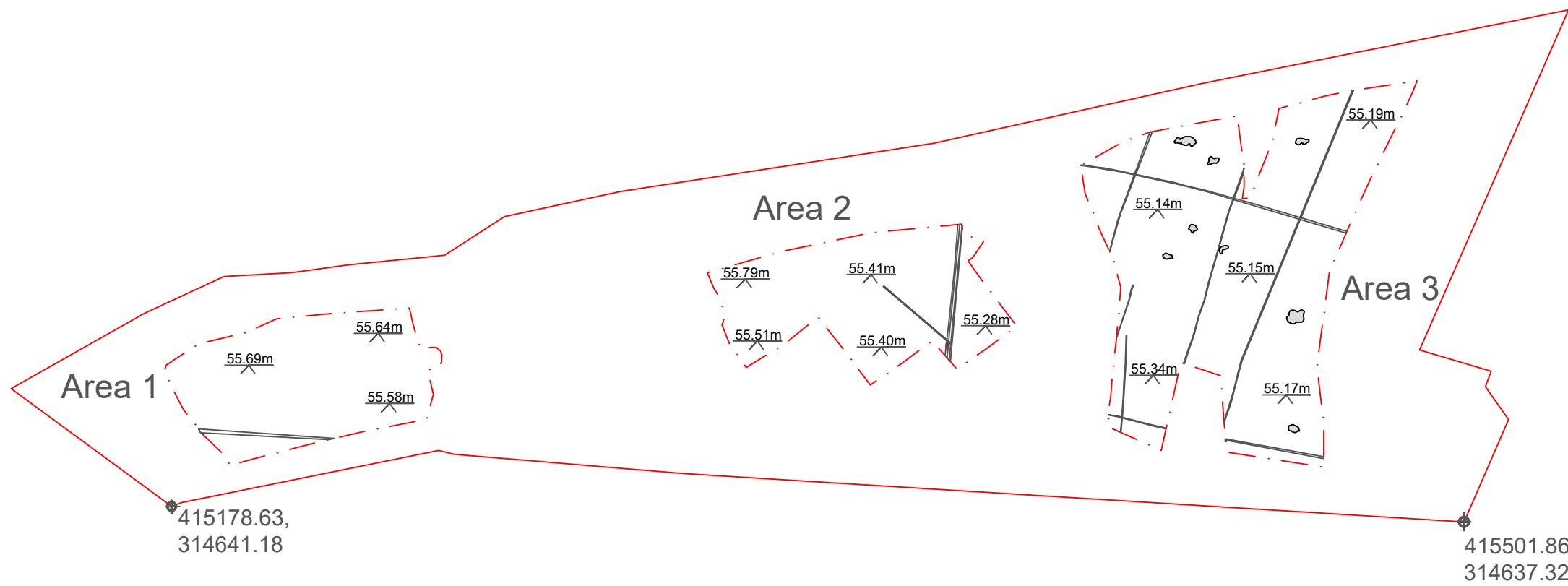
Archaeological Research Services Ltd
 Angel House
 Portland Square
 Bakewell
 Derbyshire
 DE45 1HB
 Site Code: Daisy Lane
 Date: December 2016
 Drawn:RD
 Scale: As shown

Site Name: Fradley Marina, Daisy Lane
Date: 05/06/2020
Drawn by: SB, RC, SAB
Scale: As Shown

Figure 2: Map showing areas of investigation

Key:

-  Land Drain
-  Site Boundary
-  LOE/ Intervention
-  Tree Bole
-  Above Ordnance Datum (aOD)



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Archaeological Research Services Ltd

Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB

Tel: 01629 814540

www.archaeologicalresearchservices.com





Figure 3. Working shot area 1



Figure 4. Stripped area, working shot area 1



Figure 5. Area shot, view to west



Figure 6. Area shot, view to east



Figure 7. Area shot, view to east



Figure 8. Modern linear feature/ drain in area 2. View to north



Figure 9. Exploratory slot through modern feature



Figure 10. Stripped area 2, view to west.



Figure 11. Stripped area 2, view to west



Figure 12. Area 3 Working shot, view to southwest



Figure 13. Area 3, view to southwest



Figure 14. Area 3, view to northeast



Figure 15. Area 3 working shot, view to northeast

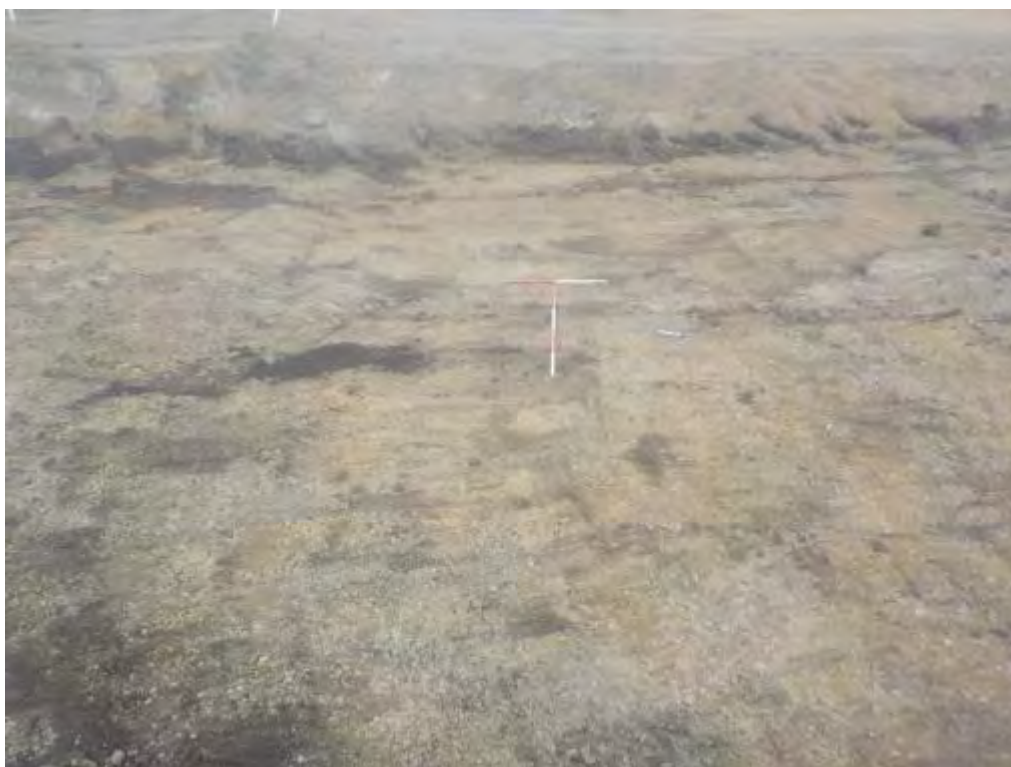


Figure 16. Area 3, view to west



Figure 17. Area 3, example of tree bole encountered



Figure 18. Area 3, view to west

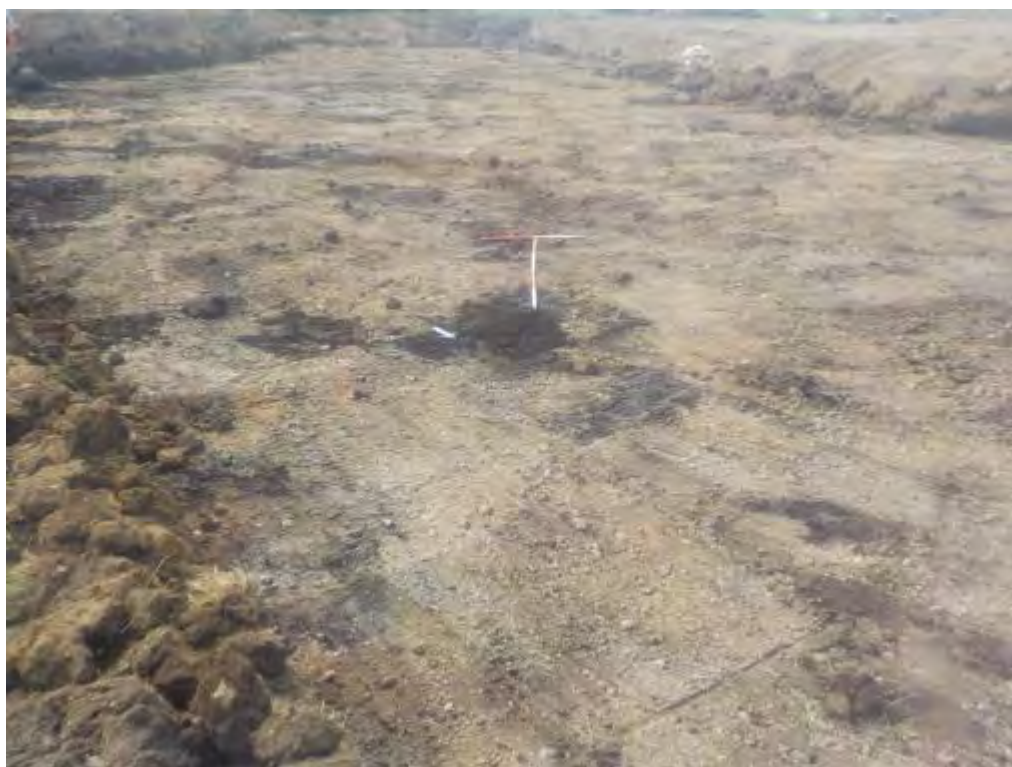


Figure 19. Area 3, view to southwest



Figure 20. Area 3, view to southeast



Figure 21. Area 3, view to northeast

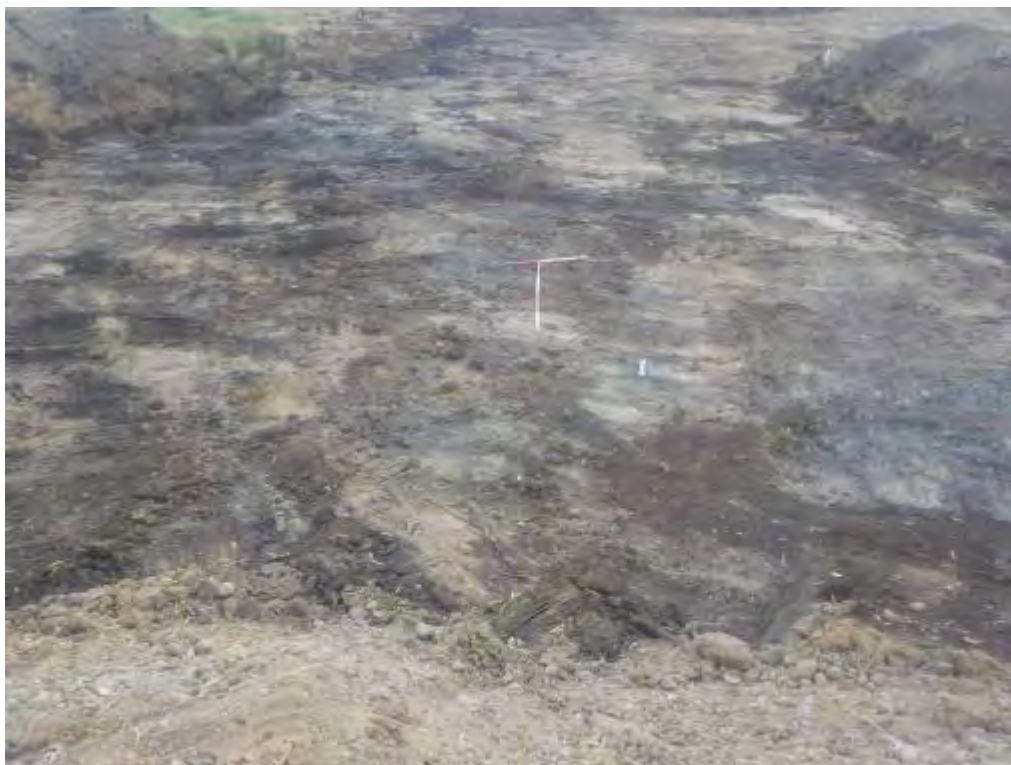


Figure 22. Area 3, View to south



Figure 23. Area 3, view to southwest

Appendix II: Written Scheme of Investigation

Daisy Lane, Alrewas, Staffordshire

Written Scheme of Investigation for Archaeological Works

2017



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Angel House, Portland Square, Bakewell, Derbyshire, DE45 1HB

www.archaeologicalresearchservices.com

Prepared on behalf of: Fradley Marina Ltd

Date of compilation: April 2017

Planning reference: 15/00974/FULM

Local Authority: Lichfield District Council

Site central NGR: SK 15374 31490

1 INTRODUCTION

1.1 Project Background

1.1.1 This Written Scheme of Investigation (WSI) has been prepared by Archaeological Research Services Ltd (ARS Ltd) for Fradley Marina Ltd. It details a scheme of works for an archaeological strip, map and record/watching brief on land between Daisy Lane and the Trent and Mersey Canal, Daisy Lane, Alrewas, Burton Upon Trent, Staffordshire. The proposed development comprises the construction of a 60 berth canal boat marina including mooring jetties, walkways, workshop/toilet block, service quay, facilities building, parking, landscaping and associated works.

1.1.2 Planning permission has been granted by Lichfield District Council (Application Reference No: 15/00974/FULM) for the proposed redevelopment. Condition number 5 of the planning permission requires that:

‘5 Before the development hereby approved is commenced, the applicant, or their agents or successors in title, shall secure the implementation of a programme of archaeological work, in accordance with a written scheme of investigation, which has been first submitted to and approved in writing by the Local Planning Authority. The programme of works shall thereafter be implemented in accordance with the approved scheme.’

1.1.3 This WSI confirms the nature of the archaeological works to be undertaken by ARS Ltd at Daisy Lane, Alrewas, comprising strip, map and record exercise and watching brief during ground works for the site redevelopment in accordance with guidance from Stephen Dean, the Staffordshire County Council Principal Archaeologist (see section 2.2.3 below).

1.1.4 The aim of the programme of works is, in line with the National Planning Policy Framework (NPPF) paragraph 141 (DCLG 2012), to record and enhance understanding of the significance of any heritage assets to be lost during the proposed development in a manner proportionate to their importance, and to make this evidence (and any archived generated) publically accessible.

1.2 Site Description and Location

1.2.1 The proposed development area (hereafter ‘PDA’) comprises one roughly triangular field encompassing an area of c.2.8ha and is accessed via an unmetalled track from Daisy Lane. The PDA is bounded to the north by the Trent and Mersey Canal; in the north-east corner by the boundary of a private residential dwelling and on all other sides by agricultural land. The site is centred at NGR SK 15374 31490 (Figure 1). The generally flat field lies at approximately 57m aOD.

1.3 Landform and Geology

1.3.1 The underlying solid geology of the PDA consists of Mudstone of the Mercia Mudstone Group a Sedimentary Bedrock formed approximately 200 to 251 million years ago in the Triassic Period. This bedrock is overlain by superficial river terrace deposits of Sand and Gravel which were formed up to 3 million years ago in the



Quaternary Period when the local environment was previously dominated by rivers. (BGS 2017).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.2.1 The Scheduled remains of a Neolithic causewayed enclosure are recorded in the fields immediately to the south of the proposed scheme and crop mark evidence (recorded on the Staffordshire Historic Environment Record) to the east identify the presence of further linear features and enclosures. While undated, it is likely that many of the nearby crop marks relate to later prehistoric activity as has been evidenced elsewhere in the Trent Valley during mineral extraction operations (i.e. Whitemoor Hays Quarry, Barton Quarry, Tucklesholme Quarry). The Staffordshire Historic Environment Record also records the line of the Trent and Mersey Canal – an important post-medieval transport route and now designated as a Conservation Area.

2.2.2 A geophysical survey was undertaken of the PDA in December 2016. Only a small number of anomalies were recorded and these are most likely to be non-archaeological, although an archaeological origin cannot be completely discounted. The results suggest the presence of natural (alluvial) or recent deposits of which the latter is less likely but could be associated with gravel extraction or the construction of the canal. An area of disturbance which was detected in the north-east corner could be associated with the former Fradley (plaster) Mill (or the demolition thereof); according to the 1st edition OS map this building was probably located at the very edge of the PDA.

2.2.3 Bearing in mind the results of the survey and the scale of the proposed scheme the Staffordshire County Council Principal Archaeologist has advised that a detailed archaeological watching brief be maintained across the site during the site strip phase of works.

3 AIMS AND OBJECTIVES

3.1 Regional Research Aims and Objectives

3.1.1

The Archaeology of the West Midlands: A Framework for Research (Watt (ed.) 2011) recognises that “the Early Bronze Age has attracted little attention in the region until recently” (Garwood 2011, 80) and that “the dating and local character of [Bronze Age and Iron Age landscape development] is still poorly understood due to limited evidence of sites and especially from environmental evidence” (Hurst 2011, 118). Research topics identified in the *NERRF* identify that “there needs to be a clearer understanding of whether later prehistoric sites can be identified by other means than aerial photography” (Hurst 2011, 118).

3.1.2 This research topic has assisted in informing the aims and objectives for the strip, map and sample excavation and watching brief outlined in section 3.2 below. It should be noted that other research objectives may come to the fore should any



archaeological features from other periods be identified as a result of the mitigation works outlined below.

3.2 Principal Aims and Objectives

3.2.1 The aims of the programme of work are to gather sufficient evidence to establish, supplement, improve and make available information about any archaeological remains existing within the area of investigation, and to provide an appropriate post-excavation assessment, analysis, reporting, archiving and dissemination.

3.2.2 The objectives are as follows.

- To produce a photographic, drawn and descriptive record of any surviving below-ground archaeological remains.
- To produce dating and phasing for archaeological deposits recorded on the site.
- To establish the character and delimit the extent of archaeological deposits in order to define functional areas on the site, e.g. industrial and domestic.
- To produce information on the economy and local environment.

4 FIELDWORK METHODOLOGY

4.1 General Statement of Practice

4.1.1 All staff employed on the project will be suitably qualified for their respective project roles and have substantial experience of archaeological excavation and recording.

4.1.2 All staff will be made aware of the archaeological importance of the area surrounding the site and will be fully briefed on the work required by this specification.

4.1.3 All ground works covered under this specification will be undertaken by a suitable mechanical excavator fitted with a toothless ditching bucket working in plan.

4.1.4 ARS Ltd will ensure that plant or machinery will not be operated in the immediate vicinity of any archaeological remains until they have been recorded.

4.1.5 Contractors and plant operators will be notified that any observations of archaeological remains must be reported immediately to the archaeologist on site.

4.1.6 Regular contact will be ensured between ARS Ltd and the site project manager to ensure that ARS Ltd is kept up to date with site works and given the change to respond appropriately and in line with the Staffordshire County Council Principal Archaeologist's requirements.

4.1.7 All site operations will be carried out in a safe manner in accordance with ARS Ltd's health and safety policy. A risk assessment will be prepared before commencement on site.



4.2 Strip, Map and Record

4.2.1 All elements of the archaeological strip, map and record exercise will be carried out in accordance with ClfA's *Code of Conduct* (2014a) and *Standards and Guidance for Archaeological Excavation* (2014b).

4.2.2 The strip, map and record exercise will be carried out during the preliminary groundworks, notably topsoil stripping, associated with creating the ponds for the marina complex.

4.2.3 The topsoil will be removed mechanically by a suitable mechanical excavator fitted with a toothless ditching bucket, under continuous archaeological supervision. The topsoil or recent overburden will be removed down to the first significant archaeological horizon in successive level spits.

4.2.4 The areas will be appropriately cleaned using hand tools in order to expose the full nature and extent of archaeological features and deposits.

4.2.5 Once the area has been stripped, cleaned and mapped as outlined above, consultation will take place with the Staffordshire Cultural Heritage Consultant to agree the features that should be excavated.

4.2.6 All excavated spoil will be scanned visually to recover small finds. Finds so recovered will be recorded with their location of origin ascribed. Finds will be retained and recorded.

4.2.7 Isolated, discrete features such as pits not belonging to structures or industrial activities will be 50% sampled, although if they produce artefacts then provision is made for full excavation.

4.2.8 Limited representative samples of bricks from brick-built structures, and selective products of the brick working process will be retained for specialist analysis where appropriate.

4.3 Watching Brief

4.3.1 All elements of the archaeological watching brief will be carried out in accordance with ClfA's *Code of Conduct* (2014a) and *Standards and Guidance for Archaeological Watching Briefs* (2014c).

4.3.2 On completion of the strip, map and record exercise the watching brief will be carried out during any other associated groundworks, such as service runs, and will be undertaken by a suitable mechanical excavator fitted with a toothless ditching bucket.

4.3.3 All excavated spoil will be scanned visually to recover small finds. Finds so recovered will be recorded with their location of origin ascribed. Finds will be retained and recorded.

4.3.4 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.



4.3.5 If significant archaeological features are identified during these works, the Staffordshire County Council Principal Archaeologist will be notified and a decision made as how to proceed.

4.4 Sampling, Faunal Remains and Treasure

4.4.1 This section outlines sampling methodologies to be utilised in all excavation types.

4.4.2 For sealed and stratigraphically secure deposits that have the potential to provide environmental evidence relating to diet and economy, dating evidence or land use regime, a minimum of 40 litres of sample will be taken, or 100% of the sample if smaller. This material will be floated and passed through graduated sieves, the smallest being a 500 μ mesh.

4.4.3 In the case of waterlogged or anaerobic deposits, a minimum sample size of 20 litres will be taken,

4.4.4 Should a sequence of superimposed deposits of note be present column sampling may be considered.

4.4.5 In all instances, sampling strategies will be in accordance with guidelines issued by Historic England's *Environmental Archaeology: A Guide to the Theory and Practice Methods, from sampling and recovery to post-excavation* (Campbell *et al.* 2011) and will be targeted in order to explore the levels and types of preservation present.

4.4.6 Should other types of environmental deposits be encountered, appropriate specialist advice will be sought and appropriate sampling strategy devised. Samples will be assessed by a suitable specialist with provision for further analysis as required. Advice from the Historic England Scientific Advisor will be taken as appropriate.

4.4.7 Any human remains will initially be left *in-situ* and, if deemed necessary, removal will be undertaken following once a Coroners licence has been obtained in accordance with the relevant Ministry of Justice regulations and in discussion with the Staffordshire County Council Principal Archaeologist.

4.4.8 Finds of 'treasure' will be reported to the Coroner in accordance with the Treasure Act (DCMS 2008). The Portable Antiquities Liaison officer will also be notified.

HM Coroner
Ian Stewart Smith
Coroners Chambers
547 Hartshill Road
Stoke-on-Trent
Staffordshire
ST4 6HF
Tel: 01782 234783

Finds Liaison Officer
Teresa Gilmore
Birmingham Museum and Art Gallery
Chamberlain Square
Birmingham
West Midlands
B3 3DH
Tel: 01213 488225
e-mail: Teresa.Gilmore@birminghammuseums.org.uk



The Staffordshire County Council Principal Archaeologist will also be notified and, if necessary, a site meeting arranged to determine if further investigation in the vicinity of the find spot is required.

4.5 Recording

4.5.1 Site recording will follow standard conventions outlined in the *Site Recording Manual* of Museum of London Archaeology Services (MoLAS) (2002).

4.5.2 The site will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. The site will be recorded using a single context planning system in accordance with the ARS Ltd field recording manual.

4.5.3 A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pro-forma record sheets and text descriptions appropriate to the work. Accurate measured scale plans and section/elevations will be drawn where required at the appropriate scale and in accordance with best practice. In addition to relevant illustrations, provision for rectified photographic recording shall be made, if deemed necessary.

4.5.4 A plan of the excavated areas will be maintained, features notes 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.

4.5.5 Sample representative levels will be taken to record the maximum depth of excavation and/or natural should no archaeological features be uncovered.

4.5.6 The stratigraphy of the site will be recorded even where no archaeological deposits have been identified.

4.5.7 All heights above sea level will be recorded for all deposits and features in metres above Ordnance Datum (aOD).

4.5.8 A full photographic record will be compiled using a digital camera, a Fuji XP90 with a 16.4 MP resolution, and a register of all photographs will be kept. The photographic record will encompass all encountered archaeological entities. In addition, key relationships between entities, where these help demonstrate sequence or form, will also be photographed. A clearly visible, graduated metric scale will be included in all record shots. A supplementary record of working images will be taken to demonstrate how the site was investigated and what the prevailing conditions were like during excavation.

4.5.9 A stratigraphic matrix will be compiled for all trenches where superimposed archaeological deposits, features or structures are encountered.

5 FINDS PROCESSING AND STORAGE

5.1 All finds processing, conservation work and storage of finds will be carried out in accordance with the ClfA (2014d) *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* and the UKIC (1990) *Guidelines for the Preparation of Archives for Long-Term Storage*.



5.2 Artefact collection and discard policies will be appropriate for the defined purpose.

5.3 Bulk finds which are not discarded will be washed and, with the exception of animal bone, marked. Marking and labelling will be indelible and irremovable by abrasion. Bulk finds will be appropriately bagged, boxed and recorded. This process will be carried out no later than two months after the end of the excavation.

5.4 All small finds will be recorded as individual items and appropriately packaged (e.g. lithics in self-sealing plastic bags and ceramic in acid-free tissue paper).

5.5 Vulnerable objects will be specially packaged and textile, painted glass and coins stored in appropriate specialist systems. This process will be carried out within two days of the small find being excavated.

5.6 During and after the excavation all objects will be stored in appropriate materials and storage conditions to ensure minimal deterioration and loss of information (including controlled storage, correct packaging, and regular monitoring, immediate selection for conservation of vulnerable material). All storage will have appropriate security provision.

5.7 The deposition and disposal of artefacts will be agreed with the legal owner and The Potteries Museum & Art Gallery prior to the work taking place. All finds except treasure trove are the property of the landowner.

5.8 All retained artefacts and ecofacts will be cleaned and packaged in accordance with the requirements of The Potteries Museum & Art Gallery.

6 TIMETABLE AND STAFFING

6.1 The outline timetable for the works is as follows. This will be updated by email as the project progresses.

Proposed Commencement Date	Task
Early May 2017	Archaeological fieldwork
Mid May 2017	Archaeological report and archive

6.2 The Project Manager for the archaeological works will be Reuben Thorpe MCIfA, Projects Manager at ARS Ltd. The Fieldwork Project Officer will be Ben Dyson ACIfA, Projects Officer at ARS Ltd or Tristan Wilson, Assistant Projects Officer at ARS Ltd.

6.3 Specialist analyses will be carried out by appropriately qualified specialists as detailed subject to availability.

- Flint and prehistoric pottery: Dr Robin Holgate MCIfA
- Romano-British pottery: Ruth Leary or Ian Rowlandson



- | | |
|---|---|
| • Romano-British small finds: | Lindsay Allason-Jones MCIfA |
| • Samian Ware: | Dr Gwladys Monteil |
| • Medieval and post-medieval pottery: | Dr Chris Cumberpatch or
Dr Robin Holgate MCIfA |
| • Medieval and post-medieval glass, metalwork and clay pipes: | Mike Wood MCIfA |
| • Plant macrofossils, charcoals and pollen: | Luke Parker |
| • Human and animal bone: | Milena Grzybowska |
| • Radiocarbon dating: | Prof Gordon Cook (SUERC) |
| • Finds conservation: | Vicky Garlick (Durham University) |

7 REPORT

7.1 A report on the results obtained will be produced by ARS Ltd and submitted to the Staffordshire County Council Principal Archaeologist or personnel nominated by her within 8 weeks of the completion of the watching brief. The report will follow the guidance laid out in the relevant ClfA standards and will include the following as a minimum.

- Non-technical executive 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 WSI and OASIS form.



7.2 One bound copy of the final report with a digital copy of the report in PDF/A format on disc will be deposited with the Staffordshire Historic Environment Record (HER). A copy of the report will be uploaded as part of the OASIS record for online access via the Archaeological Data Service.

7.3 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).

8 ARCHIVE DEPOSITION

8.1 Should the project produce archaeologically significant finds, then the Staffordshire County Council Principal Archaeologist and The Potteries Museum & Art Gallery Curator will be notified at the earliest opportunity, and an accession number will be produced for the site.

8.2 A project archive will be prepared for deposition by ARS Ltd with the Potteries Museum & Art Gallery. The archive will comprise of the primary record and synthetic works arising from the project, including documents, plans, sections, photographs, and electronic data and an accompanying metadata statement. The digital archive will be prepared in line with current best practice outlined in *Archaeology Data Service/Digital Antiquity Guides to Good Practice* (ADS/Digital Antiquity 2011).

8.3 The archive will be deposited in line with *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (Brown 2007), ClfA's (2014e) *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*, and Society of Museum Archaeologists (1993) *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland*. In addition, The Potteries Museum & Art Gallery *Guidelines for the Preparation and Preservation of Archaeological Archives* (2015) will be adhered to. The archive will be deposited within two months of the completion of the report.

8.4 The Staffordshire County Council Principal Archaeologist and Museum Curator will be notified at the earliest opportunity should the site produce archaeologically significant, unusual, or unexpected finds.

8.5 The Staffordshire County Council Principal 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 SCC Principal Archaeologist informed in writing on final deposition of the archive.

8.6 All artefacts and associated material will be cleaned, recorded, properly stored and deposited in the archive.



8.7 A full set of annotated, illustrative pictures of the site, excavation, features, layers and selected artefacts will be deposited with the archive as digital images on a CD ROM.

9 MONITORING ARRANGEMENTS

9.1 At least one week prior notice of the commencement of each phase of groundworks to be given to the Staffordshire County Council Principal Archaeologist:

Stephen Dean
Staffordshire County Council Principal Archaeologist
Design Hub
No.1 Staffordshire Place
Stafford
ST16 2DH
Tel: 01785 277290

9.2 ARS Ltd will liaise with the Staffordshire County Council Principal Archaeologist at regular intervals throughout the course of the work.

9.3 The client will afford reasonable access to the Staffordshire County Council Principal Archaeologist, or his representative, for the purposes of monitoring the archaeological mitigation.

10 GENERAL ITEMS

10.1 Health and Safety

10.1.1 All work will be carried out in accordance with The Health and Safety at Work Act 1974. Specific health and safety policies exist for all our workplaces and all staff employed will be made aware of the policy and any relevant issues. The particular risks involved with this project will be assessed, recorded and relevant mitigation measures put in place as part of a full risk assessment, which will be compiled in advance of fieldwork and will be read and signed by all on-site operatives. ARS Ltd retains Peninsula as its expert health and safety consultants.

10.2 Insurance Cover

10.2.1 ARS Ltd has full insurance cover for employee liability public liability, professional indemnity and all-risks cover.

10.3 Community Engagement and Outreach

10.3.1 Any opportunities for engaging the local community in any archaeological findings should be sought, for example a guided site tour and/or dissemination of information via ARS Ltd's website and local media.

10.4 Changes to the Written Scheme of Investigation

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



10.5 Publication

10.5.1 If significant archaeological remains are recorded, ARS Ltd will submit a short summary report for inclusion in the next edition of the Journal of West Midlands Archaeology within 6 months of the completion of the fieldwork. Additional popular articles will also be produced for local and/or national magazines as appropriate. The final form of the publication is to be agreed with the planning archaeologist and the client dependent on the results of the fieldwork.

10.6 Publicity and Copyright

10.6.1 Any publicity will be handled by the client. ARS Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

11 REFERENCES

ADS/Digital Antiquity. 2011. *Archaeology Data Service/Digital Antiquity Guides to Good Practice*.

British Geological Survey 2017. Geology of Britain viewer. Available online at: <http://mapapps.bgs.ac.uk/geologyofbritain/home/html> [Accessed 20th April 2017].

Brown, D. 2007. *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*. Archaeological Archives Forum.

Campbell, G., Moffett, L. and Straker, V. 2011. *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from sampling and recovery to post-excavation (second edition)*. Portsmouth, Historic England.

Chartered Institute for Archaeologists (CIfA) 2014a. *Code of Conduct*. Reading, Institute for Archaeologists

Chartered Institute for Archaeologists (CIfA). 2014b. *Standard and Guidance for Archaeological Excavation*. Reading, Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists. 2014c. *Standard and Guidance for an Archaeological Watching Briefs*. Reading, Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists. 2014d. *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*. Reading, Chartered Institute for Archaeologists.

Chartered Institute for Archaeologists. 2014e. *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*. Reading, Chartered Institute for Archaeologists.

Department for Communities and Local Government (DCLG). 2012. *Planning Policy Statement 5: Planning for the Historic Environment*. London, The Stationery Office.



Department of Culture, Media and Sport (DCMS). 2008. *The Treasure Act 1996 Code of Practice (England and Wales)*. London, The Stationery Office.

Garwood, P. 2011. 'The earlier prehistory of the west midlands.' In: Watt, S. (ed.). *The Archaeology of the West Midlands. A Framework for Research*. Oxford, Oxbow Books, 9-99.

Hurst, D. 2011. 'Middle Bronze Age to Iron Age: a research assessment overview and agenda.' In: Watt, S. (ed.). *The Archaeology of the West Midlands. A Framework for Research*. Oxford, Oxbow Books, 101-26.

Museum of London Archaeological Services (MoLAS). 2002. *Site Manual*. London, Museum of London.

Society of Museum Archaeologists 1993. *Selection, Retention and Dispersal of Archaeological Collections. Guidelines for use in England, Wales and Northern Ireland*. London: Society of Museum Archaeologists.

The Potteries Museum. 2015. *Guidelines for the Preparation and Preservation of Archaeological Archives*.

United Kingdom Institute for Conservation. 1990. *Guidelines for the Preparation of Archives for Long-Term Storage*.

Watt, S. (ed). 2011. *The Archaeology of the West Midlands: A Framework for Research*. Oxford, Oxbow Books.



FIGURE



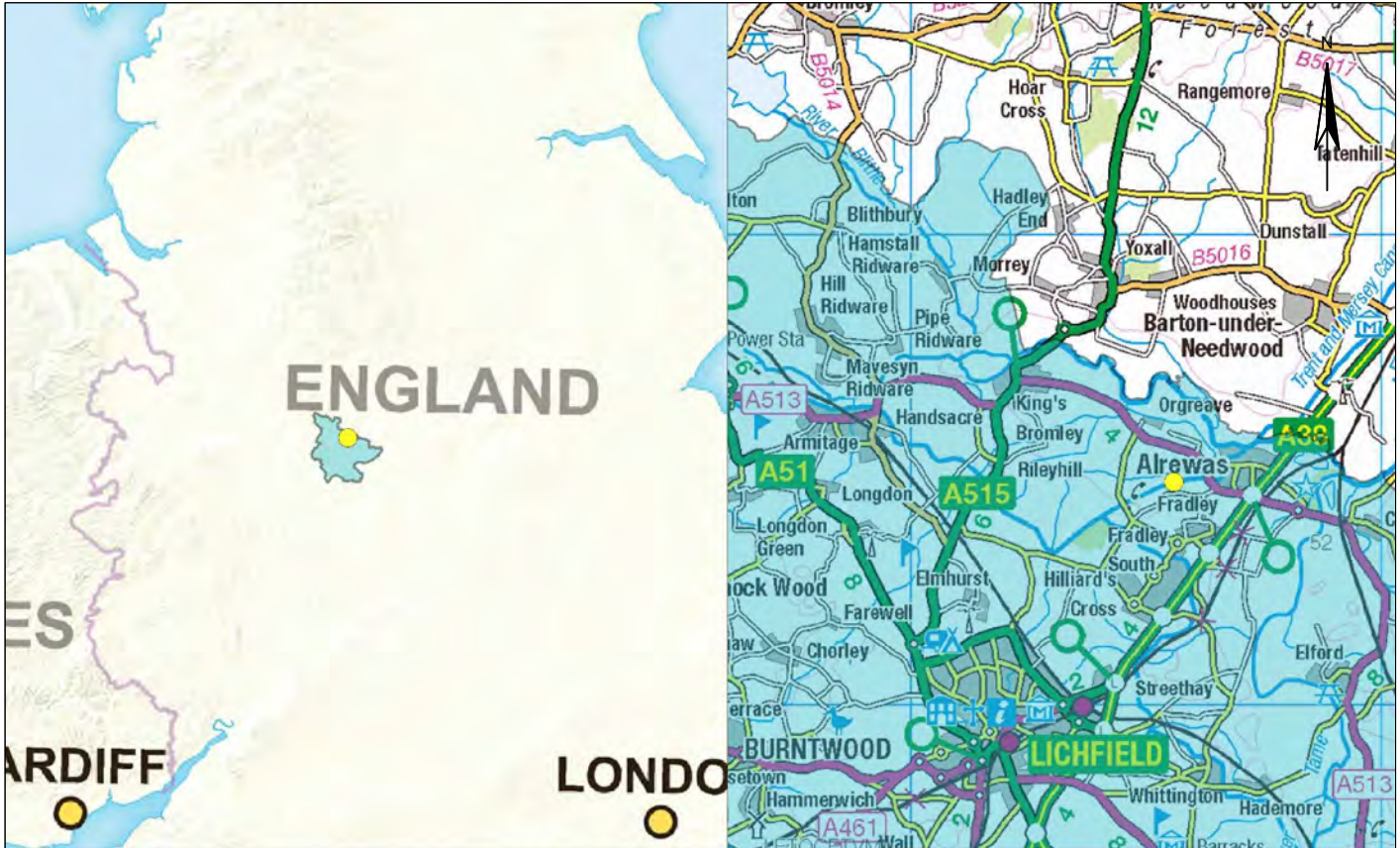


Figure 1
Site Location

Archaeological Research Services Ltd
Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB

Site Code: Daisy Lane
Date: December 2016
Drawn:RD
Scale: As shown

Key:

- Site Location
- ▭ PDA

Copyright/Licencing:

This drawing
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Appendix III: Oasis Form

OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

Printable version

OASIS ID: archaeol5-395726

Project details

Project name	Archaeological Monitoring at Fradley Marina, Daisy Lane, Alrewas, Staffordshire
Short description of the project	Results from Archaeological monitoring at Fradley Marina, Daisy Lane, Alrewas, Staffordshire. Works consisted of three phases of watching briefs undertaken in 2017, 2018 and 2020.
Project dates	Start: 02-06-2020 End: 05-06-2020
Previous/future work	Yes / No
Type of project	Recording project
Site status	None
Current Land use	Other 15 - Other
Monument type	N/A None
Significant Finds	N/A None
Investigation type	"Watching Brief"
Prompt	Planning condition

Project location

Country	England
Site location	STAFFORDSHIRE LICHFIELD ALREWAS AND FRADLEY Fradley Marina, Daisy Lane
Postcode	DE13 7EW
Study area	2.8 Hectares
Site coordinates	SK 15374 31409 52.879603745652 -1.771527514484 52 52 46 N 001 46 17 W Point

Project creators

Name of Organisation	Archaeological Research Services Ltd
Project brief originator	Archaeological Research Services Ltd
Project design originator	Archaeological Research Services Ltd
Project director/manager	Reuben Thorpe
Project supervisor	Stephanie Blues
Type of sponsor/funding body	Client

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Potteries Museum and Art Gallery
Digital Contents	"none"
Digital Media available	"Database","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	Potteries Museum and Art Gallery
Paper Contents	"none"
Paper Media available	"Context sheet","Map","Matrices","Photograph","Report","Survey "

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Monitoring at Fradley Marina, Daisy Lane, Alrewas, Staffordshire
Author(s)/Editor(s)	Blues, S
Date	2020
Issuer or publisher	Archaeological Research Services Ltd
Place of issue or publication	Angel House, Portland Square, Bakewell, Derbyshire, DE45 1HB
Entered by	Stephanie Blues (stephanie@archaeologicalresearchservices.com)
Entered on	4 June 2020

OASIS:

Please e-mail [Historic England](#) for OASIS help and advice

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