# MILL CROFT, ROYSTON ROAD, BARKWAY, NORTH HERTFORDSHIRE:

# ARCHAEOLOGICAL EVALUATION

# WRITTEN SCHEME OF INVESTIGATION

**LOCAL PLANNING AUTHORITY:**
**NORTH HERTFORDSHIRE DISTRICT COUNCIL**

**PLANNING APPLICATION NUMBERS:**
**N/A (PRE-PLANNING)**

**SITE CODE: HMCB18**

**FEBRUARY 2018**

PRE-CONSTRUCT ARCHAEOLOGY

**Written Scheme of Investigation for Archaeological Evaluation at Mill Croft, Royston Road, Barkway, North Herts.**

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|---|---|
| **Local Planning Authority:** | **North Hertfordshire District Council** |
| **Planning Reference:** | **N/A (pre-planning)** |
| **Central National Grid Reference:** | **TL 3828 3618** |
| **Site Code:** | **HMCB18** |
| **Written and researched by:** | **Tom Woolhouse**<br>**Pre-Construct Archaeology Ltd** |
| **Project Manager:** | **Tom Woolhouse** |
| **Commissioning Client:** | **Hanson Services Ltd** |
| **Contractor:** | **Pre-Construct Archaeology Ltd**<br>**Central Office**<br>**The Granary Rectory Farm**<br>**Brewery Road**<br>**Pampisford**<br>**Cambridgeshire**<br>**CB22 3EN** |
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**February 2018**

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# 1 INTRODUCTION

## 1.1 General Background

1.1.1 Pre-Construct Archaeology (PCA) has been commissioned by Hanson Services Ltd. to undertake a programme of archaeological evaluation on land at Mill Croft, Royston Road, Barkway, North Hertfordshire, SG8 8BU (NGR TL 3828 3618) (Fig. 1) in advance of residential redevelopment.

1.1.2 The proposed development comprises the demolition of the existing detached house and outbuildings, and construction of new houses with associated landscaping and services.

1.1.3 This document comprises a Written Scheme of Investigation (WSI) for the programme of archaeological evaluation. It has been prepared in response to archaeological advice issued by Hertfordshire County Council's Natural, Historic and Built Environment Advisory Team (HCC NHBEAT) (email from S. Wood, dated 30/01/18). Should significant archaeological remains be encountered in the trial trenches, there may be a requirement for further archaeological mitigation, for example, open area excavation, which would be the subject of a separate fee proposal and WSI.

## 1.2 Archaeological Background

1.2.1 The site is located on the north-western edge of the village of Barkway in North Hertfordshire. It comprises an existing residential plot occupied by a detached house, outbuildings and gardens, with an overall area of 2700m².

1.2.2 The proposed development lies just outside the eastern boundary of an Area of Archaeological Significance, as identified in the Local Plan. This covers an area of possible prehistoric activity, comprising a ring-ditch (Hertfordshire Historic Environment Record (HHER) no. 6154) and trackway (HHER 7792), identified through aerial photography.

1.2.3 Archaeological evaluations, comprising geophysical survey followed by trial trenching, have recently taken place in the fields directly north and east of the site (Bull 2016; Foundations Archaeology 2017). These investigations have found later Bronze Age/ Early Iron Age features, comprising pits,

postholes and ditches, the continuation E–W of the above trackway, and a 1st - to 2nd-century AD enclosure. There is therefore potential for prehistoric or Roman remains at the present site.

1.2.4 Barkway is recorded in Domesday Book (AD 1086) as '*Birchwig*' or 'Birch Way'. The core of the late Saxon and medieval village was probably some 5–600m to the south, close to the parish church of St Mary Magdalene and Manor Farm. The post-medieval and modern village is mainly linear in form and focused along the High Street/ Royston Road, 300m to the south-east of the site, where there are a number of 15th- and 16th-century buildings. The road is part of the old London to Cambridge coaching route.

1.2.5 North Hertfordshire is an area of 'ancient countryside' with a dispersed medieval settlement pattern and, as such, there are other focuses of medieval activity in the landscape around the village. Notably, there are remains of a possible motte-and-bailey castle 800m west of the site at Periwinkle Hill (HHER 855).

# 2 GEOLOGY AND TOPOGRAPHY

## 2.1 Geology

2.1.1 The area is underlain by bedrock of the Lewes Nodular Formation and Seaford Chalk Formations, chalk subgroups formed approximately 84 to 94 million years ago in the Cretaceous Period in an environment dominated by warm seas. The superficial deposits in the area comprise Lowestoft Formation chalky tills, sands and gravels, formed from approximately 2 million years ago (British Geological Survey 2018).

## 2.2 Topography

2.2.1 The site is at an elevation of approximately 144m OD, on the south-east-facing slope of a hillside which rises to a high point (150m OD) approximately 250m to the north-west. The land drops into the valley of the River Quin 600m to the south-east of the site. A stream, partly canalised in field boundary ditches, and one of several which rises from springs between Barkway and Reed, flows south-eastwards 300m south-west of the site.

# 3 AIMS AND OBJECTIVES

## 3.1 Broad Aims

3.1.1 The broad aims of the evaluation are to identify, excavate and record the location, extent, date, character and state of preservation of any archaeological remains on the site which are likely to be threatened by the proposed development, and to identify their significance in a local, regional and national context, as appropriate, with reference to the East Anglian regional research agendas:

-Research and Archaeology: A Framework for the Eastern Counties: 1. Resource Assessment (Glazebrook 1997)

-Research and Archaeology: A Framework for the Eastern Counties: 2. Research Agenda and Strategy (Brown and Glazebrook 2000)

-Regional Research Framework for the Eastern Region (Medlycott and Brown 2008)

-Research and Archaeology Revisited: A Revised Framework for the East of England (Medlycott 2011)

3.1.2 The evaluation will aim to provide sufficient information to enable the formulation of a suitable management/ investigation strategy for the site's heritage assets, in light of the current development proposals.

3.1.3 The evaluation will provide a predictive model of any archaeological remains likely to be present on the site and will characterise and include an appraisal of the remains' significance.

3.1.4 The evaluation's trial trenches will cover an adequate representative sample of the proposed development area in order to fully understand and characterise the archaeology on the site.

3.1.5 Should significant archaeological remains be encountered in the trial trenches, there may be a requirement for further stage(s) of archaeological

investigation or mitigation, to be agreed with Hertfordshire County Council Natural, Historic and Built Environment Advisory Team, in their role as archaeological advisors to the planning authority, North Hertfordshire District Council.

### 3.2 Specific Objectives

3.2.1 To identify any evidence of Bronze Age, Iron Age or Roman settlement, field systems, or burials, in this area of Barkway.

## 4 METHODOLOGY

4.1 All aspects of the investigation shall be conducted in accordance with the Chartered Institute for Archaeologists' Code of Conduct, the Standard and Guidance for Archaeological Excavation (CIfA 2014), and Standards for Field Archaeology in the East of England (EAA Occasional Paper 14, 2003).

### 4.2 Trial Trenches

4.2.1 The evaluation is to be carried out prior to demolition of the existing buildings on the site. The evaluation will comprise the excavation of three 20m long x 1.8m wide evaluation trenches and a single 10m long x 1.8m wide trench, positioned where the existing buildings allow (Fig. 2).

4.2.2 The trenches will provide an approximate 4.5% sample of the 2700m² site.

### 4.3 Excavation

4.3.1 Within each trench, the topsoil, subsoil and/ or recent man-made made ground deposits will be machine-stripped using a mechanical excavator with a toothless ditching bucket down to the first archaeological horizon or the geological horizon, whichever is encountered first. The machining will be under archaeological supervision and control. Upon encountering any archaeological features the procedure followed is detailed below.

4.3.2 Exposed archaeological features and deposits will be cleaned as necessary to define them using hand tools.

4.3.3 Metal-detecting will be carried out of any stripped deposits and all archaeological features and spoil heaps will be surveyed by metal-detector as they are encountered.

4.3.4 All subsequent excavation will be carried out manually using hand tools.

### 4.4 Recording and Sampling

4.4.1 Field excavation techniques and recording methods are detailed in the PCA Fieldwork Induction Manual (Operations Manual I) by Joanna Taylor and Gary Brown (2009).

4.4.2 All features will be investigated and recorded in order to properly understand the date and nature of the archaeological remains on the site and to recover sufficient finds assemblages to assess the chronological development and socio-economic character of the site over time.

4.4.3 Limits of excavation of all trenches, pre-excavation and post-excavation plans of archaeological features and heights above Ordnance Datum (m OD) will be recorded using a Leica 1200 Global Positioning System (GPS) rover unit with RTK differential correction, giving three-dimensional accuracy of 20mm or better.

4.4.4 Drawn records will be in the form of survey plans, drawn plans and section drawings of all archaeological features at an appropriate scale (1:10, 1:20, 1:50), while all individual deposits and cuts will be recorded as written records on PCA pro-forma context sheets.

4.4.5 Linear features will be investigated by means of slots excavated across their width and measuring at least 1m in length, positioned to avoid areas of intercutting/ disturbance in order to provide uncontaminated finds assemblages. If stratigraphic relationships between features are not clearly visible in plan, slots will also be positioned to determine inter-feature relationships.

4.4.6 Discrete features such as pits and postholes will be at least 50% excavated and, when considered appropriate, 100% excavated.

4.4.7 Significant features such as structural remains (e.g. eaves drip gullies, sunken-featured buildings and beam slots), industrial features (kilns, ovens, domestic hearths, metalworking furnaces) and burials (cremations and inhumations) will be left in-situ for further work.

4.4.8 High-resolution digital photographs will be taken at all stages of the evaluation. Digital photographs will be taken of all archaeological features and deposits and black and white film photographs will be taken when considered appropriate by the excavator and supervisor.

4.4.9 Artefacts and ecofacts will be collected by hand and retained, receiving appropriate care prior to removal from site (CIfA 2014; Walker 1990; Watkinson 1981).

4.4.10 Bulk samples, where possible 40 litres in volume, will be taken by the excavator, and in consultation with the project's environmental specialist where practicable, in order to recover micro- and macro-botanical environmental remains. The broad aim of such sampling is to recover evidence relating to the past environment and agricultural economy of the site, and how these changed over time under both natural and anthropogenic influence.

4.4.11 Buried soils and associated deposits will be inspected on site by the PCA project manager in consultation with the PCA geoarchaeologist, whose advice will be sought as to whether soil micromorphology or other analytical techniques will enhance understanding of depositional processes and transformations at the site.

4.4.12 Environmental sampling will make reference to the following guideline documents:

- English Heritage, 2011, Environmental Archaeology: A Guide to the Theory and Practice of Methods from Sampling and Recovery to Post-excavation (second edition).

- Association for Environmental Archaeology, 1995, Environmental archaeology and archaeological evaluations. Recommendations concerning the environmental archaeology component of archaeological evaluations in England. Working Papers of the Association for Environmental Archaeology 2, 8 ff. York: Association for Environmental Archaeology;

- Dobney, K., Hall, A., Kenward, H. and Milles, A., 1992, A working classification of sample types for environmental archaeology. Circaea 9.1 (1992 for 1991), pg. 24-26;

- Murphy, P.L. and Wiltshire, P.E.J., 1994, A guide to sampling archaeological deposits for environmental analysis.

### 4.5 Monitoring

4.5.1 PCA will notify HCC NHBEAT of the proposed start date at least one week in advance, allowing sufficient notice to arrange a monitoring meeting.

4.5.2 HCC NHBEAT and the client will be kept regularly informed about developments and any significant discoveries during both the site works and subsequent post-excavation phase.

### 4.6 Treasure

4.6.1 All finds defined as Treasure will be removed to a safe place and reported to the local coroner according to the procedures outlined in the Treasure Act 1996 (as amended by the Treasure Designation Order 2002 No. 2666). Where removal cannot be effected on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft. Any finds that could be considered treasure under the terms of the Act made during the process of fieldwork will be immediately reported to the Finds Liaison Officer, so that it is properly reported to the appropriate Coroner within 14 days of discovery in line with the Treasure Act.

### 4.7 Human Remains

4.7.1 If human remains are encountered, HCC NHBEAT and the client will be informed. No further excavation will take place until removal becomes necessary, and will only be carried out in accordance with all appropriate Environmental Health regulations and only after a Ministry of Justice license has been obtained. Excavation may be required where the remains are under imminent threat or dating/preservation information is required for costing purposes. Due to the wide range of variables, costs of excavation, removal and analysis of human remains are not included in any statement of costs accompanying or associated with this specification.

## 5 ACCESS AND SAFETY

5.1.1 Access to the site will be arranged by the client. The client will secure safe access to the site for archaeological personnel and provide suitable welfare provision. The client will also ensure that all deep excavations are adequately shored, conforming to current health and safety regulations and that the archaeological investigations are enabled through the provision and operation of adequate water extraction/ pumping equipment should this be required.

5.1.2 Any costs incurred to secure access, or incurred as a result of withholding of access, will not be PCA's responsibility. The costs of any delays as a result of withheld access will be passed on to the client in addition to the project costs already specified.

5.1.3 All relevant health and safety legislation, regulations and codes of practice will be respected. The Health and Safety policies will be those of Pre-Construct Archaeology Ltd. and in accordance with all statutory regulations. A Health & Safety Risk Assessment for the site will be produced and made available to all staff.

5.1.4 There is a duty of care for the client to provide all information reasonably obtainable on contamination, the locations of live services, and any environmental constraints (e.g. Tree Protection Orders, protected species, invasive plants) before site works commence.

# 6 TIMETABLE AND STAFFING

## 6.1 Timetable

6.1.1 The duration of the evaluation will be 1–3 days.

6.1.2 Working days are based on a 5-day working week, Monday to Friday. A standard PCA working day is 7.5hrs.

## 6.2 Staffing and Support

6.2.1 The project will be managed and led by Tom Woolhouse, Project Manager with PCA Central, who will ensure that all staff are familiarised with the site, the archaeological background of the area and the ground conditions to maximise the effectiveness of the evaluation and monitoring programme.

6.2.2 Key team members will include Tom Woolhouse, Project Manager for PCA Central, and a PCA Evaluation Supervisor. Additional Site Assistants will be drawn from a pool of qualified and experienced staff as required.

6.2.3 The following staff will form the project team:

1x Project Manager
1x Supervisor
1x Site Assistant, as required
1x Survey Supervisor
1x Finds Supervisor
1x Finds Assistant
1x Illustrator for post-excavation work

6.2.4 Specialists will be employed for consultation and analysis as necessary. Sarah Percival or Dr Adam Tinsley will be consulted on prehistoric ceramics, Katie Anderson on Roman ceramics and Berni Sudds on Anglo-Saxon and medieval ceramics. Small Finds will be examined by Ruth Beveridge. Faunal remains will be examined by Kevin Reilly and any human bone by Aileen Tierney. Conservation will be undertaken by Drakon Heritage and Conservation. Other specialists will be approached to carry out analysis as required from the list at Appendix 1.

## 7 REPORTING

7.1 The site will use the unique Site Code HMCB18. This reference will be used to identify the archive and will be clearly marked on any records and reports produced during the fieldwork and post-excavation analysis.

7.2 Post-excavation tasks and report writing will take approximately 4 weeks following the end of fieldwork. Specialists will be employed for consultation and analysis as necessary

7.3 A copy of the report, clearly marked DRAFT, will be sent to HCC NHBEAT and the client for comment and, following approval, a final digital copy of the report will be presented to HCC NHBEAT.

7.4 If substantial remains are recorded during the project, it may be necessary to undertake a full programme of analysis and publication in accordance with the guidelines contained in Historic England's Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide (Historic England 2015).

7.5 Further to its acceptance, PCA will supply one digital and one hard copy of the report for inclusion into the Hertfordshire Historic Environment Record (HHER). Contingency will be made for the publication of results. The minimum requirement will be for an appropriate note to be made available in local archaeological journal.

## 8 OWNERSHIP OF FINDS, STORAGE AND CURATION OF ARCHIVE

8.1 Prior to the start of the investigations, PCA will seek to transfer title of ownership of the complete project archive to the North Hertfordshire District Council Museum Service by issuing a "Deeds of Transfer Agreement" form.

8.2 During post-excavation analysis, all artefactual material recovered will be held in storage by PCA Central. Arrangements for the long-term storage and deposition of all artefacts will be agreed with the landowner and HHER before or during the reporting stage. Transfer of title and the transfer of the ownership of the archive to the North Hertfordshire District Council Museum Service will be arranged at this time, and the arrangements indicated in the evaluation report. The Project Manager will consult the Hertfordshire Archaeological Archive Standards (2017) and North Hertfordshire Museum Service Archaeological Archives Deposits Policy (2016) regarding the requirements for the deposition of the archive.

8.3 PCA will recommend that ownership of all such archaeological finds will be given over to the relevant authority to facilitate future study and ensure proper preservation of all artefacts. In the unlikely event that artefacts of significant monetary value are discovered, and if they are not subject to Treasure Act legislation, separate ownership arrangements may be negotiated.

8.4 The project archive will be compiled in accordance with the guidelines contained in Guidelines for the Preparation of Excavation Archives for Long Term Storage (UKIC 1990), and Standards in the Museum Care of Archaeological Collections (Museum and Galleries Commission 1992).

8.5 A copy of the report will accompany the archive when it is deposited with the North Hertfordshire District Council Museum Service at the North Hertfordshire Museum, Brand Street, Hitchin, SG5 1HX.

8.6 The Hertfordshire Historic Environment Record is registered with the Online Access to Index of Archaeological Investigations (OASIS) project. PCA will provide appropriate details relating to this project by completing the OASIS

form at http://ads.ahds.ac.uk/project/oasis, in accordance with the guidelines provided by Historic England and the Archaeology Data Service.

# 9 FURTHER CONSIDERATIONS

## 9.1 Insurance

9.1.1 Pre-Construct Archaeology Ltd is covered by Public and Employers Liability Insurance £10,000,000 (Aviva and AIG Europe Ltd. 24765101CHC/000133 & 25035008) and Professional Indemnity £5,000,000 (Hiscox Insurance Company Ltd. HU PI 9129989/1026).

## 10 BIBLIOGRAPHY

Brown, N. and Glazebrook, J. (eds.) 2000 Research and Archaeology: a Framework for the Eastern Counties, 2. Research Agenda and Strategy. East Anglian Archaeology Occasional Paper No. 8

Bull, K. 2016 Land Adjacent to Royston Road (R/O 5 & 6 Royston Road), Barkway, Hertfordshire. Archaeological Solutions report no. 5191 (unpublished)

Glazebrook, J. (ed.) 1997 Research and Archaeology: a Framework for the Eastern Counties, 1. Resource Assessment. East Anglian Archaeology Occasional Paper No. 3

Historic England 2015 Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide. Historic England

Medlycott, M. 2011. (ed.) Research and Archaeology Revisited: A revised framework for the East of England. East Anglian Archaeology Occasional Paper 24

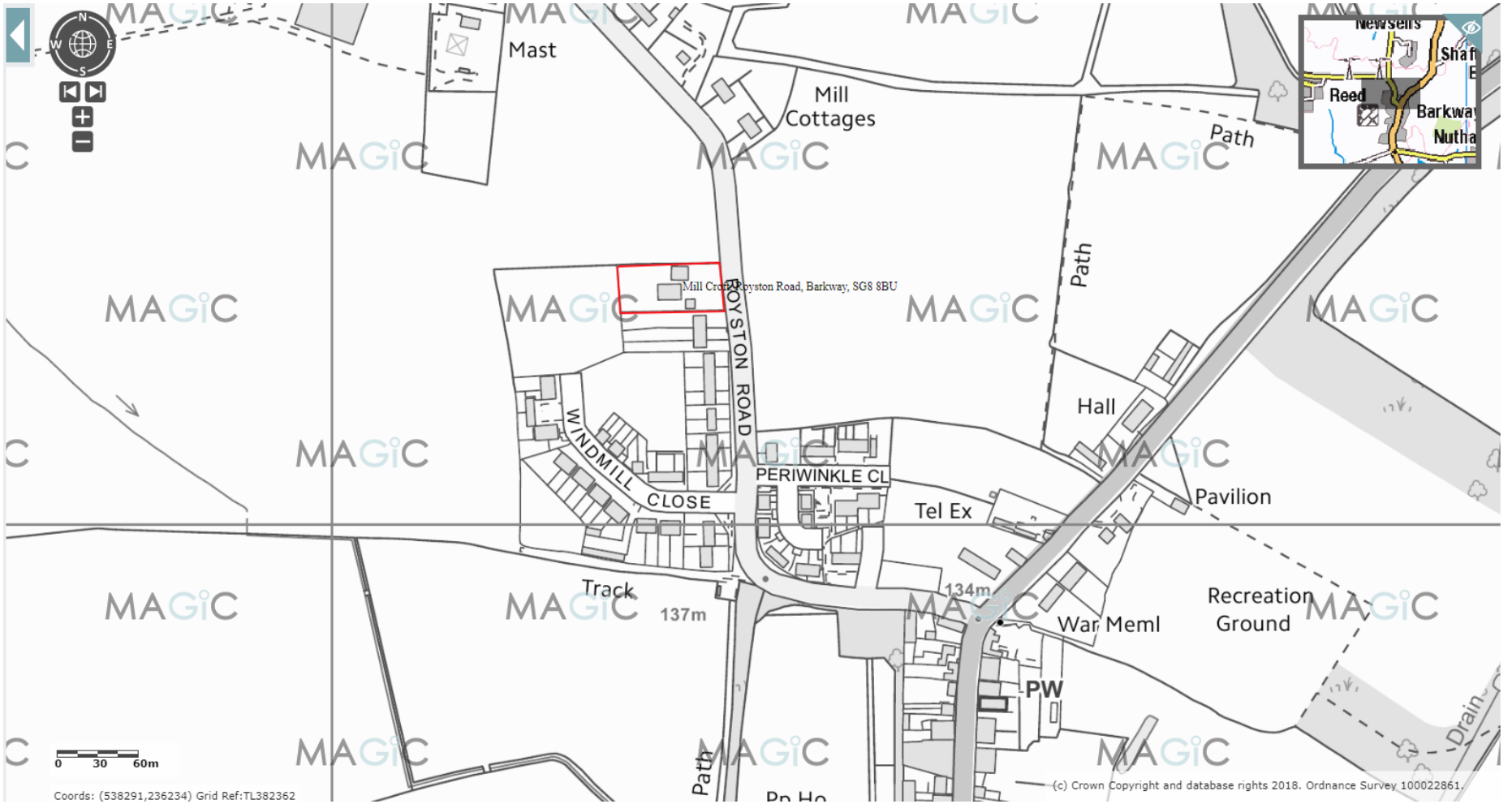



Figure 1: Site Location

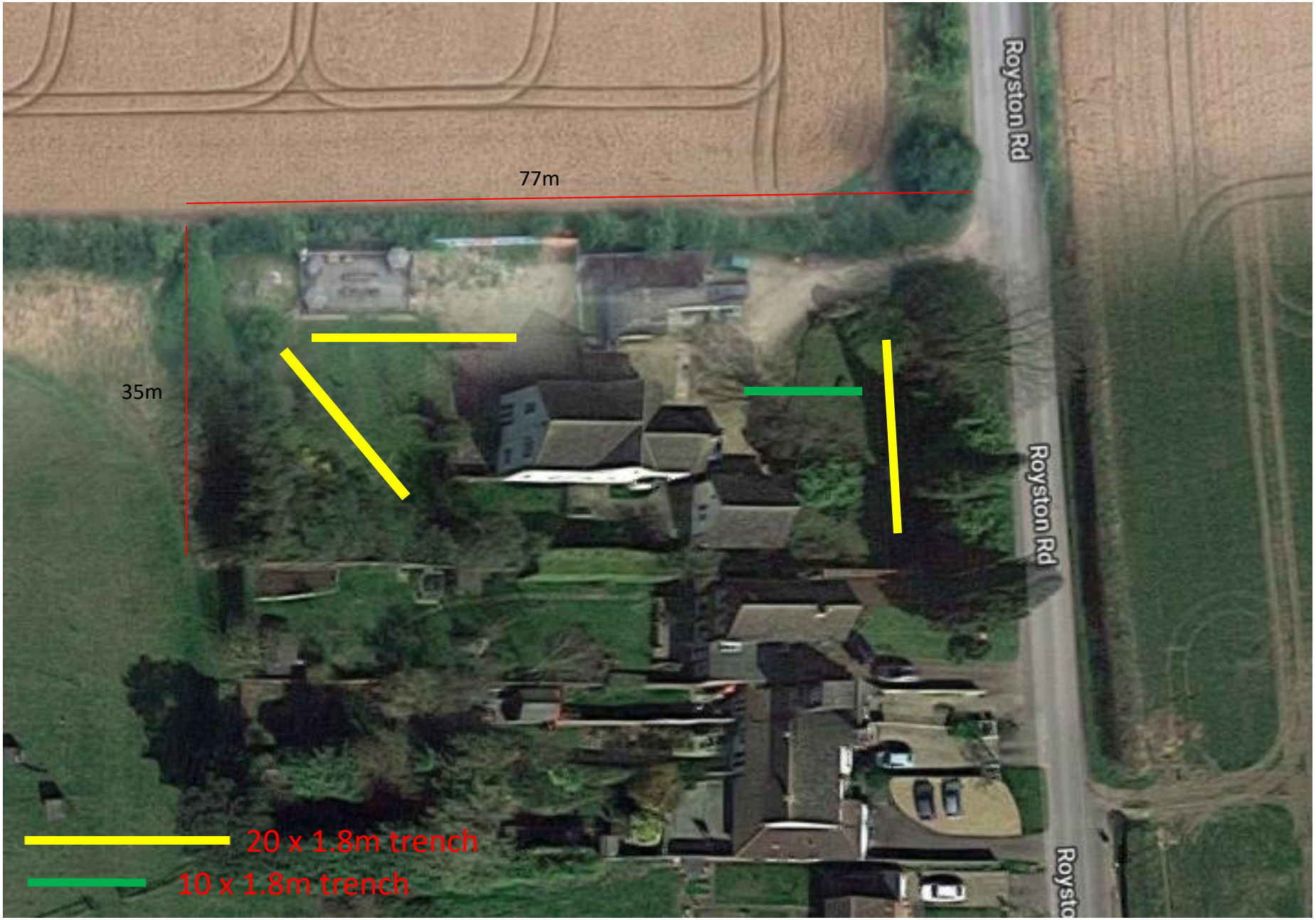



Figure 2: Proposed trial trench layout at Mill Croft, Barkway (not to scale)

## APPENDIX 1: FINDS, ENVIROMENTAL AND OTHER SPECIALIST SERVICES

**Prehistoric Pottery:** Matt Brudenell, Sarah Percival, Adam Tinsley, Louise Rayner, Jon Cotton, Mike Seager Thomas, Lawrence Morgan-Shelbourne

**Roman Pottery:** Katie Anderson, Enico Hudak, Jo Mills (samian), Gwladys Monteil (samian), Joanna Bird (decorated samian), Margaret Darling (north), Brenda Dickinson (samian stamps), Kay Hartley (mortaria), Kayt Marta Brown, David Williams (amphora)

**Post-Roman Pottery:** Chris Jarrett (in house), Berni Seddon (in house), Luke Barber (Sussex)

**Clay Tobacco Pipe:** Chris Jarrett (in house)

**CBM:** Berni Seddon (in house), Kevin Hayward (in house), Sue Pringle, Ian Betts

**Stone & Petrological Analysis**: Kevin Hayward (in house), Mark Samuel (moulded stone)

**Glass:** John Shepherd, Medieval and Post-medieval Glass, Hugh Wilmott, Medieval Window Glass, Jill Channer

**Coins:** James Gerrard (in house), Nina Crummy, Mike Hammerson

**Inscriptions & Graffiti:** Roger Tomlin

**Animal Bone:** Kevin Rielly (in house), Philip Armitage, Robin Bendrey

**Lithics (inc Palaeolithic):** Barry Bishop

**Osteology:** Aileen Tierney (in house)

**Timber:** Damian Goodburn, Nigel Nayling (Wales),

**Leather:** Quita Mould

**Small Finds:** Ruth Beveridge, Nina Crummy (prehistoric- post Roman) Marit Gaimster (post Roman) (in house), James Gerrard (Roman)(in house), Hilary Major (Roman), Ian Riddler (esp worked bone)

**Metal slag:** Lynne Keys, David Starley

**Textiles:** Penelope Walton Rogers

**Conservation:** Drakon Heritage and Conservation, Karen Barker, Stefanie White (Colchester Museums), Emma Hogarth (Colchester Museums)

**Dendrochronology:** Ian Tyers

**Archaeomagnetic dating:** Mark Noel

**Environmental:** Val Fryer, QUEST, University of Reading

**Documentary Research:** Guy Thompson (in house), Chris Phillpotts, Frederick

Hamond (NI), Gillian Draper, Jeremy Haslam, Roger Leech

**Industrial Archaeology:** David Cranstone

**Finds Illustration:** Cate Davies (in house), Helen Davies (in house), Mark Roughley (in house), Vicki Herring

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