HILLTOP, PUDDING LANE, BARLEY, NORTH HERTFORDSHIRE:

ARCHAEOLOGICAL STRIP, MAP AND SAMPLE EXCAVATION

WRITTEN SCHEME OF INVESTIGATION

LOCAL PLANNING AUTHORITY: NORTH HERTFORDSHIRE DISTRICT COUNCIL

PLANNING APPLICATION NUMBERS: 17/02530/1

SITE CODE: HHTB18

FEBRUARY 2018

PRE-CONSTRUCT ARCHAEOLOGY

Written Scheme of Investigation for Archaeological Strip, Map and Sample Excavation of Land to Rear of Hilltop, Pudding Lane, Barley, North Herts.

Local Planning Authority:	**North Hertfordshire District Council**
Planning Reference:	**17/02530/1**
Central National Grid Reference:	**TL 4003 3823**
Site Code:	**HHTB18**
Written and researched by:	**Tom Woolhouse** **Pre-Construct Archaeology Ltd**
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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 strip, map and sample excavation on land to the rear of Hilltop, Pudding Lane, Barley, North Hertfordshire, SG8 8JX (NGR TL 4003 3823) (Fig. 1) in advance of residential development.

1.1.2 The proposed development is for a single detached house and detached garage (North Hertfordshire District Council (NHDC) Planning Reference 17/02530/1). A planning condition requiring archaeological investigation has been placed on the site due to the high archaeological potential of the area.

1.1.3 This document comprises a Written Scheme of Investigation (WSI) for archaeological strip, map and sample excavation of the new building footprints and other areas of ground reduction. It has been prepared in response to the archaeological planning condition (NHDC Planning Ref. 17/02530/1 Condition 5) and verbal advice provided by Alison Tinniswood of Hertfordshire County Council's Natural, Historic and Built Environment Advisory Team (HCC NHBEAT).

1.2 Archaeological Background

1.2.1 The site is located in the village of Barley in North Hertfordshire, close to the county boundaries with Essex and Cambridgeshire, to the east and north, respectively. The site is in the southern part of the village, 140m south of Church End, the main village road. It is accessed off Pudding Lane, a hollow-way leading south from Church End towards an area of paddocks at Churchfields.

1.2.2 The site lies within Area of Archaeological Significance no. 67 in the North Hertfordshire District Council Local Plan. This covers the historic village of Barley and fields to its north and west (Hertfordshire Historic Environment Record (HHER) no. 2689).

1.2.3 Barley has a long history, having been recorded in Domesday Book as 'Berlei'. Other 11th-century documents refer to the estate as 'Berenlei' or 'Beoronleam', which have been interpreted as forms of the Old English 'byrgen' or 'burial place'. Approximately 200m north-east of the site is the early-12th-century church of St. Margaret of Antioch, which underwent extensive rebuilding according to the designs of architect William Butterfield from 1872, but retains a Norman tower.

1.2.4 Archaeological work in the area of the village has explored sites dating from the Iron Age to the medieval period. From 1959 to 1961, a large Middle Iron Age settlement was excavated just north of the village (HHER 176). Two Romano-British cemeteries (HHER 4029), containing both inhumations and cremations, were excavated on the west side of the village in the 1950s.

1.2.5 A concentration of Romano-British pottery was collected from topsoil approximately 70m west of the current site (HHER 10791), indicating occupation nearby. An archaeological evaluation has also been undertaken at Farriers, Church End, approximately 30m to the west of the site (HHER 10785). This found a medieval surface and a ditch, as well as residual Roman pottery, further suggesting Roman and medieval occupation of the area to the south of Church End and London Road.

1.2.6 A trial trench evaluation and excavation of a site on the opposite (east) side of Pudding Lane, carried out by PCA in November 2017 and January–February 2018 (Morgan-Shelbourne and Woolhouse 2017; Morgan-Shelbourne and Woolhouse forthcoming), has found a concentration of ditches and pits. Although dating evidence is limited, the largest ditch contained part of a Hertfordshire Puddingstone quern, dated to *c*. 100 BC – AD 100, in addition to sherds of Late Iron Age to early Roman pottery, and deposits of crop remains. The ditch appears to be a boundary associated with an Iron Age to Roman settlement, possibly a farmstead. Other ditches and pits containing small amounts of animal bone and charred cereal grain, add to the picture of settlement activity. The ditch curves south-westward to enclose an area on its west side, in the direction of the current site.

Medieval features have also been identified, including a possible structural beam slot, a pit containing a dump of animal bone including a partially-articulated animal burial, and a large and well-preserved oven or crop-drier. The excavation of this site is still ongoing at the time of producing this WSI.

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 103–105m OD, on the south-west- to north-east-aligned chalk escarpment of north Hertfordshire/ south Cambridgeshire. The topography slopes down to the north, with the ground to the east and west also gradually sloping down to around the 75m contour over a distance of *c.* 500m in either direction. Some field drains approximately 600m to the west of the site may represent canalised streams; otherwise the only bodies of water in the vicinity of the site are a stream rising from springs at Cumberton Bottom, 800m to the east, and scattered small ponds in and around the village.

3 AIMS AND OBJECTIVES

3.1 Broad Aims

3.1.1 The broad aim of the strip, map and sample excavation is to identify, excavate and record any archaeological features and deposits which are likely to be damaged or destroyed by ground disturbance associated with the development.

3.1.2 The strip, map and sample excavation will aim to investigate and understand the location, extent, date, character and state of preservation of any archaeological remains on the site, and to identify the significance of those remains in a local, regional or 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)

3.2 Specific Objectives

3.2.1 To identify and record any evidence related to Iron Age and Roman settlement or other activity on the site, particularly any evidence relating to the Late Iron Age to Roman enclosure, the boundary of which has been identified on the east side of Pudding Lane (Site HPLB17/ HPLB18).

3.2.2 To recover any finds and environmental evidence that will help to characterise the chronology, sequence of development, socio-economic character and ‘function’ of the Iron Age and Roman site.

3.2.3 To identify any further evidence of Saxon or medieval settlement and activity in the area south of Church End/ London Road.

3.2.4 To undertake an extensive programme of bulk soil-sampling from any well-dated deposits, to recover micro-faunal and botanical remains, with the aims of understanding the agricultural economies of the Iron Age, Roman and medieval settlements at Barley, the types of activities carried out, and the diet of the inhabitants. The investigations at Site HPLB17/ HPLB18 have indicated fairly good potential for charred crop remains and small animal (fish, bird, small mammal) bones.

3.2.5 To identify, record and characterise any earlier prehistoric or post-medieval archaeological remains.

4 METHODOLOGY

4.1 General

4.1.1 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).

4.1.2 The strip, map and sample excavation will encompass the footprints of the proposed new house and detached garage, the driveway leading to Pudding Lane (Fig. 2), and any other areas of ground reduction/ landscaping associated with the development:

4.1.3 Ground reduction within the house footprint will be to the uppermost archaeological horizon, or the natural geological horizon, whichever is encountered first.

4.1.4 Ground reduction in the driveway and any other areas will be to the uppermost archaeological horizon, or to the depth required by the developer’s construction programme. On the driveway, it is anticipated that this will only be a depth of 150mm from existing.

4.1.5 There will be a contingency for small-scale extension to fully-expose discrete features continuing under baulks.

4.2 Strip, Map and Sample Methodology

4.2.1 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, the geological horizon, or the maximum depth required by the construction programme, as described above. The machining will be under direct archaeological supervision and control. Upon encountering any archaeological features or deposits, the procedure followed is detailed below.

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

4.2.3 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. Metal-detecting will also be carried out during stripping.

4.2.4 During/ upon completion of machine-stripping, a GPS plan of the exposed archaeological features and deposits will be produced. This pre-excavation plan will form the basis of a site meeting/ discussion with the client and HCC NHBEAT to agree an excavation and sampling strategy. The sampling methodology is likely to be as described below.

4.3 Recording and Sampling

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

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

4.3.3 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.

4.3.4 Limits of excavation, 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.

4.3.5 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.

4.3.6 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.

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

4.3.8 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 100% excavated.

4.3.9 High-resolution digital photographs will be taken at all stages of the excavation. 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.

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

4.3.11 Bulk samples, where possible at least 40 litres in volume (or greater where high potential for environmental remains is indicated), 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 and small objects that are not readily recovered by hand-collection alone (e.g. hammer-scale, fish bone). 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.

4.3.12 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.

4.3.13 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.

4.4 Monitoring

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

4.4.2 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.

4.5 Treasure

4.5.1 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.

4.6 Human Remains

4.6.1 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 plant species) before site works commence.

6 TIMETABLE AND STAFFING

6.1 Timetable

6.1.1 The duration of the machine-stripping will be dictated by the developer's construction programme, but is likely to be approximately 4 working days.

6.1.2 The likely duration of the excavation will become clear when the machine-stripping and pre-excavation planning of features is complete.

6.1.3 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 excavation programme.

6.2.2 Key team members will include Tom Woolhouse, Project Manager for PCA Central, and a PCA 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
2x 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 Late Iron Age and Roman ceramics and Berni Sudds on Anglo-Saxon and medieval ceramics. Small Finds will be examined by Ruth

Beveridge and worked stone by Dr Kevin Hayward. Faunal remains will be examined by Dr 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 HHTB18. 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 assessment and report writing will take approximately 6 months following the end of fieldwork. Specialists will be employed for consultation and analysis as necessary.

7.3 A copy of the Assessment 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 will be necessary to undertake a full programme of post-excavation 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 Assessment 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, *Hertfordshire Archaeology*.

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 Assessment 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

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

Morgan-Shelbourne, L. and Woolhouse, T. 2017 *Land north of Churchfields, Pudding Lane, Barley, North Hertfordshire: Archaeological Trial Trench Evaluation*. Pre-Construct Archaeology report no. 13129 (unpublished)

Morgan-Shelbourne, L. and Woolhouse, T. forthcoming *Land north of Churchfields, Pudding Lane, Barley, North Hertfordshire: Archaeological Excavation Post-Excavation Assessment*. Pre-Construct Archaeology report in prep.

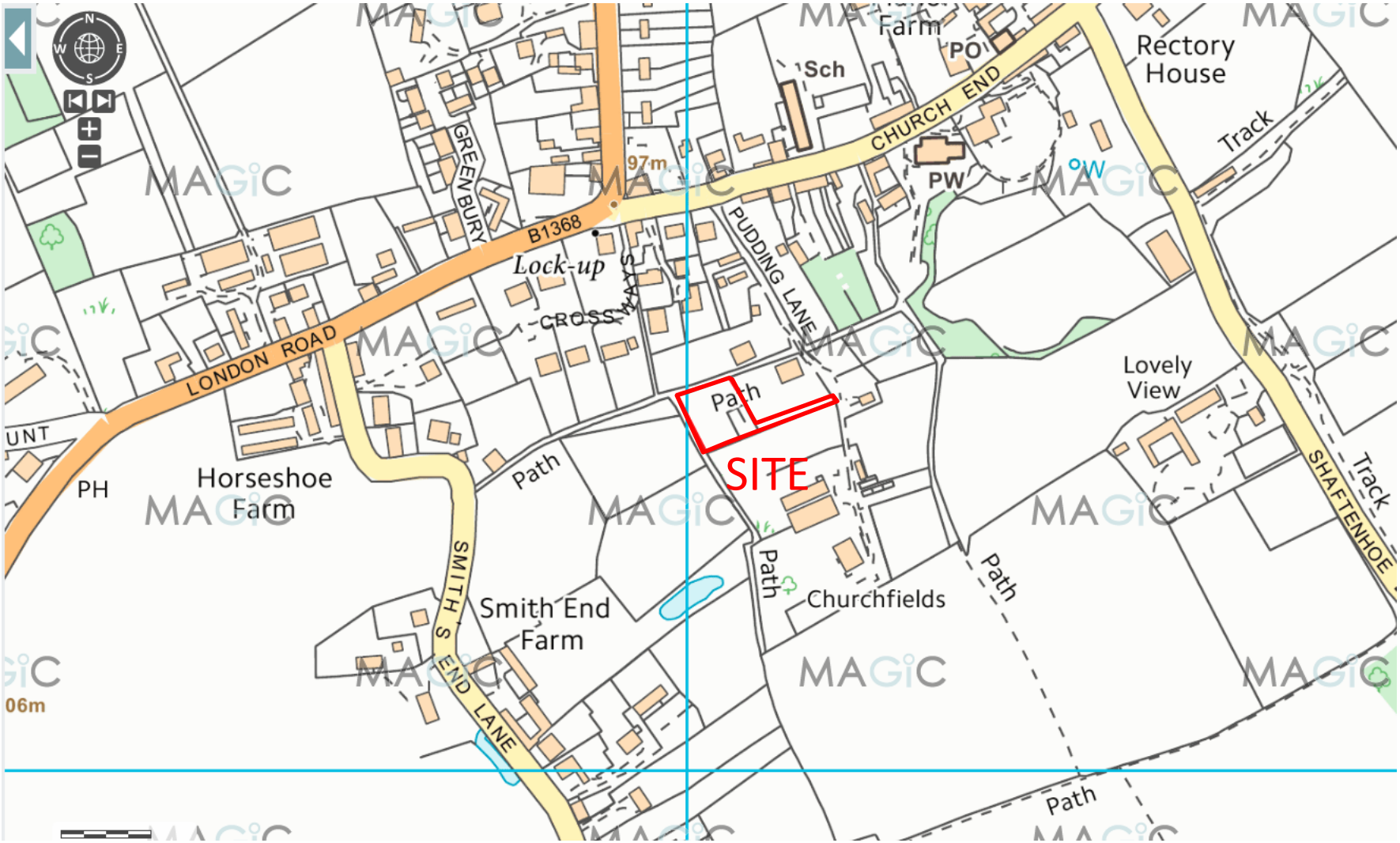

Figure 1: Land to Rear of Hilltop, Barley - Site Location

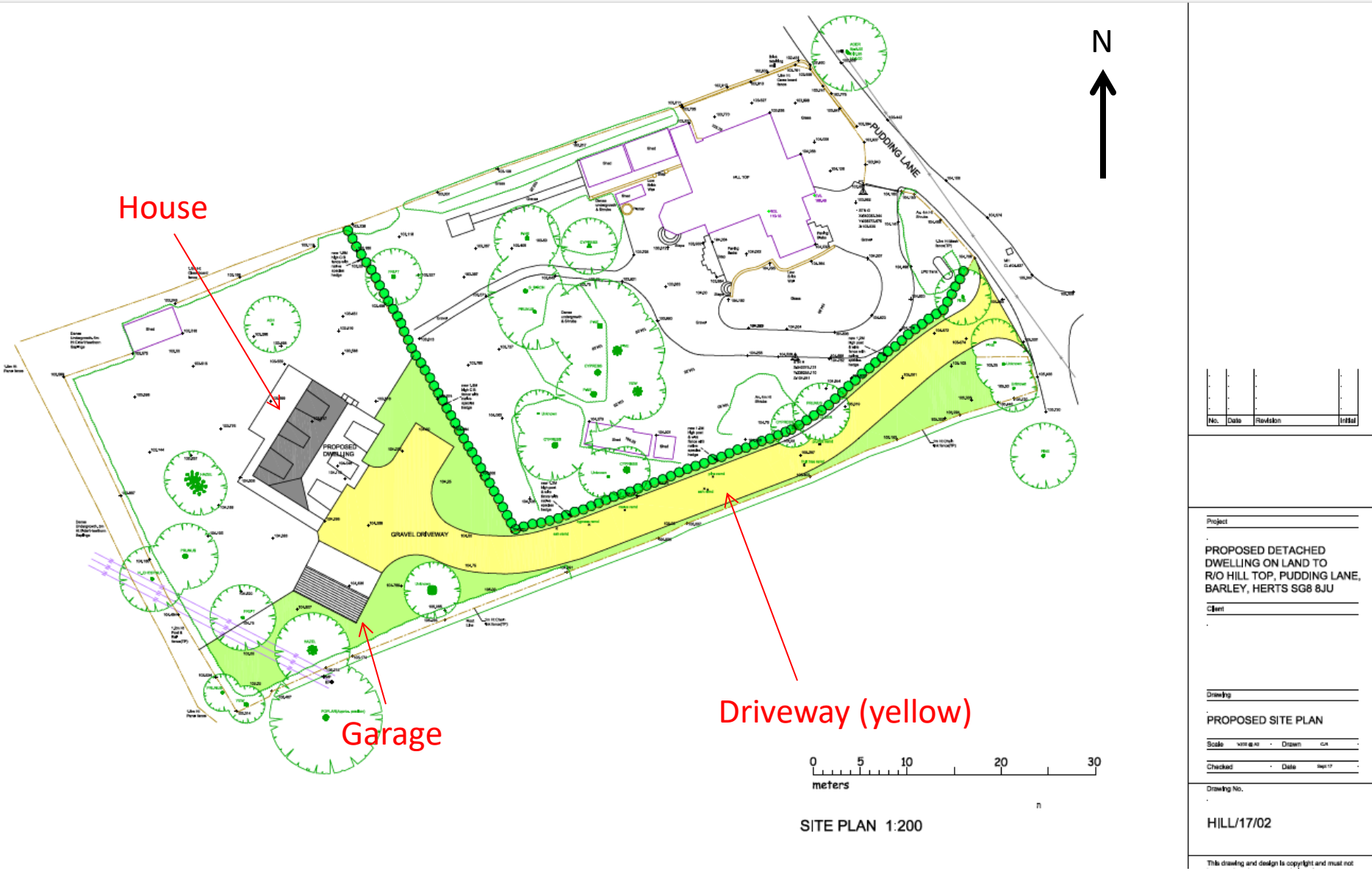

Figure 2: Hilltop, Barley – Areas of Strip, Map and Sample (not to scale)

APPENDIX 1: FINDS, ENVIRONMENTAL 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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