

**51-73 BARNWELL ROAD,
CAMBRIDGE,
CB5 8RG**

**AN ARCHAEOLOGICAL
EVALUATION**

NOVEMBER 2013



**PRE-CONSTRUCT ARCHAEOLOGY
R11560**

**51-73 BARNWELL ROAD, CAMBRIDGE, CB5 8RG:
AN ARCHAEOLOGICAL EVALUATION**

Local Planning Authority:	Cambridge City Council
Central National Grid Reference:	TL 4789 5913
Site Code:	CBRC13
CHER Event No:	ECB 4045
Planning Reference:	13/0776/FUL
Report No.	R11560
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November 2013

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PCA Report Number: R11560

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ABSTRACT

This report documents the results of an archaeological evaluation at 51-73 Barnwell Road, Cambridge, CB5 8RG, carried out as part of a planning condition associated with the demolition of the existing dwellings and construction of a mix of new private and affordable residential accommodation (Planning Reference: 13/0776/FUL). Three trenches, each approximately 25m long, were excavated on 29-30th October 2013; these were located in the eastern part of the site, in the former back gardens of the existing houses, as the buildings at the street frontage had not yet been demolished. The only features revealed were seven natural tree root hollows, distributed throughout the three trenches. Several of these were sealed by a buried ploughsoil which relates to the use of the site as agricultural land prior to the present houses being constructed in the 1960s. Three of the tree hollows contained finds, comprising single Neolithic struck flint flakes in two and a small, abraded sherd of late Iron Age pottery in the third; these finds all represent residual material that was present in the ploughsoil and found its way naturally into these features. On the basis of the evaluation evidence, the site has low archaeological potential.

1 INTRODUCTION

- 1.1 This document reports the results of an archaeological evaluation undertaken at 51-73 Barnwell Road, Cambridge, CB5 8RG (Figure 1). The archaeological fieldwork was carried out between the 29th and 30th October 2013.
- 1.2 The work was commissioned by Keepmoat in association with redevelopment of the site and construction of a mix of new private and affordable residential accommodation, with associated hard-landscaping and services (21 units; Planning Reference: 13/0776/FUL). The site is centred on Ordnance Survey National Grid Reference (NGR) TL 4789 5913 and has a total area of 0.27ha. It is currently occupied by 1960s council housing, which is to be demolished, and their rear gardens. The houses front on to Barnwell Road to the west; the surrounding area is generally suburban in character, though land along Newmarket Road, to the north, has a concentration of commercial/ retail outlets, and land a short distance to the east is occupied by Cambridge City Airport and light industrial facilities associated with Marshall Aerospace.
- 1.3 A written scheme of investigation (WSI) for archaeological evaluation was prepared by Mark Hinman of Pre-Construct Archaeology Ltd. (October 2013), in response to a Brief issued by Dan McConnell of the Historic Environment Team of Cambridgeshire County Council (CCC HET) (September 2013).
- 1.4 The brief highlighted that this area of Cambridge city has not seen a great deal of intensive archaeological investigation. However, substantial Iron Age and Roman settlements and kiln sites have been identified 0.5-1km to the east of the site at Greenhouse Farm (Cambridgeshire Event No. (ECB)108 and ECB181), Cambridge Airport (ECB15129) and other sites (e.g. ECB508). Numerous findspots of Palaeolithic and Neolithic stone tools have been found on river terrace deposits within c. 0.5km of the site. Recent archaeological investigation a short distance north-east of the site found several probable middle Saxon burials, possibly part of a larger cemetery (Cambridgeshire Historic Environment Record (CHER) No. MCB16936; Newton 2007). An archaeological desk-based assessment of the site prepared by PCA (Garwood 2013) examined the evidence for previous archaeological discoveries in the vicinity of the site, as well as cartographic and documentary sources, and suggested that the site had moderate potential for prehistoric, Roman and Saxon archaeology, particularly on the previously-undisturbed parts of the site (the rear gardens).

- 1.5 Due to the high archaeological potential of the site, a condition was placed on the planning consent requiring that a programme of archaeological work be carried out prior to construction. The first phase of this work, the trial trench evaluation, was intended to assess the archaeological potential of the site and to determine the need for any further archaeological investigation or mitigation.
- 1.6 The work reported upon here was designed to contribute to an understanding of the character, condition, date and extent of any archaeological remains within the development area, and to provide a comprehensive appraisal of the significance of any remains within a local, regional and national context as appropriate. This has been achieved through the recording of several natural tree root hollows containing a low density of residual prehistoric and late Iron Age finds. These features are considered to be of low archaeological significance.

2 GEOLOGY AND TOPOGRAPHY

- 2.1 The underlying bedrock of the site belongs to the West Melbury Marly Chalk Formation (British Geological Survey Online Viewer 2013), which is patchily overlain by lower/intermediate river terrace gravels associated with the river Cam and its tributary, Coldham's Brook, which flows 500m to the south-west of the site.
- 2.2 The topography of the site and surrounding area is broadly flat, sloping gradually down to the west and south. Spot heights of 11.12-12.07m OD (above Ordnance Datum) were recorded within the site.
- 2.3 The modern improved garden soil (4) was between 0.38 and 0.55m deep. In the northern part of Trench 2 and possibly the southern end of Trench 3, this sealed a firm dark greyish-brown clayey sand layer (7), which represents buried ploughsoil from the agricultural use of the site prior to the present houses being built in the 1960s. This ploughsoil was up to 0.43m deep at the northern end of Trench 2. It is likely that it was present across the site but that it could not always be distinguished from the overlying garden soil. The topsoil (4) and, where present, buried ploughsoil (7), sealed the a thin (usually c. 0.20m) layer of mid orangey-brown clayey sand and gravel (5) representing the disturbed upper horizon of the natural geology. The natural geology, comprising firm yellowy-white marly chalk overlain in places by mid orangey-brown slightly clayey sand and gravel river terrace deposits (6), was encountered at 11.39-10.41m OD, falling to the south. This level was between 0.57 and 0.95m below modern ground level, but usually around 0.70m.

3 ARCHAEOLOGICAL METHODOLOGY

- 3.1 Three trenches c. 25m long were excavated in the eastern part of the site, the back gardens of the existing council houses (Figure 2). Trench 1 was orientated north-east to south-west and was 23.5m long, Trench 2 was orientated north-west to south-east and was 26.7m long and Trench 3 was orientated roughly north-east to south-west and was 27.5m long. The trenches provide a c. 5.2% sample of the site area. Trench 3 was repositioned from the proposed layout contained in the WSI due to the presence of large trees between several of the former back gardens in the south of the site. It was therefore dug in three straight sections to avoid these obstructions.
- 3.2 The trenching was carried out under archaeological supervision using a JCB backhoe loader mechanical excavator fitted with a 1.8m wide toothless ditching bucket. Topsoil and subsoil deposits were removed in spits down to the level of the undisturbed natural geological deposits where potential archaeological features could be observed and recorded. Stripped topsoil and subsoil were scanned visually and with a metal-detector.
- 3.3 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique context number and recorded on individual pre-printed forms. Archaeological events recognised by the deposition of material are signified in this report by round brackets (thus), while events constituting the removal of deposits are referred to here as 'cuts' and signified by square brackets [thus]. The record numbers assigned to cuts and deposits are entirely arbitrary and in no way reflect the chronological order in which events took place. Artefacts recovered during excavation were assigned to the record number of the deposit from which they were retrieved. Due to the 'urban' character of the site and presence of numerous buildings and other features shown on Ordnance Survey maps, trench locations were surveyed manually using hand tapes. Trench plans were drawn on permatrace at a scale of 1:50.
- 3.4 Metal detecting was carried out during the stripping operation and archaeological features and spoil were scanned.
- 3.5 High resolution digital photographs were taken throughout the fieldwork and were used to keep a record of the evaluation.

4 RESULTS

- 4.1 Trench 1 (Plate 1; Figure 3) contained two irregularly-shaped natural tree hollows, [13] and [14] (Plate 10). Neither contained finds. They were sealed by the disturbed layer (5) stratified between the topsoil and natural geology.
- 4.2 Trench 2 contained three natural tree hollows, [10], [11] and [12], all at the north-western end of the trench and all sealed by the buried ploughsoil (7) and disturbed natural geological interface (5) (Plate 2; Figure 3). The southernmost of the three, [11], was roughly oval in plan, measured 1.20 x 0.90m+ across and extended westwards beyond the trench (Plate 8). It was extremely shallow (0.10m) and its fill of mid orangey-grey/ brown clayey silty sand merged imperceptibly with the natural sandy gravel geology. A small sherd of abraded undiagnostic late Iron Age pottery was found lying on its surface.
- 4.3 Around 1.5m to the north was another small tree root hollow, [10] (Plate 7). This was oval in plan with moderately-sloping concave sides and a flattish base and measured 1.36m long by 0.80m across and 0.10m deep; it was filled with mid orangey/ greyish-brown clayey sand. A single residual Neolithic struck flint flake (identified by Dr. Barry Bishop) was found in the upper part of this fill.
- 4.4 Another 3.5m to the north was a third tree hollow, [12] (Plate 9). This was oval in plan and measured 1.15 x 1.20m across, extending westwards beyond the trench. It had irregular sides and was 0.15m deep; its fill was identical to that of [10] and [11] and merged imperceptibly with the natural sandy gravel geology. A Neolithic struck flint flake (identified by Dr. Barry Bishop) was found on the surface of its fill.
- 4.5 The southern part of Trench 3 (Plate 3; Figure 3) contained a large tree root hollow [9] (Plate 6). This was irregular in plan and 1.70 x 2.80m+ across, with a large root channel extending off to the west. It was filled with a mid brown clayey sand deposit very similar to the subsoil in Trench 3 and was surrounded by a 'halo' of pale grey leached clay. It was not excavated as it was clearly natural and of recent origin. Around 4m to the south-west was a linear tap root channel filled with pale grey leached sandy clay [8] (Plate 5). It was 1.7m+ long, 0.86m (max.) wide and 0.23m deep, with steep, irregular sides and a narrow, undulating base; the fill continued to dip down and undercut the sides in places, where smaller root tendrils had branched off the main root. No finds were present in the excavated 1m slot. Both [9] and [8] were sealed by the topsoil (4) in Trench 3.

5 CONCLUSIONS AND RECOMMENDATIONS

- 5.1 The archaeological evaluation identified seven natural tree root hollows, most of which were shallow with diffuse edges.
- 5.2 Three of the tree hollows [10], [11] and [12], all located at the north-west end of Trench 2, each contained single residual finds, comprising two Neolithic struck flint flakes (identified by Dr. Barry Bishop) in [10] and [12] and an abraded sherd of undiagnostic late Iron Age pottery in [11].
- 5.3 The two tree hollows in Trench 3, [8] and [9], were cut through layer (5), representing the interface between the topsoil and the natural geological horizon where it had been disturbed by past agricultural activity. They are therefore likely to relate to the recent use of the site as gardens since the 1960s. Indeed, the gardens in which Trench 3 was located still contain a number of fairly large sycamore/ maple trees.
- 5.4 The tree hollows in Trenches 1 and 2, [10], [11], [12], [13] and [14], were sealed by layer (5) and (where present) by the buried ploughsoil (7) which derives from the former use of the site as agricultural land prior to the 1960s (as indicated by historic maps, see PCA desk-based assessment; Garwood 2013, figs. 5-13). They may therefore be of some antiquity. However, the finds from the tree hollows in Trench 2 are almost certainly residual material that was 'knocking about' on site and found its way into these features from the ploughsoil horizon. The discovery of small quantities of prehistoric struck flint is unsurprising on the terrace gravels of the Cam and its tributaries. Late Iron Age and early Roman settlements are also known in the vicinity of the site and the pottery could derive from manure-spreading in the arable fields associated with these settlements.
- 5.5 On the basis of the evaluation evidence, the site has low archaeological potential. Perhaps the most interesting and significant result of the project, in the light of Archaeological Solutions' 2005 excavation 60m to the north-east (CHER MCB16936; Newton 2007) is the absence of Anglo-Saxon burials. This suggests that the burial ground of which they formed part does not extend far in this direction.

6 ACKNOWLEDGEMENTS

PCA would like to thank Keepmoat for commissioning and funding the archaeological investigation. Thanks to Hayley Baxter of the PCA CAD Department for preparing the figures and Aileen Tierney for coordinating finds processing and analysis.

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REFERENCES

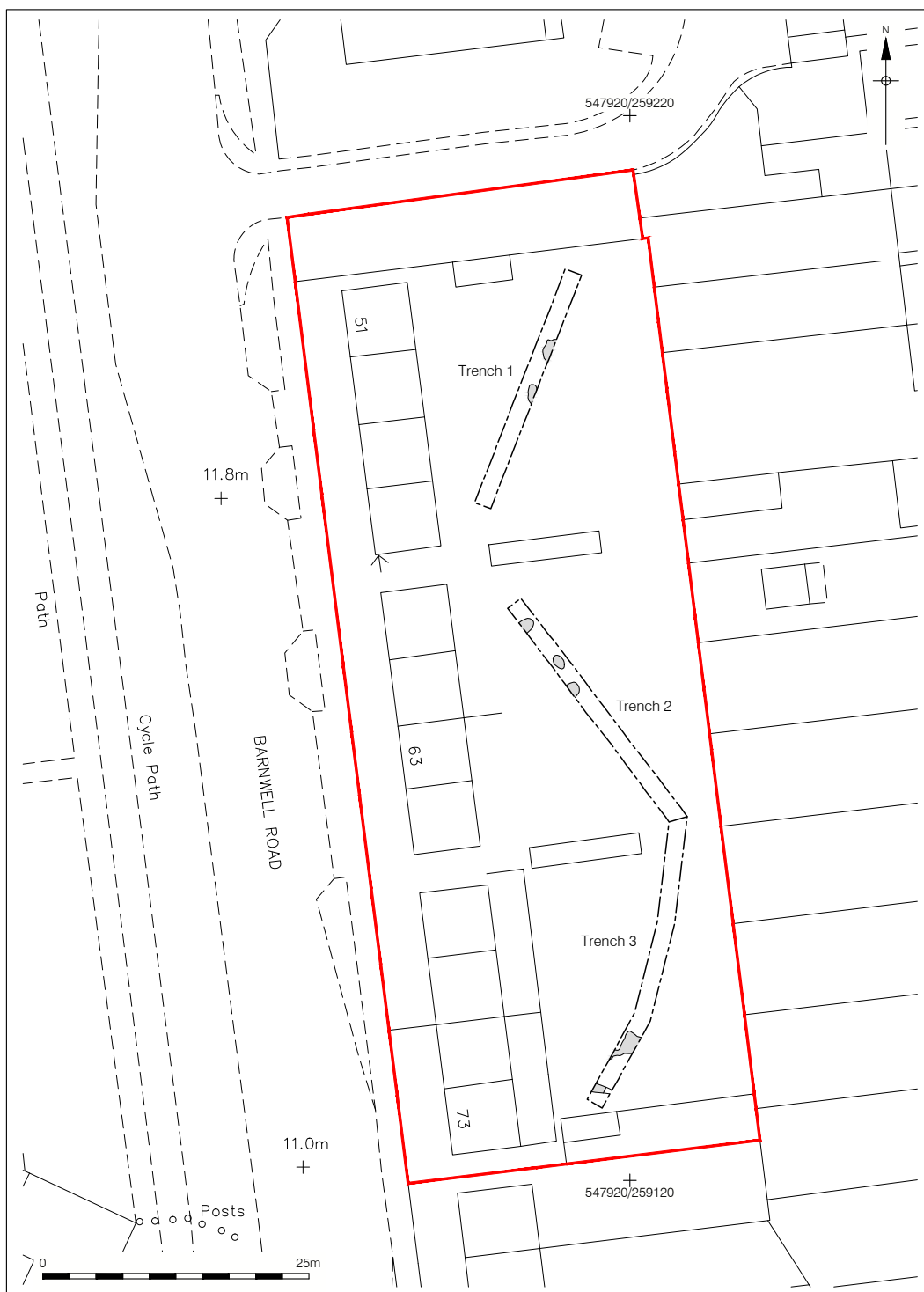
Garwood, A. 2013 *Land at 51-73 Barnwell Road, Cambridge, CB5 8RG: An Archaeological Desk-Based Assessment*. Pre-Construct Archaeology Report No. 11422 (unpublished)

Newton, A.A.S. with Crummy, N. and Phillips, C. 2007 'Mid-Saxon burials at Barnwell Road, Cambridge', *Proceedings of the Cambridge Antiquarian Society* 96, 127-134



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 30/04/13 MR

Figure 1
 Site Location
 1:20,000 at A4



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30/04/13 MR: updated 07/11/13 HB

Figure 2
Trench Location
1:625 at A4

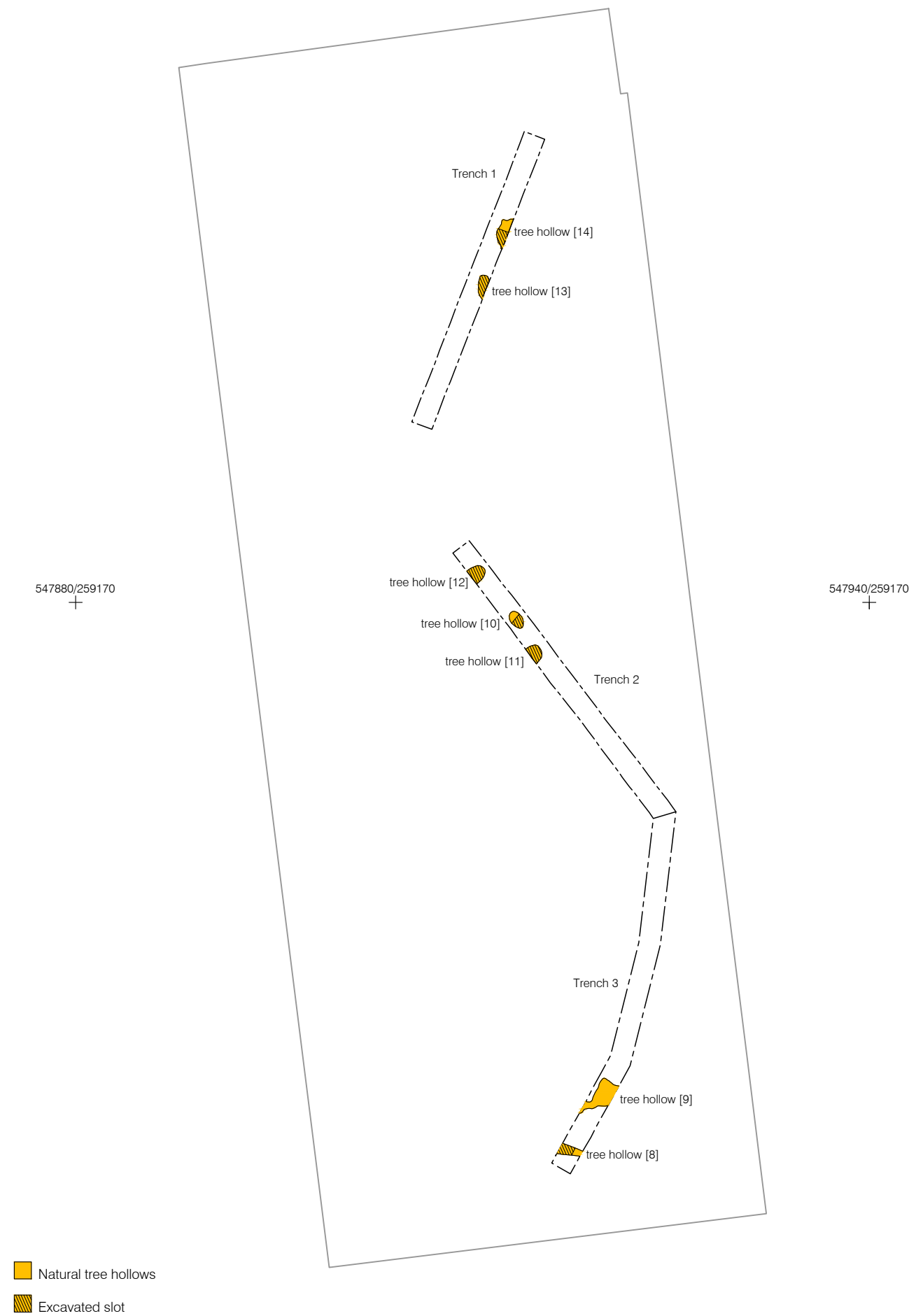


Figure 3
Plan of Trenches 1-3
1:400 at A4

APPENDIX 1: CONTEXT INDEX

Context No.	Cut	Trench	Type	Description	Finds?
1	N/A	N/A	Trench		-
2	N/A	N/A	Trench		-
3	N/A	N/A	Trench		-
4	-	All	Layer	Topsoil. Firm dark brown clayey sandy silt. Improved garden soil.	Modern CBM, glass etc
5	-	All	Layer	Fairly firm mid orangey-brown sandy gravel. Mixed interface between topsoil and natural geology, disturbed by past ploughing.	-
6	-	All	Geology	Firm mid orangey-brown river terrace sands and gravels interspersed with yellowy-white marly chalk.	-
7	-	2	Layer	Fairly compact dark greyish-brown clayey, slightly silty sand. Buried ploughsoil.	-
8	8	3	Natural	Tree root channel.	-
9	9	3	Natural	Tree hollow	Not exc.
10	10	2	Natural	Tree hollow	Neolithic struck flint x 1
11	11	2	Natural	Tree hollow	Late Iron Age pottery x 1
12	12	2	Natural	Tree hollow	Neolithic struck flint x 1
13	13	1	Natural	Tree hollow	-
14	14	1	Natural	Tree hollow	-

APPENDIX 2: PLATES

Plate 1: Trench 1, view north-east



Plate 2: Trench 2, view south-east with tree hollows [12], [10] and [11] in foreground



Plate 3: Trench 3, south-west end, view north-east showing root channel [8] (foreground) and tree hollow [9] (mid ground)



Plate 4: Trench 3, north-east end, view south-west



Plate 5: Tree root channel [8], south-east-facing section, view north-west



Plate 6: Tree hollow [9], view north-east



Plate 7: Tree hollow [10], south-east-facing section, view north-west



Plate 8: Tree hollow [11], east-facing section, view west



Plate 9: Tree hollow [12], east-facing section, view west



Plate 10: Tree hollow [14], west-facing section, view east



APPENDIX 3: OASIS FORM

OASIS ID: preconst1-163480

Project details

Project name	51-73 Barnwell Road, Cambridge Evaluation
Short description of the project	Three c. 25m trenches were excavated as part of a planning condition attached to residential redevelopment, in order to assess the site's archaeological potential. Seven natural tree root hollows were identified; three each contained single residual finds, comprising Neolithic struck flint flakes in two and an abraded sherd of late Iron Age pottery in the third.
Project dates	Start: 29-10-2013 End: 30-10-2013
Previous/future work	Yes / Not known
Any associated project reference codes	CBRC13 - Sitecode
Any associated project reference codes	ECB4045 - HER event no.
Any associated project reference codes	13/0776/FUL - Planning Application No.
Type of project	Field evaluation
Site status	None
Current Land use	Residential 1 - General Residential
Monument type	NONE None
Significant Finds	STRUCK FLINT Neolithic
Significant Finds	POT Late Iron Age
Methods & techniques	"Sample Trenches"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	After full determination (eg. As a condition)

Project location

Country	England
Site location	CAMBRIDGESHIRE CAMBRIDGE CAMBRIDGE 51-73 Barnwell Road, Cambridge, CB5 8RG: An Archaeological Evaluation
Postcode	CB5 8RG

Study area	0.27 Hectares
Site coordinates	TL 4789 5913 52 0 52 12 36 N 000 09 53 E Point
Lat/Long Datum	Unknown
Height OD / Depth	Min: 10.41m Max: 11.39m

Project creators

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	Cambridgeshire County Council
Project design originator	Mark Hinman
Project director/manager	Mark Hinman
Project supervisor	Tom Woolhouse
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Keepmoat

Project archives

Physical Archive recipient	Cambridgeshire County Council Archaeology Store
Physical Archive ID	CBRC13
Physical Contents	"Ceramics","Worked stone/lithics"
Physical Archive notes	Late Iron Age pot sherd x 1 Neolithic struck flint flakes x 2
Digital Archive recipient	Cambridgeshire County Council Archaeology Store
Digital Archive ID	CBRC13
Digital Contents	"Stratigraphic"
Digital Media available	"Images raster / digital photography","Text"
Digital Archive notes	Report text and digital photographs
Paper Archive recipient	Cambridgeshire County Council Archaeology Store
Paper Archive ID	CBRC13

Paper Contents	"Stratigraphic", "Survey"
Paper Media available	"Context sheet", "Drawing", "Plan", "Report", "Survey ", "Unpublished Text"
Paper Archive notes	Archive comprises 3 x trench plans on permatrace, annotated site plans x 3 with levels and survey measurements, context register x 1, context sheets x 6, trench record sheets x 3

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	51-73 Barnwell Road, Cambridge, CB5 8RG: An Archaeological Evaluation
Author(s)/Editor(s)	Woolhouse, T.
Date	2013
Issuer or publisher	PCA Central
Place of issue or publication	Stapleford
Description	25 page bound A4 report with 10 colour plates and three location/ trench plans
Entered by	Tom Woolhouse (t woolhouse@pre-construct.com)
Entered on	5 November 2013

OASIS:

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