

**LAND ADJACENT TO PRIORY SCHOOL
BICKNACRE ROAD
BICKNACRE, ESSEX**

ARCHAEOLOGICAL MONITORING & RECORDING



Essex County Council

**FIELD ARCHAEOLOGY UNIT
November 2012**

**LAND ADJACENT TO PRIORY SCHOOL
BICKNACRE ROAD
BICKNACRE, ESSEX:**

ARCHAEOLOGICAL MONITORING & RECORDING

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**ARCHAEOLOGICAL MONITORING AT
LAND ADJACENT PRIORY SCHOOL, BICKNACRE ROAD
BICKNACRE
ESSEX**

Client: CgMs Consulting

NGR: TL 7870 0290

Site Code: WOBPS11

Oasis No.: essexcou1-137378

Dates of Fieldwork: 12th – 14th April 2011 and 15th May 2012

SUMMARY

A programme of archaeological monitoring was undertaken during construction works on land adjacent to the Priory School, Bicknacre Road, Bicknacre, Essex. Works comprised the reduction of existing ground levels by 0.9m across an area of approximately 590m², effectively creating a flood compensation/ alleviation area, followed by the raising of ground levels in an immediately adjacent part of the site by 450mm above the 1 in 100 year plus climate change flood risk level, prior to the construction of a new house on the raised area.

Three monitoring visits were made in April 2011 to monitor topsoil stripping and excavation of the flood compensation area, followed by a final visit in May 2012 in association with foundation works for the new dwelling. Due to restrictions imposed by the Environment Agency no works were undertaken with 9m of Bicknacre Brook.

Both the flood compensation area and the part of the site where ground levels were to be raised were stripped of topsoil prior to the commencement of major groundworks, revealing an alluvial deposit comprising an homogenous grey-brown silt. No archaeological features or palaeoenvironmental deposits were visible at this level and an initial trench was cut, running roughly northwest - southeast, as both a means of prospection and ascertaining the likely depth of alluvial deposits. This showed that the alluvium was undifferentiated and approximately 0.5 to 0.6m thick, overlying a natural gravel deposit at approximately 0.8 to 0.9m below the existing ground level – the maximum excavation depth required.

A tree-throw or root bole was noted in the northeast facing section of the trench, visible as a dish-shaped feature with lenses of dark brown humic clay and upcast gravel from the underlying layer, mixed in with the overlying grey-brown alluvial silt. However, this feature appeared to be of comparatively recent origin and large chunks of modern brick and a piece

of well-preserved machine-sawn timber were recovered from it. Following on from this an intermittent monitoring presence was maintained over the course of the following two days while the flood compensation area was excavated but no archaeological finds or features were noted.

A final visit to site was made in May 2012 in connection with foundation works for the house, but as the dwelling was constructed on piles and was situated in the raised area of the site excavation for the ring beams did not penetrate deeply enough to damage or expose any archaeological remains.

Although the site lies in close proximity to the site of Bicknacre Priory (SM 51), no archaeological remains or palaeoenvironmental deposits were encountered in any of the working areas. With regard to the former, this is perhaps most likely to be a reflection of the low-lying, marginal nature of the land, which would have made it unattractive for settlement, although the Brook and adjacent floodplain would have been a valued natural resource for early communities. As a consequence, activity in the Medieval and Post-medieval at least is more likely to have been agricultural/ pastoral in nature, leaving few traces, while any evidence for Prehistoric activity in the area is likely to be sealed beneath deep alluvial deposits.

Given the absence of any remains within the development footprint it is clear that the current works have had no impact upon the archaeological record.

1.0 INTRODUCTION

- 1.1 This report describes the results of a programme of archaeological monitoring undertaken during construction works on land adjacent to the Priory School, Bicknacre Road, Bicknacre, Essex (Fig. 1). The works comprised the reduction of existing ground levels by 0.9m across an area of approximately 590m², effectively creating a flood compensation/ alleviation area, followed by the raising of ground levels in an immediately adjacent part of the site by 450mm above the 1 in 100 year plus climate change flood risk level, prior to the construction of a new house on the raised area. The fieldwork was carried out by the Essex County Council Field Archaeology Unit (ECC FAU) for CgMs Consulting in accordance with a written scheme of investigation prepared by ECC FAU (2011) and approved by the ECC Historic Environment Management team (ECC HEM).
- 1.2 A planning application for the scheme was submitted to Chelmsford Borough Council in January 2008. As the site lies within an area of significant archaeological potential and near to a Scheduled Monument, the ECC HEM team advised that a full archaeological condition be attached to any planning consent. This advice followed guidance contained in Planning Policy Guidance 16: Archaeology and Planning, subsequently replaced by PPS 5: Planning for the Historic Environment and now The National Planning Policy Framework. The recommendation states:
- "No development, or preliminary groundworks of any kind shall take place until the applicant has secured the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant, and approved by the planning authority."**
- 1.3 The site archive will be deposited with Chelmsford Museum. A digital version of this report will be submitted, along with a project summary, to the Online Access to the Index of Archaeological Investigations (OASIS).

2.0 BACKGROUND

2.1 Topography and Geology

2.1.1 The site (TL 7870 0290) is located immediately north of the Bicknacre Brook, within the floodplain area, on land between Augustine Way and Priory School. At the time of the monitoring works the site was undeveloped and under grass and scrub with a number of mature trees around the boundary (see Fig. 1) The works undertaken comprised the reduction of existing ground levels by 0.9m across an area of approximately 590m², effectively creating a flood compensation/ alleviation area, with the excavated material then used to raise ground levels in an immediately adjacent part of the site by 450mm above the 1 in 100 year plus climate change flood risk level. A single dwelling, built upon piled foundations, and an associated access road was then constructed on the raised area.

2.2 Archaeological and Historical Background

2.2.1 The following archaeological background utilises the Essex Historic Environment Record (HER) and the ECC HEM Design Brief.

2.2.2 The site is located within close proximity to a Scheduled Monument of Bicknacre Priory (SM 51), an arch of the 12th century Priory remains above ground and is a listed building (HER 30920). Geophysics and soilmarks reveal that there are surviving below ground remains. Recent excavation of a foundation trench for a new footbridge across the stream, north of the Priory (HER 5545), revealed a deposit composed of broken roof tile and flints which extended for c.1m. The tile is considered to be medieval in date and may have been part of the roof of the Priory or an associated building. Buildings associated with the Priory have yet to be located and it is thought that the cloister and domestic buildings were to the north of the church (HER 5545). To the south excavation (HER 45988) revealed features indicating Medieval activity that was suggested to be associated with the Priory c.50m to the north of the site. Prehistoric flint implements (HER 5677, 5655) have been recovered from the area to the north around Peartree Farm. Due to the location of the development site any archaeological or palaeoenvironmental deposits, finds or features that survive are likely to be well-preserved.

2.2.3 Due its location with the floodplain, the site is likely to have been marginal, agricultural land in the medieval and post-medieval periods, most likely used for grazing, and appears as such on the Ordnance Survey 1st edition OS map.

3.0 AIMS AND OBJECTIVES

3.1 General aims

3.1.1 The specific aim of the investigation was to determine the presence or absence, extent, date, character, condition and significance of any archaeological remains that may be present within the development area and to ensure their preservation by record prior to damage or destruction.

3.2 Research objectives

3.2.1 The specific objectives of the investigation were to:

- to preserve, by record any archaeological deposits that will be disturbed or destroyed by the process of ground reduction for the flood mitigation works.
- to adequately record the stratigraphic sequence of deposits affected by the development which may include alluvial sequences, archaeological deposits or organic horizons etc. A sampling strategy will be implemented to enable the investigation of palaeoenvironmental evidence within suitable sediments.

3.2.2 In the event that significant archaeological remains were encountered this report would have aimed to place the results in context with the research objectives laid out in *Research and Archaeology: a Framework for the Eastern Counties, 2. research agenda and strategy* (Brown and Glazebrook 2000) and *Research and Archaeology Revisited: a revised Framework for the East of England* (Medlycott 2012). As no features of any significance were identified the project will not contribute to any of the research agendas.

4.0 METHOD

4.1 The areas for excavation and the raising of ground levels were both stripped of topsoil under archaeological supervision prior to the commencement of major earthmoving operations, using a tracked excavator equipped with a toothless ditching bucket. Following this, as no obvious archaeological remains were visible beneath the topsoil, an initial trench was cut along the length of the area to be reduced in depth to give an indication of the depth of the flood plain deposits and as a means of indicating whether significant palaeoenvironmental deposits or archaeological remains were present. Following the negative results of this, general monitoring was undertaken during the excavation of the flood alleviation area.

4.2 All work was carried out in accordance with IfA (Institute for Archaeologists) by-laws, Standards and Guidance, and complied with Standards for Field Archaeology in the East of England (Gurney 2003). Standard ECC FAU excavation, artefact collection and recording methodologies were employed throughout.

5.0 FIELDWORK RESULTS (Plates 1 - 4)

5.1 Four monitoring visits were made to the site in total, with three visits undertaken between the 12th and 14th of April 2011, to monitor topsoil stripping and excavation of the flood compensation area, and a final visit in May 2012, in association with foundation works for the new dwelling. Due to restrictions imposed by the Environment Agency no works were undertaken with 9m of Bicknacre Brook.

5.2 Both the flood compensation area and the part of the site where ground levels were to be raised were stripped of topsoil prior to the commencement of major groundworks. The topsoil, a fairly thin (20 – 30cm) mid brown humic clay silt, was removed to reveal alluvial deposits comprising an homogenous grey-brown silt. No archaeological features or palaeoenvironmental deposits were visible at this level and so an initial trench was cut, running roughly northwest - southeast, as both a means of prospection and ascertaining the likely depth of alluvial deposits. This showed that the alluvium was undifferentiated and approximately 0.5 to 0.6m thick, coming down onto a natural gravel deposit at approximately 0.8 to 0.9m below the existing ground level – the maximum excavation depth required. Ground water began to rise into the base of the excavation once the top of the gravel was reached.

5.3 A tree-throw or root bole was noted in the northeast facing section of the trench, visible as a dish-shaped feature with lenses of dark brown humic clay and upcast gravel from the underlying layer, mixed in with the overlying grey-brown alluvial silt (Plate 1). However, this feature appeared to be of comparatively recent origin and large chunks of modern brick and a piece of well-preserved machine-sawn timber were recovered from it (not retained).

5.4 Following on from this an intermittent monitoring presence was maintained over the course of the following two days while the flood compensation area was excavated but no archaeological finds or features were noted.

5.5 A final visit to site was made in May 2012 in connection with foundation works for the house, but as the dwelling was constructed on piles and was situated in the raised area of the site excavation for the ring beams did not penetrate deeply enough to damage or expose any archaeological remains.

6.0 DISCUSSION

6.1 Although the site lies in close proximity to the site of Bicknacre Priory (SM 51), no archaeological remains or palaeoenvironmental deposits were encountered in any of the working areas. With regard to the former, this is perhaps most likely to be a reflection of the low-lying, marginal nature of the land, which would have made it unattractive for settlement, although the Brook and adjacent floodplain would have been a valued natural resource for early communities. As a consequence, activity in the Medieval and Post-medieval at least is more likely to have been agricultural/pastoral in nature, leaving few traces, while any evidence for Prehistoric activity in the area is likely to be sealed beneath deep alluvial deposits.

6.2 With regard to the presence or absence of palaeoenvironmental remains, no suitable sedimentary or peat-like deposits were encountered, aside from the obviously modern tree-throw. This is likely to be a reflection of the fact that only a comparatively small area was investigated, and such deposits may survive elsewhere within the floodplain. In addition, Environment Agency restrictions prevented any works within nine metres of the edge of the brook and it is possible that more-favourable conditions exist for the presence/ survival of such remains closer to the actual Brook itself. The alluvial deposits encountered in the flood compensation area would simply appear to be derived from seasonal over-bank flooding and appear to have been subject to regular periods of drying out.

6.3 Given the absence of any remains within the development footprint it would appear that the works have had no impact upon the archaeological record.

ACKNOWLEDGEMENTS

ECC FAU would like to thank Duncan Hawkins of CgMs Consulting, who commissioned the work. The archaeological monitoring was undertaken by Adrian Scruby of the ECC Field Archaeology Unit. The project was managed by Adrian Scruby, who also authored the report, the illustrations are by Andrew Lewsey. The works were monitored by Teresa O'Connor and Richard Havis, in their capacity as archaeological advisors to the LPA.

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|----------------------------------|------|---|
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| Medlycott, M. | 2011 | <i>Research and Archaeology Revisited: a Revised Framework for the East of England</i> , E. Anglian Archaeol. Occ. Paper 24 |

APPENDIX 1: CONTENTS OF ARCHIVE

SITE NAME: Land adjacent Priory School, Bicknacre
SITE CODE: WOBPS11

Index to Archive:

- 1. Introduction**
 - 1.1 ECC FAU WSI

- 2. Research Archive**
 - 2.1 Client Report

- 3. Site Archive**
 - 3.1 Location plan
 - 3.2 Photographic Registers
 - 3.3 Site Photographic Record (1 set of Black & White prints, 1 Set of digital images on disk)
 - 3.4 Miscellaneous notes/plans

APPENDIX 2: HER SUMMARY SHEET

HER SUMMARY SHEET

Site name/Address: Land adjacent to the Priory School, Bicknacre Road, Bicknacre, Essex	
Parishes: Woodham Ferrers and Bicknacre	District: Chelmsford
NGR: TL 7870 0290	Site Code: WOBPS11
Type of Work: Archaeological Monitoring	Site Director/Group: A. Scruby, ECC Field Archaeology Unit
Dates of Work: 12 th – 14 th April 2011 and 15 th May 2012	Size of Area Investigated: 590 sqm
Location of Finds/Curating Museum: Chelmsford	Funding source: Client – CgMs Consulting
Further Seasons Anticipated?: No	Related CUAD/ HER Nos.: None
Final Report: EAH note	Oasis No.: essexcou1-137378
Periods Represented: modern	
<p>SUMMARY OF FIELDWORK RESULTS:</p> <p><i>A programme of archaeological monitoring was undertaken during construction works on land adjacent to the Priory School, Bicknacre Road, Bicknacre, Essex. Works comprised the reduction of existing ground levels by 0.9m across an area of approximately 590m², effectively creating a flood compensation/ alleviation area, followed by the raising of ground levels in an immediately adjacent part of the site by 450mm above the 1 in 100 year plus climate change flood risk level, prior to the construction of a new house on the raised area.</i></p> <p><i>Three monitoring visits were made in April 2011 to monitor topsoil stripping and excavation of the flood compensation area, followed by a final visit in May 2012 in association with foundation works for the new dwelling. Due to restrictions imposed by the Environment Agency no works were undertaken with 9m of Bicknacre Brook.</i></p> <p><i>Both the flood compensation area and the part of the site where ground levels were to be raised were stripped of topsoil prior to the commencement of major groundworks, revealing an alluvial deposit comprising an homogenous grey-brown silt. No archaeological features or palaeoenvironmental deposits were visible at this level and an initial trench was cut, running roughly northwest - southeast, as both a means of prospection and ascertaining the likely depth of alluvial deposits. This showed that the alluvium was undifferentiated and approximately 0.5 to 0.6m thick, overlying a natural gravel deposit at approximately 0.8 to 0.9m below the existing ground level – the maximum excavation depth required.</i></p> <p><i>A tree-throw or root bole was noted in the northeast facing section of the trench, visible as a dish-shaped feature with lenses of dark brown humic clay and upcast gravel from the underlying layer, mixed in with the overlying grey-brown alluvial silt. However, this feature appeared to be of comparatively recent origin and large chunks of modern brick and a piece of well-preserved machine-sawn timber were recovered from it. Following on from this an intermittent monitoring presence was maintained over the course of the following two days while the flood compensation area was excavated but no archaeological finds or features were noted.</i></p> <p><i>A final visit to site was made in May 2012 in connection with foundation works for the house, but as the dwelling was constructed on piles and was situated in the raised area of the site excavation for the ring beams did not penetrate deeply enough to damage or expose any archaeological remains.</i></p>	

Site name/Address: Land adjacent to the Priory School, Bicknacre Road, Bicknacre, Essex

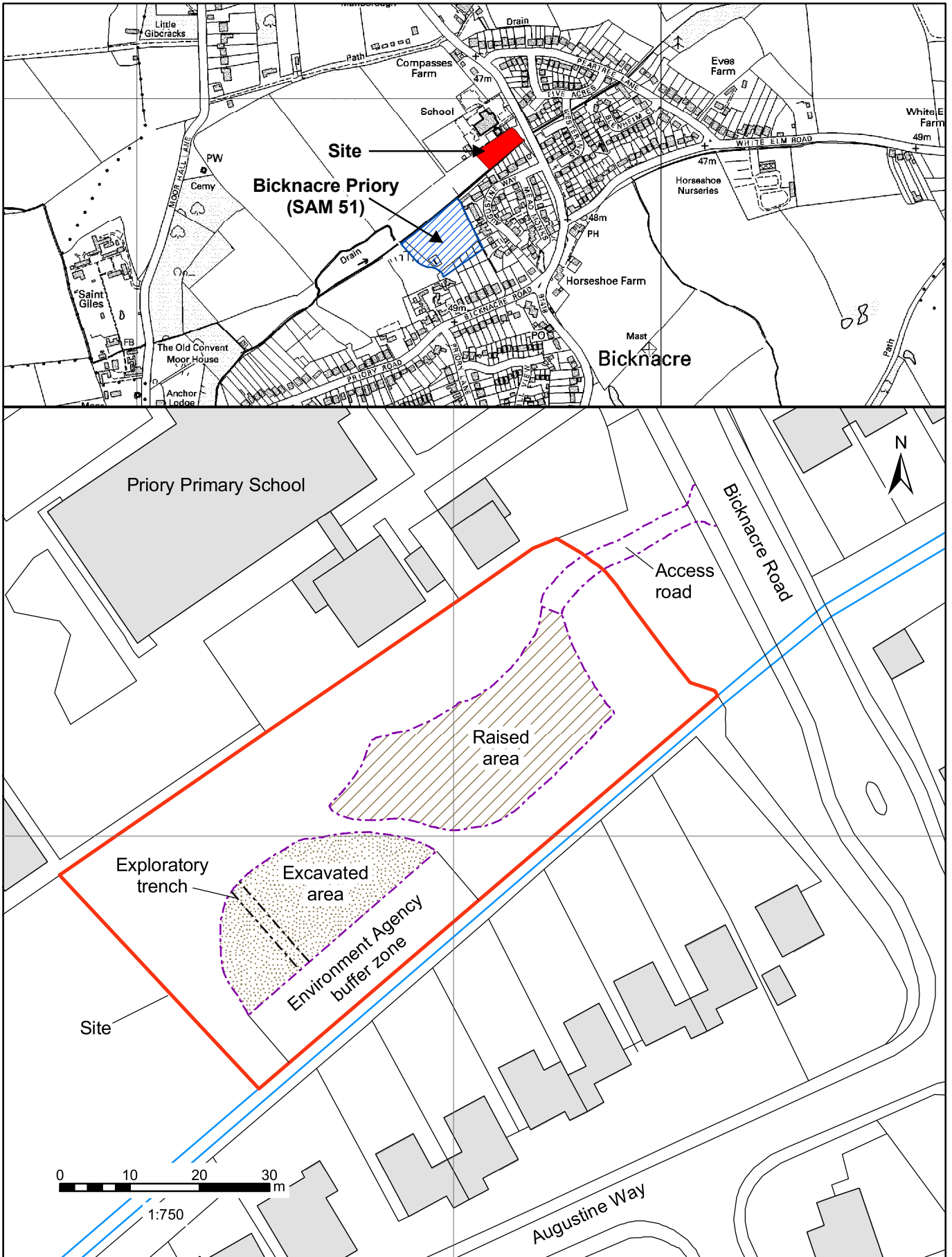
Although the site lies in close proximity to the site of Bicknacre Priory (SM 51), no archaeological remains or palaeoenvironmental deposits were encountered in any of the working areas. With regard to the former, this is perhaps most likely to be a reflection of the low-lying, marginal nature of the land, which would have made it unattractive for settlement, although the Brook and adjacent floodplain would have been a valued natural resource for early communities. As a consequence, activity in the Medieval and Post-medieval at least is more likely to have been agricultural/ pastoral in nature, leaving few traces, while any evidence for Prehistoric activity in the area is likely to be sealed beneath deep alluvial deposits.

Given the absence of any remains within the development footprint it is clear that the current works have had no impact upon the archaeological record.

Previous Summaries/Reports: None

Author of Summary: A. Scruby

Date of Summary: November 2012



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Fig.1. Location of areas of archaeological monitoring

Plate 1: Tree throw revealed in exploratory trench – flood compensation area

