

Report 2014/1141



nps archaeology

## Archaeological Trial Trench Evaluation at Home Farm, Euston Estate, Suffolk

EUN 048



**Prepared for**  
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April 2014



[www.nps.co.uk](http://www.nps.co.uk)

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Location:	Home Farm, Euston, Suffolk
District:	Breckland
Grid Ref.:	TL 8943 7796
Planning Ref.:	SE/13/0899/FULCA
HER No.:	EUN 048
OASIS Ref.:	169989
Client:	Little Green Consulting Ltd
Dates of Fieldwork:	30-31 January 2014

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## **Summary**

*An archaeological evaluation by trial trenching was conducted for Little Green Consulting Ltd ahead of a proposed development of an anaerobic digestion plant and end storage tanks at Home Farm, Euston, Suffolk.*

*Nine trenches were excavated, none of which contained archaeological features and deposits. Other features were observed in trenches across the site and sample excavation of typical examples in two trenches demonstrated that the features were of natural origin.*

## **1.0 INTRODUCTION**

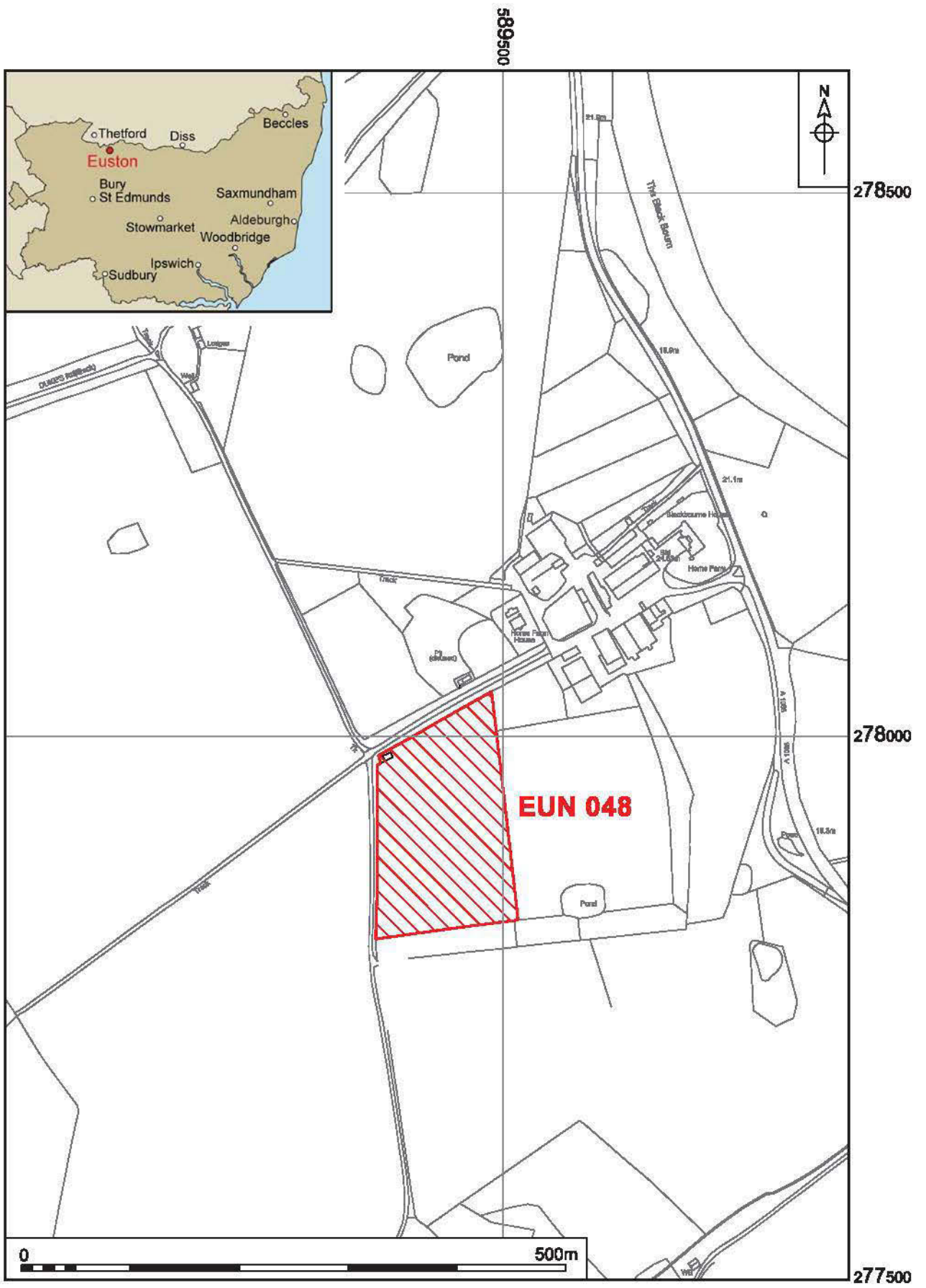
This work was undertaken to fulfil planning requirements set by St Edmundsbury Borough Council (Planning Application: SE/13/0899/FULCA) and Suffolk County Council Archaeological Service Conservation Team (Matthew Brudenell, 1 August 2013). The work was conducted in accordance with a Project Design and Method Statement prepared by NPS Archaeology (Ref: 01-04-14-2-1141). This work was commissioned and funded by Kit Wells of Little Green Consulting Ltd.

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed development area, following the guidelines set out in *National Planning Policy Framework* (Department for Communities and Local Government 2012). The results will enable decisions to be made by the Local Planning Authority about the treatment of any archaeological remains found.

The site archive is currently held by NPS Archaeology and on completion of the project will be deposited with the Suffolk Historic Environmental Record (SHER) following the relevant policies on archiving standards.

## **2.0 GEOLOGY AND TOPOGRAPHY**

The solid geology consists of Seaford Chalk Formation chalk, a sedimentary bedrock formed 84 to 89 million years ago in the Cretaceous Period. This indicates that the local environment was dominated by warm chalk seas. The solid geology is predominately overlain by River Terrace Deposits, 2 (sand and gravel) and other clay, silt, sand and gravel (termed as 'Head') formed up to three million years ago in the Quaternary Period. At this time the local environment was dominated by rivers and subaerial slopes ([www.bgs.ac.uk/opengeoscience/](http://www.bgs.ac.uk/opengeoscience/)).



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Figure 1. Site location. Scale 1:5000

The development site is located on a south-facing slope lying between 24.96m OD to the north and 19.06m to the south. A shallow, east to west valley/watershed south of the site discharges into the Black Bourn valley to the east.

### **3.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

The site lies in an area of high archaeological potential. The Suffolk Historical and Environmental Record (SHER) was appraised and the most relevant entries are detailed below.

During construction of the Euston to Cambridge mains water pipeline (EUN 018) to the northwest of the site, a spread of lithics and two charcoal-filled pits of probable Bronze Age date were recorded. A barbed and tanged flint arrowhead (EUN 029) was recorded as a casual find to the northwest of the site. Approximately 300m to the west of the site, a prehistoric pit (EUN 049) was excavated in 2012.

Seven SHER numbers were used during archaeological trial trench evaluation on the route of Anglian Water's Bury PZ - Barnham Cross to Little Whelnetham Treated Water Main in 2012-13. EUN 040 recorded no evidence of archaeological features and deposits. EUN 041 recorded one charcoal-rich pit from which a single sherd of Early Bronze Age pottery was recovered. EUN 042 recorded a single unstratified struck flint. EUN 043 recorded three unstratified struck flints. EUN 044 recorded six unstratified struck flints. EUN 045 recorded two unstratified struck flints and a flint core. EUN 046 recorded four unstratified struck flints.

To the southeast of the site, close to the parish border with Fakenham Magna, Roman pottery (EUN 011) was recovered during an excavation by Mrs Caton.

Euston Hall (EUN 019) lies to the east of the site. The hall was built in the 1660s for Lord Arlington who received a license to impark an area of 2000 acres in 1671. A registered park and garden associated with Euston Hall is also recorded in the SHER under EUN 020.

### **4.0 METHODOLOGY**

The objective of this evaluation was to determine as far as reasonably possible the presence or absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.

The Brief required that a 5% sample of the proposed development (2.20ha) was to be evaluated. A total of nine trenches was excavated (Fig. 2).

Three trenches (Trench 2, 7 and 8) were relocated from their intended positions due to an overhead electricity cable running north to south. The west end of Trench 1 was moved 7.00m to the south as its intended location was under the canopy of a pollard oak tree. In addition, the east extent of Trench 1 was reduced by 3.00m because of a fence. Trench 3 was moved 5.00m to the south because it fell beneath the same tree canopy as Trench 1. Trench 3 was also moved 2m eastwards because it was on the line of an electric fence. Trench 6 was excavated in two sections because the electric fence bisected the trench position.

Machine excavation was carried out by a hydraulic 360° excavator equipped with a toothless ditching bucket and was operated under constant archaeological supervision.

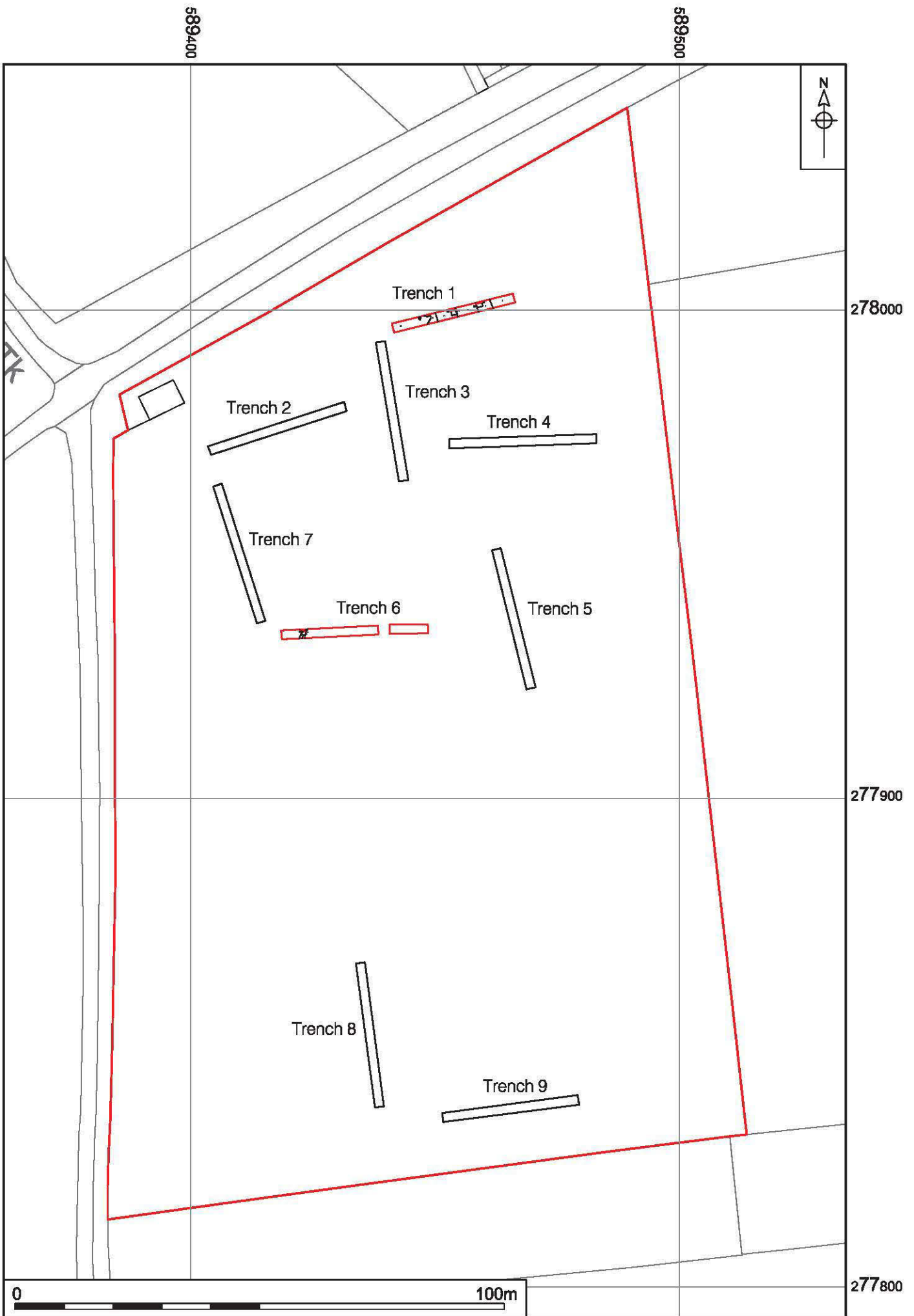


Figure 2. Trench locations. Scale 1:1000



Spoil, exposed surfaces and features were scanned with a metal-detector. All metal-detected and hand-collected finds other than those that were obviously modern, were retained for inspection.


No environmental samples were taken.

All archaeological features and deposits were recorded using NPS Archaeology pro forma. Trench locations, plans and sections were recorded at appropriate scales. Colour, monochrome and digital photographs were taken of all relevant features and deposits where appropriate.

The positions of the trenches were surveyed by NPS Land Survey Team using a Leica GPS900RTK. A level OD was provided for both ends of each trench and these levels were used during the course of the fieldwork.

Site conditions were good, with the work taking place in fine weather.

## 5.0 RESULTS

Trench 1				
 <p>Trench 1 looking east</p>		<b>Figs 2 and 3, Plate 1</b>		
		<b>Location</b>		
		Orientation	Northeast to southwest	
		Northeast end	589465.918, 278003.321	
		Southwest end	589441.189, 277997.159	
		<b>Dimensions</b>		
		Length	30.00m	
		Width	1.80m	
		Average depth	0.50m	
		<b>Levels</b>		
Northeast top	24.96m OD			
Southwest top	24.91m OD			
Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Homogeneous dark brown silty sand	0.40m	0.00-0.40m
2	Subsoil	Mid-tinger brown clayey sand and gravel	0.10m	0.40-0.50m
7	Deposit	Natural chalky till	-	0.50m+
8	Cut	Natural feature	0.35m	0.50-0.85m
9	Deposit	Fill of [8]	0.35m	0.50-0.85m
10	Cut	Natural feature	0.35m	0.50-0.85m
11	Deposit	Fill of [8]	0.35m	0.50-0.85m
14	Deposit	Natural mid-brown sandy clay	-	0.50m+
Discussion				
<p>Trench 1 was located in the north part of the site and was aligned east to west (Fig. 2). The trench was positioned across the upper part of a south-facing slope between 24.96m OD (northeast) and 24.91m OD (southwest).</p> <p>No archaeological features or deposits were observed. Slots [8] and [10] were excavated into two linear features to determine the origin of the deposits. This indicated that the features were naturally-occurring rather than cultural remains. Slots [8] and [10] were cut through natural chalky till (7); elsewhere the natural appeared as mid-brown sandy clay and was recorded as context (14) (Fig. 3, Plate 1).</p>				

## Trench 1



Plate 1. Natural features [8] and [10]

The linear features [8] and [10] (Fig. 3, sections 1 and 2), ran downslope from north to south and may be the result of localised water run-off cutting through the chalky till (7). The linear features were in-filled with mid-brown sandy clay (9) and (11) containing very few natural inclusions, such as flint, which may suggest a process of gradual in-filling. The excavated slots did not exceed a depth of 0.35m and the actual depth of the natural deposits (9) and (11) was consequently not established.

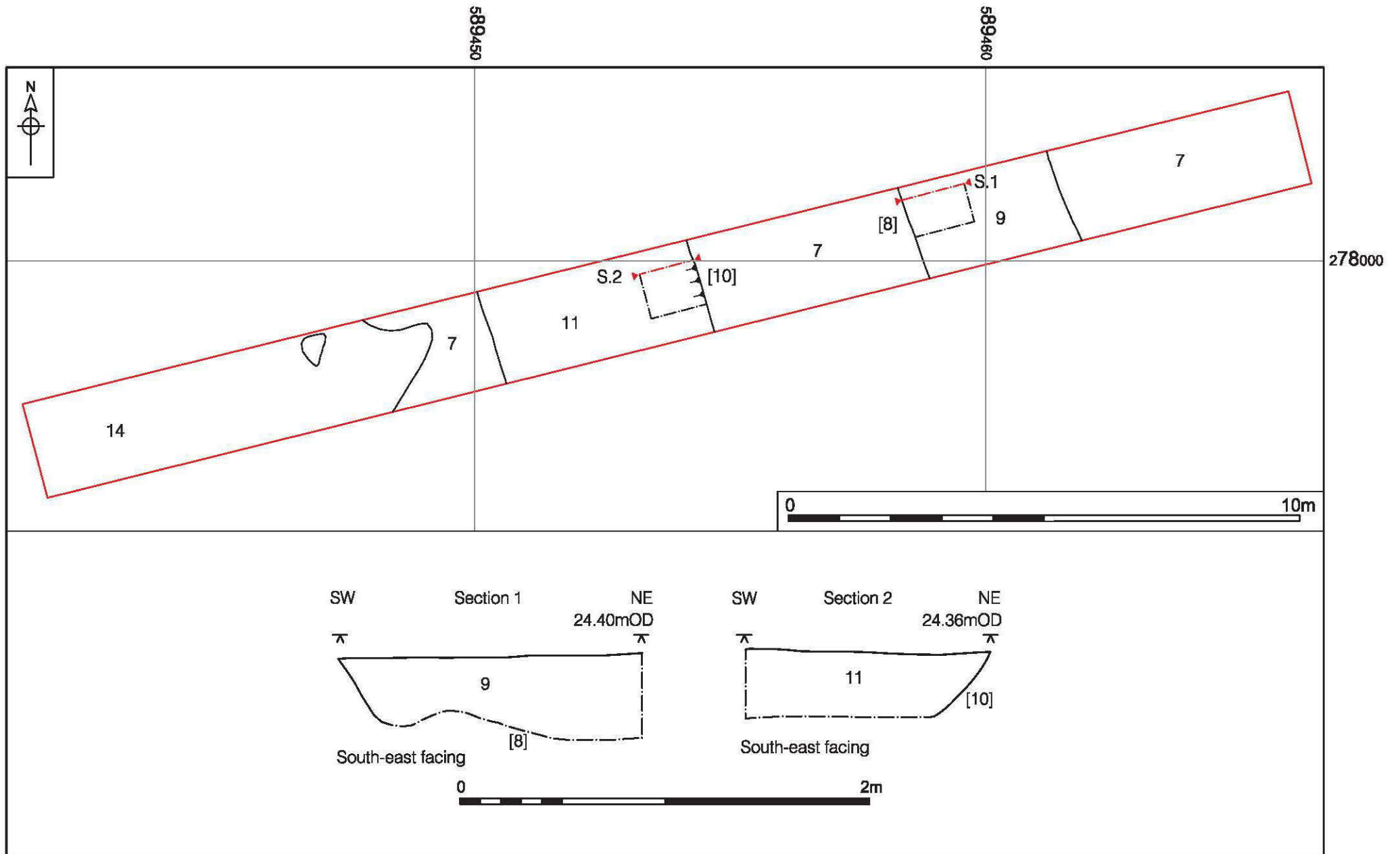


Figure 3. Trench 1. Natural features [8] and [10]. Plan and sections. Scale 1:100 and 1:25

## Trench 2



Trench 2 looking east

### Fig. 2

#### Location

Orientation	East to west
Northeast end	589431.408, 277981.148
Southwest end	589403.551, 277972.083

#### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.35m

#### Levels

Northeast top	23.82m OD
Southwest top	23.35m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Homogeneous dark brown silty sand	0.20m	0.00-0.20m
2	Subsoil	Mid-tinger brown clayey sand and gravel	0.15m	0.20-0.35m

#### Discussion

Trench 2 was located in the northwest of the site and was positioned east to west (Fig. 2). The trench was situated on the upper element of a south-facing slope between 23.82m OD (northeast) and 23.35m OD (southwest).

No archaeological features or deposits were identified in the trench. The natural ground consisted of gravelly sand with occasional clay deposits and chalky till.

### Trench 3



Trench 3 looking north

#### Fig. 2

##### Location

Orientation	North to south
North end	589437.906, 277993.339
South end	589442.616, 277964.913

##### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.45m

##### Levels

North top	24.71m OD
South top	22.80m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Homogeneous dark brown silty sand	0.35m	0.00-0.35m
2	Subsoil	Mid- ginger brown clayey sand	0.10m	0.35-0.45m

#### Discussion

Trench 3 was located in the central northern part of the site and was aligned from north to south (Fig. 2). The trench was positioned on the upper area of a south-facing slope between 24.71m OD (north) and 22.80m OD (south).

No archaeological features or deposits were identified in the trench. The natural ground consisted of mid- ginger brown clayey sand and chalky till with frequent flint nodules.

## Trench 4



Trench 4 looking east

### Fig. 2

#### Location

Orientation	East to west
East end	589482.941, 277974.592
West end	589452.897, 277973.594

#### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.50m

#### Levels

East top	23.48m OD
West top	23.39m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Homogeneous dark brown silty sand	0.35m	0.00-0.35m
2	Subsoil	Mid-ginger brown clayey sand	0.15m	0.35-0.50m

### Discussion

Trench 4 was located to the east in the northern half of the site and was aligned east to west (Fig. 2). The trench was positioned across the upper part of a south-facing slope between 23.48m OD (east end) and 23.39m OD (west end).

No archaeological features or deposits were identified in the trench. The natural ground consisted of mid-ginger brown clayey sand with occasional deposits of chalky till.

## Trench 5



Trench 5 looking south

### Fig. 2

#### Location

Orientation	Northwest to southeast
Northwest end	589463.464, 277951.242
Southeast end	589470.575, 277922.776

#### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.45m

#### Levels

Northwest top	22.33m OD
Southeast top	20.89m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Homogeneous dark brown silty sand	0.35m	0.00-0.35m
2	Subsoil	Mid-ginger brown clayey sand and gravel	0.10m	0.35-0.45m

### Discussion

Trench 5 was located in the northern half of the site on the east side and was aligned north to south (Fig. 2). The trench was positioned in the central area of a south-facing slope between 22.33m OD (northwest) and 20.89m OD (southeast).

No archaeological features or deposits were identified in the trench. The natural ground consisted of mid-ginger brown clayey sand.



## Trench 6



Trench 6 looking east

### Figs 2 and 4, Plate 2

#### Location

Orientation	East to west
East end	589448.519, 277935.621
West end	589418.515, 277934.403

#### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.40m

#### Levels

East top	21.40m OD
West top	21.51m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Topsoil	Homogeneous dark brown silty sand	0.30m	0.00-0.30m
2	Subsoil	Mid-orangey brown clayey sand and gravel	0.10m	0.30-0.40m
4	Cut	Natural linear feature	0.20m	0.40-0.60m
5	Deposit	Fill of [4]	0.20m	0.40-0.60m
6	Deposit	Fill of [4]	0.20m	0.40-0.60m
12	Cut	Sub-circular feature - mid-brown clayey sand	0.22m	0.40-0.60m
13	Deposit	Fill of [12]	0.22m	0.40-0.62m

#### Discussion

Trench 6 was located in the central part of the northern half of the site and was aligned east to west (Fig. 2). The trench was positioned across a south-facing slope between 21.40m OD (east end) and 21.51m OD (west end). This trench was excavated in two parts because of an electric fence (Fig. 2).

No archaeological features or deposits were identified in the trench. The natural ground consisted of mid-brown clayey sand and chalky till with frequent flint nodules.

One slot was excavated at the intersection of a linear feature [4] with a bulbous, sub-circular feature [12] (Fig. 4, Plate 2).

The excavated section demonstrated that the linear feature [4] was 0.20m deep and contained two deposits (5) and (6). Deposit (5) consisted of mid-brown clayey sand which appeared in section to cut through natural chalky till (6). A sub-circular, bulbous feature [12] was situated to the west of feature [4]. The sub-circular projection also proved to be naturally-occurring. It contained a single fill (13) that was similar in composition to deposit (5) (Fig. 4, Plate 2).

**Trench 6**



Plate 2. Natural features [4] and [12]

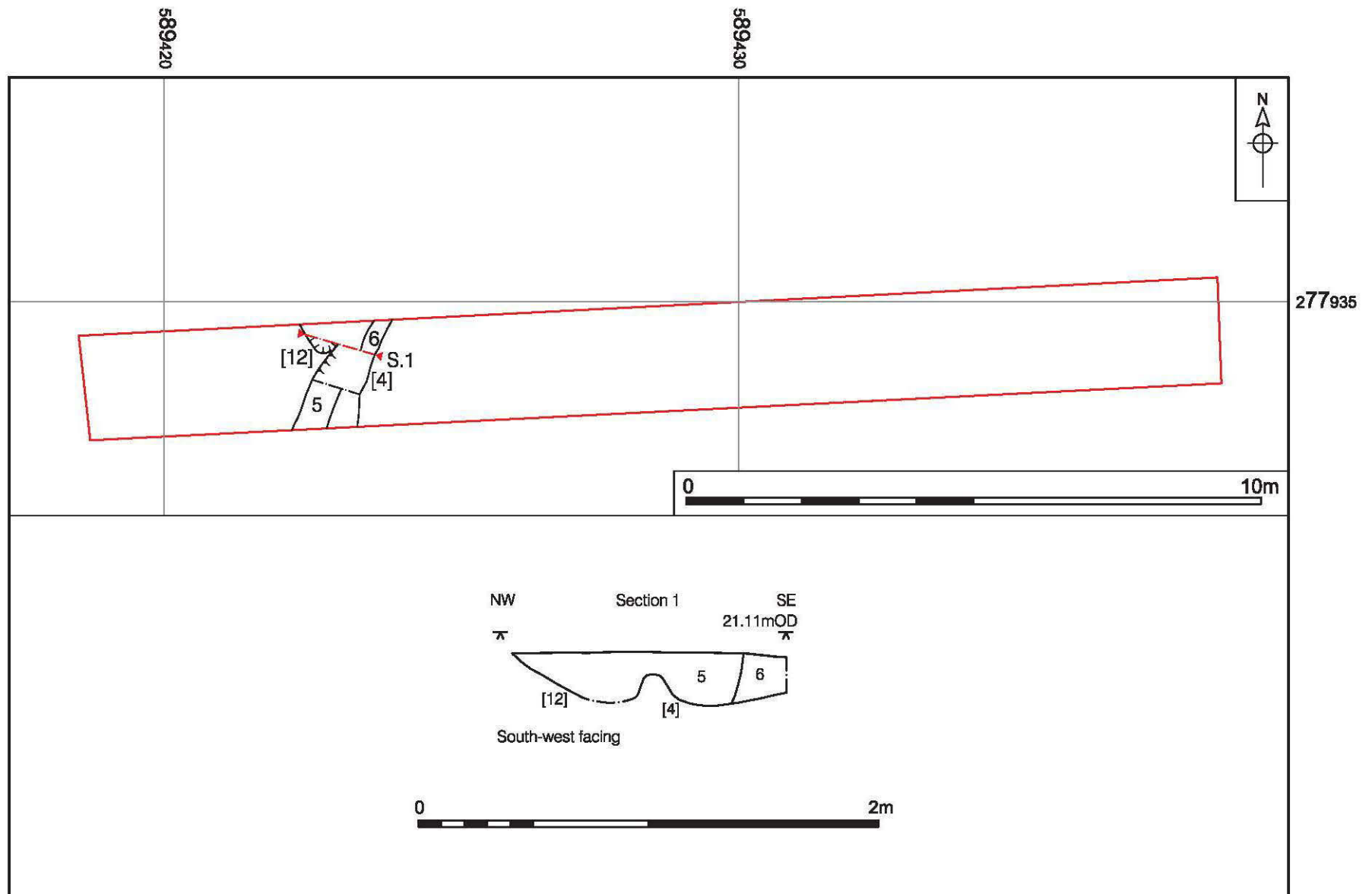


Figure 4. Trench 6. Natural features [4] and [12]. Plan and section. Scale 1:100 and 1:25

## Trench 7



Trench 7 looking north

**Fig. 2**

### Location

Orientation	Northwest to southeast
Northwest end	589406.393, 277964.444
Southeast end	589415.304, 277936.369

### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.40m

### Levels

Northwest top	22.82m OD
Southeast top	21.49m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Deposit	Homogeneous dark brown silty sand	0.30m	0.00-0.30m
2	Deposit	Mid-tinger brown clayey sand and gravel	0.10m	0.30-0.40m

### Discussion

Trench 7 was located in the northwest part of the site and was aligned north to south (Fig. 2). The trench was positioned on the upper area of a south-facing slope between 22.82m OD (east end) and 21.49m OD (west end).

No archaeological features or deposits were identified in the trench. The natural ground consisted of mid-brown clayey sand and chalky till with frequent flint nodules.

## Trench 8



Trench 8 looking north

### Fig. 2

#### Location

Orientation	North to south
North end	589435.666, 277866.479
South end	589439.547, 277837.006

#### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.50m

#### Levels

North top	19.81m OD
South top	19.67m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Deposit	Homogeneous dark brown silty sand	0.40m	0.00-0.40m
3	Deposit	Mid-grey clayey sand and gravel	0.10m	0.40-0.50m

#### Discussion

Trench 8 was located at the south end of the site and was aligned north to south (Fig. 2). The trench was positioned on the lower part of a south-facing slope between 19.81m OD (north end) and 19.67m OD (south end).

No archaeological features or deposits were identified in the trench. The natural ground consisted of mid-brown clayey sand and chalky till with frequent flint nodules.

## Trench 9



Trench 9 looking east

**Fig. 2**

### Location

Orientation	East to west
East end	589479.163, 277839.310
West end	589451.492, 277835.636

### Dimensions

Length	30.00m
Width	1.80m
Average depth	0.30m

### Levels

East top	19.06m OD
West top	19.63m OD

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Deposit	Homogeneous dark brown silty sand	0.20m	0.00-0.20m
3	Deposit	Mid-grey clayey sand and gravel	0.10m	0.20-0.30m

### Discussion

Trench 9 was located in the central southern part of the site and was aligned east to west (Fig. 2). The trench was positioned on the lower part of a south-facing slope between 19.06m OD (east end) and 19.63m OD (west end).

No archaeological features or deposits were identified in the trench. The natural ground consisted of mid-brown clayey sand and chalky till with frequent flint nodules.

## **6.0 CONCLUSIONS**

Although the site was situated in an area of high archaeological potential, no archaeological features or deposits were identified.

Natural features were observed in trenches across the site and sample excavations in two trenches (Trench 1 and 6) were undertaken to determine that the features were of non-cultural origin. The natural features were predominantly linear in appearance and were aligned north to south. There is the possibility that the linear features represent the erosive effects of water, following the gradient of the south-facing slope, cutting into the natural chalky till upon which the proposed development is sited.

The excavated sections of the natural features in Trenches 1 and 6 demonstrated that the natural chalky till had been cut through and, most likely, that the cuts had in-filled gradually with mid-brown clayey sand.

Recommendations for mitigation work, if required, will be made by the Archaeological Service Conservation Team of Suffolk County Council

## ***Acknowledgements***

The author would like to thank Kit Wells of Little Green Consulting Ltd for commissioning and funding the project. Thanks are given to Andrew Blenkinsop, Estates Director for Euston Estate for arranging access to the land and for providing welfare facilities.

The fieldwork was undertaken by the author, Tom Baxter Campbell and Liz Matthews. The surveying was undertaken by Adam Harper of NPS Land Survey Team. The machining of the trenches was undertaken by Bryn Williams, Civil Engineering.

Thanks are extended to Matthew Brudenell and Rachael Monk of Suffolk County Council Archaeological Service Conservation Team.

This report was illustrated and produced by David Dobson and edited by Andrew Crowson.

## ***Bibliography and Sources***

Department for Communities and Local Government 2012 *National Planning Policy Framework*

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html> Accessed 03.02.2014



### Appendix 1a: Context Summary

Context	Category	Fill Of	Description	Period	Trench
1	Deposit		Topsoil	Modern	1 to 9
2	Deposit		Subsoil	Uncertain	1 to 9
3	Deposit		Subsoil	Uncertain	8 and 9
4	Cut		Natural linear feature	Uncertain	6
5	Deposit	4	Mid-brown clayey sand	Uncertain	6
6	Deposit	4	Natural chalky till	--	6
7	Deposit		Natural chalky till	--	1
8	Cut		Natural linear feature	Uncertain	1
9	Deposit	8	Mid-brown clayey sand	Uncertain	1
10	Cut		Natural linear feature	Uncertain	1
11	Deposit	10	Mid-brown clayey sand	Uncertain	1
12	Cut		Natural sub-circular feature	Uncertain	6
13	Deposit	12	Mid-brown clayey sand	Uncertain	6
14	Deposit		Mid-brown clayey sand	Uncertain	1

### Appendix 1b: OASIS Feature Summary

Period	Category	Total
Uncertain	Natural feature	4

## Appendix 2: OASIS Report Summary

# OASIS DATA COLLECTION FORM: England

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## Printable version

**OASIS ID: norfolka1-169989**

### Project details

Project name	EUSTON, Gas pipeline and anaerobic digester EVALUATION
Short description of the project	An archaeological evaluation by trial trenching was conducted for Little Green Consulting Ltd ahead of a proposed development of an anaerobic digestion plant and end storage tanks at Home Farm, Euston, Suffolk. Nine trenches were excavated, none of which contained archaeological features and deposits. Other features were observed in trenches across the site and sample excavation of typical examples in two trenches demonstrated that the features were of natural origin.
Project dates	Start: 30-01-2014 End: 31-01-2014
Previous/future work	No / Not known
Any associated project reference codes	EUN 048 - HER event no.
Type of project	Field evaluation
Site status	None
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	NATURAL FEATURE Uncertain
Significant Finds	NONE None
Methods & techniques	"Sample Trenches"
Development type	Pipelines/cables (e.g. gas, electric, telephone, TV cable, water, sewage, drainage etc.)
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Between deposition of an application and determination

### Project location

Country	England
Site location	SUFFOLK ST EDMUNDSBURY EUSTON Gas pipeline anaerobic digester, Home Farm
Study area	2.20 Hectares
Site coordinates	TL 8943 7796 52.3664383492 0.782662075947 52 21 59 N 000 46 57 E Point

**Project creators**

Name of Organisation	NPS Archaeology
Project brief originator	Suffolk County Council Archaeological Services
Project design originator	NPS Archaeology
Project director/manager	Nigel Page
Project supervisor	John Ames
Type of sponsor/funding body	Consultant
Name of sponsor/funding body	Little Green Consulting Ltd

**Project archives**

Physical Archive Exists?	No
Digital Archive recipient	NPS Archaeology
Digital Contents	"Survey", "other"
Digital Media available	"Images raster / digital photography", "Images vector", "Survey", "Text"
Paper Archive recipient	Suffolk County Council
Paper Contents	"other"
Paper Media available	"Context sheet", "Plan", "Report", "Section"

**Project bibliography 1**

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Evaluation by Trial Trench at Home Farm, Euston Estate, Suffolk
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Other bibliographic details	Report 2014/1141
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Entered by	J Bown (jayne.bown@nps.co.uk)
Entered on	25 April 2014

## OASIS:

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## **Appendix 3: Archaeological Specification**

**NPS ARCHAEOLOGY**

**EUSTON ESTATE GAS PIPELINE  
EUSTON  
SUFFOLK**

**SPECIFICATION  
FOR  
ARCHAEOLOGICAL EVALUATION**

Prepared for

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4 Little Green Close  
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**January 2014**

**Reference No: 01-04-14-2-1141**

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## **1. Introduction**

- 1.1 Proposals for the construction of a new gas pipeline and anaerobic digester at Home Farm, Euston, Suffolk (TL 8943 7796) require a programme of archaeological evaluation to investigate the archaeological potential of the digester plant site and determine the likely archaeological implications of its construction.
- 1.2 The proposed digester site lies in an area of known archaeological potential recorded on the Suffolk Historic Environment Record and evidence of prehistoric, Roman and Saxon settlement is known from the surrounding area. Given the known archaeological remains around the area, there is high potential for buried archaeological remains to be present on the site.
- 1.3 Because of the site's location and potential the Archaeological Service Conservation Team of Suffolk County Council have recommended that an archaeological evaluation is required to determine the archaeological potential of the site and the likely impacts of the scheme on that potential. The scope of the evaluation was set out in a planning condition recommended by the Archaeological Service Conservation Team of Suffolk County Council (Matthew Brudenell 1 August 2013).
- 1.4 In order to comply with that requirement Little Green Consulting Ltd have requested that NPS Archaeology prepare costs and this project design for undertaking a programme of archaeological works to fulfil the requirements of the Archaeological Brief.

## **2. Aims**

- 2.1 The Programme of Archaeological Work stipulated by The Archaeological Service Conservation Team of Suffolk County Council is required to recover, by archaeological evaluation, information relating to the extent, date, phasing, character, function, status and significance of the site. A determination of the state of preservation of any features, deposits and structures is also required.
- 2.2 The aims of the archaeological work may therefore be summarised as follows:
  - i. *To establish the presence or absence of archaeological remains within the proposed area.*
  - ii. *To determine the extent, condition, nature, quality and date of any archaeological remains occurring within the site and the possible impacts of the proposed development on them.*
  - iii. *Ensure that any archaeological features discovered during trial trenching are identified, sampled and recorded and, where it is desirable, recommendations for their preservation in situ are made.*
  - iv. *To establish, as far as possible, the extent, character, stratigraphic sequence and date of archaeological features and deposits, and the nature of the activities which occurred at the site during the various periods or phases of its occupation*
  - v. *To establish the palaeoenvironmental potential of subsurface deposits by ensuring that any deposits with the potential to yield palaeoenvironmental data are sampled and submitted for assessment to the appropriate specialists.*
  - vi. *To explore evidence for social, economic and industrial activity.*
  - vii. *To disseminate the archaeological data recovered by the evaluation in the form of a formal report which will provide the basis for decisions regarding further archaeological intervention and mitigation proposals.*



### **3. Method Statement**

#### **3.1 Introduction**

3.1.1 A three-stage evaluation strategy will be undertaken to assess the archaeological potential of the proposed development site. The stages of this strategy may be summarised as follows.

- i. Trial Trenching.* Manual excavation will be employed to investigate the presence, condition, character and date of any subsurface archaeological deposits and features occurring within the site. Any archaeological features identified will be cleaned and sample excavated to determine function, form and relative date.
- ii Post-fieldwork Processes.* The drawn and written stratigraphic/structural record will be cross-referenced and analysed to provide a synthesis of the results of the work. The cleaning and cataloguing of any artefactual and ecofactual materials recovered will be carried out throughout the duration of the fieldwork. The finds will be cleaned, marked and packaged in accordance with the archive requirements of the Suffolk Store or relevant museum.
- iii. Report and Archive.* The report will describe the results of the window sampling and trial trenching with data presented in tabular, graphic and appendix form. Copies of the reports will be submitted to the client and to The Archaeological Service Conservation Team of Suffolk County Council.

3.1.2 The procedures and methodology for each of the stages outlined above are described in detail below.

#### **3.2 Trial Trenching**

3.2.1 Trial trenching will be concerned with establishing the condition, character and date of any subsurface archaeological features and deposits present. Guidelines set out in the documents *Standard and Guidance for an Archaeological Field Evaluation* (Institute for Archaeologists 2008), *Requirements for a Trenched Archaeological Evaluation 2011* (SCCAS 2011) and *Standards for Field Archaeology in the East of England* (Gurney 2003) will be followed.

3.2.2 Seven trenches, 30m x 1.8m, will be excavated within the footprint of the proposed digester plant to give a c.5% sample of the area (Fig. 1). Two further trenches will be excavated in the area at the south of the site making a total of nine.

3.2.3 The trenches will be set out by NPS Archaeology and CAT-scanned prior to excavation. The final location of the trenches may be determined on the basis of surface or below ground obstructions and all Health and Safety considerations. Other considerations such as public access may also be a factor.

3.2.4 Excavation will be by hand until natural ground or archaeological deposits are identified.

3.2.5 Initial excavation will be undertaken to the top of any undisturbed archaeological deposits or the surface of the underlying natural deposits, whichever is the highest. If neither is encountered it may be necessary to excavate to a maximum depth of 1.2m below the present ground surface in line with Health and Safety legislation for trenches with unsupported sides. If further excavation below 1.2m is required the trench sides may need to be locally stepped or shored. The requirement for

excavation below 1.2m will be determined following a site review with the Archaeological Service Conservation Team of Suffolk County Council. This will then be agreed and costed separately.

- 3.2.6 If the deposits within the trenches are thought to extend too deep to evaluate safely or below the likely level of any development impacts a hand auger may be used to retrieve information about the nature of the lower deposits.
- 3.2.7 The trenches will be fenced using Netlon high-visibility fencing throughout the excavation and appropriate warning signage will be displayed.
- 3.2.8 Spoil from the trenches will not be removed from site. The trenches will not be backfilled by NPS Archaeology until agreement to do so is given by the Archaeological Service Conservation Team of Suffolk County Council. This backfilling will not attempt consolidation or compaction over and above that possible with a mechanical excavator. Full surface reinstatement will not be attempted, but all trenches will be left in a safe condition.
- 3.2.9 Exposed surfaces and all archaeological features and deposits will be excavated by hand and screened by metal detector. A Tesoro Laser B3 or a Fisher 1265X metal detector will be utilised to scan excavated spoil and *in situ* horizons with the operator ensuring that it is used in a correct fashion. All artefactual and ecofactual materials will be collected and bagged by context.
- 3.2.10 Detailed strategies for levels of sampling of buried soils, structures, pits, post-holes and ditches will be determined on site. Allowance will be made for total recovery where appropriate; percentage sampling will apply in areas where complex stratified deposits are encountered. Buried soils will be sampled by sieving to determine artefact densities. In general, the feature/deposit sampling strategy will be employed throughout the evaluation in accordance with the document *Standards for Field Archaeology in the East of England* (Gurney 2003).
- 3.2.11 All archaeological deposits, features and layers will be assigned individual context numbers and recorded on standardised forms employing the NPS Archaeology's pro forma recording system. The records will include full written, graphic and photographic elements with site and context numbering compatible with the Suffolk Historic Environment Record numbering system. Plans will be made at a scale of 1:50, with provision for 1:20 and 1:10 drawings. Sections will be recorded at scales of 1:10 and 1:20 depending on the detail considered necessary. A photographic record in black and white and colour (35mm film/digital) will be maintained of all archaeological deposits, layers and features to record their characteristic and relationships. Photographs will also be taken to record the progress of the evaluation.
- 3.2.12 Human remains will be left *in situ* unless otherwise instructed by The Archaeological Service Conservation Team of Suffolk County Council. If any human remains or burials are encountered which must be removed an application for a Licence For the Removal of Human Remains will be made in compliance with the 1857 and 1981 Burial Acts and within all relevant Ministry of Justice guidelines. Backfilling of features containing human remains will be done manually to ensure that the remains are appropriately protected from any damage or disturbance.
- 3.2.13 Soil samples for palaeoenvironmental materials will be collected if suitable sealed and well-dated deposits are encountered. Standard 80 litre bulk soil samples, column or monolith samples and Kubiena tins will be collected from such deposits as appropriate, in consultation with the English Heritage Regional Advisor for Archaeological Science and other consultant environmentalists. In all instances, sampling procedures will follow the guidelines set out in the document *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation* (English Heritage 2002). Full written, graphic and

photographic sample records will be made using NPS Archaeology's pro forma recording system.

### **3.3 Post-Fieldwork Processes**

- 3.3.1 The drawn and written stratigraphic/structural record will be cross-referenced and analysed to provide a synthesis of the results of the work.
- 3.3.2 The cleaning and cataloguing of any artefactual materials recovered will be undertaken on completion of the trial trenching. All retained materials will be cleaned, marked and packaged in accordance with the requirements of the relevant museum or repository.
- 3.3.3 Post-fieldwork analyses will start upon completion of the finds processing and will involve the identification and description of the artefactual materials recovered by the relevant specialists. In general, the following strategies will be employed in the analysis of the artefactual materials recovered:
- *Pottery*. Analysed to determine date and tabulated by context unit.
  - *Worked flint*. Sorted and tabulated by context unit.
  - *Metal artefacts*. Assessed for dating and significance, catalogued by context unit and where necessary conserved within four weeks of completion of fieldwork, in accordance with *UK Institute of Conservators Guidelines*.
  - *Faunal Remains*. Sorted and tabulated by context unit. Assessed for the potential for further analysis and for sieving for the recovery of smaller bird and fish bones.
  - *Environmental Samples*. Processed and assessed for content and significance.
  - Other categories of artefactual materials will be analysed in a similar fashion.
- 3.3.4 All finds work will follow the procedures set out in the document *Standards and Guidelines for the collection, documentation, conservation and research of archaeological materials* (Institute for Archaeologists 2001). Finds data will be stored on a database to aid analysis and report preparation.

### **3.4 Report and Archive**

- 3.4.1 An evaluation report will be prepared. This report will present the results of the stratigraphic, structural, artefactual and environmental evidence and analyses of the results of the trial trenching. The report will also include a consideration of the results of a search of the Suffolk Historic Environment record for information on known historic assets in the area to place the evaluation results in context.
- 3.4.2 The report will present data in tabular, graphic and appendix form. A list of archive components generated by the work will also be included in the report. Copyright of the reports will be retained by NPS Archaeology.
- 3.4.3 Multiple copies of the report will be produced as appropriate and presented to Little Green Consulting Ltd. and an unbound hard draft copy of the report will be presented to the Archaeological Service Conservation Team of Suffolk County Council for approval. Once the report has been approved a single hard copy and a digital pdf will be submitted. An HER form will accompany the evaluation report and will include a reference to the archive and the intended place of archive deposition. The report will be submitted within eight weeks of the completion of the fieldwork.
- 3.4.4 If the evaluation returns positive results a summary suitable for inclusion in the annual 'Archaeology in Suffolk' section of the Suffolk journal will be prepared and submitted to SCCAS/CT.

- 3.4.5 NPS Archaeology supports the OASIS project. An online record will be initiated immediately prior to the start of fieldwork and completed when the final report is submitted to the Archaeological Service Conservation Team of Suffolk County Council. This will include a pdf version of the final report.
- 3.4.6 A single integrated archive for all elements of the work will be prepared according to the recommendations set out in *Environmental standards for the permanent storage of excavated material from archaeological sites* (UKIC, Conservation Guidelines 3, 1984) and *Guidelines for the preparation of excavation archives for long-term storage* (Walker 1990), and in accordance with the relevant Museum or repository's requirements for archive preparation, storage and conservation.
- 3.4.7 The archive will be fully indexed and cross-referenced and prepared in such a form that it can be microfilmed on behalf of the National Monuments Record. It will also be integrated with the Suffolk Store or relevant museum Project accession number and the Suffolk Historic Environment Record numbering system. The silver master will be deposited with National Monuments Record and a diazo copy with the Suffolk Historic Environment Record. Deposition of the archive and finds (by prior agreement with the landowners) will take place within six months of the completion of the final report and confirmed in writing to the Suffolk Store or relevant museum. A full listing of archive contents and finds boxes will accompany the deposition of the archive and finds.
- 3.4.8 All archaeological materials, excepting those covered by the *Treasure Act, 1996*, will remain the property of the landowners. NPS Archaeology will seek to reach a formal agreement with the landowners for the donation of the finds to the Suffolk Store or relevant museum.

#### **4. Timetable**

- 4.1 The timetable for fieldwork assumes that there are no major delays to the work programme caused by vandalism, repeated plant breakdown, restricted access, programme changes by the Client or major periods of adverse weather conditions.

#### **5. Staffing**

- 5.1 The project will be co-ordinated by a Senior Project Officer who will be dedicated to the project throughout its duration. The Project Manager will assume responsibility for all aspects of the project including finance, logistics, standards, health and safety, and liaison with the client and curators. The Project Officer will have substantial experience in archaeological evaluation and post-excavation analysis.
- 5.2 Other members of staff involved in the project will be the Experienced Excavators and Finds Co-ordinator staff. Experienced Excavator staff will have experience in excavation and experience with NPS Archaeology's *pro forma* recording system or similar systems. The Project Officer and/or Experienced Excavator staff will be experienced metal detector users.
- 5.3 NPS Archaeology staff associated with the project will be as follows:

<b>Project Management</b>	
Archaeology Manager	Jayne Bown BA, MIFA
Project Manager	Nigel Page BA AIFA

<b>Project Staff</b>	
Senior Project Officer	John Ames
Finds Co-ordinator	Becky Sillwood
Experienced Excavators	To be nominated

- 5.4 NPS Archaeology reserves the right, because of its developing work programme, to change its nominated personnel at any time. This will be in consultation with the client and the Archaeological Service Conservation Team of Suffolk County Council.
- 5.5 The analysis of artefactual and ecofactual materials will be undertaken by NPS Archaeology staff or nominated external specialists. Nominated NPS Archaeology and external specialists and their areas of expertise are as follows:
- 5.5.1 *Specialists used by NPS Archaeology*

<b>Specialist</b>	<b>Research Field</b>
Andy Barnett	Metal-detectorist, Numismatic Items
Andy Peachey	Prehistoric pottery, Roman Pottery, Fired Clay, worked flint
Becky Sillwood AIFA	Metal finds
David King	Window Glass
Debbie Forkes	Conservation
Fran Green BSc, PhD	Palaeoenvironmental
Jo Mills	Worked Stone Artefacts
John Shepherd	Vessel Glass
Julie Curl	Faunal Remains
Richard Macphail	Micromorphology
Roger Doonan	Non-Ferrous Metalworking
Sarah Bates	Worked Flint
Stephen Heywood	Architectural Stonework
Sue Anderson	Post-Roman Pottery, CBM, human remains
Val Fryer	Macrofossil analysis

## **6. General Conditions**

- 6.1 NPS Archaeology will not commence work until a written order or signed agreement is received from the Client. Where the commission is received through an Agent, the Agent is deemed to be authorised to act on behalf of the Client. NPS Archaeology reserve the right to recover unpaid fees for the service provided from the Agent where it is found that this authority is contested by said Client.
- 6.2 NPS Archaeology would expect information on any services crossing the site to be provided by the client.
- 6.3 A 7.4 hour working day is normally operated by NPS Archaeology, although their agents may work outside these hours.
- 6.4 NPS Archaeology would expect the client to arrange suitable access to the site for its staff, plant and welfare facilities on the agreed start date.
- 6.5 NPS Archaeology would expect any information concerning the presence of TPOs and/or, protected flora and fauna on the site to be provided by the client prior to the commencement of works and accept no liability if this information is not disclosed. No excavation will take place within 8m or canopy width (whichever is the greater) of any trees within or bordering the site.
- 6.6 NPS Archaeology shall not be held responsible for any delay or failure in meeting agreed deadlines resulting from circumstances beyond its reasonable control. Such circumstances would include without limitation; long periods of adverse weather conditions, flooding, repeated vandalism, ground contamination, delays in the development programme, unsafe buildings, conflicts between the archaeological excavation method and the protection of flora and fauna on the site, disease restrictions, and unexploded ordnance.
- 6.7 Whether or not CDM regulations apply to this work, NPS Archaeology would expect the client to provide information on the nature, extent and level of any soil contamination present. Should unanticipated contaminated ground be encountered

during the trial trenching, excavation will cease until an assessment of risks to health has been undertaken and on-site control measures implemented. NPS Archaeology will not be liable for any costs related to the collection and analysis of soils or other assessment methods, on-site control measures, and the removal of contaminated soil or other materials from site.

- 6.8 Should any disease restrictions be implemented for the area during the evaluation, fieldwork will cease and staff redeployed until they are lifted. NPS Archaeology will not be liable for any costs related to on-site disease control measures and for any additional costs incurred to complete the fieldwork after the restrictions have been removed.
- 6.9 NPS Archaeology will not accept responsibility for any tree surgery, removal of undergrowth, shrubbery or hedges or reinstatement of gardens. NPS Archaeology will endeavour to restrict the levels of disturbance of to a minimum but wishes to bring to the attention of the client that the works will necessarily alter the appearance of any landscaped gardens.

## **7. Quality Standards**

7.1 NPS Archaeology is an Institute for Archaeologists Registered Archaeological Organisation and fully endorses the *Code of Practice* and the *Code of Practice for the Regulation of Contractual Arrangements in Field Archaeology*. All staff employed or subcontracted by NPS Archaeology will be employed in line with The Institute for Archaeologists *Code of Practice*.

7.2 The guidelines set out in the document *Standards for Field Archaeology in the East of England* (Gurney 2003) will be adhered to. Provision will be made for monitoring the work by The Archaeological Service Conservation Team of Suffolk County Council in accordance with the procedures outlined in the document *Management of Archaeological Projects* (English Heritage 1991). Monitoring opportunities for each phase of the project are suggested as follows:

- during Trial Trenching
- during Post-Fieldwork Analysis
- upon completion of the archive
- upon receipt of the Evaluation Report

7.3 A further monitoring opportunity will be provided at the end of the project upon deposition of the integrated archive and finds with the Suffolk Museums and Archaeology Service.

7.4 NPS Archaeology operates a Project Management System. Most aspects of this project will be co-ordinated by a Senior Project Officer who is responsible for the successful completion of the project. The Project Manager retains the responsibility for the delivery of this project. The Archaeology Manager has the responsibility for all of NPS Archaeology's work and ensures the maintenance of quality standards within the organisation.

## **8. Health and Safety**

8.1 NPS Archaeology will ensure that all work is carried out in accordance with NPS Property Consultants Limited's Health and Safety Policy, to standards defined in *the Health and Safety at Work, etc Act, 1974* and *The Management of Health and Safety Regulations, 1992*, and in accordance with the health and safety manual *Health and Safety in Field Archaeology* (SCAUM 2007).

8.2 A risk assessment will be prepared for the fieldwork. All staff will be briefed on the contents of the risk assessment and required to read it. Protective clothing and equipment will be issued and used as required.

8.3 NPS Archaeology will provide copies of NPS Property Consultants Limited's Health and Safety policy on request.

## 9. Insurance

9.1 NPS Archaeology's Insurance Cover is:

Employers Liability	£ 5,000,000
Public Liability	£50,000,000
Professional Indemnity	£ 5,000,000

9.2 Full details of NPS Archaeology's Insurance cover will be supplied on request.

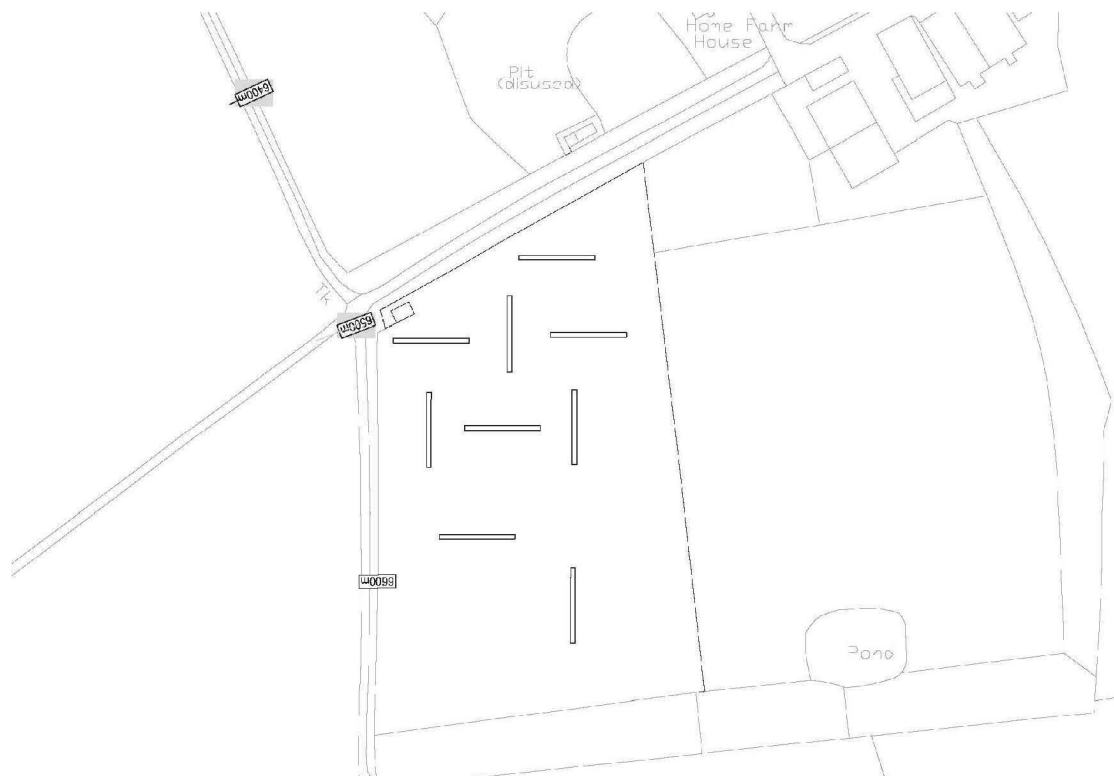


Figure 1: Suggested trench locations.