Report 2012/1254

nps archaeology

Archaeological Watching Brief at Lovetofts Drive, Ipswich, Suffolk

IPS 700

Prepared for
Anglian Water Services Limited
Thorpe Wood House
Thorpe Wood
Peterborough
Cambridgeshire
PE3 6WT

Steve Hickling BA MA AI*f*A

December 2012

www.nps.co.uk

PROJECT CHECKLIST		
Project Manager	David Whitmore	
Draft Completed	Steve Hickling	05/11/2012
Graphics Completed	David Dobson	14/12/2012
Edit Completed	Jayne Bown	05/12/2012
Signed Off	David Whitmore	05/12/2012
Issue 1		

NPS Archaeology
Scandic House
85 Mountergate
Norwich
NR1 1PY

T 01603 756150 F 01603 756190 E jayne.bown@nps.co.uk www.nau.org.uk

01-04-2013-2-1254

Contents

Figures

Location:	Lovetofts Drive, Ipswich, Suffolk
District:	Ipswich
Grid Ref.:	TM 13610, 46769
Planning Ref.:	n/a
HER No.:	IPS 700
OASIS Ref.:	138112
Client:	Anglian Water Services Limited
Dates of Fieldwork:	16–22 October 2012

Summary

Archaeological monitoring was conducted for Anglian Water Services Limited during the excavation of test pits to locate services at Lovetofts Drive, Ipswich.

Walls and a yard surface probably associated with Lovetofts Farm were present in the excavated test pits. They were probably part of farm buildings rather than domestic buildings and could be dated to the 17th-18th century. They were on the same alignment and in approximately the same position as farm buildings shown on the 1882 First Edition Ordnance Survey map. Although they had all been demolished, probably when the mid-20th-century housing estate was built, the walls and surfaces survive at a depth of c.*0.4m below ground level. Although no evidence of the medieval manorial complex believed to be in this location was found, it is likely that archaeological evidence of this, perhaps including structures, may survive elsewhere in the immediate area.*

1. INTRODUCTION

A series of test pits were excavated to locate buried services ahead of the Anglian Water Lovetofts Drive DG5 Scheme at Ipswich. Archaeological monitoring was conducted on nine of the fourteen test pits excavated.

This work was undertaken to fulfil a requirement set by Suffolk County Council Archaeological Service Conservation Team. The work was conducted in accordance with a Project Design and Method Statement prepared by NPS Archaeology (Ref. 01-04-13-2-1254). This work was commissioned and funded by Anglian Water Services Limited.

This programme of work was designed to assist in defining the character and extent of any archaeological remains within the proposed redevelopment 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 Environment Record following the relevant policies on archiving standards.

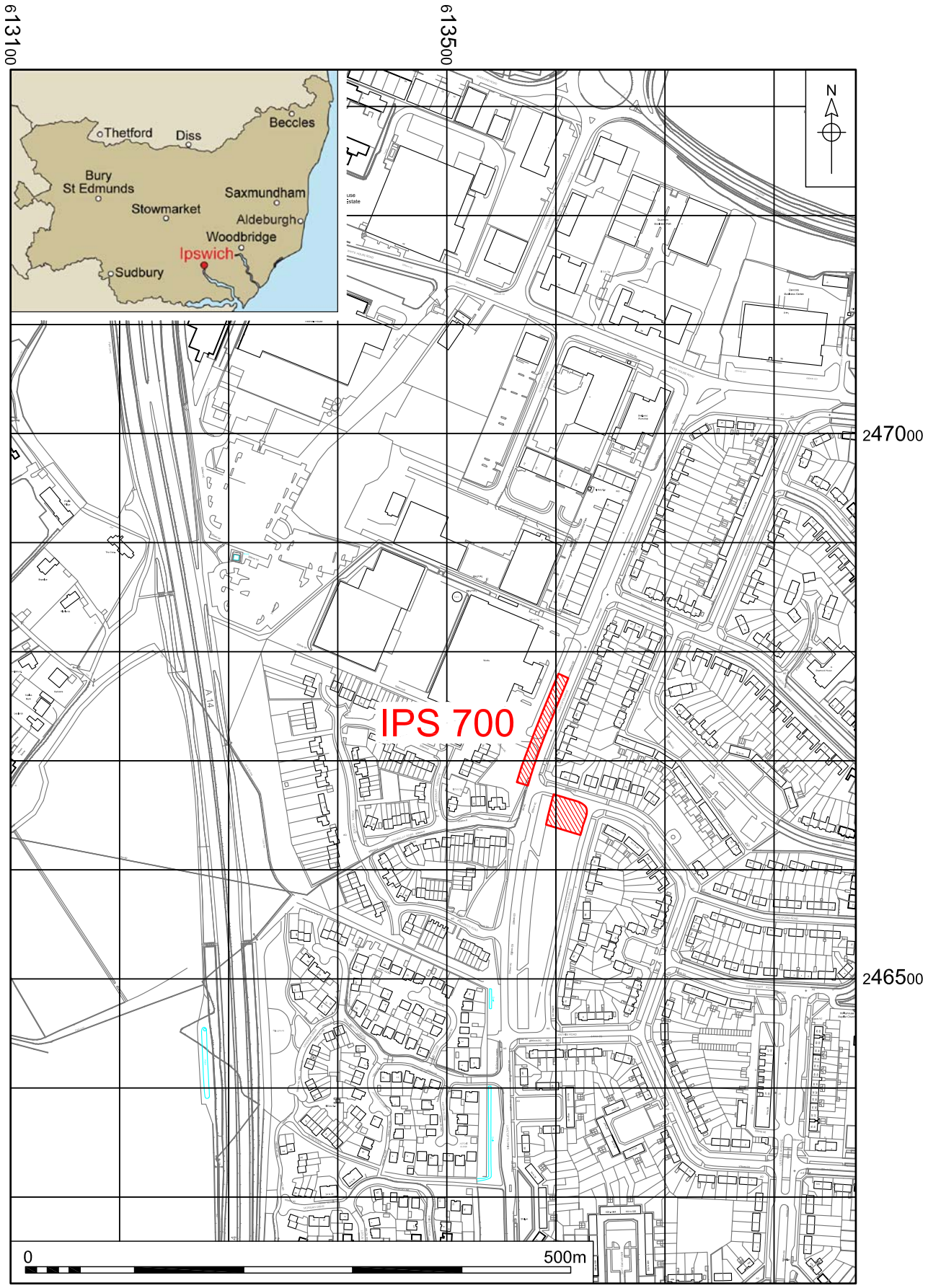

Figure 1. Site location. Scale 1:5000

2. GEOLOGY AND TOPOGRAPHY

The underlying geology consisted of the Quaternary Lowestoft formation of glacial moraines of till and outwash sands and gravels above Palaeogene Thanet sand Formation And Lambeth Group sands and gravels (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

The site was located within mid-to-late 20th-century housing estates to the north-west of Ipswich town centre. The ground slopes down from north to south between heights of 22.5m OD and 18.5m OD. The pits were dug in roadside verges and open grass land (Fig. 2).

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

A search of data held by the Suffolk Historic Environment Record and historic mapping sources was commissioned and consulted during the preparation of this section.

Prehistoric

A Late Palaeolithic or Early Mesolithic tranchet axe and blades (SHER BRF 002) have been found to the north-west of the test pitting area.

An evaluation in 1997 (SHER IPS 283), to the south-west of the test pitting area, found a possible House, a causewayed ring ditch with Bronze Age and Iron Age pottery and a pre-medieval ditch.

During excavations for a new car park in 1993 to the north-west of the present test pitting site, several graves were found. In the resulting evaluation and excavations (SHER IPS247) significant occupation of the Early Iron Age.

A watching brief to the north of the test pitting area (SHER IPS 464) found sherds of unstratified Prehistoric pottery and worked flint.

Roman

A late 1st-century Roman coin (SHER IPS 040) has been found at 2 Cavan Road, to the north-east of the test pitting area.

A late 2nd-century Roman coin (SHER IPS 042) has been found at 6 Wexford Road, to the east of the test pits.

An excavation in 2000 (SHER IPS 401) to the north-west of the test pitting area found a layer containing Late Iron Age and Early Roman pottery and a human skull (probably decapitated) and was overlain by an otherwise undated hearth. Also from site were three worked flints, an Early Iron Age pit and two undated ditches and four undated pits.

During excavations for a new car park in 1993 to the north-west of the present test pitting site, several graves were found. In the resulting evaluation and excavations (SHER IPS 247) significant occupation of the Roman period.

Anglo-Saxon

During excavations for a new car park in 1993 to the north-west of the present test pitting site, several graves were found. In the resulting evaluation and excavations

(SHER IPS 247) significant occupation of the Middle and Late Anglo-Saxon periods.

Medieval

Lovetofts Hall (SHER IPS 261) was a medieval manor the site of which is located at the junction of Maudslay Road and Lovetofts Drive. The manor house is shown on the Tithe map and Ordnance Survey maps until the creation of the council estate in *c*.1950.

Post-Medieval

A brick kiln and works (SHER IPS 251) are shown on the Ordnance Survey map of 1838, to the north-west of the test pitting area.

Lovetofts Farm is not shown on Hodskinson's 1783 map of Suffolk (Hodskinson 2011 (reprint)). It would appear that Lovetofts Farm was superseded by the council estate at some point between 1938 and 1952-3 according to the Ordnance Survey mapping (http://www.old-maps.co. uk/maps.html).

4. METHODOLOGY

The objective of this watching brief was monitor a number of test pits to establish whether archaeological remains were present within the development area affected by the proposed scheme (and to excavate and record such remains) and thus to inform and allow a mitigation strategy to be devised prior to the commencement of works.

The Brief required that archaeological monitoring be undertaken during the excavation of Test Pits 03, 04, 05, 06, 08, 11, 12, 13 and 14 (Fig. 2).

All the test pits were hand dug under constant archaeological supervision.

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

Due to the absence of suitable deposits, environmental samples were not 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.

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

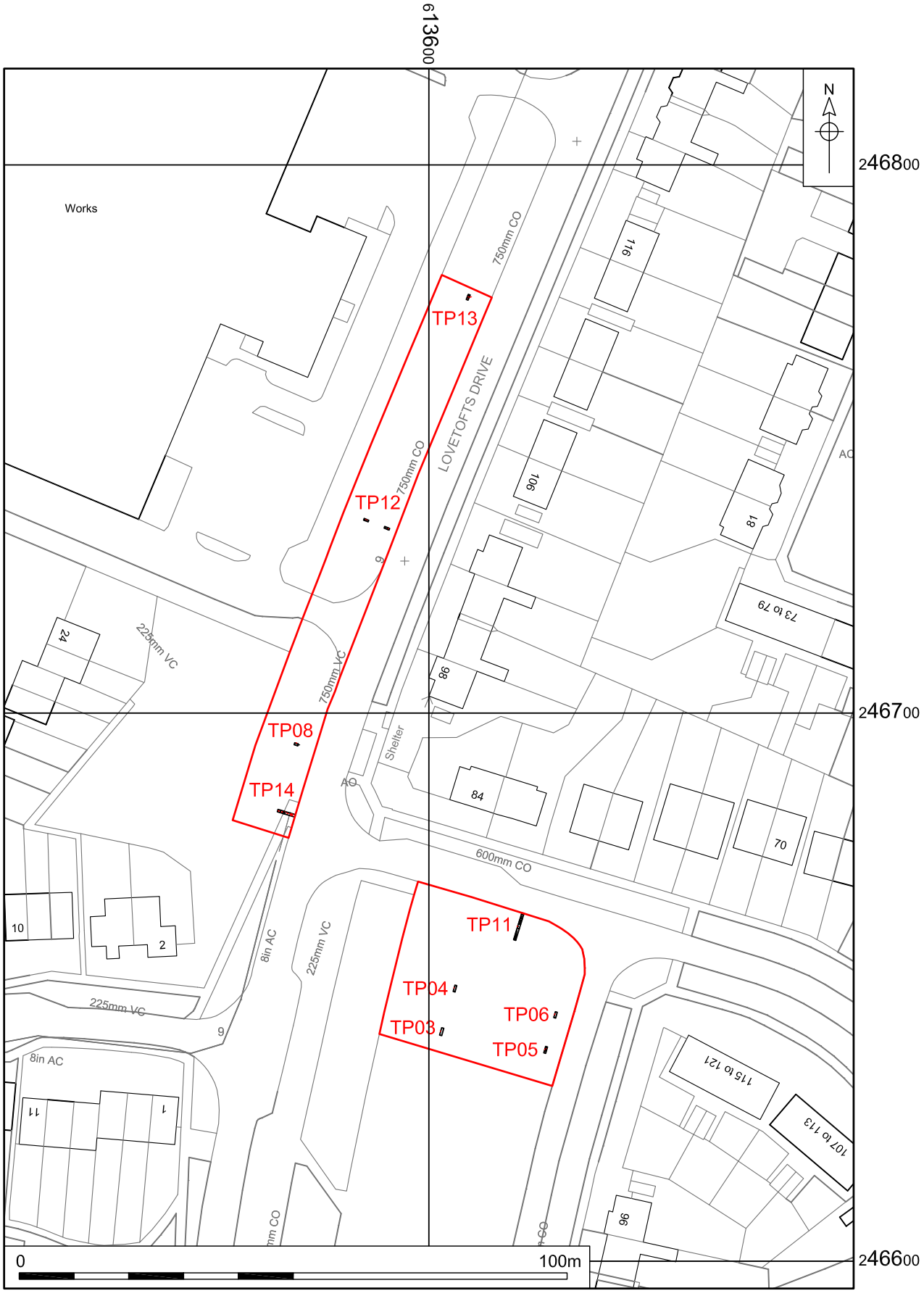

Figure 2. Location of Test Pits. Scale 1:1000

5. RESULTS

Test Pit 03

Figs 2 and 3

Location	
Orientation	North to south
North end	613603 246643
South end	613602 246641
Dimensions	
Length	1.40m
Width	0.40m
Depth	1.30m

Context	Type	Description and Interpretation	Thickness	Depth BGL
01	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.30m	0.00-0.30m
02	Deposit	Mid brown silty clay with frequent lumps of redeposited natural clay and occasional CBM fragments and flint gravel	0.10m	0.30-0.40m
03	Deposit	Mid brown silty clay with moderate lumps of redeposited natural clay and occasional CBM fragments and flint gravel	0.75m	0.40-1.15m
04	Deposit	Pale brown chalky clay with occasional CBM fragments and flint gravel	0.15m+	1.15-1.30m+

Discussion

Three deposits (below topsoil) were present in Test Pit 03.

The stratigraphy suggested that there was a large feature (edge not seen), backfilled in the 20th century, and possibly associated with Lovetofts Farm. However it could have been part of a more recent service trench.

No live services were encountered

No significant archaeological features or artefacts were present.

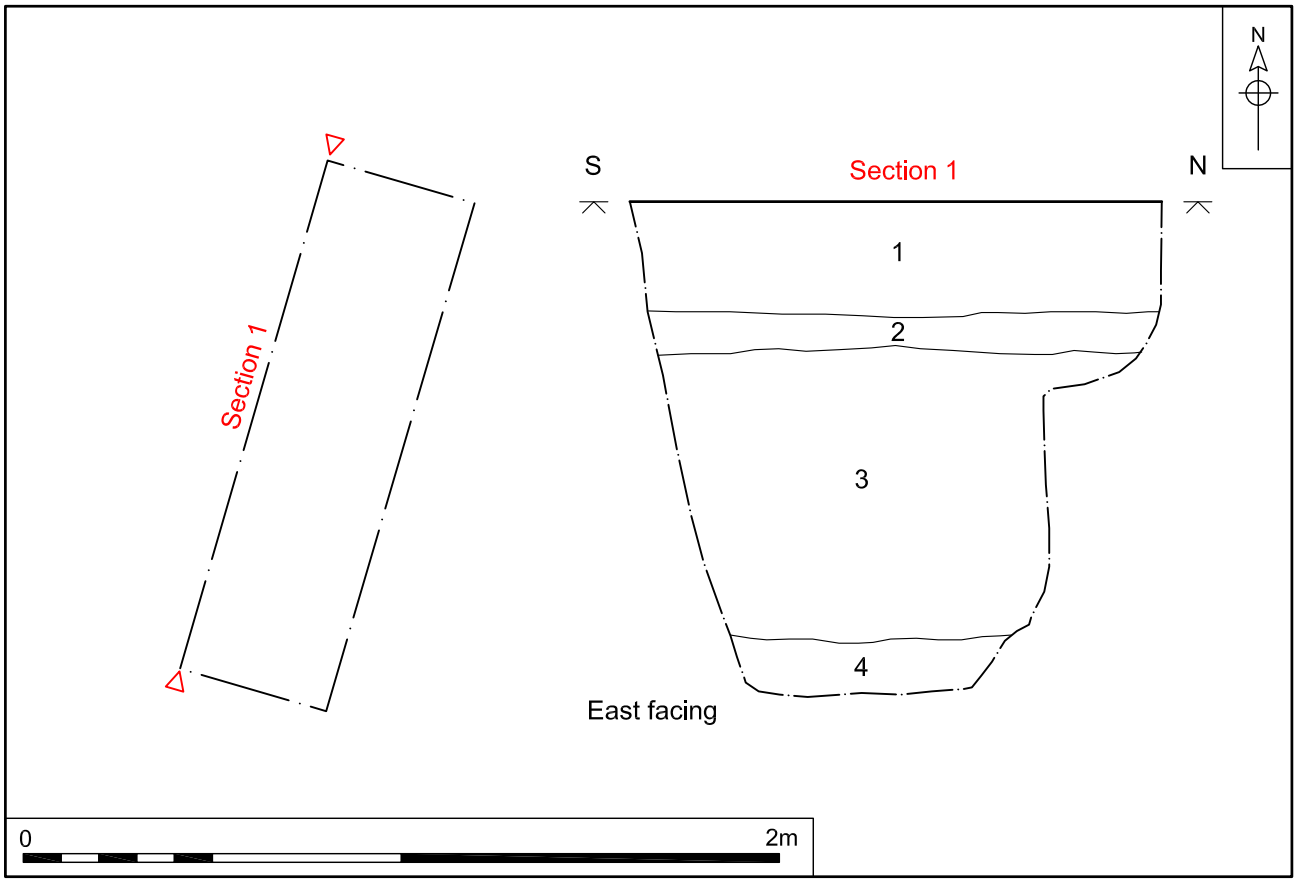

Figure 3. Test Pit 03, plan and section. Scale 1:20

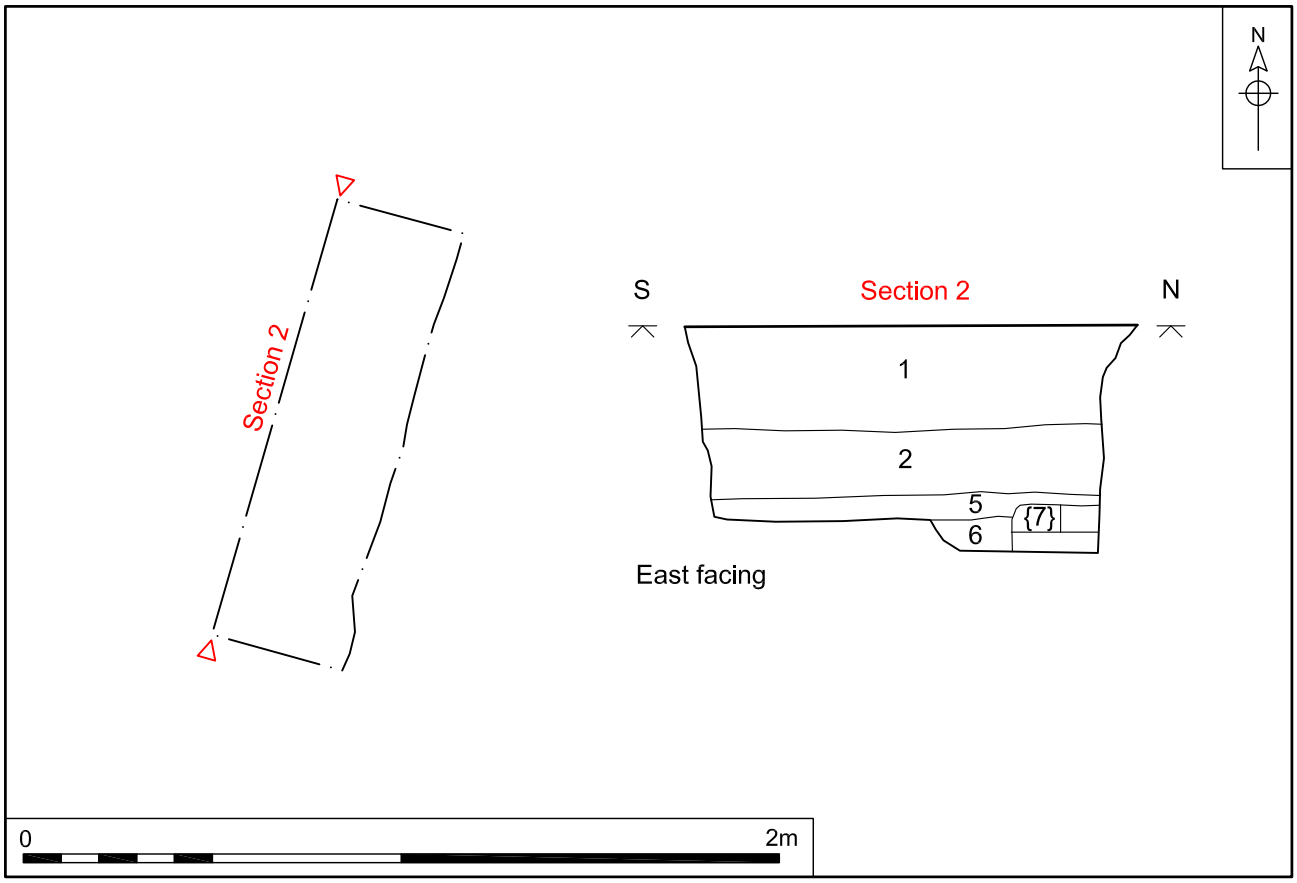

Figure 4. Test Pit 04, plan and section. Scale 1:20

Test Pit 04

Figs 2 and 4	
Location	
Orientation	North to south
North end	613605 246650
South end	613605 246649
Dimensions	
Length	1.20m
Width	0.35m
Depth	0.60m

Context	Type	Description and Interpretation	Thickness	Depth BGL
01	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.28m	0.00-0.28m
02	Deposit	Mid brown silty clay with frequent lumps of redeposited natural clay and occasional CBM fragments and flint gravel	0.18m	0.28-0.46m
05	Deposit	Loose flint cobbles	0.06m	0.45-0.52m
06	Deposit	Cobbles set in compacted natural clay	Unknown	0.48m-?
07	Masonry	West-north-west to east-south-east aligned brick wall in pale cream lime mortar	Unknown	0.5m-?

Discussion

Test Pit 04 contained a wall and a cobbled surface below topsoil.

Brick wall {07} was built of 17th- to 18th-century brick and had probably formed part of a building associated with Lovetofts Farm.

Cobbled surface (06) probably represents either a farm yard surface or an internal floor surface for a non-domestic building.

Test Pit 05

Figs 2 and 5	
Location	
Orientation	North to south
North end	613622 246639
South end	613621 246638
Dimensions	
Length	1.20m
Width	0.35m
Depth	0.72m

Context	Type	Description and Interpretation	Thickness	Depth BGL
01	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.40m	0.00-0.40m
13	Masonry	Brick wall aligned north-north-east to south-south-west		
14	Deposit	Thin layer of pale cream chalky mortar	0.04m	0.40-0.44m
15	Deposit	Dark brown silty clay with moderate mortar and occasional flint gravel	0.24m	0.44-0.68m
16	Deposit	Clean mid brown clayey sand	Unknown	0.68-?

Discussion

Test Pit 05 contained a wall and three deposits below topsoil.

Wall {13} is probably associated with Lovetofts Farm.

The lateral deposits probably related to the farm's demolition and re-landscaping of the area in the 20th century.

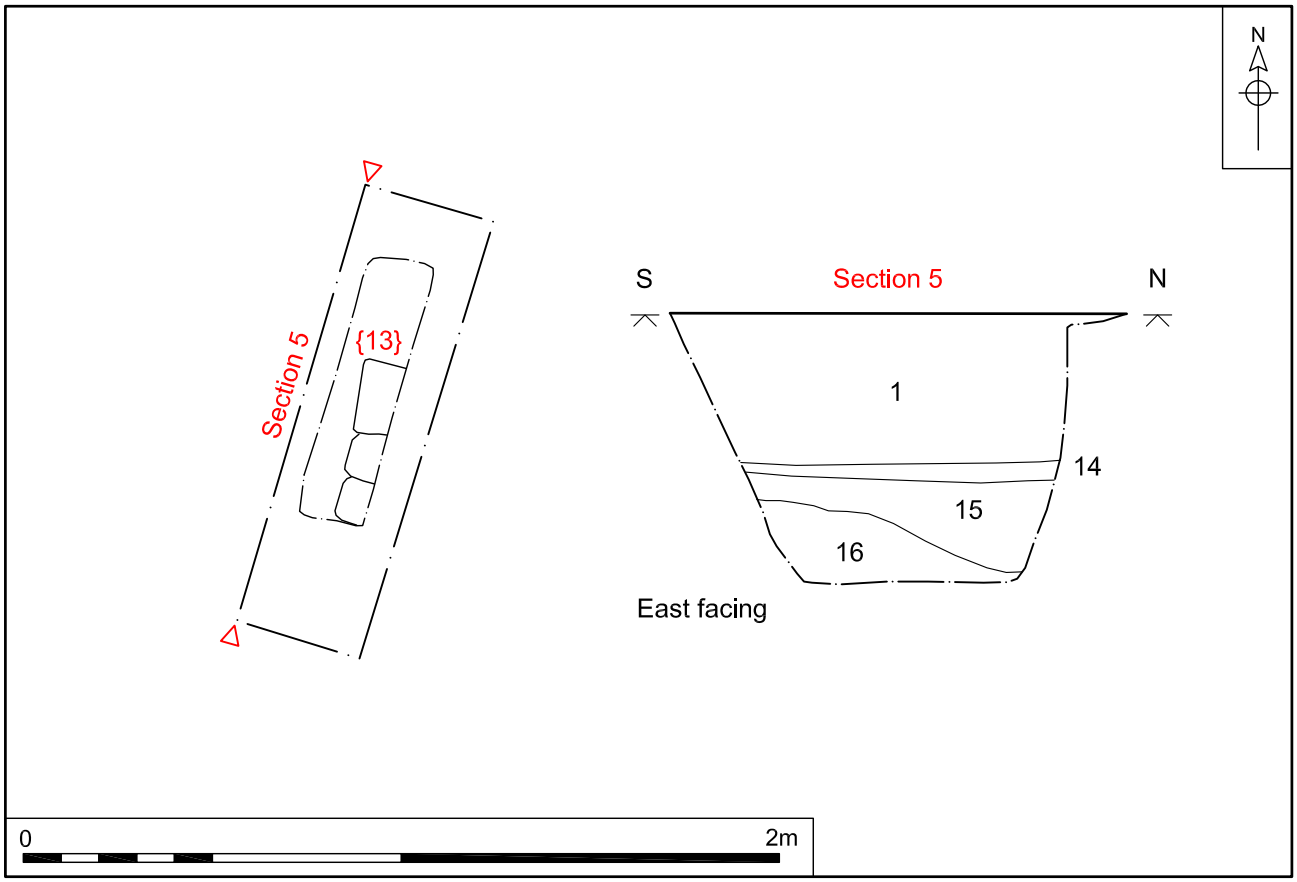

Figure 5. Test Pit 05, plan and section. Scale 1:20

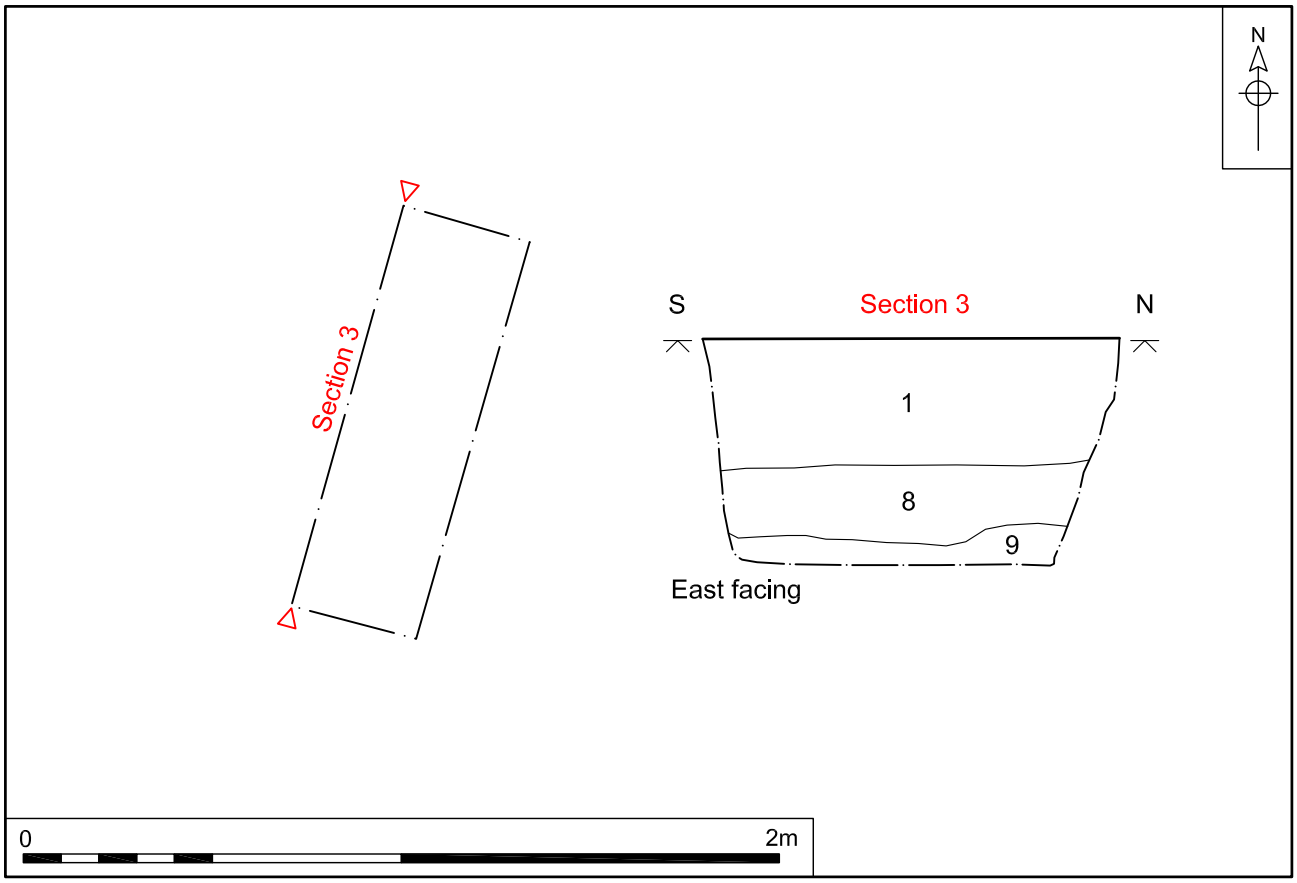

Figure 6. Test Pit 06, plan and section. Scale 1:20

Test Pit 06

Figs 2 and 6	
Location	
Orientation	North to south
North end	613623 246645
South end	613623 246644
Dimensions	
Length	1.10m
Width	0.34m
Depth	0.60m

Context	Type	Description and Interpretation	Thickness	Depth BGL
01	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.34m	0.00-0.34m
08	Deposit	White chalk lumps and fragments	0.20m	0.34-0.54m
09	Deposit	Pale yellowish brown sandy clay with rare soft red brick fragments. Possibly same as (04)	Unknown	0.54-?

Discussion

Test Pit 06 contained two deposits below the topsoil.

Chalk deposit (08) sealed deposit (09) which may be the same as deposit (04) in Test Pit 03.

Test Pit 08

Figs 2 and 7	
Location	
Orientation	East to west
East end	613576 246694
West end	613575 246694
Dimensions	
Length	0.70m
Width	0.36m
Depth	0.76m

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.12m	0.00-0.12m
17	Deposit	Backfill of gas trench	Unknown	0.12m-?

Discussion

Test Pit 08 contained a single deposit (below topsoil).

Service trench backfill (17) was the only deposit uncovered in this trench.

No significant archaeological features or artefacts were present.

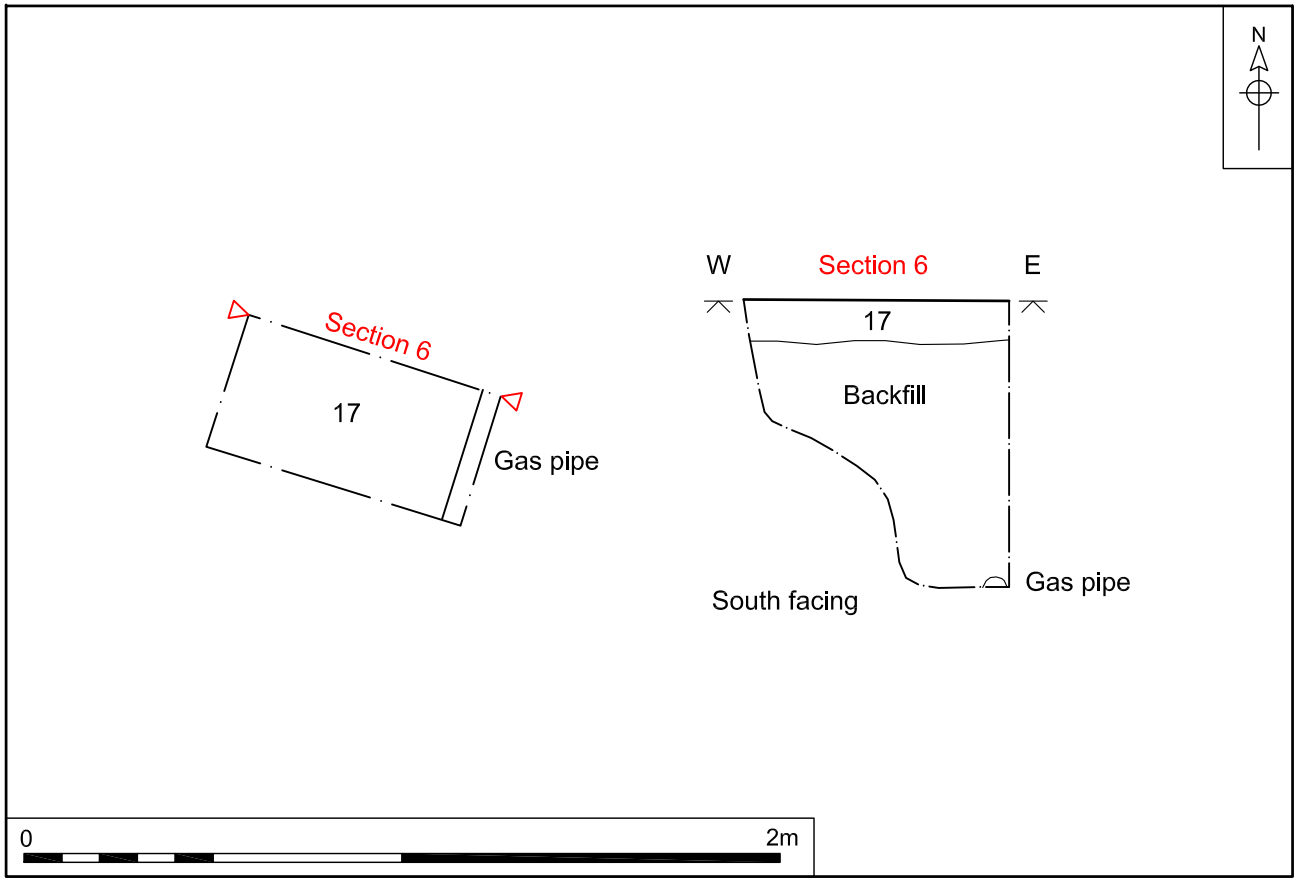

Figure 7. Test Pit 08, plan and section. Scale 1:20

Test Pit 11

Figs 2 and 8	
Location	
Orientation	North to south
North end	613617 246663
South end	613616 246659
Dimensions	
Length	5.08m
Width	0.40m
Depth	0.76m

Context	Type	Description and Interpretation	Thickness	Depth BGL
01	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.28m	0.00-0.28m
10	Masonry	North-north-east to south-south-west aligned brick wall	0.24m	0.00-0.00m
11	Cut	Possible service trench with vertical sides	Unknown	0.22m-?
12	Deposit	Backfill of ?service trench [11]Redeposited natural chalky clay with frequent lumps of topsoil (01)	Unknown	0.22m-?
18	Deposit	Mixed deposit of natural clay, topsoil (01), chalk and flint gravel and CBM fragments	0.20m	0.22-0.42m
19	Cut	Service trench for a buried cable	0.37m	0.26-0.63m
20	Deposit	Backfill of service trench [19]	0.37m	0.26-0.63m

Discussion

Test Pit 11 contained a brick wall, a layer and services.

Wall {10} was a substantial structure built of 17th- to 18th-century brick and probably had been associated with Lovetofts Farm.

Service trench (19) and possible service trench [11] crossed the trench and were aligned with the kerb.

Natural clay was visible at a depth of 0.24m bgl (below ground level).

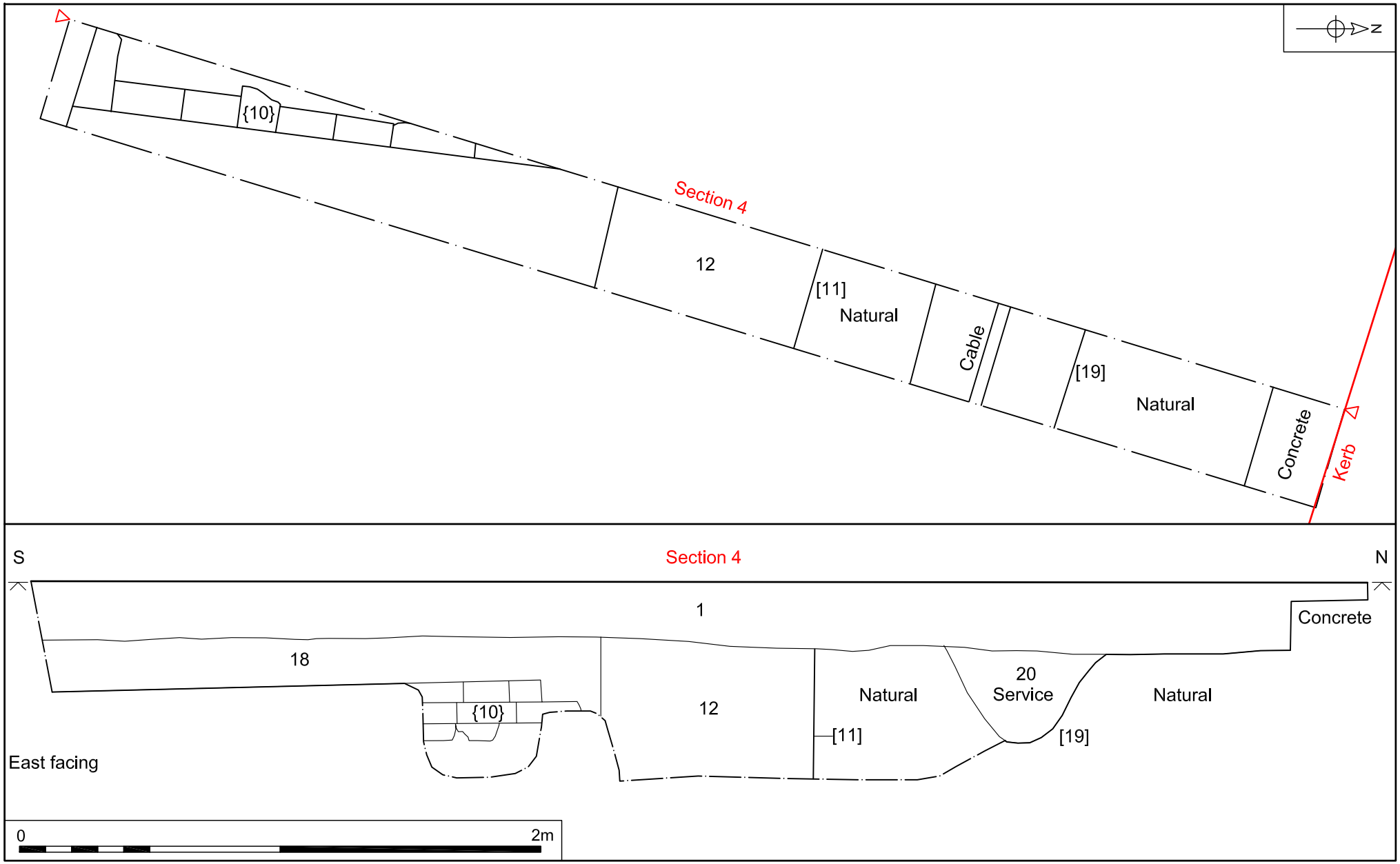

Figure 8. Test Pit 11, plan and section. Scale 1:20

Test Pit 12

Figs 2 and ?	
Location	
Orientation	East to west
East end	613593 246734
West end	613588 246735
Dimensions	
Length	0.95m and 0.9m
Width	0.30m
Depth	0.60m

Context	Type	Description and Interpretation	Thickness	Depth BGL
1	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.15m	0.00-0.15m
21	Deposit	Dark brown silty clay with occasional flint gravel and lumps of topsoil (1). Service trench backfill	0.15m	0.10-0.25m
22	Deposit	Cable trench backfill	Unknown	0.15m-?

Discussion

Two service trenches were found, one in each of the two holes excavated.

No significant archaeological features or artefacts were present.

Test Pit 13

Fig. 2

Location	
Orientation	North to south
North end	613607 246776
South end	613607 246775
Dimensions	
Length	1.00m
Width	0.35m
Depth	0.72m

Context	Type	Description and Interpretation	Thickness	Depth BGL
01	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.10m	0.00-0.10m
23	Cut	Service trench	Unknown	0.10m-?
24	Deposit	Backfill of service trench	Unknown	0.10m-?

Discussion

Small Test Pit 13 contained a service trench.

Service trench (23) containing a water pipe was present.

No significant archaeological features or artefacts were located.

Test Pit 14

Fig. 2	
Location	
Orientation	East to west
East end	613576 246681
West end	613572 246682
Dimensions	
Length	3.30m
Width	0.46m
Depth	1.40m

Context	Type	Description and Interpretation	Thickness	Depth BGL
01	Deposit	Topsoil. Dark brown silty clay with occasional flint gravel	0.15m	0.00-0.15m
25	Deposit	Probable service trench backfill	Unknown	0.15m-?
26	Deposit	Tarmac	0.10m	0.00-0.10m
27	Deposit	Concrete	0.20m	0.10-0.30m
28	Deposit	Solid ashy cement	0.10m	0.30-0.40m
29	Deposit	Pale brown silty sand with flint, chalk and CBM fragments.	Unknown	0.40m-?

Discussion

Test Pit 14 was opened through tarmac.

Two sondages were excavated in this trench, both to a depth of 1.2m below ground level.

The westernmost sondage exposed layer (25), considered to be part of the backfill for a service trench. The easternmost sondage contained layers (27), (28) and (29).

No significant archaeological features or artefacts were present.

6. THE FINDS

by Rebecca Sillwood

Finds recovery from the test pit monitoring was extremely limited (three small pieces of brick).The pieces were processed and recorded by count and weight, and the information entered onto an Excel spreadsheet.

6.1 Ceramic Building Material

A total of three fragments of ceramic building material (CBM) were recovered from two contexts (both walls), all fragments of brick.

Two of the three pieces had measureable widths however none had any complete lengths to compare with known examples.

One of the pieces from wall {07} and the fragment from wall {10} were almost identical in fabric and form. The piece from wall {10} measures 120mm in width and both measure around 59mm in thickness. Their fabric is an orange-red sandy type, with frequent clay pellets. A white to cream mortar with medium to large lumps of chalk covers much of their surfaces.

The smaller brick from wall {07} is much pinker in fabric, and measures 103mm in width by 51mm thickness, with sunken margins.

These bricks are probably all of a similar age, dating to around the 17th-18th centuries.

7. CONCLUSIONS

The only positively identified archaeological features present within the excavated trenches were walls and a yard surface probably associated with Lovetofts Farm (Test Pits 04, 05 and 11). They were probably from farm buildings rather than domestic buildings and could be dated to the 17th-18th centuries. The walls that were encountered are on the same alignment, and in approximately the same position, as farm buildings shown on the 1882 First Edition Ordnance Survey map (seen on a jpg image provided by Abby Antrobus of the 1882 map superimposed on modern mapping). Although these buildings had all been demolished, probably when the mid-20th-century council housing estate was built, remains of the walls and surfaces survive at a depth of *c*.0.4m below ground level.

No evidence of the medieval manorial complex was encountered however given that remains of a later date are present it is likely that some archaeological evidence of the medieval manor (perhaps including structures) may survive elsewhere in the immediate area.

Acknowledgements

The author would like to thank the staff of Barhale for their help and cooperation during the fieldwork phase of this project.

Abby Antrobus of SCCAS is especially thanked for her assistance and the provision of the 1882 mapping image.

The finds were processed, recorded and reported on by Rebecca Sillwood.

This report was illustrated and produced by David Dobson and edited by Jayne Bown.

Bibliography and Sources

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

Hodskinson, J. 1783 *Hodskinson's Map of Suffolk in 1783* reprinted 2011

http://maps.bgs.ac.uk/geologyviewer_google/googleviewer.html Accessed 23.10.2012

http://www.old-maps.co.uk/maps.html Accessed 23.10.2012

Appendix 1a: Context Summary

Context	Category	Cut Type	Fill Of	Description	Period
01	Deposit			Topsoil	Modern
02	Deposit			Mid brown silty clay with CBM fragments and redeposited natural clay	Modern
03	Deposit			Mid brown silty clay with CBM fragments	Modern
04	Deposit			Redeposited natural clay with CBM fragments	Modern
05	Deposit			Loose flint cobbles	17th-18th century
06	Deposit			Flint cobbles in compacted natural clay	17th-18th century
07	Masonry			Brick wall	17th-18th century
08	Deposit			White chalk lumps and fragments	Modern
09	Deposit			Pale yellowish brown sandy clay with rare soft red brick fragments. Possibly same as (4)	Modern
10	Deposit			North-north-east to south-south-west aligned brick wall	17th-18th century
11	Cut	Service		Possible service trench with vertical sides	Modern
12	Deposit		11	Redeposited natural chalky clay with frequent lumps of topsoil (1)	Modern
13	Masonry			Brick wall aligned north-north-east to south-south-west	17th-18th century
14	Deposit			Thin layer of pale cream chalky mortar	Modern
15	Deposit			Dark brown silty clay with moderate mortar and occasional flint gravel	Modern
16	Deposit			Clean mid brown clayey sand	Modern
17	Deposit			Backfill of gas trench	Modern
18	Deposit			Mixed deposit of natural clay, topsoil (01), chalk and flint gravel and CBM fragments	Modern
19	Cut	Service		Service trench for a buried cable	Modern
20	Deposit		19	Backfill of service trench	Modern
21	Deposit			Dark brown silty clay with occasional flint gravel and lumps of topsoil (01). Service trench fill	Modern
22	Deposit			Cable trench backfill	Modern
23	Cut	Service		Service trench	Modern
24	Deposit		23	Backfill of service trench	Modern
25	Deposit			Probable service trench backfill	Modern
26	Deposit			Tarmac	Modern
27	Masonry			Concrete	Modern
28	Masonry			Solid ashy cement	Modern
29	Deposit			Pale brown silty sand with flint, chalk and CBM fragments.	Uncertain

Appendix 1b: OASIS Feature Summary

Period	Category	Total
Post-Medieval	Wall	3
	Surface	1

Appendix 2a: Finds by Context

Context	Material	Qty	Wt	Period	Notes
07	Ceramic Building Material	2	1,846g	Post-medieval	Brick fragments
10	Ceramic Building Material	1	1,629g	Post-medieval	Brick fragment

Appendix 2b: OASIS Finds Summary

Period	Material	Total
Post-medieval	Ceramic Building Material	3

Appendix 3: OASIS Summary

OASIS DATA COLLECTION FORM: England

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Printable version

OASIS ID: norfolka1-138112

Project details

Project name	Lovetofts Drive, Ipswich, Suffolk
Short description of the project	Archaeological monitoring was conducted for Anglian Water Services Limited during the excavation of test pits to locate services at Lovetofts Drive, Ipswich. Walls and a yard surface probably associated with Lovetofts Farm were present in the excavated test pits. They were probably part of farm buildings rather than domestic buildings and could be dated to the 17th-18th century. They were on the same alignment and in approximately the same position as farm buildings shown on the 1882 First Edition Ordnance Survey map. Although they had all been demolished, probably when the mid-20th-century housing estate was built, the walls and surfaces survive at a depth of c.0.4m below ground level. Although no evidence of the medieval manorial complex believed to be in this location was found, it is likely that archaeological evidence of this, perhaps including structures, may survive elsewhere in the immediate area.
Project dates	Start: 16-10-2012 End: 22-10-2012
Previous/future work	No / Not known
Any associated project reference codes	IPS 700 - HER event no.
Type of project	Recording project
Site status	None
Current Land use	Other 12 - Verge
Monument type	WALLS Post Medieval
Significant Finds	NONE None
Investigation type	"Watching Brief"
Prompt	Water Act 1989 and subsequent code of practice

Project location

Country	England
Site location	SUFFOLK IPSWICH IPSWICH Lovetofts Drive, Ipswich, Suffolk
Study area	2950.00 Square metres
Site coordinates	TM 13610 46769 52 1 52 04 38 N 001 07 03 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	David Whitmore
Project supervisor	Steve Hickling
Type of sponsor/funding body	Utility
Name of sponsor/funding body	Anglian Water Services Ltd

Project archives

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

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Watching Brief at Lovetofts Drive, Ipswich, Suffolk
Author(s)/Editor (s)	Hickling, S.
Other bibliographic details	Report 2012/1254
Date	2012
Issuer or publisher	NPS Archaeology
Place of issue or publication	Norwich
Description	A4 paper, colour-printed, double-sided, spiral-bound; PDF

Entered by	Jayne Bown (jayne.bown@nps.co.uk)
Entered on	5 December 2012

OASIS:

Please e-mail English Heritage for OASIS help and advice
 Created by Jo Gilham and Jen Mitcham, email Last modified Wednesday 9 May 2012
Cite only: http://www.oasis.ac.uk/form/print.cfm for this page

Appendix 4: Archaeological Specification

NPS ARCHAEOLOGY

Lovetofts Drive DG5 Scheme
Ipswich
Suffolk

PROJECT DESIGN

FOR

ARCHAEOLOGICAL WATCHING BRIEF

Prepared for

Anglian Water Services Limited
Thorpe Wood House
Thorpe Wood
Peterborough
Cambridgeshire
PE3 6WT

by

NPS Archaeology
Scandic House
85 Mountergate
Norwich
NR1 1PY

October 2012

Reference No: 01-04-13-2-1254/DW

1 Introduction

1.1 Proposals to excavate fourteen trial holes as part of the Lovetofts Drive DG5 Scheme, Ipswich, Suffolk requires a programme of archaeological monitoring in accordance with requirements of Suffolk County Council Archaeological Service Conservation Team.

1.2 In order to comply with that requirement Anglian Water Services Limited has requested that NPS Archaeology prepare a Project Design detailing an appropriate programme of archaeological works to fulfil the requirements of the Archaeological Brief.

2 Mitigation Strategy

2.1 The programme of archaeological works presented in this document has been designed to mitigate the impacts of the proposed works in line with the Archaeological Brief. Where archaeological remains are identified, and these cannot be preserved *in situ*, the potential impact of the scheme will be minimised by appropriate levels of archaeological excavation and recording (preservation by record).

2.2 The mitigation strategy will include a watching brief to record any archaeological remains exposed during the trial pit excavation and reporting. The different elements to be employed are presented below in the anticipated order that they will take place.

2.3 The stages of the mitigation strategy may be summarised as follows:

i. *Watching Brief Monitoring.* Due to the potential for previously unidentified archaeological remains to exist within the area, the excavation of Trial Pits 3-6, 8 and 11-14 will be monitored by an archaeologist. If archaeological features and deposits are encountered and these are deemed to be of significance appropriate levels of excavation and recording will be required.

ii. *Post-fieldwork Processing*. The drawn and written, photographic, stratigraphic and structural record will be cross-referenced and entered onto a database to provide a consistent and compatible record of the results of the various elements of fieldwork. Artefactual and ecofactual material recovered during the fieldwork will be cleaned, marked and packaged in accordance with the archive requirements of the Suffolk Historic Environment Record. A database of these materials will be compiled.

iii. *Analysis, Reporting and Archive*. The results of the fieldwork will be presented as a client report. If appropriate, a synthesis of the results will be published in an appropriate archaeological journal. The archive will be prepared for deposition with the Suffolk Historic Environment Record.

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

3 Watching Brief Monitoring

3.1 The excavation of Trial Pits 3-6, 8 and 11-14 will be monitored by an archaeologist. The monitoring will be carried out in accordance with the *Standard and Guidance for an Archaeological Watching Brief* (Institute for Archaeologists 2008) and guidelines set out in the document *Standards for Field Archaeology in the East of England* (Gurney 2003).

3.2 If areas of significant archaeological remains are encountered that cannot be recorded safely or to the appropriate standard within the watching brief, consultation will take place with Anglian Water Services Limited and Suffolk County Council Archaeological Service Conservation Team and more detailed archaeological excavation may be required.

3.3 All archaeological deposits, features and layers will be assigned individual context numbers and recorded on standardised forms employing a pro forma recording system approved by Suffolk Historic Environment Service. 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 35mm film and digital format 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 work.

3.4 If any human remains or burials are encountered during the monitoring, which because of their location or vulnerability must be removed, an application for a Licence for the Removal of Human Remains will be made in compliance with Section 25 of the Burial Act, 1857, if appropriate. No human remains will be removed until permission has been granted in writing from all the relevant parties. All human remains removed will be left in the care of the church for reburial. Human remains will be screened from public view during the course of the monitoring. Backfilling of any graves or areas of the site containing burials that are not excavated will be done manually to ensure that the remains are appropriately protected from any damage or disturbance.

3.5 Soil samples for palaeoenvironmental materials will be collected if suitable sealed and well-dated deposits are encountered. Standard 30 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.

4 Post-Fieldwork Processing

4.1 The drawn, photographic and written stratigraphic and structural records will be cross-referenced and, if appropriate, entered into an archaeological database.

4.2 The cleaning and cataloguing of any artefactual materials recovered will be undertaken on completion of the excavation. All retained materials will be cleaned, marked and packaged in accordance with the requirements of the Suffolk Historic Environment Record. Finds data will be stored on a database to allow summary listings of artefacts by category and context to provide basic quantification.

4.3 An archive structured in accordance with guidelines laid out in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2007) will be created.

5 Report and Archive

5.1 A report will be produced that will present the stratigraphic, structural, artefactual and photographic record and an analysis of that evidence.

5.2 The report will present data in written, 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.

5.3 A synthesis of the report may be submitted for publication in an appropriate archaeological journal within twelve months of the completion of the fieldwork.

5.4 Multiple copies of the report will be produced as appropriate and presented to Anglian Water Services Limited and three copies to Suffolk County Council Archaeological Service Conservation Team. One copy of the report will also be sent to the English Heritage Regional Advisor for Archaeological Science, if considered appropriate. A Suffolk Historic Environment Record form will accompany the 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.

5.5 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 Suffolk County Council Archaeological Service Conservation Team. This will include a pdf version of the final report.

5.6 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 *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2007), and in accordance with the Suffolk Historic Environment Record's own requirements for archive preparation, storage and conservation.

5.7 The archive will be fully indexed and cross-referenced and prepared in a form that can be microfilmed on behalf of the National Monuments Record. It will also be integrated with the Suffolk Historic Environment Record's 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 Historic Environment Record. A full listing of archive contents and finds boxes will accompany the deposition of the archive and finds.

5.8 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 Historic Environment Record.

6 Timetable and Resources

6.1 The different stages of archaeological work have different time and staff requirements. The timetable for fieldwork assumes that are no major delays to the work programme caused by factors outside of NPS Archaeology's 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 recording methods and the protection of flora and fauna on the site, disease restrictions, and unexploded ordnance.

7 Project Staff

7.1 The project will be co-ordinated on a day-to-day basis by the Project Officer who will be dedicated to the project throughout its duration. The Project Officer will act under the direction of the Project Manager. 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. All project staff will have substantial experience in rural archaeology and post-excavation analysis.

7.2 The Project Officer will have experience in watching brief monitoring and excavation and experience with NPS Archaeology's *pro forma* or similar recording systems. The Project Officer will be an experienced metal detector user.

7.3 NPS Archaeology staff associated with the project is as follows:

Senior Management	
Archaeology Manager	Jayne Bown *BA, MIfA*
Archaeology Manager	David Whitmore *BA, MIfA*
Project Manager	Nigel Page *BA, AIfA*

Field Staff	
Project Officer	Steve Hickling *MA, AIfA*

7.4 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 Anglian Water Services Limited and Suffolk County Council Archaeological Service Conservation Team.

7.5 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:

External Specialist	***Research Field***
ASWYAS	Geophysical Survey
Sue Anderson *MIfA*	Ceramic Building Material, Post-Roman Pottery, Human Skeletal Remains
Andy Barnett	Metal-detectorist, Numismatic Items
Sarah Bates *BA*, *MA*, *MIfA*	Flint
Lynne Bevan *MPhil, PhD, MIfA*	Copper Alloy, Iron, Silver, Lead Artefacts
Jane Cowgill	Iron-working
Julie Curl, *AIfA*	Faunal Remains, Antler/Bone Artefacts
Roger Doonan	Non-Ferrous Metalworking
Debbie Forkes	Conservation
Val Fryer	Macrofossil Analysis
Stephen Heywood	Architectural Stonework
David King	Window Glass
Alice Lyons *BA, MA, MIfA*	Roman Pottery, Fired Clay
Richard Macphail	Micromorphology
Jo Mills	Worked Stone Artefacts
Andrew Peachey	Flint, Roman Pottery
John Shepherd	Vessel Glass

8 Quality Standards

8.1 NPS Archaeology is an Institute for Archaeologists Registered Organisation and fully endorses 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*.

8.2 NPS Archaeology operates under a recognised Quality Management System and is accredited with BS EN ISO 9001:2008, the International Standard Model for Quality Assurance.

8.3 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 Suffolk County Council Archaeological Service Conservation Team 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 watching brief monitoring
- during post-fieldwork analysis
- upon completion of the archive
- upon receipt of the final report

8.4 A further monitoring opportunity will be provided at the end of the work upon deposition of the integrated archive and finds with the Suffolk Historic Environment Record.

8.5 NPS Archaeology operates a Project Management System. Most aspects of this project will be co-ordinated by a Project Officer who has the day-to-day responsibility for the successful completion of the project. Overall responsibility for the successful delivery of the project lies with the Project Manager. The Archaeology Manager's have the responsibility for all of NPS Archaeology's work and ensures the maintenance of quality standards within the organisation.

9 Health and Safety

9.1 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).

9.2 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.

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

10 Insurance

10.1 NPS Archaeology’s Insurance Cover is:

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

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