

**AN ARCHAEOLOGICAL WATCHING BRIEF
AT
HARRIETSHAM WASTEWATER TREATMENT WORKS,
FAIRBOURNE LANE, HARRIETSHAM,
KENT.**

**NGR 586845 152035
(TQ 868 520)**

**Project No.4693
Site Code: HWT11**

**ASE Report No. 2011053
OASIS ID: archaeol6-94-006**

**by
Diccon Hart**

March 2011

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Abstract

Archaeology South East was commissioned by 4 Delivery Ltd. to undertake an archaeological watching brief during groundworks associated with the construction of new installations at Harrietsham wastewater treatment works, Fairbourne Lane, Harrietsham, Kent (centred on NGR 586845 152035). Monitored groundworks included ground reduction of an area measuring c. 32.0 by 15.5m in the north central part of the site, two deep pits measuring c. 3.5m² to the east of the site and some 112m of trenching across the site.

Natural geology was only observed in the far north and east of the site and was recorded between 80.20m and 80.14m OD. To the north of the site, this was sealed by a layer of alluvium into which a small but undated palaeochannel was cut and further small exposures of alluvium were recorded to the south of the site. Elsewhere on the site the recorded sequence consisted of modern made ground directly overlying the natural geology, indicating prior removal of the topsoil. More localised, deeper truncation was evident towards the centre of the site and in the far east of the site.

No archaeological features, deposits or finds were observed during the course of the monitored works.

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SMR Summary Sheet
OASIS Summary Form

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1.0 INTRODUCTION

1.1 Introduction

- 1.1.1 Archaeology South-East (ASE), the contracting division of the UCL Institute of Archaeology Centre for Applied Archaeology, was commissioned by 4 Delivery Ltd Ltd to undertake a programme of archaeological works during groundworks associated with the construction of new installations at the Harrietsham Wastewater Treatment works site, Fairbourne Lane, Harrietsham, Kent. The site is centred on National Grid Reference (NGR) 586845 152035 and its location is shown in Figure 1.

1.2 Geology and Topography

- 1.2.1 The British Geographical Survey Map (Sheet 288) for the area indicates the underlying geology to comprise Sandgate and Folkestone Beds, capped by alluvium associated with the River Len. Field observation, however, suggests a small pocket of Weald Clay exists on the site. The site is currently occupied by the existing Wastewater Treatment works, comprising a combination of water treatment plant, hard standing and landscaped grassed areas. It is bounded to the north by the M20 motorway, to the west and south by a tributary of the River Len and to the east by pasture.

1.3 Planning Background

- 1.3.1 The proposed works comprised the installation of a new ferric dosing plant and recirculation pumping station and valve chamber, with associated cable duct trenching. As part of the statutory consultation process the Heritage Conservation Group and Kent County Council (KCC) advised that an archaeological watching brief be undertaken during groundwork associated with the proposed development.
- 1.3.2 A *Specification* outlining the requirements for the work was subsequently produced by KCC (KCC 2009). All work was carried out in accordance with this document and with the relevant standards and guidance of the Institute for Archaeologists (IfA 2008).

1.4 Scope of Report

- 1.4.1 This report details the results of the archaeological watching brief undertaken during groundworks on the site. The work was undertaken between 9th and 16th February 2011 by Diccon Hart (Senior Archaeologist). The fieldwork was managed by Andy Leonard (Project Manager) and the post-excavation analysis was managed by Jim Stevenson (Project Manager).

2.0 ARCHAEOLOGICAL BACKGROUND

- 2.1 A summary of known archaeological sites and find spots within a 500km radius of the site is presented in Table 1 below.
- 2.2 Only one archaeological site is recorded within 500km radius of the site. This comprised a series of undated drainage ditches and a post-medieval channel recorded to the north of the site during evaluation works in advance of the construction of the Channel Tunnel Rail Link. The remaining sites recorded in the Kent Historic Environment Record comprise a variety of later medieval and post-medieval buildings, including at least two Wealden hall houses, 18th century alms-houses a converted oasthouse and a 19th century water mill. An archaeological watching brief was purportedly carried out on the subject site during the initial construction of the Wastewater Treatment Works in 1999, though no record of this work is available.

No.	Type	Date	Name / Description	Source Reference	National Grid Reference
1	Monument	undated	Undated drainage features	TQ 85 SE 136	TQ 8690 5220
2	Listed Building	Post-medieval	'Cherry Tree Farmhouse' 18 th century timber framed farmhouse with earlier core. Grade II listed	TQ 85 SE 195	TQ 8720 5236
3	Listed Building	Post-medieval	'The Bell Inn'. Public House. Timber framed 16 th century or earlier building with later additions Grade II listed	TQ 85 SE 194	TQ 8709 5241
4	Listed Building	Medieval	'The Old House' Medieval timber framed Wealden hall house. c. 1500 Grade I listed.	MES5049	TQ 615 041
5	Listed Building	Post-medieval	Timber framed barn c. 20 yards south of The Old House. Early 16 th century. Grade II listed	MES5029	TQ 63 04
6	Listed Building	Post-medieval	'Borden cottages'. Early 17 th century timber framed house with associated late 18 th century coach house	TQ 85 SE 212	TQ 8717 5235
7	Listed Building	Medieval, post-medieval	'Red Barn'. 15 th century Medieval Wealden hall house with 18 th century alterations. Grade II listed	TQ 85 SE 196	TQ 8718 5229
8	Listed Building	Post-medieval	'Fairbourne Mill'. Early 19 th century frontage to earlier house Grade II listed	TQ 85 SE 206	TQ 8653 5176
9	Listed Building	Post-medieval	'Ramchild' Late 16 th /early 17 th century timber framed house with 19 th century additions. Grade II Listed Building	TQ 85 SE 213	TQ 8641 5221
10	Listed Building	Modern	'Autumn cottage'. 19 th century timber framed and weatherboarded house. Grade II listed	TQ 85 SE 219	TQ 8709 5246

No.	Type	Date	Name / Description	Source Reference	National Grid Reference
11	Listed Building	Post-medieval	'Dial House'. 18 th century house with early 17 th century rear wing and 19 th century additions. Grade II listed.	TQ 85 SE 233	TQ 8709 5244
12	Listed Building	Post-medieval	Almshouses. Built c. 1770 in red brick. Grade II listed	TQ 85 SE 204	TQ 8716 5240
13	Listed Building	Post-medieval	'Fairbourne Oast' 19 th century oast, later converted to house. Grade II listed	TQ 85 SE 158	TQ 8657 5181
14	Listed Building	Post-medieval	'Mill house'. Built 1766. Red brick with tile hung first floor. Altered in 19 th century. Grade II listed	TQ 85 SE 280	TQ 8655 5183
15	Listed Building	Post-medieval	'Anglesey Cottage'. 18 th century brick cottage with tile hung first floor. Dated 1758 on chimney stack. Grade II listed	TQ 85 SE 271	TQ 8713 5242
16	Listed Building	Post-medieval	Front garden wall to almshouses (Site no. 16). Built after 1770 Grade II listed	TQ 85 SE 294	TQ 8716 5239
17	Listed Building	Post-medieval	'Malthouse'. Mid 16 th century timber framed house with early 19 th century cement rendered façade. Grade II listed.	TQ 85 SE 293	TQ 87046 52442
18	Listed Building	Post-medieval	Water mill c. 4 yards south of Mill house (Site no. 14). 19 th century timber framed water mill	TQ 85 SE 285	TQ 8655 5182

Table 1: Gazetteer of Known Cultural Heritage Sites

3.0 ARCHAEOLOGICAL METHODOLOGY

3.1 Methodology

- 3.1.1 All ground reduction and trenching was carried out under the constant supervision of an experienced archaeologist, with the exception of areas where the depth of made ground exceeded the depth of the excavations. Parts of the scheme subject to archaeological monitoring are shown on Figure 2.
- 3.1.2 Wherever possible, machine excavation was undertaken using a tracked mechanical excavator equipped with a toothless ditching bucket (although the latter was not always practical). Where archaeological features or deposits were revealed, machining was stopped and excavation was continued by hand. The spoil from the machine excavations was scanned for the presence of any artefacts, both visually and using a metal detector.
- 3.1.3 All encountered archaeological deposits, features and finds were excavated and recorded in accordance with the Specification and with the relevant Standards and Guidance of the Institute of Archaeologists (KCC 2009; IfA 2008), using pro-forma context record sheets. Archaeological features and deposits were planned at a scale of 1:50, with selected detail drawn at a scale of 1:20 or 1:10.
- 3.1.4 A photographic record of the work was kept and forms part of the site archive. The archive (quantified in Table 2), including the finds, is presently held at the Archaeology South-East offices at Portslade, and will in due course be offered to a suitable local museum.

3.2 Aims and Objectives

- 3.2.1 The objectives of the archaeological watching brief, as set out in the *Specification* (KCC 2009) were to contribute to knowledge of Harrietsham through the recording of any archaeological remains exposed as a result of excavations in connection with the groundworks. Particular attention will be paid to the character, height below ground level, condition, date and significance of the deposits.

3.3 Quantification of Archive

Number of Contexts	7
No. of files/paper record	1 files
Plan and sections sheets	1
Bulk Samples	none
Photographs	15 Digital
Bulk finds	none
Registered finds	none
Environmental flots/residue	none

Table 2: Site Archive Quantification

4.0 RESULTS (Figures 2 and 3)

4.1 Introduction

4.1.1 The following areas of the scheme were subject to archaeological monitoring (Figure 2):

- *Area A*: Ground reduction of to a level of 80.47m OD for the installation of a new ferric dosing unit, followed by:
- *Trench A1*: North-south cable trench measuring c. 0.50m wide and up to 0.80m deep
- *Area B*: excavation of two pits (Pit B1 and B2), each measuring c. 3.5m², followed by:
- *Trench B1* East-west cable trench measuring 0.50m wide by up to 0.80m deep.

4.1.2 Monitoring of cable trenching demonstrated that depths of made ground exceeded the depth of the trench (c. 0.80m) across almost the entirety of the site, with only occasional small areas where the underlying natural geology was proved. Indeed, a site walkover showed that much of the site has been previously subject to extensive landscaping works, often utilising upcast derived from deep excavations for existing filter beds. Where depths of made ground were deemed to exceed the depth of excavations, these groundworks were not monitored. These areas are shown on Figure 2.

4.1.2 Table 3: List of Recorded Contexts

Number	Type	Description	Area	Max. length	Max. width	Max. depth	Max. height (m OD)
001	Deposit	Made ground	Site	Site	Site	1.60m	81.63m
002	Deposit	Alluvium	A	7.00m	3.70m	0.30m	80.63m
003	Deposit	Natural (Weald Clay)	A	Site	Site	-	80.20m
004	Deposit	Fill of [007]	A	15.00m	4.65m	0.25m	80.47m
005	Deposit	Fill of [007]	A	1.00m	3.85m	0.28m	80.22m
006	Fill	Fill of [007]	A	1.00m	3.40m	0.30m	79.94m
007	Cut	Palaeochannel	A	15.00m	4.65	0.80m	80.47m
008	Deposit	Natural (Folkestone beds)	B				

4.2 Area A: Ground reduction for ferric dosing unit and subsequent cable trenching (Trench A1)

4.2.1 Monitored groundworks here included ground reduction of an area measuring c. 32.00m by 15.40m to a level of 80.47m OD, followed by the subsequent excavation of some 50.00m cable trenching, measuring 0.50m wide to a maximum depth of 79.67m OD.

4.2.2 Natural geology, consisting of stiff mid yellow Weald Clay (003) was observed towards the northern end of Trench A1, at a maximum height of 80.20m OD (Figure 3), Section ?). This was sealed by a layer of mid reddish brown silty clay alluvium

(002).

- 4.2.3 A small irregular palaeochannel [007] was seen to cut through this alluvium on an east west orientation. This feature contained a primary fill of loose, coarse gravel (006), overlain by a deposit of light brownish grey silty clay (004), in turn sealed by a deposit of mid grey silty clay (004).
- 4.2.4 Extensive deep truncation associated with pre-existing filter beds was observed at the southern end of Area 1. Excavation of a small trial pit to a depth of 79.20m OD showed this truncation to extend well below the level of the natural Weald Clay.
- 4.2.5 The sequence described above was capped by a thick layer of modern made ground (001) associated with prior landscaping of the WTW site. No archaeological features or finds were observed.

4.3 Area B: Excavations for recirculation pumping station (Pit B1), valve chamber (Pit B2) and associated cable trenching (Trench B1)

- 4.3.1 Monitored groundworks here included the excavation of two pits measuring 3.50m² (Pits B1 and B2) to depths of 79.44m OD and 80.14m OD respectively and some 62m of cable trenching (Trench B1), measuring 0.50m wide to a maximum depth of 79.70m OD.

Pits B1 and B2

- 4.3.2 Natural geology, comprising the fine light grey sand of the Folkestone Beds (008) was recorded at a height of 80.14m OD in both pits. In both sequences, this was directly overlain by modern made ground (001), indicating prior removal of any pre-existing top- or sub-soil and probable horizontal truncation of the underlying natural substrate. No archaeological features or finds were observed in either pit.

Trench B1

- 4.3.3 The natural sand of the Folkestone beds was observed at the far eastern end of the trench only, at a height of 80.14m OD. Here, it was directly sealed by modern made ground (001), indicated prior removal of any top- or sub-soil and probable horizontal truncation of the underlying natural substrate. Elsewhere along the line of this trench, the depth of modern made ground exceeded the depth of excavation, with the exception of occasional small exposures of alluvium (002) towards the western end of the trench. No archaeological features or finds were observed.

5.0 THE FINDS

- 5.1** No finds were retrieved during the course of the archaeological monitoring.

6.0 DISCUSSION

- 6.1** With the exception of the small palaeochannel observed in Area 1, no archaeological or geoarchaeological features, finds or deposits were observed during the course of the monitoring. Indeed, examination of all arisings from the monitored excavations, as well as a general site walkover failed to identify any finds other than occasional post-medieval pottery or CBM from the topsoil horizon.
- 6.2** This palaeochannel almost certainly formed a small tributary of the River Len and may well have fed into, or represents a former course of, the stream that currently bounds the site to the west and south. However, in the absence of any dating or environmental evidence, the palaeochannel sequence recorded must be considered of limited significance only.
- 6.2.** The absence of any archaeological features on the site may be considered, at least in part, to reflect the extensive truncation observed across the site. The absence of any buried soil horizons sealed beneath made ground on the site demonstrates that much, if not the entirety, of the site was soil stripped prior to the initial construction of the wastewater treatment works, with more localised deeper truncation of the natural geology evident in the southern half of Area A and pits B1 and B2 to the east of the site. Even where survival of alluvium (in the northern half of Area A, for instance) suggests that horizontal truncation was limited to topsoil stripping, the absence of any artefactual evidence suggests that the site did not form the focus of any appreciable archaeological activity.

7.0 CONCLUSIONS

- 7.1** No archaeological deposits or features were observed during the monitoring, with the exception of a small but undated palaeochannel that probably formed a tributary to the River Len.

Bibliography

- KCC 2009. *Specification for an archaeological watching brief at Harrietsham Wastewater Treatment Works, Fairbourne Lane, Harrietsham.* Unpublished specification.
- IfA 2008 *Standards and guidance for an archaeological watching brief.*
http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_watching.pdf accessed 14.03.11

Acknowledgements

ASE would like to thank 4D Ltd for commissioning the work and HCGKCC for their guidance throughout the project.

SMR Summary Form

Site Code	SCS09					
Identification Name and Address	Harrietsham WTW site, Fairbourne Lane, Harrietsham, Kent.					
County, District &/or Borough	Kent, Maidstone					
OS Grid Refs.	586845 152035					
Geology	Alluvium over Folkestone and Sandgate Beds					
Arch. South-East Project Number	3513					
Type of Fieldwork	Eval.	Excav.	Watching Brief ✓	Standing Structure	Survey	Other
Type of Site	Green Field	Shallow Urban	Deep Urban	Other ✓		
Dates of Fieldwork	Eval.	Excav.	WB. 09-16/02/11	Other		
Sponsor/Client	4D Ltd.					
Project Manager	Andy Leonard					
Project Supervisor	Diccon Hart					
Period Summary	Palaeo.	Meso.	Neo.	BA	IA	RB
	AS	MED	PM	Other Modern		
<p>Archaeology South East was commissioned by 4 Delivery Ltd. to undertake an archaeological watching brief during groundworks associated with the construction of new installations at Harrietsham wastewater treatment works, Fairbourne Lane, Harrietsham, Kent (centred on NGR 586845 152035). Monitored groundworks included ground reduction of an area measuring c. 32.0 by 15.5m in the north central part of the site, two deep pits measuring c. 3.5m² to the east of the site and some 112m of trenching across the site.</p> <p>Natural geology was only observed in the far north and east of the site and was recorded between 80.20m and 80.14m OD. To the north of the site, this was sealed by a layer of alluvium into which a small but undated palaeochannel was cut and further small exposures of alluvium were recorded to the south of the site. Elsewhere on the site the recorded sequence consisted of modern made ground directly overlying the natural geology, indicating prior removal of the topsoil. More localised, deeper truncation was evident towards the centre of the site and in the far east of the site. No archaeological features, deposits or finds were observed during the course of the monitored works.</p>						

OASIS Summary form

OASIS ID: archaeol6-96004

Project details

Project name	Harrietsham WTW
Short description of the project	Archaeology South East was commissioned by 4 Delivery Ltd. to undertake an archaeological watching brief during groundworks associated with the construction of new installations at Harrietsham wastewater treatment works, Fairbourne Lane, Harrietsham, Kent (centred on NGR 586845 152035). Monitored groundworks included ground reduction of an area measuring c. 32.0 by 15.5m in the north central part of the site, two deep pits measuring c. 3.5m ² to the east of the site and some 112m of trenching across the site. Natural geology was only observed in the far north and east of the site and was recorded between 80.20m and 80.14m OD. To the north of the site, this was sealed by a layer of alluvium into which a small but undated palaeochannel was cut and further small exposures of alluvium were recorded to the south of the site. Elsewhere on the site the recorded sequence consisted of modern made ground directly overlying the natural geology, indicating prior removal of the topsoil. More localised, deeper truncation was evident towards the centre of the site and in the far east of the site. No archaeological features, deposits or finds were observed during the course of the monitored works.
Project dates	Start: 09-02-2011 End: 16-02-2011
Previous/future work	Yes / No
Any associated project reference codes	4693 - Contracting Unit No.
Any associated project reference codes	HWT11 - Sitecode
Type of project	Recording project
Site status	None
Current Land use	Transport and Utilities 3 - Utilities
Monument type	PALAEOCHANNEL Uncertain
Significant Finds	PALAEOCHANNEL Uncertain
Investigation type	'Watching Brief'
Prompt	Direction from Local Planning Authority - PPS

Project location

Country	England
Site location	KENT MAIDSTONE HARRIETSHAM HARRIETSHAM WTW
Postcode	ME17 1HT
Study area	1.10 Hectares
Site coordinates	TQ 868 520 51.2359828587 0.676188565398 51 14 09 N 000 40 34 E Point
Height OD / Depth	Min: 80.14m Max: 80.20m

Project creators

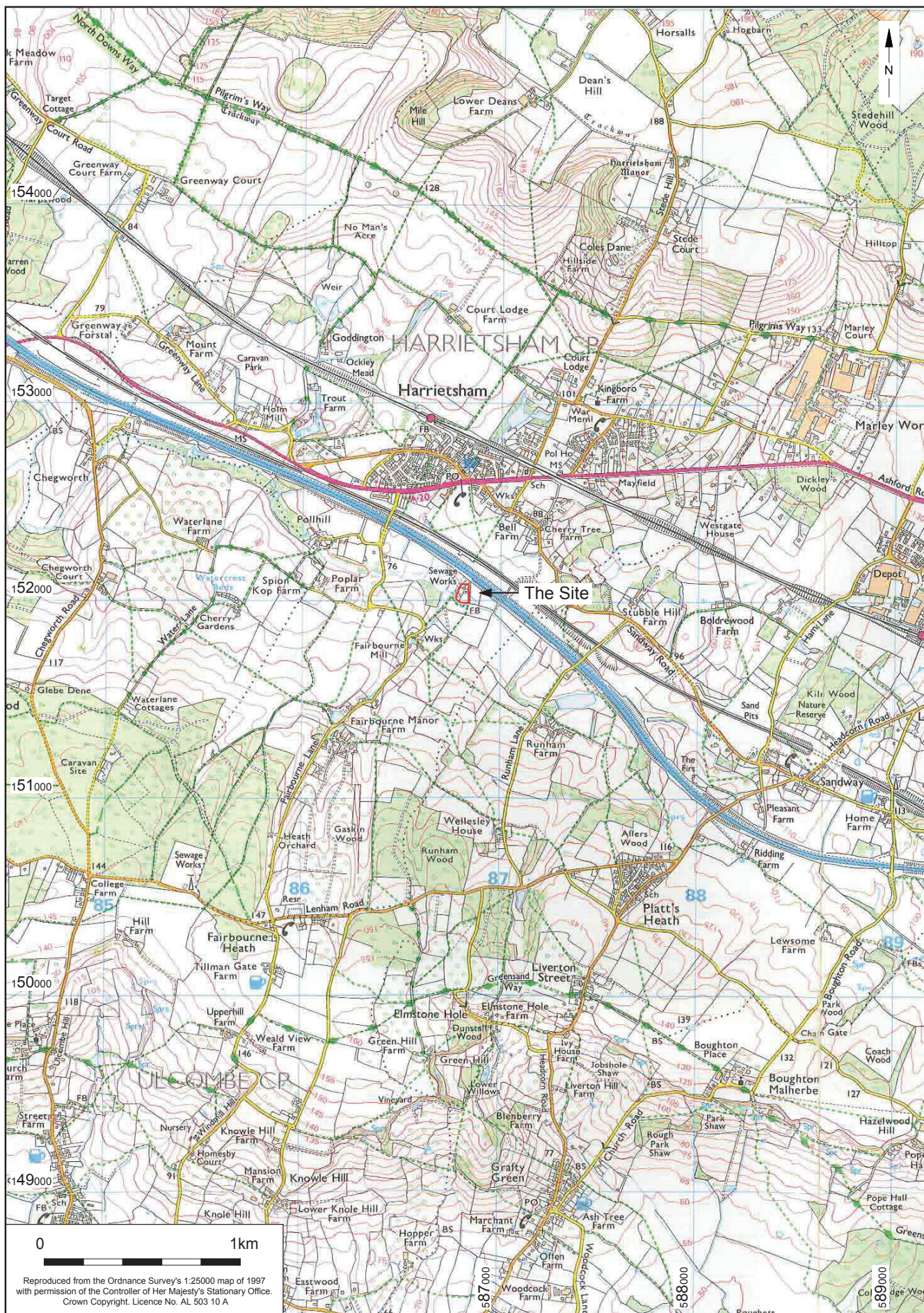
Name of Organisation	Archaeology South-East
Project brief originator	Kent County Council
Project design originator	Kent County Council Heritage Conservation Group
Project director/manager	Andy Leonard
Project supervisor	Diccon Hart
Type of sponsor/funding body	4D Ltd

Project archives

Physical Archive Exists?	No
Digital Archive Exists?	No
Paper Archive recipient	MAIDSTONE MUSEUM
Paper Contents	'Survey'
Paper Media available	'Photograph','Plan','Context sheet','Drawing','Report','Section'

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	n archaeological watching brief at Harrietsham wastewater treatment work, Fairbourne Lane, Harrietsham, Kent.
Author(s)/Editor(s)	Hart, D
Other bibliographic details	2011053
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Harrietsham Wastewater Treatment Works

Project Ref: 4693

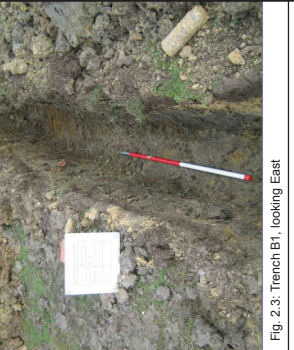
March 2011

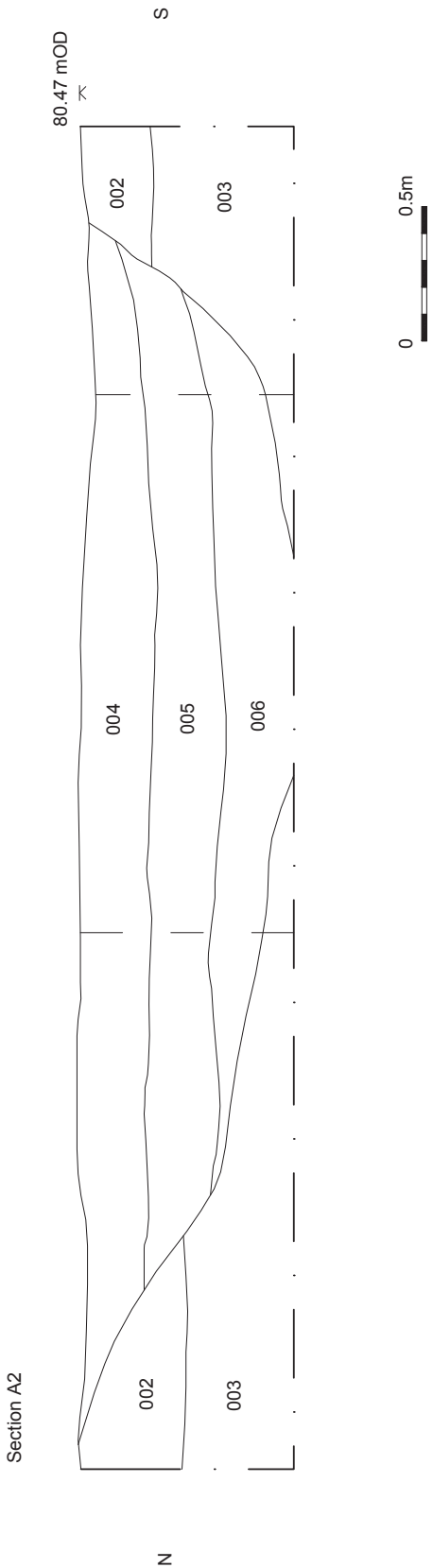
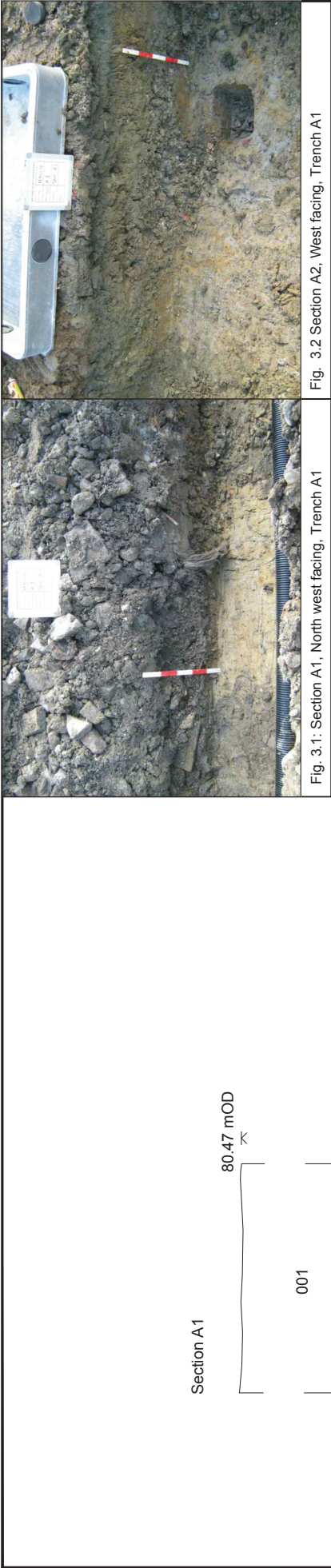
Site location

Fig. 1

Report Ref: 2011053

Drawn by: LD





© Archaeology South-East		Harrietsham Wastewater Treatment Works	
Project Ref: 4693	March 2011	Selected sections and photos	
Report Ref: 2011053	Drawn by: LD		

Fig. 3

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