

**An Archaeological Watching Brief for
Test Pits & Pipeline for Southern Water Ltd.
Fleete to Rumfields, Kent.**

NGR 637746 167732 to NGR 636059 167696

**Project No. 2393
Oasis ID - archaeol6-27515**

By

Deon Whittaker MA

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**Archaeology South-East
Units 1 & 2
2 Chapel Place
Portslade
East Sussex
BN41 1 DR**

**Tel: 01273 426830
Fax: 01273 420866
email : fau@ucl.ak.uk
website: www.archaeologyse.co.uk**

An archaeological watching brief was undertaken during excavations for the groundworks associated with the construction of a pipeline. Running west from Rumfields water works at NGR 637746 167732, the route crosses a housing estate north of the Frank Walters Business park and then runs through Thanet Reach Business park and terminates west of Westwood Cross shopping centre at NGR 636059 167696. Limited archaeological remains were uncovered during the monitoring of ground works and excavations on the pipeline. The flint artefacts recovered from the surface of the subsoil suggest a fairly broad period of prehistoric activity.

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1 INTRODUCTION

- 1.1 Archaeology South East (ASE), a division of University College London Field Archaeology Unit (UCLFAU), was commissioned by 4D Consultants on behalf of Southern Water Ltd. to undertake an archaeological watching brief during groundworks associated with the construction of a pipeline. Running west from Rumfields water works at NGR 637746 167732, the route crosses an estate north of the Frank Walters Business park and then runs through Thanet Reach Business park and terminates west of Westwood Cross shopping centre at NGR 636059 167696 (Figure 1 & 2).
- 1.2 The Heritage conservation Group at Kent County Council required an intermittent archaeological watching brief to take place during the period of the works, with liaison with the County Archaeologist.
- 1.3 The programme of works consisted of three main activities requiring archaeological monitoring. These were:
- Monitoring Route Proving Pits (RPP)
 - Monitoring Compound and Easement construction
 - Monitoring Trench excavation for pipe laying and directional drilling
- 1.4 As there was a potential for significant archaeological remains to be present, the archaeological monitoring along this section of the pipeline works was implemented on an intermittent basis during the stripping of topsoil and subsoil/made ground for the service trench and directional drilling pits.
- 1.5 The general objective of the archaeological work was to monitor the groundwork in order to ensure that any features, artefacts or ecofacts of archaeological interest exposed and affected by the excavations were recorded and interpreted to appropriate standards. This was to include artefacts of archaeological interest (e.g. worked flint, burnt flint, pottery, and ceramic building material) that may be recovered from within the soil during its removal.
- 1.6 The Heritage Conservation Group at Kent County Council (KCC) developed a Specification for these works (Single 2006). It suggested intermittent periods of attendance by a suitably qualified archaeologist.
- 1.7 The British Geological Survey map indicates that the site geology consists of Upper Chalk with Thanet Beds, Bullhead beds in the centre of the works area and widespread coverings of Head Brickearth throughout.
- 1.8 The fieldwork was undertaken by Alice Thorne 24th April 2006, Neil Griffin 10th May 2006, Paul Riccoboni 15th May – 25th May 2006 & 26th September – 2nd October 2006, Deon Whittaker 19th June – 11th July 2006. The project was managed by Neil Griffin (Project Manager).

2 ARCHAEOLOGICAL BACKGROUND

- 2.1 The KCC Heritage Conservation Group specification (Single 2006) outlined the archaeological background of this site and this is reproduced here with due acknowledgement.
- 2.2 Thanet is generally rich in archaeological remains and the development site lies close to multiperiod remains found during the construction of the ASDA hypermarket on Westwood Road and the Roman burial ground to the south of it. Also in the open ground to the south of the development, a number of barrows have been identified through aerial photography. Recent excavations at Newlands Lane by the Canterbury Archaeological Trust have revealed a Late Bronze Age (LBA)/ Early Iron Age (EIA) settlement.
- 2.3 A Roman cemetery is recorded at Rumfields water works (SMR no TR 36 NE 8) and prehistoric settlement remains are known at Thanet reach Business Park. At the western end of the proposed development are recorded cropmarks including that of a possible Roman structure 150 metres away (Kent SMR no TR 36 NE 439).
- 2.4 Considerable disturbance by modern development was expected especially on roadways and adjacent to housing.

3 ARCHAEOLOGICAL METHODOLOGY

- 3.1 The general aim of the fieldwork was to record and analyse any archaeological remains that were revealed in the course of all works that disturb the ground, below current ground level, during development, ensuring that these were recorded/sampled and interpreted to an acceptable standard.
- 3.2 Given the likely impact of previous development in the area from the Rumfields waterworks to the Thanet Reach Business Park there was a low potential for significant archaeological remains to be present. Consequently, archaeological monitoring along this section of the pipeline works was implemented on an intermittent basis, during the stripping of topsoil and subsoil/made ground for the service trench and directional drilling pits.
- 3.3 All archaeological features were recorded according to standard UCLFAU practice. Where practicable, all features were planned at 1:20 and section drawings were drawn at 1:10. Drawings were done on plastic draughting film. Features and deposits were described on standard pro-forma recording sheets used by UCLFAU with particular attention being made to height below ground level. A full photographic record was kept of the work as appropriate.
- 3.4 Using a mechanical excavator fitted with a grading bucket for topsoil

stripping of compounds and easements, the contractor initially undertook excavation of all areas. 600mm toothless ditching buckets were used for the excavation of test pits and pipe trenches, where hard-surface materials were present, a toothed ditching bucket. The mechanical excavator was only used to remove non-archaeologically significant material. The ground reduction of soils was undertaken without tracking over cleared areas. Where archaeological material was suspected the contractors allowed sufficient time and access for the work to be properly carried out.

4 RESULTS

4.1 *Site Compound at Rumfields Road water works (see Figure 3)*

A topsoil strip prior to the establishment of a 30m x 20m compound; monitored on the 24th April 2006 by Alice Thorn. Approximately 120mm of turf and topsoil removed to reveal further topsoil and made ground deposits. No archaeology was observed. Modern debris included glass and tile.

4.2 *Site Compound at north end of Antolin Way (see Figure 4)*

Inspected on 19th May 2006, this was not deep enough to expose any deposits below the modern topsoil.

4.3 *Route Proving Pits (RPPs)*

A selection of route proving pits were monitored during excavation as outlined below;

4.3.1 *RPP 2 (Fig. 4)*

- Topsoil - 300 – 400mm thick.
- Subsoil – mottled light - mid brownish orange, 100mm in thickness.
- Natural - mid brownish orange clay. Rare flint nodules. Limit of excavation at total depth of 500mm.

4.3.2 *RPP 3 (Fig. 4)*

- Made ground forming bank - 500mm thick.
- Buried Topsoil – 300 - 400mm in thickness.
- Natural – Head deposits. Limit of excavation at total depth of 1500mm at which chalk deposits begin to appear.

4.3.3 *RPP 4 (Fig 4) Bisected by a kerb beneath which lay electrical cables.*

To one side:

- Tarmac - 200mm thick.
- Made ground - 1 metre in thickness.
- Natural - Chalk. Limit of excavation at total depth of 1400mm.

To other side (adjacent to car park):

- Topsoil - 200mm thick.
- Subsoil - 200mm in thickness.

- Natural – Clay with Flint. Containing a 19th century yellow brick wall presumably belonging to the old hospital once present on the car park site or related to the once extant railway. Limit of excavation at total depth of 1400mm.

4.3.4 *RPP 5 (Fig. 4)*

- Tarmac - 200mm thick.
- Made ground - 1 metre in thickness.
- Natural - Chalk. Limit of excavation at total depth of 1400mm.

4.3.5 *RPP 13 (The Hawthorns) (Fig. 3)*

A 40 metre trench adjacent to and east of RPP13 and a smaller 10 metre trench at the east end of Hazel Walk, were monitored. The following contexts were recorded:

- Tarmac - 200mm in thickness.
- Made ground / grade 1 - 200 - 300mm in thickness.
- Natural deposit - – mid orange – brown sandy natural deposit. Limit of excavation down to a total depth of 1 metre.

4.4 Topsoil stripping

4.4.1 *Immediately west of Thanet Reach Business Park (Fig. 3)*

Approximately 120 metres of recent topsoil was stripped and monitored, exposing made ground. The ground rises to the west up to 2 metres and consists of material redeposited from the levelling of the site for the adjacent Thanet Reach Business Park. Up to 3 metres of redeposited material consisting of brickearth with topsoil and chalk mixed in was exposed, during the excavation of a pipe trench. At 1.3 metres below ground level, a very disturbed layer of reddish brown, friable, silt subsoil was observed, preceded by brickearth with an irregular horizon with weathered chalk natural starting at 1.7 metres below ground level.

4.4.2 *RPP 5 to Antolin Way (Fig. 4).*

The topsoil is of recent origin, containing modern debris, with occasional small patches of natural geology exposed. The presence of wheel rutting confirmed prior use as a deposit for material removed during the construction of the shopping area. During the monitoring of a 200 metre x 2.5 metre pipe trench excavation several flint flakes were recovered from the subsoil surface and the following contexts were recorded:

- Topsoil – 200mm of modern, loose, re-deposited topsoil. Medium brown with chalk flecks.
- **Context (1)** – natural depression/gully, 2.3 metres in width and a maximum of 300mm deep with disturbed break at top, concave sides to an imperceptible break to base – base concave and shallow. The sides of the cut are loosely packed with sub angular water worn flint fragments.

- **Context (2)** – subsoil (also fill of (1)) generally 400mm of reddish brown friable silt .
- **Context (3)** – brickearth deposits up to 600mm deep. Fine, medium orange brown silt deposits, firm to friable.

Throughout this trench there was a variable geology exposed consisting of deeply cut and voided chalk with occasional flint seams. The voids were filled with coarse sand and sub angular flint fragments if not sealed by chalk. Above this lay a deposit of finer silty sand with flint gravel topped with brickearth. Interspersed through out the sand and silt / brickearth layers were lenses of grey chalky clay.

Environmental Potential

No archaeological features were encountered and no environmental samples were taken. Where the gully **Context (1)** was encountered the trench was deeper than was safe to enter, preventing sample collection.

5 Finds : Prehistoric Flintwork By Chris Butler

- 5.1 A small assemblage of seven pieces of worked flint weighing 136g was recovered from the surface of **Context (2)**, and is summarised in Table 1. All of the flint is either mottled grey or black in colour, with a buff cortex where present.

Type	Number
Hard hammer-struck flakes	3
Fragments	2
Core fragment	1
End scraper	1
Total	7

Table 1. The Quantification of Prehistoric Flintwork

Context	Weight (gms)	Description
2	136	2 h/h flake 2 fragments 1 h/h flake 1 core fragment 1 end scraper

Table 2. Analysis of Prehistoric Flintwork from Fleete to Rumfields Pipeline (FRP06)

- 5.2 One of the hard hammer-struck flakes is of blade-like proportions, whilst one fragment may be from a blade. These two pieces may represent Mesolithic or Early Neolithic activity, however the remaining pieces of flintwork are typical of a hard hammer-struck later prehistoric assemblage.

- 5.3 The end scraper has been abruptly retouched around its distal end, and retains a large amount of cortex on its dorsal side. This is a typical Later Neolithic/Early Bronze Age form of scraper.
- 5.4 This small residual assemblage has little potential for further study. It is recommended that no further work be undertaken on this assemblage, although the flintwork will be retained for study in the future.

6 Interpretation and Conclusion

- 6.1 In the areas previously used to deposit spoil from prior development, the site was characterised by reddish brown silty subsoil where not truncated, directly above brickearth. The brickearth lies above chalk. Where the sections were deep enough to reveal all three deposits, the degree of geological disturbance was noted.
- 6.2 No archaeological features were observed during the works but a number of geological variations were noted for example the natural gully (**Context 1**) recorded in Trench 1.
- 6.3 The monitored RPPs on the road from Rumfields to Thanet Reach Business Park are within truncated contexts and the results from the developed areas should not be used to gauge the potential for archaeological remains adjacent to them. The level of truncation was such that only deep archaeological features are likely to remain.
- 6.4 The monitored works appear to have had negligible impact upon the archaeological heritage of Thanet, with no archaeological features observed and possibly intrusive prehistoric flint brought in with re-deposited material.
- 6.5 In conclusion, limited archaeological remains were uncovered during the monitoring of ground works and excavations on the pipeline. The flint artefacts recovered from the Context (2) subsoil indicate a fairly broad period of prehistoric activity. There is a mix of late and middle prehistoric materials indicated in Context (02) (see Table 2) suggesting that at least the earlier material is residual. The existence of archaeology elsewhere throughout the site cannot be ruled out particularly in the undeveloped areas and there remains a potential for archaeological remains as per the original assessment by the Kent Archaeological Officer.

7 Bibliography

Single, A. 2006. Specification for an Archaeological Watching Brief during the Excavation of Test Pits in connection with the Installation of a Pipeline Linking Westwood with Rumfields Waterworks in Thanet. Unpublished Report. Kent County Council.

Appendix 1. KENT SMR Summary

Site Name: Fleete to Rumfields, Kent	
Site Address: Rumfields Road Kent – Antolin Way	
Summary: An archaeological watching brief was undertaken during excavations associated with the groundworks for the construction of a pipeline. Running west from Rumfields water works at NGR 637746 167732, the route crosses a housing estate north of the Frank Walters Business park and then runs through Thanet Reach Business park and terminates west of Westwood Cross shopping centre at NGR 636059 167696. Limited archaeological remains were uncovered during the monitoring of ground works and excavations on the pipeline. The flint artefacts recovered from the surface of the subsoils suggest a fairly broad period of prehistoric activity.	
District/Unitary: Thanet	Parish: Thanet / Rumfields
Period(s): Late Meso - EBA	
NGR - NGR 637746 167732 to NGR 636059 167696	
Type of archaeological work - Watching Brief	
Date of Recording: 24 th April – 2 nd October 2006	
Unit undertaking recording: Archaeology South East	
Geology: Upper Chalk, Thanet and Bullhead Beds, Brickearth	
Title and author of accompanying report: An Archaeological Watching Brief for Test Pits & Pipeline for Southern Water Ltd. Fleete to Rumfields, Kent. Deon Whittaker	
Summary of fieldwork results The flint artefacts recovered from the surface of the subsoil Context (2) at the east end of the route suggest, a fairly broad period of prehistoric activity. A small assemblage of seven pieces of worked flint weighing 136g was recovered. Two pieces may represent Mesolithic or Early Neolithic activity, however the remaining pieces of flintwork are typical of a hard hammer-struck later prehistoric assemblage, including a Later Neolithic/Early Bronze Age form of end scraper.	
Location of archive/finds: Local Museum	
Contact at Unit: Neil Griffin	Date: 11/06/2007

Appendix 2. Oasis Summary Form

OASIS ID: archaeol6-27515

Project name	Fleete to Rumfields Pipeline
Short description of the project	An archaeological watching brief was undertaken during excavations associated with the groundworks associated with a pipeline from Rumfields water works at NGR 637746 167732 to NGR 636059 167696. Limited archaeological remains were uncovered during the monitoring. The flint artefacts suggest a fairly broad period of prehistoric activity.
Project dates	Start: 24-04-2006 End: 02-10-2006
Previous/future work	Yes / Not known
Any associated project reference codes	2393 - Sitecode
Type of project	Recording project
Site status	Protected wrecks under the Protection of Military Remains Act 1986
Current Land use	Residential , Business and Vacant Green Field
Investigation type	'Watching Brief'
Prompt	Planning condition
Project location	
Country	England
Site location	KENT THANET MANSTON Fleete to Rumsfield
Postcode	CT11
Study area	4.00 Kilometres
Site coordinates	TR 3564 6596 51.3433333333 1.383888888890 051 20 36 N 001 23 02 E Point
Height OD	Min: 0m Max: 0m
Project creators	
Name of Organisation	Archaeology South East
Project brief originator	Heritage Conservation Kent County Council
Project design originator	Archaeology South-East
Project director/manager	Neil Griffin
Project supervisor	Deon Whittaker
Type of sponsor/funding body	Developer
Project archives	
Physical Archive recipient	Local Museum
Physical Contents	'Worked stone/lithics'
Digital Archive recipient	Local Museum
Digital Contents	'Stratigraphic'
Digital Media available	'Images raster / digital photography','Text'
Paper Archive recipient	Local Museum
Paper Contents	'Stratigraphic'
Paper Media available	'Context sheet','Correspondence','Diary','Drawing','Map','Notebook - Excavation',' Research',' General Notes','Plan','Report','Section','Unpublished Text'

Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)

Title An Archaeological Watching Brief for Test Pits and Pipeline for Southern Water Ltd.

Author(s)/Editor(s) Whittaker, D.

Date 2007

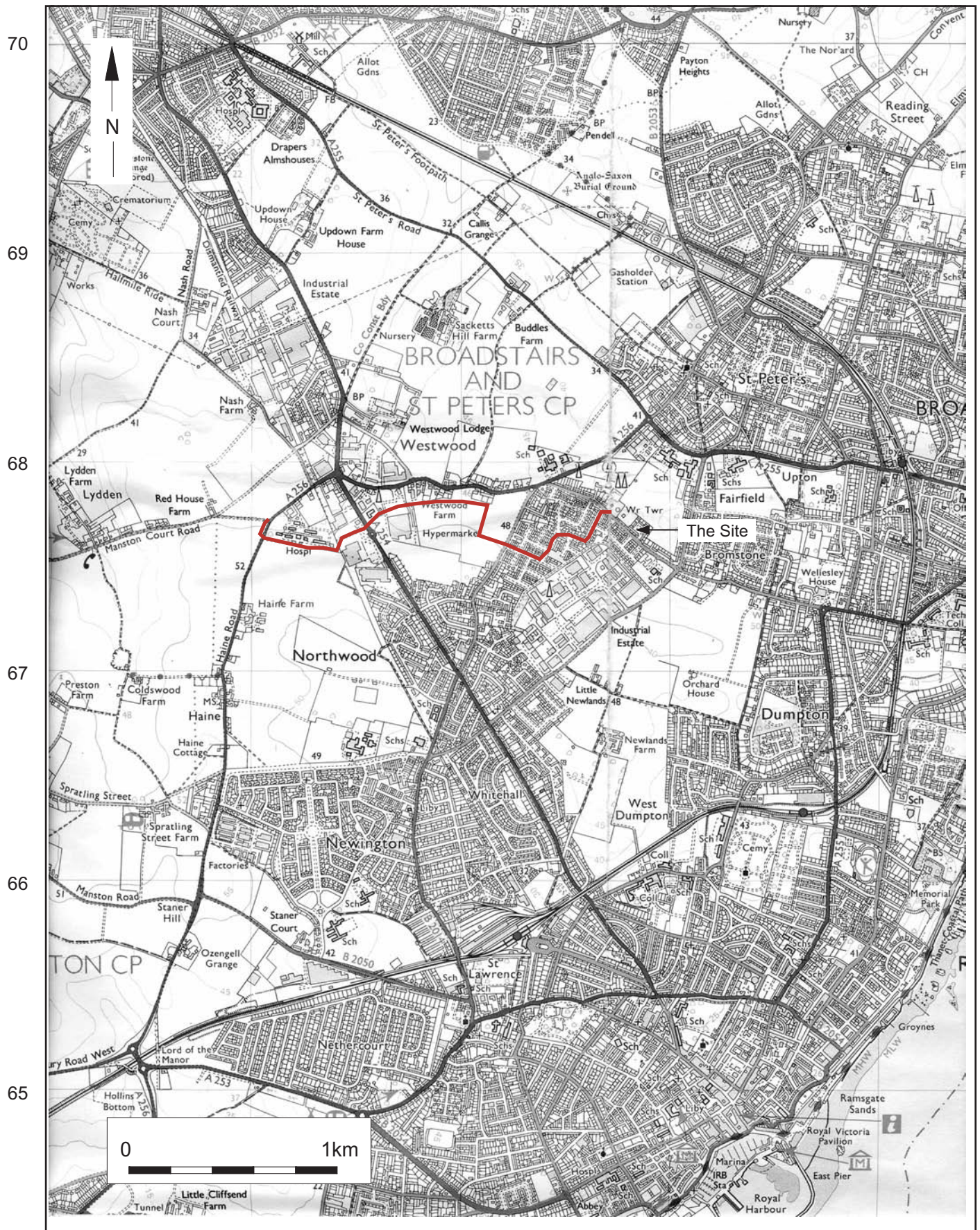
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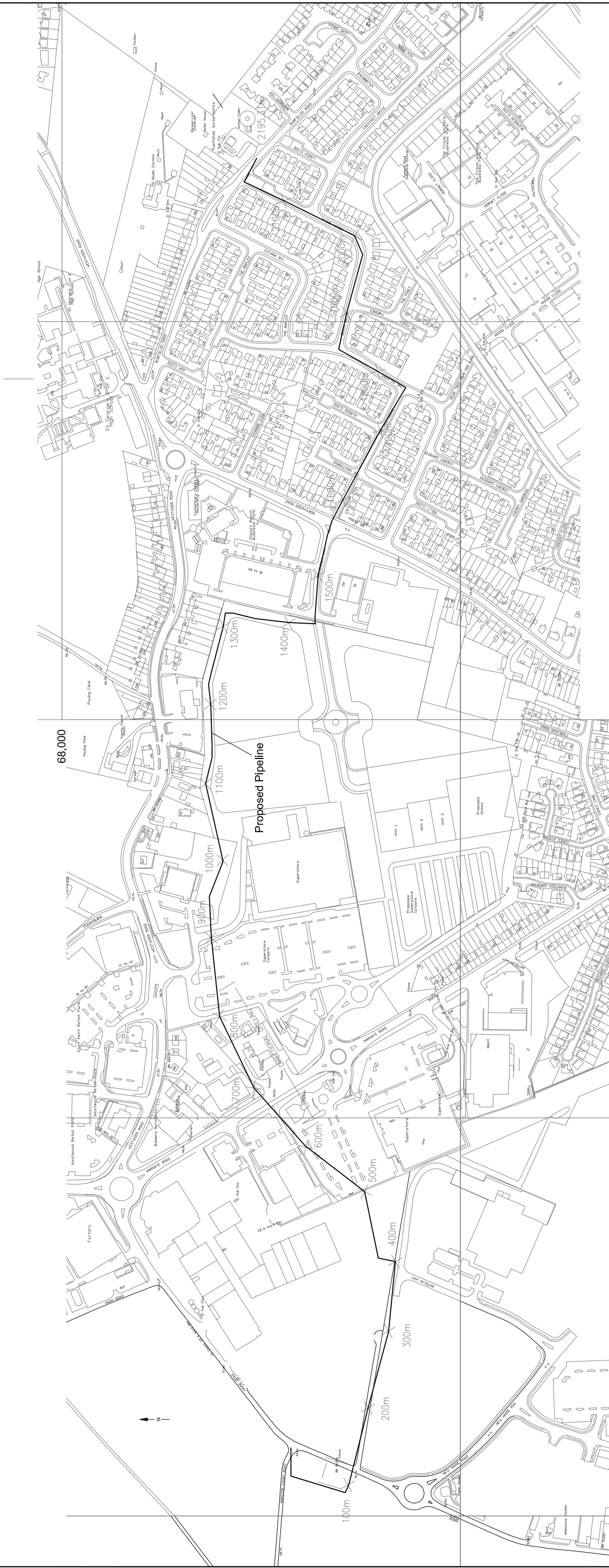
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© Archaeology South-East			Fleete to Rumfields Road Pipeline		Fig. 1
Ref: 2393	Oct 2007	Drawn by: SM	Site Location Plan		

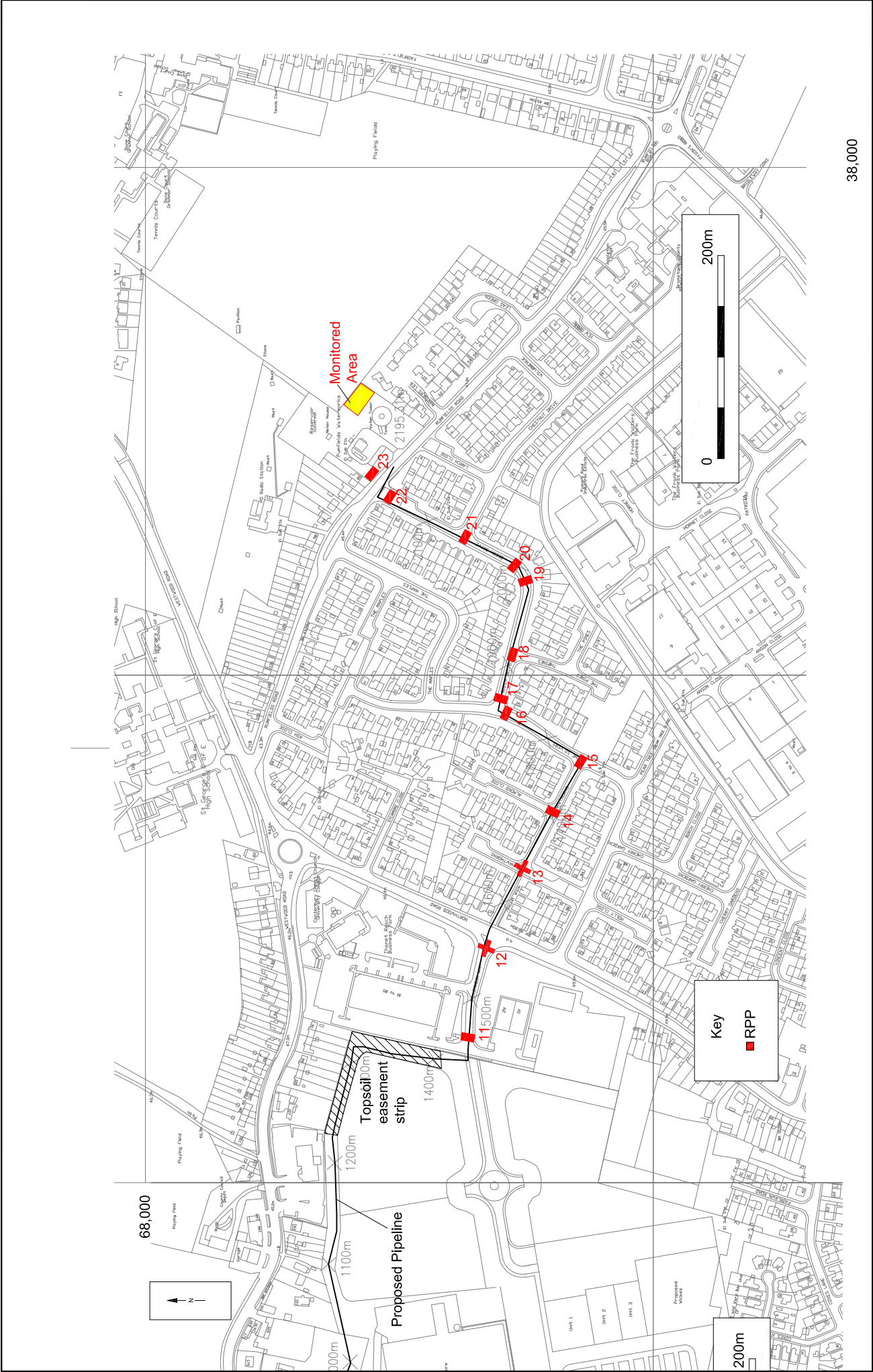
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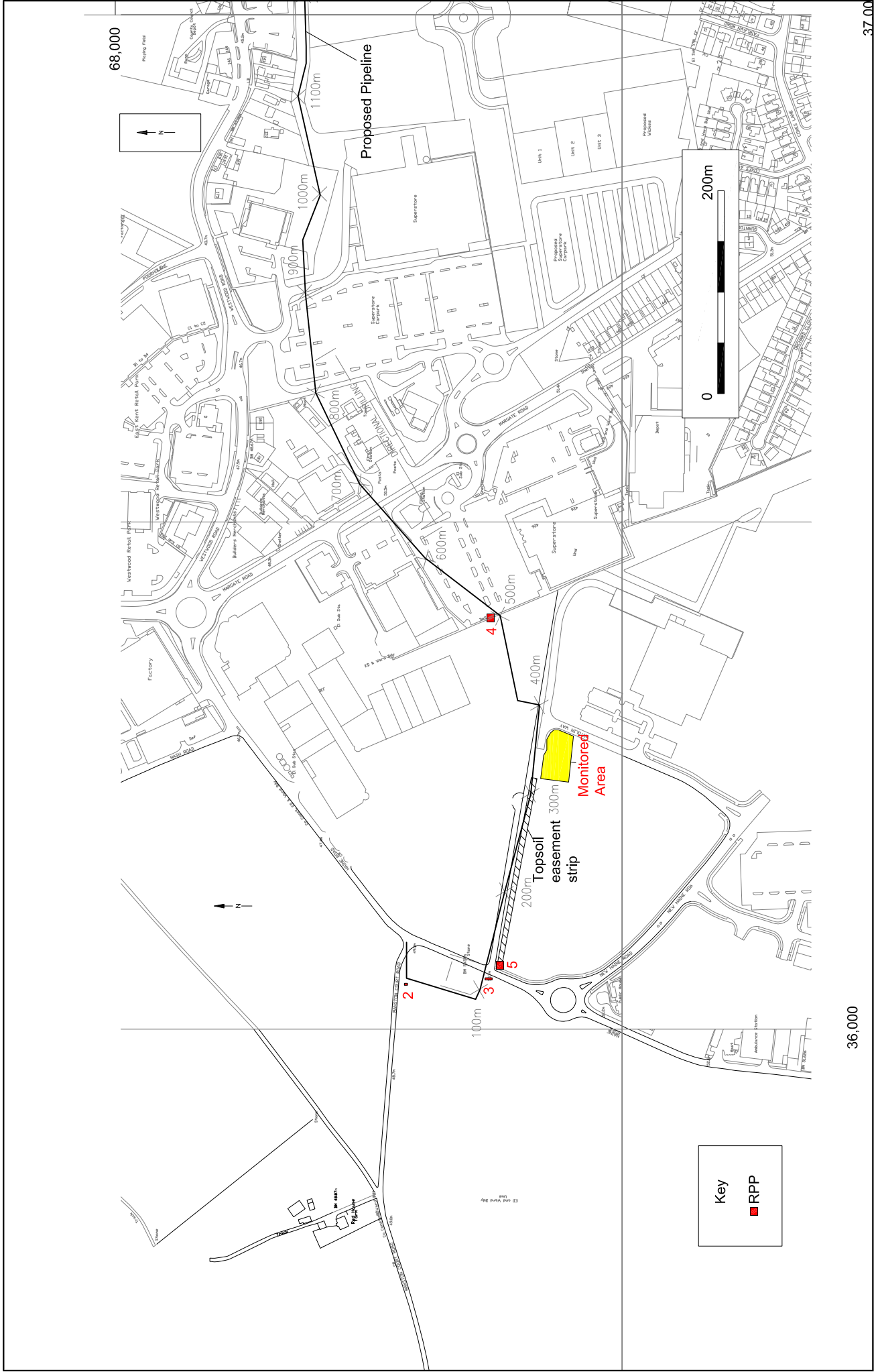
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		Drawn by: SM	

Fig. 3



© **Archaeology South-East** Fleece to Rumfields Road Pipeline **Fig. 4**
 Ref: 2393 Oct 2007 Drawn by: SM Site Plan West Rumfields

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