THAMES WATER MAINS REPLACEMENT WORKS, SCORDS LANE, TOYS HILL, TN16 1QD

DMA: ZKNOCK04

An Archaeological Watching Brief



September 2017

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An Archaeological Watching Brief

Site code: TOY17 Approximate site centre: NGR TQ 47155 51516 DMA: ZKNOCK04

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Abstract

Compass Archaeology conducted an archaeological watching brief during the excavation of launch and receptor pits for directional drilling to install a replacement water main along Scords Lane, Toys Hill.

The watching brief was deemed necessary due to the site's location in close proximity to a Site of Special Scientific Interest and eight listed buildings.

Ten pits were dug, measuring between 0.95-2.35m long by 0.5-0.9m wide and 0.5-1.15m deep (173.88-189.59mOD). The stratigraphy seen in the pits was generally the same, comprising c.0.8-0.11m thick tarmac overlying varying natural of either sandy clay or clayey sand.

No finds or features of archaeological interest were encountered.

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1 Introduction

1.1 This document forms a summary of the results of an archaeological watching brief undertaken on the 24th August and the 20th September 2017, monitoring the excavation of launch and receptor pits ahead of directional drilling associated with the installation of a replacement water main. The works covered a length of approximately 735m along Scords Lane, from Puddledock Lane in the south-west to Orchard House in the northeast (figs. 1 & 2).

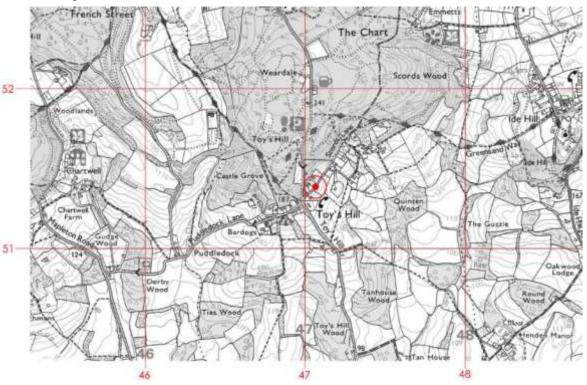


Figure 1: Approximate location of site centre marked in red. Reproduced from OS data with the permission of the Ordnance Survey on behalf of The Controller of HMSO ©Crown Copyright 2014. All rights reserved. Compass Archaeology Ltd, licence no. AL 100031317.

1.2 The watching brief was commissioned by Claire Hallybone, on behalf of Thames Water Utilities. The County Archaeological Officer considered that it would be appropriate to monitor the works in order to observe, identify, excavate and record archaeological remains; particularly as the excavations are located adjacent to a Site of Special Scientific Interest (the designated Historic Parks and Gardens known as Emmets Garden, Ide Hill) and lies in close proximity to eight listed buildings.

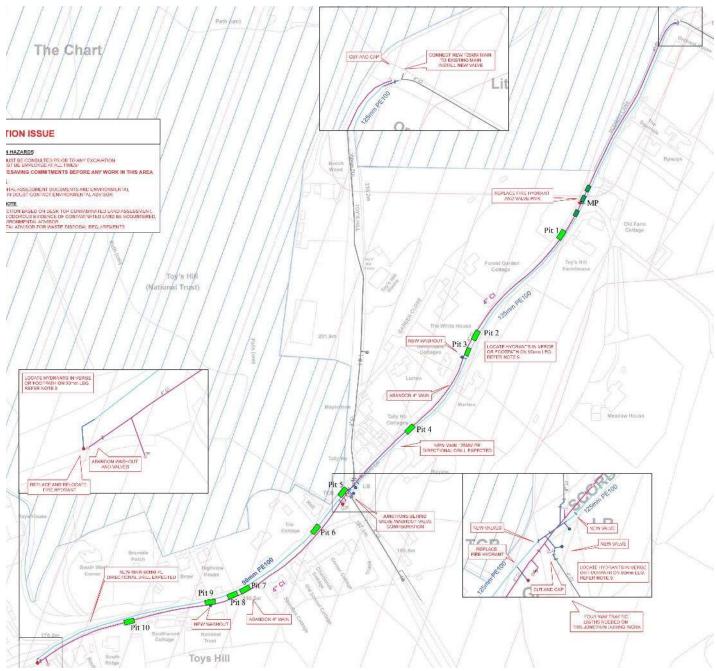


Figure 2: Site plan with actual location of pits observed (bright green), and pits that were unobservable (dark green) due to the presence of metal plate coverings. Adapted from drawing no.1301_SCORDS LANE (D363-A1-20001-1301_B) supplied by L. Curtis, SMBJV SHE Team

2 SITE LOCATION, GEOLOGY AND TOPOGRAPHY

- 2.1 The works were located along the length of Scords Lane, Toys Hill, TN16 1QD, between Puddledock Lane in the south-west to Orchard House in the north-east.
- 2.2 According to the British Geological Survey, Sheet 287: Sevenoaks, the site lies on a mix of Hythe Beds and Atherfield Clay, with some patches of Head to the north.
- 2.3 Scords Lane is an uneven stretch of road starting with a gentle slope from the junction with Puddledock Lane at the south-western end (185.26mOD), it remains flat for several hundred metres heading north-east before another gradual slope down just before the first right-turn. There is a steep incline after the right-hand turn to Scords Farm, becoming a more moderate incline towards the north-eastern end of the lane (173.26mOD at the north-eastern extent of the groundworks).

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 A basic search of the Kent HER database was made for a buffered line search of 150m around the north-eastern and south-western extents of the site (TQ 4728 5162; TW 4677 5111) via http://webapps.kent.gov.uk/KCC.ExploringKentsPast.Web.Sites.Public/ and the following section is largely based on this evidence. A full outline of the HER search results can be found in the preceding WSI for the site (Compass Archaeology 2017).

3.2 Prehistoric

- **3.2.1** A Bronze Age flint tool was found on the site of Knole, Sevenoaks, implying that activity has been taking place in the vicinity of the site for a considerable time.
- **3.2.2** The county of Kent has been occupied since the Lower Palaeolithic period, being exploited for its natural resources through extensive quarrying. The most significant find to be recovered from the area is known as the Swanscombe Skull. Three adjoining fragments of human skull excavated from Barnfield Pit, Swanscombe, between 1935 and 1955, were identified as *Homo heidelbergensis* and date to approximately 400,000 years ago.

3.3 Roman

3.3.1 The site is located towards the western side of the county of Kent and as such saw little occupation in the Roman period, with more permanent settlement focused towards the coast, and on to *Londinium*. Although Richborough Castle now lies two miles inland this is believed to have been the landing point of the Roman invasion in AD43 – however there is no evidence for significant activity or occupation closer to the proposed study site.

3.4 Saxon

3.4.1 Similarly, there is little direct evidence for Saxon activity in the vicinity of the site, however, it is possible the trackway which later became Puddledock Lane / Scords Lane became established during this early period.

3.4.2 East Kent became one of the kingdoms of the Jutes in the 5th century, later becoming known as Cantia, and finally, in 835, as Cent.

3.5 Medieval

- **3.5.1** The hamlet of Toys Hill lies in the Hundred of Westerham and Eatonbridge, mentioned in the Domesday Survey of 1086 as the *Hundred of Ostreham*. The Hundred contains the parishes of Westerham and Eatonbridge. A small settlement was probably established by the early medieval period, taking its name from a prominent land owning family in the area. In 1295 Robert Toys paid 12d to the Manor of Otford for the right to keep his pigs in the wood.
- **3.5.2** Based on later cartographic and topographic sources it is likely that the settlement was established in a ribbon pattern, utilising the relatively flat terrace of Puddledock Lane which was bounded to the north by extensive woodland and the Greensand escarpment to the south.

3.6 Post-medieval

- **3.6.1** Reference is again made to the hamlet in the spring of 1756, when as a result of steep terracing and soft natural geology a relatively small but significant shift occurred, displacing the land between 1 and 3 feet, and creating sinkholes of up to 12 feet in places (Hasted 1797, 158-159).
- 3.6.2 Puddledock Lane / Scords Lane as a trackway has appeared on cartographic documents since the 1700s (although it was in existence before this). A pen and ink drawing from 1798 (fig. 3) shows Puddledock Lane and Scords Lane to the south of a well-hachured terrain, with one or two of the more notable farmsteads depicted by the neater division of land. This division is clearer on a map produced a year later (fig. 4), showing Toys Hill farm and Bardolves (Bardogs) to the south, both of which still exist.
 - By the late-19th century a small but established settlement had been created. The hamlet was bounded by the large properties of Bardogs at the southern end and Scords Farm at the northern end, with several houses, a village hall and school lining either side of the road (figs. 5-6). The presence of a lime kiln also suggests localised industrial activity and utilisation of local resources, probably for construction.
- 3.6.3 The proposed stretch of road included in the mains replacement scheme contains 8 listed buildings: the Village Hall; a Type K6 telephone kiosk designed in 1935; Chartlands Corner Cottage, parts of which date to the 16th century or earlier; Toys Hill Farmhouse, which is again 16th century; Martins, a 20th century private residence; Old Farm Cottage, a restored 15th century hall-house; Scords Farmhouse, a 16th century timber framed building; and a wellhead canopy, first sank by Octavia Hill in 1898 for use by the villagers.
- 3.6.4 The prominent terrace which overlooks the Weald was donated to the National Trust in 1989 by Octavia Hill, one of the Trust's founding members, and became one of the first properties owned by the organisation. The present site comprises more than 200 acres of woodland predominantly situated to the north of Scords Lane, and has been

designated a Site of Special Scientific Interest due to its diverse and abundant flora and fauna.



Figure 3: Pen and ink drawing (1798), showing Scords Lane leading to Toys Hill Farm. The terracing is indicated by the hachuring. Site centre marked in red.

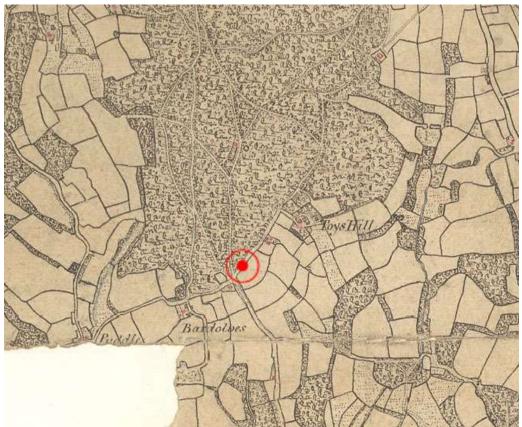


Figure 4: A clearer pen and ink drawing of Penshurst (1799) showing woodland to the north of the site (red)



Figure 5: Extract from the OS Six-inch map of 1871, showing the Hamlet of Toys Hill. Site centre marked in red

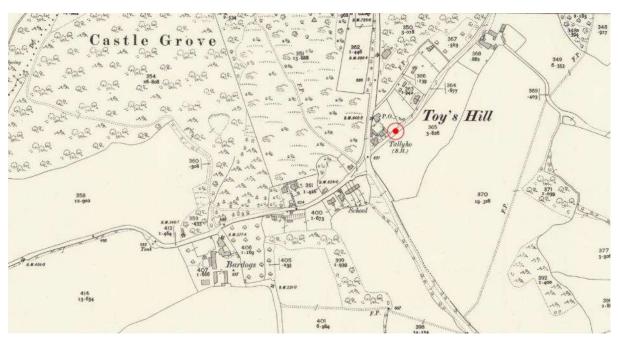


Figure 6: Extract from the OS 25-inch map of 1909 showing Toys Hill. Site centre in red

4 ARCHAEOLOGICAL RESEARCH QUESTIONS

- **4.1** The watching brief presented the opportunity to answer the following specific and more general research questions:
 - Is there any evidence of Prehistoric occupation or activity within the vicinity of the site? If so, what is its form and nature?
 - Is there any evidence of previous land-use before the lane was constructed? If so what form does this take?
 - Is there any evidence of the post-medieval construction of adjacent buildings?
 - What is the nature and level of archaeological survival across the area?
 - What is the nature and level at which the natural geology was encountered?

5 METHODOLOGY

5.1 Standards

5.1.1 The field and post-excavation work was carried out in accordance with Historic England guidelines (Historic England 2012). Works conformed to the standards of the Chartered Institute for Archaeologists (CIfA, 2015). Overall management of the project was undertaken by a full member of the Institute.

The watching brief will follow the requirements of the National Planning Policy Framework (NPPF), adopted in March 2012.

5.1.2 Fieldwork was carried out in accordance with the Construction (Health, Safety and Welfare) Regulations. All members of the fieldwork team held valid CSCS Cards (Construction Skills Certificate Scheme), and appropriate PPE as required. Members of the fieldwork team also followed the contractors' health and safety guidelines and held Thames Water Safety Passports.

5.2 Fieldwork

- **5.2.1** The watching brief was conducted during excavations of 10 launch and receptor pits associated with the directional drilling used to lay a replacement mains along Scords Lane. Excavation of the pits was undertaken by machine, using a flat bladed grading bucket, supplemented with hand digging where necessary.
- **5.2.2** Adequate time was allowed for investigation and recording, although every effort was made not to disrupt the development programme.
- **5.2.3** Archaeological deposits and features were investigated and recorded in stratigraphic sequence, and finds dating evidence recovered where possible.
- **5.2.4** Archaeological contexts were recorded as appropriate on *pro-forma* trench record sheets by written and measured description. The investigations were recorded on a general site plan and related to the Ordnance Survey grid on the 1:1250 map (fig. 2). The fieldwork was supplemented by digital photography in .jpeg and RAW formats.
- **5.2.5** The Client and Kent County Council's Archaeological Officer were kept advised of the progress of the fieldwork.

5.3 Report and archive

- **5.3.1** The following report of the watching brief has been deemed commensurate with the results; but as a minimum stands as a sufficiently detailed report on the archaeological monitoring to serve both future research and inform future planning decisions taken on the site.
- **5.3.2** The report contains a description of the fieldwork plus details of any archaeological remains or finds, and interpretation of the associated deposits. A short summary of the project has been appended using both the Kent County Historic Environment Record Report Form, and OASIS Data Collection Form.

- **5.3.3** Copies of the report will be supplied to the client, Kent County Council's Archaeological Officer and to the Local Studies Archive.
- **5.3.4** Once the project is completed, an ordered, indexed and internally consistent archive will be compiled in line with CIfA standards and guidance (CIfA 2014b), and will be deposited in a local archive under the site code TOY17. The integrity of the site archive should be maintained and the landowners will be urged to donate any archaeological finds to the appropriate museum.

6 RESULTS

- 6.1 The watching brief was conducted over two site visits, on the 24^{th} August (pits 1-4) and the 20^{th} September, 2017 (pits 5-10). Observations made during the groundworks are detailed below. Reference should be made to fig. 2 for the locations of the pits. Deposits are shown in round brackets; (X), and cuts in square brackets; [X].
- 6.2 Ten separate small pits were excavated as launch and receptor pits for use during the directional drilling. They were all sub-rectangular in shape, and dug to a maximum of 1.15m deep. Three additional pits were excavated at the north-eastern end of Scords Lane but covered with metal plates and unobservable during both site visits. Levels were taken from the road surface of these pits, c.173.39mOD.
- 6.3 The stratigraphy was extremely similar across all ten pits, comprising a layer of tarmac, (1) c. 0.08-0.11m thick, overlying natural deposits, (2). The natural varied between a reddish-brown clay with frequent gravel inclusions, to a pale red-brown sandy clay with no inclusions. This is due to the underlying geological mix of Hythe Beds (sandy silts with some clay interbeds) and Atherfield Clay (brown clay with pinkish brown to orange mottling, general inclusions of sandy mudstone). Levels were taken from the road surface by each pit, and illustrate the undulating nature of Scords Lane:

Pit 1: 174.83mOD

Pit 2: 179.66mOD

Pit 3: 179.87mOD

Pit 4: 183.83mOD

Pit 5: 189.21mOD

Pit 6: 190.24mOD

Pit 7: 190.27mOD

71. 7. 190.27mob

Pit 8: 189.59mOD

Pit 9: 188.67mOD Pit 10: 185.26mOD

6.4 Pit 1

6.4.1 Pit one was positioned at the north-easternmost end of Scords Lane and measured 2.10m long by 0.75m wide and 0.95m deep (fig. 7). The natural in this pit comprised a pale brown sandy clay, visible to the lowest recorded level of 173.88mOD.



Figure 7: Pit 1. Facing N. No scale.

6.4.2 No features or finds of an archaeological nature were recovered from this pit.

6.5 Pit 2

6.5.1 Pit 2 was located south-west of pit 1, and measured 2.35m long by 0.7m wide. It was the deepest pit, 1.15m (178.51mOD). The natural in this pit was similar to that seen in pit 1, a sandy pale reddish-brown clay (fig. 8).



Figure 8: Pit 2. Facing ESE. Scale 1m.

6.5.2 No archaeological finds or features were recovered from this pit.

6.6 Pit 3

6.6.1 Pit 3 was a trial pit dug for an electrical cable being laid across the roadway. It measured 1m long by 0.5m wide and 0.5m deep (fig. 9). The natural visible in this pit was a pale brown sandy silt with frequent gravel inclusions. The lowest level recorded was 179.37mOD.



Figure 9: Pit 3. Facing NW. Scale 0.5m

6.6.2 No archaeological finds or features were recovered from pit 3.

6.7 Pit 4

6.7.1 Pit 4 measured 2.1m long by 0.8m wide and 1m deep. The natural seen here was again a pale brown sandy silt, though with slightly less frequent gravel inclusions than that seen in pit 3 (fig. 10). The lowest level recorded was 182.83mOD.



Figure 10: Pit 4. Facing WNW. Scale 1m.

6.7.2 No finds or features of an archaeological nature were encountered in pit 4.

6.8 Pit 5

6.8.1 Pit 5 measured 1.92m long by 0.82m wide and 0.8m deep. The natural visible in section was a red-brown clay with frequent gravel inclusions (fig. 11). The lowest level recorded was 188.41mOD.



Figure 11: Pit 5. Facing NW. Scale 0.8m

6.8.2 No finds or features of an archaeological nature were visible in pit 5.

6.9 Pit 6

6.9.1 Pit 6 measured 1.65m long by 0.9m wide, and 0.65m deep. The natural was a pale yellow clayey sand with no inclusions (fig. 12). Two modern services were visible in the base of the trench (189.59mOD) but there was no evidence of either cut or fill surrounding them.



Figure 12: Pit 6. Modern services visible on either side of trench base. Facing NW. Scale 0.6m

6.9.2 No finds or features of archaeological interest were recovered from pit 6.

6.10 Pit 7

6.10.1 Pit 7 measured 0.95m long by 0.65m wide and 0.7m deep. The natural visible here was similar to that seen in pit 6; a yellow-brown clayey sand with few inclusions (fig. 13). The lowest level recorded was 189.59mOD.



Figure 13: Pit 7. Facing SSE. Scale 0.6m

6.10.2 No archaeological finds or features were recovered from this pit.

6.11 Pit 8

6.11.1 Pit 8 measured 1.10m long by 0.65m wide and 0.7m deep. The natural in pit 8 was also a pale yellow-brown clayey sand with few inclusions (fig. 14). The lowest level recorded in this pit was 188.89mOD.



Figure 14: Pit 8. Facing SSE. Scale 0.6m

6.11.2 No finds or features of an archaeological nature were recovered from this pit.

6.12 Pit 9

6.12.1 Pit 9 measured 1.2m long by 0.7m wide and 0.75m deep (187.92mOD). The natural was slightly varied in colour with yellow at the top on the western end, changing to redbrown below in the eastern half (fig. 15). It was a clayey sand with no inclusions.



Figure 15: Pit 9. Facing S. Scale 0.8m

6.12.2 No features or finds of an archaeological nature were encountered.

6.13 Pit 10

6.13.1 Pit 10 measured 1.8m long by 0.9m wide and 1m deep. A small extension for a drain immersion was excavated on the south-west side of the pit. This extension measured 1.3m long by 0.45m wide (fig. 16). The natural in this pit was a red-yellow sandy clay with no inclusions (fig. 17). The lowest level recorded was 184.26mOD.



Figure 16: Pit 10 location. Facing ENE. No scale



Figure 17: Pit 10 close-up. Facing SSE. Scale 1m

6.13.2 No finds or features of archaeological interest were recovered from pit 10.

7 CONCLUSIONS

- **7.1** We can now look back at the research questions and compare them with the results of the watching brief.
- 7.2 Is there any evidence of Prehistoric occupation or activity within the vicinity of the site? If so, what is its form and nature?
 - No prehistoric finds or deposits were encountered during the groundworks.
- 7.3 Is there any evidence of previous land-use before the lane was constructed? If so what form does this take?
 - There was no evidence encountered relating to the previous land use of the area.
- 7.4 Is there any evidence of the post-medieval construction of adjacent buildings?
 - No evidence for the construction of either the lane or the adjacent buildings was recovered during the groundworks.
- **7.5** What is the nature and level of archaeological survival across the area?
 - No archaeological remains were encountered across the site.
- **7.6** What is the nature and level at which the natural geology was encountered?

The natural geology was a varied mix of Hythe Beds and Atherfield Clay formations, resulting in natural that comprised variously of yellow or reddish sand, clay or sandy clay. The sand tended to have few inclusions in it, whereas more frequent gravel inclusions were seen in the clay deposits. The natural was encountered at a level of c.179.55mOD at the north-eastern end of the works, and 185.15mOD at the southwestern end.

8 SOURCES

8.1 Bibliography

Chartered Institute for Archaeologists, 2015. Standard and guidance for an archaeological watching brief

Compass Archaeology (2017), Specification for an Archaeological Watching Brief for Linear Utility Scheme at Toys Hill, Scords Lane, TN16 1QD.

Dartford Borough Council, (2015) Dartford Development Policies Plan. Publication (Pre-Submission) Document

Historic England, 2016. Greater London Archaeology Advisory Service: Guidelines for Archaeological Projects in Greater London

8.2 Cartographic Sources (chronological)

Ordnance Survey Drawings (1798), Sevenoaks 99E

Penshurst (Kent), (1799)

Ordnance Survey, (1871), Six-inch map, Kent XXXIX

Ordnance Survey, (1909), 25-inch map, Kent XXXIX.SE

APPENDIX I: KENT COUNTY HISTORIC ENVIRONMENT RECORD REPORT FORM

Site Name: Linear Utility Scheme at Toys Hill, Scords Lane: an archaeological watching brief

Site Address: Scords Lane, Toys Hill, TN16 1QD

Summary: An archaeological watching brief conducted during excavation of launch and receptor pits for directional drilling a water main replacement. Ten pits were dug, measuring between 0.95-2.35m long by 0.5-0.9m wide and 0.5-1.15m deep (lowest level recorded was 173.88mOD, pit 1). The stratigraphy seen in the pits was generally the same, comprising c.0.8-0.11m thick tarmac overlying varying natural of either sandy clay or clayey sand. No finds or features of archaeological interest were encountered.

District/Unitary: Sevenoaks **Parish:** Brasted

Period(s): Modern

NGR: TQ 47155 51516

Type of archaeological work Archaeological watching brief

Date of Recording: 24th August & 20th September 2017

Unit undertaking recording: Compass Archaeology Ltd

Geology: Hythe Beds and Atherfield Clay

Title and author of accompanying report: Thames Water Mains Replacement Works, Toys Hill, Scords Lane TN16 1QD: An Archaeological Watching Brief. By Miranda Fulbright

Summary of fieldwork results (begin with earliest period first, add NGRs where appropriate)

An archaeological watching brief conducted during excavation of launch and receptor pits for directional drilling a water main replacement. Ten pits were dug, measuring between 0.95-2.35m long by 0.5-0.9m wide and 0.5-1.15m deep (lowest level recorded was 173.88mOD, pit 1). The stratigraphy seen in the pits was generally the same, comprising c.0.8-0.11m thick tarmac overlying varying natural of either sandy clay or clayey sand. No finds or features of archaeological interest were encountered.

Location of archive/finds: Compass Archaeology Ltd

Contact at Unit: Geoff Potter Date: 22nd September 2017

APPENDIX II: OASIS DATA COLLECTION FORM

OASIS ID: compassa1-296572

Project details

Project name Thames Water Mains Replacement Works, Toys Hill, Scords Lane

TN16 1QD: An Archaeological Watching Brief

Short description of the An archaeological watching brief conducted during excavation of

project

launch and receptor pits for directional drilling a water main replacement. Ten pits were dug, measuring between 0.95-2.35m long by 0.5-0.9m wide and 0.5-1.15m deep (189.59-173.88mODmOD). The stratigraphy seen in the pits was generally the same, comprising c.0.8-0.11m thick tarmac overlying varying natural of either sandy clay or clayey sand. No finds or features of archaeological interest were

encountered.

Project dates Start: 24-08-2017 End: 20-09-2017

Previous/future work No / No

Type of project Field evaluation

Site status None

Current Land use Transport and Utilities 1 - Highways and road transport

Monument type NONE
Significant Finds NONE

Methods & techniques "Photographic Survey", "Test Pits", "Visual Inspection"

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 Not known / Not recorded

process

Project location

Country England

Site location KENT SEVENOAKS BRASTED Scords Lane, Toys Hill

Postcode TN16 1QD

Study area 0.74 Kilometres

Site coordinates TQ 47155 51516 51.24327624306 0.108483494019 51 14 35 N 000

06 30 E Point

Height OD / Depth Min: 0.12m Max: 1.15m

Project creators

Name of Organisation Compass Archaeology

Project brief originator Thames Water Utilities Ltd

Project design originator Compass Archaeology

Project director/manager Geoff Potter
Project supervisor Geoff Potter

Type of sponsor/funding Thames Water PLC body

Entered on

Project archives				
Physical Archive Exists?	No			
Digital Archive recipient	Museum of London Archaeological Archive			
Digital Contents	"none"			
Digital Media available	"Survey","Text","Images raster / digital photography"			
Paper Archive recipient	Museum of London Archaeological Archive			
Paper Contents	"none"			
Paper Media available	"Context sheet","Photograph","Report"			
Entered by	Miranda Fulbright (miranda@compassarchaeology.co.uk)			

25 September 2017