GRAIN TO TILBURY CABLE TUNNEL REPLACEMENT PROJECT – GRAVESEND HEAD HOUSE

Archive Report for:

Archaeological Trial Trench Evaluation

Prepared by

NETWORK ARCHAEOLOGY LTD

For

National Grid

July 2024

Document Control Sheet

Project	Grain to Tilbury Cable Tunnel Replacement Project – Gravesend Head House						
Document title	Grain to Tilbury Cable Tunnel Replacement Project – Gravesend Head House - Archive Report for: Archaeological Trial Trench Evaluation						
Document ref.	REP24005						
HER ref.	THCT24						
Site code	GTT14						
County	Kent						
NGR	567416 174134						
Client	National Grid						
Distribution	National Grid, Kent County Council						
Document Comprises	**Doc. Control sheet**	**Table of Contents**	**List of Tables**	**List of Figures**	**List of Appendices**	**Text**	**Appendices**
	1	1	1	1	1	14	11

Version	Status	Author(s)	Reviewer	Approver	Date
1.0	First Issue	S.Thorpe Snr Project Officer	P.Townend Project Manager	M. Wood Sr Project Manager	09/07/24
2.0	Respond to comments	S.Thorpe Snr Project Officer	P.Townend Project Manager	M. Wood Sr Project Manager	13/08/24

Northern Office
15 Beaumont Fee Lincoln LN1 1UH
Tel: 01522 532621
Email: enquiries@netarch.co.uk

network archaeology

Southern Office
22 High Street Buckingham MK18 1NU
Tel: 01280 816174
Email: enquiries@netarch.co.uk

Network Archaeology delivers a complete consultancy and field service nationwide. Our emphasis is upon good communication and recognition of client's individual needs and priorities. We are known for delivering professional support, taking care of the archaeology, and enabling projects to keep moving forward.

Our operating systems have been verified by:

Achilles – serving the procurement professional

Considerate Constructors

Citation – Professional Solutions

Contents

List of Appendices

List of Tables

List of Plates

List of Figures

Non-Technical Summary

In June 2024, Network Archaeology undertook an archaeological trial-trench evaluation in advance of works associated with the Grain to Tilbury Cable Tunnel Replacement Project at Gravesend, Kent (Figure 1). The scheme as a whole involves the proposed construction of a new cable tunnel beneath the River Thames between Gravesend and Tilbury to provide additional transmission capacity with the area of evaluation focused within the construction footprint of a new head house building (Figure 2).

Although no archaeological features were identified, alluvium was recorded in all three trenches whilst disturbed ground was identified within Trench 1 and made ground within Trench 3. All of these deposits were considered to be of post-medieval or modern date.

1 Introduction

1.1 Purpose of this Report

This report presents the results of an archaeological evaluation undertaken prior to the construction of the new Gravesend head house building as part of the Grain to Tilbury Cable Tunnel Replacement Scheme on a site to the north of the village of Denton, Kent (NGR 567416 174134, Figures 1 and 2).

1.2 Project Background

1.2.1 Proposed development and planning history

The project comprises the construction of a new cable tunnel beneath the River Thames between Gravesend and Tilbury to provide additional electricity transmission capacity. Above-ground infrastructure will include a new Cable Sealing End compound, head house building, and associated electricity infrastructure including overhead gantry structures (Gravesend Borough Council Reference – 20231313).

A desk-based assessment was compiled (AECOM 2023) as part of the environmental statement and was submitted, along with the planning application, to Kent County Council Heritage Conservation (KCCHC) for consultation. Based on the results of the desk based assessment, KCCHC applied a condition stating that archaeological trial-trench evaluation should be undertaken within the construction footprint of the new head house to better assess the archaeological and palaeoenvironmental potential of the site.

Further details pertaining to the project background can be found in the site-specific written scheme of investigation (WSI) (Network Archaeology 2024).

1.3 Location, description, and natural environment

The proposed development area (PDA) is located to the north of the village of Denton, northeast of Gravesend in Kent (NGR 567416 174134, Figures 1 and 2). The site is bounded to the north by the River Thames and the south by the Thames and Medway Canal. The Eastcourt Marshes Electricity Substation lies to the immediate north of the proposed location of the new head house (Figure 2). Industrial complexes are located to the west with the Milton Rifle Range to the east.

Topographically, the site lies on relatively flat ground between 3m and 4m above Ordnance Datum (aOD).

The bedrock geology comprises chalk of the Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation with superficial deposits of clay, silt, sand, and peat also recorded (British Geological Survey).

The soils are recorded as loamy and clayey coastal flats with naturally high groundwater (LandIS) with the agricultural land classification (ALC) being generally poor (Natural England).

1.4 Proposed Archaeological Works

A total of 3 trial trenches were excavated, representing an approximate 3% sample of the accessible areas of the PDA (Figure 2).

In addition to the trenching, a geotechnical borehole survey is also taking place to establish a full sequence of the alluvial sequence within the evaluation area.

2 Heritage Background

2.1 Introduction

A summary of the Archaeological and Historical Background is presented below based on the Archaeological Desk-Based Assessment undertaken in 2023. A full list of all known assets within a 500m study area surrounding the PDA was provided by the Historic Environment Record (HER) and can be found within the desk-based assessment and WSI.

The asset numbers are those provided by the relevant Historic Environment Record (HER), the National Monuments Record (NMR) or Historic England.

2.2 Conservation Areas

There are no conservation areas within the PDA or its immediate environs.

2.3 Designated Heritage Assets

2.3.1 Scheduled Ancient Monuments

There are no Scheduled Monuments, Registered Historic Parks and Gardens or Registered Battlefields within the PDA or its immediate environs.

2.3.2 Listed Buildings

There are no Listed Buildings within the PDA although six, all Grade II listed, are recorded within the wider study area of the project desk-based assessment.

2.4 Non-Designated Heritage Assets

2.4.1 Earlier Prehistoric (Palaeolithic to Iron Age, 500,000-800BC)

No earlier prehistoric heritage assets have been identified within the PDA or its wider environs.

There is, however, potential for prehistoric archaeology to exist below the Holocene alluvium.

2.4.2 Iron Age and Roman (800BC to AD410)

No Iron Age or Roman heritage assets have been identified within the PDA or its immediate environs.

Fragments of pottery, animal bones and structural daub (TQ 67 SE 238) and (TQ 67 SE 239) have been recovered to the south and west of the PDA with those from the south considered to be associated with Chalk Roman Villa (TQ 67 SE 15).

2.4.3 Early Medieval and Medieval (AD410 to AD1540)

During the early medieval and medieval periods the PDA would have been located on drained marshland east of Gravesend that would have been used for agricultural purposes.

Gravesend is recorded in the Domesday survey of AD1086 as being within the hundred of Tollingtrough and owned by Bishop Odo of Bayeux. During the Middle Ages, there was an expansion of settlement within the county, facilitated by the opening of Wealden pastures, with Gravesend experiencing some of this expansion (Kent County Council 2001).

No medieval heritage assets have been identified within the PDA although evidence of ridge and furrow ploughing, perhaps of medieval or post-medieval date, has been recorded to the immediate west (TQ67 SE 1019) whilst Denton Deserted Medieval Village (TQ 67 SE 55) was located 400m south west of the PDA.

2.4.4 Post-medieval and Modern

The parish of Gravesend was confirmed in 1568 and the southern boundary of the PDA comprises the Thames and Medway Canal. The canal was constructed in the early 19th century (TQ 67 SE 20) and an associated hand-operated swing bridge (TQ 67 SE 49) is recorded as being located 90m south of the PDA.

The only heritage asset within the PDA is Milton Rifle Range (TQ 67 SE 1185) which lies wholly within the PDA and extends 980m eastwards across Eastcourt marshes. This range was constructed in 1862 and, through varied layouts, continued in military use throughout both World Wars and up until 1995 when it was handed over to the Metropolitan Police. The range is located within the western portion of the PDA where the potential for surviving associated surface earthworks associated was considered to be higher. LiDAR and Earthwork surveys were carried out as part of this project and the results can be found in the forthcoming report (MOLA 2024).

The landscape held strategic importance for defending the local area and London from both aerial and naval attacks and, as such, several assets pertaining to World War 2 defences are recorded within the immediate vicinity of the PDA. These include navigational beacon bases (TQ 67 SE 1045),

an air raid wardens post (TQ 67 SE 346), the site of a barrage balloon (TQ 67 SE 1021) and the location of the Denton Sewage Works Battle Headquarters (TQ 67 SE 1196).

2.4.5 Undated

A number of undated heritage assets are recorded around the immediate periphery of the PDA boundary, including evidence of a shipwreck (TQ 67 SE 1044), an undated post-built structure (TQ 67 SE 1047), evidence of saltworks (TQ 67 SE 1013) and former salt mounds (TQ 67 SE 301).

Two salt-working sites (TQ 67SE 1013) and (TQ 67 SE 1014) were recorded 110m west and 350m south east of the EIA Boundary respectively. Although not dated on the Kent HER, these are likely to be of Late Iron Age or Roman date. Such sites were common along the Thames with the river utilised to produce salt as both a domestic and trade resource.

2.4.6 Palaeoenvironmental

As part of the environmental statement (ES Volume VI Appendix 9.2), a geoarchaeological deposit model was produced to model the depth of deposits within the PDA and the wider study area, and to assess the potential for Mesolithic and later prehistoric alluvium and peat deposits to be located within the PDA. These stratigraphic layers chart the changing sea-level, landscape development and may contain evidence for human occupation of the area during the Holocene period.

The PDA was considered to have a high potential for the survival of paleoenvironmental remains dating from the Mesolithic to Iron Age periods including organic alluvium and peat deposits.

2.4.7 Archaeological potential of scheme

The desk based assessment identified a moderate number of heritage assets within the immediate environs of the PDA, predominantly dating from the post-medieval to modern periods. It also identified the potential for earlier remains, notably the potential survival of paleoenvironmental remains dating to the Mesolithic to Iron Age periods, to be present.

The assessment of potential for each period was as follows:

- **Paleoenvironmental Remains** – The PDA was considered to have a high potential for the survival of paleoenvironmental remains dating to the Mesolithic to Bronze Age periods including organic peat and alluvial deposits.
- **Palaeolithic and Mesolithic** – The PDA was considered to have a low potential for the recovery of Palaeolithic or Mesolithic remains including isolated finds of stone tools.

- **Neolithic and Bronze Age** – The PDA was considered to have a low potential for the recovery of Neolithic or Bronze Age artefacts or *in-situ* occupation evidence.
- **Iron Age and Roman** - The PDA was considered to have a low potential for the discovery of Iron Age or Roman remains.
- **Early-medieval and medieval** –The PDA was considered as having a low potential for the survival of early medieval and medieval remains.
- **Post-medieval** – The PDA was considered to have a low potential for the survival of post-medieval agricultural or settlement remains. However, there was considered to be a high potential for the survival of remains associated with the earthen firing positions and 19th century operation of the Milton Rifle Range.
- **Modern** – The PDA was considered to have a low potential for the survival of remains associated with Milton Rifle Range.

In addition to the archaeological works, a geotechnical borehole survey will also be undertaken within the evaluation area to obtain a full sequence of the alluvial deposits.

2.5 Aims and Objectives Identified by the Written Scheme

The aims of the trial trenching evaluations were to identify, characterise, date and establish the value of any archaeological remains that will be affected by the Project, and to allow a suitable mitigation strategy, if any is required, to be devised and implemented before construction.

The **general** aims of the project were to:

- Determine the presence and or absence of archaeological remains within the PDA and, notably, the construction footprint of the new head house building;
- Determine the approximate extent, condition and state of preservation of any remains;
- Confirm the approximate date or date range of the remains;
- Sample deposits to assess their paleoenvironmental potential;
- Produce a report on the results of the archaeological trial-trenching evaluation;
- Establish the effects of the scheme on the below-ground archaeological resource;
- Ensure adequate provision for archival deposition of the finds and documents archive; and
- Inform on the need for further archaeological mitigation of all or parts of the evaluated areas.

The **specific** aims of the project were:

- Locate, date, and characterise the extent of any palaeoenvironmental deposits;
- Assess whether there are any archaeological remains within the PDA pre-dating the Milton Rifle Range;
- Assess whether the any discovered archaeological remains allow us to characterise the evolution of the Milton Rifle Range throughout its approximate 200 year history?
- Assess whether any discovered archaeological remains allow us to better characterise the evolution of the landscape, notably the use of reclaimed land?

In addition, the South East Research Framework (Kent County Council) identified the following potential research objectives:

- Establishing the timing of early Holocene pine expansion.
- Establishing the timing of early Holocene hazel expansion in various locations and investigation into potential links with Mesolithic activity.
- Interrogating the ambiguity regarding the causes of the elm decline and its likely association with exploitation by Neolithic farmers.
- Establishing a better understanding of the onset of flooding in the lower reaches of our river valleys and the nature of the landscape transformation resulting from that flooding;
- Realising the potential for research into past land use by exploiting the resources of the modern coastal landscape of the Thames Estuary and the estuaries of the smaller rivers, such as the Medway, Stour, Rother, Adur and Run, which may all contain surviving evidence for previous episodes of human activity.
- Reconciling the near-shore, inter-tidal and submerged evidence and records with the terrestrial data?
- Investigating the relationship between towns and their hinterlands (town/country) through time, especially their changing role in the industrial period.
- Study of the reclamation of wetlands, identifying the methods used, the resultant field patterns and management systems, and the impact on the population and economy of the area.

2.6 Methods

All of the trenches were 30m long x 1.8m wide and all were stripped of overburden using a mechanical excavator fitted with a toothless bucket under the constant supervision of trained and

qualified archaeologist in accordance with the methodologies laid out in the written scheme (Network Archaeology, 2024).

Deep deposits were recorded in all three trenches (see section 3.4) and, due to health and safety constraints, sondages could only be excavated to a depth of 2m below the existing ground level, rapidly recorded, and then backfilled.

2.7 Resources

The evaluation ran from June 17th to June 19th 2024 and was undertaken by two archaeologists.

3 Results

3.1 Trenching Results

This section presents the results of the fieldwork with a summary of the findings provided in Table 1. A summary table of all contexts can be found in Appendix C.

Table 1: Summary of Archaeological Results.

Trench	Findings
1	Disturbed ground Alluvium
2	Alluvium
3	Made ground Alluvium

Throughout this section cut features and deposits are referred to by unique context numbers. Cut features are referenced in **bold type**.

To simplify the narrative and aid interpretation, all features mentioned in the results section are referenced by the primary survey context number (e.g., 'cut **2031'**) which acts as the master feature number. Subsequent interventions into the same feature are referenced appropriately in the text (e.g., 'section **2032'**).

3.1.1 Trench 01

Summary

Trench 01 was oriented north--east to south—west (Plate 1), the topsoil (10000) comprising 0.3m of mid brown-grey loose clayey silt which, at the southwest end of the trench, overlay up to 0.07m of red-brown sand mixed with building rubble (10001) (Figure 3a). Across the rest of the trench, and below 10001 was 1.15m of pale grey-brown compact silty clay alluvium (10002) which overlay a deposit of dark grey humic peat (10003) (Figure 3d and Plate 2). A machine-excavated sondage at the south-west end of the trench recorded this peat deposit to a depth of 1.8m below the existing ground level (0.58m thick) before the sondage was backfilled due to health and safety constraints. No finds were recovered from any of these deposits although fragments of post-medieval (Victorian) pottery were seen in the interface between the topsoil (10001) and the alluvial subsoil (10002) but not retained.

Archaeological findings

No archaeological features or deposits were identified in this trench.

3.1.2 Trench 02

Summary

Trench 02 was oriented broadly north to south (Plate 3), the topsoil (20000) comprising 0.27m brown-grey clayey silt which overlay a deposit of pale grey-brown compact silty clay alluvium alluvial subsoil (20001) (Figure 3b and Plate 4). Two sondages were machine excavated through this alluvium (Figure 3e), both showing that the alluvium was at least 1.73m thick (2m below the existing ground level) before the sondages were backfilled due to health and safety constraints. No finds were recovered from either of these deposits. A smear of possible humic peat, similar to that seen in Trench 01 (10003) was visible with the sondage section (Plate 4).

Archaeological findings

No archaeological features or deposits were identified in this trench.

3.1.3 Trench 03

Summary

Trench 03 was oriented north-east to south-west (Plate 5), the topsoil (30000) comprising 0.3m of mid grey-brown loose clayey silt which overlay 0.3m of chalky building rubble (30001). Below the building rubble was a deposit of pale grey-brown silty clay alluvium (30002) through which two sondages were machine excavated (Figures 3c and 3f and Plate 6), revealing the alluvium to be at least 1.4m thick (2m depth below existing ground level) before the sondages were backfilled due to health and safety constraints. No finds were recovered from any of these deposits

Archaeological findings

No archaeological features or deposits were identified in this trench.

3.2 Finds

No finds were recovered from any of the deposits identified during the evaluation and no palaeoenvironmental samples were taken.

4 Discussion of the Results

No archaeological features or deposits were identified in any of the three trenches.

The results show that, below the topsoil, the evaluation area is covered by a deposit of pale grey-brown silty clay alluvium (10002, 20001 and 30002) in excess of 1.5m thick and likely associated with flooding of the nearby River Thames.

Although no dating evidence was recovered from any of these deposits, fragments of post-medieval pottery were noted within the Trench 01 alluvium (10002) indicating that the alluvium was either post-medieval (Victorian) or later in date. The deposits of building debris recorded in Trenches 01 (10001) and 03 (30001) were also likely indicative of post-medieval or modern activity within the evaluation area, although neither could be confidently attributed to the Milton Rifle Range.

The only other identified deposit was the peat (10003) recorded in Trench 01 which, although undated, was located below the alluvium and could potentially pre-date the post-medieval period.

5 Conclusion

The evaluation has been successful in identifying that no archaeological remains exist within the evaluation area, at least to an approximate depth of 2m below the existing ground level.

Alluvium was recorded in all three trenches, this likely indicative of post-medieval and later flooding from the River Thames which is located to the north of the evaluation area.

No deposits pre-dating the post-medieval period could be positively identified, although the peat (10003) recorded below the alluvium in Trench 01, may potentially contain remains pre-dating the post-medieval period. The presence of alluvium was also confirmed by the associated borehole survey which identified such deposits between 1.1m and 1.2m below the current ground surface (Wilson, K, forthcoming). It is not unreasonable to suggest however that earlier remains could potentially exist below or even within these alluvial deposits.

No evidence of activity related to the Milton Rifle Range was identified.

Overall, there is a high level of confidence in the factual results of these works, and in the interpretations made, due to the clarity of the archaeology, the stratigraphic relationships, and the prevailing site conditions at the time of the fieldwork. Based on the results, the findings are of local importance and of negligible significance.

The archaeological works have ensured the long-term survival of the data collected, through the compilation of the site archive and this report.

6 Archive

The investigation produced the following document archive, under the project code GTT14. This code appears on all site records.

Table 2: Archive quantification

Archive Component	Count
Trench Sheets	3
Permatrace sheets	2
Photographic Indices	2
Digital images	61

In agreement with KCCHC, the site archive will be digitised and uploaded to the national digital repository held by the Archaeology Data Service (ADS) for permanent deposition in accordance with national guidelines (Ferguson & Murray 1997, Walker 1990, ADS 2011) as well as any guidance provided by the repository.

Copies of this report will be submitted to Kent County Council and National Grid and will also be uploaded to the Archaeology Data Service (ADS) and OASIS websites.

A copy of the OASIS data collection form can be found in Appendix A.

7 Acknowledgements

Network Archaeology would like to thank the following people and organisations for their assistance during the investigation and the production of this report.

Table 3: Acknowledgements

Organisation	Name	Position	Contribution
National Grid	Kate McGregor	Lead Consents Officer	Project Management
National Grid	Barry O'Connor	Supervisor	Site H&S Compliance
Kent County Council	Casper Johnson	Senior Archaeological Officer	Heritage Compliance
Network Archaeology	Peter Townend	Project Manager	Project Management
Network Archaeology	David Green	Project Officer	Site management
Network Archaeology	George Veckungs	Project Archaeologist	Excavation & Survey
Network Archaeology	Steve Thorpe	Project Officer	Report Writing
Network Archaeology	Annemarie Gaunt	Geomatics Manager	Report Figures
Network Archaeology	Agnieszka Trambowicz	Geomatics Supervisor	Report Figures
Network Archaeology	Mike Wood	Post-Excavation Delivery Manager	Post-Excavation Oversight

8 Bibliography

Secondary sources:

AECOM	2023	National Grid Cable Tunnel Replacement Project Environmental Statement Volume VI Appendix 9.1: Historic Environment Desk Based Assessment	
Carlsson, C	2017	The Haywaggon Inn, Archaeological Building Recording and Watching Brief	Independent Archaeology Consultants
Chartered Institute for Archaeologists	2014a	Code of Approved Practice for The Regulation of Contractual Arrangements in Field Archaeology	CIfA, Reading
Chartered Institute for Archaeologists	2014b	Standards and Guidance for The Collection, Documentation, Conservation and Research of Archaeological Materials	CIfA, Reading
Chartered Institute for Archaeologists	2020a	Standard and guidance for archaeological field evaluations	CIfA, Reading
Chartered Institute for Archaeologists	2020b	Standard and Guidance for The Creation, Compilation, Transfer and Deposition of Archaeological Archives	CIfA, Reading
Chartered Institute for Archaeologists	2021	Regulations for Professional Conduct. Chartered Institute for Archaeologists	CIfA, Reading
Chartered Institute for Archaeologists	2022	Code of Conduct: Professional Ethics in Archaeology. Chartered Institute for Archaeologists	CIfA, Reading
Department for Culture, Media and Sport	1996	The Treasure Act 1996 Code of Practice (2nd Revision)	
Ferguson L.M. & Murray D.M.	1997	Archaeological Documentary Archives: Preparation, Curation and Storage, Paper **1**,	Institute of Field Archaeologists' Manchester
Historic England	1991	Exploring Our Past	London

Historic England	1997	Historic England Archaeology Division Research Agenda (Unpublished draft)	London
Historic England	2009	Management of Research Projects in the Historic Environment and MoRPHE Project Planning Note 3: Excavation	London
HM Government	2008	The Planning Act 2008	https://www.legislation.gov.uk /ukpga/2008/29/section/14
Kent County Council	2001	Kent Historic Landscape Characterisation	
Kent County Council	2022	Heritage Conservation Strategy	
MOLA	2024	LiADR and Earthwork Surveys: Tilbury headhouse	
Ministry of Business, Energy and Industrial Strategy	2021	Draft Overarching National Policy Statement for Energy (EN-1)	https://www.gov.uk/government/ publications/national-planning-policy-framework--2
Murphy, P.L. and Wiltshire, P.E.J.,	1994	A guide to sampling archaeological deposits for environmental analysis.	
Museums & Galleries Commission	1992	Standards in the Museum Care of Archaeological Collections	London
Network Archaeology	2020	Health, Safety and Welfare Policy	Network Archaeology
Network Archaeology	2024	Grain To Tilbury Cable Tunnel Replacement Project – Gravesend Head House. Written Scheme of Investigation: Archaeological Trial Trench Evaluation	Unpublished Client Report
Society of Museum Archaeologists	1995	Towards an accessible archaeological archive - the transfer of archaeological archives to museums: guidelines for use in England, Northern Ireland, Scotland and Wales	Society for Museum Archaeologists, London
UKIC	2001	Excavated Artefacts and Conservation	United Kingdom Institute for Conservation, Conservation Guidelines No. 1, revised

Walker, K.	1990	Guidelines for the preparation of excavation archives for long-term storage.	United Kingdom Institute for Conservation, Archaeology Section (London)
Watkinson, D & Neal A. V	1998	First Aid for Finds	Rescue Publications, Hertford
Wilson, K	Forthcoming	Tilbury, Gravesend Cable Tunnel: Geoarchaeological borehole study	Report No: 2425-2

Website sources:

ADS (Archaeological Data Service), 2011	Archaeology Data Service / Digital Antiquity - Guides to Good Practice	https://archaeologydataservice.ac.uk/
AHDS, undated	Digital Archives from Excavation and Fieldwork: Guide to Good Practice Second Edition	http://ads.ahds.ac.uk/project/goodguides/excavation/
BGS (British Geological Survey) 2023	Geology of Britain viewer	https://mapapps.bgs.ac.uk/geologyofbritain/home.html
British Geological Survey, undated	Geology of Britain viewer	http://mapapps.bgs.ac.uk/geologyofbritain/home.html
CIfA	The Selection Toolkit for Archaeological Archives	http://cifa.heritech.net/selection-toolkit
Historic England	National Heritage List for England	https://historicengland.org.uk/listing/the-list/
Heritage Gateway	Heritage Gateway	https://www.heritagegateway.org.uk/gateway/
Kent County Council	The South East Research Framework	https://www.kent.gov.uk/leisure-and-community/history-and-heritage/south-east-research-framework
LandIS	Soilscapes Viewer	https://www.landis.org.uk/soilscapes/
Natural England	Agricultural Land Classification maps	https://publications.naturalengland.org.uk/publication/130044?category=5954148537204736
Zetica	Risk Maps	https://zeticauxo.com/guidance/risk-maps/

APPENDIX A

OASIS Summary

OASIS Summary for networka2-526305

OASIS ID (UID)	networka2-526305
Project Name	Grain to Tilbury Cable Tunnel Replacement Project - Evaluation at the proposed Gravesend Head House
Sitename	Propsoed Gravesend Head House
Sitecode	GTT14
Project Identifier(s)	GRAIN TO TILBURY CABLE TUNNEL REPLACEMENT PROJECT – GRAVESEND HEAD HOUSE
Activity type	Evaluation
Planning Id	20231313
Reason For Investigation	Planning: Pre application
Organisation Responsible for work	Network Archaeology Ltd
Project Dates	17-Jun-2024 - 19-Jun-2024
Location	Propsoed Gravesend Head House NGR : TQ 67416 74134 LL : 51.44145861094914, 0.407503468167044 12 Fig : 567416,174134
Administrative Areas	Country : England County/Local Authority : Kent Local Authority District : Gravesham Parish : Gravesham, unparished area
Project Methodology	Trial-trench evaluation in advance of works associated with the Grain to Tilbury Cable Tunnel Replacement Project focused on the construction footprint of a new Head House at Gravesend, Kent.
Project Results	No archaeological features or deposits were identified in any of the three trenches. The results show that, below the topsoil, the evaluation area is covered by a deposit of pale grey-brown silty clay alluvium in excess of 1.5m thick and likely associated with flooding of the nearby River Thames. Although no dating evidence was recovered from any of these deposits, fragments of post-medieval pottery were noted within the Trench 01 alluvium indicating that the alluvium was either post-medieval or later in date. The deposits of building debris recorded in Trenches 01 and 03 were also likely indicative of post-medieval or later activity within the evaluation area, although neither could be confidently attributed to the nearby Milton Rifle Range. The only other identified deposit was the peat recorded in Trench 01 which, although undated, was located below the alluvium and could potentially pre-date the post-medieval period.
Keywords	
Funder	Utilities and infrastructure National Grid
HER	Kent HER - unRev - STANDARD
Person Responsible for work	Peter Townend
HER Identifiers	
Archives	Digital Archive - to be deposited with Archaeology Data Service Archive; Documentary Archive - to be deposited with Maidstone Museum and Bentlif Art Gallery;

APPENDIX B

Summary Trench and Context Data

Trench 01			
Easting	**Northing**	**Height (meters aOD at ground level)**	
567431.5705	174179.3904	2.0677	
567432.9328	174178.1736	2.0528	
567411.7933	174154.6129	2.2835	
567410.2614	174155.9766	2.3865	
Context	**Dimensions (m)**	**Description**	**Interpretation**
10000	0.3	Mid brown-grey loose clay	Topsoil
10001	0.07	Red-brown sand with building rubble	Made ground
10002	1.15	Pale grey-brown compact silty clay	Alluvium
10003	0.58 (exc)	Dark grey humic peat	Peat

Trench 02			
Easting	**Northing**	**Height (meters aOD at ground level)**	
567409.944	174112.7734	2.4907	
567411.8527	174112.8301	2.4724	
567410.1322	174142.4771	2.2248	
567408.2144	174142.4371	2.2573	
Context	**Dimensions (m)**	**Description**	**Interpretation**
20000	0.27	Brown-grey clayey silt	Topsoil
20001	1.73 (exc)	Pale grey-brown compact silty clay	Alluvium

Trench 03			
Easting	**Northing**	**Height (meters aOD at ground level)**	
567423.42	174074.2535	2.5365	
567421.9389	174075.3565	2.4823	
567438.9955	174099.3273	2.3474	
567440.6167	174098.2514	2.2991	
Context	**Dimensions (m)**	**Description**	**Interpretation**
30000	0.3	Mid grey-brown loose clayey silt	Topsoil
30001	0.3	Chalky building debris	Made ground
30002	1.4	Pale grey-brown silty clay	Alluvium

APPENDIX C

Plates

Plate 1: Trench 01 – Camera facing north-east

Plate 2: Trench 01 – Sondage through alluvium 10002 – Camera facing south-east

Plate 3: Trench 02 – Camera facing north

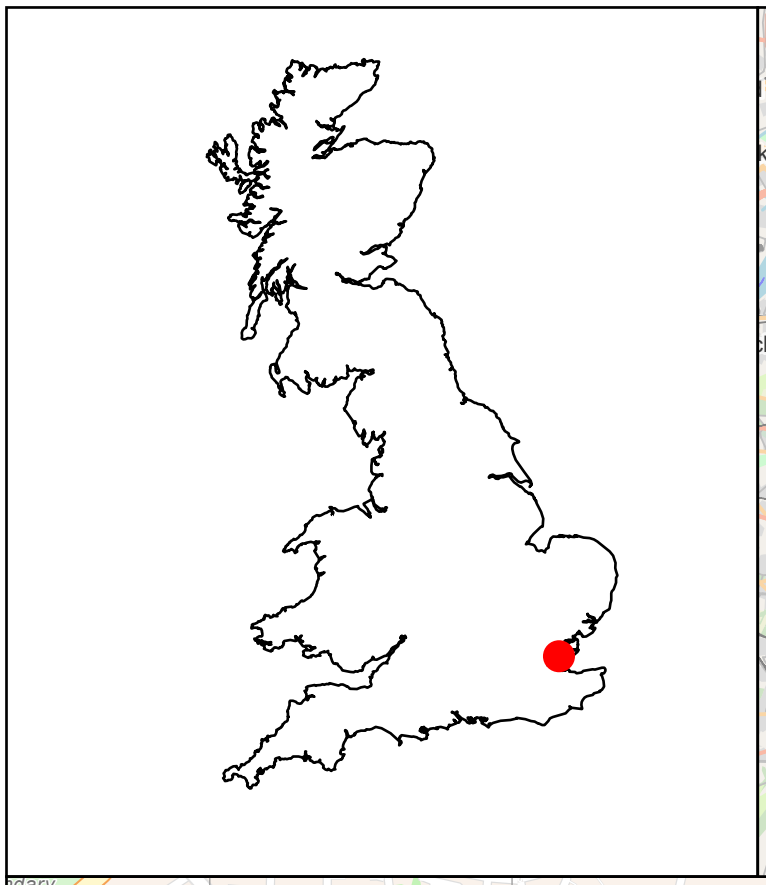
Plate 4: Trench 02 – Sondage through alluvium 20001 – Camera facing east

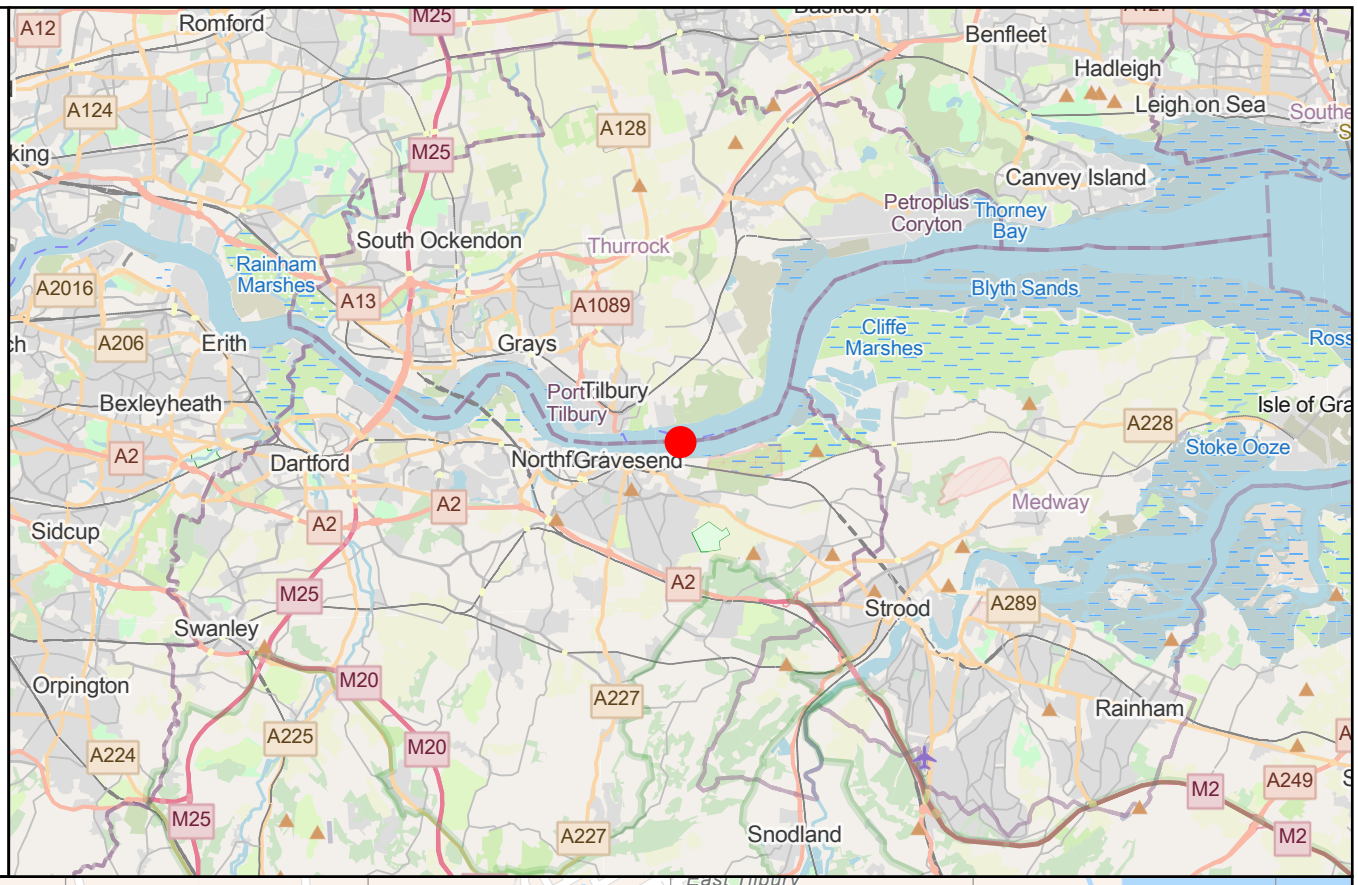
Plate 5: Trench 03 – Camera facing north-east

Plate 6: Trench 03 – Sondage through alluvium 30002 – Camera facing south-east

APPENDIX D

Figures





network archaeology

Credits: Map data © OpenStreetMap contributors, Microsoft, Facebook, Inc. and its affiliates, Esri Community Maps contributors, Map layer by Esri, Esri UK, Esri, TomTom, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS
Contains OS data © Crown copyright and database right 2023
Produced by Network Archaeology Ltd on behalf of the client - National Grid.

Site Location

Development Area

Grain to Tilbury cable tunnel replacement project

Figure 1
Site location

N
0 500
Metres

Site Code: GTT14
Drawn By: A. Trambowicz
Approved By: P. Townend
Date: 09/07/2024
Ver: 1.00
Scale at A3: 1:25,000

TR 1

TR 2

TR 3

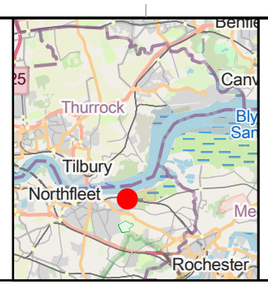
174000

567500

network archaeology

Produced by Network Archaeology Ltd on behalf of the client - National Grid.

- Development Area
- Tilbury Head House Construction Footprint
- Evaluation Trench
- Sondage
- Borehole



Grain to Tilbury cable tunnel replacement project

Figure 2
Evaluation area

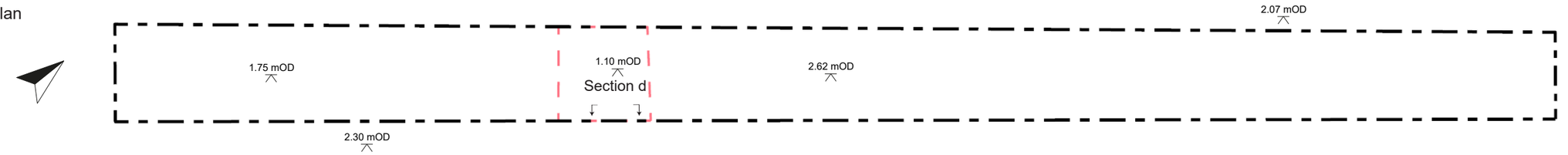
N

0 50

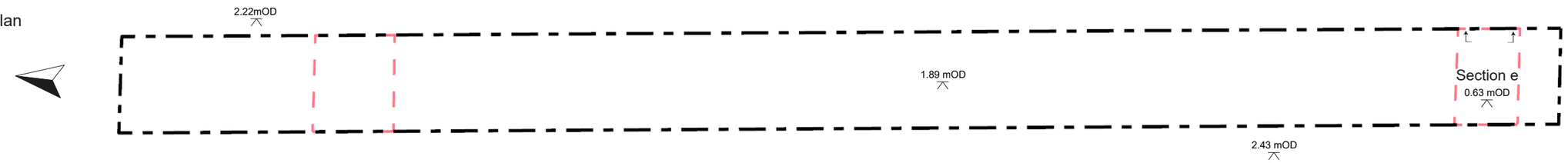
Metres

Site Code: GTT14
Drawn By: A. Trambowicz
Approved By: P. Townend
Date: 09/07/2024
Ver: 1.00
Scale at A3 1:1,250

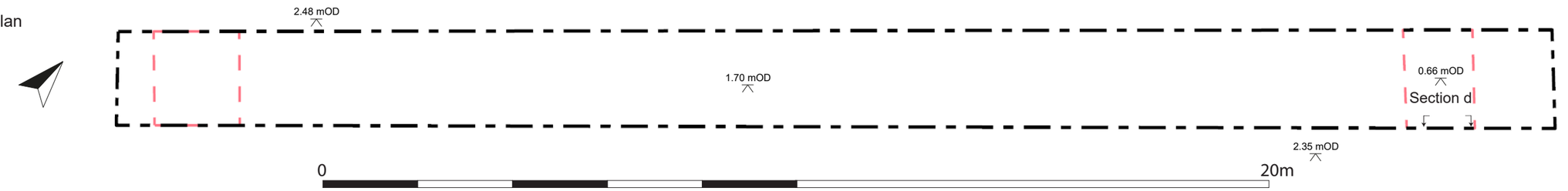
a) Trench 1 plan



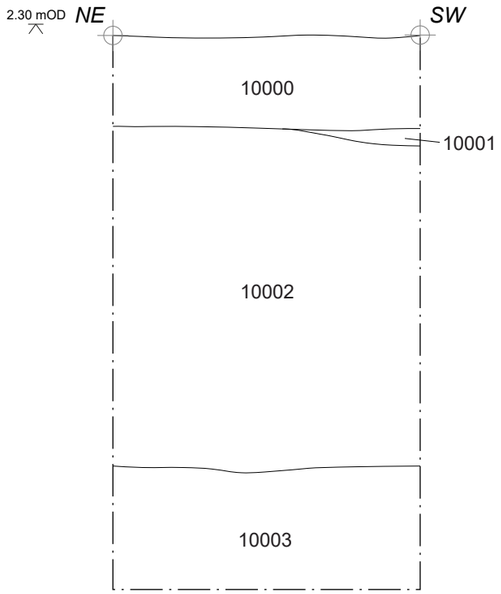
b) Trench 2 plan



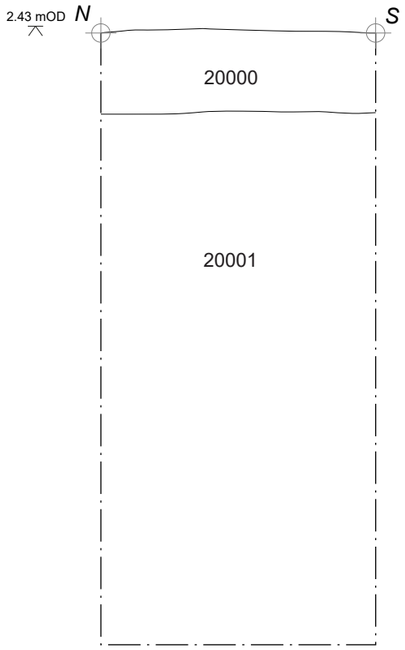
c) Trench 3 plan



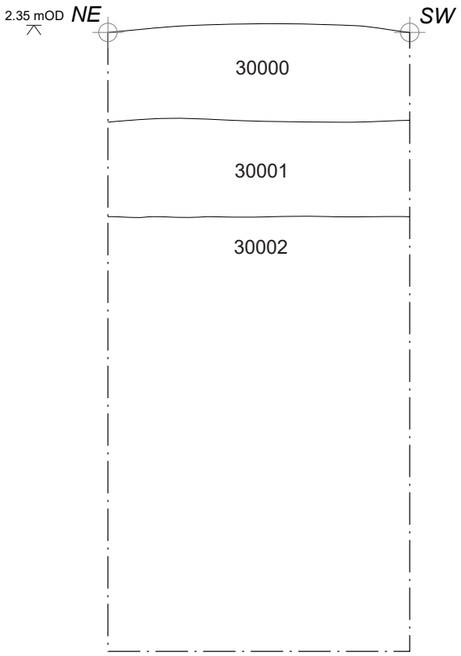
d) Trench 1 section

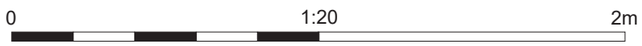


e) Trench 2 section



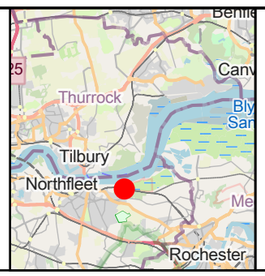
f) Trench 3 section





network archaeology

Evaluation Trench
Sondage
Layer Line
Limit of Section
Drawn Section



Grain to Tilbury cable tunnel replacement project

Figure 3
Archaeological plans and sections

Site Code: GTT14
Drawn By: A. Trambowicz
Approved By: P. Townend
Date: 09/07/2024
Ver: 1.00
Scale at A3 1:1,250