



Felixstowe Branch Line Capacity Enhancement,
Bridge works
Trimley St Martin, Suffolk

Client
VolkerFitzpatrick Ltd

Date
December 2018

TYN 149
Archaeological Monitoring Report
SACIC Report No.: 2018_110
Author: Michael Green
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Felixstowe Branch Line Capacity Enhancement, Bridge Works Trimley St Mary

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Author: Michael Green

Contributions By:

Illustrator:

Editor:

Report Date: December 2018

HER Information

Site Code: TYN 149

Site Name: Felixstowe Branch Line Capacity Enhancement,
Bridge Works, Trimley St Mary

Report No.: 2018_110

Planning Application No.: C/10/0544 (Branch Line) and TWAO orders

Date of Fieldwork: 04/12/2018

Grid Reference: TM 2743 3664

Oasis Reference: suffolka1- 336125

Curatorial Officer: Abby Antrobus

Project Officer: Michael Green

Client/Funding Body: VolkerFitzpatrick Ltd.

Digital report submitted to Archaeological Data Service:

<http://ads.ahds.ac.uk/catalogue/library/greylit>

Disclaimer

Any opinions expressed in this report about the need for further archaeological work are those of Suffolk Archaeology CIC. Ultimately the need for further work will be determined by the Local Planning Authority and its Archaeological Advisors when a planning application is registered. Suffolk Archaeology CIC cannot accept responsibility for inconvenience caused to the clients should the Planning Authority take a different view to that expressed in the report.

Prepared by: Michael Green

Date: December 2018

Approved By:

Position:

Date:

Signed:

Contents

Summary

Drawing Conventions

Contents	7
Summary	9
Drawing Conventions	10
1. Introduction	1
2. Geology and topology	2
3. Archaeology and historical background	3
4. Methodology	4
5. Results	7
4.1 Introduction	7
5.2 Trench results	8
6. Discussion and Conclusions	11
7. Archive deposition	11
8. Acknowledgements	11
9. Bibliography	12

List of Plates

Plate 1. Concrete crush on site, looking north-west.....	7
Plate 2. Concrete crush, showing topsoil windrow, looking north	8
Plate 3. Trench 1, looking south-east, 1x2m scale	9
Plate 4. Trench 2 section, looking north-west, 1x2m scale	9
Plate 5. Trench 4, showing root disturbance, looking south-east, 1x2m scale.....	10
Plate 6. Trench 5, looking south-east, 1x2m scale	10

List of Figures

Figure 1. Site location	5
Figure 2. Site plan	6

List of Tables

Table 1. Trench information 8

List of Appendices

Appendix 1. Brief and WSI13
Appendix 2. Context List.....14
Appendix 3. Oasis form 15



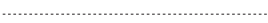
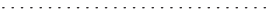





Summary

Suffolk Archaeology CIC conducted monitoring works at a new bridging point, part of the Felixstowe Branch Line Capacity Enhancement. The additional works were carried out to the south of the Haul Road monitoring (TYN 149). This involved the excavation of seven small trenches over areas of high impact. This was associated with the erection of the bridge foundations.









The works revealed that prior to the trenching, a maximum of 0.2m of topsoil had been removed to lay down concrete crush to stabilise the area. The trenches revealed a thick layer of subsoil (up to 0.5m) below the remaining topsoil (up to 0.2m). No cut archaeological features were seen below the subsoil layer and a large amount of root and animal disturbance was noted within the subsoil layer and natural geology seen at the base of each trench. This was mostly due to the removed tree belt in the area.

Drawing Conventions

Plans

- Limit of Excavation 
- Features 
- Break of Slope 
- Features - Conjectured 
- Natural Features 
- Sondages/Machine Strip 
- Intrusion/Truncation 
- Illustrated Section  S.14
- Cut Number **0008**
- Archaeological Feature 

Sections

- Limit of Excavation 
- Cut 
- Modern Cut 
- Cut - Uncertain 
- Deposit Horizon 
- Deposit Horizon - Uncertain 
- Intrusion/Truncation 
- Break in Section 
- Cut Number **0088**
- Deposit Number 0089
- Ordnance Datum

S	N
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1. Introduction

Monitoring of 7 small trenches for the main uprights of a bridging point was carried out as part of a programme of archaeological works associated with improvements to the Ipswich to Felixstowe branch railway line in Trimley St Martin, Suffolk. This work was undertaken as part of a condition of planning consent (planning application C/10/0544) (Fig. 1).

Previous work in the vicinity had demonstrated the presence of a thick layer of windblown loess subsoil over the natural subsoil, with features only visible below this layer. This was again seen within the trial holes sealing the natural geology. The area where the bridging point work was undertaken was previously a small wooded belt at the edge of the field, between the rail line and the current field boundary. The tree belt had been removed prior to the beginning of these works. The project was covered by a written scheme of investigation prepared by Michael Green of Suffolk Archaeology (Appendix 1).

2. Geology and topology

The monitored area was previously at the south west of the current field and was covered by light copse. The area is located within a relatively level plateau at c.25m OD which overlooks Trimley Marshes, located in the flood plain of the tidal River Orwell west of the site.

The superficial geology consists of Kesgrave Catchment Subgroup sand and gravel deposits which overly Red Crag Group Formation Sand (British Geological Survey, 2018).

The observed geology on site was a mixed fine light yellow and orange sand with coarse gravel patches.

3. Archaeology and historical background

The site lies within an area of archaeological and historical interest and has the potential to reveal evidence of a range of periods, as identified in the Suffolk County Council Historic Environment Record (HER). This is described more fully in a report covering the monitoring of a series of test pits in late 2017 (Douglas, 2018), which is based on entries in the County HER.

The most significant recorded archaeology in the context of this site are a series of cropmarks visible on aerial photographs of fields northwest of the site (TYN 122) and on the site of the construction compound (TYN 125) which are likely to represent field systems and trackways of possible late prehistoric or Roman date. These have the potential to extend into the area of the haul road and bridging point and may be associated with linear features identified during evaluation of the compound area carried out in February 2018 (Sommers, 2018).

4. Methodology

The concrete crush had been laid prior to attendance on site. The depth of the removed topsoil was noted within the trenches excavated and the small windrow of topsoil adjacent to the crush was metal detected.

Seven small trenches (measuring c.2.5m by 4.2m) were excavated to the natural geology or the first archaeological horizon by a 360° tracked machine fitted with a toothless ditching bucket. This involved the systematic removal of 0.3-0.5m of concrete crush, 0.1-0.2m of remaining topsoil and 0.25-0.5m of subsoil.

Spoil was stockpiled beside the concrete crush and the heaps were visually scanned for artefactual evidence and metal detected. Contextual information was recorded in a unique continuous numbering system on SACIC pro-forma context sheets and registers under the HER code TYN 149.

A photographic record, consisting of high resolution digital images was made throughout the monitoring.

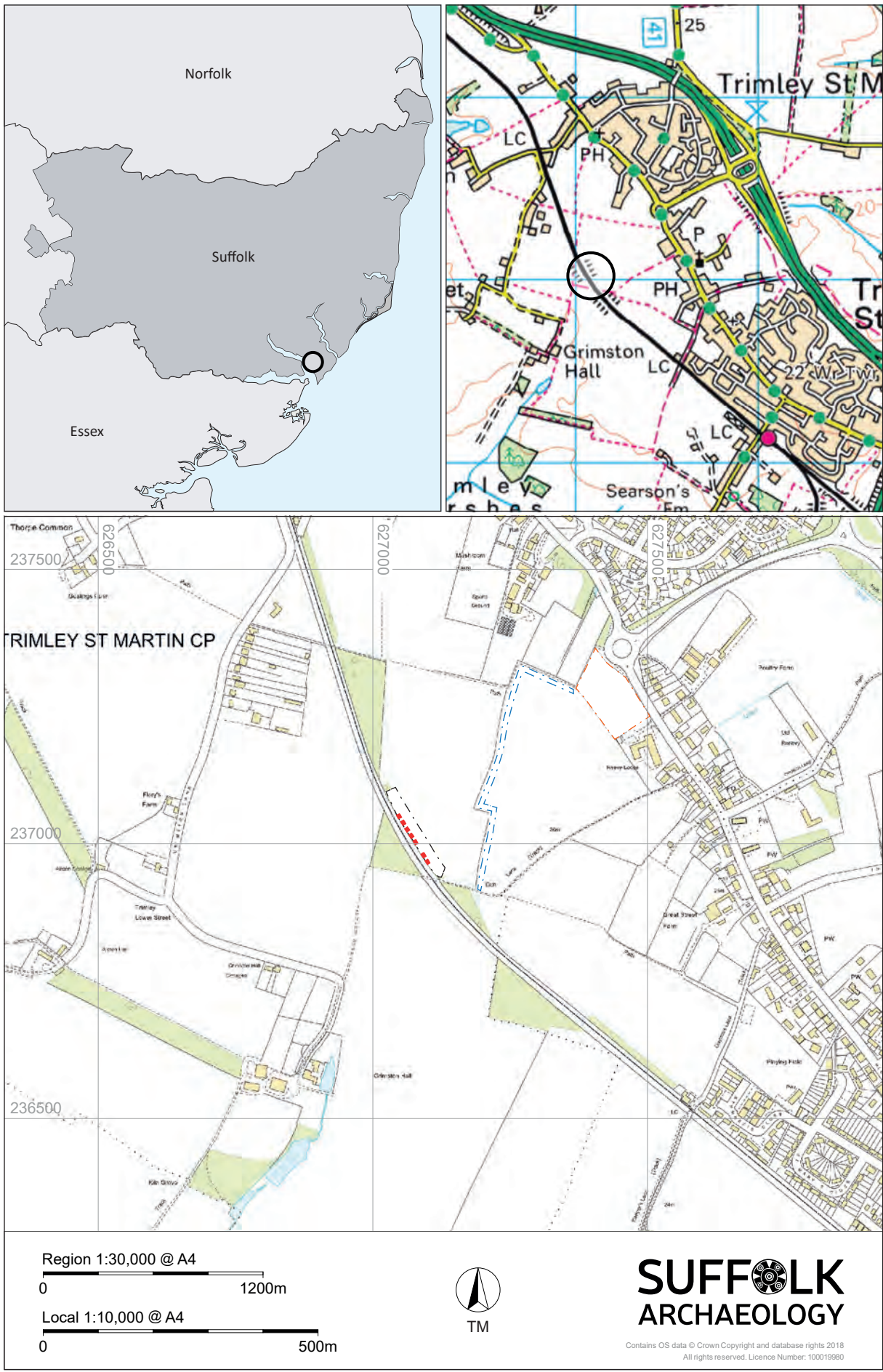


Figure 1. Site location (grey), trenches (red), site compound (orange) and road (blue)

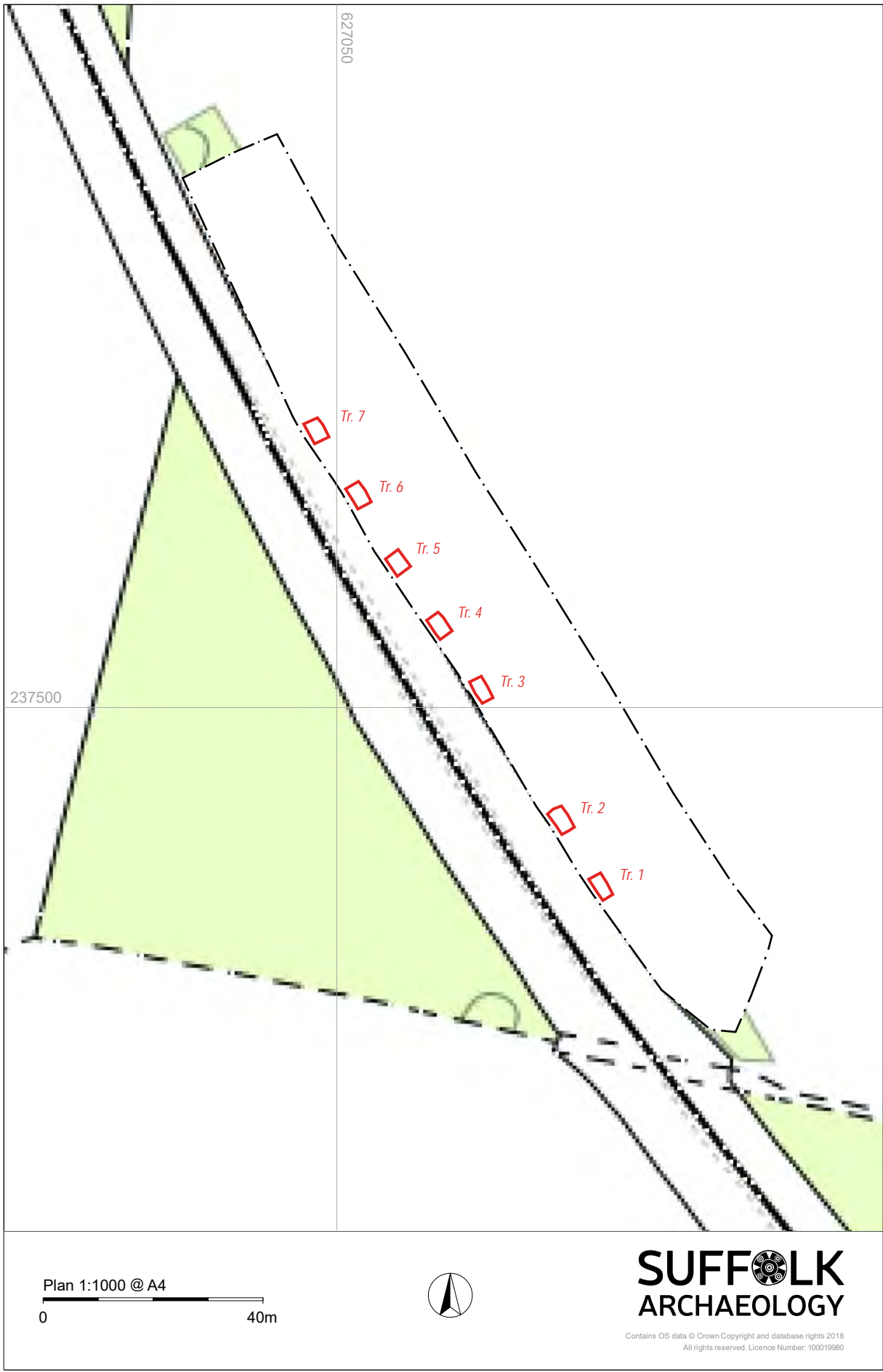


Figure 2. Overall site plan with trench location

5. Results

Michael Green

4.1 Introduction

Seven trenches were excavated to the natural geological horizon. No archaeological features or deposits were encountered during the works and it was noted that the subsoil (and in some places also the natural geology) was heavily disturbed by rooting and animal burrows. Metal detecting and visual scanning of the removed topsoil and subsoil layers did not recover any pre-modern finds.

In addition to the excavated trenches, the concrete crush laid prior to attendance was inspected (Plate.1). It was seen that 0.1-0.2m of topsoil had been removed and 0.3-0.5m of crush had been compacted on the surface. A small windrow of the removed topsoil was metal detected and visually scanned for finds (Plate.2). No pre-modern material was recovered.



Plate 1. Concrete crush on site, looking north-west



Plate 2. Concrete crush, showing topsoil windrow, looking north

5.2 Trench results

The excavated trenches are summarised in the table below.

Trench number	Size (m) and orientation	Crush Depth (m)	Topsoil depth (m)	Subsoil depth (m)	Notes
1	2.1x4.5 NW-SE	0.4	0.15	0.25	Blank, 2 modern animal burrows containing plastic.
2	2.5x4.7 NW-SE	0.4	0.2	0.35	Blank
3	2.4x4.5 NW-SE	0.4	0.1	0.4	Blank, large burrow and modern posthole (with metal post) cut into the natural.
4	2.7x4.5 NW-SE	0.5	0.05	0.35	Blank, very mixed subsoil due to animal burrows and roots.
5	2.8x3.7 NW-SE	0.4	0.2	0.4	Blank, very mixed topsoil, subsoil and natural due to animal burrows and roots.
6	2.6x4m NW-SE	0.4	-	0.5	Blank, very mixed topsoil, subsoil and natural due to animal burrows and roots.
7	2.4x4 NW-SE	0.4	0.1	0.4	Blank, root disturbance in topsoil, subsoil and natural.

Table 1. Trench information

Topsoil 0001 was a mid-brown soft sandy silt plough soil with occasional small flint inclusions, between 0.05 and 0.02m was present within the excavated trenches.

Subsoil 0002 was a variable mixed light-yellow brown and light-brown orange silty sand with occasional small flint inclusions and chalk flecks.



Plate 3. Trench 1, looking south-east, 1x2m scale



Plate 4. Trench 2 section, looking north-west, 1x2m scale



Plate 5. Trench 4, showing root disturbance, looking south-east, 1x2m scale



Plate 6. Trench 5, looking south-east, 1x2m scale

6. Discussion and Conclusions

The windblown subsoil loess was present within all seven trenches excavated measuring 0.25-0.5m in depth. No archaeological cut features were seen within or below the subsoil level and the area was heavily disturbed in places due to animal burrowing and the tree belt that was present before the works were undertaken.

The lack of unstratified finds within the topsoil and subsoil deposits suggests that this area was not utilised in the past, or more likely heavily disturbed by the construction of the railway and the presence and removal of the mature tree belt.

It is likely that other areas along the rail embankment (which is raised at this point) which were previously wooded will have the same amount of disturbance.

7. Archive deposition

The paper and digital archive will be kept at the SACIC office in Needham Market, before deposition within the County Archaeological Store.

8. Acknowledgements

The fieldwork was carried out and directed by Michael Green. Project management was undertaken by Rhodri Gardner who also provided advice during the production of the report.

Post-excavation management was provided by Richenda Goffin.

The report illustrations were created by Rui Santo and the report was edited by Stuart Boulter.

9. Bibliography

Antrobus, A., 2017, Brief for a Trenched Archaeological Evaluation for Phase 1 of Felixstowe Branch Line Improvements, and Closure of Level Crossings (with Construction of Bridge at Gun Lane, Trimley St Mary), SCCAS

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Website

British Geological Survey

<http://mapapps.bgs.ac.uk/geologyofbritain/home.html> (Accessed on 05/12/18)

Resource Management
Bury Resource Centre
Hollow Road
Bury St Edmunds
Suffolk
IP32 7AY

Appendix 1. Brief and WSI

Brief for a Trenched Archaeological Evaluation

for

Phase 1 of Felixstowe Branch Line Improvements, and Closure of Level Crossings (with Construction of Bridge at Gun Lane, Trimley St Mary)

PLANNING AUTHORITY:	Suffolk Coastal District Council/Dept for Transport
PLANNING APPLICATION NUMBER:	C/10/0544 (Branch Line) and relevant TWAO Orders
HER NO. FOR THIS PROJECT:	To be arranged with the Suffolk HER Officer (archaeology.her@suffolk.gov.uk)
GRID REFERENCE:	TM 241 402 to TM 282 360
DEVELOPMENT PROPOSAL:	Delivery of aspects of consented works: Gun Lane Bridge and 1.4 km of track dualling. The archaeological work is to cover development, and associated construction impacts.
THIS BRIEF ISSUED BY:	Abby Antrobus Senior Archaeological Officer Tel: 01284 741231 E-mail: abby.antrobus@suffolk.gov.uk
Date:	06 September 2017

Summary

- 1.1 Planning consent C/10/0544 has been granted with the following condition relating to archaeological investigation:

No development shall commence until a Written Scheme of Investigation for the areas of high and medium archaeological potential (as defined in Table 4.40 in the Environmental Statement) has been submitted to and approved by the local planning authority. That scheme shall provide for the detailed walk-over surveys and documents study; intrusive investigation before construction is commenced, in any location where this is necessary; a watching brief during

construction, where this is necessary, and the recording, preservation and publication of the results of the investigation.

Table 4.40 Zones of Archaeological Potential

Level of Potential	Description of Area
High May contain archaeology of national importance.	Levington Heath Barrow Cemetery SAM site and adjacent land.
Medium a) Areas likely to be undisturbed by modern agriculture or construction	a) small areas to the north of the alignment, east of Stratton Hall Drift; a small area west of the residential area at Gaymers Land/Stennetts Close and strip of land at Westerfield.
b) Areas of known archaeological potential that are likely to be subject to excavation	b) Permanent land take areas adjacent to the alignment, including those associated with the haul road, and temporary land take areas where excavation will take place.
Low Existing development and other areas within the land to be acquired or used.	Areas of temporary land take associated with access and work sites, and all other areas adjacent to the railway corridor alignment where no excavation will take place.

ENVIRONMENTAL RESOURCES MANAGEMENT ENVIRONMENTAL STATEMENT THE FELIXSTOWE DOCK AND RAILWAY COMPANY

- 1.2 A condition on any consent for the TWAO order for the closure of level crossings and construction of a bridge at Gun Lane, Trimley, is currently in draft, as below:

Condition 16: 'Construction of the bridge and all associated intrusive preparatory works comprised in the Development shall not commence until a Written Scheme of Investigation and Geo-Archaeological Watching Brief have been submitted to and approved by the Local Planning Authority. The approved Written Scheme of Investigation and Geo-Archaeological Watching Brief shall be implemented in accordance with the approval'.

Reason: To ensure that the development is carried out in a manner which does not negatively impact historic features, or will adequately record such features as will be lost.

- 1.3 The Planning Authority were advised that any consent should be conditional upon an agreed programme of work taking place before development begins in accordance with paragraph 141 of the National Planning Policy Framework, to record and advance understanding of the significance of any heritage assets (that might be present at this location) before they are damaged or destroyed
- 1.4 This brief stipulates the minimum requirements for the archaeological investigation, and should be used in conjunction with the Suffolk County Council Archaeology Service's (SCCAS) Requirements for Archaeological Evaluation 2017. These should be used to form the basis of the Written Scheme of Investigation (WSI).

- 1.5 The archaeological contractor, commissioned by the applicant, must submit a copy of their WSI to SCCAS for scrutiny, before seeking approval from the LPA.
- 1.6 Following acceptance by SCCAS, it is the commissioning body's responsibility to submit the WSI to the LPA for formal approval. No fieldwork should be undertaken on site without the written approval of the LPA. The WSI, however, is not a sufficient basis for the discharge of a planning condition relating to archaeological investigation. Only the full implementation of the scheme, both completion of fieldwork and reporting (including the need for any further work following this evaluation), will enable SCCAS to advise the LPA that a condition has been adequately fulfilled and can be discharged.
- 1.7 The WSI should be approved before costs are agreed with the commissioning client, in line with Institute for Archaeologists' guidance. Failure to do so could result in additional and unanticipated costs.
- 1.8 The WSI will *provide the basis for measurable standards* and will be used to establish whether the requirements of the brief will be adequately met. If the approved WSI is not carried through in its entirety (unless a variation is agreed by SCCAS), the evaluation report may be rejected.
- 1.9 Decisions on the need for any further archaeological investigation (e.g. excavation) will be made by SCCAS, in a further brief, based on the results presented in the evaluation report. Any further investigation must be the subject of a further WSI, submitted to SCCAS for review and formally approved by the LPA.

Archaeological Background and Development Impacts

- 2.1 Aspects of the proposal will involve below-ground works which have potential to damage any archaeological deposit that exists. The site has been subject to desk-based assessment and Environmental Impact Assessment. In particular, the works have the potential to affect below ground remains in an area of generally complex cropmarks relating to landuse across long periods of human history.
- 2.2. For many of the proposed compound areas, archaeological evaluation is required in the first instance to inform whether archaeological remains can be preserved *in situ* throughout the works, or whether monitoring/ controlled excavation is required. It is anticipated that compounds will be constructed through a topsoil strip and compacted type 1, with potential prior compaction of subsoil. Where there is an inadequate buffer of subsoil, further mitigation in the form of excavation or strip-and-map excavation would be appropriate.
- 2.3 Mitigation and investigation subsequent to the evaluation stage of works will be set out in a subsequent brief, which will inform a WSI for mitigation.
- 2.4 Consideration of specific impacts are noted on Annotated Land Plans, and approaches to mitigation related to them are further set out below:

A) **Westerfield compound** – this is existing and there will be no impacts.

B) **Compound east of Stratton Hall Drift** (Land Plans Sheet 5). This is in an area of high archaeological potential, within cropmarks of Roman and

Prehistoric field-systems recorded on the Historic Environment Record (SNH 005). An evaluation trench was excavated prior to the current UKPN undergrounding project (Albion Archaeology report 2015-173, July 2016, trench 80), adjacent to the western edge of the proposed compound. It did not find archaeological remains, but identified only 0.1m of subsoil under 0.45m of topsoil. **In this area, it has been agreed that, where not impacted by UKPN undergrounding, the subsoil will be stripped along with the topsoil and the compound subject to a strip-and-map methodology.**

B) Compound west of Morston Hall Lane (Land Plans Sheet 7). Trenches for UKPN works (98 and 99) in the immediate vicinity identified 0.3 to 0.5m of subsoil beneath 0.34 to 0.44m of topsoil. In this area, the compound is likely to have less impact and **no mitigation will be required.**

C) Compound north of Thorpe Lane (Land Plans Sheet 9). This area was partly subject to archaeological mitigation for the UKPN undergrounding, and trench 115 ran to the west of the site. This identified ditches, pits and post-holes, and c0.3m of topsoil over 0.2m of subsoil, which is a borderline buffer to ensure preservation of remains. **Evaluation will identify whether archaeological remains that are known in the area continue into it. 5% of the area (c0.25ha) is required, which is c70m of trenching at 1.8m width.**

D) Compound south of roundabout, Trimley High Road (Land plans sheet 11) This is in an area of cropmarks of trackways, pits and ditches (TYN 125), which have been plotted by the National Monuments Mapping Programme, available in the Historic Environment Record. There is a palimpsest of field-systems of different dates, from prehistoric to post-medieval. Archaeological evaluation (aerial photographic assessment, geophysical survey and trial trenching) was undertaken immediately to the west, for development at Trimley Mushroom Farm (TYN 126) (Suffolk County Council Archaeological Service, now Suffolk Archaeology CIC, report 2013/153). This identified a number of early ditches most likely related to systems represented by cropmarks in the wider area, although they were sparse, as was cropmark data in that area. Topsoil of c0.4m depth overlay between 0.2 and 0.4m of a subsoil deposit. Subsequent excavation in the western part of the Mushroom Farm site site revealed earlier Neolithic/Bronze Age prehistoric remains, relating to denser cropmarks. **Trenches should be systematic, but ensure sampling of features identified from aerial photography. Trenches should also be placed within the route of the haul road, where practical. The area is a c1ha, and a 5% sample gives 280m of trenching at 1.8m (although see 3.4 below on percentages).**

E) West of Grimston Lane, eastwards towards Gun Lane and Gaymer's Lane (Land Plans, sheets 10, 12 and 13) – Bridge and Associated construction, including soakaways and crane pad, to the north of the bridge site, and haul roads; track widening.

East and south of the railway line,

E1: Proposed compound near Grimston Lane: little is known about this site which has an area of c.0.23ha. **A 5% sample is 60m length of trenching at 1.8m wide (Land Plans Sheet 10) (also see 3.4 below).**

E2: Proposed compound near Gun Lane (Land Plans Sheets 10 and 12): An Anglo Saxon *sceat* coin is recorded close to the proposed area of compound at

TM 270 369. The site spans the line of the former Gun Corner Lane at TM 2717 3681, which may have have early occupation fronting it. **The site is 1.3 ha and a 5% sample gives 360m of trenching at 1.8m, although see 3.4 below. Bridge landscaping impacts should be sampled.**

E3: Track widening and compound between woodland and Gaymer's Lane. The rail track passes through a woodland from which an Anglo-Saxon brooch was found (c TM 273 360). South of here, up to Gaymer's Lane, evaluation and mitigation was carried out for the UKPN network. It identified c0.3m of subsoil and c0.3m of topsoil. Within the mitigation stage of works, undated features, likely post-medieval boundaries and part of a late Bronze Age/Iron Age enclosure were excavated, There is a strip of potential between the railway and UKPN cable. **A strip and map exercise associated with works, or archaeological monitoring, would be appropriate (Land Plans sheet 12). Trenching could be carried out if upfront information is desired.**

E4: There is an artefact scatter of Roman date east of Keeper's Lane, but no records in the vicinity of the **proposed compound south of St Mary's Close** (Land Plan Sheet 13). **Evaluation is needed of c0.25 ha, c70m of trenching at 1.8, although see 3.4 below.**

West of the railway line,

E5: Compound and crane bed in the vicinity of Gun Lane. This area extends into an area of cropmarks on the HER (TYN 125, TYN 122), although the cropmarks as plotted seem to be less in density. Whether this is genuine, as was the case at the Mushroom Farm, or due to masking factors, is unknown. **The areas is c1.6ha, and a 5% sample gives 440 m of trenching at 1.8m wide, although see 3.4 below. Bridge landscaping impacts should be evaluated.**

E6 Track widening and the haul road generally could be undertaken under **strip and map/ watching brief**, if there are areas that are not evaluated and where there will be impacts beyond the existing embankment. **Trenching would give more upfront information.**

Fieldwork Requirements for Archaeological Investigation

- 3.1 Evaluation is required of the development area to enable the archaeological resource, both in quality and extent, to be accurately quantified.
- 3.2 Trial Trenching is required in areas C, D, E1, E2, E4 and E5 noted above to:
 - Identify the date, approximate form and purpose of any archaeological deposit, together with its likely extent, localised depth and quality of preservation.
 - Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.
 - Establish the potential for the survival of environmental evidence.
 - Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.
- 3.3 Trial trenches are to be excavated to sample sites as noted above. Linear trenches are thought to be the most appropriate sampling method, using, where

possible, a systematic grid array. Trenches are to be a minimum of 1.80m wide unless special circumstances can be demonstrated.

- 3.4 Given the nature of development proposals, a primary question in this case is depth of deposits. If a buffer is apparent across sites or parts of a site from a lower percentage of trenching, an assumption could be made for construction of compounds that deposits will be preserved *in situ*. If not, 5% trial trenching will be required to give systematic coverage to ensure that areas of archaeological interest are identified so that they can be avoided or mitigation planned. A phased approach to evaluation could be presented in the WSI whereby within a 5% systematic array, for which contingency should be made to excavate all of, a lower initial percentage of trenches could be excavated in the first instance to characterise features visible in aerial photographs if appropriate and provide general information on archaeological character and soil profiles and depth across sites. A 0.3m subsoil buffer is generally considered acceptable.
- 3.5 A scale plan showing the proposed location of the trial trenches should be included in the WSI and the detailed trench design must be approved by SCCAS before fieldwork begins.
- 3.6 Metal detector searches must take place at all stages of the evaluation by a named, experienced metal detector user, including reference either to their contributions to the PAS database or to other published archaeological projects they have worked on. Metal detecting should be carried out before trenches are stripped, with trench bases and spoil scanned once trenches have been opened.

Arrangements for Archaeological Investigation

- 4.1 The composition of the archaeological contractor's staff must be detailed and agreed by SCCAS, including any subcontractors/specialists. Ceramic specialists, in particular, must have relevant experience from this region, including knowledge of local ceramic sequences.
- 4.2 All arrangements for the evaluation of the site, the timing of the work and access to the site, are to be defined and negotiated by the archaeological contractor with the commissioning body.
- 4.3 The project manager must also carry out a risk assessment and ensure that all potential risks are minimised, before commencing the fieldwork. The responsibility for identifying any constraints on fieldwork (e.g. designated status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites and other ecological considerations rests with the commissioning body and its archaeological contractor.
- 4.4 The archaeological contractor will give SCCAS ten working days notice of the commencement of ground works on the site. The contractor should update SCCAS on the nature of archaeological remains during the site works, particularly to arrange any visits by SCCAS that may be necessary. The method and form of development will also be monitored to ensure that it conforms to agreed locations and techniques in the WSI.

Reporting and Archival Requirements

- 5.1 The project manager must consult the Suffolk HER Officer to obtain an event number for the work. This number will be unique for each project or site and must be clearly marked on all documentation relating to the work.
- 5.2 An archive of all records and finds is to be prepared and must be adequate to perform the function of a final archive for deposition in the Archaeological Service's Store or in a suitable museum in Suffolk.
- 5.3 It is expected that the landowner will deposit the full site archive, and transfer title to, the Archaeological Service or the designated Suffolk museum, and this should be agreed before the fieldwork commences. The intended depository should be stated in the WSI, for approval.
- 5.4 The project manager should consult the intended archive depository before the archive is prepared regarding the specific requirements for the archive deposition and curation (including the digital archive), and regarding any specific cost implications of deposition.
- 5.5 A report on the fieldwork and archive must be provided. Its conclusions must include a clear statement of the archaeological value of the results, and their significance. The results should be related to the relevant known archaeological information held in the Suffolk HER, *including particularly aerial photographic assessment data*, and an HER search should be commissioned. In any instances where it is felt that an HER search is unnecessary, this must be discussed and agreed with the relevant Case Officer. Any reports which do not include an up to date HER search will not be approved. All reports must clearly display the invoice number for the HER search, otherwise they will be returned.
- 5.6 Following approval of the report by SCCAS, a single copy of the report should be presented to the Suffolk HER as well as a digital copy of the approved report.
- 5.7 All parts of the OASIS online form <http://ads.ahds.ac.uk/project/oasis/> must be completed and a copy must be included in the final report and also with the site archive. A digital copy of the report should be uploaded to the OASIS website.
- 5.8 Where positive results are drawn from a project, a summary report must be prepared for the *Proceedings of the Suffolk Institute of Archaeology and History*.
- 5.9 **This brief remains valid for 12 months. If work is not carried out in full within that time this document will lapse; the brief may need to be revised and re-issued to take account of new discoveries, changes in policy and techniques.**

Standards and Guidance

Further detailed requirements are to be found in our Requirements for Trenched Archaeological Evaluation 2017 and in SCCAS Archive Guidelines 2017.

Standards, information and advice to supplement this brief are to be found in *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Papers 14, 2003

The Institute for Archaeologists' *Standard and Guidance for archaeological field evaluation* (revised 2008) should be used for additional guidance in the execution of the project and in drawing up the report

Notes

There are a number of archaeological contractors that regularly undertake work in the County and SCCAS will provide advice on request. SCCAS does not give advice on the costs of archaeological projects. The Institute for Archaeologists maintains a list of registered archaeological contractors (<http://www.archaeologists.net> or 0118 378 6446).

The Historic Environment Records Data available on the Heritage Gateway and Suffolk Heritage Explorer is not suitable to be used for planning purposes and will not be accepted in lieu of a full HER search.



Felixstowe Branch Line Capacity
Enhancement, Bridge Works
Trimley St Martin, Suffolk

Client:
Volker Fitzpatrick Limited

Date:
December 2018

Written Scheme of Investigation and Risk Assessment –
Archaeological Monitoring
Author: Michael Green
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Contents

1. Introduction	1
2. Archaeology and historical background	2
2.1. Geology and topology	2
3. Archaeological method statement	5
3.1. Preparation	5
3.2. Fieldwork	5
3.3. Post-excavation reporting	6
3.4. Archive	7
3.5. Project Staff	8
3.6. Bibliography	9
4. Health and Safety / Risk assessment	10
4.1. Health and safety policy	10
4.2. Description of works	11
4.3. Health and Safety issues	11
4.3.1. Introduction	11
4.3.2. Liaison with Principal Contractor	12
4.3.3. First Aid	12
4.3.4. Access/Security	12
4.3.5. Site works	13
4.3.6. Lone working	13
4.3.7. Welfare facilities	13
4.3.8. Personal Protective Equipment (PPE)	13
4.4. Risk Assessments	14

List of Figures

Figure 1. Site location plan 3

Figure 2. Individual site locations (blue), investigation area (red) 4

Project details

Planning Application No:	C/10/0544 (Branch Line) and TWAO orders
Curatorial Officer:	Abby Antrobus (SCCAS/CT)
Grid Reference:	TM 2743 3664
Area:	c.1.6Ha
Site Code/HER Event No:	TYN149
OASIS Reference:	suffolka1- 336125
Project Start date:	04/12/2018
Project Duration:	c. 1 days onsite
SACIC Project Officer:	Michael Green
SACIC Job Code:	FEXARC004

Contacts

SACIC	Managing Director	Dr Rhodri Gardner	01449 900120
	Project Manager	Dr Rhodri Gardner	01449 900120
	Project Officer (onsite)	TBC	
	SACIC Finds Dept	Richenda Goffin	01449 900129
	SACIC H&S	John Craven	01449 900121
	SACIC EMS	Jezz Meredith	01449 900124
Client	Client	Volker Fitzpatrick Limited	
Archaeological	Curatorial Officer	Abby Antrobus (SCCAS/CT)	01284 741231

Emergency services

Local Police		101
NHS	Non-emergency number	111
Location of nearest A&E	Ipswich Hospital, Heath Road, Ipswich, IP4 5PD	01473 712233
Environment Agency	Customer Services Line (8am to 6pm)	03708 506 506
	24 hour Emergency Hotline	0800 807060
Essex and Suffolk Water	24 hour Emergency Hotline	0845 782 0999
National Gas Emergency Service	Gas emergency hotline	0800 111 999
UK Power Networks	East England electricity emergency hotline	0800 783 8838
Anglian Water	24 hour Emergency Hotline	08457 145 145

1. Introduction

Suffolk Archaeology have been asked by Volker Fitzpatrick Limited (on behalf of Network Rail) to prepare documentation for a programme of archaeological monitoring (Figs. 1 and 2). This Written Scheme of Investigation (WSI) covers monitoring only. Any further stages of archaeological work that might be required in relation to the proposed road scheme would be subject to new documentation.

The works comprise monitoring of trial holes/ trenches over the piling placements for the uprights of a new bridging point.

The present stage of work has been granted as a condition of planning application C/10/0544. The LPA has been advised that a programme of archaeological work should take place prior to development, in accordance with the National Planning Policy Framework (Para 141). The purpose of such work being the recording and advancement of understanding of any heritage assets present at the location before they are damaged or destroyed in the course of the development.

The research aims of this monitoring are as follows, as described in Section 3.2 of the SCCAS Conservation Team brief:

RA1: Identify the date, approximate form and purpose of any archaeological deposit, together with its likely extent, localised depth and quality of preservation.

RA2: Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.

RA3: Establish the potential for the survival of environmental evidence.

In addition to these specific aims the potential of the site to address any relevant themes outlined in the Regional Research Framework for the Eastern Counties (Brown & Glazebrook, 2000; Medleycott, 2011).

2. Archaeology and historical background

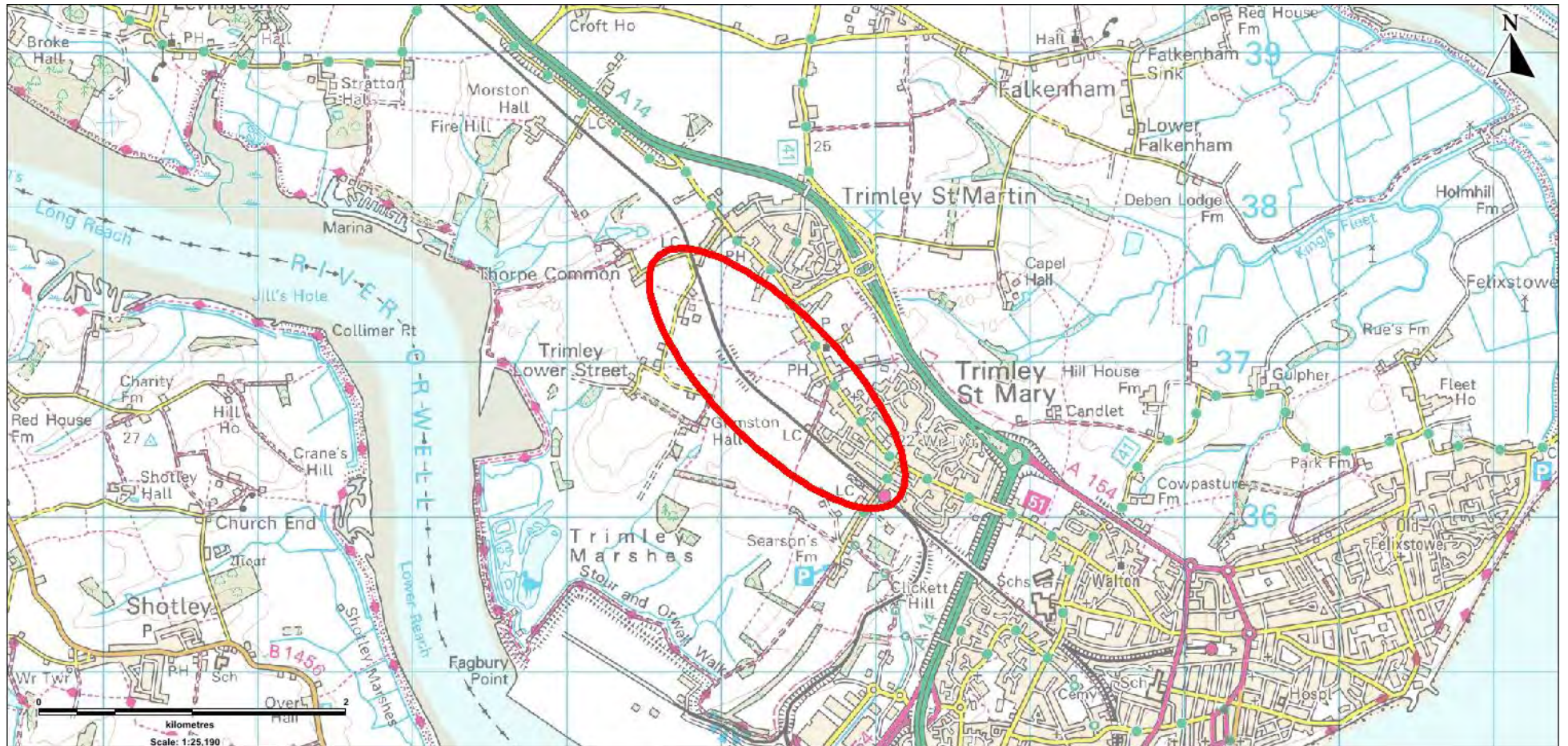
The site lies within an area of archaeological and historical interest and has the potential to reveal evidence of a range of periods, as identified in the Suffolk County Council Historic Environment Record (HER). This is described more fully in a report covering the monitoring of a series of test pits in late 2017 (Douglas, 2018), which is based on entries in the County HER.

The most significant recorded archaeology in the context of this site are a series of cropmarks visible on aerial photographs of fields northwest of the site (TYN 122) and on the site of the construction compound (TYN 125) which are likely to represent field systems and trackways of possible late prehistoric or Roman date. These have the potential to extend into the area of the bridging point and may be associated with linear features identified during evaluation of the compound area carried out in February 2018 (Sommers, 2018).

2.1. Geology and topology

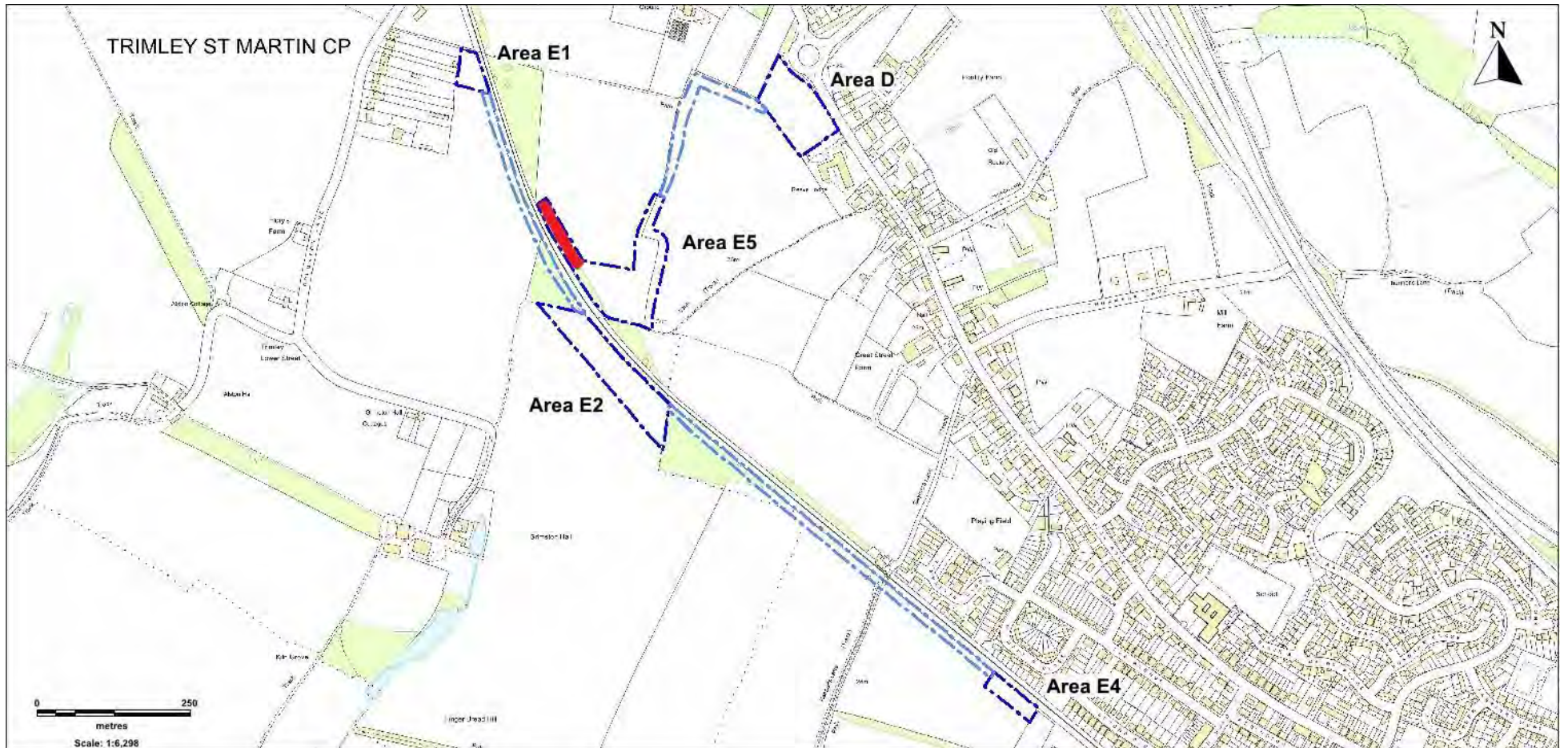
The proposed bridging point is located at the south west of the current field and is covered by light copse. The area is located within a relatively level plateau at c.25m OD which overlooks Trimley Marshes, located in the flood plain of the tidal River Orwell west of the site.

The superficial geology consists of Kesgrave Catchment Subgroup sand and gravel deposits which overly Red Crag Group Formation Sand (British Geological Survey, 2018).



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Figure 1. Site location plan



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Figure 2. Individual site locations (blue), investigation area (red) and haul road corridors (light blue)

3. Archaeological method statement

3.1. Preparation

- The project will be managed by SACIC Project Manager/ Managing director Rhodri Gardner in accordance with Management of Research in the Historic Environment (Historic England, 2015).
- An OASIS online record will be initiated and key fields in details, location and creator forms completed, prior to commencement of fieldwork.

3.2. Fieldwork

Key points:

1. Inspect the concrete crush that has already been laid down. Assess the level of impact and metal detect any spoil heaps produced from the works.
2. Monitoring should be undertaken on the high impact areas of the bridge works. This should include either small trenches over the piling areas for the main uprights of the bridge.
3. Up cast material will be visually scanned for finds and metal detected by the attending SACIC archaeologist.

Details:

- Fieldwork standards will be guided by '*Standards for Field Archaeology in the East of England*' (Gurney 2003) and '*Standard and Guidance for an Archaeological Watching Brief*' (Chartered Institute for Archaeologists 2014).
- The works are expected to take one to three days.
- Trenches will be excavated to the natural geological level or the first archaeological horizon, whichever is first, with a 360 tracked machine with a toothless ditching bucket. The trenches will be inspected for archaeological features, these will be excavated where found to assess the character and date of the preserved heritage assets. The sections of the trenches will record the prior removed material and depth of the deposits present (including the concrete crush).
- Normal SACIC conventions, compatible with the Suffolk HER, will be used during the site recording. Site records will be made using a continuous numbering system. A digital photographic record will be made throughout the monitoring works.
- All pre-modern finds will be kept and no discard policy will be considered until all the finds have been processed and assessed. All finds will be brought back to the

SACIC office at the end of each day for processing. Much of the archive and assessment preparation work will be done inhouse, but in some circumstances it may be necessary to send some categories of finds to specialists working in archaeology and university departments in other parts of the country.

- In the event of human remains being encountered on the site a Ministry of Justice licence for removal of human remains will be obtained. Any such find would require work in that part of the site to stop until the human remains have been removed.

3.3. Post-excavation reporting

- The post-excavation work will be managed by Richenda Goffin. Specialist finds staff will be experienced in local and regional types and periods for their field. Members of the project team will be responsible for taking the project to archive and assessment levels.
- All site data will be entered on a computerised database compatible with the County HER. All site plans and sections will be scanned to form a digital archive. Ordnance Datum levels will be on the section sheets.
- All finds will be processed, marked and bagged/boxed to County HER requirements. Where appropriate finds will be marked with a site code and a context number. Finds will be recorded and archived to minimum standards laid down by relevant groups (e.g. the Prehistoric Ceramics Research Group, the Study Group for Roman Pottery or the Medieval Pottery Research Group). Finds quantification will fully cover weights and numbers of finds by OP and context with a clear statement for specialists on the degree of apparent residuality observed.
- Metal finds will be x-rayed if appropriate and coins will be x-rayed if necessary for identification. Sensitive finds will be conserved if necessary and deposited in bags/boxes suitable for long term storage to Institute for Conservation (ICON) standards. All coins will be identified to a standard acceptable to normal numismatic research.
- A full monitoring report summarising all the findings and containing a full assessment of all finds and samples will be produced, consistent with the principles of MoRPHE (Historic England 2015), to a scale commensurate with the archaeological results. A draft digital copy will be submitted to Historic England for approval within 6 months of completion of fieldwork. The report will contain all appropriate scale plans and sections. The report will include a statement as to the value and significance of the results in the context of the Regional Research Framework for the East of England (Brown and Glazebrook, 2000, Medlycott 2011). The report will form the basis for full discharge of the Scheduled Monument Consent.

- The report will include a summary in the established format for inclusion in the annual 'Archaeology in Suffolk' section of the Proceedings of the Suffolk Institute of Archaeology and History.
- On approval a digital .pdf, and a printed and bound copy of the report, will be submitted to Historic England and the Suffolk HER. A digital and fully georeferenced vector plan showing the application area and trench locations, compatible with MapInfo software, will also be supplied.
- A digital .pdf copy of the approved report will be supplied to the client, together with our final invoice for outstanding fees. Printed and bound copies will be supplied on request.

3.4. Archive

- The online OASIS form for the project will be completed and a .pdf version of the report uploaded to the OASIS website for online publication by the Archaeological Data Service. A copy of the completed project OASIS form will be included as an appendix.
- The project archive, consisting of the complete artefactual assemblage, and all paper and digital records, will be held in the SACIC Archaeological Store at Needham Market, Suffolk until deposition in a suitable store (in this case the SCCAS Archaeological Store in Bury St Edmunds, Suffolk) within 6 months of completion of fieldwork. The project archive will be consistent *with Management of Research in the Historic Environment* (MoRPHE, Historic England 2015). The project archive will also meet the requirements detailed in 'Archaeological Archives in Suffolk' (SCCAS 2017).
- An unbound copy of the report will be included with the project archive.
- The project costing includes a sum to meet SCCAS archive charges. A form transferring ownership of the finds archive to SCCAS will be completed on the client/landowners behalf by SACIC and will be included in the project archive.
- The client and/or landowner will have the opportunity to request retention of part/all of the material finds archive prior to deposition. In such circumstances they will be expected to either nominate another suitable depository approved by Historic England or provide as necessary for additional recording of the finds archive (such as photography and illustration) and analysis.
- Exceptions from the deposition of the archive described above include:
 - Objects that qualify as Treasure, as detailed by the Treasure Act 1996. The client will be informed as soon as possible of any such objects are discovered/identified and the find will be reported to SCCAS and the Portable Antiquities Scheme Finds Liaison Officer and hence the Coroner within 14 days of discovery or identification.

Treasure objects will immediately be moved to secure storage at SACIC and appropriate security measures will be taken on site if required. Any material which is eventually declared as Treasure by a Coroners Inquest will, if not acquired by a museum, be returned to SACIC and the project archive. Employees of SACIC, or volunteers etc present on site, will not be eligible for any share of a treasure reward.

- Human skeletal remains. The client/landowner by law will have no claim to ownership of human remains and any such will be stored by SACIC, in accordance with a Ministry of Justice licence, until a decision is reached upon their long term future, i.e. reburial or permanent storage.

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3.5. Project Staff

A summary of project staff is presented below.

Management

SACIC Managing Director	Dr Rhodri Gardner
SACIC Project Manager	John Craven
SACIC Finds Manager	Richenda Goffin

The fieldwork team will be led by a Project Officer derived from the following pool of SACIC staff.

Name	Role	CIfA level	First Aider	Other skills
Rob Brooks	Project Officer	MCIfA	Yes	Surveyor
Simon Cass	Project Officer		Yes	Surveyor
Martin Cuthbert	Project Officer	ACIfA	Yes	Surveyor
Linzi Everett	Project Officer		Yes	
Michael Green	Project Officer	ACIfA	Yes	Surveyor /Metal-detectorist
Jezz Meredith	Project Officer	MCIfA	Yes	
Simon Picard	Project Officer		Yes	Surveyor
Tim Schofield	Project Officer	MCIfA		Surveyor /Geophysics
Mark Sommers	Project Officer		Yes	
Preston Boyles	Project Officer		Yes	Surveyor
Rhiannon Gardiner	Project Officer	PCIfA	Yes	Surveyor

Post-excavation and report production

The production of the site report will be carried out by the fieldwork Project Officer. The post-excavation finds analysis will be managed by Richenda Goffin. The following SACIC specialist staff will contribute to the report as required.

Graphics and illustration	Ryan Wilson, Ellie Cox, Gemma Bowen
Post Roman pottery and CBM	Richenda Goffin
Roman Pottery and general finds	Stephen Benfield
Small Finds and Archiving	Dr Ruth Beveridge
Environmental sample processing/assessment	Anna West
Finds quantification/assessment	Dr Ruth Beveridge, Clare Wootton

SACIC also uses a range of external consultants for post-excavation analysis who will be sub-contracted as required. The most commonly used of these are listed below.

Sue Anderson	Human skeletal remains	Freelance
Sarah Bates	Lithics	Freelance
Julie Curl	Animal bone	Freelance
Anna Doherty	Prehistoric pottery	Archaeology South-East
Kristina Krawiec	Palaeoenvironmental analysis and dating	Archaeology South-East
SUERC	Radiocarbon dating	Scottish Universities Environmental Research Centre

3.6. Bibliography

- Brown, N and Glazebrook, J. (Eds), 2000, *Research and Archaeology: a Framework for the Eastern Counties, 2. Research Agenda and Strategy*. East Anglian Archaeology Occasional Paper No. 8.
- Campbell, G, Moffett, L and Straker V., 2011, *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (second edition)*. Portsmouth: English Heritage.
- Chartered Institute for Archaeologists, 2014, *Standard and Guidance for an Archaeological Watching Brief*.
- Gurney, D., 2003, *Standards for Field Archaeology in the East of England*. East Anglian Archaeology Occasional Paper No 14.
- Historic England, 2015, *Management of Research in the Historic Environment (MoRPHE)*.
- IF_DO, 2017, *Cowlinge Hall, Stage 3 - Design & Access Statement and Heritage Statement, Revision 01*. Unpublished report No. 1706.
- Joubert, N., 2017, *A Heritage Asset Assessment of Cowlinge Hall, Cowlinge, Suffolk*. Nicolaas Joubert Historic Buildings Consultant unpublished report.
- Medlycott, M. (Ed), 2011, *Research and Archaeology Revisited: A revised framework for the East of England*. EAA Occasional Paper 24.
- SCCAS, 2017, *Archaeological Archives in Suffolk*.

4. Health and Safety / Risk assessment

4.1. Health and safety policy

The project will be carried out following the SACIC Health and Safety Management System at all times. The SACIC Health and Safety Policy Statement reads as follows:

Suffolk Archaeology Community Interest Company is committed to ensuring the health, safety and welfare of its employees, and it will, so far as is reasonably practicable, establish procedures and systems necessary to implement this commitment and to comply with its statutory obligations on health and safety. Our Personnel are informed of their responsibilities to ensure they take all reasonable precautions, to ensure the safety, health and welfare of those that are likely to be affected by the acts and emissions of our organisations undertakings.

Suffolk Archaeology Community Interest Company understands our duty to identify the significant hazards that may be created by our undertakings and to risk assess these accordingly to ensure that suitable and effective controls are implemented to minimise risk to a suitable level as far as is reasonably practicable.

We also acknowledge our duty, so far as is reasonably practicable:

- *To provide a safe working environment for our workforce, fulfil our statutory commitments and actively manage and supervise health and safety at work;*
- *To identify the risks associated with our business activities and ensure suitable and sufficient control measures are in place.*
- *Ensure regular consultation with our employees on matters which affect their health and Safety.*
- *To ensure that all plant and equipment used by our employees is fit for purpose and adequately maintained.*
- *To provide suitable storage and ensure safe handling of Hazardous substances.*
- *To ensure that all workers are competent to undertake their daily work activities by providing all relevant information and training, consideration will also be given to any employees who do not have English as a first language.*
- *To prevent accidents and cases of work related ill health by ensuring a robust reporting and investigation system is in place.*
- *To liaise and communicate effectively regarding health and safety matters when working on other persons premises.*
- *To ensure that there is an effective system of induction, training, communication and supervision to other persons visiting or working on our premises.*
- *To have access to competent advice in the continuous improvement in our health and safety performance and management through regular review and revision of this policy; and to provide suitable resources required to make this policy and our Health and Safety arrangements effective.*

4.2. Description of works

- The monitoring works will comprise the observation of machinery removing the topsoil and subsoil to the natural geology.
- The recording of archaeological finds will follow the methodology and standards laid out in the WSI. In summary this will include:
 - Visual inspection of up cast material.
 - A metal detector search of up cast material.
 - Hand recording (written records, drawings and photography) if required.
 - Collection and removal of artefacts to the SACIC store.

4.3. Health and Safety issues

4.3.1. Introduction

- Health and Safety will take priority over archaeological matters. All SACIC staff undertaking fieldwork must comply with all Health and Safety legislation at all times.
- All SACIC staff will be aware that they have a responsibility to:
 - Take care of their own health and safety and that of others who may be affected by what they do, or fail to do, at work.
 - Follow safe systems of work and other precautions identified in the project risk assessments.
 - Report any changes to personal circumstances that may affect their ability to work safely.
 - Report potential hazards, incidents and near misses to the SACIC Project Manager and to the Principal Contractor's Site Manager.
- All SACIC field staff are experienced in working on a variety of archaeological and construction sites and hold a CSCS (Construction Skills Certification Scheme) card.
- All staff have been shown the SACIC Health and Safety Manual, copies of which are held at the SACIC offices in Needham Market. All staff will read the site WSI, a printed copy which will be available onsite.

- SACIC staff are all covered by SACIC insurance policies. SACIC also has professional negligence insurance. Copies of these policies are available on request.
- Onsite incidents will be reported to the SACIC Project Manager and/or Health and Safety Manager who will arrange completion of Accident Report forms, RIDDOR notification etc. as required.
- Site logs will be collated into the company records kept in the SACIC Needham Market offices by the SACIC Health and Safety Manager.
- Applicable SACIC Risk Assessments for the project are included in section 3.4 below.

4.3.2. Liaison with Principal Contractor

- The site will be under the control of the site owner and their Principal Contractor and all SACIC staff will adhere to any Principal Contractor's Health and Safety requirements such as Personal Protective Equipment (PPE) and attend any inductions required.
- The PO will report to the Principal Contractor at the beginning of each site visit.
- Any injury or near miss incident will be reported onsite to the Principal Contractor.

4.3.3. First Aid

- SACIC staff will be aware of the location of the nearest A&E unit and GP service and a vehicle will be on site at all times. It is likely that the relevant PO will be a qualified First Aider.

4.3.4. Access/Security

- The Principal Contractor will be in control of site access and security. Vehicles will be parked in a safe location or as directed by the Principal Contractor.

4.3.5. Site works

- The Principal Contractor will be responsible for plant operations and for checking for overhead and underground services and potential ground contamination.
- No holes or trenches deeper than 1.2m will be entered by SACIC staff unless they have been suitably stepped or shored and assessed to be safe after consultation with the Principal Contractor. They will not be entered if no-one else is in the close vicinity.
- Due care and attention will be paid by SACIC staff to site and ground conditions. Safe routes etc. will be adhered to and edges of excavations avoided unless necessary.

4.3.6. Lone working

- SACIC staff will be working unaccompanied and will carry a fully charged mobile phone at all times. For single person working SACIC operates a 'reporting-in' procedure at the end of each day.

4.3.7. Welfare facilities

- SACIC staff will use the Principal Contractor's facilities if required.

4.3.8. Personal Protective Equipment (PPE)

- The following PPE is issued to all site staff as a matter of course. Additional PPE will be provided if deemed necessary.
 - Hard Hat (to EN397).
 - High Visibility Clothing (EN471 Class 2 or greater).
 - Safety Footwear (EN345/EN ISO 20346 or greater – to include additional penetration-resistant midsole).
 - Gloves (to EN388).
 - Eye Protection (safety glasses to at least EN 166 1F).



4.4. Risk Assessments

A pre-site inspection and assessment has been made of the site and the following SACIC Risk Assessments apply to the project and are included below.

SACIC RA1	Working with plant machinery
SACIC RA2	Manual excavation and outdoor working
SACIC RA3	Deep excavations
SACIC RA4	Use of Hand tools

All the risk assessments presented here will be supplemented and/or updated if conditions on the ground change substantially during the course of fieldwork.

Any breaches of Health and Safety procedures which expose anyone to any of the risks outlined below without the described control measures will be reported immediately as near misses and suitable escalation/reporting undertaken to the responsible person in SACIC.

Risk Assessment 1. Working with plant machinery

Activity	Location	Hazard	Risks	Persons affected	Initial risk	Control measures	Residual risk	Name	Date	Rescue procedures
Monitoring of site groundworks	Various.	Staff in close proximity to excavation (operation of bucket & manoeuvre of boom).	Accidental contact with boom or bucket or unexpected movement of machine.	Principally SPO/PO, but at times may involve others.	10	No personnel to be within radius of boom. All staff to wear high visibility clothing, hard hats and safety footwear at all times. Fully qualified plant operator with CPCS card.	5	M Green	04/12/18	Call emergency services. First Aid if required.

Severity	Likelihood				
	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Initial Risk
Residual Risk

Likelihood	Severity	Risk (likelihood x severity)
1. Highly unlikely	1. Slight inconvenience	1-5 Low
2. May occur but very rarely	2. Minor injury requiring first aid	
3. Does occur but only rarely	3. Medical attention required	6-12 Medium
4. Occurs from time to time	4. Major injury leading to hospitalisation	
5. Likely to occur often	5. Fatality or serious injury leading to disablement	13-25 High

Risk Assessment 2. Manual excavation and outdoor working

Activity	Location	Hazard	Risks	Persons affected	Initial risk	Control measures	Residual risk	Name	Date	Rescue procedures
Visual scanning and hand excavation of finds.	Various.	Extremes of heat, cold and wet weather. Trip hazards. Exertion due to manual labour.	Hypothermia, heat stroke, sunburn. Minor injuries/strains from physical work.	All field staff.	9	All staff provided with appropriate clothing for weather conditions. No staff to work alone in extreme conditions. Regular sweep for trip hazards. Appropriate methods of packing for removal of objects from site. Staff will be advised on safe lifting/handling practice.	2	M Green	04/12/18	First Aid if required. Call emergency services if necessary.

Severity	Likelihood				
	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Initial Risk
Residual Risk

Likelihood	Severity	Risk (likelihood x severity)
1. Highly unlikely	1. Slight inconvenience	1-5 Low
2. May occur but very rarely	2. Minor injury requiring first aid	
3. Does occur but only rarely	3. Medical attention required	6-12 Medium
4. Occurs from time to time	4. Major injury leading to hospitalisation	
5. Likely to occur often	5. Fatality or serious injury leading to disablement	13-25 High

Risk Assessment 3. Deep excavations

Activity	Location	Hazard	Risks	Persons affected	Initial risk	Control measures	Residual risk	Name	Date	Rescue procedures
Monitoring of groundworks and recording if required.	Various.	Trench collapse, falls, and work in confined spaces.	Physical injury (minor to rare major examples), suffocation.	All field staff.	12	No entering of trenches beyond depth of 1.2m (or shallower where there is risk of collapse in the judgement of the PO if deposits are unconsolidated).	2	M Green	04/12/18	Call emergency services. First Aid if required.

Severity	Likelihood				
	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Initial Risk
Residual Risk

Likelihood	Severity	Risk (likelihood x severity)
1. Highly unlikely	1. Slight inconvenience	1-5 Low
2. May occur but very rarely	2. Minor injury requiring first aid	
3. Does occur but only rarely	3. Medical attention required	6-12 Medium
4. Occurs from time to time	4. Major injury leading to hospitalisation	
5. Likely to occur often	5. Fatality or serious injury leading to disablement	13-25 High

Risk Assessment 4. Use of hand tools

Activity	Location	Hazard	Risks	Persons affected	Initial risk	Control measures	Residual risk	Name	Date	Rescue procedures
Excavation of archaeological features using shovels, mattocks, forks, wheelbarrows and small tools	Various.	Splinters from poorly maintained equipment, trip hazards from unused equipment, accidental striking of personnel in close proximity, some heavy lifting.	Minor injuries.	All field staff.	8	Ensure all tools in serviceable condition. Careful policing of temporarily unused equipment (e.g. no discarded hand tools near trench edges). Ensure all tools carried appropriately.	4	M Green	04/12/18	First Aid if required.

Severity	Likelihood				
	1	2	3	4	5
1	1	2	3	4	5
2	2	4	6	8	10
3	3	6	9	12	15
4	4	8	12	16	20
5	5	10	15	20	25

Initial Risk
Residual Risk

Likelihood	Severity	Risk (likelihood x severity)
1. Highly unlikely	1. Slight inconvenience	1-5 Low
2. May occur but very rarely	2. Minor injury requiring first aid	
3. Does occur but only rarely	3. Medical attention required	6-12 Medium
4. Occurs from time to time	4. Major injury leading to hospitalisation	
5. Likely to occur often	5. Fatality or serious injury leading to disablement	13-25 High

Appendix 2. Context List

Context No	Category	Description	Interpretation	Depth (m)	Over	Under
0001	Layer	Mid brown soft sandy silt ploughsoil with occasional small flint inclusions.	Remaining topsoil seen under cruch (concrete crush). Aproximatly 0.1-0.2m of topsoil had been removed prior to attendence on site.	0.05-0.2m	0002	
0002	Layer	Variable subsoil, Mixed and bioturbated yellow brown and brown orange fine soft silty sand with occasional small flint inclusions and occasional chalk fleck.	Subsoil seen in all trenches. Very mixed in places due to bioturbation.	0.35-0.5m	NAT	0001
NAT		Light yellow and orange sand and gravel geological natural.				0002

Appendix 3. Oasis form

OASIS ID: suffolka1-336125

Project details

Project name	Felixstowe Branch Line Capacity Enhancement, Bridge Works Trimley St Martin, Suffolk
Short description of the project	Monitoring works was undertaken of seven small trenches targeting the high impact areas associated with the pile placements for a new bridge across the railway in Trimley St Martin. No arachnological features or finds were present and the area was heavily disturbed to a depth of 1m by rooting, animal burrows and the construction of the railway embankment.
Project dates	Start: 04-12-2018 End: 04-12-2018
Previous/future work	Yes / Not known
Any associated project reference codes	TYN149 - Sitecode
Type of project	Recording project
Current Land use	Woodland 3 - Mixed
Monument type	NONE None
Significant Finds	NONE None
Investigation type	""Watching Brief""
Prompt	National Planning Policy Framework - NPPF

Project location

Country	England
Site location	SUFFOLK SUFFOLK COASTAL TRIMLEY ST MARTIN TYN149-2
Postcode	IP11 0SG
Study area	1.6 Hectares
Site coordinates	TM 2743 3664 51.981015433458 1.312240732764 51 58 51 N 001 18 44 E Point
Height OD / Depth	Min: 24m Max: 25m

Project creators

Name of Organisation	Suffolk Archaeology CIC
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Dr Abby Antrobus
Project director/manager	Rhodri Gardner
Project supervisor	Michael Green
Type of sponsor/funding body	Client
Name of sponsor/funding body	Volker Fitzpatrick Limited

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Suffolk HER
Digital Contents	"other"
Digital Media available	"Database","Images raster / digital photography","Survey","Text"
Paper Contents	"other"
Paper Media available	"Context sheet","Plan","Report"

Project bibliography

1

Publication type	Grey literature (unpublished document/manuscript)
Title	Felixstowe Branch Line Capacity Enhancement, Bridge works Trimley St Martin, Suffolk
Author(s)/Editor(s)	Green, M
Other bibliographic details	SACIC Report: 2018/110
Date	2018
Issuer or publisher	SACIC
Place of issue or publication	Her
Description	Grey literature monitoring report. Negative monitoring.

Entered by	Michael Green (Michael.Green@suffolkarchaeology.co.uk)
Entered on	7 December 2018

OASIS:

Please e-mail [Historic England](#) for OASIS help and advice

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