

LOWESTOFT PHOENIX ENTERPRISE PARK, HADENHAM ROAD, GISLEHAM, LOWESTOFT

ARCHAEOLOGICAL EVALUATION



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LOWESTOFT PHOENIX ENTERPRISE PARK, HADDENHAM ROAD, GISLEHAM, LOWESTOFT ARCHAEOLOGICAL EVALUATION

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Abstract

On 18th and 19th July 2017 Britannia Archaeology Ltd (BA) undertook a trial trench evaluation at Lowestoft Phoenix Enterprise Park, Hadenham Road, Gisleham, Lowestoft (NGR TM 529 894 - Fig.1) on behalf of Linda Wilson of Concertus, (Planning Reference TBC) in advance of a proposed redevelopment of an industrial plot.

The site had a potential for prehistoric features and finds, on the basis of numerous and significant finds in the area, including evidence of Late Bronze Age to Early Iron Age settlement. Additionally, the potential to encounter the World War II anti-tank ditch was high.

The evaluation revealed two phases of activity on the site. The first phase relates to the prehistoric activity on the site indicated by small pit. The pit contained burnt flint and stones and was the only archaeological feature of this date indicating limited prehistoric activity on the site.

The second phase relates to the modern activity on site during WW2 in the form of an anti-tank trench found at the eastern end of trench 1. Due to its engineering industry, role as a naval base, and its south-eastern coastal location, Lowestoft was at risk of invasion during WW2 and the anti-tank trench formed part of the defences.

The evaluation was successful in identifying the WW2 activity on the site and picked up the long anti-tank trench running through the area. Despite the high potential for prehistoric activity at this site only one feature was found from this period.



1.0 INTRODUCTION

On 18th July 2017 Britannia Archaeology Ltd (BA) undertook a trial trench evaluation at Lowestoft Phoenix Enterprise Park, Hadenham Road, Gisleham, Lowestoft (NGR TM 529 894 - Fig.1) on behalf of Linda Wilson of Concertus, (Planning Reference TBC) in advance of a proposed redevelopment of an industrial plot.

The work was undertaken in response to a design brief issued by Suffolk County Council Archaeological Service and Conservation Team (SCCAS/CT) (Antrobus, A. dated 22nd August 2016). The site took the form of 10 trial trenches measuring 30.00m x 1.80m and covering just over 5% of the site area.

2.0 SITE DESCRIPTION (Fig. 1)

The site is located in the southern extent of the historic town of Lowestoft in an industrial park on an area of land currently not in use.

The bedrock geology is described as Neogene And Quaternary Rocks (undifferentiated) - Gravel, Sand, Silt And Clay. This sedimentary Bedrock formed up to 23 million years ago in the Quaternary and Neogene Periods when the local environment was previously dominated by shallow seas, (BSG, 2017).

The Superficial deposits are described as Lowestoft Formation - Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period when the local environment was previously dominated by ice age conditions, (BGS 2017).

3.0 PLANNING POLICIES

The archaeological investigation is to be carried out on the recommendation of CBC, following guidance laid down by the *National Planning and Policy Framework* (NPPF, DCLD 2012) which replaced *Planning Policy Statement 5: Planning for the Historic Environment* (PPS5, DCLG 2010) in March 2012. The relevant local development framework is the *Waveney Local Development Framework Core Strategy* (2009-2021).



4.0 ARCHAEOLOGICAL BACKGROUND (Fig. 2, 3 & 4)

The following archaeological background utilises the Suffolk Historic Environment Record (HER) (1km search centred on the site), Historic England PastScape (www.pastscape.org.uk), and the Archaeological Data Service (www.ads.ahds.ac.uk) (ADS) (Fig. 2, 3 & 4). 97 monument entries, 22 events and 1 listed building entry were returned within the 1km search area. In addition, 5 confidential PAS monument records were returned.

The site is located on the southern edge of the town of Lowestoft Suffolk, located on the North Sea coast and is approximately 69km north east of Ipswich and 46km south east of Norwich.

The SHER search returned 21 entries dating to the prehistoric period. A number of prehistoric records are particularly close to the site area, with the nearest, CAC 035, referring to the discovery of a Late Bronze Age or Early Iron Age round house and circular enclosure ditch on the land adjacent to the western boundary of the site area. An early Bronze Age jet plaque of national importance was also discovered in a pit outside the enclosure along with a flint knife and part of an urn, although clear settlement activity is confined to the late Bronze Age. 50m to the north-west of the site, lithic implements and Iron Age pottery were found during an evaluation as well as features dated as prehistoric (GSE 074). 100m south-west of the site, an evaluation revealed an assemblage of Late Neolithic and early Bronze Age flint and pottery (GSE 069), while 100m north of the site, lithic implements were found in a buried soil layer while a separate burnt layer was associated with Iron Age pottery (CAC 036). A large Bronze Age socketed axe head was discovered 200m north-east of the site at Hadenham Road. Findspots of struck flint are recorded close to the site at 300m to the south-west (GSE 095) and 350m to the west (GSE 070), while Neolithic pottery and flint was recovered a single evaluation trench 250m to the west (GSE 065). A Neolithic polished axe head was found 250m to the north of the site area (GSE 006). 750m to the west of the site area, an Iron Age bronze bow brooch was discovered by metal detector (GSE 013). 800m north-east of the site area, a number of struck flints were found by Basil Brown during excavations at Pakefield Primary School leading Brown to suggest settlement activity (LWT 025). Excavations at Pakefield High School 600m north-east of the site revealed a Neolithic pit cluster (LWT 169), while further excavations at Pakefield Middle and High Schools in the same area revealed Neolithic features dated by pottery and flint (LWT 170). Further flint flakes were discovered 900m to the north-west of site (CAC MISC). The excavations at Blodmoor Hill approximately 1km to the north-east of site produced a number of Bronze Age finds, including a bronze axe head, pottery and struck flint. The number and nature of the records suggest that the local landscape was a relatively rich environment for prehistoric activity.

The Romano-British period marked a change for East Anglia as a whole, with Colchester (Camulodunum) becoming the capital of Roman Britain. Roman control of Norfolk is reflected by the forts at Burgh Castle, 15km north-north-west and Caister-on-Sea, 21km to the north. The HER search returned 11 monument records dating to the Roman period, none of which are located near to the site area. A Roman ring was found on the land



adjacent to the west boundary of the site (CAC 035) while Roman finds were discovered in a buried soil layer at an evaluation 50m north of the site (GSE 074). Excavations at Pakefield Middle and High Schools 600m to the north-east revealed Roman pottery (LWT 170). NMP cropmark data in the area within 500m of the site (Fig. 4) may represent Roman field systems. Most of the Roman records exist further afield on the periphery of the search radius or just outside it, such as an artefact scatter of pottery and coins 850m to the west of site (GSE 012) or the pottery, CBM and bronze and silver coins discovered on the coastline 950m to the south-east of the site (GSE 031 and GSE 037).

The main development of Lowestoft is believed to have occurred in the Saxon period. 6 records dating to this period were returned by the SHER search within 1km of the site. The Saxon records of greatest significance, being suggestive of Saxon settlement, are concentrated 1km to the west-north-west of the site area. Record GSE 003 refers to an early Saxon inhumation barrow containing a skeleton with a gold coin (Avitus, AD 455) pendant and an onyx gemstone excavated up in 1758. Another Anglo-Saxon coin pendant was discovered in the same area (GSE 099). An early Saxon settlement was identified as existing 800m to the west of the Hadenham Road site at Blodmoor Hill (CAC 013) and further discoveries relating to the same settlement were discovered another 200m to the north-west, including Grubenhauser, post-built structures, middens, a cemetery and evidence of industrial activity (CAC 016). In the same area again, at 950m north-east of the Hadenham Road site and 200m north-east of the barrow, CAC 080 refers to cropmarks identified as further Grubenhauser. South of this concentration and 1.1km to the west of the site, an assemblage of finds including gold pendants and a cruciform brooch was found. The only Saxon finds near to the site area are sherds of pottery found 50m to the northwest of the site in a buried soil layer (GSE 074).

The medieval period is represented by 8 monument records within the 1km search area. A findspot of a bronze socket terminal with an animal head terminal is located 150m southeast of the site (GSE MISC). A further 300m south-east is the location of a former moated site dated to the medieval, Pakefield Hall (GSE 002). Other records in the HER search area refer to either isolated findspots or medieval quarrying. A Henry III penny was found 700m south-south-west of the site area (GSE 115), while a harness pendant of bronze and red enamel was found 1km west-south-west of the site area (GSE MISC). Medieval quarrying was identified at Swallowfields, Blodmoor Hill, 1km to the west-north-west of site (CAC 016).

The post-medieval period is represented by 7 monument records and 1 listed building. The listed building record (391333) refers to a Grade II listed 17th Century house on London Road, 700m to the north-east of the site area. 500m to the north-west of site, ditches of a probable post-medieval date were revealed during an evaluation (GSE 086). Medieval quarrying at Swallowfields, Blodmoor Hill, 1km to the west of the site continued into the post-medieval period (CAC 016). The paucity of records for this period suggests that this area remained agricultural and undeveloped for the post-medieval period.

The SHER search returned 28 records relating to the modern period many of which refer to World War II defences, the most significant of which is the anti-tank ditch constructed in 1941 (GSE 045) which runs through the parish of Gisleham for 1.45km. The ditch, which



had a gently sloping bank on some stretches of it, runs through the site area at Hadenham Road. Records referring to further World War II defences are concentrated to the east and south-east of the site area. For instance GSE 050 and GSE 049, a gun emplacement and an anti-aircraft battery respectively, were located on the coast 900m east-south-east of the site. This anti-aircraft battery's function was to protect the coastal battery, GSE 053, which was located on Pakefield Cliffs just to the south. These records reflect the fact that the town was heavily targeted for bombing by the Luftwaffe during the war due to its engineering industry and role as a naval base and many of the defences were also geared towards the prevention of invasion, such as the line of anti-tank cubes 300m to the east of the site (GSE 046) providing a primary obstacle ahead of the anti-tank ditch.

The 5 Confidential PAS records all refer to finds discovered west of the site. A scatter of Roman coins, including silvers, and two bronze mounts and a bronze brooch were discovered some way south-west of the site area. To the north-west of the site area, a scatter of Roman and medieval metalwork was found during metal-detecting and have been given an HER reference each. The final two PAS records refer to a Saxon bronzed and enamelled hanging bowl mount and an early Saxon bronze brooch discovered near to each other some way to the west of the site.

Given the above records, the site had a specific potential for **prehistoric** features and finds, on the basis of numerous and significant finds in the area, including evidence of Late Bronze Age to Early Iron Age settlement. Additionally, the potential to encounter the **World War II** anti-tank ditch was **high**.

5.0 PROJECT AIMS

The SCCAS/CT Brief (Antrobus, A. Brief, section 3.2) stated that the trial trenching is required 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.
- Establish the suitability of the area for development.

6.0 PROJECT OBJECTIVES

Research objectives for the project were in line with those laid out in *Research and Archaeology Revisited: a revised framework for the East of England, East Anglian Archaeology Occasional Paper 24 (Medlycott, 2011).*

Specific objectives outlined in the brief state that a particular importance be placed on:

- · the amount of truncation to buried deposits,
- the presence or absence of a palaeosol or 'B' horizon,



- the preservation of deposits within negative features,
- site formation processes.

An assessment of the environmental potential of the site through examination of suitable deposits must also be arranged with a suitably qualified specialist. Attention should be paid:

- to the retrieval of charred plant macrofossils and land molluscs from former dryland palaeosols and cut features, and to soil pollen analysis;
- to the retrieval of plant macrofossils, insect, molluscs and pollen from waterlogged deposits located.
- provision for the absolute dating of critical contacts should be made: eg the basal contacts of peats over former dryland surfaces; distinct landuse or landmark change in urban contexts

7.0 FIELDWORK METHODOLOGY

The SCCAS/CT Brief required an adequate representative sample of all areas where archaeological remains were potentially threatened. The precedent existed whereby a 5% sample of the site was deemed to constitute an adequate representative sample. In this case 10 trial trenches measuring $30m \times 1.18m$, were a suitable sample area.

A 360° mechanical excavator fitted with a toothless ditching bucket was used to machine down to the first archaeological horizon, thereafter all excavation work was undertaken by hand (Figure 5). The archaeology was recorded using pro-forma record sheets, drawn plans and section drawings with appropriate photographs also having been taken

8.0 DESCRIPTION OF RESULTS (Fig. 7, 8, 9, 10 & 11)

8.1 Trench 1

Trench 1 was orientated north to south and was excavated to a maximum depth of 0.70m in sample section 1. Trench 1 contained a former anti-tank trench. Due to the presence of contaminants the ditch was not excavated however its orientation when compared with the background data put it on the correct supposed alignment of the defence.

A demolition layer **1000**, associated with former site use, was present to a depth of 0.22m in the trench. This layer overlay **1001** a levelling layer for former site use which was present from 0.22m to 0.35m. This layer overlay **1004** a demolition layer relating the former building which was present from 0.35m to 0.70m. This layer overlay **1005** a contaminated former agricultural subsoil.



8.2 Trench 2

Trench 2 was oriented east to west and was excavated to a maximum depth of 0.58m in sample section 2. Trench 2 contained no archaeological features.

A demolition layer **1000** was present to a depth of 0.25m. This layer overlay levelling layer **1001** which was present from 0.25m to 0.36m. This layer overlay **1002** a former agricultural subsoil which was present from 0.36m to 0.58m. This layer overlay clay natural **1003**.

8.3 Trench 3

Trench 3 was oriented east to west and was excavated to a maximum depth of 0.90m in sample section 3.

Trench 3 contained small pit **1007** of prehistoric date with a single primary fill which contained burnt flint and stones.

A demolition layer **1000** was present to a depth of 0.13m. This layer overlay levelling layer **1001** which was present from 0.13m to 0.39m. This layer overlay **1005** a contaminated former agricultural subsoil which was present from 0.39m to 0.90m. This overlay contaminated clay natural (alluvial) **1006**.

8.4 Trench 4

Trench 4 was oriented north to south and was excavated to a maximum depth of 1.08m in sample section 4. This trench contained no archaeological features.

A demolition layer **1000** was present to a depth of 0.13m. This layer overlay levelling layer **1001** which was present from 0.13m to 0.27m. This layer overlay former agricultural subsoil **1002** which was present from 0.27m to 0.56m. This layer overlay contaminated former agricultural subsoil **1005** which was present from 0.56m to 1.08m. This overlay contaminated clay natural (alluvial) **1006**.

8.5 Trench 5

Trench 5 was oriented north-west to south-east and was excavated to a maximum depth of 0.91m. This trench contained no archaeological features.

A demolition layer **1000** was present to a depth of 0.48m. This layer overlay levelling layer **1001** which was present from 0.48m to 0.54m. This layer overlay former agricultural subsoil **1002** which was present from 0.54m to 0.91m. This overlay clay natural **1003**.

8.6 Trench 6

Trench 6 was oriented east to west and was excavated to a maximum depth of 0.82m. This trench contained no archaeological features.



Demolition layer **1000** was present to a depth of 0.36m. This layer overlay levelling layer **1001** which was present from 0.36m to 0.57m. This layer overlay former agricultural subsoil **1002** which was present from 0.57m to 0.82m. This overlay clay natural **1003**.

8.7 Trench 7

Trench 7 was oriented north to south and was excavated to a maximum depth of 0.60m. This trench contained no archaeological features.

Demolition layer **1000** was present to a depth of 0.20m. This layer overlay levelling layer **1001** which was present from 0.20m to 0.34m. This layer overlay former agricultural subsoil **1002** which was present from 0.34m to 0.60m. This overlay clay natural **1003**.

8.8 Trench 8

Trench 8 was oriented east to west and was excavated to a maximum depth of 0.74m. This trench contained no archaeological features.

Demolition layer **1000** was present to a depth of 0.12m. This layer overlay levelling layer **1001** which was present from 0.12m to 0.45m. This layer overlay former agricultural subsoil **1002** which was present from 0.45m to 0.74m. This overlay clay natural **1003**.

8.9 Trench 9

Trench 9 was oriented north to south and was excavated to a maximum depth of 0.80m. This trench contained no archaeological features.

Demolition layer **1000** was present to a depth of 0.19m. This layer overlay levelling layer **1001** which was present from 0.19m to 0.70m. This layer overlay former agricultural subsoil **1002** which was present from 0.70m to 0.80m. This overlay clay natural **1003**.

8.10 Trench 10

Trench 10 was oriented north to south and was excavated to a maximum depth of 0.93m. This trench contained no archaeological features.

Demolition layer **1000** was present to a depth of 0.15m. This layer overlay levelling layer **1001** which was present from 0.15m to 0.52m. This layer overlay former agricultural subsoil **1002** which was present from 0.52m to 0.93m. This overlay clay natural **1003**.

9.0 DEPOSIT MODEL (Fig. 7, 8, 9, 10 & 11)

At the top of the stratigraphic sequence in all trenches was demolition layer 1000. This was a light grey-brown, loose sand-silt-clay rubble with frequent rubble inclusions and



metalwork. This layer was present to a depth of 0.48m in sample section 5. This layer represents the demolition associated with the former site use.

Beneath demolition layer **1000** in all trenches was levelling layer **1001**. This comprised of a mid grey-brown compact silty-clay with infrequent CBM rubble. This layer was present to a depth of 0.70m in sample section 9. This layer represents a modern levelling layer associated with the former site use.

Beneath levelling layer **1001** in trenches 2, 4, 5, 6, 7, 8, 9, and 10 was former agricultural subsoil **1002**. This was a dark brown-black compact silty clay with infrequent flat gravel inclusions. This layer was present to a depth of 0.93m in sample section 10. This layer represents a former agricultural subsoil.

The base of the stratigraphic sequence in trenches 2, 5, 6, 7, 8, 9, and 10 was natural geology **1003** consisting of a light yellow-orange, very compact silty clay with no inclusions.

Beneath levelling layer **1001** in trench 1 was demolition layer **1004** which was a greyblack, loose sand-silt-clay with frequent rubble and CBM inclusions. This layer was present to a maximum depth of 0.70m. This layer represents a phase of demolition relating to a former building on the site.

Beneath levelling layer **1001** in trench 3 and agricultural subsoil **1002** in trench 4 was contaminated subsoil **1005**. This layer consisted of a light grey-green, very compact silty clay with infrequent flints and gravel inclusions. This layer represents a former agricultural subsoil that has been contaminated which was present in the northern area of the site.

The base of the stratigraphic sequence in trenches 3 and 4 was natural geology **1006** consisting of a mid black-green, very compact silty clay with no inclusions. This alluvial clay natural was possibly contaminated resulting in the dark green colour.

10.0 DISCUSSION AND CONCLUSION

The site had a potential for prehistoric features and finds, on the basis of numerous and significant finds in the area, including evidence of Late Bronze Age to Early Iron Age settlement. Additionally, the potential to encounter the World War II anti-tank ditch was high.

The evaluation revealed two phases of activity on the site. The first phase relates to the prehistoric activity on the site indicated by small pit 1007 found in trench 3. The pit contained burnt flint and stones and was the only archaeological feature of this date indicating limited prehistoric activity on the site. It is located in the northern area of site in the direction of the previously excavated prehistoric sites as mentioned above in the archaeological background. This suggests that the prehistoric settlement was focussed around and beyond the northern extent of this site.



The second phase relates to the modern activity on site during WW2 in the form of an anti-tank trench found at the eastern end of trench 1. The anti-tank trench runs north to south through the parish of Gisleham for 1.45km. Due to its engineering industry, role as a naval base, and its south-eastern coastal location, Lowestoft was at risk of invasion during WW2 and the anti-tank trench formed part of the defences.

The evaluation was successful in identifying the WW2 activity on the site and picked up the long anti-tank trench running through the area. Despite the high potential for prehistoric activity at this site only one feature was found from this period.

11.0 ARCHIVE DEPOSITION

Arrangements will be made for the archive to be deposited with the Suffolk County Council HER Store, subject to agreement with the legal landowner where finds are concerned. The digital archive with be stored with the Archaeological Data Service (ADS).

12.0 ACKNOWLEDGEMENTS

Britannia Archaeology would like to thank Ms Linda Wilson of Concertus for commissioning the project. We would also like to thank Tom Warnes and Steve Holt at Morgan Sindall Construction and Infrastructure for their assistance throughout the project and for funding the work.

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The site was excavated by Martin Brook of Britannia Archaeology Ltd.



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Archaeological Data Service (ADS) www.ads.ahds.ac.uk

Historic England National List for England



https://www.historicengland.org.uk/listing/the-list

DEFRA Magic http://maqic.defra.qov.uk/website/maqic





APPENDIX 1 - DEPOSIT TABLES

Deposit Tables

TRENCH 1

Trench No	Orientation	Height AOD	Shot ID
1	E-W	15.08	1
Sample Section No	Locatio	on	Facing
1		West end	S Facing
Context No	Depth	Deposit Description	
1000	0.00-0.22m	Demolition layer: light grey-br	own, loose sand silt clay rubble with
		frequent rubble inclusions.	
1001	0.22-0.35m	Levelling layer: Mid grey-brown, compact silty clay with infrequent	
		rubble.	
1004	0.35-0.70m	Demolition layer: Grey-black, loose sand silt clay with frequent rul	
		and CBM	
1005	0.70m+	Subsoil (contaminated): light grey-green, very compact silty cla	
		infrequent flints and gravel.	

Trench No	Orientation	Height AOD	Shot ID
2	N-S	15.11	2
Sample Section No	Location	1	Facing
2		South end	E Facing
Context No	Depth	Deposit Description	
1000	0.00-0.25m	Demolition layer: light grey-bi frequent rubble inclusions.	rown, loose sand silt clay rubble with
1001	0.25-0.36m	.25-0.36m Levelling layer: Mid grey-brown, compact silty clay with infreque rubble.	
1002	0.36-0.58m	Former Agricultural Subsoil: Dark brown black, compact silty cla- infrequent flat gravel inclusions.	
1003	0.58+	Natural: Light yellow-orange, ve	ery compact silty clay with no inclusions.



TRENCH 3

Trench No	Orientation	Height AOD	Shot ID
3	E-W	14.98	3
Sample Section No	Location	n Fa	acing
3		East end	N Facing
Context No	Depth	Deposit Description	
1000	0.00-0.13m	Demolition layer: light grey-brown frequent rubble inclusions.	wn, loose sand silt clay rubble with
1001	0.13-0.39m	Levelling layer: Mid grey-brown, compact silty clay with infrequent rubble.	
1005	0.39-0.90m	Subsoil (contaminated): light grey-green, very compact silty clay infrequent flints and gravel.	
1006	0.90+	Natural (alluvial): Mid black-green inclusions. Possibly contaminated	en, very compact silty clay with no l.

Feature Context	Feature Type & Description (m)	Layer/Fill Context	Layer/Fill Description	Spot Date	Other
1007	Pit (L0.45MxW0.40mxD0.15m), small sub-circular prehistoric pit with moderately sloping sides and a concave base. Located in N end of site.	1008	Dark brown-black, compact clayey silt with frequent burnt flints, gravel, and pebbles. Burnt stone found.	Prehistoric	

Orientation	Height AOD	Shot ID
N-S	14.46	4
Locatio	on	Facing
	North end	W Facing
Depth	Deposit Description	
0.00-0.13m	Demolition layer: light grey-br	rown, loose sand silt clay rubble with
	frequent rubble inclusions.	
0.13-0.27m	Levelling layer: Mid grey-brown, compact silty clay with infrequent C	
	rubble.	
0.27-0.56m	Subsoil: Dark brown black, compact silty clay with infrequent flat gra	
	inclusions.	
0.58-1.08m	Subsoil (contaminated): light grey-green, very compact silty clay	
	infrequent flints and gravel.	
1.08m+	Natural (alluvial): Mid black-green, very compact silty clay v	
	inclusions. Possibly contaminat	ed.
	N-S Location Depth 0.00-0.13m 0.13-0.27m 0.27-0.56m 0.58-1.08m	N-S Location North end Depth Deposit Description 0.00-0.13m Demolition layer: light grey-bring frequent rubble inclusions. 0.13-0.27m Levelling layer: Mid grey-brown, rubble. 0.27-0.56m Subsoil: Dark brown black, compinclusions. 0.58-1.08m Subsoil (contaminated): light gring infrequent flints and gravel. 1.08m+ Natural (alluvial): Mid black-gring infrequent flints and gravel.



TRENCH 5

Trench No	Orientation	Height AOD	Shot ID
5	NW-SE	14.17	5
Sample Section No	Location	1	Facing
5		North west end	SW Facing
Context No	Depth	Deposit Description	
1000	0.00-0.48m	Demolition layer: light grey frequent rubble inclusions.	y-brown, loose sand silt clay rubble with
1001	0.48-0.54m	Levelling layer: Mid grey-brown, compact silty clay with infrequent (rubble.	
1002	0.54-0.91m	Subsoil: Dark brown black, c inclusions.	ompact silty clay with infrequent flat gravel
1003	0.91+	Natural: Light yellow-orange	, very compact silty clay with no inclusions.

TRENCH 6

Trench No	Orientation	Height AOD	Shot ID
6	E-W	14.67	6
Sample Section No	Location	1	Facing
6		East end	N Facing
Context No	Depth	Deposit Description	
1000	0.00-0.36m	Demolition layer: light grey-b frequent rubble inclusions.	rown, loose sand silt clay rubble with
1001	0.36-0.57m	Levelling layer: Mid grey-brown, compact silty clay with infrequ rubble.	
1002	0.57-0.82m	Subsoil: Dark brown black, compact silty clay with infrequent f inclusions.	
1003	0.82m+	Natural: Light yellow-orange, v	ery compact silty clay with no inclusions.

Trench No	Orientation	Height AOD	Shot ID
7	N-S	14.63	7
Sample Section No	Location	1	Facing
7		South end	W Facing
Context No	Depth	Deposit Description	
1000	0.00-0.20m	Demolition layer: light grey-b frequent rubble inclusions.	rown, loose sand silt clay rubble with
1001	0.20-0.34m	0.20-0.34m Levelling layer: Mid grey-brown, compact silty clay with infrequence rubble.	
1002	0.34-0.60m	 O.60m Subsoil: Dark brown black, compact silty clay with infrequent fl inclusions. 	
1003	0.60+	Natural: Light yellow-orange, ve	ery compact silty clay with no inclusions.



TRENCH 8

Trench No	Orientation	Height AOD	Shot ID
8	E-W	15.20	8
Sample Section No	Location	ı	Facing
8		East end	N Facing
Context No	Depth	Deposit Description	
1000	0.00-0.12m	Demolition layer: light grey-b frequent rubble inclusions.	rown, loose sand silt clay rubble with
1001	0.12-0.45m	Levelling layer: Mid grey-brown, compact silty clay with infrequent CBM rubble.	
1002	0.45-0.74m	Subsoil: Dark brown black, compact silty clay with infrequent flat gravel inclusions.	
1003	0.74+	Natural: Light yellow-orange, v	ery compact silty clay with no inclusions.

TRENCH 9

Trench No	Orientation	Height AOD	Shot ID	
9	N-S	15.37	9	
Sample Section No	Location	n	Facing	
9		South end	E Facing	
Context No	Depth	Deposit Description		
1000	0.00-0.19m	Demolition layer: light grey-br frequent rubble inclusions.	own, loose sand silt clay rubble with	
1001	0.19-0.70m	Levelling layer: Mid grey-brown, compact silty clay with infrequent CBM rubble.		
1002	0.70-0.80m	Subsoil: Dark brown black, compact silty clay with infrequent flat gravel inclusions.		
1003	0.80m+	Natural: Light yellow-orange, ve	ry compact silty clay with no inclusions.	

Trench No	Orientation	Height AOD	Shot ID
10	N-S	15.48	10
Sample Section No	Location	n F	acing
10		South end	W Facing
Context No	Depth	Deposit Description	
1000	0.00-0.15m	Demolition layer: light grey-bro frequent rubble inclusions.	wn, loose sand silt clay rubble with
1001	0.15-0.52m	Levelling layer: Mid grey-brown, o rubble.	compact silty clay with infrequent CBM
1002	0.52-0.93m	Subsoil: Dark brown black, compa inclusions.	act silty clay with infrequent flat gravel
1003	0.93m+	Natural: Light yellow-orange, ver	y compact silty clay with no inclusions.



APPENDIX 2 – OASIS SHEET

OASIS DATA COLLECTION FORM: **England**

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Printable version

OASIS ID: britanni1-268953

Project details

Project name

Lowestoft Phoenix Enterprise Park, Hadenham Road, Gisleham, Lowestoft

of the project

Short description On 18th and 19th July 2017 Britannia Archaeology Ltd (BA) undertook a trial trench evaluation at Lowestoft Phoenix Enterprise Park, Hadenham Road. Gisleham, Lowestoft (NGR TM 529 894 - Fig. 1) on behalf of Linda Wilson of Concertus, (Planning Reference TBC) in advance of a proposed redevelopment of an industrial plot. The site had a potential for prehistoric features and finds, on the basis of numerous and significant finds in the area, including evidence of Late Bronze Age to Early Iron Age settlement. Additionally, the potential to encounter the World War II anti-tank ditch was high. The evaluation revealed two phases of activity on the site. The first phase relates to the prehistoric activity on the site indicated by small pit. The pit contained burnt flint and stones and was the only archaeological feature of this date indicating limited prehistoric activity on the site. The second phase relates to the modern activity on site during WW2 in the form of an anti-tank trench found at the eastern end of trench 1. Due to its engineering industry, role as a naval base, and its south-eastern coastal location, Lowestoft was at risk of invasion during WW2 and the anti-tank trench formed part of the defences. The evaluation was successful in identifying the VWV2 activity on the site and picked up the long anti-tank trench running through the area. Despite the high potential for prehistoric activity at this site only one feature was found from this period.

Project dates Start: 18-07-2017 End: 19-07-2017

Previous/future No / No

work

project reference codes

Any associated GSE 140 - Sitecode

Type of project Field evaluation

Site status Current Land

Other 13 - Waste ground

Monument type DITCH Modern Monument type PIT Late Prehistoric

Significant Finds NONE None Methods & techniques

"Sample Trenches"

Urban commercial (e.g. offices, shops, banks, etc.)



Development

type

National Planning Policy Framework - NPPF Prompt Position in the After full determination (eg. As a condition)

planning process

Project location

Country England

SUFFOLK WAVENEY LOWESTOFT Lowestoft Phoenix Enterprise Park, Site location

Hadenham Road, Gisleham, Lowestoft

Postcode NR33 7NF Study area 0 Hectares

Site coordinates TM 652900 289400 51.895034799419 1.856434524868 51 53 42 N 001 51 23 E

Lat/Long Datum Unknown Min: Om Max: Om Height OD /

Depth

Project creators

Name of Britannia Archaeology Ltd

Organisation Project brief

Local Planning Authority (with/without advice from County/District Archaeologist)

originator Project design originator

Martin Brook

Martin Brook

Developer

Project director/manager

Martin Brook

Project

supervisor

Type of

sponsor/funding

body

Name of

sponsor/funding

Morgan Sindall Plc

Project archives

body

Physical Archive No

Digital Archive Suffolk HER

recipient

Digital Archive GSE 140

Digital Contents "none"

available

Digital Media "Database", "GIS", "Images raster / digital photography", "Spreadsheets", "Text"

Paper Archive recipient

Suffolk HER



Paper Archive ID GSE 140
Paper Contents "none"
Paper Media "Context

available sheet", "Correspondence", "Drawing", "Photograph", "Plan", "Report", "Section"

Project bibliography 1

Grey literature (unpublished document/manuscript)

Publication type

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Other R1169

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Entered by Martin Brook (martin@brit-arch.com)

Entered on 11 September 2017

OASIS:

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APPENDIX 3 – APPROVED WRITTEN SCHEME OF INVESTIGATION

1.0 INTRODUCTION

This Written Scheme of Investigation (WSI) has been prepared by Britannia Archaeology Ltd (BA) on behalf of Linda Wilson of Concertus, as part of a condition for a preplanning application, in advance of a proposed redevelopment of an industrial plot.

This WSI presents a programme of archaeological investigation by means of trial trench evaluation to assess the nature and archaeological potential of the site on Lowestoft Phoenix Enterprise Park, Hadenham Road, Gisleham, Lowestoft (NGR TM 529 894). A design brief issued by Suffolk County Council Archaeological Service and Conservation Team (SCCAS/CT) (Antrobus, A. dated 22nd August 2016) requires a programme of linear trial trenching to adequately sample the threatened available area.

The brief provides for a programme of archaeological evaluation comprising of 10 trial trenches measuring $30.00m \times 1.80m$ (Figure 4) and covering just over 5% of the site area. This will be excavated using a 360° tracked, mechanical excavator fitted with a toothless ditching bucket.

2.0 SITE DESCRIPTION (Fig. 1)

The site is located in the southern extent of the historic town of Lowestoft in an industrial park on an area of land currently not in use.

The bedrock geology is described as Neogene And Quaternary Rocks (undifferentiated) - Gravel, Sand, Silt And Clay. This sedimentary Bedrock formed up to 23 million years ago in the Quaternary and Neogene Periods when the local environment was previously dominated by shallow seas, (BSG, 2016).

The Superficial deposits are described as Lowestoft Formation - Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period when the local environment was previously dominated by ice age conditions, (BGS 2016).

3.0 PLANNING POLICIES

The archaeological investigation is to be carried out on the recommendation of CBC, following guidance laid down by the *National Planning and Policy Framework* (NPPF, DCLD 2012) which replaced *Planning Policy Statement 5: Planning for the Historic Environment* (PPS5, DCLG 2010) in March 2012. The relevant local development framework is the *Waveney Local Development Framework Core Strategy* (2009-2021).



3.1 National Planning Policy Framework (NPPF, DCLG March 2012)

The NPPF recognises that 'heritage assets' are an irreplaceable resource and planning authorities should conserve them in a manner appropriate to their significance when considering development. It requires developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. The key areas for consideration are:

- The significance of the heritage asset and its setting in relation to the proposed development;
- The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance;
- Significance (of the heritage asset) can be harmed or lost through alteration or destruction, or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification;
- Local planning authorities should not permit loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred;
- Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

3.2 Waveney Local Development Framework Core Strategy (2011-2031)

The local development framework for Waveney states the following:

 The Council will work to preserve and enhance these areas [listed buildings, conservation areas and areas of archaeological significance] through positive action and through the operation of the Development Management policies.

4.0 ARCHAEOLOGICAL BACKGROUND (Fig. 2, 3 & 4)

The following archaeological background utilises the Suffolk Historic Environment Record (HER) (1km search centred on the site), Historic England PastScape (www.pastscape.orq.uk), and the Archaeological Data Service (www.ads.ahds.ac.uk) (ADS) (Fig. 2, 3 & 4). 97 monument entries, 22 events and 1 listed building entry were returned within the 1km search area. In addition, 5 confidential PAS monument records were returned.



The site is located on the southern edge of the town of Lowestoft Suffolk, located on the North Sea coast and is approximately 69km north east of Ipswich and 46km south east of Norwich.

The SHER search returned 21 entries dating to the prehistoric period. A number of prehistoric records are particularly close to the site area, with the nearest, CAC 035, referring to the discovery of a Late Bronze Age or Early Iron Age round house and circular enclosure ditch on the land adjacent to the western boundary of the site area. An early Bronze Age jet plague of national importance was also discovered in a pit outside the enclosure along with a flint knife and part of an urn, although clear settlement activity is confined to the late Bronze Age. 50m to the north-west of the site, lithic implements and Iron Age pottery were found during an evaluation as well as features dated as prehistoric (GSE 074). 100m south-west of the site, an evaluation revealed an assemblage of Late Neolithic and early Bronze Age flint and pottery (GSE 069), while 100m north of the site, lithic implements were found in a buried soil layer while a separate burnt layer was associated with Iron Age pottery (CAC 036). A large Bronze Age socketed axe head was discovered 200m north-east of the site at Hadenham Road. Findspots of struck flint are recorded close to the site at 300m to the south-west (GSE 095) and 350m to the west (GSE 070), while Neolithic pottery and flint was recovered a single evaluation trench 250m to the west (GSE 065). A Neolithic polished axe head was found 250m to the north of the site area (GSE 006). 750m to the west of the site area, an Iron Age bronze bow brooch was discovered by metal detector (GSE 013). 800m north-east of the site area, a number of struck flints were found by Basil Brown during excavations at Pakefield Primary School leading Brown to suggest settlement activity (LWT 025). Excavations at Pakefield High School 600m north-east of the site revealed a Neolithic pit cluster (LWT 169), while further excavations at Pakefield Middle and High Schools in the same area revealed Neolithic features dated by pottery and flint (LWT 170). Further flint flakes were discovered 900m to the north-west of site (CAC MISC). The excavations at Blodmoor Hill approximately 1km to the north-east of site produced a number of Bronze Age finds, including a bronze axe head, pottery and struck flint. The number and nature of the records suggest that the local landscape was a relatively rich environment for prehistoric activity.

The Romano-British period marked a change for East Anglia as a whole, with Colchester (Camulodunum) becoming the capital of Roman Britain. Roman control of Norfolk is reflected by the forts at Burgh Castle, 15km north-north-west and Caister-on-Sea, 21km to the north. The HER search returned 11 monument records dating to the Roman period, none of which are located near to the site area. A Roman ring was found on the land adjacent to the west boundary of the site (CAC 035) while Roman finds were discovered in a buried soil layer at an evaluation 50m north of the site (GSE 074). Excavations at Pakefield Middle and High Schools 600m to the north-east revealed Roman pottery (LWT 170). NMP cropmark data in the area within 500m of the site (Fig. 4) may represent Roman field systems. Most of the Roman records exist further afield on the periphery of the search radius or just outside it, such as an artefact scatter of pottery and coins 850m to the west of site (GSE 012) or the pottery, CBM and bronze and silver coins discovered on the coastline 950m to the south-east of the site (GSE 031 and GSE 037).



The main development of Lowestoft is believed to have occurred in the Saxon period. 6 records dating to this period were returned by the SHER search within 1km of the site. The Saxon records of greatest significance, being suggestive of Saxon settlement, are concentrated 1km to the west-north-west of the site area, Record GSE 003 refers to an early Saxon inhumation barrow containing a skeleton with a gold coin (Avitus, AD 455) pendant and an onyx gemstone excavated up in 1758. Another Anglo-Saxon coin pendant was discovered in the same area (GSE 099). An early Saxon settlement was identified as existing 800m to the west of the Hadenham Road site at Blodmoor Hill (CAC 013) and further discoveries relating to the same settlement were discovered another 200m to the north-west, including Grubenhauser, post-built structures, middens, a cemetery and evidence of industrial activity (CAC 016). In the same area again, at 950m north-east of the Hadenham Road site and 200m north-east of the barrow, CAC 080 refers to cropmarks identified as further Grubenhauser. South of this concentration and 1.1km to the west of the site, an assemblage of finds including gold pendants and a cruciform brooch was found. The only Saxon finds near to the site area are sherds of pottery found 50m to the northwest of the site in a buried soil layer (GSE 074).

The medieval period is represented by 8 monument records within the 1km search area. A findspot of a bronze socket terminal with an animal head terminal is located 150m southeast of the site (GSE MISC). A further 300m south-east is the location of a former moated site dated to the medieval, Pakefield Hall (GSE 002). Other records in the HER search area refer to either isolated findspots or medieval quarrying. A Henry III penny was found 700m south-south-west of the site area (GSE 115), while a harness pendant of bronze and red enamel was found 1km west-south-west of the site area (GSE MISC). Medieval quarrying was identified at Swallowfields, Blodmoor Hill, 1km to the west-north-west of site (CAC 016).

The post-medieval period is represented by 7 monument records and 1 listed building. The listed building record (391333) refers to a Grade II listed 17th Century house on London Road, 700m to the north-east of the site area. 500m to the north-west of site, ditches of a probable post-medieval date were revealed during an evaluation (GSE 086). Medieval quarrying at Swallowfields, Blodmoor Hill, 1km to the west of the site continued into the post-medieval period (CAC 016). The paucity of records for this period suggests that this area remained agricultural and undeveloped for the post-medieval period.

The SHER search returned 28 records relating to the modern period many of which refer to World War II defences, the most significant of which is the anti-tank ditch constructed in 1941 (GSE 045) which runs through the parish of Gisleham for 1.45km. The ditch, which had a gently sloping bank on some stretches of it, runs through the site area at Hadenham Road. Records referring to further World War II defences are concentrated to the east and south-east of the site area. For instance GSE 050 and GSE 049, a gun emplacement and an anti-aircraft battery respectively, were located on the coast 900m east-south-east of the site. This anti-aircraft battery's function was to protect the coastal battery, GSE 053, which was located on Pakefield Cliffs just to the south. These records reflect the fact that the town was heavily targeted for bombing by the Luftwaffe during the war due to its engineering industry and role as a naval base and many of the defences were also geared



towards the prevention of invasion, such as the line of anti-tank cubes 300m to the east of the site (GSE 046) providing a primary obstacle ahead of the anti-tank ditch.

The 5 Confidential PAS records all refer to finds discovered west of the site. A scatter of Roman coins, including silvers, and two bronze mounts and a bronze brooch were discovered some way south-west of the site area. To the north-west of the site area, a scatter of Roman and medieval metalwork was found during metal-detecting and have been given an HER reference each. The final two PAS records refer to a Saxon bronzed and enamelled hanging bowl mount and an early Saxon bronze brooch discovered near to each other some way to the west of the site.

Given the above records, the site has a specific potential for **prehistoric** features and finds, on the basis of numerous and significant finds in the area, including evidence of Late Bronze Age to Early Iron Age settlement. Additionally, the potential to encounter the **World War II** anti-tank ditch is **high**.

5.0 PROJECT AIMS

The SCCAS/CT Brief (Antrobus, A. Brief, section 3.2) states that the trial trenching is required 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.
- Establish the suitability of the area for development.

6.0 PROJECT OBJECTIVES

Research objectives for the project are in line with those laid out in *Research and Archaeology Revisited: a revised framework for the East of England,* East Anglian Archaeology Occasional Paper 24 (Medlycott, 2011).

Specific objectives outlined in the brief state that a particular importance be placed on:

- the amount of truncation to buried deposits,
- the presence or absence of a palaeosol or 'B' horizon,
- the preservation of deposits within negative features,
- site formation processes.

An assessment of the environmental potential of the site through examination of suitable deposits must also be arranged with a suitably qualified specialist. Attention should be paid:



- to the retrieval of charred plant macrofossils and land molluscs from former dryland palaeosols and cut features, and to soil pollen analysis;
- to the retrieval of plant macrofossils, insect, molluscs and pollen from waterlogged deposits located.
- provision for the absolute dating of critical contacts should be made: eg the basal contacts of peats over former dryland surfaces; distinct landuse or landmark change in urban contexts

7.0 FIELDWORK METHODOLOGY

The SCCAS/CT Brief requires an adequate representative sample of all areas where archaeological remains are potentially threatened. The precedent exists whereby a 5% sample of a site is deemed to constitute an adequate representative sample. In this case 10 trial trenches measuring 30m x 1.18m, would be a suitable sample area.

A 360° mechanical excavator fitted with a toothless ditching bucket will be used to machine down to the first archaeological horizon, thereafter all excavation work will be undertaken by hand unless agreed with SCCAS/CT (Figure 5).

The archaeology will be recorded using pro-forma record sheets, drawn plans and section drawings and appropriate photographs will also be taken. A contingency day rate has been provided should the work take longer than expected due to additional trenching requirements, bad weather, or any other unforeseen delays.

In the event that important archaeological remains are identified, a site meeting will be held with the client and the SCCAS/CT planning archaeologist to discuss the significance of the remains and decide on the scope of further excavation and recording. The client is aware of the need for contingency funding to cover additional works if necessary.

7.1 Site Plans

A site location plan based on the current Ordnance Survey 1:25000 map and indicating site north will be prepared. This will be supplemented by a site plan showing the area of investigation in relation to the proposed development.

A pre-excavation base plan accurately plotting all features will be produced using a Total Station (TS) or Real Time Kinetic Global Positioning System (RTK). The final post-excavation plan will be based on this. All drawings will be tied into the Ordnance Survey National Grid.

7.2 Mechanical Excavation

The location of electricity, gas, water, sewage and telephone services will be identified from information supplied by the client or relevant authorities prior to machining. Care



will be taken when operating machinery in the vicinity of overhead services. All staff are trained in the use of CAT scanners that will be employed before the bucket breaks the ground.

Topsoil and any sterile subsoil layers shall be removed by mechanical excavator using a toothless ditching bucket under the supervision of a professional archaeologist. The exposed archaeological horizon will be cleaned by hand and any archaeological deposits or negative features planned.

No excavators or dumpers will be driven over the excavated surface. Topsoil and subsoil will be stored separately to aid the reinstatement of agricultural land.

The machine operator will have the relevant experience and appropriate documentation; will maintain the appropriate inspection register, Form F91 Part 1, Section C, either on the machine or at the depot. The operator must produce a clean, flat surface at precisely the correct level.

7.3 Hand Excavation

All archaeological features will excavated by hand, in the appropriate way detailed below, where it is safe to do so.

7.4 Metal Detector

A professional metal detector will be used to scan spoil heaps, exposed surfaces and any features. The finds will be recovered and recorded in the proper way. The machined spoil heaps will also be scanned, however demonstrably modern finds will not be retained. The metal detector will not be set to discriminate against iron.

7.5 Excavation of Stratified Sequences

All archaeological remains will be excavated by phase, from the most recent to the earliest, excluding those of obvious later 20th century origin. The phasing of the features will be distinguished by their stratigraphic relationships, fills and finds.

7.6 Excavation of Buildings

Following assessment of any structural remains encountered, a strategy for recording these will be implemented, and it may be that further mitigation will be required to allow the full recording of these remains. It may also be the case that any remains may best be left *in situ*. Any excavated building structures and associated features (e.g. stakeholes, postholes, sill-beams, gullies, masonry walls and possible floors) will be excavated in stratigraphic sequence.



7.7 Ditches

Ditch segments will be positioned to provide a total coverage of 25% and to ascertain relationship information and will be a minimum of 1.00m in length (dependant on the total length of ditch visible).

The site has a specific potential to encounter the remains of a World War II anti-tank ditch. Due to the size and depth of similar defences on the east coast the excavation of such a ditch would be undertaken by machine and finished by hand (where safe to do so).

7.8 Discrete Features

All discrete features will be half-sectioned or excavated in quadrants providing for a minimum 50% sample.

7.9 Full Excavation

Industrial remains and intrinsically interesting features e.g. hearths, kilns etc. may merit full excavation in agreement with the CCC HET planning archaeologist.

7.10 Burials

Any articulated human remains shall receive minimal excavation to define the extent and quality of their preservation. A decision will then be made on their future treatment in consultation with the client and the CCC HET planning archaeologist. The coroner and the Ministry of Justice will be informed. Any removal of human remains will be carried out under a licence issued by the Ministry of Justice under section 25 of the Burials Act 1857 and in accordance with *Guidance for best practice for treatment of human remains excavated from Christian burial grounds in England'* (English Heritage & the Church of England 2005).

7.11 Written Record

All archaeological deposits and artefacts encountered will be fully recorded on *pro forma* context, finds and sample forms, using a single context recording system.

7.12 Photographic Record

All features will be photographed as appropriate. This record will comprise high quality digital photographs (jpg). Where appropriate black and white prints (35mm) and colour slides (35mm) will be utilised. All photographs will be listed, indexed and archived.

7.13 Drawn Record

All drawings will be tied into the Ordnance Survey National Grid, plans will be initially hand drawn at a scale of 1:20 and the sections at 1:10 on drafting film (permatrace). The



height AOD of all features and principal strata will be written on the appropriate plans and sections.

7.14 Finds and Environmental Remains

All finds recovered from sealed contexts will be retained. A sample of those found in the topsoil and subsoil will be taken to characterise the assemblage. Finds will be identified, by a unique site code and context number.

All finds will be processed according to BA standards and to the CIfA Standard and Guidance for the collection, documentation, conservation and research of archaeological materials, 2014. Important, rare or unusual finds will also be assigned a small finds number and sent away for specialist analysis.

Bulk samples will also be taken for retrieving artefacts and biological remains (for palaeoenvironmental and palaeoeconomic investigations) to be processed and analysed by the University of Leicester Archaeology Service, (ULAS). These samples will be taken from well-stratified, sealed deposits and specifically targeted areas of interest (e.g. undated, sealed, primary ditch fills) and will be a minimum of 40 litres where appropriate. The suitability of deposits for analysis will be discussed with CCC, Dr Boreham and Dr Zoe Outram where appropriate.

Preserved wood will be sampled for potential dating via dendrochronology and Carbon 14 methods and will be assessed by Dr Roderick Bale (University of Wales Trinity St David). Prior to recovering timbers, suitability for dating will be assessed in conjunction with Dr Bale, CCC, Dr Mike Bamforth and Dr Zoe Outram where appropriate.

Each deposit retained will be identified by context and a unique sample or timber number. For a full list of specialists see Appendix 2.

7.15 Artefact Recovery

A programme of bucket sampling will be conducted, whereby 90 litres of spoil will hand sorted for each soil horizon encountered. Bucket sampling points will occur at each end of trench. Unstratified artefacts will be sought and recovered from trench spoil heaps.

7.16 Finds classed as Treasure

It is the responsibility of the project manager for the site, after consultation with the relevant finds specialist, to submit any items falling under the provisions of the Act to the local coroner via the treasure co-ordinator (currently the Portable Antiquities Officer at the British Museum). See below for details of the act:

The Treasure Act

The Treasure Act of 1996 defines objects that qualify as Treasure and includes any metallic object other than coin that is made up of more than 10% gold or silver and is over 300



years old, any group of two or more metallic objects of prehistoric date that come from the same find, coin hoards that have been deliberately hidden, smaller groups of coins, votive or ritual deposits, any object from the same place as Treasure. Objects that are less than 300 years old made mainly of gold or silver, which have been deliberately hidden with the intention of recovery, and whose owners or heirs are unknown would also be classed as Treasure.

In accordance with 4.4 of the brief, any finds that could be considered treasure under the terms of the Act made during the process of fieldwork **will be immediately reported** to the Finds Liaison Officer, so that it is properly reported to the appropriate Coroner within 14 days of discovery in line with the Treasure Act. If possible any artefact deemed to Treasure will be excavated and moved to a safe place. Should it not be possible for it to be removed that day, suitable security will be arranged.

8.0 PRESENTATION OF RESULTS

A report will be prepared on the conclusion of the evaluation and will be completed 4 weeks after the field work ends (no further work required) or a maximum of 6 months from the end of fieldwork (further fieldwork is required). Resourcing of the post-excavation phase is dependent on findings. Where further publication is required a detailed publication programme will be provided within 4 weeks of completion of fieldwork, and a publication report will be programmed for completion within 6 months. The prepared client/archive report will be commensurate with the results of the fieldwork, and will be consistent with the principles of *Management of Research Projects in the Historic Environment (MoRPHE)* (Historic England 2015) and *Requirements for the Production of Archaeological Evaluation Reports* (CCC HET. 2016) and will contain the following:

- · Summary. A concise summary of the work undertaken and the results;
- Introduction. Introduction to the project including the reasons for work, funding, planning background;
- · Background. The history, layout and development of the site;
- Aims and Objectives;
- Methodology. Strategy and technique for site excavation;
- Results. Detailed description of findings outlining the nature, location, extent, date of any archaeological material;
- Deposit Model. Description of events behind the archaeological stratigraphy and geological deposition;
- Specialist Reports. Description of the artefactual and ecofactual remains recovered;



- Discussion and Conclusions. A synopsis interpreting the archaeological deposits and artefacts, including details of preservation, impact assessment, wider survival, condition and relative importance of the site and its component parts in local, regional and national context;
- Bibliography;
- Appendices. Context Descriptions, Finds Concordance, Project Archive Contents and Archive Deposition, HER/OASIS Summary Sheet;
- Illustrative material including maps, plans, drawings and photographs.

One hard or digital copy of the report, clearly marked **DRAFT**, will be prepared and presented to SCCAS/CT for approval.

Once approved, a final digital and paper copy will be supplied to the client and CCC HET. An OASIS entry will be completed and a summary included with the report. A .pdf file of the report will be uploaded to the ADS. A digital vector plan will included with the report, which will be compatible with MapInfo GIS software which will also be made available on request subsequent to the report being issued.

It is understood that, if substantial archaeological remains are recorded during the project, it will be necessary to undertake a full programme of analysis and publication in accordance with the guidelines of *MoRPHE*. The project report will contain recommendations as to whether this will be appropriate.

9.0 PROJECT ARCHIVE AND DEPOSITION

A full archive will be prepared for all work undertaken in accordance with guidance from the *Selection, Retention and Dispersion of Archaeological Collections,* Archaeological Society for Museum Archaeologists, 1993. Deposition will be with Suffolk County Council HER Store.

Any items requiring treatment will be conserved. Arrangements will be made for the archive to be deposited with the relevant museum, subject to agreement with the legal landowner where finds are concerned.

The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. The material will be catalogued, labelled and packaged for transfer and storage in accordance with the guidelines set out in the United Kingdom Institute for Conservation's Conservation Guidelines No.2 and the Archaeological Archives Forum's Archaeological Archives, A guide to best practice, compilation, transfer and curation (Brown, 2007).



10.0 HEALTH AND SAFETY

BA operates a comprehensive Health and Safety Policy in accordance with the Health and Safety Executive. BA bases their H&S procedures on the Federation of Archaeological Managers and Employers (FAME) Health and Safety Field Manual, which is regularly updated by supplements. A full contamination survey has been undertaken on the site indicating a specific risk of Asbestos, subsequently all appropriate safety measures have been put in place for the project.

BA holds employer's liability; public liability and professional indemnity insurance arranged through Towergate Insurance (see Appendix 3).

10.1 Code of Practice, Risk Assessment and Site Induction

BA's Code of Practice covers all aspects of excavation work and ensures all risks are adequately controlled. A site visit has been undertaken and an assessment of the potential risks has been highlighted. A full site risk assessment will be produced using this information. The assessment of risk is an on-going process and this document can be updated if any change in risk occurs on site. A copy of the Risk Assessment is kept on site, read and countersigned by all staff and visitors during the BA site induction.

11.0 RESOURCES

The archaeological works are undertaken by a team of professional archaeologists, qualified to undertake this type of work (Appendix 1). Full CV's are available on request.

All site work will be undertaken by a Projects Officer (with a field team if required) in close communication with a Project Manager. This project officer will also be responsible for post-excavation and publication in liaison with the relevant specialists (Appendix 2).

Other specialists may be consulted and will be made known to the SCCAS/CT planning archaeologist for approval prior to their engagement. Any changes to the specialists documented in Appendix 2 will be made known to the SCCAS/CT immediately.

12.0 TIMETABLE AND PROGRAMME OF WORK

The evaluation fieldwork is potentially likely to begin in November 2016 pending approval of this written scheme of investigation by SCCAS/CT. Provision has been made for additional contingency days should any unexpected remains be encountered.

The client is aware of the working methods and provision has been made to allow access to undertake trenching as required by the design brief.

The production of the report will take either a maximum of 4 weeks from the end of fieldwork (no further fieldwork required) or a maximum of 6 months from the end of



fieldwork (further fieldwork is required). Resourcing of the post-excavation phase is dependent on findings. Where further publication is required a detailed publication programme will be provided within 4 weeks of completion of fieldwork, and a publication report will be programmed for completion within 6 months.

13.0 MONITORING

SCCAS/CT will be responsible for monitoring progress and standards throughout the project. Any variations to the specification will be agreed with the CCC HET monitoring officer prior to work being carried out. The monitoring officer will be kept informed of progress throughout the project.



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Historic England PastScape www.pastscape.org.uk

Archaeological Data Service (ADS) www.ads.ahds.ac.uk

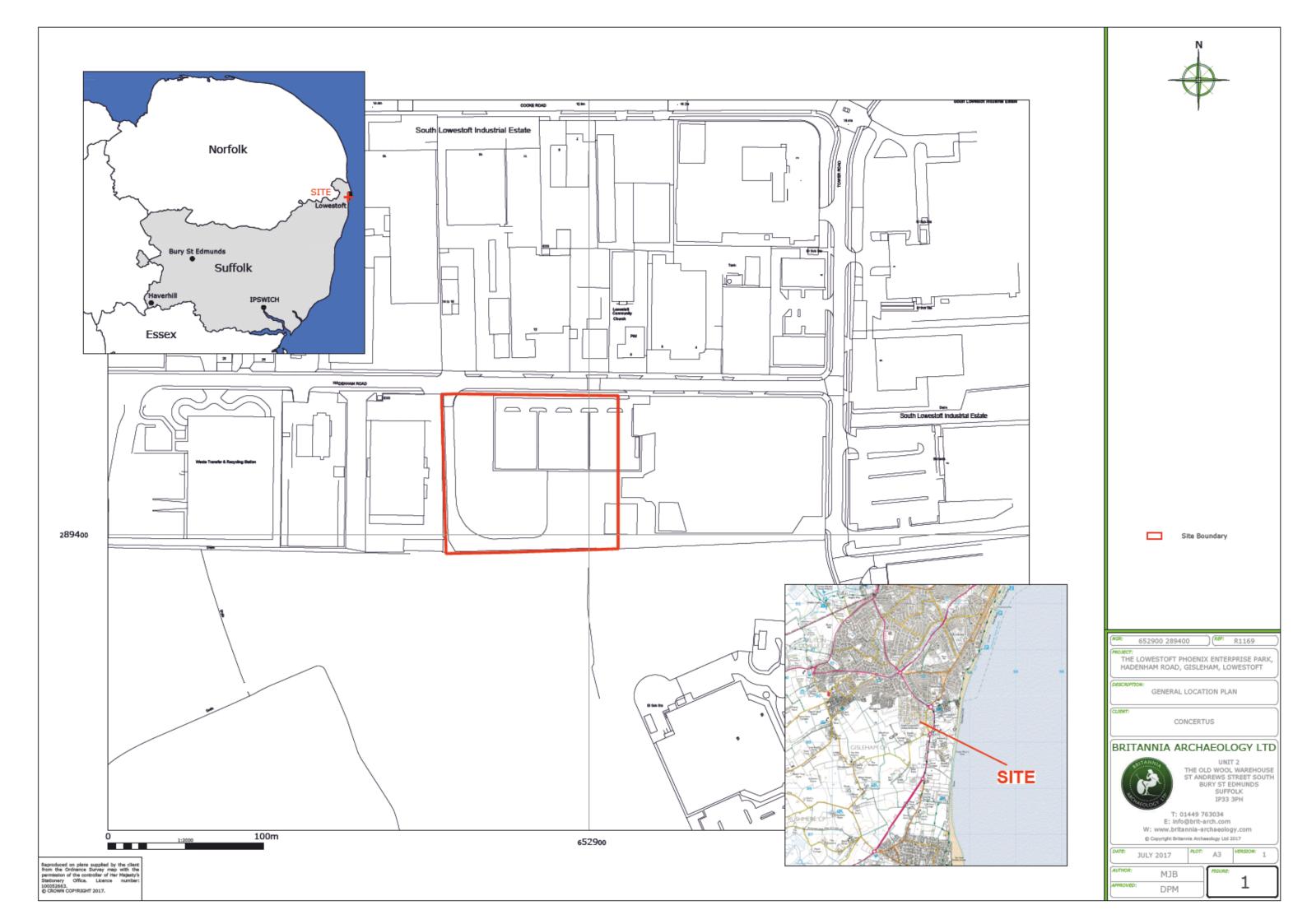
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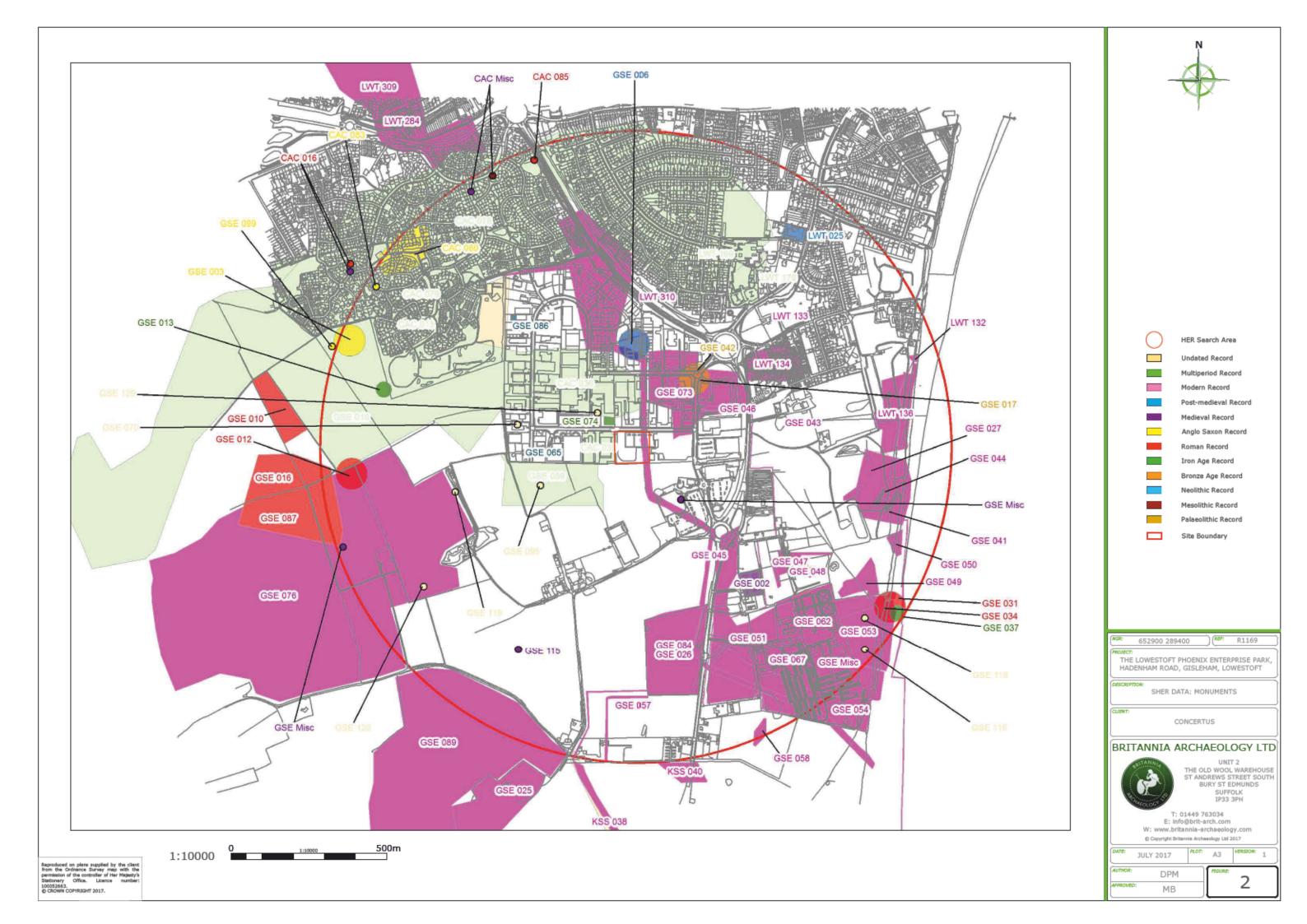


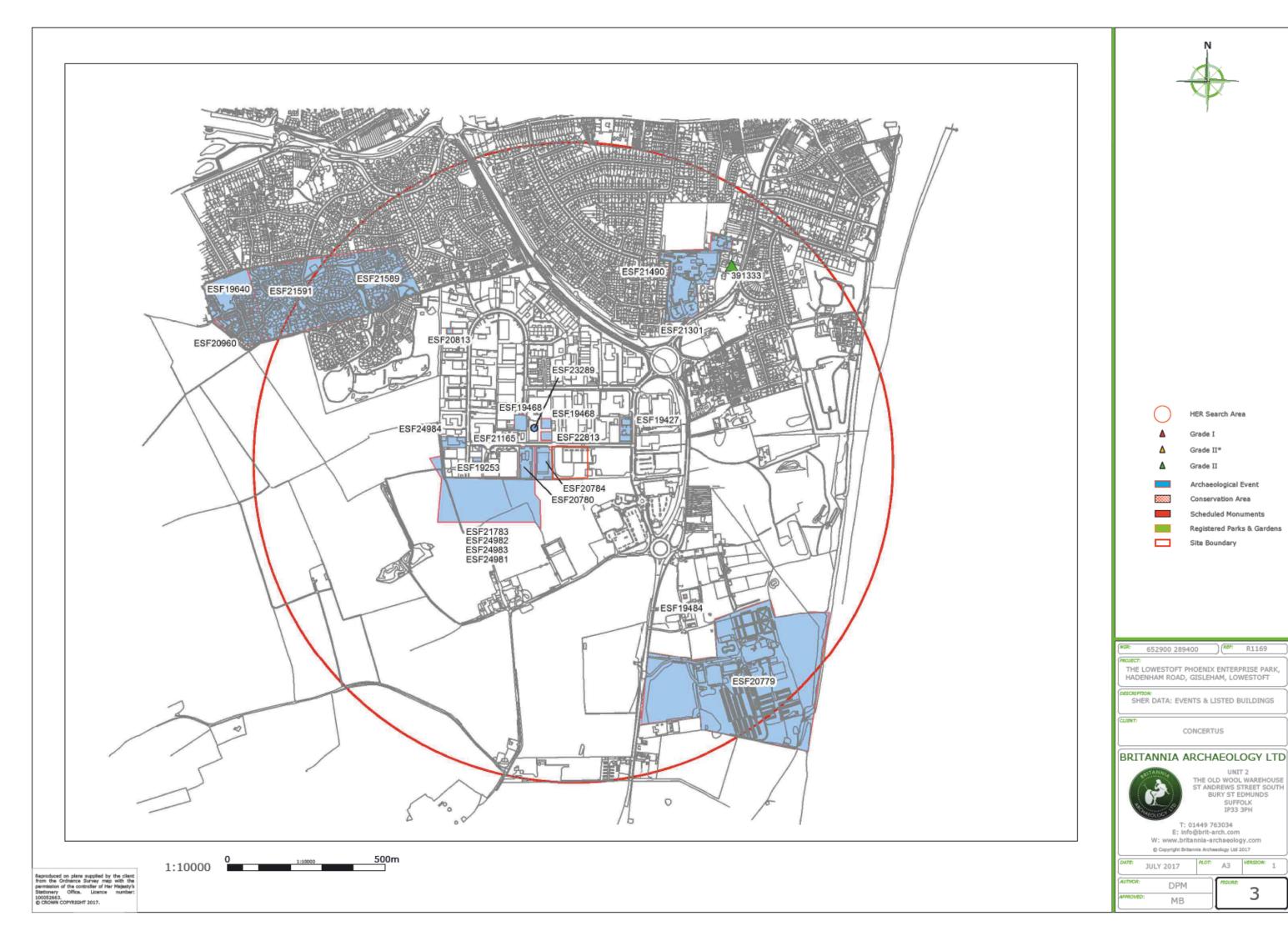
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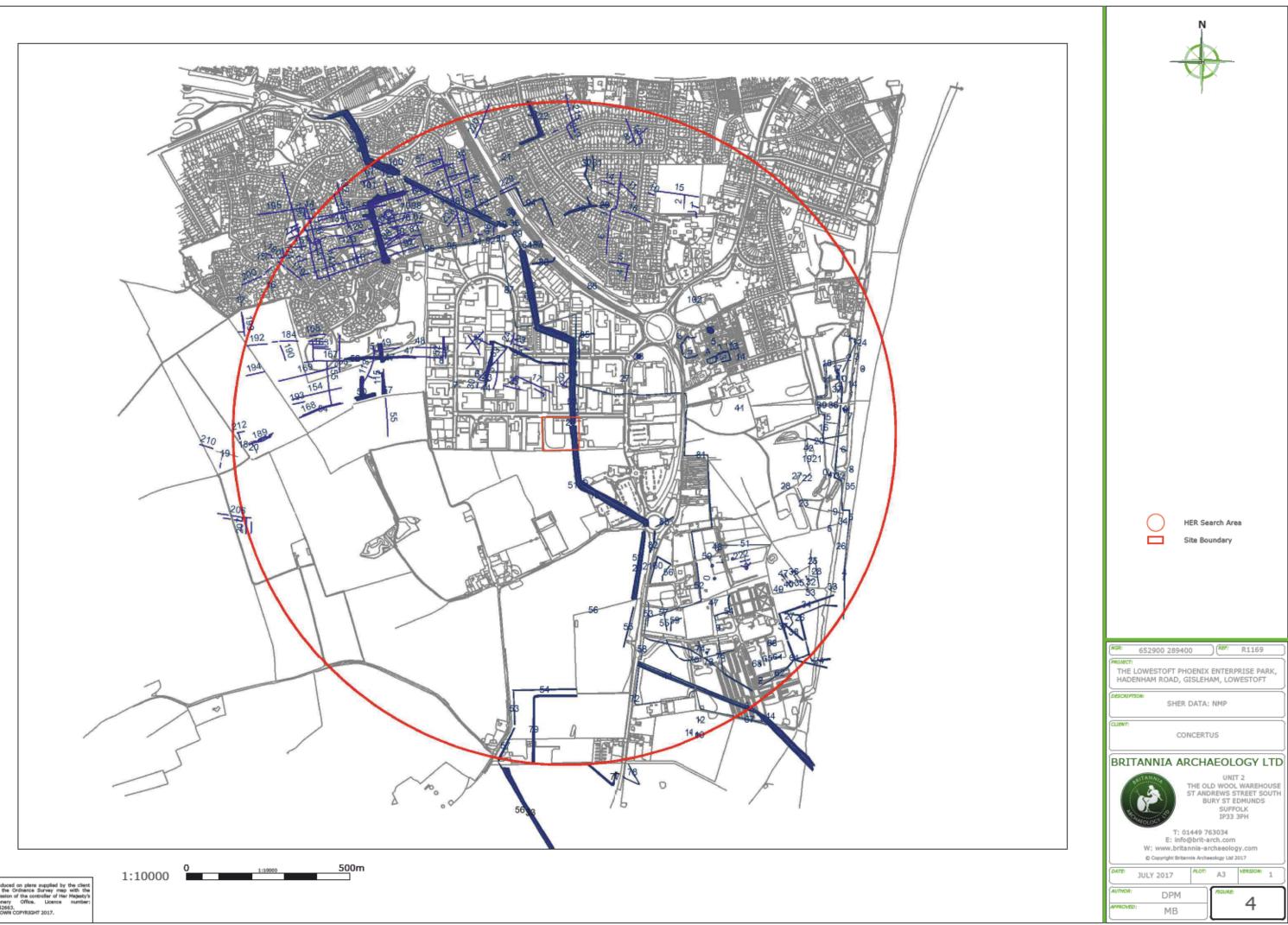
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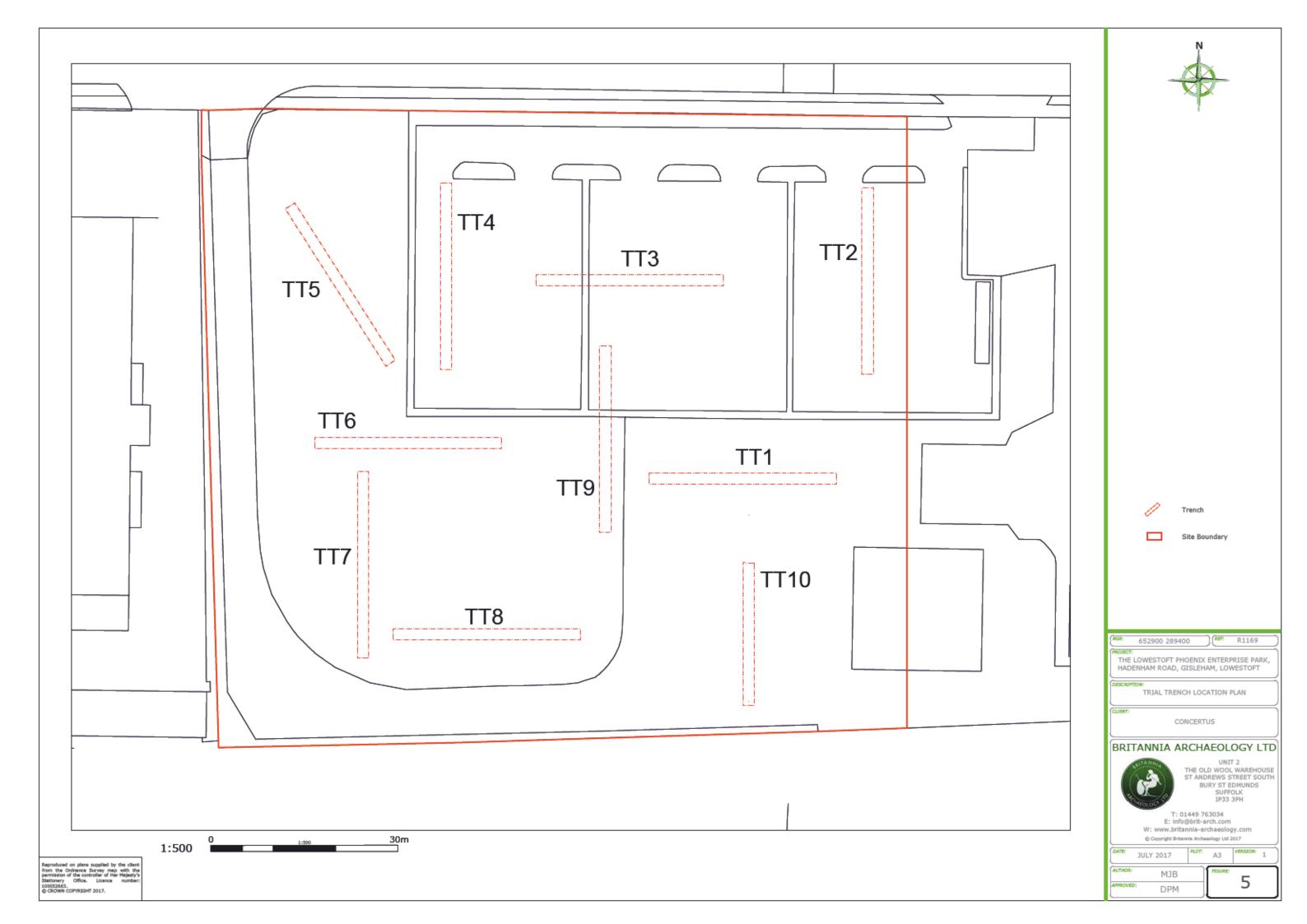


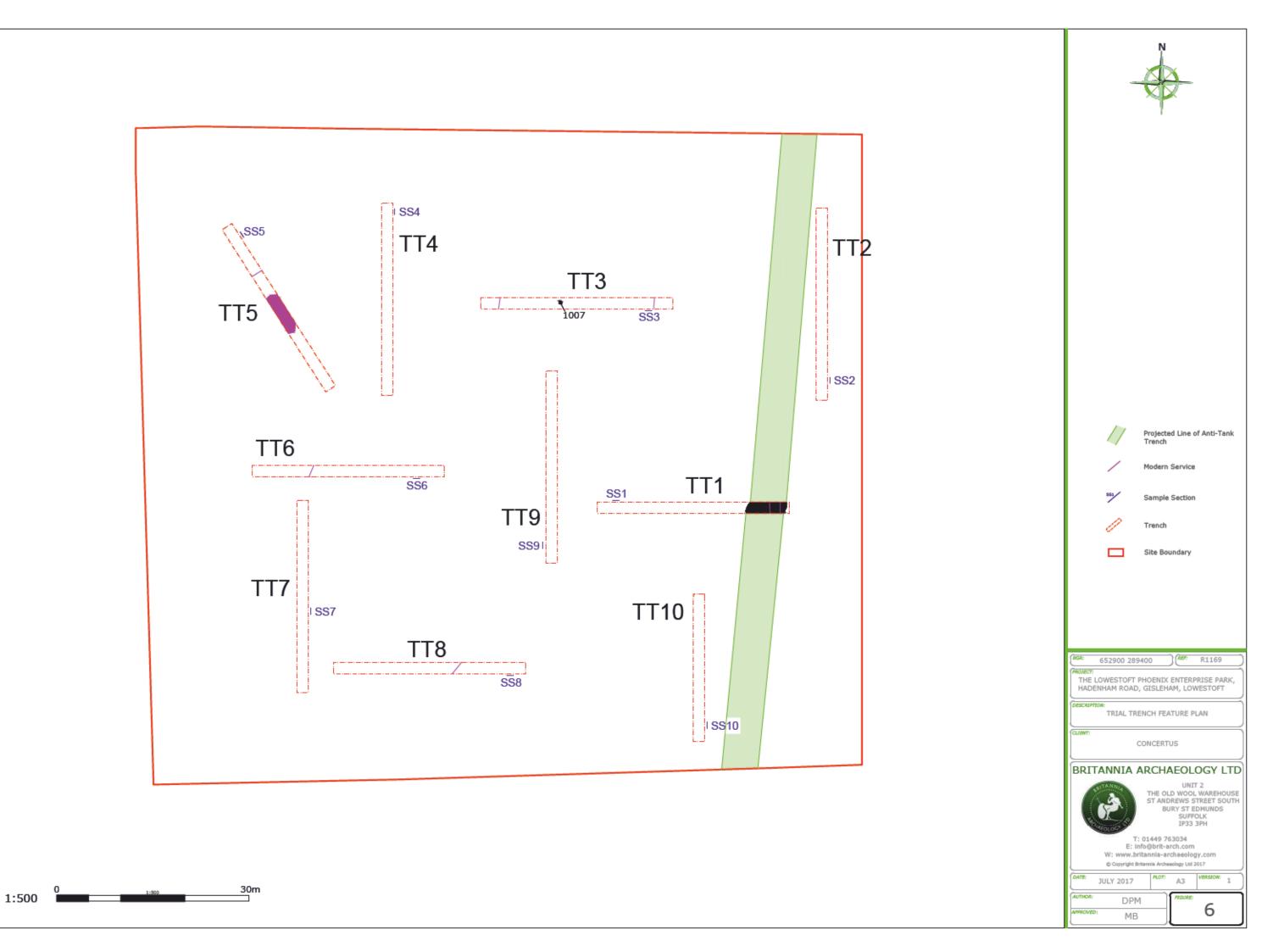


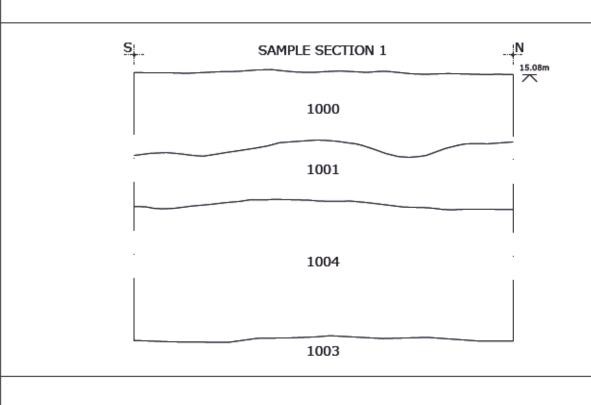
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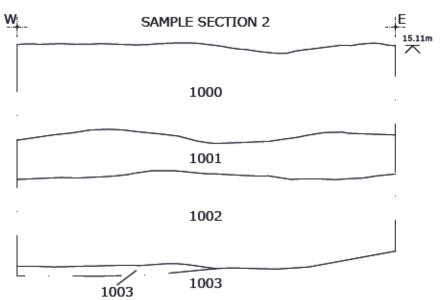








DP 1 - SS1 - VIEW W





DP 2 - SS2 - VIEW N



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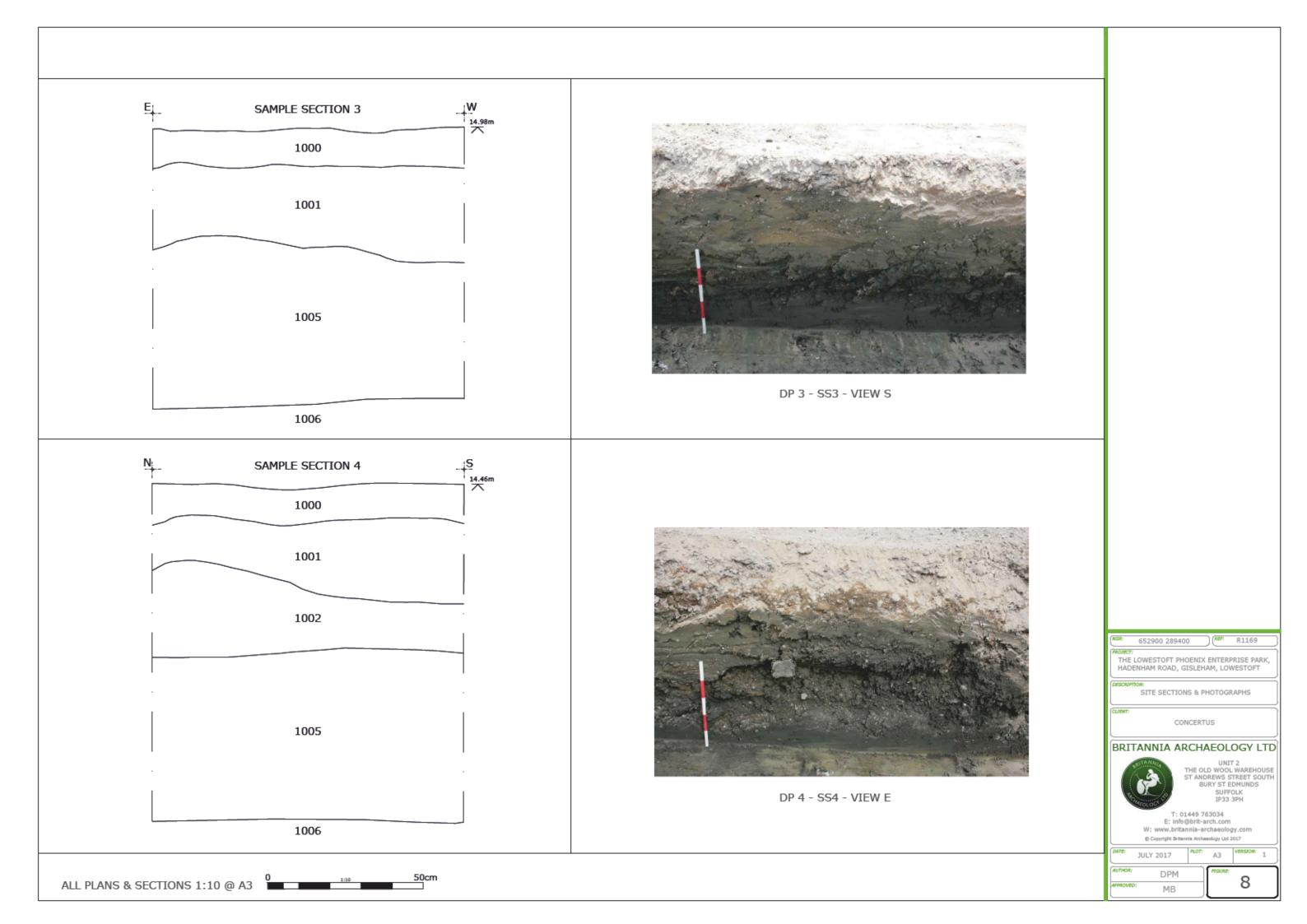
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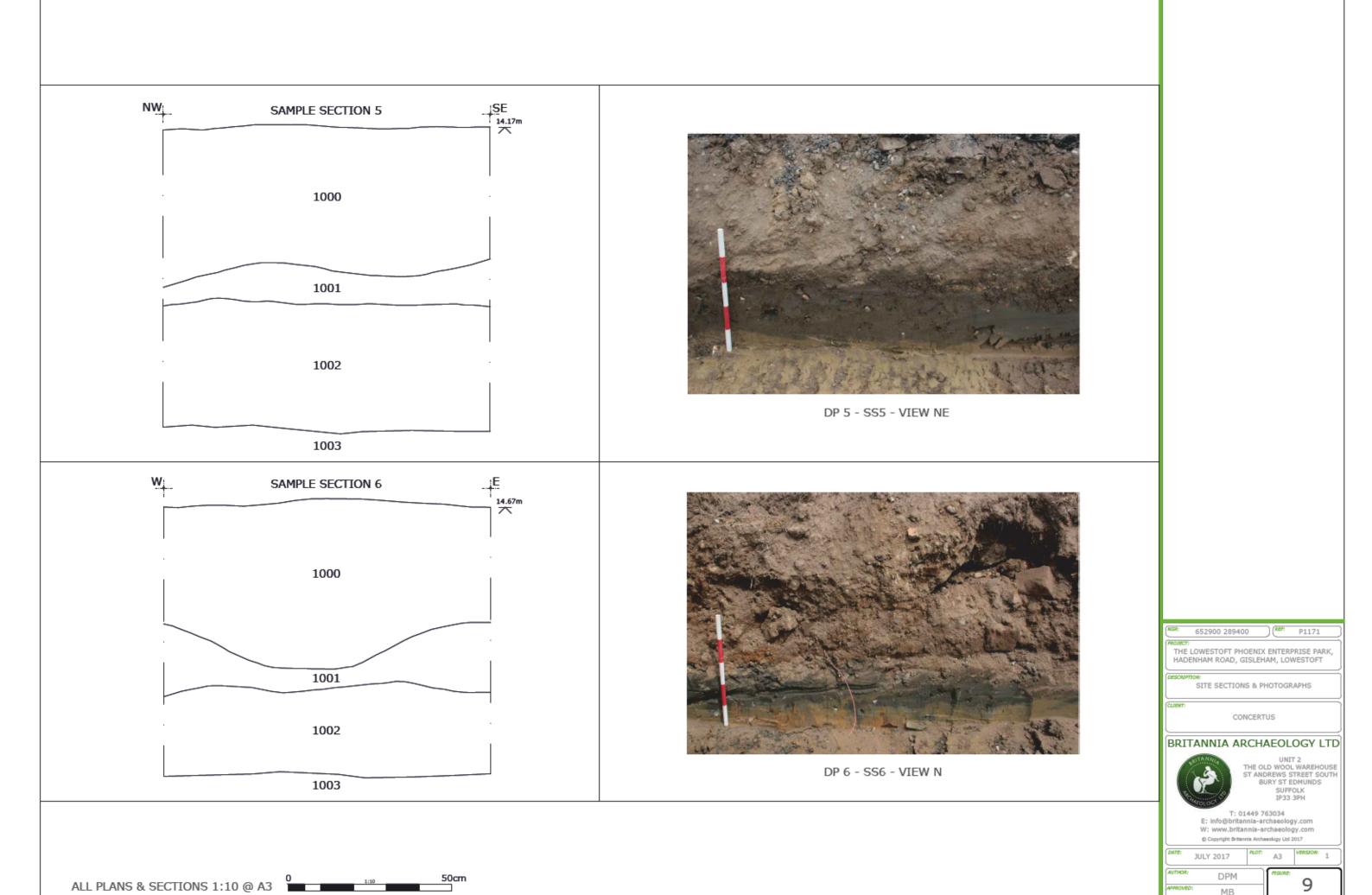
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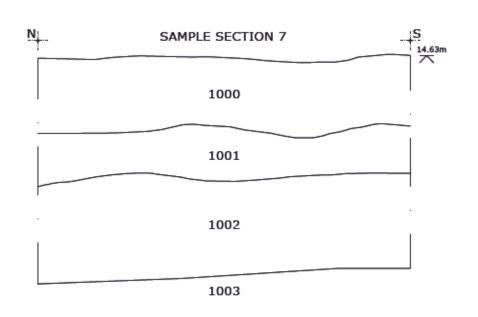
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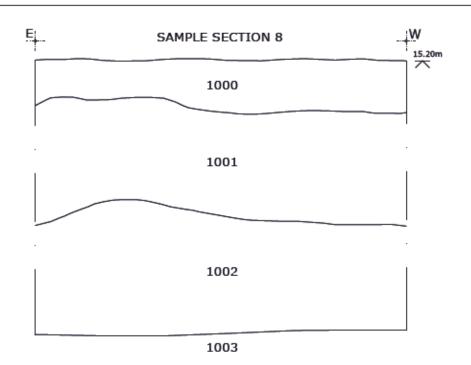


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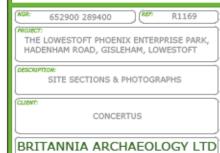


DP 7 - SS7 - VIEW E





DP 8 - SS8 - VIEW S



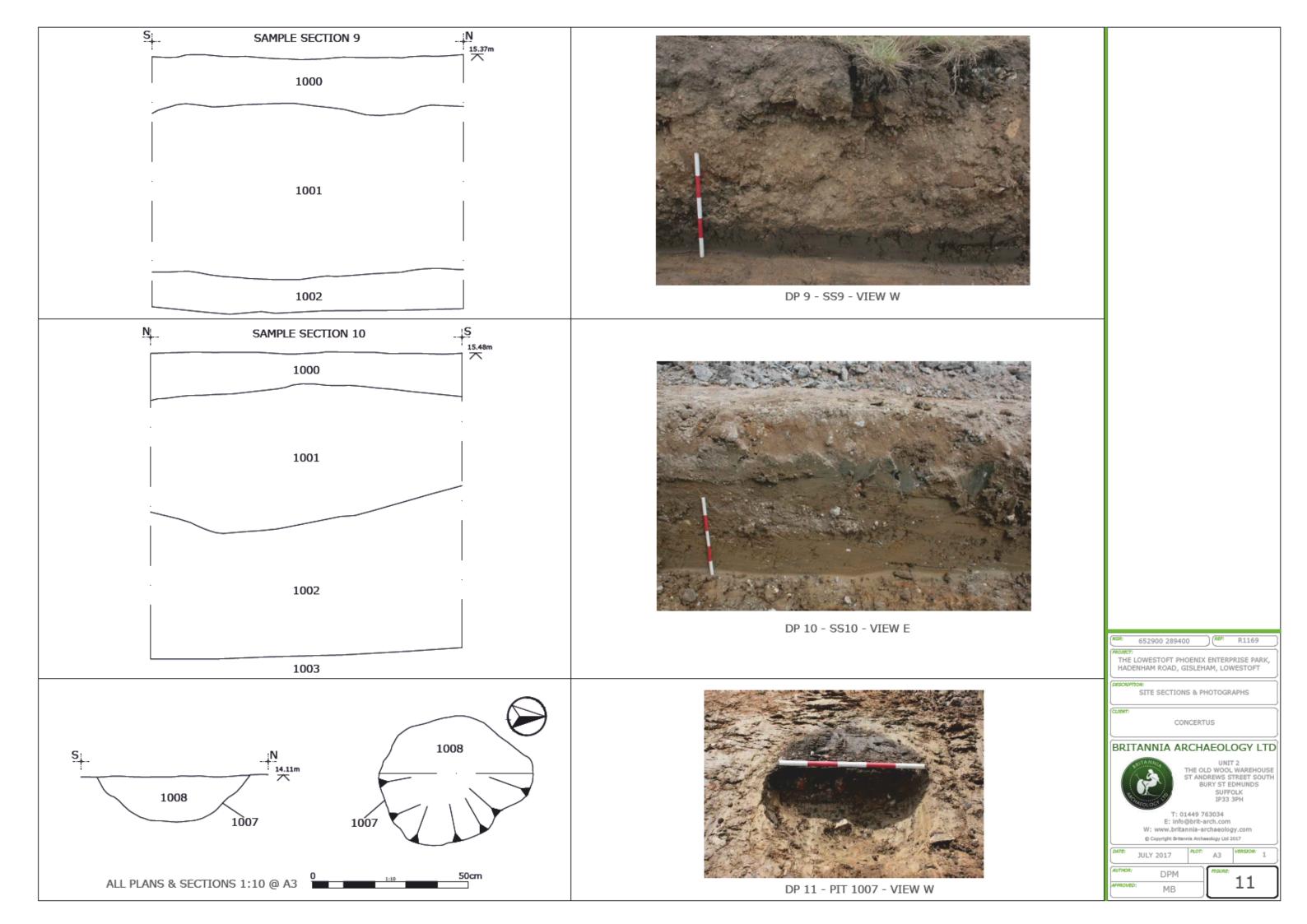


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DP 12 - TT1 - VIEW E



DP 13 - TT1 - VIEW S - ANTI TANK TRENCH



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DP 14 - TT3 - VIEW W DP 15 - TT5 - VIEW NW



DP 16 - TT7 - VIEW N



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