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**46 – 47 ST ANDREWS STREET,
BURY ST EDMUNDS, SUFFOLK IP33 3PH**

**ARCHAEOLOGICAL EXCAVATION /
MONITORING AND RECORDING**

Authors: Vinny Monahan (Fieldwork & report) Kate Higgs (Research)	
NGR: TL 854 638	Report No: 6026
District: St Edmundsbury	Site Code: BSE688
Approved: Claire Halpin MCIfA	Project No: 8114
	Date: 23 June 2020; Revised 17 November 2020

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CONTENTS

PROJECT SUMMARY SHEET

SUMMARY

- 1 INTRODUCTION**
 - 2 DESCRIPTION OF THE SITE**
 - 3 TOPOGRAPHY, GEOLOGY AND SOILS**
 - 4 ARCHAEOLOGICAL & HISTORICAL BACKGROUND**
 - 5 METHODOLOGY**
 - 6 DESCRIPTION OF RESULTS**
 - 7 CONFIDENCE RATING**
 - 8 DISCUSSION**
- DEPOSITION OF THE ARCHIVE**
ACKNOWLEDGEMENTS
BIBLIOGRAPHY

APPENDIX 1 THE SPECIFICATION

PROJECT SUMMARY SHEET

Project details			
Project name	46 – 47 St Andrews Street, Bury St Edmunds, Suffolk IP33 3PH		
<p><i>In February and April 2020 Archaeological Solutions Ltd carried out archaeological monitoring and recording at 46 – 47 St Andrews Street, Bury St Edmunds, Suffolk (NGR TL 854 638; Figs. 1 - 2). The monitoring was undertaken in compliance with a planning condition attached to planning approval for the construction of a proposed three storey apartment building with basement level (West Suffolk Council Ref. DC/17/0688/FUL), based on advice from Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT).</i></p> <p><i>The site lies within an area of archaeological potential recorded on the Suffolk Historic Environment Record. The SCC brief notes that St Andrew's Street follows the line of the medieval town ditch defenses and the site lies immediately outside and adjacent to the medieval town defenses. The town ditch is first documented in the 12th century, and has only been investigated along its eastern side. Here, it has been suggested that it may have been 4m+ deep and 10m+ wide, but its size had not been confirmed.</i></p> <p><i>It is suggested that the town ditch was some 4m deep but the presence of basements along the street frontage, in the potential location of the ditch, has removed substantial evidence and therefore it was not possible to confirm or discount the course of the ditch from observations at this site. The site is at least partially truncated and no other archaeological remains were observed.</i></p>			
Project dates (fieldwork)	19 th – 21 st February & 24 th April 2020		
Previous work (Y/N/?)	N	Future work	?
P. number	8114	Site code	BSE688
Type of project	Archaeological Monitoring and Recording		
Site status	Within an area of archaeological potential		
Current land use	Former buildings		
Planned development	Residential		
Main features (+dates)	Post-medieval / early modern basements		
Significant finds (+dates)	None		
Project location			
County/ District/ Parish	Suffolk	West Suffolk	Bury St Edmunds
HER/ SMR for area	Suffolk HER		
Post code (if known)	IP33 3PH		
Area of site	0.05 hectares		
NGR	TL 854 638		
Height AOD (min/max)	c. 50m AOD		
Project creators			
Brief issued by	Suffolk County Council Archaeological Service		
Project supervisor/s	Archaeological Solutions Ltd		
Funded by	Dyer Mackay Developments		
Full title	46 – 47 St Andrews Street, Bury St Edmunds, Suffolk. IP33 3PH. Continuous Archaeological Monitoring and Recording		
Authors	Higgs, K. & Monahan, V.		
Report no.	6026		
Date (of report)	June 2020; revised November 2020		

**46 – 47 ST ANDREWS STREET, BURY ST EDMUNDS,
SUFFOLK IP33 3PH**

**ARCHAEOLOGICAL EXCAVATION /
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SUMMARY

In February and April 2020 Archaeological Solutions Ltd carried out archaeological monitoring and recording at 46 – 47 St Andrews Street, Bury St Edmunds, Suffolk (NGR TL 854 638; Figs. 1 - 2). The monitoring was undertaken in compliance with a planning condition attached to planning approval for the construction of a proposed three storey apartment building with basement level (West Suffolk Council Ref. DC/17/0688/FUL), based on advice from Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT).

The site lies within an area of archaeological potential recorded on the Suffolk Historic Environment Record. The brief notes that St Andrew's Street follows the line of the medieval town ditch defenses and the site lies immediately outside and adjacent to the medieval town defenses. The town ditch is first documented in the 12th century, and has only been investigated along its eastern side. Here, it has been suggested that it may have been 4m+ deep and 10m+ wide, but its size had not been confirmed.

It is suggested that the town ditch was some 4m deep but the presence of basements along the street frontage, in the potential location of the ditch, has removed substantial evidence and therefore it was not possible to confirm or discount the course of the ditch from observations at this site. The site is at least partially truncated and no other archaeological remains were observed.

1 INTRODUCTION

1.1 In February and April 2020 Archaeological Solutions Ltd carried out archaeological monitoring at 46 – 47 St Andrews Street, Bury St Edmunds, Suffolk (NGR TL 854 638; Figs. 1 - 2). The monitoring, and potential excavation, was undertaken in compliance with a planning condition attached to planning approval for the construction of a three-storey apartment building with basement level (West Suffolk Council Ref. DC/17/0688/FUL). It was required based on advice from Suffolk County Council Archaeological Service (SCC AS).

1.2 The monitoring was undertaken in accordance with a brief issued by SCC AS (Abby Antrobus, dated 2nd July 2019), and a

specification prepared by AS (dated 19th July 2019), and approved by SCC AS.

1.3 The principal objectives of the archaeological monitoring & recording scheme were:

- The project provided for the continuous excavation monitoring of all groundworks in order to provide a record of any archaeological deposits which might be damaged or removed by any development permitted by the current planning consent. Any ground works, and also the upcast soil, are to be closely monitored during and after stripping in order to ensure no damage occurs to any heritage assets. Adequate time is to be allowed for archaeological recording of archaeological deposits during excavation, and of soil sections following excavation.

Planning Policy Context

1.4 The National Planning Policy Framework (NPPF 2019) states that those parts of the historic environment that have significance because of their historic, archaeological, architectural or artistic interest are heritage assets. The NPPF aims to deliver sustainable development by ensuring that policies and decisions that concern the historic environment recognise that heritage assets are a non-renewable resource, take account of the wider social, cultural, economic and environmental benefits of heritage conservation, and recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term. The NPPF requires applications to describe the significance of any heritage asset, including its setting that may be affected in proportion to the asset's importance and the potential impact of the proposal.

1.5 The NPPF aims to conserve England's heritage assets in a manner appropriate to their significance, with substantial harm to designated heritage assets (i.e. listed buildings, scheduled monuments) only permitted in exceptional circumstances when the public benefit of a proposal outweighs the conservation of the asset. The effect of proposals on non-designated heritage assets must be balanced against the scale of loss and significance of the asset, but non-designated heritage assets of demonstrably equivalent significance may be considered subject to the same policies as those that are designated. The NPPF states that opportunities to capture evidence from the historic environment, to record and advance the understanding of heritage assets and to make this publicly available is a requirement of development management. This opportunity should be taken in a manner proportionate to the significance of a heritage asset and to impact of the proposal, particularly where a heritage asset is to be lost.

2 DESCRIPTION OF THE SITE

2.1 The site lies within the town of Bury St Edmunds, which is located within the district of West Suffolk Council and county of Suffolk (Fig. 1). The site is on the western edge of the historic core of Bury St Edmunds which is centred on the Abbey, St Edmundsbury Cathedral and Market Square 150m to the north-east. Historic landscape characterisation describes the site as a built-up area, and the site lies just beyond the Bury St Edmunds Town Centre Conservation Area (CA).

2.2 The site comprises a roughly rectangular shaped plot of land, which covers an area of 0.05 hectares. It lies along the western frontage of St Andrew's Street South. Demolition has recently taken place.

3 TOPOGRAPHY, GEOLOGY AND SOILS

3.1 Bury St Edmunds is situated within the valley of the River Lark, which flows through the town and c.700m to the east of the site. The surrounding relief slopes downwards to the course of the river, with the site itself occupying a variable relief at c. 50m AOD.

3.2 The site lies on a solid geology of Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation and Culver Chalk Formation, which dates to the Cretaceous period (BGS 2015). It is overlain by a drift geology of Croxton Sand and Gravel Member, and the local soils remain undefined (SSEW 1983).

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

Prehistoric

4.1 The site lies within the valley of the River Lark, which flows c.700m to the east of the site, and so within a fertile area that would have been conducive to early settlement and exploitation from the Palaeolithic period onwards. A Palaeolithic handaxe was found in the St Andrew's Street area (HER BSE 578). Late prehistoric pottery sherds and struck flint were found at the former Andrews and Plumptions Yard, High Baxter Street, at the Cattle and Livestock Markets, and at No. 17 Whiting Street (HERs BSE 181, BSE 183, BSE 252, BSE 305 & BSE 361).

4.2 Thingoe Hill, which lies c.450m to the south-east of the site (HER BSE 004), is the site of *Thing Houe Tumulus*, a possible early Bronze Age or late Saxon round barrow. Human remains, horns and urns were found on Thingoe Hill in 1880. A findspot of an Iron Age

bronze ring from a cauldron is also recorded 320m to the south-south-east of the site (HER BSE 033).

Romano-British

4.3 Romano-British evidence from the vicinity of the site is sparse. A Roman tile was recovered during an excavation at High Baxter Street (HER BSE 183), and five tiles and Roman coins are known from the Cattle Market (HER BSE 252). No evidence for Roman settlement has been identified in the Bury St Edmunds area, and it is likely that the site occupied a rural hinterland, with Roman occupation focussed on Thetford, Icklingham, the Melfords and Pakenham.

Anglo-Saxon

4.4 Place-name evidence suggests a Saxon origin for Bury St Edmunds, with the name Bury deriving from a combination of Old Norse and Germanic meaning 'fortress or walls' (Mills 1998). It is suggested that Thingoe Hill comprises an Anglo-Saxon meeting place, specifically used by the Saxons for council and judicial assemblies, and later used as an execution site called 'Betty Burrough's Hill' until 1776 (HER BSE 004). The town of *Beodericsworth* or Bury St Edmunds also has Saxon origins and was founded following the establishment of a small monastery c. 633 by St Sigebert.

4.5 At Nos. 51 - 52 Churchgate Street the cellar of a late Saxon building was recorded (HER BSE 150). The excavation at High Baxter Street revealed a burial containing a 7th century buckle (HER BSE 183). Archaeological investigation at No. 80 Guildhall Street also revealed a late Saxon pit containing Thetford ware (HER BSE 224). Late Saxon pottery sherds are also recorded from the former Andrews and Plumptions Yard, at the Site of the old Suffolk Hotel garage on High Baxter Street, at the Cattle and Livestock Markets, and from No. 88 Guildhall Street (HERs BSE 181, BSE 202, BSE 252, BSE 305 & BSE 473).

Medieval

4.6 At Domesday, *Beodericsworth* or *St Edmund's Bury* consisted of a large settlement occupied by 207 households, and held by the abbey of St Edmunds both before and following the conquest. It also had 30 priests, two mills and two salthouses (Morris 1985). The town grew in size and significance after the transference of the body of St Edmund in the early 10th century. However, the development site is just beyond and to the west of the medieval town defences (HER BSE 136), which were demarcated by the course of St Andrew's Street South.

4.7 The area to the east of the site contains extensive evidence for medieval occupation and activity, particular along the course of Guildhall Street, which runs parallel to St Andrew's Street South and

only 50m to the east. Archaeological investigations to the rear of Guildhall Street have revealed extensive evidence for the medieval town defences, documented as being dug in the 12th century (HERs BSE 179, BSE 181, MSE 224 & BSE 363), thus confirming the site's location beyond the town ditch. The monitoring to the rear of No. 82 Guildhall Street exposed a section of the medieval town ditch and revealed that the ditch was c.5m deep from the present ground surface (HER BSE 295; Tester 2010). No remains of the town wall were found but the line of the wall could be traced by the extent of a terrace, which had been dug into the chalk hillside from Guildhall Street.

Post-medieval and later

4.8 The town of Bury St Edmunds prospered throughout the post-medieval and early modern periods, despite the dissolution of the Abbey, Babwell Friary and numerous ecclesiastical foundations. Within the vicinity of the site, the post-medieval period is represented by a lime kiln and a small square chalk pit recorded during the evaluation at the Boby Trading Estate site, which lies to the immediate west of the site (HER BSE 077; Caruth 1991). The Boby Trading Estate is also situated on the site of comb shops, which formerly stood in a longstanding industrial area just outside western walls of the medieval town and to the site's south-west (HER BSE 095).

4.9 The HER database also reveals that a building was depicted at the centre of St Andrew's Street South on Alex Downing's map, which dates to 1740 (HER BSE 250). The structure was not depicted on the later map of Thomas Warren's, which dates to 1791. Archaeological monitoring at No. 32 St Andrew's Street South, which is 100m to the south of the site, found evidence for a chimney foundation, which was contemporary with the construction of the late 17th – early 18th century property (HER BSE 322). A large number of post-medieval and early modern listed buildings are recorded in the vicinity, almost exclusively located to the east along Guildhall Street, and beyond. To the north-west of the site is the Grade II listed Nos. 1, 2 and 147 King's Road (HERs DSF7490, DSF9639 & DSF7490).

The site

4.10 The site lies within an area of archaeological potential, as recorded on the Suffolk Historic Environment Record (HER). It lies along the western frontage of St Andrew's Street South, which follows the course of the medieval town ditch defences, but the site lies immediately outside and adjacent to the medieval town defences. The town ditch is first documented in the 12th century, and has been investigated to the east of the site and to the rear of Guildhall Street (HERs ESF21710, ESF20672, BSE 179, BSE 181, MSE 224 & BSE 363; Tester 2010).

4.11 The archaeological evaluation at the Bobby Trading Estate site and to the immediate west of the site (HERs ESF15240 & BSE 095; Caruth 1991) did not record any evidence for the town defences, only deposits of chalk, believed to be natural deposits, at 1.25m depth. However, redeposited chalk fills are known from the eastern side of the ditch, and the exact line of the ditch is not known, so there remains a potential for the western edge of the ditch to be found within the site. Where investigated elsewhere, the open ditch appears to have been deliberately backfilled and land reclaimed for development, with some sections of the town wall pushed into the open ditch. Two sections were recorded across the ditch on its eastern side in the vicinity of the site (HERs BSE 295 & BSE 363).

4.12 Historic cartographic sources consistently depict the site on the western edge of the historic core of Bury St Edmunds. Alex Downing's map, which dates to 1740 (Fig. 3), clearly depicts the wide course of St Andrew's Street (#22), with the site located along its western frontage and to the south-west of its junction with *Stamford Bridge Road* (#54), now King's Road. The frontage of the site was clearly occupied by a building with a yard and garden to its rear. Similarly, Thomas Warren's map, which dates to 1791 (Fig. 4), confirms that the site was developed by the late 18th century. The 1st edition Ordnance Survey map, which dates to 1886 (Fig. 5), also depicts a building within the site, with a secondary structure to its rear. Subsequent Ordnance Survey maps dating from the early 20th century indicates that the site remained unaltered.

5 METHODOLOGY

5.1 The monitoring encompassed the drilling of holes for perimeter piles and subsequent ground reduction for the new basement (Fig. 6).

5.2 The overburden was removed under close archaeological supervision and control. All subsequent excavation was undertaken by hand

5.3 Exposed sections were cleaned and examined for archaeological features. Deposits were recorded using *pro forma* recording sheets, drawn to scale and photographed as appropriate. Open trenches and excavated spoil were manually/ visually searched and scanned by metal detector to enhance the recovery of archaeological finds.

6 DESCRIPTION OF RESULTS Figs. 6 - 7

Sample sections were drawn and are presented below:

Sample Section 1

<i>0.00m = 51.07m AOD</i>		
0.00 - 0.03m	L1000	Concrete floor of demolished building.
0.03 – 0.10m	L1001	Very pale grey concrete layer.
0.10 – 0.36m	L1002	Made Ground. Firm, dark grey brown sandy silt with frequent CBM rubble. Also contained glass and metal fragments.
0.36m+	L1003	Natural deposits. Very firm, very pale brown grey and white chalky silt with moderate medium sub round chalk.

Pile Hole 1

<i>0.00m = 50.77m AOD</i>		
0.00 - 0.10m	L1004	Demolition Layer. Friable, pale mid yellow brown clay silt with frequent medium and large sub-rounded flints and moderate CBM rubble.
0.10 – 0.60m+	L1005	?Basement Backfill. Firm, dark mid yellow brown sandy silt with frequent medium and large sub-rounded flints and occasional – moderate CBM fragments.

Pile Hole 1 was cleaned of chalk smear to a depth of 0.60m. Layer L1005 continued below this.

Pile Holes 2 & 3

The stratigraphy within these pile holes could not be observed because the concrete was directly injected into the hole as the auger was being withdrawn.

Pile Hole 4

<i>0.00m = 50.71m AOD</i>		
0.00 - 0.10m	L1004	Demolition Layer. As Pile Hole 1.
0.10 – 0.51m	L1006	?Subsoil or ?Feature Fill. Firm pale yellow brown clay silt with moderate small and medium sub-rounded flints.
0.51 – 1.10m+	L1003	Natural Deposits. As Sample Section 1.

Pile Holes 5 - 7

The stratigraphy within these pile holes could not be observed because the concrete was directly injected into the hole as the auger was being withdrawn.

Pile Hole 8

0.00m = 50.68m AOD		
0.00 - 0.10m	L1004	Demolition Layer. As Pile Hole 1.
0.10 – 6.00+	L1008	?Well Backfill. Firm, dark grey brown sandy silt with frequent CBM rubble and chalk flecks.

Pile Holes 9 - 15

The stratigraphy within these pile holes could not be observed because the concrete was directly injected into the hole as the auger was being withdrawn.

Pile Hole 16

0.00m = 50.77m AOD		
0.00 - 0.09m	L1004	Demolition Layer. As Pile Hole 1.
0.09 – 0.70m+	L1005	?Basement Backfill. As Pile Hole 1.

Pile Hole 16 was cleaned of chalk smear to a depth of 0.70m. Layer L1005 continued below this.

Pile Hole 17

0.00m = 50.80m AOD		
0.00 - 0.09m	L1004	Demolition Layer. As Pile Hole 1.
0.09 – 0.70m+	L1005	?Basement Backfill. As Pile Hole 1.

Pile Hole 17 was cleaned of chalk smear to a depth of 0.70m. Layer L1005 continued below this.

Pile Hole 18

0.00m = 50.77m AOD		
0.00 - 0.09m	L1004	Demolition Layer. As Pile Hole 1.
0.09 - 0.70m	L1005	?Basement Backfill. As Pile Hole 1.

Pile Hole 18 was cleaned of chalk smear to a depth of 0.70m. Layer L1005 continued below this.

Pile Hole 19

<i>0.00m = 50.73m AOD</i>		
0.00 - 0.09m	L1004	Demolition Layer. As Pile Hole 1.
0.09 – 0.70m	L1005	?Basement Backfill. As Pile Hole 1.

Pile Hole 19 was cleaned of chalk smear to a depth of 0.70m. Layer L1005 continued below this.

Pile Hole 20

<i>0.00m = 50.79m AOD</i>		
0.00 - 0.07m	L1004	Demolition Layer. As Pile Hole 1.
0.07 – 0.46m	L1009	Post-medieval / modern layer. Firm, very pale yellow brown chalky silt with frequent small sub-rounded chalk.
0.46m+	L1003	Natural Deposits. As Sample Section 1.

Pile Hole 21

<i>0.00m = 50.81m AOD</i>		
0.00 - 0.09m	L1004	Demolition Layer. As Pile Hole 1.
0.09 – 0.17m	L1009	Post-medieval / modern layer. As Post Hole 20.
0.17m+	L1003	Natural Deposits. As Sample Section 1.

Pile Hole 22

<i>0.00m = 50.74m AOD</i>		
0.00 - 0.07m	L1004	Demolition Layer. As Pile Hole 1.
0.07m+	L1003	Natural Deposits. As Sample Section 1.

Pile Hole 23

<i>0.00m = 50.66m AOD</i>		
0.00 - 0.10m	L1004	Demolition Layer. As Pile Hole 1.
0.10 – 0.27m	L1010	Modern Made Ground. Firm, mid brown grey silty sand with frequent medium angular and sub-angular flints. It contained slate.
0.27m+	L1003	Natural Deposits. As Sample Section 1.

Pile Hole 24

<i>0.00m = 50.62m AOD</i>		
0.00 - 0.09m	L1004	Demolition Layer. As Pile Hole 1.
0.09 – 3.00m+	L1005	?Basement Backfill. As Pile Hole 1.

L1005 could be seen to extend to a depth of c.2.00m before it became too dark to see; it appears to continue below this depth.

Pile Hole 25

There was no access to this hole due to health and safety concerns.

Pile Holes 26 - 33

The stratigraphy within these holes could not be observed because the concrete was directly injected into the hole as the auger was being withdrawn.

Pile Hole 34

<i>0.00m = 50.78m AOD</i>		
0.00 - 0.07m	L1004	Demolition Layer. As Pile Hole 1.
0.07 – 0.70+m	L1008	?Well Backfill. As Pile Hole 8.
<5.50 – c.6.00m+	L1011	?Well Backfill. Very dark grey brown silty sand. It contained rubber collar, ceramic electrical insulator etc.

Pile Hole 35

The stratigraphy within this hole could not be observed because the concrete was directly injected into the hole as the auger was being withdrawn.

Monitoring of Subsequent Ground Reduction

Description

A section of basement wall (M1007) was exposed to a depth of 0.50m in the south-east corner of the site. It was constructed using flint and with a course of unfrogged red brick (220 x 110 x 70mm). The interior was rendered and whitewashed.

Monitoring of ground reduction confirmed the presence of basements all along the street frontage. Also observed were the presence of two further small basements on the northern side of the site, and a stairwell on the southern edge in the region of Pile Holes 18 and 30.

7 CONFIDENCE RATING

7.1 The identification of archaeological features or finds was hampered by the nature of the operation i.e. the excavation of the pile holes using a corkscrew auger. In addition, the clear observation and measuring of any stratigraphy below a depth of 0.70m was not possible due to smearing of the sides of the pile holes with the natural chalk and the availability of light into such small holes. Further, due to areas of unstable ground some pile holes had the concrete injected directly through the rig as the auger was being withdrawn preventing any sight into the excavated hole.

8 DISCUSSION

8.1 The site lies within an area of archaeological potential recorded on the Suffolk Historic Environment Record. St Andrew's Street follows the line of the medieval town ditch defences first documented in the 12th century. It is thought that the proposed development site may be located beyond the western edge of the ditch. The latter has only been investigated along its eastern side. Here, it has been suggested that it may have been 4m+ deep and 10m+ wide, but its size had not been confirmed. The exact course of the ditch is not known. An evaluation on the south of St Andrew's Street in a similar location did not record it.

8.3 The site also has potential for other archaeological activity or occupation on the edge of the town, though perhaps more 'suburban' in nature to that within the historic core. Early documents such as wills record gardens, barns and stables etc outside the walls.

8.4 Observation of the piling operations suggested the presence of backfilled basements adjacent to the street frontage. A short length of a post-medieval or early modern basement wall was revealed by investigation works in the north-eastern corner of the site (Fig. 6). This wall was only exposed to a depth of 0.50m but the pile holes suggest a much greater depth to the basements.

8.5 Observation after site clearance and ground reduction, confirmed the presence of basements all along the street frontage. Also observed were the presence of two further small basements on the northern side of the site, and a stairwell on the southern edge in the region of Pile Holes 18 and 30.

8.6 Pile Holes 8 and 34 on the southern side of the site (Fig. 6) contained a very dark grey brown fill with frequent CBM rubble, and also rubber collars and ceramic electrical insulators etc to a substantial depth. This is suggestive of a well backfilled in the 20th century.

8.7 The site had already been terraced into the slight rise of the ground westwards for the former building. This terracing truncated the

natural by c.0.65m at the western edge of the site suggesting that, prior to the latest ground reduction, archaeological horizons to the rear (western) half of the site had already been removed or truncated.

8.8 It is suggested that the town ditch was some 4m deep but the presence of basements along the street frontage, in the potential location of the ditch, has removed substantial evidence and therefore it was not possible to confirm or discount the course of the ditch from observations at this site. The site is at least partially truncated and no other archaeological remains were observed.

DEPOSITION OF THE ARCHIVE

Archive records, with an inventory, will be deposited at Suffolk County Museum. The archive will be quantified, ordered, indexed, cross referenced and checked for internal consistency.

ACKNOWLEDGEMENTS

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AS acknowledges the advice and input of Dr Abby Antrobus of the Suffolk County Council Archaeological Service (SCC AS).

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APPENDIX 1 THE SPECIFICATION

46-47 ST ANDREW'S STREET, BURY ST EDMUNDS, SUFFOLK

**WRITTEN SCHEME OF INVESTIGATION FOR
ARCHAEOLOGICAL EXCAVATION/MONITORING & RECORDING**

**9th July 2019
Rev 19th July 2019**

Archaeological Solutions is an independent archaeological contractor providing the services which satisfy all archaeological requirements of planning applications, including:

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46-47 ST ANDREW'S STREET, BURY ST EDMUNDS, SUFFOLK

ARCHAEOLOGICAL EXCAVATION/MONITORING & RECORDING

1 INTRODUCTION

1.1 This specification (written scheme of investigation) has been prepared in response to a brief issued by Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT, Abby Antrobus, dated 2nd July 2019). It provides for archaeological excavation/monitoring & recording during groundworks associated with the construction of a proposed three-storey building with basement level to provide 16no residential apartments following demolition of existing buildings at 46-47 St Andrew's Street, Bury St Edmunds, Suffolk IP33 3PH (NGR TL 854 638). The works are required to comply with a condition of planning approval (St Edmundsbury Borough Council, now West Suffolk Council, Approval Ref. DC/17/0688/FUL), based on advice from SCC AS-CT, and this WSI has been prepared for their approval.

2 COMPLIANCE

2.1 The brief has been read and understood. If AS carried out the programme of archaeological works, AS would comply with SCC AS-CT's requirements.

3 SITE & DEVELOPMENT DESCRIPTION ARCHAEOLOGICAL BACKGROUND

3.1 The site is located on the northern side of St Andrew's Street South on the edge of the historic core of Bury St Edmunds. It comprises a former takeaway restaurant building and open yard area. It is proposed demolish existing structures and erect a three-storey building with basement level to provide 16no residential apartments. A planning condition on approval requires a programme of archaeological work.

3.2 The site lies within an area of archaeological potential recorded on the Suffolk Historic Environment Record. The brief notes that St Andrew's Street follows the line of the medieval town ditch defences and the site lies immediately outside and adjacent to the medieval town defences. The town ditch is first documented in the 12th century, and has only been investigated along its eastern side. Here, it has

been suggested that it may have been 4m+ deep and 10m+ wide, but its size had not been confirmed.

3.3 It is thought that the proposed development site may be beyond the western edge of the ditch. An evaluation on the south of St Andrew's Street in a similar location did not record it and noted deposits of chalk, believed to be natural deposits, at 1.25m depth. Redeposited chalk fills are however known from the eastern side of the ditch, and the exact line of the ditch is not known, so there remains a potential for the western edge of the ditch to be found within the current site. Where investigated elsewhere, the open ditch appears to have been deliberately backfilled and land reclaimed for development, with some sections of the town wall pushed into the open ditch. Two sections were recorded across the ditch on its eastern side in the vicinity of the site (HER BSE295 & BSE363).

3.4 The site also retains a potential for other archaeological activity/occupation on the edge of contemporary town, though perhaps more 'suburban' in nature to those expected within the historic core. The street was formerly known as *Ditchway* and *The Backside*. Early documents such as wills record gardens, barns and stables etc outside the walls.

3.5 The detailed project background will be presented in the project report, with reference to the Suffolk Historic Environment Record which will be consulted as part of the project.

4 BRIEF FOR ARCHAEOLOGICAL EXCAVATION/MONITORING ARRANGEMENTS FOR ARCHAEOLOGICAL EXCAVATION/MONITORING SPECIFICATION FOR EXCAVATION/MONITORING OF GROUNDWORKS

4.1 As set out in the brief (Sections 2 -4). The brief requires programme of archaeological excavation/monitoring tied in to the various development stages (see below) in order to provide a record of any archaeological deposits which might be damaged or removed by any development permitted by the current planning consent. Any ground works, and also the upcast soil, are to be closely monitored during and after stripping in order to ensure no damage occurs to any heritage assets. Adequate time is to be allowed for archaeological recording of archaeological deposits during excavation, and of soil sections following excavation.

4.2 Research Design

4.2.1 The general research priorities for the region are set out in Glazebrook (1997) and Brown & Glazebrook (2000) and updated by

Medlycott and Brown (2008) and Medlycott (2011). Wade (in Brown & Glazebrook 2000, 23-26) identifies research topics for the rural landscape in the Saxon and medieval periods. These include examination of population during this period (distribution and density, as well as physical structure), settlement (characterisation of form and function, creation and testing of settlement diversity models), specialisation and surplus agricultural production, assessment of craft production, detailed study of changes in land use and the impact of colonists (such as Saxons, Danes and Normans) as well as the impact of the major institutions such as the Church. Ayers (in Brown & Glazebrook, 2000) discusses these research topics in more detail. For demography, issues include assessment of population structures, density and mobility, urban sustainability, immigration and rural colonisation and housing/provisioning. For social organisation, issues include assessment of the impact of royal villas, major institutions and the Church on urban settlement, territorial boundaries in proto-urban and urban settlements, the effect of national political developments, ranking and status in settlements, spatial analysis, wealth distribution, specialism, acquisition of raw materials, building form and function, markets and commercial/corporate activity. Economic issues of the above also need to be considered, particularly with regard to industrial zoning. The impact of culture and religion could include issues such as identifying characteristics of urban culture, its growth, complexity and values. The Church and its influence on the burgeoning towns must also be addressed. As Murphy notes in Brown and Glazebrook (2000, 31), urban environmental archaeology should be approached by analysis of environmental 'events', processes and study of relationships with producing sites in the rural hinterland.

4.2.2 Medlycott (2011, 57) states that the study of the Anglo-Saxon period still requires further cooperation between historians and archaeologists. Important research issues for this period comprise: the Roman/Anglo-Saxon transitional period; settlement distribution, which suffers from problems associated with the identification of Saxon settlement sites; population modelling and demographics, which has the potential to be advanced by modern scientific methods; differences within the region in terms of settlement type and economic practice and subjects related to this such as links with the continent, trading practices and cultural influences; rural landscapes and settlements, including detailed study of the changes and developments in such settlements over time and the influence of Saxon landscape organisation and settlements on these issues in the medieval period; towns and their relationships with their hinterland; infrastructure, including river management, the identification of ports and harbours and the role of existing infrastructure in shaping the Saxon period landscape; the economy, based on palaeoenvironmental studies; ritual and religion; the effect of the Danish occupation; and artefact studies (Medlycott 2011, 57-59).

4.2.3 The issues identified by Ayers (in Brown & Glazebrook, 2000) and Wade (in Brown & Glazebrook, 2000) remain valid research subjects (Medlycott 2011, 70) for the medieval period. The study of landscapes is dominated by issues such as water management and land reclamation for large parts of the region, the economic development of the landscape and the region's potential to reveal information regarding field systems, enclosures, roads and trackways. Linked to the study of the landscape are research issues such as the built environment and infrastructure; the main communication routes through the region need to be identified and synthesis needs to be carried out regarding the significance, economic and social importance of historic buildings in the region (Medlycott 2011, 70-71). Also considered to be important research subjects for the medieval period are rural settlements, towns, industry and the production and processing of food and demographic studies (Medlycott 2011, 70-71).

4.2.4 The research subjects identified as important for the post-medieval and modern periods (see Medlycott 2011, 72-80) expand on those set out by Gilman *et al* (in Brown & Glazebrook, 2000) which focussed on the subjects of fortifications, parks and gardens and industrialisation and manufacture. Medlycott (2011) stresses the importance of the built and environment and the use of the Listed Buildings databases and thematic surveys in understanding this. The subject of industry and infrastructure, which is clearly of great importance for this period, remains a key research subject for the region with particular attention being paid to rural industries, the processing of food for urban markets and the development and character of the region's primary communication roots. Landscapes, and the effect of social changes, such as the Dissolution and the enclosure of greens and commons, on them are considered to be an area of research. The region's military sites and their impact on the development of eastern England, on its landscapes and on its appearance are also considered to be of importance. Towns, their development and their impact on the landscape, require further study. Issues such as economic and social influences of towns on their hinterlands and neighbours are identified as being an important research priority.

4.2.5 As set out above, the principal research objectives will be to identify any archaeological remains associated with the line of the town defences/ditch and to record any 'suburban' medieval or later occupation of this part of the town which may be revealed during the groundworks for the current proposals.

References

Brown, N & Glazebrook, J (eds), 2000, *Research and Archaeology: A Framework for the Eastern Counties. 2. Research Agenda and Strategy*, East Anglian Archaeology Occasional Papers 8

Glazebrook, J (eds), 1997, *Research and Archaeology: A Framework for the Eastern Counties. 1. Resource Assessment*, East Anglian Archaeology Occasional Papers 3

Gurney, D, 2003, *Standards for Field Archaeology in the East of England*, East Anglian Archaeology Occasional Paper 14

Medlycott, M & Brown, N, 2008, *Revised East Anglian Archaeological Research Frameworks*, www.eaareports/algaoee

Medlycott, M. (ed.) 2011, *Research and Archaeology revisited: a revised framework for the East of England*, ALGAO East of England Region, East Anglian Archaeology Occasional Papers 24

5 ARCHAEOLOGICAL EXCAVATION/MONITORING

5.1 The brief requires the recovery of a record of archaeological deposits that may be damaged or removed by any development. A Method Statement is provided (Appendix 2). The main objective surrounds the potential for the groundworks for the development to produce surviving evidence of early activity. The principal groundworks to be subject to excavation/monitoring will be the ground reduction for the basement and new build footprint along with any other proposed groundworks (eg new service trenching, landscaping etc).

5.2 Following demolition of existing structures to ground level, the following stages are required, with sufficient time to be allowed for cleaning, excavation and recording of any archaeological remains as appropriate:

Removal of overburden

This is required to be undertaken under the supervision/control of an archaeologist, with appropriate recording of any remains. The archaeological horizons will be reviewed and an appropriate strategy agreed with SCC AS-CT for excavation of any archaeological remains, particularly if the edge of the ditch is encountered. Provision will be made to minimise damage to archaeological remains through grubbing out of any old foundations/obstacles at this stage apart from as necessary to facilitate the archaeological aims of the project.

Controlled excavation of basements

Provision will be made for the excavation and sampling of all features encountered at this stage. If the town ditch is present within the site, excavation of the feature will seek to investigate its profile and the date and nature of its fills. Provision will be made for systematic horizontal excavation of deposits and provision will be made for site sections to be recorded, particularly in the event that the construction methodology (eg piling of the perimeter of the excavation) may preclude this.

Sufficient time will be allowed within the construction programme for archaeological work.

Controlled excavation and monitoring

This will be undertaken for other elements of the scheme (eg service trenches etc) in the event that they are to have an impact on archaeological remains and likely to answer any outstanding questions

General

The project provides for the continuous excavation monitoring of all groundworks in order to provide a record of any archaeological deposits which might be damaged or removed by any development permitted by the current planning consent. Any ground works, and also the upcast soil, are to be closely monitored during and after stripping in order to ensure no damage occurs to any heritage assets. Adequate time is to be allowed for archaeological recording of archaeological deposits during excavation, and of soil sections following excavation.

If the town ditch is encountered, the approach to its investigation will be agreed with SCC AS-CT and the archaeological consultant.

5.3 The programme of work will overall include the following stages:

- Initial clearance of site and soil/overburden under archaeological observation;
- Inspection of sub-soil deposits for archaeological features and environmental deposits;
- excavation and recording of any archaeological features/deposits;
- Sub-soil stripping under archaeological supervision;
- Further excavation and recording of any exposed archaeological deposits;
- Metal detecting throughout the groundworks programme
- Rapid examination of spoil-heaps for archaeological material;
- A programme of post-fieldwork analysis, archiving and publication, as appropriate to the results of the project.

5.4 All of the above stages and operations will be carried out in accordance with MoRPHE (2015).

Stage Details

5.5 **Site clearance:** under archaeological observation

5.6 **Excavation and recording:** of those features which cannot be preserved and will be substantially disturbed. In accordance with the following standards:

- excavation of all discrete features
- all industrial features to be sampled for appropriate scientific analysis
- full written records of each context and all contexts to be planned
- sampling will adhere to the guidelines prepared by Historic England (*Environmental Archaeology; A guide to the theory and practice of methods, from sampling and recovery to post-excavation*, rev 2011).

5.7 **Archaeological Observation and Recording** of all groundworks

- Observation of all groundworks, and subsequent recording of archaeological deposits
- Inspection of subsoil for archaeological features
- Investigation and recording of any exposed archaeological features/deposits
- Examination of spoil-heaps for archaeological material
- If significant remains are identified a meeting will be convened with the client and SCC AS-CT in order to agree an appropriate investigation
- A programme of post-excavation field work analysis, archiving and publication

5.8 If exceptional and / or unexpected deposits or features are discovered, or the scope of work changes, SCC AS-CT will be contacted immediately and where possible effective **mitigation measures** will be devised according to the circumstances on site, in consultation with SCC AS-CT.

5.9 The resultant project report will follow the principles of MoRPHE (2015)

5.10 *Staffing*

Details of Archaeological Solutions Limited staff and specialist contractors are provided (Appendix 1).

5.11 *Method Statement*

The investigation will adhere to the SCC AS-CT document *Requirements for Archaeological Excavation 2017*, ClfA's *Standard and Guidance for Archaeological Excavations and Watching Briefs* and (revised 2014), in addition to the ALGAO East of England *Standards for Field Archaeology in the East of England* (Gurney 2003). A Method Statement for dealing with archaeological remains, where present, is presented (Appendix 2).

6 HEALTH AND SAFETY

6.1 Risk Assessment

A risk assessment will be completed before the work on site commences

6.2 Advice

Archaeological Solutions Limited is a member of FAME, formerly the Standing Conference of Archaeological Unit Managers (SCAUM) and operates under the 'Health & Safety in Field Archaeology Manual'.

6.3 Insurances

Archaeological Solutions Limited is a member of the Council for British Archaeology and is insured under their policy for members.

7 REPORT REQUIREMENTS

7.1 The report will include, as appropriate:

- a) The archaeological background
- b) A consideration of the aims and methods adopted in the course of the recording
- c) A detailed account of the nature, location, extent, date, significance and quality of any archaeological evidence recorded
- d) A section/s drawing showing the depth of deposits including present ground level with Ordnance Datum, vertical and horizontal scale
- e) Excavation methodology and detailed results including a suitable conclusion and discussion
- f) Plans and sections of any recorded features and deposits
- g) Discussion and interpretation of the evidence. An assessment of the project's significance in a regional and local context and appendices
- h) All specialist reports or assessments
- i) A concise non-technical summary of the project results
- j) A HER/OASIS summary sheet as required

7.2 Draft hard and digital PDF copies of the report will be submitted to SCC AS-CT for approval. If any revisions are required, final hard and digital PDF copies will be supplied to SCC AS-CT for deposition with the HER.

7.3 The project details will be submitted to the OASIS database, and the online summary form will be appended to the project report.

7.4 A summary report will be submitted suitable for inclusion in the annual roundups of *Proceedings of the Suffolk Institute of Archaeology and History*, dependent on the results of the project.

8 POST-EXCAVATION ANALYSIS & PUBLICATION

8.1 This specification includes provision for the post-excavation assessment, analysis and final publication of the project results, to the requirements and timescales set out in the SCC AS brief, and to be agreed with SCC AS following the results of the excavation and assessment. An interim report will be prepared immediately on conclusion of the site works, followed by a Post-Excavation Assessment (PXA). This will follow the guidelines and format outlined in MAP2 (English Heritage 1991) and MoRPHE (English Heritage 2006), and the *Draft Post-Excavation Assessments: Notes on a New Guidance Document* (East Anglian Archaeology 2012). The need for a full PXA will be discussed and formally agreed with ASS AC-ST within 4 weeks of the conclusion of fieldwork.

8.2 The PXA will present a clear and concise assessment of the archaeological significance and value of the results and identify the research potential, using the *East Anglian Archaeological Research Frameworks*. It will present an Updated Project Design with a timetable for analysis, dissemination and archive deposition, and will set out the proposed content of the full project report.

8.3 Provision for full publication of the project results will be made in the appropriate county journal or the relevant national period-specific journal, depending on the results of the project. Provision will be made for a full grey literature Research Archive Report if a full PXA/Updated Project Design is deemed necessary. As a minimum, a summary will be prepared for the annual round-up of archaeological projects in *Proceedings of the Suffolk Institute for Archaeology & History*

9 ARRANGEMENTS FOR ACCESS

9.1 Access to the site is to be arranged by the client.

10 SERVICES & CONSTRAINTS, SECURITY

10.1 The client is to advise AS of the position of any services which traverse the site and any constraints which are present e.g. Tree Preservation Orders, Rights of Way.

10.2 Throughout all site works care will be taken to maintain all existing security arrangements and to minimise disruption.

11 FINDS

11.1 As set out in the brief (Section 5) and below (Appendix 1).

12 ARCHIVE

12.1 The requirements for archive storage will be agreed with the Suffolk Archaeological Archives.

12.2 The archive will be deposited within six months of the conclusion of the fieldwork. It will be prepared in accordance with the UK Institute for Conservation's *Conservation Guideline No.2* and according to the document *Archaeological Archives in Suffolk; Guidelines for Preparation and Deposition*, (SCC AS Conservation Team, 2017). A unique event number and monument number will be obtained from the County HER Officer.

12.3 The full archive of finds and records will be made secure at all stages of the project, both on and off site. Arrangements will be made at the earliest opportunity for the archive to be accessed into the collections of Suffolk Archaeological Archives; with the landowner's permission in the case of any finds. It is acknowledged that it is the responsibility of the field investigation organisation to make these arrangements with the landowner and Suffolk Archaeological Archives. The archive will be adequately 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 other relevant reference documents.

12.4 Archive records, with inventory, are to be deposited, as well as any donated finds from the site, at the Suffolk Archaeological Archives and in accordance with their requirements. The archive will be quantified, ordered, indexed, cross-referenced and checked for internal consistency. In addition to the overall site summary, it will be necessary to produce a summary of the artefactual and ecofactual data. A unique event number for the report and monument number for any finds will be obtained from the HER.

13 MONITORING

13.1 It is understood that SCCAS-CT will monitor the project on behalf of the local planning authority.

13.2 **Notification** Archaeological Solutions will give SCCAS-CT notification prior to the commencement of the project on site

13.3 **Monitoring** SCCAS-CT will be responsible for monitoring progress and standards throughout the project, both on site and during the post-survey/report stages, to ensure compliance with the planning requirement, the approved WSI and any subsequent Brief and approved WSI for further fieldwork, analyses and publication.

13.4 Any variations to the WSI will be agreed in advance with SCCAS-CT prior to them being carried out.

14 OASIS PROJECT REPORTING

14.1 The results of the project will be reported to the OASIS Project.

APPENDIX 1

ARCHAEOLOGICAL SOLUTIONS LIMITED: PROFILES OF STAFF & SPECIALISTS

DIRECTOR

Claire Halpin BA MCIfA

Qualifications: Archaeology & History BA Hons (1974-77). Oxford University Dept for External Studies In-Service Course (1979-1980). Member of Institute of Archaeologists since 1985: IFA Council member (1989-1993)

Experience: Claire has 25 years' experience in field archaeology, working with the Oxford Archaeological Unit and English Heritage's Central Excavation Unit (now the Centre for Archaeology). She has directed several major excavations (e.g. Barrow Hills, Oxfordshire, and Irthlingborough Barrow Cemetery, Northants), and is the author of many excavation reports e.g. St Ebbe's, Oxford: *Oxoniensia* 49 (1984) and 54 (1989). Claire moved into the senior management of field archaeological projects with Hertfordshire Archaeological Trust (HAT) in 1990, and she was appointed Manager of HAT in 1996. From the mid 90s HAT has enlarged its staff complement and extended its range of skills. In July 2003 HAT was wound up and Archaeological Solutions was formed. The latter maintains the same staff complement and services as before. AS undertakes the full range of archaeological services nationwide.

DIRECTOR

Tom McDonald BSc MCIfA

Qualifications: Member of the CfA

Experience: Tom has over twenty years' experience in field archaeology, working for the North-Eastern Archaeological Unit (1984-1985), Buckinghamshire County Museum (1985), English Heritage (Stanwick Roman villa (1985-87) and Irthlingborough barrow excavations, Northamptonshire (1987)), and the Museum of London on the Royal Mint excavations (1986-7), and as a Senior Archaeologist with the latter (1987-Dec 1990). Tom joined HAT at the start of 1991, directing several major multi-period excavations, including excavations in advance of the A41 Kings Langley and Berkhamsted bypasses, the A414 Cole Green bypass, and a substantial residential development at Thorley, Bishop's Stortford. He is the author of many excavation reports, exhibitions etc. Tom is AS's Health and Safety Officer and is responsible for site management, IT and CAD. He specialises in prehistoric and urban Archaeology, and is a Lithics Specialist.

OFFICE MANAGER (ACCOUNTS)

Rose Flowers

Experience: Rose has a very wide range of book-keeping skills developed over many years of employment with a range of companies, principally Rosier Distribution Ltd, Harlow (now part of Securicor) where she managed eight accounts staff. She has a good working knowledge of both accounting software and Microsoft Office.

OFFICE MANAGER (LOGISTICS)

Jennifer O'Toole

Experience: Jennifer's professional career has included a variety of roles such as Operations Director with The Logistics Network Ltd, Tutor/Trainer & Deputy Manager with Avanta TNG and Training and Assessment Consultant with PDM Training and Consultancy Ltd. Jennifer's career history emphasises her organisational and interpersonal skills, especially her ability to efficiently liaise with and manage individuals on various levels, and provide a range of supportive/ administrative services. Jennifer holds professional qualifications in a number of subjects including recruitment practice, customer service, workplace competence and health and safety. In her role with Archaeological Solutions Ltd, Jennifer has assisted in the delivery of the company's services on a variety of projects as well as co-ordinating recruitment and providing a range of complex administrative support.

SENIOR PROJECTS MANAGER

Jon Murray BA MCIfA

Qualifications: History with Landscape Archaeology BA Hons (1985-1988).

Experience: Jon has been employed by HAT (now AS) continually since 1989, attaining the position of Senior Projects Manager. Jon has conducted numerous archaeological investigations in a variety of situations, dealing with remains from all periods, throughout London and the South East, East Anglia, the South and Midlands. He is fluent in the execution of (and now project manages) desk-based assessments/EIAs, historic building surveys (for instance the recording of the Royal Gunpowder Mills at Waltham Abbey prior to its rebirth as a visitor facility), earthwork and landscape surveys, all types of evaluations/excavations (urban and rural) and environmental archaeological investigation (working closely with Dr Rob Scaife), preparing many hundreds of archaeological reports dating back to

1992. Jon has also prepared numerous publications; in particular the nationally-important Saxon site at Gamlingay, Cambridgeshire (*Anglo-Saxon Studies in Archaeology & History*). Other projects published include Dean's Yard, Westminster (*Medieval Archaeology*), Brackley (*Northamptonshire Archaeology*), and a medieval cemetery in Haverhill he excavated in 1997 (*Proceedings of the Suffolk Institute of Archaeology*). Jon is a member of the senior management team, principally preparing specifications/tenders, co-ordinating and managing the field teams. He also has extensive experience in preparing and supporting applications for Scheduled Monument Consent/Listed Building Consent

SENIOR PROJECTS MANAGER

Vincent Monahan BA

Qualifications: University College Dublin: BA Archaeology (2007-2012)

Experience: Professionally, Vincent has worked for various archaeological groups and projects including the Stonehenge Riverside Project (Site Assistant/ Supervisor; 2008), University College Dublin Archaeological Society (Auditor; 2009-2010) and the Castanheiro do Vento Research Project (Site Assistant/ Supervisor; 2009-2010 (seasonal)). This background has provided Vincent with a good experience of archaeological fieldwork including excavation, various sampling techniques and on-site recording. He also gained experience of museum-grade curatorial practice during his undergraduate degree. Since joining Archaeological Solutions Ltd, Vincent has managed various large and complex excavation projects including a number of sites associated with the onshore element of the East Anglia One project (ScottishPower Renewables). His duties include overall project management (fieldwork), the management of staff and timescales, and professional liaison with clients, local authority representatives and other organisations as necessary. Vincent also assists in the dissemination of project outcomes through contributions to 'grey' and published literature, and through the organisation and delivery of site open days. He is CSCS qualified (expires June 2020) and has successfully completed the Emergency First Aid at Work course (January 2018).

SENIOR PROJECT OFFICER

Kerrie Bull BSc

Qualifications: University of Reading: BSc Archaeology (2008-2011)

Experience: During her undergraduate degree at the University of Reading Kerrie worked on the Lyminge Archaeological Project (2008), the Silchester 'Town Life' Project (2009) and the Ecology of Crusading Research Programme (2011). Through her academic and professional

career, Kerrie has gained good experience of archaeological fieldwork and post-excavation techniques. Since joining Archaeological Solutions Ltd, Kerrie has gained enhanced experience of commercial archaeological practice, and has managed the fieldwork elements of various large projects, including the excavation of Chilton Leys, Stowmarket. Kerrie's other responsibilities include the training and management of field staff, and professional liaison with clients and local authority representatives. Kerrie has contributed towards the dissemination of project outcomes through the production of 'grey' literature and published works. She is CSCS qualified (expires February 2019).

PROJECT OFFICER

Gareth Barlow MSc

Qualifications: University of Sheffield, MSc Environmental Archaeology & Palaeoeconomy (2002-2003)

King Alfred's College, Winchester, Archaeology BA (Hons) (1999-2002)

Experience: Gareth worked on a number of excavations in Cambridgeshire before pursuing his degree studies, and worked on many archaeological projects across the UK during his university days. Gareth joined AS in 2003 and has worked on numerous archaeological projects throughout the South East and East Anglia with AS. Gareth was promoted to Supervisor in the Summer 2007. Gareth is qualified in the Construction Skills Certification Scheme (CSCS) and is a qualified in First Aid at Work (St Johns Ambulance).

SUPERVISOR

Keeley-jade Diggons

Qualifications: University of Southampton, BA Archaeology and Geography (2014-2017)

Experience: Keeley's higher education at the University of Southampton provided her with a good, working understanding of archaeological fieldwork method and theory through the completion of modules including *Archaeological Survey*, *Geophysics* and *Advanced GIS*. She also gained valuable excavation and finds administration experience through participation on British and overseas field projects. Since joining Archaeological Solutions Ltd, Keeley has participated on a number of fieldwork projects, including elements of the East Anglia One infrastructure project (ScottishPower Renewables), and has coordinated geophysical survey projects, including cart-based surveys. Keeley has also contributed to the production of archaeological reports through the collation and assessment of site data and she holds a qualification in Remote Outdoor First Aid.

SUPERVISOR

Samuel Thomelius BA MA

Qualifications: Bachelor Programme in Archaeology and Ancient History, Archaeology (Uppsala University 2012–15)
Master Programme in the Humanities, Archaeology (Uppsala University 2015–17)

Experience: Samuel's higher education has provided him with a good, practical understanding of the archaeology of northern Europe and a firm grounding in various vocational skills. Samuel's practical experience encompasses archaeological excavation duties and post-excavation curation, including a lead role in digital documentation at Uppsala University (2016). His principle research interests are landscape archaeology and digital methods in archaeology. Since joining Archaeological Solutions Ltd, Samuel has worked on a variety of commercial fieldwork projects, developing his practical skills and gaining a good understanding of various archaeological periods across the East of England. Samuel is CSCS certified.

SUPERVISOR

Joseph Locke BA MSt

Qualifications: BA (Hons) Classical and Archaeological Studies (University of Kent 2009–12)
MSt Classical Archaeology (University of Oxford 2014–15)

Experience: Joseph has been working in field archaeology across southern Britain for the last five years for a variety of contracting units, and developing an extensive repertoire of excavation, surveying and supervisory skills. Significant projects during this period have included the large-scale excavation of a complex Roman farmstead in eastern Milton Keynes, late Iron Age and Roman field systems and settlement, and Roman inhumation burials also around Milton Keynes. Other projects have included Anglo-Saxon cremations and the medieval Greyfriars Friary in Oxfordshire, Bronze Age cremations, Iron Age field systems and Saxon sunken-featured building across East Anglia, as well as overseeing watching briefs. In addition to British archaeology, Joseph's academic background has also supported research interests in Minoan Archaeology, in particular burial practices. Joseph is CSCS certified.

PROJECT OFFICER (DESK-BASED ASSESSMENTS)

Kate Higgs MA (Oxon)

Qualifications: University of Oxford, St Hilda's College Archaeology & Anthropology MA (Oxon) (2001-2004)

Experience: Kate has archaeological experience dating from 1999, having taken part in clearance, surveying and recording of stone circles in the Penwith area of Cornwall. During the same period, she also assisted in compiling a database of archaeological and anthropological artefacts from Papua New Guinea, which were held in Scottish museums. Kate has varied archaeological experience from her years at Oxford University, including participating in excavations at a Roman amphitheatre and an early church at Marcham/ Frilford in Oxfordshire, with the Bamburgh Castle Research Project in Northumberland, which also entailed the excavation of human remains at a Saxon cemetery, and also excavating, recording and drawing a Neolithic chambered tomb at Prissé, France. Kate has also worked in the environmental laboratory at the Museum of Natural History in Oxford, and as a finds processor for Oxford's Institute of Archaeology. Since joining AS in November 2004, Kate has researched and authored a variety of reports, concentrating on desk-based assessments in advance of archaeological work and historic building recording.

ASSISTANT PROJECTS MANAGER (POST-EXCAVATION)

Andrew Newton MPhil PCIFA

Qualifications: University of Bradford, MPhil (2002-04)
University of Bradford, BSc (Hons) Archaeology (1999-2003)
University of Bradford, Dip Professional Archaeological Studies (2002)

Experience: Andrew has carried out geophysical surveys for GeoQuest Associates on sites throughout the UK and has worked as a site assistant with BUFAU. During 2001 he worked as a researcher for the Yorkshire Dales Hunter-Gatherer Research Project, a University of Bradford and Michigan State University joint research programme, and has carried out voluntary work with the curatorial staff at Beamish Museum in County Durham. Andrew is a member of the Society of Antiquaries of Newcastle-upon-Tyne and a Practitioner Member of the Institute for Archaeologists. Since joining AS in early Summer 2005, as a Project Officer writing desk-based assessments, Andrew has gained considerable experience in post-excavation work. His principal role with AS is conducting post-excavation research and authoring site reports for publication. Significant post-excavation projects Andrew has been responsible for include the Ingham Quarry Extension, Fornham St. Genevieve, Suffolk – a site with large Iron Age pit clusters arranged

around a possible wetland area; the late Bronze Age to early Iron Age enclosure and early Saxon cremation cemetery at the Chalet Site, Heybridge, Essex; and, Church Street, St Neots, Cambridgeshire, an excavation which identified the continuation of the Saxon settlement previously investigated by Peter Addyman in the 1960s. Andrew also writes and co-ordinates Environmental Impact Assessments and has worked on a variety of such projects across southern and eastern England. In addition to his research responsibilities Andrew undertakes outreach and publicity work and carries out some fieldwork.

PROJECT OFFICER (POST-EXCAVATION)

Lindsay Lloyd-Smith BSc MPhil PhD

Qualifications: Institute of Archaeology, UoL, BSc (Hons) Archaeology (1989-1992)
University of Cambridge, MPhil Archaeological Research (2004-2005)
University of Cambridge, PhD Archaeology (2005-2008)

Experience: Lindsay has over 25 years' experience in archaeology working on a wide variety of contract and research projects. As well as working in East Anglia for the Norfolk Archaeological Unit (1992), the Cambridge Archaeology Unit (repeatedly between 1995 and 2010), and most recently for Pre-Construct Archaeology (2016-2018), Lindsay's work and research has taken him to Belize (1992), the Netherlands (1992-1995), Sweden (1997-2004), India (1996-2005), Egypt (2002-2004), Malaysia (2000-2017), the Philippines (2006), Vietnam (2009), and South Korea (2011-2015). He was a member of the Niah Caves Project, Borneo (University of Cambridge, 2000-2004), which led on to his post-graduate research (MPhil, PhD) into later prehistorical mortuary practice in Island Southeast Asia. Following this, he was a Post-Doctoral Research Associate on the Cultured Rainforest Project, University of Cambridge (2007-2011), responsible for archaeological fieldwork investigating the prehistory of the central highlands of Borneo. He spent four years (2011-2015) working as an Assistant Professor at the Institute for East Asian Studies, Sogang University, Seoul, South Korea, where he taught Area Studies and Southeast Asian Archaeology and directed the Early Central Borneo Project (2013-2016). During this time he also was lead editor for the newly launched journal *TRANS: Trans –Regional and –National Studies of Southeast Asia* published by Cambridge University Press. Returning to the UK in 2015, Lindsay worked at Leicester University as an Associate Tutor in the School of Archaeology and Ancient History where he designed and wrote a Distance Learning Masters Module in Archaeology and Education. Lindsay joined AS in June 2018 and is responsible for the post-excavation management of large excavation projects, from the assessment, interpretation and synthesis of site data to the production of archaeological reports from assessment to publication level.

POTTERY, LITHICS AND CBM RESEARCHER

Andrew Peachey BA MCIfA

Qualifications: University of Reading BA Hons, Archaeology and History (1998-2001)

Experience: Andrew joined AS (formerly HAT) in 2002 as a pottery researcher, and rapidly expanded into researching CBM and lithics. Andrew specialises in prehistoric and Roman pottery and has worked on numerous substantial assemblages, principally from across East Anglia but also from southern England. Recent projects have included a Neolithic site at Coxford, Norfolk, an early Bronze Age domestic site at Shropham, Norfolk, late Bronze Age material from Panshanger, Hertfordshire, middle Iron Age pit clusters at Ingham, Suffolk and an Iron Age and early Roman riverside site at Dernford, Cambridgeshire. Andrew has worked on important Roman kiln assemblages, including a Nar Valley ware production site at East Winch Norfolk, a face-pot producing kiln at Hadham, Hertfordshire and is currently researching early Roman Horningsea ware kilns at Waterbeach, Cambridgeshire. Andrew is an enthusiastic member of the Study Group for Roman Pottery, and also undertakes pottery and lithics analysis as an 'external' specialist for a range of archaeological units and local societies in the south of England.

POTTERY RESEARCHER

Peter Thompson MA

Qualifications: University of Bristol BA (Hons), Archaeology (1995-1998)

University of Bristol MA; Landscape Archaeology (1998-1999)

Experience: As a student, Peter participated in a number of projects, including the excavation of a Cistercian monastery cemetery in Gascony and surveying an Iron Age promontory hillfort in Somerset. Peter has two years excavation experience with the Bath Archaeological Trust and Bristol and Region Archaeological Services which includes working on a medieval manor house and a post-medieval glass furnace site of national importance. Peter joined HAT (now AS) in 2002 to specialise in Iron Age, Saxon and medieval pottery research and has also produced desk-based assessments. Pottery reports include an early Iron pit assemblage and three complete Early Anglo-Saxon accessory vessels from a cemetery in Dartford, Kent.

ENVIRONMENTAL ARCHAEOLOGIST

Dr John Summers

Qualifications: 2006-2010: PhD “The Architecture of Food”
(University of Bradford)
2005-2006: MSc Biological Archaeology (University of Bradford)
2001-2005: BSc Hons. Bioarchaeology (University of Bradford)

Experience: John is an archaeobotanist with a primary specialism in the analysis of carbonised plant macrofossils and charcoal. Prior to joining Archaeological Solutions, John worked primarily in Atlantic Scotland. His research interests involve using archaeobotanical data in combination with other archaeological and palaeoeconomic information to address cultural and economic research questions. John has made contributions to a number of large research projects in Atlantic Scotland, including the Old Scatness and Jarlshof Environs Project (University of Bradford), the Viking Unst Project (University of Bradford) and publication work for Bornais Mound 1 and Mound 2 (Cardiff University). He has also worked with plant remains from Thruxton Roman Villa, Hampshire, as part of the Danebury Roman Environs Project (Oxford University/ English Heritage). John’s role at AS is to analyse and report on assemblages of plant macro-remains from environmental samples and provide support and advice regarding environmental sampling regimes and sample processing. John is a member of the Association for Environmental Archaeology.

SENIOR GRAPHICS OFFICER

Kathren Henry

Experience: Kathren has over twenty-five years’ experience in archaeology, working as a planning supervisor on sites from prehistoric to late medieval date, including urban sites in London and rural sites in France/ Italy, working for the Greater Manchester Archaeological Unit, Passmore Edwards Museum, DGLA and Central Excavation Unit of English Heritage (at Stanwick and Irthlingborough, Northamptonshire). She has worked with AS (formerly HAT) since 1992, becoming Senior Graphics Officer. Kathren is AS’s principal photographer, specializing in historic building survey, and she manages AS’s photographic equipment and dark room. She is in charge of AS’s Graphics Department, managing computerised artwork and report production. Kathren is also the principal historic building surveyor/illustrator, producing on-site and off-site plans, elevations and sections.

GRAPHICS OFFICER

Danielle Hall

Qualifications: University of Edinburgh, Archaeology MA (Hons) (2014 - 2018)

Experience: Since joining the Graphics Department at AS, Danielle has been involved multiple tasks including digitising site records, compiling geo-physics surveys, and creating visual figures for desk-based assessments. Danielle has participated in various field excavations from Romania to Cyprus and has worked alongside the University of Edinburgh and Archaeology Scotland. She has also worked in conjunction with Historic Environment Scotland, the University of Glasgow, and the Society of Antiquaries Scotland using her designs to promote archaeology to local communities.

HISTORIC BUILDING RECORDING

Tansy Collins BSc

Qualifications: University of Sheffield, Archaeological Sciences BSc (Hons) (1999-2002)

Experience: Tansy's archaeological experience has been gained on diverse sites throughout England, Ireland, Scotland and Wales. Tansy joined AS in 2004 where she developed skills in graphics, backed by her grasp of archaeological interpretation and on-site experience, to produce hand drawn illustrations of pottery, and digital illustrations using a variety of packages such as AutoCAD, Corel Draw and Adobe Illustrator. She joined the historic buildings team in 2005 in order to carry out both drawn and photographic surveys of historic buildings before combining these skills with authoring historic building reports in 2006. Since then Tansy has authored numerous such reports for a wide range of building types; from vernacular to domestic architecture, both timber-framed and brick built with date ranges varying from the medieval period to the 20th century. These projects include a number of regionally and nationally significant buildings, for example a previously unrecognised medieval aisled barn belonging to a small group of nationally important agricultural buildings, one of the earliest surviving domestic timber framed houses in Hertfordshire, and a Cambridgeshire house retaining formerly hidden 17th century decorative paint schemes. Larger projects include The King Edward VII Sanatorium in Sussex, RAF Bentley Priory in London as well as the Grade I Listed Balls Park mansion in Hertfordshire.

ARCHIVES CO-ORDINATOR

Luke Harris

Qualifications: Northampton College, A-Level History, English Literature and Language and AS-Level Government and Politics (2006)

Experience: Since completing his advanced education, Luke has held a number of professional administrative roles with companies and institutions including Nationwide Building Society (2007–2011) and Civica (2013–2014). His duties and responsibilities in these posts included the supervision and coordination of co-workers, the handling of customer enquiries and the categorisation, collation and digitalisation of paper records. Luke has also gained valuable clerical experience through voluntary roles and work experience. Since joining Archaeological Solutions Ltd, Luke has received training in finds recognition, finds and environmental processing/ storage, archiving and the deposition of archaeological archives.

ARCHAEOLOGICAL SOLUTIONS: PRINCIPAL SPECIALISTS

GEOPHYSICAL SURVEYS	David Bescoby Dr John Summers Air Photo Services
AIR PHOTOGRAPHIC ASSESSMENTS	
PHOTOGRAPHIC SURVEYS	K Henry
PREHISTORIC POTTERY	A Peachey MCIfA
ROMAN POTTERY	A Peachey MCIfA
SAXON & MEDIEVAL POTTERY	P Thompson
POST-MEDIEVAL POTTERY	P Thompson
FLINT	A Peachey MCIfA
GLASS	H Cool
COINS	British Museum, Dept of Coins & Medals
SMALL FINDS	R Sellwood
SLAG	A Newton
ANIMAL BONE	Dr J Cussans
HUMAN BONE:	S Anderson
ENVIRONMENTAL CO- ORDINATOR	Dr J Summers
POLLEN AND SEEDS:	Dr R Scaife
CHARCOAL/WOOD	Dr J Summers
SOIL MICROMORPHOLOGY	Dr R MacPhail, Dr C French
CARBON-14 DATING:	Historic England Ancient Monuments Laboratory (for advice).
CONSERVATION	University of Leicester

APPENDIX 2

METHOD STATEMENT

The archaeological excavations will be conducted in accordance with the project brief, and the code and guidelines of the Chartered Institute for Archaeologists, and the SCC AS-CT document *Requirements for Archaeological Excavation 2017*

1 Topsoil Stripping

1.1 A mechanical excavator with a 1.8-2 m wide toothless bucket will be used to remove the topsoil. The machine will be powerful enough for a clean job of work and be able to mound spoil neatly, at a safe distance from the trench edges.

1.3 Removal of overburden will be controlled, under the full-time supervision of an experienced archaeologist.

2 Grid and Bench Marks

2.1 Following the stripping the temporary bench marks (with corrected levels) and an accurate site grid (pegs at 5-10 m intervals) will be surveyed.

3 Site Location Plan

3.1 On conclusion of the site stripping, a 'site location plan', based on the current Ordnance Survey 1:1250 map and indicating site north, will be prepared. This will be supplemented by an 'area plan' at 1:200 (or 1:100) which will show the location of the area(s) investigated in relationship to the development area, OS grid and site grid. The location of the OS bench marks used and site TBMs will also be indicated. The site surveying will utilise a Leica GS09 net rover survey grade GPS, with RTK corrections.

4 Manual Cleaning & Base Planning of Archaeological Features

4.1 As set out in the brief.

4.2 Ahead of any excavation a complete site plan will be composed. The principal purpose will be to quantify the composition of the site from the outset in order to agree a detailed excavation strategy.

5 Archaeological Excavation

The archaeological features will be excavated according to the requirements of the SCCAS brief

Archaeological Excavation Strategy

Negative features will be half-sectioned and box sections may be excavated through more homogeneous layers as appropriate. These may provide a window into any underlying deposits present on the site.

Where archaeological features are encountered at a 'high' level; e.g. cutting earlier horizons, they will be base planned, cleaned, hand excavated and recorded prior to excavation proceeding to the underlying archaeological horizons.

100% excavation will be undertaken of

- **structural features;** (including post holes unless clearly not part of a recognisable structure)
- **surviving internal floors;** e.g. within ring gullies, or buildings, will be fully exposed, carefully cleaned, planned (at 1:50 or 1:20) and photographed, prior to being hand excavated to reveal possible underlying features. Where appropriate these surfaces will be excavated in a grid of 1m² test pits, in 5cm spits in order to assess artefact density and distribution.
- **positive features obscuring earlier features;** will be cleaned, photographed and planned (at 1:50 or 1:20) prior to being excavated stratigraphically and in phase. Component deposits or structural elements will be recorded on *pro-forma* recording (Context) sheets and in section if appropriate prior to 100% excavation.
- **hearths;** will be hand cleaned and planned, hand excavation of 50% of the feature will be carried out stratigraphically and in phase in order for a profile to be drawn and a full assessment the component deposits be made. Additional environmental and specialist sampling will be carried out on specialist advice, prior to 100% hand excavation of the feature.
- **graves or animal burials;** each grave cut will be cleaned, fully defined and planned. The grave fill(s) will be hand excavated in phase and any skeletal remains carefully cleaned and exposed; environmental bulk samples will be taken from the grave fill(s)

and abdominal cavity (for stomach contents, kidney stones etc) as appropriate. The exposed skeletal remains will be recorded using *pro forma* recording (Skeleton) sheets photographed and planned at 1:20 or 1:10 dependant on size and complexity. Small finds such as grave goods, shroud pins or coffin fittings will be will be three dimensionally recorded.

- **industrial features;** (pottery kilns, furnaces etc) will be excavated stratigraphically and in phase. Sections will be recorded through the length of each feature (large features such as a limekiln may be quadranted) incorporating any surviving flue or stoke hole allowing a full assessment the component deposits be made and any industrial waste, or structural components (e.g. kiln furniture, tuyeres) to be identified. These features will be photographed and planned at 1:20. All industrial features will be sampled for appropriate scientific analysis (e.g. archaeometallurgical, artefactual and environmental analysis). The document *Archaeometallurgy* (Historic England 2015) will be used to give guidance to the project. Advice on archaeomagnetic dating will be obtained from the relevant specialists (e.g. Dr Cathy Batt, University of Bradford) as necessary.
- **wells;** will be hand excavated stratigraphically and in phase. The backfills of the well shaft will be 'half-sectioned' to a maximum depth of 1.2m. The deposits revealed will be recorded using *pro-forma* recording (Context) sheets, photographed and drawn at 1:10 or 1:20 as appropriate, any lining or structure will be cleaned and recorded prior to 100% excavation and investigation of any possible construction cut. Excavation will only continue beyond a depth of 1.2m once the area of excavation has been made safe either by 'stepping' or shoring. Specialist advice (such as Maisie Taylor) will be sought if a preserved wooden lining or water-logged remains are encountered.

50% excavation will be undertaken of

discrete features, pits, post and stake holes (the latter which are clearly not part of a structure). Pits with a suggestion of 'placed' deposits or which contain significant artefactual/ecofactual assemblages will be 100% excavated as required, as will other features to be agreed with SCC AS-CT on site, as set out in the SCC AS-CT document *Requirements for Archaeological Excavation 2017*

10% excavation will be undertaken of

simple linear features not directly associated with core settlement, with more detailed investigation of intersections/terminals/re-cuts/specialised deposits etc

A minimum of 25% excavation will be undertaken of linear features associated with settlement in hand excavated slots up to 2m in length.

Building remains

Building remains may be encountered. These structures are likely to comprise stake holes, post holes, beam slots, gullies and, more rarely masonry foundations or low masonry walls. Associated features may be represented e.g. stone, tile floors, cobbled yard surfaces and hearths.

These features will be fully excavated in plan/phase.

Where encountered the structural remains of early buildings will be hand cleaned to reveal their full extent and then planned at 1:50 or 1:20 as appropriate.

The internal areas will be stratigraphically excavated and recorded by quadrants where appropriate to establish the sequence of post-use deposition and abandonment and to identify any *in situ* occupation or floor surfaces.

Any surviving walls or foundations of structures will be cleaned and recorded using *pro forma* recording (Masonry) sheets. Elevations will be drawn of external and internal wall faces as appropriate. Sections will be excavated and recorded through the fabric of the walls in order to fully understand their construction.

Samples of worked stone, early tile and any bonding or render material will be taken for specialist analysis.

Waterlogged Deposits/Remains

Should deposits such as the above be encountered, provision has been made for controlled hand excavation and sampling. Appropriate specialists will be on hand to advise as necessary.

All industrial features will be sampled for appropriate scientific analysis (eg archaeometallurgical, artefactual and environmental analysis). The document Archaeometallurgy (Historic England Centre for Archaeology Guidelines 2015) will be used to give guidance to the project.

Sieving Strategy

Dry-sieving of onsite deposits will be carried out to enhance finds recovery.

6 Written Record

6.1 All archaeological deposits and artefacts encountered during the course of the excavation will be fully recorded on the appropriate context, finds and sample forms.

6.2 The site will be recorded using AS's excavation manual which is directly comparable to those used by other professional archaeological organisations, including English Heritage's (now Historic England's) own Central Archaeological Service. Information contained on the site record forms will be entered into a database programme to enable computerised manipulation of the data. The data entry will be undertaken in tandem with the fieldwork.

7 Photographic Record

7.1 An adequate photographic record of the investigations will be made. It will include black and white prints and colour transparencies (on 35mm) illustrating in both detail and general context the principal features and finds discovered. It will also include 'working and promotional shots' to illustrate more generally the nature of the archaeological operations. The black and white negatives and contacts will be filed, and the colour transparencies will be mounted using appropriate cases. All photographs will be listed and indexed.

8 Drawn Record

8.1 A record of the full extent, in plan, of all archaeological deposits encountered will be drawn on A1 permatrace. The plans will be related to the site, or OS, grid and be drawn at a scale of 1:50. Where appropriate, e.g. recording an inhumation, additional plans at 1:10 will be produced. The sections of all archaeological contexts will be drawn at a scale of 1:10 or, where appropriate, 1:20. The OD height of all principal strata and features will be calculated and indicated on the appropriate plans and sections.

9 Recovery of Finds

GENERAL

The principal aim is to ensure that adequate provision is made for the recovery of finds from all archaeological deposits.

The Small Finds, e.g. complete pots or metalwork, from all excavations will be 3-Dimensionally recorded.

A metal detector will be used to enhance finds recovery. The metal detector survey will be conducted on conclusion of the topsoil stripping, and thereafter during the course of the excavation. It is proposed that Graham Brandeys will metal detect, and if not available Geoff Stribling. The spoil tips will also be surveyed. Regular metal detector surveys of the excavation area and spoil tips will reduce the loss of finds to unscrupulous users of metal detectors (treasure hunters). All non-archaeological staff working on the site should be informed that the use of metal detectors is forbidden.

In the event of items considered as being defined as treasure being found, then the requirements of the Treasure Act 1996 (with subsequent amendments) will be followed. Any such finds encountered during the investigation will be reported immediately to the Suffolk Portable Antiquities Scheme Finds Liaison Officer who will in turn inform the Coroner within 14 days

WORKED FLINT

When flint knapping debris is encountered large-scale bulk samples will be taken for sieving.

POTTERY

It is important that the excavators are aware of the importance of pottery studies and therefore the recovery of good ceramic assemblages. A ceramic specialist will visit during the excavations as required, to provide on-site advice.

The pottery assemblages are likely to provide important evidence to be able to date the structural history and development of the site.

The most important assemblages will come from 'sealed' deposits which are representative of the nature of the occupation at various dates, and indicate a range of pottery types and forms available at different periods.

'Primary' deposits are those which contain sherds contemporary with the soil fill and in simple terms this often means large sherds with unabraded edges. The sherds have usually been deposited shortly after being broken and have remained undisturbed. Such sherds are more reliable in indicating a more precise date at which the feature was 'in use'. Conversely, 'secondary' deposits are those which often have small, heavily abraded sherds lacking obvious conjoins. The sherds are derived from earlier deposits.

The pottery specialist is likely to seek important or key groups which will be studied in detail.

If several sherds from a single pot are found, the other half of the feature will be dug to obtain conjoins and a more complete pottery profile.

METALWORKING

The excavation team will be made fully aware of the potential presence of any early metalworking evidence. It is envisaged that where there is evidence for industrial activity, large technological residues will be collected by hand. Separate smaller samples will be collected for micro-slugs, as detailed in the Historic England document *Archaeometallurgy (2015)*. Appropriate specialists (e.g. Jane Cowgill/Oxford University Research Laboratory for Archaeology) will be invited to visit the site if significant deposits (e.g. slag) are encountered.

The requirements of the Treasure Act 1996 (with subsequent amendments) will be adhered to, in the event of significant items of metalwork being recovered.

HUMAN BONE

Human remains will be encountered. AS will obtain an exhumation licence for human remains from the Ministry of Justice.

Post-excavation analysis will follow the guidelines outlined in the English Heritage document *Human Bones from Archaeological Sites, Guidelines for producing assessment documents and analytical reports*, Centre for Archaeology Guidelines 2002. The advice in the Advisory Panel on the Archaeology of Burials in England document *Guidance for Best Practice for the Treatment of Human Remains (2017)* will be followed as appropriate.

ANIMAL BONE

Animal bone is one of the principal indicators of diet. As with pottery the excavators will be alert to the distinction of primary and secondary deposits. It will also be important that the bone assemblages are derived from dateable contexts. All animal bone will be collected.

SAMPLING

Provision will be made for the sampling of appropriate materials for specialist and/or scientific analysis (e.g. radiocarbon dating, environmental analysis). The location of samples will be 3-dimensionally recorded and they will also be shown on an appropriate plan. AS has its own environmental sampling equipment (including a pump and transformer) and, if practical, provision will be made to process the soil samples during the fieldwork stage of the project.

The programme of environmental sampling will adhere to the guidelines, in particular, it will accord with *Model clauses on Archaeological Science for Briefs and Specifications* (EH Advisors for Archaeological Science from all 9 regions), December 2000 and the document *Environmental Archaeology; a guide to the theory and practice of methods, from sampling and recovery to post-excavation*, Historic England, Centre for Archaeology Guidelines 2011.

If waterlogged remains are found advice on sampling will be obtained on site from Dr Rob Scaife/Dr John Summers. Dr Rob Scaife/Dr John Summers and AS will seek advice from the Historic England Regional Scientific Advisor if significant environmental remains are found.

The study of environmental archaeology seeks to understand the local and near-local environment of the site in relation to phases of human activity and as such is an important and integral part of any archaeological study. The evaluation report notes the potential of deposits within the site for the preservation of charred plant remains.

Environmental remains, both faunal and botanical, along with pedological and sedimentological analyses may be used to understand the environment and the impact of human activity.

There may be a potential for the recovery of a range of environmental remains (ecofacts) from which data pertaining to past environments, land use and agricultural economy should be forthcoming.

To realise the potential of the environmental material encountered, a range of specialists from different disciplines is likely to be required. The ultimate goal will be the production of an interdisciplinary environmental study which can be of value to an understanding of, and integrated with, the archaeology.

Organic remains may allow study of the contemporary landscape (Romano-British occupation/industrial/agricultural impact and land use) and also changes after the abandonment of the site.

The nature of the environmental evidence

Aspects of sampling and analysis may be divided into four broad categories; faunal remains, botanical remains, soils/sediments and radiocarbon dating measurements.

a) Faunal remains: These comprise bones of macro and microfauna, birds, molluscs and insects.

a.i) Bones: The study of the animal bone remains, in particular domestic mammals, domestic birds and marine fish will enhance understanding of the development of the settlement in terms of the local economy and also its wider influence through trade. The study of the small animal bones will provide insight into the immediate habitat of any settlement.

The areas of study covered may include all of the domestic mammal and bird species, wild and harvested mammal, birds, marine and fresh water fish in addition to the small mammals, non-harvest birds, reptiles and amphibia.

Domestic mammalian stock, domestic birds and harvest fish

The domestic animal bone will provide insight into the different phases of development of any occupation and how the population dealt with the everyday aspect of managing and utilising all aspects of the animal resource.

Small animal bones

Archaeological excavation has a wide role in understanding humans' effect on the countryside, the modifications to which have in turn affected and continue to affect their own existence. Small animals provide information about changing habitats and thereby about human impact on the local environment.

a.ii) Molluscs: Freshwater and terrestrial molluscs may be present in ditch and pit contexts which are encountered. Sampling and examination of molluscan assemblages if found will provide information on the local site environment including environment of deposition.

a.iii) Insects: If suitable waterlogged contexts (pit, pond and ditch fills) are encountered (which can potentially be expected to be encountered on the project), sampling and assessment will be carried out in conjunction with the analysis of waterlogged plant remains (primarily seeds) and molluscs. Insect data may provide information on local site environment (cleanliness etc.) as well as proxies for climate and vegetation communities.

b) Botanical remains: Sampling for seeds, wood, pollen and seeds are the essential elements which will be considered. The former are most likely to be charred but possibly also waterlogged should any wells/ponds be encountered.

b.i) Pollen analysis: Sampling and analysis of the primary fills and any stabilisation horizons in ditch and pit contexts which may provide information on the immediate vegetation environment including aspects of agriculture, food and subsistence. These data will be integrated with seed analysis.

b.ii) Seeds: It is anticipated that evidence of cultivated crops, crop processing debris and associated weed floras will be present in ditches and pits. If waterlogged features/sediments are encountered (for example, wells/ponds) these will be sampled in relation to other environmental elements where appropriate (particularly pollen, molluscs and possibly insects).

c) Soils and Sediments: Characterisation of the range of sediments, soils and the archaeological deposits are regarded as crucial to and an integral part of all other aspects of environmental sampling. This is to afford primary information on the nature and possible origins of the material sampled. It is anticipated that a range of 'on-site' descriptions will be made and subsequent detailed description and analysis of the principal monolith and bulk samples obtained for other aspects of the environmental investigation. Where considered necessary, laboratory analyses such as loss on ignition and particle size may also be undertaken. A geoarchaeologist will be invited to visit the site as necessary to advise on sampling.

d) Radiocarbon dating: Archaeological/artifactual dating may be possible for most of the contexts examined, but radiocarbon dating should not be ruled out

Sampling strategies

Provision will be made by the environmental co-ordinator that suitable material for analysis will be obtained. Samples will be obtained which as far as possible will meet the requirements of the assessment and any subsequent analysis.

a) Soil and Sediments: Samples taken will be examined in detail in the laboratory. An overall assessment of potential will be carried out. Analysis of particle size and loss on ignition, if required would be undertaken as part of full analysis if assessment demonstrates that such studies would be of value.

b) Pollen Analysis: Contexts which require sampling may include stabilisation horizons and the primary fills of the pits and ditches, and possibly organic well/pond fills. It is anticipated that in some cases this

will be carried out in conjunction with sampling for other environmental elements, such as plant macrofossils, where these are also felt to be of potential.

c) Plant Macrofossils: Principal contexts will be sampled directly from the excavation for seeds and associated plant remains. It is anticipated that primarily charred remains will be recovered, although provision for any waterlogged sequences will also be made (see below). Sampling for the former will, where possible (that is, avoiding contamination) comprise samples of an average of 40-60 litres which will be floated in the AS facilities for extraction of charred plant remains. Both the flot and residues will be kept for assessment of potential and stored for any subsequent detailed analysis. The residues will also be examined for artifactual remains and also for any faunal remains present (cf. molluscs). Where pit, ditch, well or pond sediments are found to contain waterlogged sediments, principal contexts will be sampled for seeds and insect remains. Standard 5 litre+ samples will be taken which may be sub-sampled in the laboratory for seed remains if the material is found to be especially rich. The full sample will provide sufficient material for insect assessment and analysis. Where wood is found, representative material will be sampled during the excavation and stored wet/moist to facilitate later identification.

d) Bones: Predicting exactly how much of what will be yielded by the excavation is clearly very difficult prior to excavation and it is proposed that in order to efficiently target animal bone recovery there should be a system of direct feedback from the archaeozoologist to the site staff during the excavation, allowing fine tuning of the excavation strategy to concentrate on the recovery of animal bones from features which have the highest potential. This will also allow the faunal remains to materially add to the interpretation as the excavation proceeds. Liaison with other environmental specialists will need to take place in order to produce a complete interdisciplinary study during this phase of activity. In addition, this feedback will aid effective targeting of the post-excavation analysis.

e) Insects: If contexts having potential for insect preservation are found, samples will be taken in conjunction with waterlogged plant macrofossils. Samples of 5 litres will suffice for analysis and will be sampled adjacent to waterlogged seed samples and pollen; or where insufficient context material is available provision will be made for exchange of material between specialists.

f) Molluscs: Terrestrial and freshwater molluscs. Samples will be taken from a column from suitable ditches. Pits may be sampled, based on the advice of the Environmental Consultant and / or Historic England Regional Advisor. Provision will also be made for molluscs obtained from other sampling aspects (seeds) to be examined and/or kept for future requirements.

g) Archiving: Environmental remains obtained should be stored in conditions appropriate for analysis in the short to medium term, that is giving the ability for full analysis at a later date without any degradation of samples being analysed. The results will be maintained as an archive at AS and supplied to the HE regional co-ordinator as requested.

Waterlogged Deposits/Remains

Should waterlogged deposits (such as wells/deep ditches) be encountered, provision has been made for controlled hand excavation and sampling. Dr Rob Scaife/Dr John Summers will visit to advise of sampling as required, and AS will take monolith samples as necessary for the recovery of palaeoenvironmental information and dating evidence.

Scientific/Absolute Dating

- Samples will be obtained for potential scientific/absolute dating as appropriate (eg Carbon-14).

FINDS PROCESSING

The Project Manager (and Project Officer) will have overall responsibility for the finds and will liaise with AS's own finds personnel and the relevant specialists. A person with particular responsibility for finds on site will be appointed for the excavation.

The person will ensure that the finds are properly labelled and packaged on site for transportation to AS's field base. The finds processing will take place in tandem with the excavations and will be under the supervision of AS's Finds Officer.

The finds processing will entail first aid conservation, cleaning (if appropriate), marking (if appropriate), categorising, bagging, labelling, boxing and basic cataloguing (the compilation of a Small Finds Catalogue and quantification of bulk finds), i.e., such that the finds are ready to be made available to the specialists.

The Finds Officer, having been advised by the Project Officer and relevant specialists, will select material for conservation. AS's Finds Officer, in conjunction with the Project Officer, will arrange for the specialists to view the finds for the purpose of report writing.

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Project details

Project name	46-47 St Andrew's Street, Bury St Edmunds - Archaeological Monitoring
Short description of the project	In February and April 2020 Archaeological Solutions Ltd carried out archaeological monitoring and recording at 46 - 47 St Andrews Street, Bury St Edmunds, Suffolk (NGR TL 854 638; Figs. 1 - 2). The monitoring was undertaken in compliance with a planning condition attached to planning approval for the construction of a proposed three storey apartment building with basement level (West Suffolk Council Ref. DC/17/0688/FUL), based on advice from Suffolk County Council Archaeological Service Conservation Team (SCC AS-CT). The site lies within an area of archaeological potential recorded on the Suffolk Historic Environment Record. The SCC brief notes that St Andrew's Street follows the line of the medieval town ditch defenses and the site lies immediately outside and adjacent to the medieval town defenses. The town ditch is first documented in the 12th century, and has only been investigated along its eastern side. Here, it has been suggested that it may have been 4m+ deep and 10m+ wide, but its size had not been confirmed. It is suggested that the town ditch was some 4m deep but the presence of basements along the street frontage, in the potential location of the ditch, has removed substantial evidence and therefore it was not possible to confirm or discount the course of the ditch from observations at this site. The site is at least partially truncated and no other archaeological remains were observed.
Project dates	Start: 19-02-2020 End: 24-04-2020
Previous/future work	No / Not known
Any associated project reference codes	P8114 - Contracting Unit No.
Any associated project reference codes	BSE688 - Sitecode
Type of project	Field evaluation
Site status	None
Current Land use	Vacant Land 1 - Vacant land previously developed
Monument type	CELLAR Post Medieval
Significant Finds	- None
Methods & techniques	"Annotated Sketch", "Survey/Recording Of Fabric/Structure", "Test Pits", "Visual Inspection"
Development type	Urban residential (e.g. flats, houses, etc.)
Prompt	Planning condition
Position in the planning process	Pre-application

Project location

Country	England
Site location	SUFFOLK ST EDMUNDSBURY BURY ST EDMUNDS 46-47 St Andrew's Street, Bury St Edmunds, Suffolk
Postcode	IP33 3PH
Study area	0.05 Hectares
Site coordinates	TL 85400 63800 52.240650638874 0.715738240828 52 14 26 N 000 42 56 E Point
Height OD / Depth	Min: 50m Max: 50m

Project creators

Name of Organisation	Archaeological Solutions Ltd
Project brief originator	Suffolk County Council Archaeological Service
Project design originator	Jon Murray
Project director/manager	Jon Murray
Project supervisor	Archaeological Solutions Ltd
Name of sponsor/funding body	Dyer Mackay Developments

Project archives

Physical Archive Exists?	No
Digital Archive recipient	Suffolk County Museum
Digital Media available	"Database","Images raster / digital photography","Spreadsheets","Survey","Text"
Paper Archive recipient	Suffolk County Museum
Paper Media available	"Context sheet","Drawing","Map","Photograph","Plan","Report","Section","Survey "

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	46 - 47 St Andrews Street, Bury St Edmunds, Suffolk.IP33 3PH. Continuous Archaeological Monitoring and Recording
Author(s)/Editor(s)	Higgs, K.
Other bibliographic details	Report No: 6026
Date	2020
Issuer or publisher	Archaeological Solutions Ltd.
Place of issue or publication	Bury St Edmunds
Entered by	Danielle Helen Hall (danielle.hall@ascontracts.co.uk)
Entered on	23 June 2020

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PHOTOGRAPHIC INDEX (P8114)



1
View of basement area at piling stage looking north-east



2
View of basement area at piling stage looking east



3
View of basement area at piling stage looking north



4
View of basement area at piling stage looking north-west



5
View of basement area at piling stage looking south-east



6
Sample section 1



7
Flint and brick wall F1007 in north-east corner of site



8
Pile hole 1



9
Pile hole 8



10
Pile hole 16



11
Pile hole 17



12
Pile hole 18



13
Pile hole 19



14
Pile hole 20



15
Pile hole 21



16
Pile hole 22



17
Pile hole 23



18
Pile hole 24



19
View of site looking west after the excavation of the new basement



20
View of site looking east after the excavation of the new basement



21
View of site looking south-east after the excavation of the new basement



22
View of site looking north-east after the excavation of the new basement



23
View of site looking east after the excavation of the new basement



24
View of site looking south after the excavation of the new basement



25
Pilings looking north



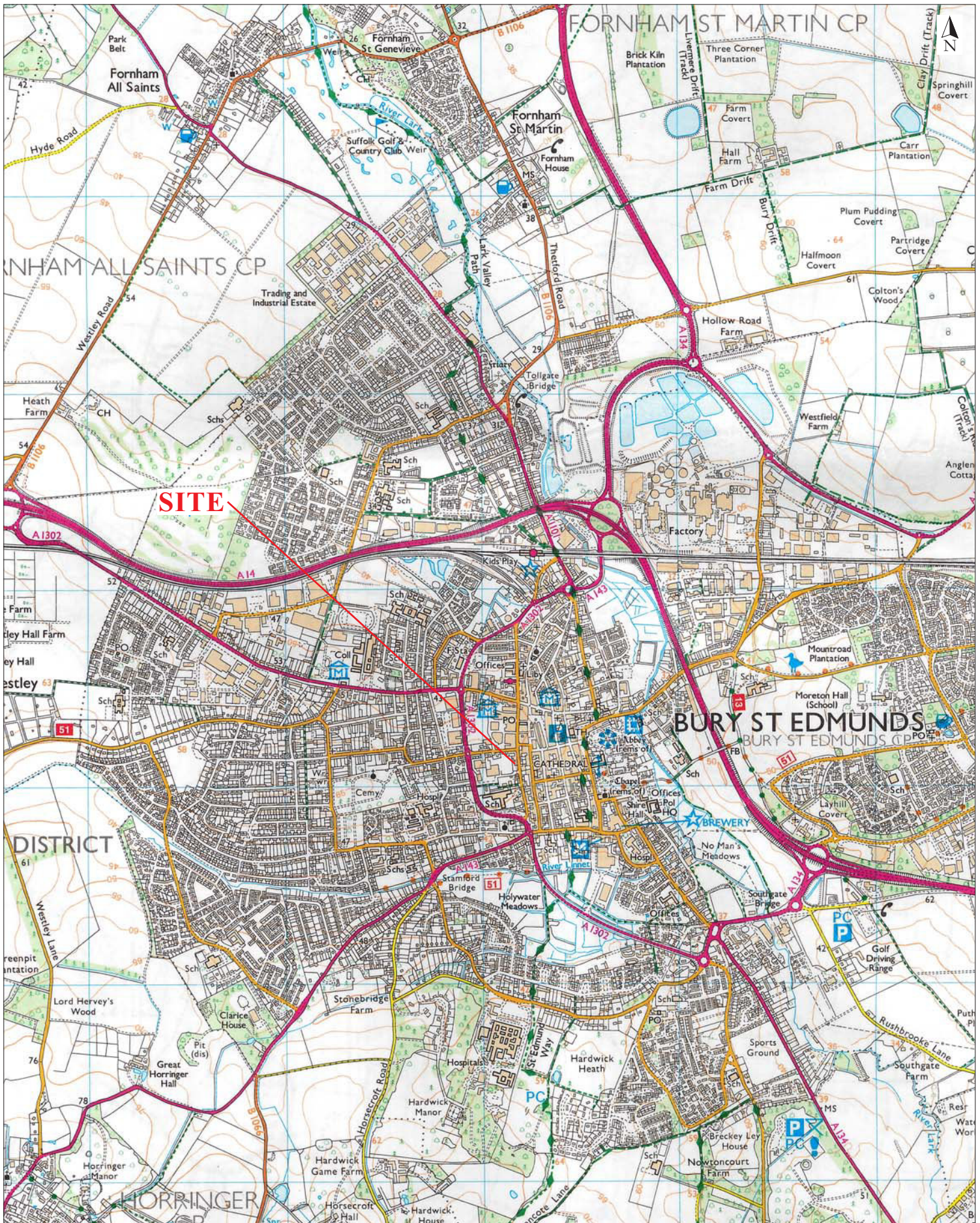
26
Pilings looking west



27
Pilings looking south

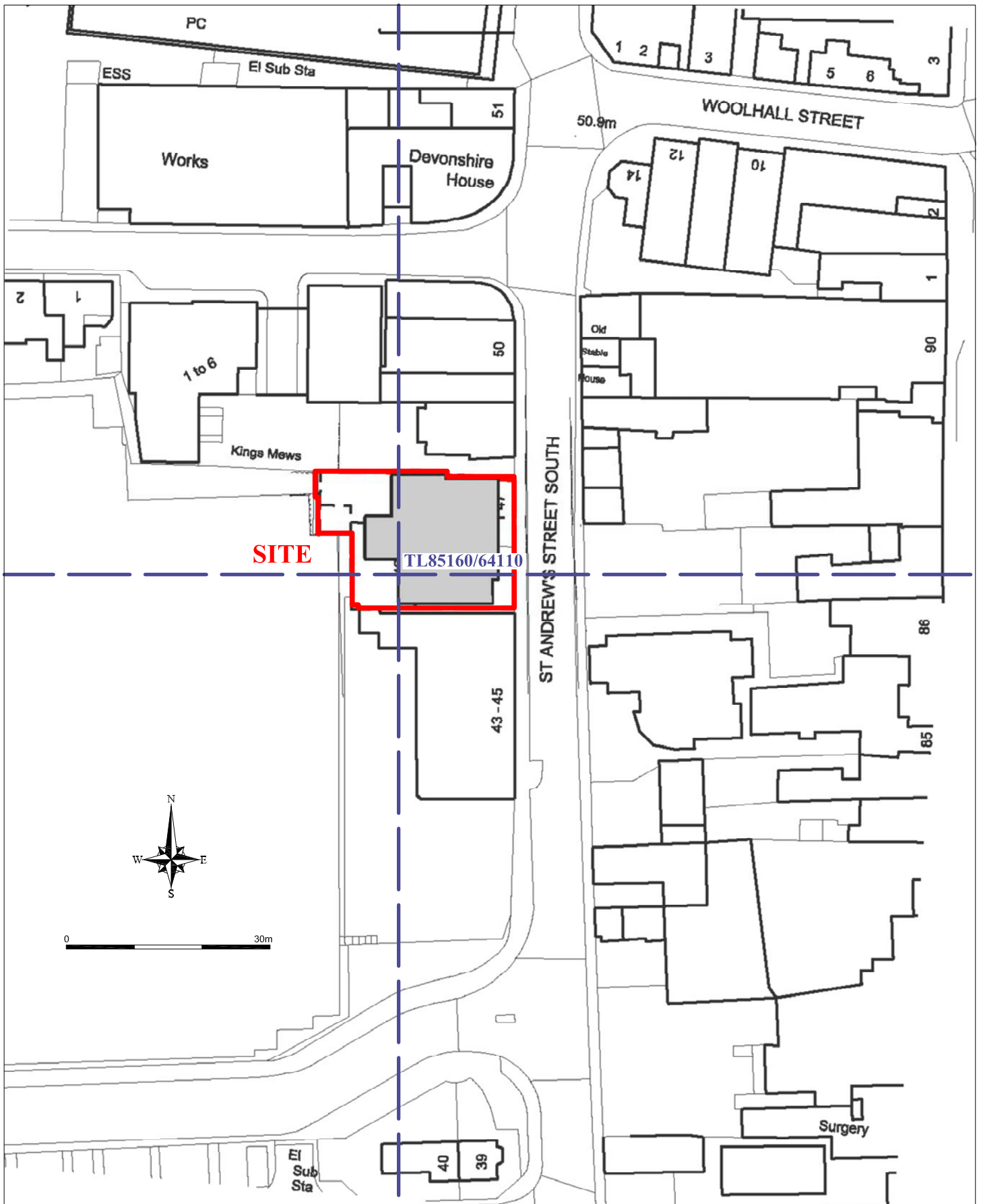


28
Pilings looking south



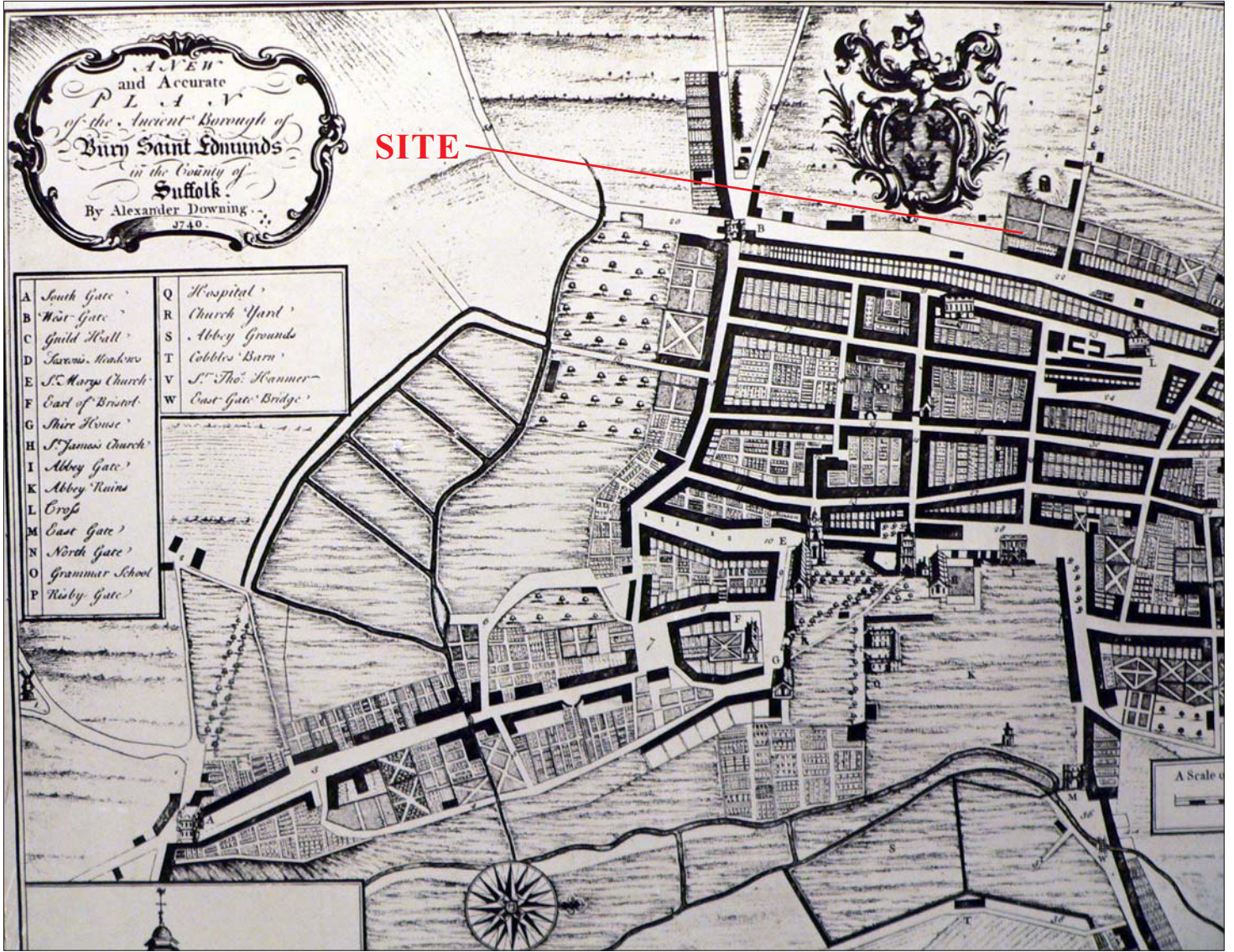
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Fig. 1 Site location plan
 Scale 1:25,000 at A4
 46-47 St Andrew's St South, Bury St Edmunds, Suffolk (P8114)

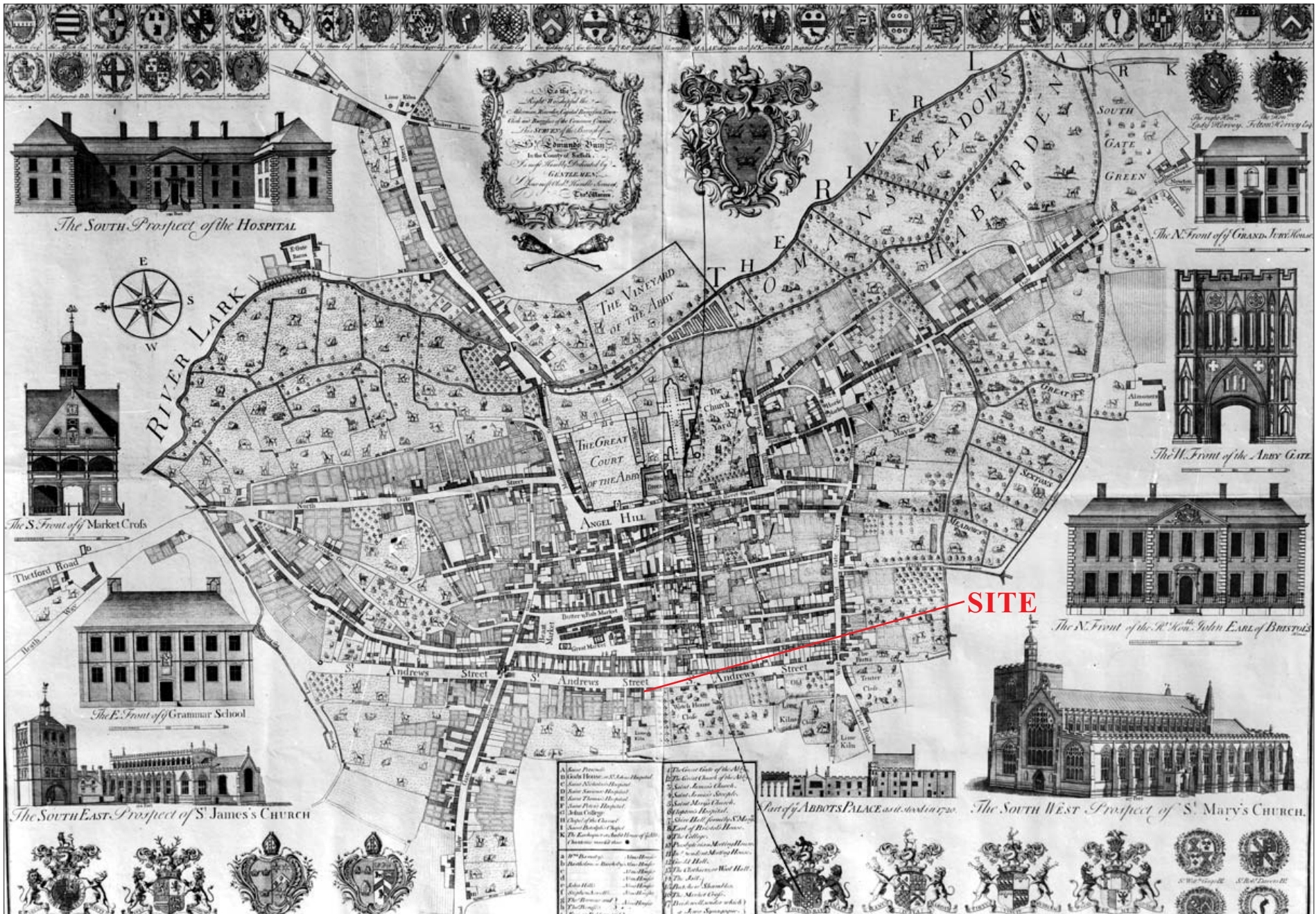


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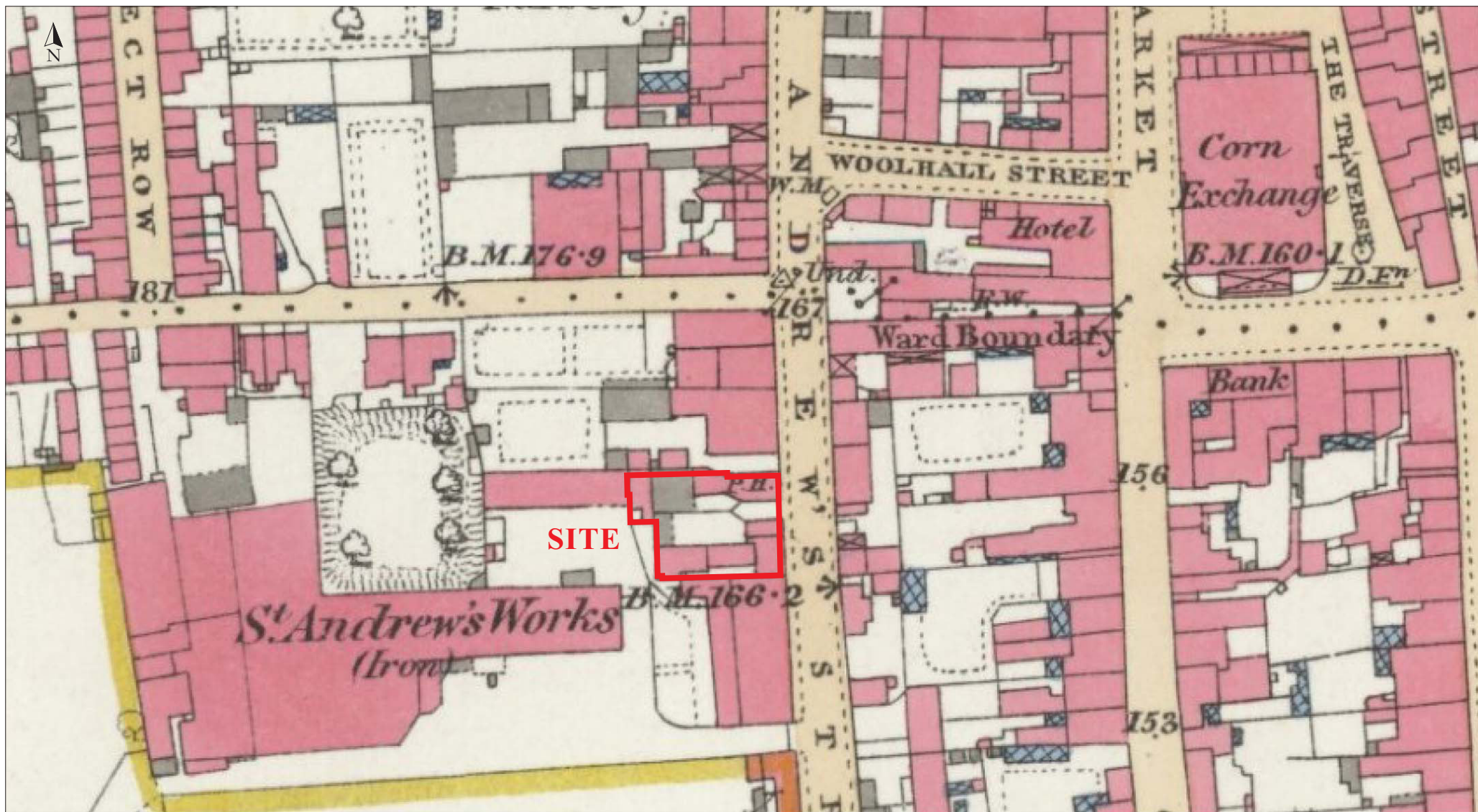
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Fig. 2 Detailed site location plan
Scale 1:750 at A4
46-47 St Andrew's St South, Bury St Edmunds, Suffolk (P8114)



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Fig. 3 Alex Downing's map, 1740
 Not to scale
 46-47 St Andrew's St South, Bury St Edmunds, Suffolk (P8114)

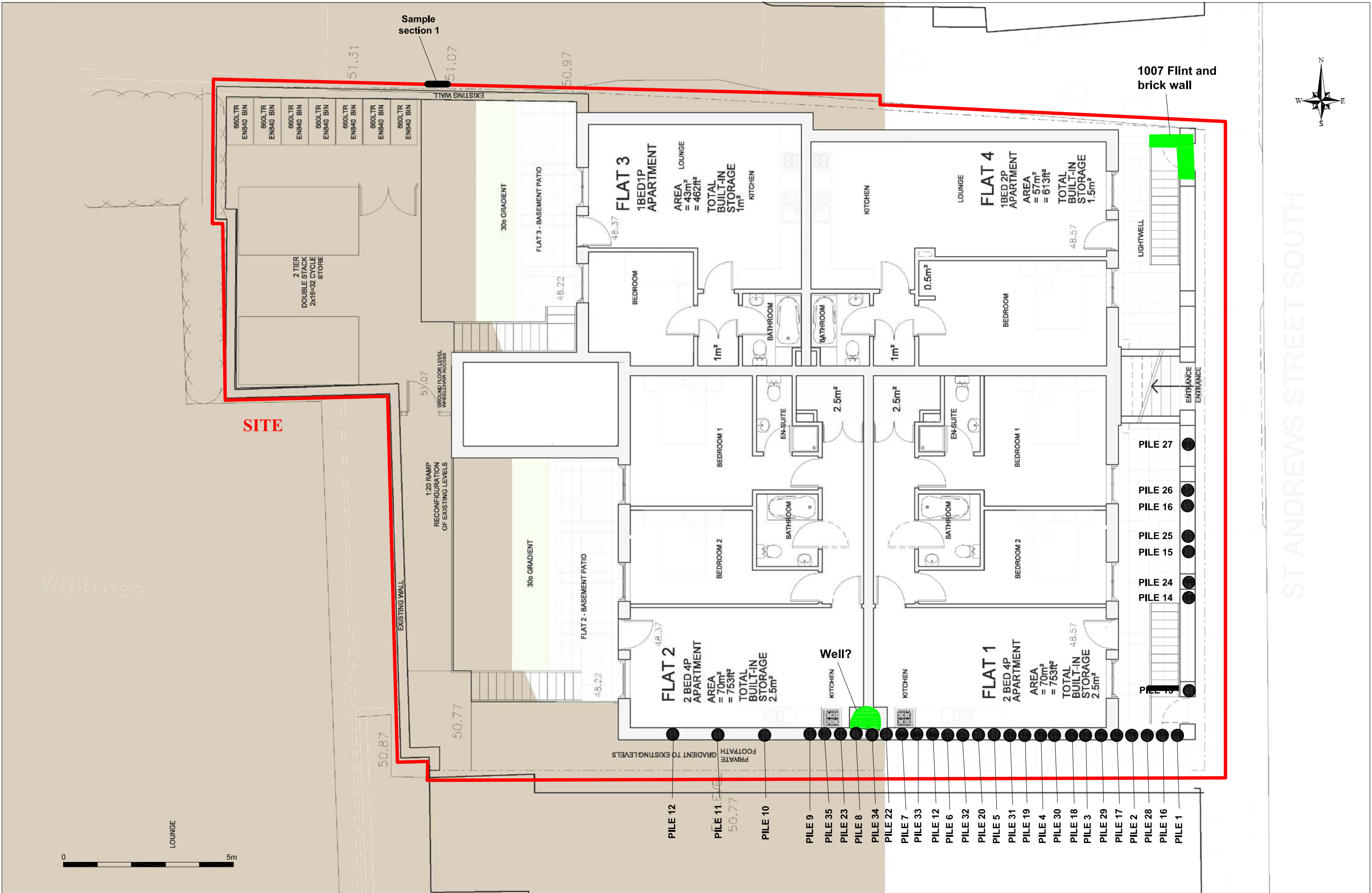


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 Fig. 4 Thomas Warren's map, 1791
 Not to scale
 46-47 St Andrew's St South, Bury St Edmunds, Suffolk (P8114)

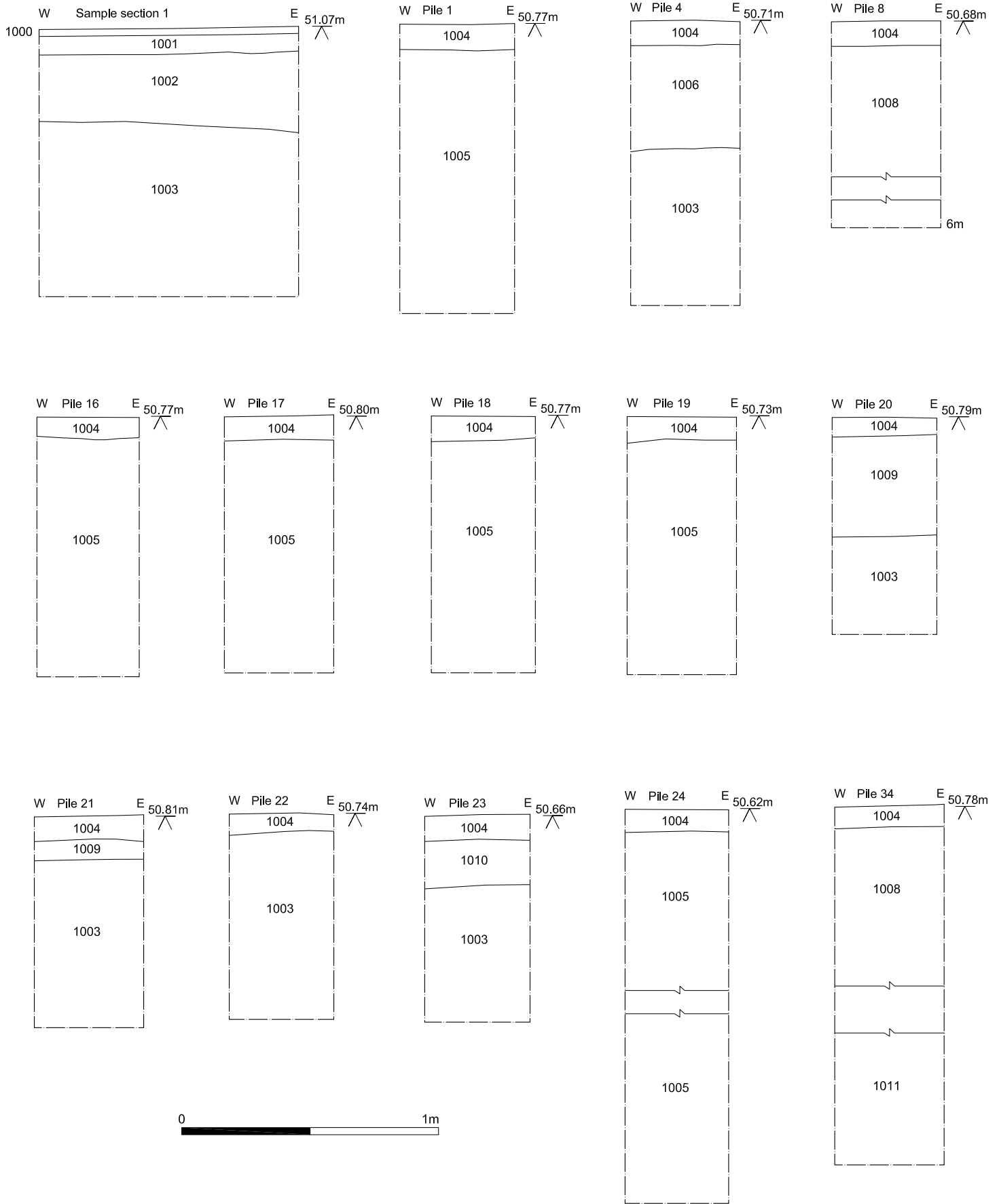


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Fig. 5 OS map, 1886
Not to scale
46-47 St Andrew's St South, Bury St Edmunds, Suffolk (P8114)



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Fig. 6 Location of pile sections
 Scale 1:200 at A4
 46-47 St Andrew's St South, Bury St Edmunds, Suffolk (P8114)



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Fig. 7 Pile sections

Scale 1:20 at A4

46-47 St Andrew's St South, Bury St Edmunds, Suffolk (P8114)