

Appendix 9.4 Archaeological Desk-Based Assessment

ARCHAEOLOGICAL SOLUTIONS LTD

**SOUTH BRADWELL, GREAT YARMOUTH,
NORFOLK**

AN ARCHAEOLOGICAL DESK-BASED ASSESSMENT

Authors: Peter Thompson (Report) John Summers (Graphics)	
NGR: TG 5073 0302	Report No. 4400
Parish: Bradwell	Site Code: n/a
Approved: Claire Halpin MifA	Project No. 4837
Signed:	Date: 3 September 2013

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OASIS SUMMARY SHEET			
<i>Project name</i>		<i>South Bradwell, Great Yarmouth, Suffolk DBA</i>	
<i>During August 2013 Archaeological Solutions (AS) carried out an archaeological desk-based assessment of land at South Bradwell, Great Yarmouth, Norfolk (NGR TG 5073 0302). The assessment was required in advance of the submission/determination of a planning application for residential development by Persimmons Homes (Anglia) Ltd and was undertaken based on advice from Norfolk County Council Historic Environment Service.</i>			
<i>Cropmarks of a probable Bronze Age ring ditch are located on the southern part of site. A geophysical survey identified a second possible ring ditch or other archaeological feature to the north-west and large groups of possible pits are present mainly to the north and south. Fieldwalking of the site recovered a small amount of prehistoric flints and medieval pottery</i>			
<i>Cropmarks of a possible Roman road or boundary run east-west across the site and other cropmarks of possible late prehistoric or Romano-British enclosures, fields or tracks extend on to the site. A geophysical survey identified a group of possible intercutting archaeological features on the north-west area of the site. The geophysical survey and the historic maps indicate the presence of post-medieval field boundaries. Cropmarks thought to be of post-medieval fields adjacent to the assessment site may run onto it. A WWII high frequency direction finding station was located on the assessment site astride Clay Lane.</i>			
<i>Project dates (fieldwork)</i>	<i>August 2013</i>		
<i>Previous work (Y/N/?)</i>	<i>Y</i>		<i>TBC</i>
<i>P. number</i>	<i>P4837</i>	<i>Site Code</i>	
<i>Type of project</i>	<i>Archaeological Desk-Based Assessment</i>		
<i>Site status</i>			
<i>Current land use</i>	<i>Agricultural land</i>		
<i>Planned development</i>	<i>Residential Development</i>		
<i>Main features (+dates)</i>	<i>-</i>		
<i>Significant finds (+dates)</i>	<i>-</i>		
<i>Project location</i>			
<i>County/ District/ Parish</i>	<i>Norfolk</i>	<i>Great Yarmouth</i>	<i>Bradwell</i>
<i>HER/ SMR for area</i>	<i>Norfolk Historic Environment Record (NCC HER)</i>		
<i>Post code (if known)</i>	<i>-</i>		
<i>Area of site</i>	<i>c.75 ha</i>		
<i>NGR</i>	<i>TG 5073 0302</i>		
<i>Height AOD (max/ min)</i>	<i>c.10m AOD</i>		
<i>Project creators</i>			
<i>Brief issued by</i>	<i>Norfolk Historic Environment Service</i>		
<i>Project supervisor/s (PO)</i>			
<i>Funded by</i>	<i>Persimmons Homes (Anglia) Ltd</i>		
<i>Full title</i>	<i>South Bradwell, Great Yarmouth, Norfolk. An Archaeological Desk-Based Assessment</i>		
<i>Authors</i>	<i>Peter Thompson</i>		
<i>Report no.</i>	<i>4400</i>		
<i>Date (of report)</i>	<i>September 2013</i>		

SOUTH BRADWELL, GREAT YARMOUTH, NORFOLK

AN ARCHAEOLOGICAL DESK-BASED ASSESSMENT

SUMMARY

During August 2013 Archaeological Solutions (AS) carried out an archaeological desk-based assessment of land at South Bradwell, Great Yarmouth, Norfolk (NGR TG 5073 0302). The assessment was required in advance of the submission/determination of a planning application for residential development by Persimmons Homes (Anglia) Ltd. and was undertaken based on advice from Norfolk County Council Historic Environment Service.

Cropmarks of a probable Bronze Age ring ditch are located on the southern part of site. A geophysical survey identified a second possible ring ditch or other archaeological feature to the north-west, and large groups of possible pits are present mainly to the north and south. Fieldwalking of the site recovered a small amount of prehistoric flints and medieval pottery

Cropmarks of a possible Roman road or boundary run east-west across the site and other cropmarks of possible late prehistoric or Romano-British enclosures, fields or tracks extend on to the site. The geophysical survey identified a group of possible intercutting archaeological features on the north-west area of the site. The geophysical survey and the historic maps indicate the presence of post-medieval field boundaries. Cropmarks thought to be of post-medieval fields adjacent to the assessment site may run onto it. A WWII high frequency direction finding station was located on the assessment site astride Clay Lane.

1 INTRODUCTION

1.1 During August 2013 Archaeological Solutions (AS) carried out an archaeological Desk-Based Assessment on land at South Bradwell, Great Yarmouth, Norfolk (NGR TG 5073 0302). The assessment was required in advance of the submission/determination of a planning application for residential development by Persimmons Homes (Anglia) Ltd based on advice from Norfolk County Council Historic Environment Service.

1.2 The assessment followed the procedures outlined in the Institute of Field Archaeologists' (IFA) *Standard and Guidance for Archaeological Desk-Based Assessment* (revised 2008).

1.3 The objectives of the desk-based assessment were to provide for the identification of areas of archaeological potential within the site, to consider the site within its wider archaeological context and to describe the likely extent, nature, condition, importance and potential state of preservation of the archaeology. The context of future development proposals for the site has been examined and areas of significant previous ground disturbance (if any) have been identified.

1.4 Specific project objectives were:

- to collate, verify and assess available information relevant to the presence, survival and character of archaeological remains/structures within the study area;
- to provide a predictive model of the sub-surface deposits likely to be present on the site and an assessment of their archaeological significance; and
- To assess the impact of development proposals for the site on any identified archaeological remains

Planning Policy Context

1.5 The National Planning Policy Framework (NPPF 2012) 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.

1.6 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 (Fig. 1 & 2)

2.1 The village and parish of Bradwell are located to the west of Gorleston-on-Sea and historically were in the county of Suffolk until 1974. The assessment site is located on agricultural land immediately south of Bradwell and the A143 which links Great Yarmouth with Haverhill. It covers all or parts of approximately ten

fields and can be roughly divided into four areas. One area is bounded on its south side by Clay Lane and Gorlestone Lane which create a rough V-shape. It is bordered by Jew's Lane on the east and on the northern and westernmost sides by open fields. A second area is located south of Gorlestone Lane. Its most easterly point borders Woodfarm Lane for a short distance and the west side is demarcated by Clay Lane. The remaining areas are bordered open fields. The third part is bounded to the east by Clay Lane and to the south by Wheatcroft Farm. There is mainly open field to the west except where the plot borders Browston Lane for a short stretch at its most north-westerly end. The northern border is a mix of developed land and open field. The fourth part is a small area which is bordered by the A143 to the north-west and Browston Lane to the east, with open field to the south-west.

3 METHODOLOGY

Information was sought from a variety of available sources in order to meet the objectives of the assessment.

3.1 Archaeological databases

3.1.1 The standard collation of all known archaeological sites and find spots within Norfolk is contained within the Norfolk (NHER). Significant entries within a 1km radius of the site are listed in Appendix 1 and plotted in Fig. 3. Where relevant, these sites and finds are discussed in Section 4.2. The site is referred to as the assessment site to distinguish it from other sites described in the text.

3.2 Historical and cartographic sources

3.2.1 The principal source for this type of evidence was the archives held at the Norfolk and Norwich Millennium Library, Norwich (N&NML) and the Norwich Archive Centre, Norwich (NAC). Relevant documents are listed in Appendix 3 and reproduced in Figs. 5-11.

3.3 Geological/geotechnical information

3.3.1 A description of the superficial and solid geology of the local and surrounding area was compiled in order to assess the likely presence and potential condition of any archaeological remains on the site. This information was drawn from appropriate maps published by the Geological Survey of Great Britain (BGS 1978) and the Soil Survey of England and Wales (SSEW 1983). Supplementary geological information was also retrieved from a geo-environmental report compiled by Ground Group Solutions (2004).

3.4 Site Inspection

3.4.1 In a previous phase of work a physical walkover of the site was undertaken during a field walking survey. The results are described in Section 4.2.15 (below).

4 THE EVIDENCE

4.1 Topography, Geology and Soils

4.1.1 The assessment site is located on gently undulating ground averaging approximately 10m AOD. To the west is an area of the Norfolk Broads formed where the Rivers Waveney and Yare meet. Just over 1km to the south is the River Fritton which forms a lake, the Fritton Decoy, to the south-west of the site. The coast is less than 2km to the east at Gorleston on Sea.

4.1.2 The underlying soils comprise glaciofluvial and Aeolian drift of the Wick 3 association which are deep well drained coarse loamy often stoneless soils which are mostly between 0.10m and 0.40m deep (Soil map of England and Wales 1983, Penn 2008). The underlying solid geology is Norwich Crag predominantly comprising fine-grained marine sands with some gravels and clays.

4.2 Archaeological and Historical Background

4.2.1 The assessment site lies within an area of considerable archaeological interest and potential due to a large number of crop mark sites identified from aerial photography (Penn 2008; Fig.4). These sites are likely to be multi-period potentially spanning all periods from the later prehistoric, through the Roman and medieval periods up until World War II.

Palaeolithic & Mesolithic <500,000-4,200 BC

4.2.2 Palaeolithic sites of major importance are known in parts of Norfolk and north Suffolk which include some of the earliest stone tools in Britain indicating a human presence dating to at least 700,000 years ago, the closest is at Pakefield, Lowestoft 14km to the south (Wymer & Robins 2006). However, there is little evidence for Palaeolithic remains within 2km of the assessment site, and Mesolithic finds are equally sparse bar some struck flints found during field walking 250m to the east by Woodfarm Lane (NHER 12780).

Neolithic to Bronze Age 4,200-700 BC

4.2.3 In later prehistoric times the assessment site was effectively on an island later called the Isle of Lothing with Flegg Island to the north, and the coastline extended further out to sea. Evidence for a Neolithic presence can be seen in the

area through occasional finds of flint tools. A quartzite macehead was found at Belton (NHER 10478), and flint axeheads have been recovered from Great Yarmouth (NHER 16471) and Middleton Gardens, Gorleston (NHER 10552); all of these sites are 1-2 km from the assessment site. A prehistoric flint tool was recovered 270m south of the assessment site (NHER 49811). A small amount of Neolithic and Bronze Age struck flint was found during field walking on the south-west edge of the assessment site (NHER 51864) and 250m to the east (NHER 12780).

4.2.4 Bronze Age prehistoric occupation is indicated on the Isles of Flegg and Lothing through the presence of a relatively large concentration of barrows and other monuments (Penn 2008). In particular the area to the south-west of the assessment site was a major focus for a complex landscape of prehistoric funerary practices intermixed with activities of a more domestic nature. The evidence includes a probable ritual site 1km to the south at Oaklands beside Sidegate Road, where three large middle Bronze Age ditches were excavated, two formed an avenue and a bronze hoard was ritually deposited in one of the ditches (Adams and Peachey 2011). Numerous other small ditches and pits indicative of occupation were also present. A large number of cropmarks of ring ditches indicating potential Bronze Age round barrows are located between this area and the assessment site (Barlow, Janes and Thompson 2011) including one which is located on the assessment site some 200m east of Wheatcroft Farm (NHER 12779). Cropmarks of two similar features are located near the A143 80m west and 240m north-west of the assessment site respectively (NHER 45209, 45210). Two more crop mark ring ditches are located 300m and 425m west of the south-west corner (NHER 45208, 12777), and another is near Churchfarm Lane, 240m east of the assessment site (NHER 43551).

Iron Age 700BC – AD 43

4.2.5 There are a large number of cropmarks in the area believed to date between the Iron Age and Romano-British periods and the most relevant of these are described in the next section (4.2.6). Fragmentary cropmarks dispersed over a 1.5km wide area are located in the vicinity of the James Paget Hospital and in the parishes of Bradwell and Great Yarmouth. They extend towards the east side of the assessment site and probably overlie it (NHER 45055). They possibly represent the remains of groups of enclosures and are themselves overlain by post-medieval field boundaries. However, excavations to the east of the area revealed no archaeological features on the ground (NHER 13020, 11787-8). Cropmarks of a possible Iron Age square barrow or enclosure are located approximately 430m south of the assessment site (NHER 45051).

Romano-British AD 43 – 410

4.2.6 The Roman 'Saxon Shore' fort and Scheduled Ancient Monument of *Gariannonum* is located 2.5km to the north-west (NHER 10471) which was probably constructed in the late 3rd century AD, and was one of a chain of

eleven forts between The Wash and Hampshire. It was probably built to protect Breydon Water, which at that time was a large tidal sea inlet, against seaborne raiders, and another fort was located to the north at Caister-on-Sea. According to the *Notitia Dignitatum* compiled c.395 it was home to the Stablesian cavalry unit and also contained a large vicus (English-heritage.org.uk, NHER 10486).

4.2.7 Cropmarks of a large feature running from James Paget Hospital to Wheatcroft Farm cross the southern part of the assessment site (NHER 43593). Its straightness and the fact that it appears to underlie post-medieval boundaries suggests that it may be a Roman road or a large land division boundary. At the south-west corner of the assessment site it diverts to the south-west, or is joined by another road/boundary coming from that direction (NHER 43591). A large number of fields and enclosures appear to be aligned to the latter road suggesting that they may be of the same date, although it is possible that they are later medieval or post-medieval field systems (NHER 43592). Cropmarks of fragmentary field systems and ditched boundaries of unknown date but thought to be Iron Age to Romano-British are located over the northern part of the assessment site and beyond (NHER 43476, 43467). Cropmarks of undated roughly rectangular enclosures have been identified on the assessment site partially following the course of Browston Lane (NHER 11584), although these are not apparent on the cropmark transcript. Cropmarks of probable multi-period settlement, enclosure, field systems and trackways, some of which may be of this period are centred on Wood Farm to the south-east and appear to extend onto the assessment site (NHER 45057). Further cropmarks of possible enclosures and associated features run towards Hobland Hall (NHER 45053).

Anglo-Saxon 410-1066

4.2.8 Burgh Castle is the traditional location of the Saxon monastery founded by St Fursey in the early 7th century when King Sigebert invited the Irish monk to settle with his followers at a place called *Cnobheresburg*, described by Bede as a wooded place not far from the sea built in a Roman castle. Parts of the Roman fort have been excavated and large amounts of Roman and Saxon buildings and artefacts have been recovered. The latter include early Saxon brooches and pottery and middle Saxon structures, floors, pottery and an inhumation cemetery (NHER 10471; McCall, Schofield, and Thompson 2010). The name Bradwell derives from (place at) the broad spring or stream and this may be referring to one of several minor streams to the north-west of modern Bradwell (Penn 2008). Metal detecting in the vicinity of the assessment site recovered an early Saxon brooch from 210m to the west (NHER 25295), a late Saxon book clasp 125m to the north (NHER 18004), and a silver ingot from 125m to the north-west (NHER 39556).

Medieval 1066 - 1539

4.2.9 Gorleston-on-Sea is first mentioned in the Domesday Survey in 1086 as

Gorlestuna meaning 'farmstead of a man called Gurl'. The settlement probably predates Great Yarmouth, and the Domesday survey lists a population of 20 villeins, 5 bordars, 5 slaves, 6 freemen and 24 fishermen. Bradwell is not mentioned in Domesday, and is thought to have been included in the returns made for *Gabbetun* (Suckling1 1846). "*Beletun* and *Gabbetun* are returned in Domesday amongst the King's possessions in Lothing land, which was in the charge of Roger Bigot. *Gabbetun* appears to have been the most important of the two places, and comprised two small manors, held by Ulf and Achestan, who possessed large flocks of sheep. One, Sprottulf also had an estate here. *Beletun* is called a beruite only: it was depreciated in value, though still rated at 10 shillings, and it fed a flock of 160 sheep. Balderic de Bosco held this domain in the reign of Henry II, whose heirs exchanged it with Robert de Gladeson for lands in Normandy" (Suckling2 1846).

4.2.10 Browston called *Brockestuna* in Domesday was also in the hands of the Crown, under the stewardship of Roger Bigot. "It was held as a manor by Ulketel, a free-man who had 40 acres of land with half a plough, wood for 10 pigs, 1 draught horse, 2 geese, and 7 pigs, 30 sheep, and 3 goats, valued at 5 shillings. Under him a free-man held 30 acres of land, valued at 2 shillings. In the same hamlet, Broder, a free-man, (who probably gave his name to the hamlet of Brotherton in the neighbouring parish of Hopton), held 60 acres for a manor, with two bordars (smallholders). In the same place, Godwin continued under the Normans to hold 30 acres of land, and half a plough, valued at 3 shillings; and two free-men here possessed 80 acres of land, and one bordar, with one plough and a half, always valued at 6 shillings" (Suckling2 1846). Therefore the assessment site either came under the manor of Gaphorn or was on the lands of one of the three unlocated sub-manors of *Brockestuna*.

4.2.11 *Bradwell* is mentioned in 1238 and so at some point this area became more important perhaps as Browston diminished and population shifted northwards (Mills 1991, Penn 2008). It is suggested that an unlocated deserted medieval village (DMV) is situated at Browston, probably in proximity to Browston Hall (NHER 11433). Hoblands Hall first mentioned in the late 13th century lay to the east of Browston, but is now represented by a single farm (Penn 2008). During the reign of Henry III (1216-1254) Bradwell Hall belonged to Osbert de Daggord, who held it from Baldwin Filiol (Penn 2008). Circa 1300 it passed to the Fastolfe family who held it for the remainder of the period. The Grade II* listed parish church of St Nicholas located 820m north of the assessment site has a 12th century round tower with the remainder of the fabric mainly 14th century, it was heavily restored in 1875 and 1907 (NHER 10591).

4.2.12 Coins and other metal work have been found within 1km of the assessment site. Most notably coins, a buckle, brooch and lead seal have been found in the fields north of the assessment site and in Bradwell village (NHER 18377, 18995, 15796, 18996, 18998); a medieval harness fitting was found 200m north-west (37556).

Post-medieval 1539-1900

4.2.13 The current Browston Hall was built in the 17th century but was rebuilt in the 18th with alterations and extensions in the 19th and 20th (NHER 42863). Hobland House was built in the 18th century with 19th and 20th century alterations (NHER 42863). Hobland Hall Park is a small area of parkland contemporary with the hall and mostly located to its east and screened by trees (NHER 56288). There are a number of cropmarks of probably post-medieval field systems, boundaries and trackways in the vicinity of the assessment site. Cropmarks thought to be of post-medieval fields are located between Gorlestone and Woodfarm Lane but may extend towards the assessment site (NHER 45056). Further cropmarks are located to the south of the assessment site (NHER 45152, 45153).

Modern 1900+

4.2.14 There are a large number of WWII gun emplacements, searchlight batteries, air raid shelters and defensive structures within 1km of the assessment site. The site of a high frequency direction station is located on the assessment site beside Clay Lane (NHER 42232).

Results of field work carried out on the assessment site

4.2.15 In 2012 Archaeological Solutions carried out a field walking survey over the assessment site (Egan 2012, Appendix 5: Figs 12-14). The fieldwalking recovered a total of 113 pieces of prehistoric struck flint (2,085g). The assemblage included part of a flaked axe, scrapers, blades and debitage of mixed prehistoric date and technology, ranging from the Mesolithic to the later Neolithic/early Bronze Age. The tools and debitage from all prehistoric periods are broadly distributed in the southern, western and north-western sectors of the site. A single sherd of late Bronze Age to early Iron Age pot was also found. Sixteen abraded medieval pottery sherds dated (10th – 13th; 11th – 13th/ 14th, 12th – 14th century) were found on the western and eastern sides of the assessment site and may be attributed to manuring. In addition a small amount of slag and metalwork, probably all or mainly post-medieval to modern in date, was mainly distributed to the north-east and north-west.

4.2.16 In 2013 Stratascan undertook a gradiometer geophysical survey of the assessment site identifying a number of anomalies of possible archaeological origin (Smalley 2013, Appendix 5: Figs 15-16). The majority of these features are located on the western half of the site between Clay Lane and Browston Lane. The Bronze Age ring ditch (NHER 12779) was visible along with another circular bank and ditch abutting Browston Lane on the north-west of the assessment site. A group of intercutting features possibly representing enclosures of later

prehistoric or Romano-British date, are visible adjacent to the developed area abutting the north-west edge of the assessment site. Three or four large clusters of possible pits are also located across the central area of the assessment site (although it is possible that these could be the result of tree boles). A number of post-medieval field boundaries are present mainly in the south-west area of the assessment site.

4.3 Cartographic Evidence (Figs. 4 - 8)

Early maps

4.3.1 Faden's 1797 map of Norfolk shows little detail but Browston Lane and Jew's Lane are shown (Fig. 5). The 1814 Enclosure Map of Bradwell shows that the assessment is in the same plan as today with Browston Lane, Clay Lane, Gorleston Lane, Jew's Lane and Wheatcroft Farm all present (Fig. 6). All of the assessment site lands are owned by Thomas Fowler. The 1842 Tithe map shows changes to some of the field layouts of the assessment site lands, which are all arable and still owned by the Fowlers (Mary Joanne Fowler), and mainly occupied by William Shephard (Fig. 7).

Bradwell OS maps

4.3.2 The 1906 Second Edition OS map shows that bar the appearance of buildings at the location of Wheatcroft Cottages between Clay and Gorleston Lanes, and where Gorleston Lane joins Woodfarm Lane, the layout is similar to the Tithe Map (Fig. 8). The 1927/28 and 1958 OS maps show allotments to the north-west of the assessment site, but there are no significant changes to the predecessor (Fig. 9 & 10). The 1982 OS map shows that Gorleston and Bradwell have now become developed but there are no changes to the assessment site other than further field alterations (Fig. 11).

4.4 Constraints

Listed Buildings – The closest listed buildings are Church Farmhouse and an associated barn at Church Walk approximately 500m north-west of the assessment site (LB 227748 & LB 227749) (www.britishlistedbuildings.co.uk).

Registered Park and Gardens – There are no Registered Parks and Gardens within 1km of the assessment site.

Archaeological Priority Area – The assessment site is not in a designated Archaeological Priority Area but is in an area of strong archaeological potential based on cropmarks identified from aerial photographs.

Scheduled Ancient Monuments – There are no Scheduled Ancient Monuments within 1km of the assessment site.

Conservation Areas – The assessment site is not located within a Conservation Area (Long 2009).

5 SITE VISIT

Site Access & Layout

5.1 The site was visited in November 2012 during a field walking survey.

6 DISCUSSION

6.1 Previous Ground Disturbance

6.1.1 The title map apportionment shows that Field 41 is named Clay Pit Piece indicating that clay extraction has taken place, and it is possible that other clay pits were dug in the area (Appendix 4). The assessment site has been ploughed over time which may have caused truncation to potential surviving archaeological features. The development of Bradwell and Gorleston in the later 20th century whose urban areas reach the edge of the assessment site, lends to the possibility that there could be low level disturbance to the adjacent ground on the periphery of the assessment site.

6.2 The Impact of the Proposed Development

6.2.1 The prospective development will cause truncation and disturbance to potential archaeological deposits through excavation of building foundations, service trenches and road construction, and the use of heavy machinery.

6.3 Archaeological Potential

6.3.1 The following assessments are based on the archaeological information discussed above.

Prehistoric – High. The cropmarks of a probable Bronze Age ring ditch are located on the southern part of site (NHER 12779). The geophysical survey identified a second possible ring ditch or other archaeological feature to the north-west (Fig's 15-16). Fieldwalking the site recovered a total of 113 pieces of prehistoric struck flint (Egan 2012). Cropmarks thought to represent Iron Age activity may extend over the east side of the site (NHER 45055), and possible pits identified from geophysics may be prehistoric.

Romano-British – Moderate. Cropmarks of a possible Roman road or boundary run east-west across the assessment site (NHER 43593, 43591). Other

cropmarks of possible Romano-British enclosures, fields or tracks extend onto the site (NHER 11584, 43476, 43467). The highest density of cropmarks appears on the southernmost part of the assessment site (Fig. 4) and may be part of the multi-period group NHER 45057. Geophysical survey identified a group of possible intercutting archaeological features on the assessment site which may be later prehistoric or Romano-British (Figs 15-16).

Anglo-Saxon – Low. Stray Saxon finds have been found in the area during metal detecting, the closest approximately 125m from the assessment site (NHER 18004, 39556).

Medieval – Low to Moderate. Some of the cropmarks on the assessment site could be indicative of medieval field boundaries or systems, and sixteen abraded medieval pottery sherds probably derived from manuring, were found during field walking. Stray metalwork finds have been found in the vicinity during metal detecting.

Post-Medieval – High. Geophysical survey and the historic maps indicate the presence of post-medieval field boundaries (Figs 15-16). A WWII high frequency direction finding station was located on the assessment site astride Clay Lane (NHER 42232)

7 CONCLUSION

7.1 There are a large amount of cropmarks of possible archaeological features in the area with the highest concentrations on the assessment site being located to the south and the centre-west (Fig. 4). The dearth of cropmarks on the west side is likely to be a geological phenomenon as the geophysical survey identified possible archaeological features there.

7.2 The cropmarks of a probable Bronze Age ring ditch are located on the southern part of site (NHER 12779). Geophysical survey identified a second possible ring ditch or other archaeological feature to the north-west (Appendix 5: Figs 15-16), and further possible ring ditches have been identified outside the assessment site. Fieldwalking recovered a total of 113 pieces of prehistoric struck flint (2,085g) broadly distributed in the southern, western and north-western sectors of the assessment site (Egan 2012, Fig. 13). Cropmarks thought to represent Iron Age activity potentially extend over the east side of the site (NHER 45055), and large groups of possible pits identified from geophysics may be prehistoric (but could be natural) (Fig. 16).

7.3 Cropmarks of a possible Roman road or boundary run east-west across the assessment site (NHER 43593, 43591), although it was not identified in the geophysical survey. Other cropmarks of possible late prehistoric or Romano-British enclosures, fields or tracks extend onto the site (NHER 11584, 43476,

43467, 45057). Geophysical survey identified a group of possible intercutting archaeological features on the north-west side of the assessment site which may be later prehistoric or Romano-British (Figs 15-16).

7.4 Stray Saxon and medieval finds have been found in the area during metal detecting, the closest approximately 125m from the assessment site (NHER 18004, 39556). Some of the cropmarks on the assessment site could be indicative of medieval field boundaries, and sixteen abraded medieval pottery sherds probably derived from manuring, were found during field walking (Fig. 12).

7.5 Geophysical survey and the historic maps indicate the presence of post-medieval field boundaries (Fig. 16). Cropmarks thought to be of post-medieval fields adjacent to the assessment site may run onto it (NHER 45056, 45152, 45153), while some of the cropmarks inferred above may also be post-medieval. A WWII high frequency direction finding station was located on the assessment site astride Clay Lane (NHER 42232)

8 ACKNOWLEDGEMENTS

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9 BIBLIOGRAPHY

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10 WEB SITE

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www.english-heritage.org.uk – Burgh Castle

www.norfolk.gov.uk - Norfolk Heritage Explorer

APPENDIX 1 SITES AND MONUMENTS RECORD DATA

The following sites are those that lie within a 1km radius of the site. The table has been compiled from data held by the Norfolk Historic Environment Record (NHER).

BHER Number	National Grid Reference	Description
<i>Prehistoric 8,000 BC – AD 43</i>		
49258	49959 03207	Cropmarks of probable late prehistoric to Romano-British trackway
30302	4992 0350	Cropmarks of a trackway thought to be late prehistoric
45179	50020 02020	Cropmarks of possible prehistoric trackway
45193	50080 02190	Cropmarks including a possible late prehistoric enclosure north of Browston Hall
45225	49860 03581	Cropmarks of a possible enclosure of late prehistoric date south of Church Walk
49811	51 02	Prehistoric flint blade
<i>Bronze Age 2,300-700BC</i>		
12777	4994 0257	Possible Bronze Age ring ditch west of Browston Lane
12779	5087 0248	Possible Bronze Age ring ditch east of Wheatcroft Farm
43551	51460 02610	Cropmarks of a group of round barrows on either side of Woodfarm Lane
45054	51610 02100	Cropmarks of a ring ditch and circular mound thought to be a Bronze Age barrow
45208	50050 02604	Cropmarks of possible ring ditch
45209	49889 03058	Cropmarks of possible ring ditch
45210	49838 03219	Cropmarks of possible ring ditch
<i>Iron Age 700 BC –AD 43</i>		
45055	51549 02562	Probable Iron Age enclosures and fields seen in fragmentary cropmarks over 1.5km. Possible enclosure groups with occasional fields and trackways
45051	51440 02120	Cropmarks of possible Iron Age square barrow or enclosure
<i>Romano-British AD 43-410</i>		
16470	50 03	3 Roman coins found during metal detecting
16556	51 03	Metal detected Roman brooch
18388	50300 02340	Cropmarks of undated enclosure and metal detected Roman coin west of Browston Lane
45189	50300 02340	Cropmarks of fragmented field boundaries of late prehistoric to Romano-British date
45052	51110 02120	Cropmarks north of Hobland Hall of extensive settlement and field system from Iron Age to Romano-British date
45053	51290 02240	Cropmarks north of Hobland Hall of possible Roman enclosures and associated features
43591	49686 02383	Cropmarks of a possible Roman road or a major land boundary
43592	48504 01865	Cropmarks of a field system of unknown date but aligned to

		[43591] so could be Romano-British
43593	51040 02600	Cropmarks of a major land boundary of possible Roman date
45215	49563 03199	Cropmarks of an enclosure and fragmentary field systems of possible late prehistoric to Romano-British date
45175	49697 02416	Cropmarks of enclosures and fragmentary field boundaries of possible late prehistoric to Romano-British date
Anglo-Saxon AD 410-1066		
18004	50 03	Late Saxon decorated book mount found during metal detecting
25295	50 02	Early Saxon brooch, metal detected
39556	49 03	Saxon silver ingot
Medieval 1066-1539		
10591	5031 0385	St Nicholas Church, Bradwell: Grade II* listed with 12 th century round tower, rest 14 th century, restored in 1875 and 1907
15796	50 03	Metal detected medieval buckle, brooch and coins
17263	51 03	Medieval coin metal detected
17264	51 03	Metal detected medieval bronze seal matrix and post-med bale seal
17949	51 03	Late medieval/early post-medieval gold bandolier fastener
18377	51 03	Metal detected medieval lead seal
18991	50 03	Metal detected medieval coin
18992	50 03	Metal detected medieval coin
18993	50 03	Metal detected medieval coin
18994	51 03	Metal detected medieval coin
18995	50 03	Two metal detected medieval coins
18996	50 03	Metal detected medieval coin
18998	50 03	Metal detected medieval coin
37556	49 03	Metal detected medieval harness fitting
43455	51152 04113	Soil marks of possible medieval to post-medieval field boundaries
45161	50060 02250	Soilmarks of possible ridge and furrow north of Browston Hall
45050	51540 02130	Cropmarks of probable medieval postmill
52501	50 02	Medieval bull of Boniface VIII
52739	50 01	2 medieval coins found during metal detecting
Post-medieval 1539-1900		
10587	5158 0323	Site of 19 th century hospital for infectious diseases at Gorlston on Sea
13574	4798 0007	Route of Suffolk Railway (Yarmouth to Beccles) opened 1854/9, closed 1959
43457	50850 03140	Crop and soil marks of post-medieval field boundaries and trackways
45152	50240 02220	Cropmarks of post-medieval road or track
45153	50870 02350	Cropmarks of post-medieval road or track
45056	51636 02360	Cropmarks of post-medieval field boundaries
Modern 1900+		
13020	52 02	Site of archaeological field work at James Paget Hospital no features or artifacts. 1955 USAAF crash site

13575	5238 0284	Route of Norfolk and Suffolk Joint Railway (Great Yarmouth to Lowestoft) opened 1903 closed 1970
42228	50441 03932	WWII air raid shelters, Bradwell - destroyed
42229	50588 03896	WWII air raid shelters, Bradwell
42230	50670 03908	WWII gun emplacements, Church Lane
42231	50918 03981	WWII defensive structures
42253	51729 03923	WWII air raid shelter
42254	51673 03862	WWII air raid shelter
42255	51600 03200	WWII air raid shelter
42518	51580 02370	WWII search light battery and possible wireless or radar station
42232	50673 02925	WWII high frequency direction finding station
Undated		
11584	501 029	Crop marks of undated field boundaries
45057	51567 02154	Multi-period undated cropmarks centred on Wood Farm
49260	50045 02593	Cropmarks of field boundaries and enclosures of unknown date
45261	49379 02523	Multi-period cropmark site south and east of Belton
45216	49544 03679	Multi-period crop mark site mainly fragments of field boundaries to the west of Bradwell
Multi-period		
11787	51 02	Multi-period finds and cropmarks, the majority are thought to be late prehistoric and Romano-British
11788	52 01	Valley Farm site: multi-period finds and excavations mainly early Bronze Age including a ritual site, and WWII defences
12780	5147 0260	Multi-period finds and features. Metal detecting and geophysical survey recovered mainly Mesolithic, Bronze Age and Neolithic flints and post-medieval pottery and slag.
17226	5042 0208	Multi-period and undated cropmarks: Located in a large area west of Browston Hall, north of Wheatcroft Farm, east of Hobland Lane and south of Hobland Road they mainly represent several phases of enclosures, field systems and trackways thought to date mainly to the late prehistoric and Romano-British periods. Bronze Age ring ditches also in the area
39708	51 02	Metal detected multi-period finds including prehistoric cores and scraper, medieval strap end and tweezers and post-med floor tile and pottery
43456	51087 04213	Multi-phase cropmarks of field boundaries and ditched features of unknown date but some are thought to be Iron Age to Romano-British
43454	50214 04591	Cropmarks of dispersed field systems and ditched features, possibly Iron Age to Romano-British
43466	51568 03626	Cropmarks of dispersed field systems and ditched features, possibly Iron Age to Romano-British
43467	50650 03060	Cropmarks of dispersed field systems and ditched features, possibly Iron Age to Romano-British
43476	50660 03150	Cropmarks of dispersed field systems and ditched features, possibly Iron Age to Romano-British

45058	51456 01906	Cropmarks of undated enclosures and Bronze Age ditches, the majority are probably Iron Age to Romano-British date
51864	50 02	Neolithic, medieval and post-medieval finds
Negative		
52869	5037 0354	Green Lane, no features or finds

APPENDIX 2 PLANS & CARTOGRAPHIC SOURCES

Number	Title	Date	Scale	Source (Reference)
Fig. 1	Site location	Modern	1:25,000	OS Explorer
Fig. 2	Detailed site location	Modern		AS
Fig. 3	HER information	Modern		AS
Fig. 4	Norfolk HER cropmark map	Modern		Norfolk HER
Fig. 5	Faden's map of Norfolk	1797	-	Barringer 1989
Fig. 6	Bradwell Enclosure Map	1814	-	NAC (EG48/A1/1)
Fig. 7	Bradwell Tithe Map	1842	-	NAC (DN/TA 643)
Fig. 8	Second edition OS map	1906	1:10,560	N&NML (78 SW, 78 SE)
Fig. 9	OS map	1927 & 1928	1:2,500	N&NML (78.10, 78.11, 78.14, 78.18)
Fig. 10	OS map	1958	1:10,560	N&NML (TG 50 SW)
Fig. 11	OS map	1982	1:10,560	N&NML (TG 50 SW)

APPENDIX 3 TITHE APPORTIONMENT

Plot	Owner	Occupier	Name	Use	Area <i>r. p. c.</i>
31	Mary Joanne Fowler	William Shephard	Cottage Piece	arable	17, 1, 7
32	"	"	Scooly Piece	arable	11, 3, 10
37	"	"	House, yards, gardens & drift	-	3, 0, 18
39	"	"	Twelve Acres	arable	11, 1, 37
40	"	"	Old Barn Piece	arable	12, 2, 5
41	"	"	Clay Pit Piece	arable	16, 3, 29
42	"	"	Thirteen Acres	arable	14, 0, 24
43	"	"	Broceston Sixteen Acres	arable	16, 1, 30
44	"	"	Thirteen Acres	arable	13, 3, 26
45	William Barber	Henry Hammond	Back Field Piece	arable	2, 0, 37
46	Mary Joanne Fowler	William Shephard	Back Field Piece	arable	3, 2, 15
90	"	William Cobb	Church Twelve Acres	arable	19, 2, 10
94	"	William Shephard	Sun Piece	arable	1, 0, 32
95	"	"	White Gate Piece	arable	15, 3, 26
96	"	"	Sixteen Acres	arable	16, 0, 8
97	"	"	Open Hatched Piece	arable	17, 2, 2
98	"	"	The Twelve Acres	arable	13, 2, 24
100	Reverend William Javett	George Woods	First Jews Lane Piece	arable	16, 2, 38
107	"	"	Home Piece	arable	15, 0, 27

**APPENDIX 5 DISTRIBUTION OF FIELD WALKING FINDS &
GEOPHYSICAL SURVEY ANOMALIES**

Map/plan	Description	Source
Fig. 12	Archaeological Solutions Field Walking Finds Plot – Pottery and CBM	Egan 2012
Fig. 13	Archaeological Solutions Field Walking Finds Plot – Flint	Egan 2012
Fig. 14	Archaeological Solutions Field Walking Finds Plot – metals and miscellaneous	Egan 2012
Fig. 15	Stratascan plot of processed gradiometer data	Smalley 2013
Fig. 16	Stratascan abstraction and interpretation of gradiometer anomalies	Smalley 2013