ARCHAEOLOGICAL EVALUATION REPORT



21, The Street, Worlington Suffor County Cou

A REPORT ON THE ARCHAEOLOGICAL EVALUATION, 2008 (Planning app. no. F/2008/0565/FUL)

Suffolk County Council Suffolk County Council Archaeological Service

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Acknowledgements

Suffolk County Council Suffolk County Council Archaeological Service This project was funded by Mr Brian Keane and the archaeological work was specified and monitored by Dr Jess Tipper (Suffolk County Council Archaeological Service, Conservation Team).

The evaluation was carried out by members of Suffolk County Council Archaeological Service, Field Team, under the direction of Jo Caruth.

Finds processing was carried out by Gemma Adams, and the specialist finds and environmental assessment reports were produced by Richenda Goffin and Val Fryer. Other specialist identification and advice was provided by Dr Colin Pendleton, SCC HER Officer. Post excavation assistance was provided by Gemma Adams.

Summary

Archaeological evaluation in advance of development on land at 21, The Street, Worlington identified a small discrete group of medieval pits, dating from between the 11th and 14th centuries AD, and an infilled pond, which was probably contemporary with the pits, and from which a worked bone socketed point was recovered. Environmental evidence from the lower pond deposits showed that this had lain within managed grassland and evidence from the southern edge of the pond suggests that it may have served as a village amenity, accessed by people and animals. Both the pond and the pits were sealed by deposits of loam and topsoil varying between 0.8 and 1.1m deep. Due to the depth of overburden, the limited extent of the archaeological finds, and the ability to adequately excavate the features within the evaluation, no further work on this site is recommended.

HER information

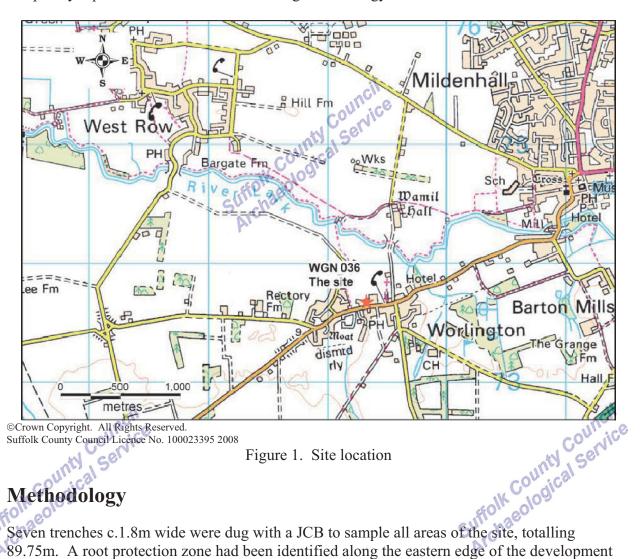
Planning application no. F/2008/0565/FUL Date of fieldwork: 16th October 2008 Grid Reference: TL 6934 7369 Funding body: Developer, Mr Brian Keane **Oasis** reference Suffolkc1-51115

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Introduction

An archaeological evaluation was undertaken in advance of redevelopment at 21, The Street, Worlington (Fig. 1). The site lies at grid ref: TL 6934 7369, and is sloping gently from south to 9 north at the edge of the River Lark floodplain between c.8.4m OD at the south end of the site and 7.1m OD at the north end. The archaeological work was carried out to satisfy a condition on planning application F/2008/0565/FUL and was carried out in accordance with a Brief and Specification issued by Dr Jess Tipper, Suffolk County Council Archaeological Service, Conservation Team, dated 5th August 2008 (unchanged from an earlier withdrawn application F/2008/0510/OUT).

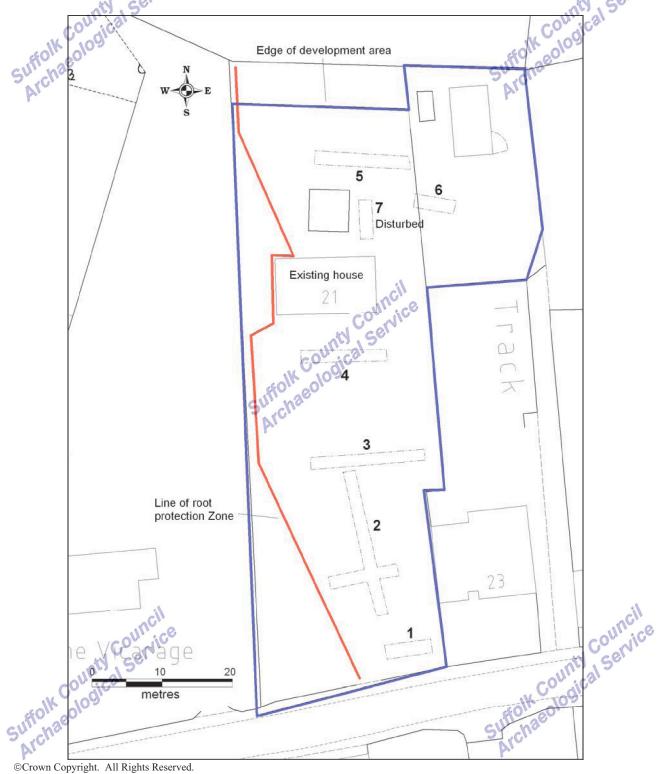
The site lies within the medieval settlement core of Worlington, close to a medieval moated site, Suffolk HER no. WGN 002, and medieval finds WGN 017 have been found in the vicinity. The aim of the evaluation was to establish the extent, condition and date of any archaeological remains on the site that were threatened with damage from development works, and to adequately report the results to inform a mitigation strategy.



Methodology

Seven trenches c.1.8m wide were dug with a JCB to sample all areas of the site, totalling 89.75m. A root protection zone had been identified along the eastern edge of the development area and all below ground construction has been designed to avoid damage here; for this reason no trenches were excavated within this area. The trench location targeted the areas where construction groundworks were most likely to disturb potential archaeological deposits, subject to access by the machine. No trees or shrubs were removed during the works. A discrete group of archaeological features were found in Trench 2 and additional trenches were inserted here in order to accurately define their extent and nature. Each trench was recorded in section at 1:20,

but some trenches were too deep to enter and the sections were recorded roughly as measured sketches. Where archaeological features were found, the surface of the trench base was cleaned by hand and sections hand excavated through each feature to sample a minimum of 50% of the fills of each. Further sections were excavated within the additional trenches inserted into this area resulting in the sampling of up to 60-70% of the fills of some features. These were



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Figure 2. Trench location plan

hand planned at 1:50 and the location of the features, trenches and drawn sections recorded using a Leica RTKGPS. Samples for palaeo-environmental assessment were taken from

archaeological features and the lower deposit within a suspected pond. Monochrome print and high resolution (2400 x 2087 pixels - 7mp) digital photographs were taken throughout the works. Context numbers were recorded in a single 4 digit sequence starting from 0001 using the new HER site code WGN 036. Upcast soil from the trenches and archaeological features was metal detected.

The site data has been input to a Microsoft Access database, and the digital archive stored on the main computer servers of Suffolk County Council. The physical archive is kept in the archaeological stores of Suffolk County Council in Bury St Edmunds. A copy of the evaluation report is lodged with the Oasis on-line database (http://ads.ahds.ac.uk/projects.oasis) under the reference Suffolkc1-51115.

Results

Archaeological features were found in a discrete group in Trench 2, and a modern ditch at the east end of Trench 3. At the north end of Trench 2, and in Trenches 3 and 4 what appears to have been a pond was identified. All trenches had at least 1m of built-up deposits over the natural sand. The full list of contexts is contained within Appendix 2.

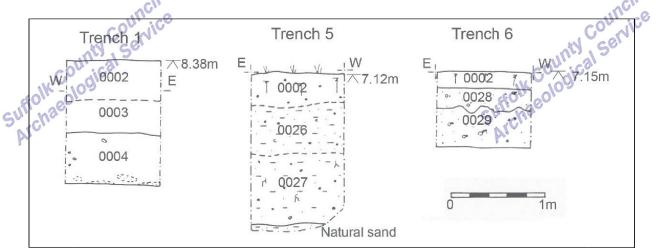
Trench 1

This was E-W aligned, 6.5m long and was inserted against the road frontage, as this location had high potential to demonstrate the presence of medieval occupation. Natural was found at between 1.2 and 1.4m below ground level under three well sorted soil layers (Fig. 3):

- 0002 modern topsoil of brown sandy silt
- 0003 mid grey silty sand
- 0004 a paler grey-brown silty sand

These three layers probably represent former worked soils, although it is not certain how these have accumulated. The site is low lying, at it is possible that these could have been deposited during flooding episodes in the past and subsequently worked, but as the site is 200m beyond the edge of the River Lark floodplain, this is perhaps not a likely explanation. The road is at the same level as this site, as is the house fronting the street opposite the site. However behind, and a part of, the house opposite is a medieval structure, which was set at least 0.6m lower than the later street-fronting part of the house.

A sherd of 11th-12th century pottery and fragments of ceramic building material (0003) of mixed date was recovered from the upper layers, but no archaeological features were identified within this trench.



Trench 2

This was N-S aligned and 21.25m long. Two pits, 0012 and 0016, and a ditch, 0010, were identified (Fig. 4) in the southern half of the trench under c.1.1m of fairly homogeneous browngrey silty sand, 0020, and modern topsoil, 0002 (Fig. 5). Two additional trenches, 5.5m and 2.9m long were inserted into this area at right angles to Trench 2, to better define the extent of the pit group. This found another possible feature in each cross trench, pit 0014 (which was later identified as the same as 0012), and a small shallow depression 0018.

Pit 0025

This was sub-rectangular, 3m wide x 2m wide and 0.8m deep (Fig. 4) with steeply sloped sides, stepped at the south end, and a flat base (Fig. 5). It was initially identified as two pits, 0012 and 0014, but excavation showed these to be the same feature (renumbered 0025). Two fills were identified, 0013/0015, a central dark grey stony silty sand from which medieval pottery and a small fragment of possibly intrusive clay pipe was recovered and an outer fill, 0024, mixed yellow-grey sand with chalky patches which contained no finds. The clear distinction between fills 0013/0015 and 0024, and the stepped sides at the south end suggest that this feature has been recut.

Pit 0016

This was a circular pit 2.01m x 2.06m and 0.6m deep (Figs. 4 and 5), filled with a mixed brown loam and grey stony silt from which two fragments of animal bone and a sherd of late 12th-14th century pottery was recovered.

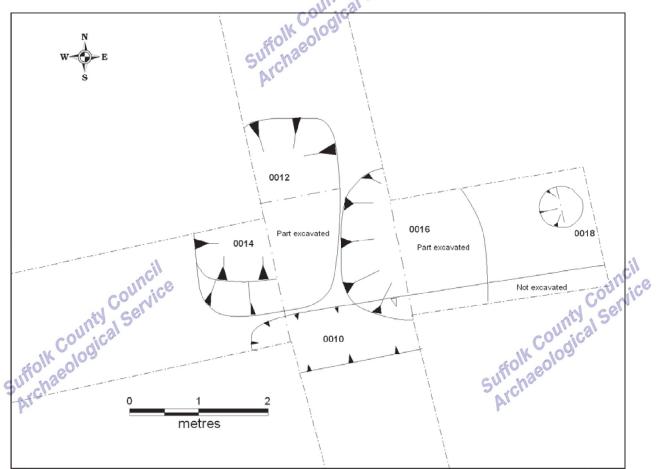


Figure 4. Plan of features in Trench 2

Ditch 0010

Ditch 0010 was east-west aligned at the southern edge of the pit group and it just cut the upper fill of 0014 and 0016. It was 0.8m wide, 0.2m deep and filled with dense mottled grey-orange stony sand (Fig. 5), from which ten sherds of pottery dating from the 11th-13th centuries was recovered as well as animal bone and shell fragments. It could be seen to terminate in the cross trench to the west, but continued beyond the eastern end of the opposing trench (Fig. 4).

Feature 0018

This was a small circular feature 0.56m in diameter, with a shallow sloping profile and filled with grey stony silt, 0019 from which no finds were recovered. The shallow depth, and regular shape of this suggests that it is the base of a truncated pit, although, alternatively, the waterlain appearance of the fill, combined with the shallow profile could lead to interpretation of it as a naturally occurring depression in soft, wet ground.

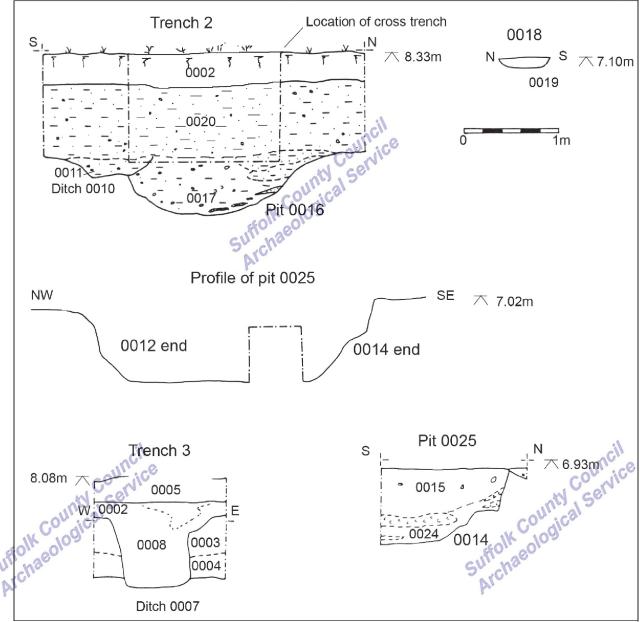


Figure 5. Feature sections

Pond 0022, fill 0006

The depth to natural sand deepened to the north end of the trench to 1.2m below ground level, and an additional pale brown sandy layer could be seen overlying topsoil 0002. A slightly irregularly shaped possible feature could be seen at this end of the trench, and this continued beyond all sides of the trench. It was filled with dark grey silt, 0006, from which two fragments of animal bone, one of which was worked into a socketed point, possibly of medieval date was recovered. This was identified as part of a pond feature in Trenches 3 and 4, but which was probably infilled by the 19th century as it was not shown on the 1886 Ordnance Survey map.

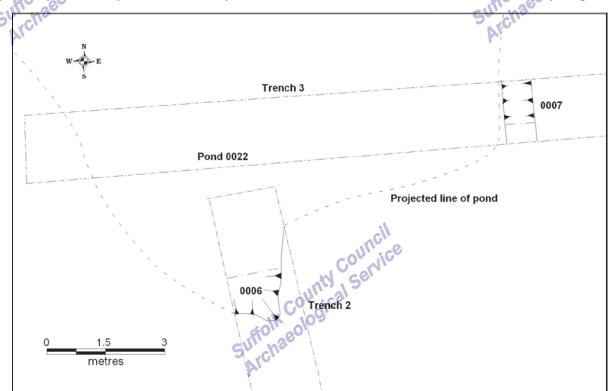
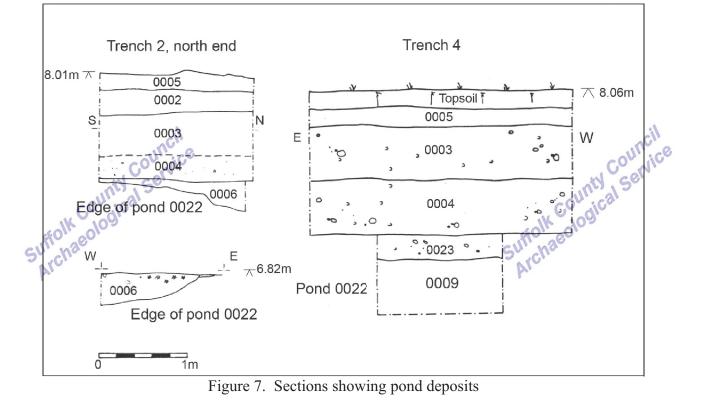


Figure 6. Features in the north end of Trench 2 and Trench 3



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Trench 3

Trench 3 was E-W aligned, 16.5m long and the depth to natural varied from 0.84m at the eastern end to 2m at the western end. Natural sand was not reached in the centre of the trench. At the east end of the trench a small north-south aligned ditch, 0007, 0.76m wide x 0.78m deep, was found. This was cut from the level of topsoil 0002 and the fill, 0008, was indistinguishable from it. It cut the earlier soil layers 0003 and 0004. West of the ditch the depth of the overlying layers deepened and the trench was excavated to the top of a lower layer of mottled orange-grey sand, 0023, that looked waterlain. An edge to this was found at the western end of the trench at c. 2m deep. Layer 0005, brown sand over topsoil was still found in the top of the soil profile.

Trench 4

Trench 4 was 12m long and also E-W aligned. This was dug to c. 1.4m deep and natural sand was not found, but a soil profile comparable to that over most of Trench 3 was seen. In the centre of the trench a small sondage was dug with the machine in order to try to interpret the feature. Below 0023, a dense dark grey dry peaty mud, 0009, with grains of fine silver sand was found, this was not bottomed at 2.5m.

Trench 5

This was E-W aligned, 15m long and was excavated north of the existing house. Here natural sand was found at 1.6m under topsoil, grey silty sand and a pale grey-brown sand. No archaeological features were found.

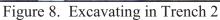
Trench 6

Trench 6 was excavated within the trees and shrubs within the north-east corner of the site. Access was difficult and it was only possible to dig a small trench 5m long. Yellow streaky sand, interpreted as natural was found here at 0.8m under yellow-brown stony sand, grey silty sand and topsoil. No archaeological features were identified.

Trench 7

Trench 7 was dug to try to see if the pond continued beyond the existing house, but services were encountered at c. 0.3m and the trench was abandoned.





Finds and environmental evidence by Richenda Goffin

Introduction

Introduction Finds were collected from 11 contexts, as shown in the table below. OP CBM Animal bone Shell Miscellaneous OP Pottery CBM Animal bone Shell Miscellaneous Spotdate No. Wt/g No. Wt/g No. Wt/g No. Wt/g											
ОР	Potte		СВ		Anima		She		Miscellaneous	Spotdate	
C	No.	Wt/g	No.	Wt/g	No.	Wt/g	No.	Wt/g	CO	di Ca	
0001	o1091	17							Suffolk Co	OUnstrat, 850-1200	
90002	1	6			1	21			Surcha	11th-12th C	
0003			5	594	3	12			Per-	Medieval?	
0004			1	231	1	37				Post-	
										medieval	
0006					2	128			1 stone @ 3g		
0008	1	32			6	81				L18th-	
										E19th C	
0011	10	106			5	137	2	3		13th C?	
0015	5	53							1 clay pipe @ 2g, 1 flint @ 4g	Medieval?	
0017	1	6			2	4	2	3		L12th- 14th C	
0020	9	47			2	46	1;		1 stone+ @ 98g	13th-14th C	
0021	1	63					counch	e		17th-19th C	
Total	29	330	6	825	22	466	504	6			
Table 1. Bulk finds											

Pottery A total of twenty-nine sherds of pottery was recovered from the evaluation (0.330kg). The majority of the assemblage is medieval, with a few sherds dating to the post-medieval period. The pottery has been fully quantified, with the catalogue presented in Appendix 3.

The earliest pottery was found in a topsoil deposit in Trench 1 and consisted of a single fragment of an Early medieval jar dating to the 11th-12th century, with an additional sherd of this fabric present in ditchfill 0011 in Trench 2. A single sherd of St Neots-type ware was present as an unstratified sherd, which may also date to the early medieval period. A range of medieval coarsewares was recovered from the site, which were mainly present in ditchfill 0011, pitfill 0015 and layer 0020, all in Trench 2. The group includes Medieval Coarseware Gritty variants, and Medieval Ely ware. Only one rim was identified, a Medieval Coarseware Gritty jar in ditchfill 0011 which has a flat-topped rim with slight internal beading, dating to c Late 12th-13th century. Two medieval glazed jugs were also identified. A fragment of a plain Scarborough jug made in a type 2 fabric (1225-1350) was present in pitfill 0015, and a highly decorated sherd of a medieval jug with applied strips and pellets of an unspecified fabric was found in layer 0020. FOIN 0

A fragment of blue and white pearlware was found in ditchfill 0008, and a large English stoneware vessel was an unstratified find in Trench 7.

Ceramic building material

Six fragments of ceramic building material were recovered in total (0.825kg). The remains of a small brick with surviving dimensions 90mm (width) and 54mm (height) were present in layer 0003 in Trench 1. Although not a typical fabric for this period, the brick may be medieval, but is redeposited into a later context. The same context contained a post-medieval/modern brick with

the moulded letters CENTRAL. The remains of a red-fired fragment, presumably a brick, collected from layer 0004 in the same trench has no full dimensions, but the fine fabric with clay pellet inclusions suggests that is late or post-medieval in date. council Nice

Clay tobacco pipe

A single fragment of clay tobacco pipe stem was found in pitfill 0015. As the fill contained five co ine pot Suffolkeolo fragments of medieval pottery it is likely that the pipe is intrusive rather than the pottery being residual, especially as none of the sherds were particularly abraded.

Flint (identification by Colin Pendleton)

A single flint was recovered from pitfill 0015. It is a snapped patinated small blade with both ends snapped with unpatinated breaks. There is some unpatinated damage or retouch on one edge. The patinated blade is Mesolithic or Neolithic in date, with the retouch (if it is real) being later.

Metalwork

A number of metal finds were collected through metal detecting and were recorded under the number allocated for unstratified finds 0001. The fragments include a lead potmend, and a fragment of lead waste, and several copper alloy finds which are post-medieval, including a nineteenth century button and a George II penny (1727-60), and a D-shaped ring which is likely to be from military webbing dating to the 19th century or later. A fragment of ornate copper alloy with an acorn shaped finial at one end with a broken-off shaft which is semi-circular in section is also post-medieval, but its function is unknown.

Miscellaneous

A small piece of burnt stone was found in the pond fill 0006. Many fragments of a burnt laminated stone were present in grey deposit 0020. Ar

Animal bone

Twenty-two fragments of animal bone were collected from the evaluation (0.466kg). The quality of the assemblage is variable, as in addition to featureless fragments of the shafts of limb bones, some articulated bones were recovered. The remains of a sheep mandible was present in layer 0002 (Trench 1). A single fragment of a metatarsus, probably from a horse, which has been extremely heavily worked was found in the fill 0006 of the pond in Trench 2 (SF1001). The bone has been modified at the proximal end and sharpened, and may represent a socketed point (Fig 9). There is slight evidence for wear on the tip. The metapodial bones of cattle and horse were used during the late Saxon and medieval periods to make such socketed points, the function of which remains unclear (MacGregor 1985). Other excavated examples show wear patterns on the tip which suggest that the bone was used in a thrusting or stabbing action. Layard, who found some examples in Ipswich, has suggested that they were used as tips for skating poles (Layard 1908), and this would fit well with the object being found in a pond. However, it is generally considered that skating poles were usually tipped with iron, and that points made from bone are unlikely to be strong enough for this particular activity (Macgregor 1985 174). The remains of a humerus, probably from a pig was found in the same context. Three articulated bones forming the hoof and two connecting foot bones of a horse were present in ditchfill 0011, together with one of the footbones of one of the other legs.



Figure 9. Socketed bone point from pond feature

Molluscs

Small numbers of fragmentary mussel shells and land snails were collected from ditchfill 0011 and pitfill 0017, both in Trench 2.

Environmental evidence (by Val Fryer)

Introduction and method statement

The evaluation recorded a small number of features of probable medieval date. Samples for the evaluation of the content and preservation of the plant macrofossil assemblages were taken from two pits (samples 0015 and 0017), a ditch (sample 0011) and a layer of organic mud within an in-filled pond (sample 0009).

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The flot from sample 0009 had a high organic content and was stored in water prior to sorting. The remaining flots were air dried. Both dried flots and wet retents were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Appendix 4. Nomenclature within the table follows Stace (1997). Charred, waterlogged and mineral replaced plant remains were recorded, with the latter two being denoted in the table by 'w' and 'm' suffixes respectively.

The non-floating residues were collected in a 1mm mesh sieve and will be sorted when dry. All artefacts/ecofacts will be retained for further specialist analysis.

Results

Cereal grains and seeds of common weeds and wetland plants are recorded at varying densities in all four assemblages. The charred remains are mostly poorly preserved, with most being severely puffed and distorted, probably as a result of combustion at very high temperatures. The waterlogged remains are reasonably robust, although some are crushed and distorted, probably as a result of soil compaction.

The assemblage from the pond fill (sample 0009) is largely composed of seeds of grassland plants and marginal and aquatic species. It would appear most likely that the pond, which may have functioned as a stock watering hole, was shallow with a muddy base and margins, and was probably situated within an area of managed grassland or meadow.

The three pit and ditch assemblages are largely composed of charcoal/charred wood fragments and black porous and tarry residues. Such residues often occur when organic remains are burnt at extremely high temperatures, and it is possibly of note that some of the charcoal fragments have also been heated to such a degree that tarry globules have formed at the edges. Oat (*Avena* sp.), rye (*Secale cereale*) and wheat (*Triticum* sp.) grains are present, but seeds and other plant remains are scarce. The composition of the assemblages is consistent with their being derived from discrete deposits of hearth or furnace waste.

All four samples contain small assemblages of terrestrial and freshwater obligate moliusc shells, including a number of burnt specimens. Assuming that the shells are contemporary with the features from which the samples were taken, they indicate that open, short-turfed grassland conditions prevailed. As many of the shells of the aquatic taxa were burned, it is assumed that these may have imported to the site attached to plant materials which were either used as fuel or subsequently burnt after other usage (i.e. as flooring materials). It is of note that freshwater mollusc shells are not recorded within the pond assemblage, again possibly indicating that those recovered were imported from elsewhere.

Conclusions and recommendations for further work

In summary, although the current assemblages are small, they do illustrate that plant macrofossils are preserved within the archaeological deposits at Worlington. If further interventions are planned within this area, it is strongly recommended that additional plant macrofossil samples of approximately 20 - 30 litres in volume are taken from all sealed and dated contexts recorded during excavation.

Finds Discussion

The earliest find recovered from the evaluation is a small blade which may be Mesolithic or Neolithic, found in pitfill 0015. The redeposited single flint is likely to represent an isolated find reflecting the presence of other prehistoric sites in the vicinity.

The evaluation provided a valuable chance to examine the types of ceramics which were being used in the vicinity of the site during the medieval period, as there has been little previous opportunity to recover finds from stratified deposits in this locality. The presence of a small number of sherds dating to the early medieval period is of interest, as it suggests that the original medieval settlement may date to this period. Most of the medieval pottery is made up of coarsewares of a later date, many of which cannot be traced to a particular production centre. The exception to this is a sherd of Ely type coarseware, which is not unexpected given the location of the site to the west of the county. The sherd has been provisionally identified as Medieval Ely Ware, but it is possible that it belongs to one of the other fabric variants described in the recent volume on Ely Wares (Spoerry 2008). The presence of a sherd of Scarborough glazed ware, which is a non-local product, and a fragment of a highly decorated jug with applied vertical strips and scales with white and red slip, may also suggest a site of slightly higher status than an ordinary rural dwelling group. It is possible that this pottery derives from the moated site (WGN 0002), which lies within 160m to the south-east of this site. No pottery was found in association with the pond, but it is possible that it may have originally been early in date. The results of the environmental sampling of the pond deposits confirm the presence of grassland, herb species and aquatic vegetation, typical of shallow marshy deposits in meadowland. The presence of the bone socketed point which was found in the pond, is of some interest, as the function of these objects has been the subject of much discussion. Only a very small quantity of post-medieval pottery was recovered, consisting of a single sherd from the fill of a ditchfill in Trench 3 and an unstratified stoneware fragment in Trench 7, suggesting that the site remained as agricultural land for most of the post-medieval period.

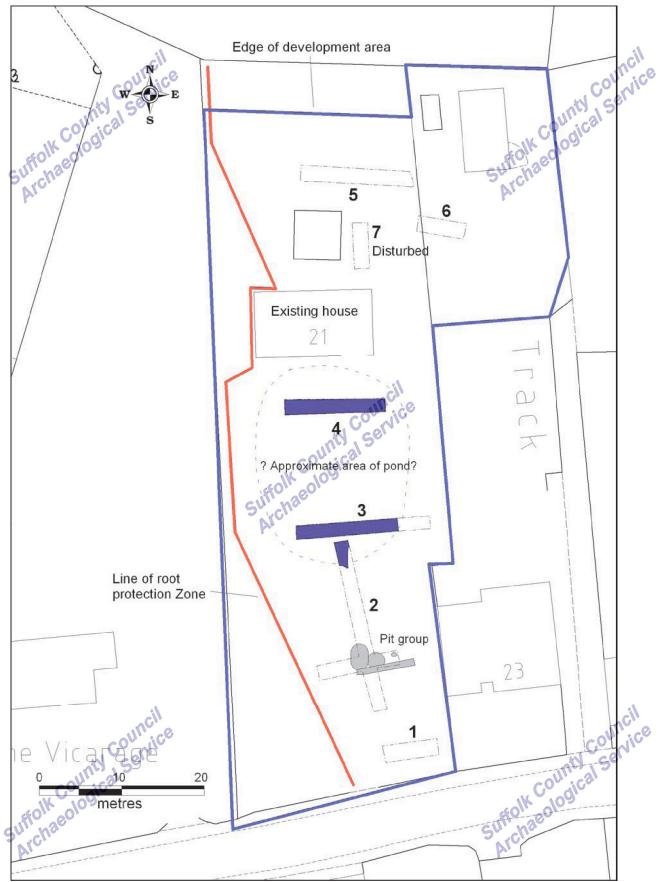


Figure 10. Summary plan of the site.

Discussion

This evaluation has identified a discrete area of medieval features and the presence of a probable pond at least 20m x 22m and with filling deposits more than 2.5m deep. Local hearsay was aware of a pond in this location, but nothing has been found on the 1886 OS map and unfortunately no tithe map exists for Worlington. Over the pond topsoil had been sealed by a layer of brown sand, and it is possible that this area always collected water in wet conditions and that the brown sand was a fairly recent deliberate deposit to try to alleviate this problem. North of the pond the overlying deposits are still deep and exhibit some characteristics of being waterlain, but no former wet deposits were present.

The depth to natural sand was consistently and unexpectedly deep across the whole site. The ground level was the same as the road and the level at which houses on the opposite side of the road had been dug. However a medieval structure behind (but attached to) one of the buildings on the opposite side of the road, appeared to be built from a ground level c.0.6m lower than the later building. The medieval features found were sealed by the built-up deposits; these could be the result of natural accumulations as the area is low-lying, but the evidence is inconclusive, and this could equally be the result of a deliberate deposit some time after the medieval period to raise the ground level. All subsequent development in this area was at this higher level. The presence of the pond was still apparent in living memory, perhaps as an area subject to pooling in wet conditions, and when the current house was built, or during its use, a layer of sand was laid down over topsoil, perhaps to mitigate against the effects of this. The irregular edge excavated in Trench 2 and filled with 0006 seems to be a shallow, sloping feature on the southern edge of the pond. It is sealed by the overburden and contained a probable medieval worked bone point.

worked bone point. The results of the environmental sampling from a lower pond layer indicate that this was lying within an area of managed grassland when the lower layers of silt were accumulating, and this indicates an accessible pond within a settlement area rather than a wild water hole. Ponds were a valuable community resource in the medieval period and it is likely that the villagers would all have used the pond for both domestic and possibly industrial activities and as a source of drinking water for stock. It is probable, therefore, that this shallow irregular edge seen in Trench 2 has been created by wear at the southern pond edge, the side facing the road and settlement, from continuous access by people and animals during the medieval period.

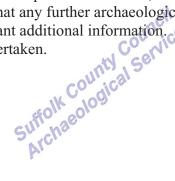
The pits and features represent an isolated area of activity during the medieval period. There is no evidence for settlement occupation within the evaluation and no sign of a structure on the road frontage in the area sampled. However, as only the eastern half of the frontage was sampled, the western half being in the root protection zone, the possibility of the presence of a building along the frontage in this half of the site cannot be ruled out. The activity found appears to date to the 11th-14th centuries and a sequence of activity possibly starting with the pits, one of which may have been recut, and finishing with an east-west aligned ditch can be suggested. It is not clear what these features could have been used for; there is no evidence for a specific activity involving rubbish disposal, burning or *in situ* structure, although they did contain domestic refuse. Possibly they were used for mineral extraction, or were originally within the back-yards of properties set further back than the current street frontage. Alternatively, their location close to the pond, and probably contemporary with its use, may indicate a function in tandem with an activity focussed on the pond.

Conclusion and Recommendations

This evaluation has identified some valuable information about the use of this site during the medieval period. A large, filled in pond which appears to have been open in the medieval period. and lying within an area of managed grassland/meadow was found in the centre of the site and a discrete area of archaeological activity consisting of pits and a small ditch appear to be contemporary with this, dating to the 11th-14th centuries. These lie within 10m of the pond edge, on its southern, settlement side and may have been used for an activity that also required the ready use of water, hence their location. Some of the pottery finds within the pits may have originated from the nearby moated site. An irregular shallow edge to the pond also on the southern side, may indicate where access to the pond was gained by the medieval inhabitants. The medieval deposits were all sealed by deep layers of homogeneous brown silt and sand, which may have resulted from either natural silting as a result of periods of flooding, or deliberate building up of the ground levels to improve the useability of the land. This process can be seen to continue into the 20th century with the final deposit of sand over the top of the area of the pond, either during or after the construction of the current house.

Whilst no medieval settlement was found on this site, the discovery of a former pond, lying within a managed landscape and dated medieval features has greatly enhanced the picture of medieval Worlington. However, the depth of overburden, and the isolated nature of the pit group suggests that it is unlikely that any further archaeological work during the current development will provide significant additional information. It is therefore recommended that no further work on this site is undertaken.

Jo Caruth November 2008



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Disclaimer

suffolk County cal Service Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Division alone. The need for further work will be determined by the Local Planning Authority and its archaeological advisors when a planning application is registered. Suffolk County Council's archaeological contracting service cannot accept responsibility for inconvenience caused to clients should the Planning Authority take a different view to that expressed in the report.



Environment and Transport Service Delivery Brief and Specification for Trenched Evaluation Countries 21 THE STREET, WORLINGTON, SUFFOLK Archaeological Standard Shire Hall

Suffolk County Council Suffolk County Council Archaeological

The commissioning body should be aware that it may have Health & Safety responsibilities.

1. The nature of the development and archaeological requirements

- 1.1 Planning permission for the erection of five new dwellings at 21 The Street, Worlington, Suffolk (TL 693 736), has been sought from Forest Heath District Council (F/2008/0510/RMA). The application has been previously granted outline planning approval conditional upon an acceptable programme of archaeological work being carried out (F/2008/0142/OUT).
- The proposed application area measures c. 0.30 havon the northern side of The Street (see 1.2 accompanying plan). It is situated at c. 7 - 9.00m AOD, on the southern side of the River Lark.
- This application lies in an area of archaeological importance, recorded in the County Historic 1.3 Environment Record, within the medieval settlement core. Medieval remains have been found within the immediate vicinity of this proposal (WGN 017) and to the north-east of a medieval moated enclosure (WGN 002). There is high potential for encountering medieval occupation deposits at this location. The proposed works would cause significant ground disturbance that has potential to damage any archaeological deposit that exists.
- 1.4 A linear trenched evaluation is required of the development area, before any groundworks take place. The results of this evaluation will enable the archaeological resource, both in quality and extent, to be accurately quantified, informing both development methodologies and mitigation measures. Decisions on the need for, and scope of, any further work should there be any archaeological finds of significance will be based upon the results of the evaluation and will be the subject of an additional brief.
- 1.5 All arrangements for the field evaluation of the site, the timing of the work, access to the site, the definition of the precise area of landholding and area for proposed development are to be defined and negotiated with the commissioning body.
- 1.6 Detailed standards, information and advice to supplement this brief are to be found in Standards for Field Archaeology in the East of England, East Anglian Archaeology Occasional Papers 14, 2003.
- In accordance with the standards and guidance produced by the Institute of Field the project. A Written Scheme of Investigation (WSI) based upon this brief and the accompanying outline specification of minimum requirements, is an essential requirements. Archaeological Service of Suffolk County Council (Shire Hall, Bury St Edmunds IP33 2AR; telephone/fax: 01284 352443) for approval. The work must not commence until this office has approved both the archaeological contractor as suitable to undertake the work, and the WSI as satisfactory. The WSI will provide the basis for measurable standards and will be used to satisfy the requirements of the planning condition.

- 1.8 Before any archaeological site work can commence it is the responsibility of the developer to provide the archaeological contractor with either the contaminated land report for the site or a written statement that there is no contamination. The developer should be aware that investigative sampling to test for contamination is likely to have an impact on any archaeological deposit which exists; proposals for sampling should be discussed with the Conservation Team of the Archaeological Service of SCC (SCCAS/CT) before execution.
 - The responsibility for identifying any constraints on field-work, e.g. Scheduled Monument status, Listed Building status, public utilities or other services, tree preservation orders, SSSIs, wildlife sites &c., ecological considerations rests with the commissioning body and its archaeological contractor. The existence and content of the archaeological brief does not over-ride such constraints or imply that the target area is freely available.
- 1.10 Any changes to the specifications that the project archaeologist may wish to make after approval by this office should be communicated directly to SCCAS/CT and the client for approval.

2. Brief for the Archaeological Evaluation

- 2.1 Establish whether any archaeological deposit exists in the area, with particular regard to any which are of sufficient importance to merit preservation *in situ* [at the discretion of the developer].
- 2.2 Identify the date, approximate form and purpose of any archaeological deposit within the application area, together with its likely extent, localised depth and quality of preservation.
- 2.3 Evaluate the likely impact of past land uses, and the possible presence of masking colluvial/alluvial deposits.
- 2.4 Establish the potential for the survival of environmental evidence.
- 2.5 Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.
- 2.6 This project will be carried through in a manner broadly consistent with English Heritage's *Management of Archaeological Projects*, 1991 (*MAP2*), all stages will follow a process of assessment and justification before proceeding to the next phase of the project. Field evaluation is to be followed by the preparation of a full archive, and an assessment of potential. Any further excavation required as mitigation is to be followed by the preparation of a full archive, and an assessment of potential, analysis and final report preparation may follow. Each stage will be the subject of a further brief and updated project design; this document covers only the evaluation stage.
- 2.7 The developer or his archaeologist will give SCCAS/CT (address as above) five working days notice of the commencement of ground works on the site, in order that the work of the archaeological contractor may be monitored.

If the approved evaluation design is not carried through in its entirety (particularly in the instance of trenching being incomplete) the evaluation report may be rejected. Alternatively the presence of an archaeological deposit may be presumed, and untested areas included on this basis when defining the final mitigation strategy.

2.9 An outline specification, which defines certain minimum criteria, is set out below.

Specification: Field Evaluation 3.

- ouncil 3.1 Trial trenches are to be excavated to cover 5% by area, which is 150.00m². These shall be positioned to sample all parts of the site. Linear trenches are thought to be the most appropriate sampling method. Trenches are to be a minimum of 1.80m wide unless special Suffolk 1.80m in width. The exact area and extent of the access road is undefined and this area will also need to be evaluated circumstances can be demonstrated: this will result in a minimum of 83.00m of trenching at also need to be evaluated. Arc
 - 3.2 If excavation is mechanised a toothless 'ditching bucket' at least 1.20m wide must be used. A scale plan showing the proposed locations of the trial trenches should be included in the WSI and the detailed trench design must be approved by SCCAS/CT before field work begins.
 - 3.3 The topsoil may be mechanically removed using an appropriate machine with a back-acting arm and fitted with a toothless bucket, down to the interface layer between topsoil and subsoil or other visible archaeological surface. All machine excavation is to be under the direct control and supervision of an archaeologist. The topsoil should be examined for archaeological material.
 - 3.4 The top of the first archaeological deposit may be cleared by machine, but must then be cleaned off by hand. There is a presumption that excavation of all archaeological deposits will be done by hand unless it can be shown there will not be a loss of evidence by using a machine. The decision as to the proper method of excavation will be made by the senior project archaeologist with regard to the nature of the deposit.
 - In all evaluation excavation there is a presumption of the need to cause the minimum 3.5 disturbance to the site consistent with adequate evaluation; that significant archaeological features, e.g. solid or bonded structural remains, building slots or post-holes, should be preserved intact even if fills are sampled. For guidance:

For linear features, 1.00m wide slots (min.) should be excavated across their width;

For discrete features, such as pits, 50% of their fills should be sampled (in some instances 100% may be requested).

- 3.8 There must be sufficient excavation to give clear evidence for the period, depth and nature of any archaeological deposit. The depth and nature of colluvial or other masking deposits must be established across the site.
- 3.9 Archaeological contexts should, where possible, be sampled for palaeoenvironmental remains. Best practice should allow for sampling of interpretable and datable archaeological deposits and provision should be made for this. The contractor shall show what provision has been made for environmental assessment of the site and must provide details of the sampling strategies for retrieving artefacts, biological remains (for palaeoenvironmental and palaeoeconomic investigations), and samples of sediments and/or soils (for micromorphological and other pedological/sedimentological analyses. Advice on the appropriateness of the proposed strategies will be sought from J. Heathcote, English Heritage Regional Adviser for Archaeological Science (East of England). A guide to sampling archaeological deposits (Murphy, P.L. and Wiltshire, P.E.J., 1994, A guide to sampling archaeological deposits for environmental analysis) is available for viewing from SCCAS.
- 3.10 Any natural subsoil surface revealed should be hand cleaned and examined for archaeological deposits and artefacts. Sample excavation of any archaeological features revealed may be necessary in order to gauge their date and character.
 - 3.11 Metal detector searches must take place at all stages of the excavation by an experienced metal detector user.

- All finds will be collected and processed (unless variations in this principle are agreed 3.12 SCCAS/CT during the course of the evaluation).
- ser Human remains must be left in situ except in those cases where damage or desecration are to 3.13 be expected, or in the event that analysis of the remains is shown to be a requirement of satisfactory evaluation of the site. However, the excavator should be aware of, and comply With, the provisions of Section 25 of the Burial Act 1857.
- 3.14 Plans of any archaeological features on the site are to be drawn at 1:20 or 1:50, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded. All levels should relate to Ordnance Datum. Any variations from this must be agreed with SCCAS/CT.
- 3.15 A photographic record of the work is to be made, consisting of both monochrome photographs and colour transparencies and/or high resolution digital images.
- 3.16 Topsoil, subsoil and archaeological deposit to be kept separate during excavation to allow sequential backfilling of excavations.
- 3.17 Trenches should not be backfilled without the approval of SCCAS/CT.

4. **General Management**

- A timetable for all stages of the project must be agreed before the first stage of work 4.1 commences, including monitoring by SCCAS/CT. The archaeological contractor will give not less than five days written notice of the commencement of the work so that arrangements for monitoring the project can be made.
- The composition of the archaeology contractor staff must be detailed and agreed by this 4.2 office, including any subcontractors/specialists. For the site director and other staff likely to have a major responsibility for the post-excavation processing of this evaluation there must also be a statement of their responsibilities or a CV for post-excavation work on other archaeological sites and publication record. Ceramic specialists, in particular, must have relevant experience from this region, including knowledge of local ceramic sequences.
- 4.3 It is the archaeological contractor's responsibility to ensure that adequate resources are available to fulfill the Brief.
- 4.4 A detailed risk assessment must be provided for this particular site.
- 4.5 No initial survey to detect public utility or other services has taken place. The responsibility for this rests with the archaeological contractor.
- The Institute of Field Archaeologists' Standard and Guidance for archaeological field 4.6 J/C. .cution Suffolk Countical suffolk Countical i the r evaluation (revised 2001) should be used for additional guidance in the execution of the project and in drawing up the report.

Report Requirements

5.1

- An archive of all records and finds must be prepared consistent with the principles of English Heritage's Management of Archaeological Projects, 1991 (particularly Appendix 3.1 and Appendix 4.1).
- 5.2 The report should reflect the aims of the WSI.

- 5.3 The objective account of the archaeological evidence must be clearly distinguished from its archaeological interpretation.
- 5.4 An opinion as to the necessity for further evaluation and its scope may be given. No further site work should be embarked upon until the primary fieldwork results are assessed and the need for further work is established.
 - Reports on specific areas of specialist study must include sufficient detail to permit assessment of potential for analysis, including tabulation of data by context, and must include non-technical summaries.
- 5.6 The Report must include a discussion and an assessment of the archaeological evidence, including an assessment of palaeoenvironmental remains recovered from palaeosols and cut features. Its conclusions must include a clear statement of the archaeological potential of the site, and the significance of that potential in the context of the Regional Research Framework (*East Anglian Archaeology*, Occasional Papers 3 & 8, 1997 and 2000).
- 5.7 The results of the surveys should be related to the relevant known archaeological information held in the County Historic Environment Record (HER).
- 5.8 A copy of the Specification should be included as an appendix to the report.
- 5.9 The project manager must consult the County HER Officer (Dr Colin Pendleton) to obtain an HER number for the work. This number will be unique for each project or site and must be clearly marked on any documentation relating to the work.
- 5.10 Finds must be appropriately conserved and stored in accordance with UK Institute of Conservators Guidelines.
- 5.11 The project manager should consult the SCC Archive Guidelines 2008 and also the County HER Officer regarding the requirements for the deposition of the archive (conservation, ordering, organisation, labelling, marking and storage) of excavated material and the archive.
- 5.12 The WSI should state proposals for the deposition of the digital archive relating to this project with the Archaeology Data Service (ADS), and allowance should be made for costs incurred to ensure the proper deposition (<u>http://ads.ahds.ac.uk/project/policy.html</u>).
- 5.13 Every effort must be made to get the agreement of the landowner/developer to the deposition of the finds with the County HER or a museum in Suffolk which satisfies Museum and Galleries Commission requirements, as an indissoluble part of the full site archive. If this is not achievable for all or parts of the finds archive then provision must be made for additional recording (e.g. photography, illustration, analysis) as appropriate. If the County HER is the repository for finds there will be a charge made for storage, and it is presumed that this will also be true for storage of the archive in a museum.
- 5.14 The site archive is to be deposited with the County HER within three months of the completion of fieldwork. It will then become publicly accessible.

5.5

Where positive conclusions are drawn from a project (whether it be evaluation or excavation) a summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute for Archaeology*, must be prepared. It should be included in the project report, or submitted to SCCAS/CT, by the end of the calendar year in which the evaluation work takes place, whichever is the sooner.

5.16 County HER sheets must be completed, as per the County HER manual, for all sites where archaeological finds and/or features are located.

5.17 Where appropriate, a digital vector trench plan should be included with the report, which must be compatible with MapInfo GIS software, for integration in the County HER. AutoCAD files should be also exported and saved into a format that can be can be imported into MapInfo (for example, as a Drawing Interchange File or .dxf) or already transferred to .TAB files.

5.18 At the start of work (immediately before fieldwork commences) an OASIS online record http://ads.ahds.ac.uk/project/oasis/ must be initiated and key fields completed on Details, Cocation and Creators forms. GU

All parts of the OASIS online form must be completed for submission to the County HER. This 5.19 should include an uploaded .pdf version of the entire report (a paper copy should also be included with the archive).

Specification by: Dr Jess Tipper

uk Suffolk County Council Archaeological Service Conservation Team **Environment and Transport Department** Shire Hall **Bury St Edmunds** Suffolk IP33 2AR Email: jess.tipper@et.suffolkcc.gov.uk

Tel: 01284 352197

Date: 5 August 2008 Reference: / 21TheStreet-Worlington2008

This brief and specification remains valid for six months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.

If the work defined by this brief forms a part of a programme of archaeological work required by a Planning Condition, the results must be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority. Suffolk County Co Suffolk County Archaeological

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Appendix 2

WGN 036 context list

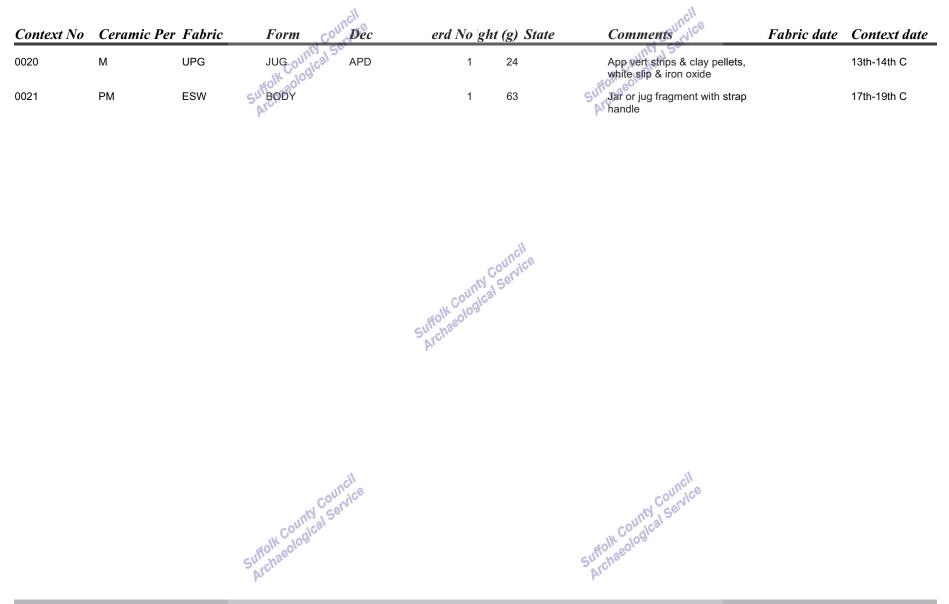
context	feature	trench	identifier	description	soil sample	finds	over	under	cutsil	cutby	spotdate	period
0001			Unstratified finds	Unstratified finds from across the site.				Suffolk County	alse			
0002	0002	1	Layer	Dark brown sandy silt topsoil.			0003	uffolk eolos			11th-12thC	
0003	0003	1	Layer	Mid grey-brown silty sand under 0002. Homogeneous, probable worked soil.			0004	Arc 0002				
0004	0004	1	Layer	Pale gery-brown silty sand at base of soil profile in Trench 1.				0003				
0005	0005	2	Layer	Mid yellow-brown silty sand over topsoil 0002 in northern end of Trench 2.			0002					
0006	0022	2	Fill	Fill of 0022, pond, at base of soil profile in north end of Trench 2. Grey silty sand with charcoal flecks.				0004				
0007	0007	3	Ditch cut	Cut of small north-south aligned ditch at east end of Trench 3. Looks to align approximately with suggested original line of property boundary at the eastern edge of the site.Flat base and vertical sides with gentle break of slope between sides and base. Cuts layers 0003 and 0004.	2	Council Na Service		0008	0003 0004			
0008	0007	3	Ditch fill	Dark brown sandy silt, with occasional chalk flecks and angular flint cobbles (0.05-0.08m across). Loosely compacted. No distinction between this and topsoil 0002.	folk Court	cal	0007				1770-1850 AD	
0009	0009	4	Layer	Dense fine, dry peaty? mud with silver sand grains throughout.	у			0023				
0010	0010	2	Ditch cut	E-W aligned ditch with shallow rounded profile, apparently with butt end to west.				0011				
0011	0010	2	Ditch fill	Dense mottled grey-orange stony sand.	У	У		0020			13thC?	
0012	0012	2	Pit cut	Sub-square pit cut with steep sides, flat base and stepped cut. This number for pit seen in trench 2, but later identified as probably the same as feature 0014.				0013				
0013	0012	2	Pit fill	Stony grey silty sand with occasional mottled yellow sand patches.					ncil			
0014	0014	2	Pit cut	Sub-square pit cut with vertical sides, flattish base and stepped cut (possibly secondary cut). Probably the same as 0012.	У	У		0024 Suffoil 001 Logic	countrice al Service			
0015	0014	2	Pit fill	Dark grey silt stony sand, Central fill of 0014? Possibly a secondary cut?			0024	uffol 00110910		0010	13thC+?	
0016	0016	2	Pit cut	Circular pit cut,				Arch				
0017	0016	2	Pit fill	Silty grey-brown sand fill. Concave base and sides. Cut by ditch 0011.	у	У		9			L12th-14thC	
0018	0018	2	Pit cut	Small shallow circular probable pit cut. Very shallow with shallow sloped sides, more like a depression than a cut perhaps?								
0019	0018	2	Pit fill	Grey stony sand fill.								

context	feature	trench	identifier		soil sample	finds	over	under	cuts	cutby	spotdate	period
0020	0020	2	Layer	Mid-dark grey sandy silt. Appears to be a deep homogeneous layer at this point but is probably the same as 0003 and 0004 identified in T1 and at the N end of T2.			0011 0017	unty	council al Service		13th-14thC	
0021		7	Unstratified finds	Unstratified finds from P7.			A	olkeologic	c.		17th-19thC	
0022	0022	2, 3 and 4	?Pond	Possible pond seen from the north end of Trench 2, into Trenches 3 and 4. No present north of the existing house. More than 2.5m deep at its deepest point.			Sur	chac				
0023	0022	4	Layer	Streaky orange and dark grey-green sand. Dense and dark.				0004				
0024	0014 0025	2	Layer	Yellow-brown mixed finds with chalk ptaches under fill 0015. ? Possible fill from earlier cut?			0025	0015				
0025	0025	2	Pit cut	Re-issued pit cut no. for 0012 and 0014 to unify them. Subrectangular, vertical stepped sides.				0024				
0026		5	Layer	Mid-dark gery brown silty sand, topsoil like similar to/same as 0003?			0027					
0027		5	Layer	Pale grey-brown silty sand under 0026.		incil		0026				
0028		6	Layer	Topsoil with sand patches, not particularly like other layers on the site.	Vin th	Service	0029					
0029		6	Layer	Yellow-brown stony silty sand. ? Natural. Overlies good yellow streaky sand. Sterile.	Ik County	2		0028				

Suffolk County Council Suffolk County Council Archaeological Service



Appendix 3	i		WG	N036	b pottery	dates	count council		
Context No	Ceramic Per	Fabric	Formosica	Dec	erd No gh	t (g) State	Comments	Fabric date	Context date
0001	LS/M	SNTE	Suffor con		1	17	Sur Could be pitcher rim also.	850-1200	Unstratified
0002	М	EMW	CP/JAR		1	6	Small flared rim		11th-12th C
0008	PM	PEW	BOWL?	BW	1	32 AA	Pastoral scene	1770-1850	1770-1850
0011	М	MCWG	CP/JAR		2	29	Flat topped w sl int bead, coarse fab	L12th-13th C	
0011	М	MCW	CP/JAR		1	17	Thickened, everted		
0011	М	EMW	BODY		1	2			
0011	М	MELC?	BODY		1 Suffolk Cosnty Suffolk Cosnty Archaeologica Archaeol	oung A	Oxid margins, dk core with calc and sand	13th-14th C	?13th C
0011	Μ	MCW	BODY		Colduca	11			
0011	М	MCW	BODY		Suffolk eolog	34	Body, base, oxid margins		
0011	М	MCW	BODY		Arci 1	5 S	Fine dk brown fabric w ?grog incs		
0015	Μ	MCW	BODY		2	12 A			
0015	Μ	MCWC	BODY		1	3 5	Small calc incs		
0015	Μ	MCW	BODY		1	33	Buff fabric, rilled ext		
0015	М	SCAR2	BODY		1	5 A	Laminated, fabric type 2	1225-1350	13th C+?
0017	М	MCW	BODY	Incil	1	6 S	ouncil		L12th-14th C
0020	М	MCW	BODY BODY BODY	entry	2	7 AS	countical Service		
0020	М	MCW			3	6 AS	Coarse variant, some calc		
0020	Μ	MCW	BODY BODY BODY BODY ArtBODY		3	9	Hard fab, oxid margins, It grey core		



Appendix 4. Plant macrofossils

OP No.	0009	0011	0015	0017	10
Cereals and other food plants				0017 x xcotyfg x x	Corr
Avena sp. (grains)		х	xcf	х	it's se'
Large Fabaceae indet.				xcotyfa	ical
Secale cereale L. (grains)		xcf	х	11/ 10	<i>g</i> , <i>c</i>
Triticum sp. (grains)		ХХ	х	\$0'x 0'	
Cereal indet. (grains)		ХХ	x S	.c.x	
Herbs				A	
Fabaceae indet.		х			
Lamium sp.	xw				
Lithospermum officinale L.			х		
Persicaria maculosa/lapathifolia	xw				
P. lapathifolia (L.)Gray	xw				
Small Poaceae indet.	xw				
Polygonaceae indet.	XW				
Ranunculus sp.	XW				
Rumex sp.	XW				
Stellaria sp.	xw				
S. graminea L.	XW	lia			
Urtica dioica L.	XW	Inc.e			
Wetland/aquatic plants	Co	NIC			
Alisma plantago-aquatica L.	xxw	6			
Carex sp.	O ^V xw ^a		х		
Eleocharis sp.	V XW		~		
Juncus sp.	xw				
Lemna sp.	XW				
Oenanthe aquatica (L.)Poiret	XW				
Ranunculus subg Batrachium	~~~				
(DC)A.Gray	xw				
R. flammula L.	xw				
R. sceleratus L.	xw				
Tree/shrub macrofossils					
Sambucus nigra L.		xm			
Other plant macrofossils					
Charcoal <2mm	х	ххх	ХХ	ХХ	
Charcoal >2mm		XXXX	XX	XXX	
Charred root/stem		ХХ	х	х	
Waterlogged root/stem	XXXX				
Ericaceae indet. (stem)		х	х	х	cour
Indet.culm nodes				x x x x x x	N cen
Indet.moss	XW			-11	10,13
Indet seeds	XW			x	<i>sice</i>
Indet.twig frags.	XW			010-10	9
Indet.twig frags. Wood frags.>5mm Other remains	XW		GU	nae	
Other remains			3	10°.	
Black porous 'cokey' material		XXX	XX	XXX	
Black tarry material		XXX	XX	XXX	
Bone		x xb	X	X	
Burnt/fired clay		X	x	~	
Mineralised soil concretions		XX	x	x	

	Ostracods		х			
	Caddis larval cases	XXW				lia
	Cladoceran ephippia	XW				INC.e
	Waterlogged arthropod remains	х				Convice
	Small coal frags.		ХХ	ХХ	XX	nty Council ogical Service
	Small mammal/amphibian bones		х	Х	x	ical
1	Vitua ava material		Х		1X 1C	ġ,
fol	Molluscs				for e0,	
Suffoll Arch	Woodland/shade loving species			S	cha	
Aro	Aegopinella sp.		Х		x	
	Carychium sp.		Х			
	Open country species					
	Helicella itala				х	
	Pupilla muscorum		Х	Х	Х	
	Vallonia sp.	х	XX		х	
	V. costata		Х	Х		
	V. excentrica			Х		
	Catholic species					
	Cochlicopa sp.		XX		Х	
	Nesovitrea hammonis			х		
	Trichia hispida group	х	xxx xb	ххх	х	
	Marsh/freshwater obligate species		In ce			
	Anisus leucostoma	, CO	xb	x xb	xb	
	<i>Bithynia</i> sp.	, nil , S	ິx xb	xcfb		
	Hydrobia ulvae 💦 💦	ov ica.	xcf			
	Lymnaea sp.	109.	Х		xcf	
	Pisidium sp.	J.			xb	
	Valvata cristata		xb	xb	xb	
	Vertigo sp.		xb			
	Sample volume (litres)	5	10	10	10	
	Volume of flot (litres)	0.2	<0.1	<0.1	<0.1	
	% flot sorted	50%	100%	100%	100%	

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