An Archaeological Excavation at Cintra House, 31 White Hart Street, Thetford, Norfolk.

Prepared on behalf of Mr Jerry Barlow

Giles Emery BA, MCIfA
September 2020

Report No: 144

NHES Event No: ENF141049
Job Ref: NVC/2015/305
OASIS ID: norvicar1-404858

NORVIC archaeology
www.norvicarchaeology.com
01603 494685
giles.emery@norvicarchaeology.com

Contents

1.0	Introduction		2
2.0	Summary of Results		2
3.0	Geology and Topography		4
4.0	Brief Archaeological and Historical Background		4
5.0	Methodology		8
6.0	Results		9
7.0	Finds Analysis		13
8.0	Conclusions		24
9.0	Acknowledgements		24
10.0	Bibliography		25
	Appendix 1a:	Context Summary	26
	Appendix 1b:	OASIS feature summary table	29
	Appendix 2a:	Finds by Context	29
	Appendix 2b:	Finds summary table	30
	Appendix 3:	Archive summary table	31
	Appendix 4:	Pottery	31
	Appendix 5:	Animal bone	32
	Appendix 6:	Environmental Macrofossils	34
	Appendix 7:	OASIS form	39
Figures			
	Figure 1	Site location plan	3
	Figure 2	Unphased Trench Plan	35
	Figure 3	Phased Trench Plan	36
	Figure 4	Recorded Sections 4, 6, and 16	37
	Figure 5	Recorded Sections 1, 2, 3, 5 and 8 to 15	38
Plates			
	Plate 1	General shot of Cintra House looking north	Cover
	Plate 2	Chalk block graffiti ‘J.P 1821’	4
	Plate 3	Site location	8
	Plate 4	Excavation progress	9
	Plate 5	Saxo-Norman Pit [42]	10
	Plate 6	Saxo-Norman Cess-pit [49]	10
	Plate 7	Magpie remains from Pit [38]	11
	Plate 8	Rear of Cintra House	12
Illustrations			
	Illustration 1	Early Neolithic End Scraper	22

Archaeological Excavation at the rear of Cintra House, No.31 White Hart Street, Thetford, Norfolk. IP25 1AA

Planning Reference	3PL/2015/1237/F	**OASIS ID**	norvicar1-404858
NHES Event Number	ENF141049	**Grid Reference**	TL 8694 8330
CNF Number	CNF46446_1	**Accession Number**	NWHCM.2019.168
Contracting Unit Ref	NVC15/305	**Dates of fieldwork:**	4th to 10th of August 2016

1.0 Introduction

Norvic Archaeology was commissioned by Mr Jerry Barlow, to undertake an excavation of the footprint of a rear extension to the rear of Cintra House, 31 White Hart Street, Thetford. Cintra house is a Grade II Listed Building dated to 1821 by a stone plaque in the south return. The work entailed the removal of a single-story 19th century extension and the creation of a larger extension with a footprint of c. 47m^2, along with external and internal alterations to the property.

Most significantly, the property is located within the medieval defences on the northern side of the river, opposite close to the site of St Andrew's Church which fell out of use and was demolished in 1546. Late Saxon and medieval pits and a medieval well have been uncovered previously in the immediate area through excavation to the rear of Ancient House Museum off White Hart Street and Saxon pits and medieval to post-medieval building remains were uncovered ahead of development on the other side of White Hart Street.

The archaeological monitoring was undertaken in accordance with a brief issued by Ken Hamilton of the Historic Environment Service (HES Ref: CNF46446_1) on behalf of Breckland District Council (Planning Ref: 3PL/2015/1237/F). The aim of the excavation was to record the presence/absence, date, nature, and extent of any buried archaeological remains and features within the development footprint. This report presents a brief description of the methodology followed, the results and their archaeological interpretation.

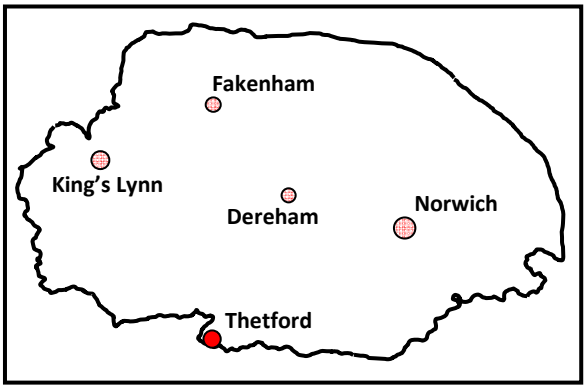
2.0 Summary of Results

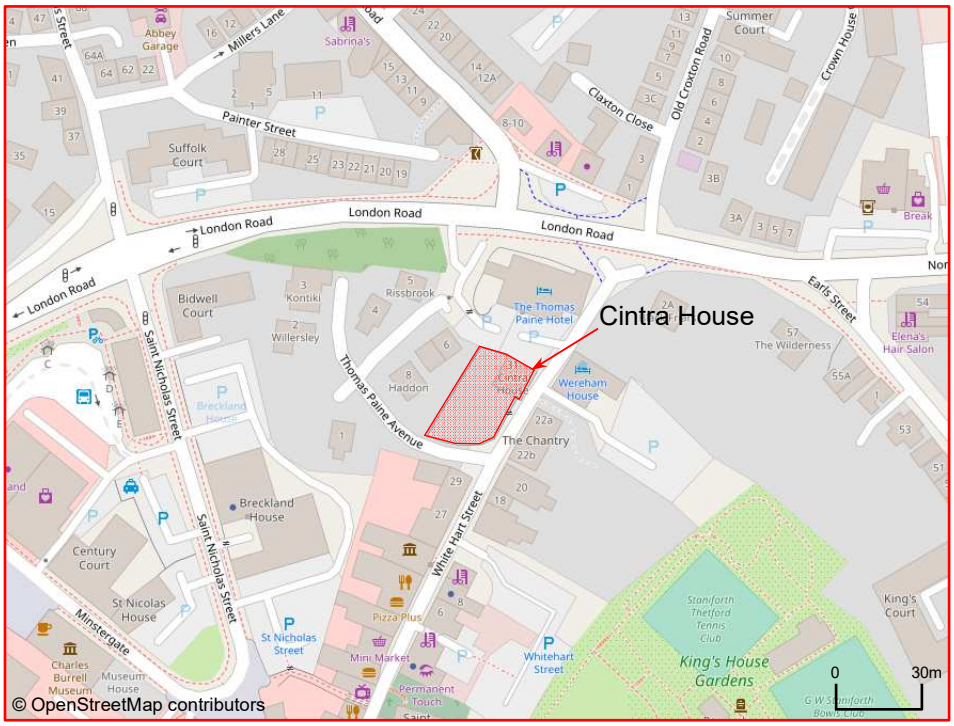
Excavation of the new extension footprint encountered a dense area of pits, confirming occupation activity here from the Late Saxon period. Four main phases of activity were identified which began with Late Saxon to Norman period features, followed by medieval, early post-medieval and concluded with features relating to the construction of the 19th century house. The Saxo-Norman features include an c. 2.2m deep shaft-like pit with a chalk block reinforced upper edge, thought to have served as a dry storage pit; a cess-pit which included dietary evidence of animal bone, marine shells and grape seed pips; and the corner of a 3.4m deep chalk extraction pit.

Several pits of late 15th to early 16th century date were mostly concentrated in the northern area of the trench, possibly indicating the presence of a former east to west plot boundary. Several of these contained building clearance waste and the remains of a magpie were found buried within one such pit, seemingly used for the burial of a pet Magpie.

A 19th century rubble filled well was uncovered contemporary to the construction of Cintra House in c. 1821 and which is marked as the site of a pump on the OS plan of 1883. Graffiti was found on a chalk block incorporated into the internal side of the northern gable which reads 'J.P 1821' and corroborates the date plaque on the exterior of the building.

Two prehistoric flints were collected as residual finds, one of which is a very well-preserved End scraper of probable Early Neolithic date.





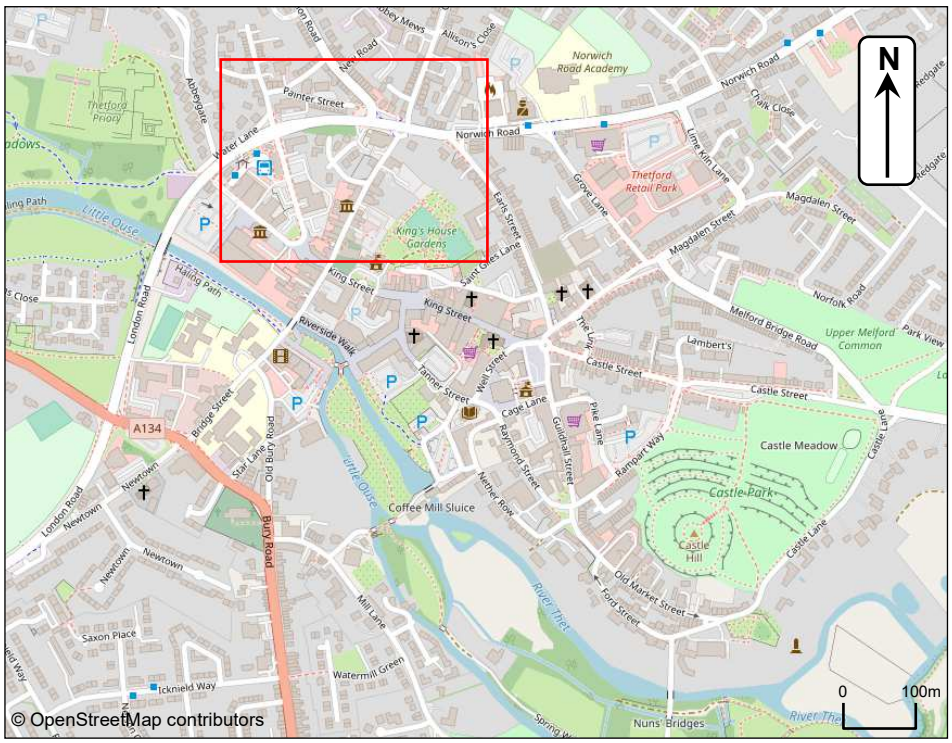


Figure 1. General site location plan

3.0 Geology and Topography (Figure 1)

Cintra House is located on the upper slopes of the River Little Ouse valley at a height of c. 16.85m AOD. It is located just within the northern limits of the Late Saxon and medieval core of the town of Thetford, in an area that was only substantially developed from the 19th-century onwards. White Hart Street slopes significantly to the south-south-west, where it meets Bridge Street and continues down to the banks of the Little Ouse River c.250m away at c. 10m AOD.

The underlying geology is Upper Chalk, overlain by superficial deposits of sand and gravels recorded for the river terrace deposits at the bottom of White Hart Street - Geology of Britain Viewer at a scale of 1:50 000 (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

The sub-surface geology of the site encountered during the fieldwork can be characterised as a hard Upper Chalk with occasional lenses/pockets of sand, overlain by a mixed sandy-loam of up to 0.5m depth.

4.0 Brief Archaeological and Historical Background

Cintra House is a Grade II Listed Building on White Hart Street, situated within the core area of the medieval town of Thetford, on the northern side of the town (see Plate 1). During these renovation works, a chalk block set within the northern gable of the building inside a small loft space was discovered which reads 'J.P 1821' (see Plate 2). This matches the date on the stone plaque in the south return wall and is believed to be the construction date for the building. The house is a two-storey house made from flint with gault brick dressings and a gault brick façade (NHER 46400). The section turning into Thomas Paine Avenue was rebuilt in the late 20th century. The planned extension work entailed the removal of a single-story 19th century extension adjoining its south-west corner and the creation of a larger rear extension, along with external and internal alterations to the property. The original purpose of the small flint faced extension remains unclear, but appeared to have formed ancillary accommodation, having a low ceiling with a large trapdoor to a first floor with 1m high side walls and an open roof space, but no first floor windows or external openings; the chimney serving the fireplace on the ground floor but did not extend through the roof (John Atkins Architect Ltd 2015).

Plate 2. Chalk block graffiti 'J.P 1821'
[1x10cm Scale]

The 1st Edition OS plan of 1883 shows the property as a house fronting White Hart Street with a rear yard, service buildings and a fully enclosed rear garden. The location of a pump is also marked within the rear yard in the area close to the small extension, which at that time is shown as part of a longer range of outbuildings which may well have incorporated servants quarters and a scullery.

Settlement in the area around Thetford stretches back to the Iron Age and beyond, the confluence of the Rivers Thet and Little Ouse combined with a fording point across the rivers making it an important location. Settlement occurred along the river valleys during the Iron Age, Roman and Saxon periods, however it was not until the Late Saxon period that Thetford first developed into a major urban centre, with defended areas on both the north and south banks of the river by the 9th century. Late Saxon settlement initially concentrated south of the river with development spreading north of the river in a classic "bridgehead"

development, and by the 11th century the town was one of the largest in the country with two castles and several friaries founded in the town along with a mint. The town was also host to a mint and the See of East Anglia.

Early in the Norman period Thetford was the seat of the East Anglian Bishop (between 1071 and 1095), however in the late 11th century the See was moved to Norwich and the scale of activity at Thetford declined. The south bank of the river was abandoned while the settlement on the north bank of the rivers became increasingly important. Despite an increase in the number of churches and the foundation of several religious establishments, it appears that the settlement never spread beyond the town defences during the medieval period.

Although a small number of find spots and discoveries indicate prehistoric and Roman activity on this side of the Little Ouse River most significantly Cintra House is located within the medieval defences on the northern side of the river, close to the site of St Andrew's Church which fell out of use and was demolished in 1546 (NHER 5911). Late Saxon and medieval pits and a medieval well have been uncovered through excavation to the rear of White Hear Street at the Ancient House Museum (NHER 41646) and Saxon pits and medieval to post-medieval building remains through excavation ahead of development on the other side of White Heart Street (NHER 39595).

Sites in the immediate proximity or of particular relevance or interest which fall in close proximity to the site include:

The following information has been sourced from the Norfolk Historic Environment Record (NHER)

Listed Buildings

NHER 46400: Cintra House, including garden wall and railings, White Hart Street.

Cintra House is dated to 1821 by a stone plaque in the south return. It is made from flint with gault brick dressings and a gault brick façade. The two-storey, three bay building features two free-standing Tuscan columns supporting a bowed hood and has a gabled roof. The area railings associated with the house terminate in fleur-de-lys finials, and a wall of whole flints supported at intervals with gault brick piers runs south from the south gable. The section turning into Thomas Paine Avenue was rebuilt in the late 20th century.

Listed Building (II) – 384847

Cintra House, including garden wall and railings, White Hart Street. Listed 1971, grade II.
House. Dated 1821. Flint with gault brick dressings and gault brick façade. Slate roof. Two storeys in three bays. Central half glazed six-panel door under a scrolled fanlight. Fluted pilaster strips right and left and two free-standing Tuscan columns support a bowed hood with coffers. One 6/6 sash window right and left under gauged skewback arches. Three similar first floor sashes. Dentil eaves cornice and gabled roof. Internal gable-end chimneystack to south. Ridge stack right (north) of centre. South return with plaque bearing date: MDCCCXXI. North gable wall rebuilt. Area railings of circular-section verticals doubled below middle rail and terminating in fleur-de-lys finials. Gate opposite entrance door similar. From south gable a wall of whole flints runs south supported at intervals with gault brick piers. Section turning into Thomas Paine Avenue rebuilt late 20th century. Interior not inspected. Information from (S1).

(S1) Scheduling Record: English Heritage. National Heritage List for England.

NHER 5754: Thomas Paine Hotel, formerly Grey Gables. This Grade II Listed building is formed from four 18th century houses which were internally unified in the mid-20th century and further modified in 1974 to form the Thomas Paine Hotel. The north front is formed by two late 18th century whitewashed flint and clunch houses under gabled pantiled roofs. In 1832, a two-storey addition was constructed along White Hart Street while to the south there is a large late 19th century brick addition. 18th century beams are scattered throughout the interior of the house, and the first-floor west room retains a brick fireplace with chamfered jambs. The 1832 range includes re-used 17th century beams and a 19th century staircase with turned balusters and a moulded handrail. It is believed that Thomas Paine (1737-1809) was born on or near this site. In 1973 a 16th to 17th century pipkin surrounded by clay smoking pipes was found under the floor during renovation work. [c. 20m N]

NHER 29655: The Chantry, No.22 White Hart Street. The Chantry is an early 17th century half H-shaped timber framed house (Grade II Listed) which was remodelled in the late 17th century and extended to the rear in the early 19th century. It currently has a rendered and colour-washed brick façade over the timber-frame and gault brick to the rear. The 19th century façade is in 7 bays. The interior retains a late 17th century open-string staircase and early 17th century small-frame panelling in the ground floor rear room. Much of the main timber frame has been removed, and by 1993 the entire building was in very poor condition. However, between 1994 and 1997 it was restored and converted to three flats. [c. 25m SE]

NHER 46364: No.18 White Hart Street. No.18 White Hart Street (Grade II Listed) is an early 19th century, two storey house. It has a flint core with a gault brick façade and a black-glazed pantile roof. The house is laid out in two bays and has a parapet and gables.

Find Spots

NHER 41695: Medieval copper alloy coin. In 2003 a continental copper alloy coin likely of 15th century date was found in mud on the grass verge in Thetford at the junction of London Road with White Hart Street. [c.45m NW]

NHER 5851: Roman jar from the Electric Power Station, St Nicholas Street. A Roman grey ware ceramic jar was found at the former St Nicholas Street Electric Power Station in 1902. [c. 60m SW]

NHER 14192: Saxon and medieval pottery sherds. Several sherds of Late Saxon Thetford ware pottery and medieval pottery were recovered from this area off White Hart Street in 1978 and 1980. It has also been reported that a large quantity of Roman pottery was found in this area in the 1960's, but this has not been confirmed. It is possible that these sherds were also Thetford ware. [c.80m SSE]

NHER 5921: Late Saxon and medieval human remains. Several human and animal bones were discovered between the end of Minstergate and the Little Ouse River during the construction of the Thetford ring road in 1968. One human skull has been identified as that of a lightly built male, likely to be from a burial dating to the Late Saxon or early medieval period. [c. 250m WSW]

NHER 59726: Late Saxon pottery sherds. In 2013 Late Saxon pottery sherds were recovered as stray finds from a spoil heap, thought to be from building work carried out on the site of NHER 37356. [c.140m SW]

NHER 59965: Medieval and post-medieval finds. Metal-detecting in 2012 recovered medieval and post-medieval coins; post-medieval jettons and tokens and medieval metal objects. The metal finds include a medieval harness pendant, mount and cast copper alloy unidentified object. [c. 170m NW]

NHER 5813: Neolithic polished flint axehead from site of Police Station, Norwich Road. In 1952 a polished flint axehead was found here. [c.225 ENE]

NHER 54014: Roman coin. In 2010 a single Roman coin was found on property at the top of St Nicholas Street. [c. 220m NW]

Monuments

40819 - MNF44914 Medieval burials and quarry pit at Crown House, Croxton Road. Archaeological evaluations and excavations ahead of residential development by the Norfolk Archaeological Unit in 2004-5 discovered that this site had been used as a quarry, probably during the medieval period. Evidence of medieval property boundaries and ovens was also found. In addition, seven graves were recorded, and it has been suggested that this area was used as a cemetery for the church of St Andrew (NHER 5911) during the 14th century, when there was a high death rate caused by the plague. [c.150m NE]

NHER 5922: Site of St Andrew's Cross and human skeletal remains. According to an 18th century document this is the site of St Andrew's Cross, close to the current junctions of Whitehart Street, Croxton Road and London Street. In 1970 skeletal remains were found during the digging of a sewer trench here. It is likely that these relate to medieval burials found nearby during excavations in 2004-5 (NHER 40819). [c. 95m NE]

5911 - MNF5911 Site Name Site of St Andrew's Church, The Wilderness, Thetford. This is the site of the medieval church of St Andrew which fell out of use around 1546. In 1805 a Henry Cocksedge took up the foundations of the church to make a garden called the Wilderness. The garden walls were then built from the church foundations. The garden was subdivided and two house plots made in mid 20th century but the basic layout of 19th century paths is still traceable and a brick summerhouse survives. The original garden walls remain, they appear clunch rather than limestone but large stretches are obscured by ivy.

NHER 51709: Undated flint mine. A chamber with tunnels leading off of it was found under Painter Street in 1967. It has been suggested that this was a Neolithic or more likely a medieval flint mine. [c.100m NW]

NHER 13946: Medieval/post medieval chalk mine. A medieval or post medieval chalk mine was discovered off Station Road in 1949 during groundworks for drainage. The main chamber was filled with chalk rubble, but the soil also contained animal bone from a variety of species including horse, cat, and dog as well as goose eggshell and 16th century pottery. Marks from metal hammers were visible on the chamber walls and two blocked tunnels were identified, one running north and the other east. [c.230m NW]

NHER 41646: Late Saxon, medieval and post medieval pits and medieval wall behind the Ancient House Museum. Excavations here in 2005 by the Norfolk Archaeological Unit revealed medieval remains, including four pits and a wall. An earlier feature, probably a pit, was thought to date from the Late Saxon period but could not be fully investigated. In the post medieval period the ground level was raised by dumping material including material from demolished structures, and a single pit was dug here in the 16th or 17th century. [c.70m SSW]

NHER 52590: King's House Gardens. King's House (NHER 5752) was constructed around 1770 but is believed to incorporate remains of a 16th century house which was acquired by Charles I and gifted to Master of the Horse before being sold to the Wodehouse family in the later 17th century. Early 18th century descriptions of King's House note that it was approached from the north and its grounds included a garden and kitchen garden as well as a banqueting house. A late 18th century garden wall was added to English Heritage's List of Buildings of Historical and architectural interest in 1971. Repairs to the wall were monitored in 1998, with no archaeological features identified during this work, but a sherd of Roman pottery, medieval pottery and window glass, and a large quantity of post medieval material was recovered. [c.80m SE]

NHER 39595: Saxon pits and medieval to post-medieval building remnants, White Hart Street. An archaeological evaluation in 2003 by the Norfolk Archaeological Unit recorded evidence for human activity in the area from the Prehistoric period and settlement from the Late Saxon to the post medieval period. Early material recovered from the site includes a small quantity of residual Prehistoric worked flints, Roman pottery, and one sherd of Middle Saxon pottery. The earliest feature on the site was a large, circular Late Saxon pit. Several other smaller pits may also date to this period, and a post hole alignment which has been interpreted as a possible property boundary may also be associated. In addition, a small quantity of daub with wattle impressions indicates the presence of structures nearby, possibly situated along the White Hart Street frontage. Several extraction pits in the southeast of the site were dated to the medieval period along with post holes and post pads identified to the northwest. The latter indicate that medieval buildings, possibly outbuildings, were located some way from the street front. The post-medieval period was represented by several small pits as well as the remains of a barn or stable. The latter was located in the extreme south of the site, incorporating the north wall of St Peter's Church (NHER 5907), and was likely part of the White Hart public house (NHER 15638) which was located along the street frontage. Towards the centre of the site, the substantial footings of a 19th century Maltings, which is depicted on the 1883 Ordnance Survey Town Map, were recorded. A large modern pit containing building rubble may be associated with the demolition of this industrial building. [c.80m S]

NHER 1134: Mesolithic findspot, Roman farmstead or settlement, Late Saxon inhumation and medieval to post medieval occupation. This site was excavated in 1990 prior to redevelopment. The excavation revealed a late Roman settlement or farmstead, including corn driers, a possible granary and post-built structures, as well as the skeletal remains of a child. The area was subsequently abandoned until the 10th century when a structure, several small pits and a large hearth or oven were laid out. A single inhumation and some disarticulated human bone may hint at the presence of a previously unknown Late Saxon cemetery in this area. Later medieval and post-medieval evidence largely comprises rubbish and cess pits, indicating that this area was used for waste disposal by properties fronting St Nicholas' Street. The site was possibly also the location of a 19th century maltings. Other finds recovered included a small assemblage of predominantly Mesolithic struck flints and sherds of Iron Age pottery. [c.80m SW]

NHER 43129: Possible Late Saxon to medieval quarry pits, late medieval rubbish pit, and post medieval features. Excavation of three evaluation trenches in 2005 ahead of a proposed bus interchange site recorded two Late Saxon to medieval pits interpreted as possible quarry pits, a late medieval rubbish pit, late post medieval pits and post holes, and several undated pits. The majority of finds from the site were recovered from the late medieval rubbish pit. This pit contained animal bone, oyster and mussel shell, a fragment of slag, and a mixture of 9th to 15th century pottery as well as several residual Romano-British pottery sherds and a decorative copper alloy object which may have been part of a book binding. An unstratified Prehistoric flint scraper was also recovered from the vicinity. Two of the post medieval post holes may be the remnants of a former boundary fence depicted on both the 1885 and 1952 Ordnance Survey maps. The site had previously been disturbed by a modern trench and two modern brick piers likely associated with a structure depicted on the 1952 Ordnance Survey map as well as a modern capped well. [c.145m W]

NHER 5852: Roman tesselated floor/hypocaust. At sometime prior to 1924 part of a Roman tessellated pavement or hypocaust was allegedly found between St Nicholas House and the corner of No.1 St Nicholas Street. [c. 135m SW]

NHER 5913: Site of St Nicholas' Church. St Nicholas' church was first mentioned in 1291 and repaired in 1528 before being demolished in 1547. However, documents show that the tower was still present in 1740. Some remains of the church survive into modernity but are incorporated into the back garden wall of St Nicholas House. Excavations in this area in 1989 and 1990 revealed part of the burial ground associated with St Nicholas' church, as well as a large number of 11th and 12th century rubbish and cess pits, suggesting this area was occupied at that time.[c. 145m WSW]

NHER 37356: Prehistoric burial and Saxon/medieval occupation at No.3 Minstergate. Archaeological investigation in 2002 and excavation in 2004 by the Norfolk Archaeological Unit recorded significant evidence from the prehistoric, Roman, Late Saxon and medieval periods. The most significant prehistoric evidence took the form of a Neolithic/Bronze Age child burial, with the remains surviving as a sand body. Small assemblages of Mesolithic/Early Neolithic and later prehistoric worked flint were also recovered. The Saxon period was the most heavily represented and included pits and gullies as well as structural evidence in the form of postholes and beam slots. The excavation also uncovered the substantial remains of an early medieval building, with evidence indicating that it was demolished in the late medieval period. [c.165m SW]

NHER 11945: Site of St Mary's and St Julian's Hospital, Bridge Street. St Mary's and St Julian's Hospital was established around 1135 for poor travellers and pilgrims. The hospital was presumably dissolved in the 16th century and by 1777 it is believed that the ruins were declared a nuisance and pulled down. Although the exact location of the hospital is unknown, several 18th and 19th century references describe it as standing at Thetford Bridge and an 18th century map depicts a chapel at this location.

5.0 Methodology (Figure 2)

The objective of the archaeological excavation was to investigate and record any archaeological evidence likely to be affected by the extension groundworks. This was to ensure that any archaeological features, deposits and structures which could have been damaged or destroyed during groundwork for the extension footprint were suitably investigated and recorded via controlled excavation to recognised standards.

Plate 3. Site at the rear of Cintra House. (looking NE)

The footprint of the rear extension was reduced using a 2.5-ton 360^0 tracked machine to an archaeologically significant horizon under the supervision of an experienced archaeologist. Within this area, a small trench was measuring c. 1.3m by 2.4m was excavated from a column base against the southern elevation of the existing house.

Spoil, exposed surfaces and features were scanned with a metal detector (Minelab XTerra 705). All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

All archaeological features and deposits were recorded using Norvic Archaeology *pro forma* sheets. The trench location, plans and sections were recorded at appropriate scales and digital images were taken of all relevant features and deposits.

All levels were tied to an OS benchmark of 15.42m OD located on No.18 White Hart Street.

Plate 4. Progress shot showing excavated features.
(looking S) [2x2m & 2x1m Scales]

6.0 Results (Figure 3 to 5) *(Appendix 1a)*

- ***'Natural deposits'***

The natural upper chalk (61) sloped gradually from north to south and was reached at just 0.3m below the cover soils at the northern end of the trench and at c. 0.6m at the southern end. The chalk ranged from firm to hard and contained occasional lenses/pockets of soft yellow sand at its surface.

- ***Cover soils***

Below the concrete and flagstones was a mixed soil horizon that had been subject to modern levelling activity, which ranged between 0.3m to 0.5m in depth. Although the upper level of this soil was contaminated by modern refuse, finds collected from this layer include a small assemblage of residual Late Saxon to Medieval pottery along with early post-medieval sherds of late 15th to 16th century date.

- ***Late Saxon to Norman period features (late 11th to early 12th century)***

Five features can be identified to the Late Saxon to Norman or 'Saxo-Norman' period:

Posthole - The 100mm deep surviving base of a square posthole measuring c. 0.4m by 0.35m contained a soft silty sand of mottled dark-brownish-grey and mid-orange hue, with moderate inclusions of chalk pieces and occasional charcoal flecks (46). No finds were collected from it, although the nature of its fill is similar to other Saxo-Norman features at the site, plus this posthole was clipped by a medieval feature. It is therefore only tentatively assigned to the Saxo-Norman period, although a medieval date is also possible.

Pits - Two adjacent features were investigated within the south-east corner of the trench, both of which were partly truncated by a large medieval pit ([47]) and both have been assigned to Saxo-Norman period activity ([40] and [42]).

Pit [40] was only partly exposed within the confines of the trench and appeared to be the edge of a pit with a width greater than 1.2m and a depth exceeding 0.3m. It contained a

soft, mid-orangey-brown silty-sand with occasional chalk pieces and a few flecks of burnt clay (41).

Pit [42] was sub-circular in plan (measuring c. 1.25m in diameter) with near vertical sides and auger testing showed that it was c. 2.2m deep. The upper part of the eastern edge of this shaft like feature had been reinforced by the construction of a rough retaining wall c. 0.5 deep and 0.25m wide, formed from irregular shaped chalk clunch, set with a calcareous mortar. The pit contained a primary fill of dark yellowish-brown silty-sand with occasional small burnt clay lumps of 0.2m depth (57), below a very-dense mid-greyish-brown silty-sand, with occasional chalk pieces and stones of c. 0.7m depth (56). The upper 1.25m deep fill (which was able to be partly hand excavated) was a soft, dark yellowish-brown fine silty-sand with moderate chalk pieces (43). Finds collected from the upper fill indicate the incorporation of small quantities of midden waste, which include animal bone and oyster shell. Several sherds of pottery indicative of a late 10th to 11th century deposition were also collected along with pieces of fired daub which may be from an oven/furnace or similar clay lined structure. Interestingly, a single piece of copper-working slag was also recovered from this fill, which could indicate copper-casting in the general area.

Plate 5. Saxo-Norman Pit [42].
(Looking SSW) [1x0.5m Scale]

The fills of this feature appear to be incidental to any intended function. The circular shaft-like form of this pit was dug down into the chalk to a depth of just over 2m, with a concerted effort to shore up a weakness with chalk masonry. This appears to demonstrate that the pit had an expanded lifespan to serve a particular function, possibly as a covered cool store for household consumables such as dairy or grain.

Cess-pit - An elongated cess-pit with a slightly-sloping base was investigated ([49]), just to the south of the deep chalk extraction pit [22]. It had been partly lost to medieval pitting. The cess-pit contained a series of organic stained layers and measured greater than 1.7m in length and 0.9m wide, surviving to a maximum depth of 0.55m. The 140mm thick basal fill comprised of a mid-orangey-grey silty-sand with mineralised coprolites (52). Above this was a 120mm thick layer of dense silty-sand with frequent reddish-brown organic stains (51). The main upper fill (50) was a soft but dense very fine, mid-brownish-grey, silty-sand with rare flecks of charcoal and burnt clay. Finds collected from the cess-pit fills included several sherds of pottery indicating an 11th century deposition date and pieces of animal bone, including a fire charred fragment. Environmental analysis of the cess-pit fills provided evidence for hearth waste and dietary refuse which included fragmentary pieces of bone, fish, marine shell and grape seed pips.

Plate 6. Saxo-Norman Cess-pit [49].
(looking NE) [2x0.5m Scales]

Deep Quarry Pit - The north east part of a square or rectangular and very deep (3.4m), steep sided pit was investigated in the north-west corner of the trench ([22]). The southern part of this feature was obscured by the insertion of several medieval pits. The deep pit was initially investigated to a depth of c. 1.2m, followed by auger testing, which reached the hard

chalk base. Directly on the pit base was a thin primary deposit of dense, very dark brown silty-sand (27) measuring 150mm thick. Above this was a 0.95m deep layer of very densely compacted dark-grey silty-sand flecked occasionally by charcoal and burnt clay flecks (26). This was followed by an c. 0.35m deep layer of softer mid-brown silty-sand with similar inclusions (25), then a mid-brownish-grey silty-sand of c. 1.3m depth (24). The uppermost fill consisted of a 0.65m deep fairly homogeneous mid-brown silty-sand, with occasional chalk, angular flints and rare burnt clay flecks (23). Finds collected from the two upper most fills include animal bone, marine shell, fired daub and pottery sherds of 11th to possible 12th century date. The sheer depth of this pit into natural chalk, with no chalk waste appearing in its infill points to chalk extraction for building stone or lime production. It is likely that further similar features may be located in the area of similar date, placed to the rear of a Saxon plot off the main street.

- ***Medieval period features (12th to 14th century date range)***

Two associated pits of possible medieval date were identified. The first was a large, square pit ([47]) which measured c. 3m by 3m with an auger tested depth of c. 1.4m. It contained a firm deposit of yellowish-brown silty-sand and chalk-rubble (48) and may be the result of localised chalk extraction. This was partly cut by a smaller pit ([06]) which measured c. 2m long and 0.5m deep and contained a firm mid-brown silty-sand with rare flecks of charcoal and burnt clay (08). Only a single sherd of medieval pottery was collected from fill (08), although combined with the deposit characteristics and stratigraphic sequence these features have both been assigned to medieval period activity.

- ***Late medieval and early post-medieval period features (L15th to early 16th century date range)***

Six sub-oval to sub-rectangular pits with depth of between c. 0.4 to 0.5m were revealed that can be assigned to early post-medieval period of activity. It is worthy of note that aside from pit [15], they are clustered in the northern part of the trench, possibly indicating the presence of a former east to west plot boundary.

The earliest pits in the pit cluster sequence were pits [34] and [36], which appear to be conjoining features with gently concave profiles and contemporaneous fills. They measured c.0.4m deep and between to 2m to 2.4m in length. They both contained a friable brownish-grey silty-sand with moderate chalk lumps and occasional flints. They were truncated by two further pits which contained possible building waste ([30] and [38]). Pit [30] measured 1.45m long by 0.9m wide and 0.5m deep. It contained a firm deposit of crushed mortar waste mixed with chalk and flint rubble. Pit [38] was larger than 2m by 2m and contained a pale-brownish-grey slightly silty sand with large volumes of chalk rubble and decayed chalky mortar (39).

Pit [10] had a length of c. 1.8m and contained a deposit of soft, yellowish-brown silty-sand with occasional chalk and stone (11).

Pit [15] measured 3m by 2m and was relatively shallow at 0.25m deep. It contained a friable yellowish-brown silty-sand with frequent chalk lumps and sub-rounded flints (17).

While the earliest two pits in the sequence ([34] and [37]) contained modest quantities of animal bone,

Plate 7. Selection of c. C16th Magpie remains from context (38), fill of Pit [38]. [Scale 1x5cm]

oyster shell and medieval pottery and are likely to be rubbish pits, the remainder contained much more sterile fills rich in chalk and flint building waste. The various finds assemblages from these pits include small quantities of brick/tile and pottery sherds of early post medieval date (c. late 15th to early 16th century).

Pit [10] contained the partly articulated remains of a single magpie. Given the apparent insertion of a whole bird within a pit which primarily contained building rubble, it seems likely that this represents the opportunistic disposal of a domesticated pet. Magpies were kept as pets in the medieval to post-medieval periods, along with other native birds like Starlings and Jays, for their ability to mimic and learn a few words (Reeves, 1997).

- ***c.1821 to modern period features***

Well - A circular well of 1.6m diameter was recorded in the south-west corner of the trench, constructed of chalk blocks with occasional 19th century bricks. The well contained loose chalk and 19th century brick rubble along with soft yellow sand (55). The corner footings (03) for the recently demolished 19th century extension to the house were built across the edge of the well, made of cementitious grey mortar with brick and chalk block.

The well probably dates to the construction of the house, c.1821, whilst the extension dates from sometime prior to 1883, as it appears on the 1st edition OS plan where the well's location is marked as a water pump.

Running north from the well was a linear trench for a salt-glazed drainpipe ([28]).

Silt-trap - The brick base of a 0.7m by 0.7m square silt trap was recorded (18), which lay below the remnants of a salt-glazed drainpipe. The brick was dirt bonded and of the same type of 19th century brick from which Cintra House is constructed. It survived to a depth of 150mm and contained a very soft and very silty dark-grey sand (19).

Posthole - A single rectangular posthole base was recorded in the north-east corner of the trench ([04]). The posthole measured 0.35m by 0.45m and pieces of plant pot were collected from the fill (05).

Pits - A large trench or pit ([12]) of 5m length was recorded which contained a primary deposit of hard mid-grey silty-clay mixed with building flint waste (13) and a layer of firm pale grey silty-clay rich in chalk and flint waste (14). Small brick pieces were also present, and the few larger fragments collected included post-medieval tile and 18th to 19th century brick. This feature was cut by the clunch footings (59) for Cintra House and is thought to represent associated building activity here for the house, possibly including the infill and consolidation of soft ground here.

Part of a 0.4m deep pit ([32]) was caught in the very south-east corner of the trench, which contained a soft mid-grey silty-sand with flint and brick rubble (33). It lay below the corner of the footings to Cintra House.

House Footings - The footings for the rear wall of Cintra House include a crude area of addition in close proximity to boundary wall in the form of a hard ashy-grey mortar mixed with flints, chalk lumps and brick frags (58). This seems to match with a slightly later infill to the above ground house masonry (see Plate 8) here where the 1st Edition OS plan shows a recessed area here.

Plate 8. Rear of Cintra House. (looking SE) [1x2m Scale]

7.0 Finds Analysis *(Appendix 2a)*

- **Pottery** *(Appendix X)*
  By Sue Anderson

Introduction

A total of 58 sherds of pottery weighing 774g was collected from 14 contexts. Table 1 shows the quantification by fabric; a summary catalogue by context is included as Appendix 4.

Description	Fabric	Date range	No	Wt(g)	Eve	MNV
Thetford-type ware	THET	L.9th–11th c.	23	342	0.33	23
Thetford Ware (Grimston)	THETG	L.10th–11th c.	3	29		3
Late Saxon shelly wares	LSSH	L.9th–11th c.	1	9		1
St. Neot's Ware	STNE	L.9th–11th c.	4	21		4
Total Late Saxon			***31***	***401***	***0.33***	***31***
Early medieval ware	EMW	11th–12th c.	4	31		4
Stamford Ware Fabric B	STAMB	11th–12th c.	1	25		1
Total early medieval			***5***	***56***		***5***
Medieval coarseware	MCW	12th–14th c.	2	10		2
Bury sandy fine ware	BSFW	12th–14th c.	1	9		1
Grimston-type ware	GRIM	L.12th–14th c.	3	23		2
Total medieval			***6***	***42***		***5***
Late medieval and transitional	LMT	M.14th–M.16th c.	5	117	0.06	5
Late Grimston-type ware	GRIL	14th–15th c.?	1	32	0.05	1
Siegburg stoneware	GSW1	14th–16th c.	1	24		1
Raeran/Aachen Stoneware	GSW3	L.15th–16th c.	4	67	0.31	2
Total late medieval			**11**	**240**	**0.42**	**9**
Glazed red earthenware	GRE	16th–18th c.	1	4		1
Speckle-glazed ware	SPEC	16th/17th–18th c.	1	12		1
Late pmed unglazed earthenware	LPME	19th–20th c.	3	19	0.08	3
Total post-medieval			***5***	***35***	***0.08***	***5***
		Grand Totals	**58**	**774**	**0.83**	**55**

Table 1. Pottery quantification by fabric, in approximate date order

Methodology

Quantification was carried out using sherd count, weight and estimated vessel equivalent (eve). The minimum number of vessels (MNV) within each context was also recorded, but

cross-fitting was not attempted unless particularly distinctive vessels were observed in more than one context. A full quantification by fabric, context and feature is available in archive. All fabric codes were assigned from the author's post-Roman fabric series, which includes East Anglian and Midlands fabrics, as well as imported wares. Thetford Ware fabrics are based on Dallas (1984), and forms on Anderson (2004). Form terminology for medieval pottery is based on MPRG (1998). Recording uses a system of letters for fabric codes together with number codes for ease of sorting in database format. The results were input directly onto an Access database.

Summary of pottery by period

Late Saxon

A high proportion of this assemblage was Late Saxon, being dominated by Thetford type wares. St Neot's ware was present in small quantities and there was a single sherd of an unprovenanced shelly ware.

Only two rims were present in this group, both large 'AC' jars, although the rim form of one suggests that it may have been part of a pitcher. An applied thumbed strip was present on one body sherd, two body sherds were decorated with bands of diamond rouletting, and the edge of the possible pitcher rim was also decorated with a line of rouletting. The range of fabrics present, together with the single jar rim form, suggests a 11th-century date for the group.

Early medieval

A small group belongs to the transitional period between the Late Saxon and medieval phases. These wares were dominated by the typical medium sandy thin-walled handmade pottery known as early medieval ware, but all fragments were body sherds. There was one fragment of a wide strap handle in Stamford Fabric B.

Medieval

A small quantity of medieval coarseware was present. Two sherds were in Thetford-type fabrics and presumably local. One was a type commonly found in Bury St Edmunds and the area to the south and west of the town (at least as far as Cambridge), although its exact origin is currently unknown. Three sherds were pieces of Grimston-type ware, probably from jugs, although only two were glazed. All fragments in this group were body sherds.

Late medieval

Five sherds of LMT were present, including a base fragment with internal green glaze, and a jar rim fragment with an attached horizontal thumbed handle. A bowl rim of late Grimston-type ware was also found, and there were four sherds of Raeren stoneware mugs and a fragment of Siegburg stoneware.

Post-medieval and modern

Post-medieval wares comprised a small body sherd of GRE, a larger fragment of brown speckle-glazed ware and three fragments of modern plantpots.

Pottery by context

The following table provides a summary of the pottery by context with spotdates relating to pottery finds only – alongside context dating based on cross-refencing other datable finds assemblages or stratigraphic information. Fabric codes were assigned from the author's post-Roman fabric series, which includes East Anglian and Midlands fabrics, as well as

imported wares. Thetford Ware fabrics are based on Dallas (1984), and forms on Anderson (2004).

Fill Of	Context	Cut Type	Fabrics	Pot Spotdate	Context Period
04	05	post-hole	GRE(?) LPME	19th–20th c.	19th-20th
06	08	pit	BSFW	12th–14th c.+	Medieval
10	11	pit	THET EMW	11th(-12th) c.	E.P.Med. (c.16th)
15	21	pit	GRIL LMT	14th-15th c.	E.P.Med. (c.16th)
22	23	pit	THET EMW	11th(-12th) c.	Saxo-Norman
22	24	pit	THET	11th c.	Saxo-Norman
34	35	pit	THET THETG GSW1 LMT GSW3 SPEC	16th/17th c.?	E.P.Med. (c.16th)
36	37	pit	LMT	15th-16th c.	E.P.Med. (c.16th)
36	37	pit	THET	11th c.+	E.P.Med. (c.16th)
42	43	shaft-pit	THET THETG STNE	11th c.	Saxo-Norman
49	50	pit	THET EMW MCW	11th-12th c.?	Saxo-Norman
49	51	pit	STNE LSSH	11th c.	Saxo-Norman
49	52	pit	THET	10th-11th c.	Saxo-Norman
-	54	layer	THET STAMB GRIM LMT GSW3	L.15th-16th c.	Post-med. +

Table 2. Pottery types present by context: spot dates given for pottery assemblage only

Most of the pottery was recovered from pits. The largest group was from pit [22], which contained fifteen sherds. Whilst some of the Late Saxon pottery in this assemblage was residual within later features, a few features appear to have genuine early medieval 'Saxo-Norman' origins, particularly [42] and [49]. A few features of medieval and late medieval/early post-medieval date also appear to be present.

Discussion

This is a relatively small assemblage in Thetford terms, but it includes wares which suggest that much of the Late Saxon activity on the site can be dated to the 11th century. Continued activity on the site is represented by a few sherds of early, high and late medieval pottery, all in fabrics and forms which are common on urban sites of the period in this region.

- **Ceramic Building Material (CBM)**

A moderate assemblage of brick and tile fragments, of varying size and completeness, were collected from several features across the site (posthole [04], Pits [15], [32], [34], feature [28] and pit/trench [12]). These features have spot dates of medieval, post-medieval and 18th to 19th century periods.

The ceramic building material (CBM) assemblage was quantified (count and weight) by fabric and form. A total of 14 examples of brick and 17 examples of roof tile were collected from six different contexts, with a combined weight of 2130g. Fabrics were identified on the basis of macroscopic appearance and main inclusions. The width, length and thickness of all bricks and tiles were measured where available. The majority of fabrics generally fall into the fabric type and size range for as those categorised by Drury for material generated from excavated urban sites in Norwich and terminology follows Drury (1993) where applicable (see Tables 1 and 2, below).

The following fabric categories were assigned;

Est *– Estuarine clay, generally poorly mixed, ranging from mid-pink to dark purple with reduced core*
Fs *– Hard, fine sandy fabric, ranging from mid to dark orange in hue*
Ms *– Hard , sandy fabric ranginng from mid to dark orange and orangey-red*
Cs *– Hard, course sandy fabric, ranging from mid to dark orange/purple and orangey-red*
Gt *– Gault clay – Hard, fine clay with some fine sand, occ. clay pellets, pale yellow to buff*

Ctxt	Fill of	Fabric	no	wt(g)	L	W	H/T	mortar	comments	date
05	*PH [04]*	*Gt*	1	17					Abraded	18-19th
09	*Pit [15]*	*Est*	1	255			50		Straw impressions on lower, wiped upper. Hard fired.	L12-15th
09	*Pit [15]*	*Est*	6	102						L12-15th
13	*Pit [12]*	*Fs*	1	351			48	Lime mortar traces		18-19th
13	*Pit [12]*	*Gt*	1	507		112	64		Box moulded	18-19th
21	*Pit [15]*	*Est*	2	149			52		Straw impressions on lower, wiped upper. Hard fired.	L12-15th
29	*Drain [28]*	*Ms*	1	10						18-19th
33	*Pit [32]*	*Est*	1	17					Straw impressions	L12-15th
		Totals	14	1408g						

Table 2. Brick Catalogue.

Ctxt	Fill of	Fabric	no	wt(g)	L	W	H/T	mortar	comments	date
13	*Pit [12]*	*Ms*	1	36			14	V.chalky	Mortar on breaks, reused fragment of flat roof-tile	P.med.
29	*Drain [28]*	*Ms*	1	17			15		Flat roof-tile	P.med.
31	*Pit [32]*	*Cs*	2	102			15		Slightly overfired	L12-15th
33	*Pit [32]*	*Ms*	8	417			12-18		Various frags. Of flat roof-tile, inc. xr peg-tile with round holes 11mm diam.	P.med.
33	*Pit [32]*	*Fs*	1	19			15		Abraded flat roof-tile	P.med.
35	*Pit [34]*	*Est**	3	52			12		Yellow hue with reduced core, weak cohesion, similar to North Norfolk/King's Lynn types	Medieval
35	*Pit [34]*	*Ms*	1	79			15		Flat roof-tile	?Medieval
		Totals	17	722g						

Table 3. Tile Catalogue.

The forms and fabrics show that 18th to 19th century material is present in the assemblage along with fragmentary examples of medieval to post-medieval brick and tile as residual evidence for cleared structures in the vicinity of the site. All of the medieval material is of similar poorly mixed estuarine clay type with straw mark bases. Rooftiles include post-medieval peg tiles with no examples of modern roof tiles of glazed tile.

- **Mortar**

Two fragments of fine chalky mortar render (with small pieces of chalk and fine sand) were collected from the fill (21) of the early post-medieval demolition waste filled pit [15]. The pieces are of similar size with a maximum thickness of 20mm and together weigh 84g. Both have a thin white lime-wash finish with fine brush marks visible on one piece and both are therefore classified as internal wall render of medieval to post-medieval date.

A third piece of wall mortar render was collected from the fill (09) of the same pit ([15]). This piece is of a pale yellow medium sandy fabric, measuring 14mm thick. Several layers of white lime-wash adhere to the surface, again with fine brush marks visible.

A hard lump of wall mortar (455g) was collected from (21), the primary fill of pit [15], with a dense pale yellow chalk rich fine sandy mortar, with frequent pieces of chalk and flint pebbles up to 25mm is size. Scars from building flints are present, along with a flat, smooth wiped surface.

Three similar lumps of mortar of the same fabric type were collected from fill (33) of an 18th to 19th century pit [32], with a combined weight of 732g. The smaller of the three retains an angled negative impression from a piece of architectural stone or wood.

A lump of hard white chalk weighing 275g was retained from the ?dated chalk rubble rich fill (39) of early post-medieval pit [38]. This piece bears four clear taper shaped tool marks on one face in the form of linear grooves of between 3 to 8mm wide, which appear to have been made from the point of a pick like tool.

- **Fired Clay**

Six fragments of fired clay were collected from a deep chalk extraction pit ([22]) of 11-12th century date, and a further six from a deep shaft-pit of a similar date ([42]). One small piece was collected from a medieval pit and another small piece form a pit of early post-medieval date. The larger Saxo-Norman fragments include some withie impressions and are therefore derived from structures such as ovens, furnaces or walling. Two such pieces from pit [42] have convex surfaces and maybe from an oven or similar clay lined feature.

Only two fabric types were present: a pale pinkish to buff fine clay and a fine sandy fabric, both with no significant inclusions. A small piece of fired clay from context (43) could potentially be from a clay object, such as a loom weight. Overall, the majority of this material is likely to be of Saxo-Norman date, with minor residuality appearing in features of later date.

Context	Context type	Ctxt Period	Qty	Wt (g)	Comment
08	Fill of Pit [06]	Medieval	1	10	Well-abraded, pink fabric
11	Fill of Pit [10]	E.P.Med.	1	9	Weak brick-like fabric, medium sandy
23	Fill of Deep Pit [22]	Saxo-Norman	4	82	Withie marks range from 12-15mm diam. Pale buff fine clay fabric….
24	Fill of Deep Pit [22]	Saxo-Norman	2	108	Withie mark of c. 15mm. Pale buff fine clay fabric. Rare chalk flecks.
43	Shaft-pit [42]	Saxo-Norman	6	213	Withie mark fo 10mm diam. Hard-fired, two have concave faces. One small piece of smooth, pinkish fine sandy-clay, poss. part of a clay object
		Totals	***14***	***422***	

Table 4. Fired Clay Catalogue.

- **Chalk**

A single lump of chalk with pick marks was retained from the fill (39) of the early post-medieval demolition pit [30], which contained large quantities of chalk rubble.

- **Clay tobacco pipe**

Only a single example of clay tobacco pipe (7g) was collected, in the form of a stem piece from close to the bowl, of probable 17th to 18th century date recovered from a late post-medieval pit ([32]).

- **Glass**

A single fragment of dark-green late post-medieval bottle glass was collected from the fill (19) of a 19th century brick drainage sump (18).

- **Iron Nails**

Three hand-made iron nails were collected, all in a moderate state of preservation and all with square shanks. One shank piece (7g) and was collected from the fill (35) of an early post-medieval pit ([34]). Another shank fragment (4g) was collected from fill (51) of a cess pit of 11th to 12th century date ([49]).

A near complete nail with an oval head and a length of 55mm was collected as a residual find from post-medieval soil layer (54).

- **Lava Quern**

A single example of vesicular lava quern weighing was collected from context (29), the back-fill of a modern drainpipe trench ([28]). The fragment has a thickness of 30mm and weighs 358g. Such pieces are commonly found in Late Saxon and medieval deposits across East Anglia, where they are usually classified as Rhenish lava stone. This redeposited fragment may indicate domestic scale grain processing in the vicinity of the site.

- **Lead**

Two pieces of lead were retrieved, one is a single piece of folded off-cut lead (13g) collected from the fill (43) of a deep pit of 11th to 12th century date and the other is a lump of puddled lead (36g) from post-medieval soil layer (54).

- **Metal working debris – copper-slag**

A single small lump of copper-working slag (18g) was collected from context (43), the fill of a shaft-pit of 11th to 12th century date ([42]). Although a singular small example, its presence here is interesting as little evidence for Saxo-Norman copper working has been identified thus far within the settlement, although evidence for iron smelting is common from several sites; for example within settlement areas on the northern and southern bank of the Little Ouse River around Bridge Street (NHER 5894 and NHER 5762).

- **Shell**

The shell has been subject to quantification and initial brief visual assessment. The majority are oyster shells, with only a few numbers of mussels and cockles also present. The shell is in moderate to flaky condition and no shells show signs of shucking damage or modification. The oyster shells are in relatively healthy condition, with no parasite or predatory damage. Overall, the marine shells represent the disposal of food waste of Saxo-Norman through to medieval and early post-medieval date and the assemblage is small, indicating a high level of residuality.

The six land snails from the 18th-19th century pit ([32]) can be assigned to the species *Cepaea aspersa* also known as the common garden snail. The single land snail shell from the 16th century pit is less well-preserved but of a similar species. Those collected from the later pit may indicate that the snails had access to midden waste prior to their accidental burial.

Context No.	Quantity	Combined Weight (g)	Shell types present	Context Type/Period
9	1	1	Cockle	c. 16th century Pit [15]
11	2	13	Oyster (x2 bases)	c. 16th century Pit [10]
21	1	2	Land snail	c. 16th century Pit [15]
21	6	70	Oyster x3 (bases x2; lids x1) Mussel x1 (1g)	c. 16th century Pit [15]
23	1	2	Mussel	Saxo-Norman deep pit [22]
23	2	17	Oyster (x2 lids)	Saxo-Norman deep pit [22]
24	1	1	Oyster (x1 lid)	Saxo-Norman deep pit [22]
33	6	7	Land snail	18-19th century Pit [32]
35	5	61	Oyster (Bases x2; lids x3)	c. 16th century Pit [34]
37	2	2	Cockle and mussel	c. 16th century Pit [36]
43	2	25	Oyster (x1 lid), Land snail x1	Saxo-Norman Shaft-pit [42]
51	1	8	Oyster (x1 base)	Saxo-Norman Cess-pit [49]
Totals	**30**	**209**		

Table 5. Shell Catalogue.

- **Animal Bone**
  By Julie Curl

Introduction

A total of 1795g of faunal remains were recovered from this site, comprising of 112 elements. These were collected from twelve contexts, sourced to ten separate features and one soil layer. Nine species were identified, including domestic and wild species of mammals and birds. Small scale horn-working was identified. A possible pet bird was also recovered as a Magpie skeleton, a popular pet in the Medieval period. The bone was collected from a variety of pit fills, including a Saxo-Norman cess pit. Dates for the bone producing features are largely Late Saxon/Medieval, with some from Post-medieval features.

Methodology

This analysis was carried out following a modified version of guidelines by English Heritage (Davis, 1992). All of the bone was scanned to determine range of species and elements present. A note was also made of butchering and any indications of skinning, hornworking and other modifications. When possible, a record was made of ages and any other relevant information, such as pathologies. Counts and weights were taken and additional counts were made for each species identified. Counts were also taken of bone classed as 'countable' (Davis, 1992) remains. Very few measurable bones were seen and retrieval of metrical data on such a small assemblage was not considered worthwhile. Information was recorded into Excel for analysis and table preparation, the full recording is available in the digital archive.

The faunal assemblage

Quantification, provenance and preservation

A total of 1795g of faunal remains, consisting of 112 elements, was recovered through manual collection. Quantification by date, feature type and weight in grams is in Table 1 and the assemblage is quantified by element count in Table 6.

Feature	Ctxts	Feature Type	Count	Wt (g)	Period
[22]	23, 24	Extraction Pit	24	340	
[42]	43	Shaft-pit	7	63	Saxo-Norman
[49]	50, 51	Cess pit	6	65	
[06]	08	Pit	3	27	Medieval
[10]	11	Pit	1	17	
[15]	09	Pit	7	188	
[30]	39	Demolition Pit	27	7	Early Post-medieval
[34]	35	Pit	20	251	
[36]	37	Pit	6	87	
54		Soil Layer	7	150	Post-medieval (16th+)
[32]	33	Pit	1	485	18-19th Century

Table 6. Quantification by feature type and date

The assemblage is in good condition, although a good deal of fragmentation has occurred from butchering and some from wear. Three bones in the assemblage, from pit [15] and cess pit [49], showed slight charring, probably from the cooking process. Six bones from various pit fills (Contexts 9, 24, 33 and 35) showed canid gnawing, suggesting some meat waste was given to domestic or working dogs and then disposed of with other household waste during all historic periods.

Species

Nine species were identified in this assemblage, with quantification by species, NISP and feature type in Table 7.

Species	NISP by Period					Species Totals
	Saxo-Norman	Medieval	E.P.Med.(c.16th)	Post-med	18-19th	
Bird - Fowl	1		2			3
Bird - Goose				1		1
Bird -Magpie			27			27
Cattle	9	1	2	2		14
Equid					1	1
Mammal	19	2	9	5		35
Pig/boar			1		1	2
Sheep/goat	8		13	5		26
SM - Hare	1		1			2
SM - Rabbit					1	1
Period Totals	***38***	***30***	***28***	***13***	***3***	***112***

Table 7. Quantification of the faunal assemblage by period, species and NISP.

Sheep/goat were the most frequently recorded species, recovered from eight fills and in the largest quantity. The ovicaprid bones all appear to be from sheep and all are from adults. Elements suggest these animals were probably processed and consumed in the immediate area. Three sheep horncores were seen, from the fills 11, 23 and 37, which had all been chopped cleanly at the base when removed from the skull. The clear removal from the skull would indicate that they had been removed for horn-working. The sheep horncore from pit [36], fill (37) showed a 'thumbprint depression' close to the base, which results from re-absorption of the calcium in the inner horncore. These depressions on horncores suggest the animals are under some physical stress (Albarella, 1995), perhaps from over-breeding and milking or even adverse weather for a time or poor diet.

Cattle were seen in eight fills, although in small numbers. Most cattle bones were from adults, with one juvenile humerus in (9) and a neonatal radius from (43). The presence of the neonatal could indicate culling for vellum and for allowing the milking of the mother.

The elements present suggest more meat waste than primary waste. Cattle metapodials present had been chopped, which is likely to be from accessing marrow.

Two fills produced juvenile pig or boar bones, both chopped radii from joints of meat.

A single equid bone, a large adult tibia, was found in the 18th-19th century dated pit [32], fill (33), no butchering was seen on the bone, but it may have been used for meat, perhaps for feeding dogs, once its working life for traction and transport was over. The metrical data from this equid bone suggest an animal of approximately 15.5 to 16 Hands High, which is in the range for a horse, not a pony. The equid bone is quite robust and with notable muscle attachments, possibly suggesting a draught horse.

Small mammals were represented by hare in contexts (23) – Saxo-Norman, and (35) – c. 16th century; the elements were main limb bones and both had been cut, attesting to the hare's use for food and perhaps skins. A rabbit femur was found in the 18th-19th century pit fill (33), although no butchering was seen. The rabbit may have been used for meat and skin, but with an unbutchered bone, the possibility of a burrowing animal has to be considered.

Three species of bird were recorded. Butchered fowl meat-bearing bones were recorded from the ?16th century pit fill (9) and the Saxo-Norman cess pit fill (50). A goose carpometacarpus (wing bone) was found in the ?16th century pit fill (35), this bone shows a cut and some scrape marks on the proximal end, which would suggest the goose wing was removed for using for quills or fletching.

The c. 16th century pit [38], fill (39) produced twenty-seven bones from a Magpie (see Plate 7). No butchering was seen on any of the Magpie bones and the number of bones together indicate the burial of a complete bird. Magpies are attractive, intelligent birds, able to learn tricks and speak and were commonly kept as pets in the Medieval period (Reeves, 1997); this could be an example of a pet burial, although the possibility remains that this may be the disposal of a wild bird, killed by a cat for example.

Discussion

This is a small but varied assemblage of mixed origin. The butchering of the cattle, sheep/goat and pig/boar clearly show butchering from processing and meat waste. The equid is most likely to be from a traction animal, although use for skin and meat cannot be ruled out. The lack of other equid remains might suggest this was from food waste or from a disturbed burial.

The assemblage is typical of many small assemblages containing food waste, remains of a working animal and small amounts of industrial or craft waste and similar in composition to the assemblage recovered from a nearby site at Croxton Road (Curl, 2006). A small amount of horn-working was suggested, with a chopped sheep horncore, at nearby Croxton Road, Thetford (Curl, 2006), which would further suggest small scale horn-working or skin processing in the area.

The pathology noted on the sheep horncore might suggest at least some of the local sheep stock were under stress. Over-breeding is a plausible explanation for this in the medieval period when there was an increase demand for sheep to provide for the local wool trade.

Hunting of local small mammals for meat and perhaps skins is shown by the hare remains and perhaps the rabbit. The fowl and goose would have probably been kept on or close to site for a supply of feathers, meat and perhaps quills. The Magpie in the assemblage may have been a pet as such birds, along with other native birds like Starlings and Jays, were often kept as pets in the Medieval and Post-medieval periods and popular for their ability to mimic and learn a few words.

- **Worked Flint**

Struck Flint

Just two pieces of prehistoric struck flint were collected, both of which are residual within later features. One is a small tertiary flake (4g) while the other is an end-scraper in fresh condition (26g) of probable early Neolithic date. The fabric is a light yellowish hue when viewed with a strong white light, with moderate interclasts. The flake was collected from the fill (43) of a shaft-like pit of 11th to 12th century date, while the end-scraper was from the fill (11) of an early post-medieval pit ([10]).

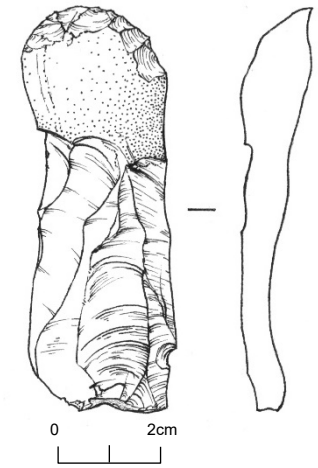


Illustration 1. Flint End Scraper.

The tertiary flake is a small softly struck, neat example with a slightly glossy, rolled and patinated appearance. The end-scraper was manufactured from a good quality fabric and is in particularly fresh and sharp condition (see Illustration 1). The relatively hard-hit blade-like flake measures 78mm in length and was well-struck from an abraded platform, with a thin cortex surviving on its distal end where retouch has produced a thick working edge.

Small numbers of prehistoric flints indicative of background Mesolithic to Neolithic activity have been recovered in the general area of White Hart Street closer to the river and to the west. The most significant prehistoric evidence here was the discovery of a Neolithic to Early Bronze Age child crouch burial at No.3 Minstergate close to the River Little Ouse, where small numbers of Mesolithic to Early Neolithic flints were also recovered.

Burnt Flint

Seven fragments of burnt flint were collected from just three contexts. The flint is either granulated or well calcined in appearance. The pieces are all residual finds collected as material from features of Late Saxon to Early Post-medieval date, they may therefore represent hearth activity of these periods or earlier.

Context	Context type	Ctxt Period	Qty	Wt (g)
11	Fill of Pit [10]	E.P.Med.	1	9
23	Fill of Deep Pit [22]	Saxo-Norman	3	85
50	Fill of Cess Pit [49]	Saxo-Norman	3	287
		Totals	***7***	***381***

Table 8. Burnt Flint Catalogue.

- **Environmental Samples**
  By Val Fryer

A flexible combination of judgemental sampling and systematic sampling for flotation was undertaken on site – with samples sizes of c. 40L (where available) taken from well-sealed deposits with the potential to provide ecofacts for environmental analysis (see table below). This approach was in line with current guidelines established by English Heritage (Environmental Archaeology Guide to Theory and Practice of Methods. 2nd ed. 2011).

The samples were processed by manual water flotation/washover and the flots were collected in a 300 micron mesh sieve. The dried flots were scanned under a binocular microscope at magnifications up to x 16 and the plant macrofossils and other remains noted are listed in Table 1. Nomenclature within the table follows Stace (2010). Most plant remains were charred, although the two grape (Vitis vinifera) seeds from sample <3> appeared to be only partially scorched. Modern roots and seeds were also recorded.

Sample No.	Context	Description	c. Vol	Context date	Feature	Comment
<1>	24	Dense, mid-brown silty-sand infill	40L	C11-12th	Large Pit [22]	very deep ?chalk extraction pit
<2>	43	Soft, dark-yellowish-brown, fine silty-sand	40L	C11-12th	Shaft-pit [42]	Deep shaft-?storage pit
<3>	53	Organic rich ?cess laden	40L	C11-12th	Cess pit [49]	Poss. coprolites present

Table 9. Sample set with context information.

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

Results

Although small (i.e. <0.1 litres in volume), all three assemblages contain occasional cereal grains, seeds, charcoal fragments and other remains. Preservation is moderately good, although a number of the cereals are misshapen, probably as a result of germination.

Oat (*Avena* sp.), barley (*Hordeum* sp.) and wheat (*Triticum* sp.) grains are present, with oats occurring most frequently. As none of the oats retain their diagnostic floret bases, it is not possible to ascertain whether wild or cultivated species are present. However, it is noted that a number of specimens are small, possibly indicating that they are from tertiary spikelets. Barley grains occur within all three Saxo-Norman assemblages. Those from sample <3> are especially of note, as most have distinctive longitudinal fractures of the dorsal surfaces, possibly suggesting that they had germinated prior to charring. Detached sprouts from indeterminate germinated grains are present within the assemblages from samples <1> and <3>. Sample <3> also contains two partially scorched grape 'pips'. Assuming that these are contemporary (and not later contaminants), it is most likely that they are derived from human faecal material, which was deposited within the pit fill. Contemporary finds of grape seeds have also been made at, for example, St. Martin-at-Palace Plain Norwich (Murphy 1987).

Weed seeds are exceedingly scarce, and all are probably present as cereal crop contaminants. Taxa noted are brome (*Bromus* sp.), indeterminate large grasses (Poaceae) and a single possible seed of charlock (*Sinapis* sp.) type. A bur-reed (Sparganium erectum) nutlet from sample <1> is the only wetland plant macrofossil recorded, and samples <1> and <2> also contain individual fragments of hazel (*Corylus avellana*) nutshell. Charcoal/charred wood fragments are present throughout, but other plant macrofossils are scarce.

The other macrofossil remains noted all appear to be derived from hearth waste and/or dietary refuse, with the latter including small and fragmentary pieces of bone, fish bone and marine mollusc shell. It is noted that the assemblage from sample <3> contains a number of rounded, buff/white mineral concretions of uncertain derivation but, probably associated with coprolite material.

Conclusions

In summary, all three of these Saxo-Norman period assemblages are very similar in composition, and it would appear most likely that much of the material has a common source namely, domestic hearth waste and/or midden detritus associated with a Late Saxon to early medieval domestic settingd off Hart Street.

Cereals, most of which were probably grown on the local light soils, appear to have been of particular significance, with the lack of chaff and low density of weed seeds possibly suggesting that the grain was imported to the town as batches of semi-cleaned or prime

grain. Some cereals appear to have germinated, but it is unclear whether this happened accidentally in store, or whether it was a deliberate pre-requisite to the malting of grain for brewing. The presence of the grape pips may suggest that the occupants of the site had some status, as viticulture was not at all common at the time.

8.0 Conclusions

Excavation of the new extension footprint encountered a dense area of pits ranging from the Late Saxon period onwards, confirming occupation activity here. Four main phases of activity were identified which began with Late Saxon to Norman period features, followed by medieval, early post-medieval and concluded with features relating to the construction of the 19th century house.

The Saxo-Norman features include an c.2.2m deep shaft-like pit with a chalk block reinforced upper edge, thought to have served as a dry storage pit; a cess-pit which included dietary evidence of animal bone, marine shells and grape seed pips; and the corner of a 3.4m deep chalk extraction pit.

Two pits of medieval date include a shallower chalk extraction pit and a smaller waste-pit. Six pits of late 15th to early 16th century date were mostly concentrated in the northern area of the trench, possibly indicating the presence of a former east to west plot boundary. Although the two earliest pits in this sequence contained modest of animal bone, oyster shell and medieval pottery and are likely to be rubbish pits, the remainder contained much more sterile fills rich in mortar, chalk rubble and flint building waste with a small quantity of brick and tile. The remains of a magpie were found buried within one such pit, seemingly used for the burial of a pet. Magpies are known to have been kept as pets in the medieval to post-medieval periods, along with other native birds like Starlings and Jays, for their ability to mimic and learn a few words (Reeves, 1997).

A 19th century rubble filled well was uncovered, partly overlapped by the footings for the recently demolished flint and brick extension block which may have formed part of servant's quarters or scullery for the main house. The well probably dates to the construction of the house c. 1821, while the extension dates from sometime prior to 1883, as it appears on the 1st edition OS plan where the well's location is marked as a water pump. Other observations on the house construction include infill of a former niche on the north-eastern side of the building. Graffiti was found on a chalk block incorporated into the internal side of the northern gable which reads 'J.P 1821' and corroborates the date shown on a stone plaque in the south return wall believed to be the construction date for the building.

Two prehistoric flints were collected as residual finds, one of which is a very well-preserved End scraper of probable Early Neolithic date. Small numbers of prehistoric flints indicative of background Mesolithic to Neolithic activity have been recovered previously in the general area of White Hart Street closer to the river and to the west. The most significant to date being the discovery of a Neolithic to Early Bronze Age child crouch burial at No.3 Minstergate close to the River Little Ouse, where small numbers of Mesolithic to Early Neolithic flints were also recovered.

9.0 Acknowledgements

Thanks are due to Jerry Barlow who commissioned Norvic Archaeology to carry out this work and operated the machine. Fieldwork was carried out by Simon Underdown and the author, with specialist reporting by Sue Anderson (pottery), Julie Curl (animal bone) and Val Fryer (environmental samples). Illustrations are by the author. HER data was supplied by Heather Hamilton of the Norfolk Historic Environment Service (NHER Enquiry number 20_09_03).

11.0 Bibliography

Albarella, U.	1995	*Depressions on Sheep Horncores*. Journal of Archaeological Science. 22. 699 – 704.
Anderson, S.,	2004	'The Pottery', in Wallis, H., *Excavations at Mill Lane, Thetford*, E. Anglian Archaeol. 108, 67–86.
Atkins, J.	2015	*Design and Access Statement (Including Heritage and Planning Statements)*
Curl, J.	2006	The faunal remains from the evaluation and excavation at Croxton Road, Thetford. 40819THD. NAU Archaeology Specialist Report.
Dallas, C.,	1984	'The pottery', in Rogerson, A. and Dallas, C., *Excavations in Thetford 1948-59 and 1973-80*. E. Anglian Archaeology 22, 117–166. Norfolk Archaeological Unit, NMS.
Davis, S.	1992	*A rapid method for recording information about mammal bones from archaeological sites.* English Heritage AML report 71/92
Hillson, S.	1992	*Mammal bones and teeth.* The Institute of Archaeology, University College, London.
Jennings, S.	1981	*Eighteen centuries of pottery from Norwich.* East Anglian Archaeology 13.
Manning, W.H.	1985	*Catalogue of the Romano-British Iron Tools, Fittings and Weapons in the British Museum.* London: British Museum Publishing.
Medleycott, M.(ed.)	2011	*Research and Archaeology Revisited: a revised framework for the East of England.* East Anglian Archaeology Occasional Paper 24.
MPRG	1998	*A Guide to the Classification of Medieval Ceramic Forms*. Medieval Pottery Research Group Occasional Paper 1.
Murphy, P	1987	Plant macrofossils' in Ayers, B., 'Excavations at St. Martin-at-Palace Plain, Norwich, 1981' *East Anglian Archaeology* 37, 118 – 125
Pfleger, V.	2000	A Field Guide in Colour to Molluscs. Aventium Publishing House.
Reeves. C.	1997	*Pleasures and Pastimes in Medieval England.* Sutton Publishing Limited.
Stace, C.	2010	*New Flora of the British Isles*. 3rd edition. Cambridge University Press
Von Den Driesch, A.	1976	*A guide to the measurements of animal bones from archaeological sites.* Peabody Museum Bulletin 1, Cambridge Mass., Harvard University.
Winder, J, M.	2011	Oyster Shells from Archaeological Sites, a brief guide to basic processing.

Appendix 1a: Context Summary

Context	Category	Fill of	Brief Physical Description	Interpretation	Period
1	Deposit		Soil make-up directly below concrete and flagstone surface, similar to 54	Make-up	Modern
2	Masonry		Circ. Well c. 1.6m Diam. Sub.rounded chalk blocks (av. 120mm) and occ. 19th brick (dark red sandy fabric), chalky mortar	Well	c.1821
3	Masonry		Footings for demolished extension: hard cementitious grey mortar, mid-yellow 19th brick and chalk block (av. 200mm). C. 0.35m Wide	Footings	Pre-1883
4	Cut		Rectangular, rounded corners, steep sided, sloping base, 0.45m L, 0.35m W, 0.2m deep	Posthole	19-20th
5	Deposit	4	Friable, yellowish-grey silty-sand, occ. charcoal + chalk flecks	PH Fill	19-20th
6	Cut		Large pit, c. 2m with rounded sides/corners, c. 0.5m deep, steep sided and gently concave base	Pit	Medieval
7	Deposit	6	Firm, yellowish-brown silty-sand, occ. yellow chalk flecked clay lumps, occ. burnt clay flecks. 0.15m thick	Fill	Medieval
8	Deposit	6	Firm, dense, mid-brown silty-sand, rare charcoal + burnt clay flecks, occ. chalk + stones, 0.2m thick	Fill	Medieval
9	Deposit	15	Firm, off-white crushed chalky mortar mottled by greyish-brown silty-sand, occ. stones, rare brick frags. 0.25m D, lens of dark-grey silty-sand below with mod. charcoal	Fill	E.P.Med
10	Cut		?Sub-square pit, measures c. 1.8m L and >1m W	Pit	E.P.Med
11	Deposit	10	Soft, yellowish-brown silty-sand, occ. Chalk + stones	Fill	E.P.Med
12	Cut		Est. 5m L, >1.75m W, 0.5m D, well-sloping sides, fairly flat base	?Pit/trench	18-19th
13	Deposit	12	Hard/dense, mid-grey silty-clay, 25% angular flints, freq. chalk, rare brick flecks/pieces. Up to 0.3m thick.	Fill	18-19th
14	Deposit	12	Firm/dense, pale grey silty-clay, 50% chalk pieces, freq. ang. Flints, up to 0.5m D	Fill	18-19th
15	Cut		Est. 2m by 3m sub-rect. Pit with rounded corners, c.0.25m D. NE-SE orientation.	Pit	E.P.Med
16	Deposit	6	Mottled mid-orange sand, occ. yellow chalk flecked clay lumps, occ. burnt clay flecks. Up to 0.5m deep	Medieval	
17	Deposit	15	V.friable, yellowish-brown silty-sand, freq. chalk lumps and 25% sub-rounded flints up to 100mm, occ. orange/yellow sand lenses. 100mm thick	Upper fill	E.P.Med
18	Masonry		Square, late-brick lined and based, 0.7m by 0.7m. c.150mm deep. Brick similar to house fabric. 230x11x70 pale yellow to dark orange	?silt trap	c.1821
19	Deposit	18	V.soft, dark-grey fine v.silty-sand	Fill	19th
20	Deposit	15	Patch of (09) but with a more mottled appearance	Fill	E.P.Med
21	Deposit	15	Soft, mid-grey silty-sand, occ. charcoal flecks, rare oyster/mussel shell, mod. flint/chalk (up to 100mm)	Primary fill	E.P.Med

Context	Category	Fill of	Brief Physical Description	Interpretation	Period
22	Cut		Northern part of a ?Square or Rect. Pit, very deep (3.4m) and steep sided	?Extraction pit	Saxo-Norman
23	Deposit	22	Soft/dense, mid-brown silty-sand (homogenous), occ. chalk flecks/pieces, rare burnt clay flecks. 0.65m D.	Upper fill	Saxo-Norman
24	Deposit	22	Soft/dense, mid-brownish-grey silty-sand, mod. chalk pieces, rare ang. Flints, occ. charcoal flecks, 1.3m D.	Fill	Saxo-Norman
25	Deposit	22	augered: Similar to (23), 0.37m Deep	Fill	Saxo-Norman
26	Deposit	22	augered: V.dense dark-grey silty-sand, occ. charcoal + burnt clay flecks, 0.95m deep	Fill	Saxo-Norman
27	Deposit	22	augered: V.dense v.dark brown silty-sand. 0.15m Deep	Primary fill	Saxo-Norman
28	Cut		Linear, containing a salt-glazed pipe, c. 0.8m deep max.	Drain cut	19th-20th
29	Deposit	28	Firm, mid-grey silty-clay + silty-sand mix, 50% flints, occ. yellow sandy mortar pieces, mod. chalk pieces	Fill	19th-20th
30	Cut		c. 1.45m L by 0.9m W, Sub-rect. Pit with rounded corners/ends, 0.5m Deep, steeply sloping concave sides, gently convave base	Demolition pit	E.P.Med
31	Deposit	30	Firm, v.pale yellow crushed mortar (v.chalky/sandy) 50% chalk rubble, 20% flint rubble, well-mixed	Fill	E.P.Med
32	Cut		Part of a concave pit, c. 0.4m deep	Pit	18-19th
33	Deposit	32	V.soft, mid-grey silty-sand. mod. flints, occ. chalk pieces	Fill	18-19th
34	Cut		Eastern part of an ?oval//sub rect. Pit c. 1.4m W, 0.4m D, steep sided, concave base, conjoins with [36]	Pit	E.P.Med
35	Deposit	34	Friable, brownish-grey silty-sand, mod. chalk lumps, occ. flints, rare charcoal flecks	FIll	E.P.Med
36	Cut		One or two conjoined pits, also conjoins with Pit [34], Oval/Sub-rect?, overall 2.4m L, 2m W, gently concave base, c.0.4m deep	Pit	E.P.Med
37	Deposit	36	Similar deposit to (35)	Fill	E.P.Med
38	Cut		Large ?sub-rect/square pit c. 2m by 2m min, 0.4m deep, well-sloping sides, failry flat base	Large pit	E.P.Med
39	Deposit	30	Firm, pale-brownish-grey (silty) sand, 50% chalk rubble (up to 150mm), rare flints, high chalk content maybe decayed mortar	Fill	E.P.Med
40	Cut		Part of a pit greater than 1.2m W >0.3m deep	Pit	Saxo-Norman
41	Deposit	40	Soft, mid-orangey-brown silty-sand (homogenous), occ. chalk pieces/flecks, rare burnt clay flecks	Fill	Saxo-Norman
42	Cut		?Sub-circular, c.1.25m diam, near vertical sided, c. 2m deep	Deep shaft-pit	Saxo-Norman
43	Deposit	42	Soft, dark-yellowish-brown, fine silty-sand, mod. chalk pieces. c. 1.25m Deep	Fill	Saxo-Norman
44	Masonry	42	Clunch patch: hard, irreg. blocks (av. 120mm) set with v.pale yellow chalk rich mortar. c.0.5m deep and 0.25m Wide.	Pit repair	Saxo-Norman

Context	Category	Fill of	Brief Physical Description	Interpretation	Period
45	Cut		Sub-square PH base? c. 0.4m by 0.35m, 100mm deep	Posthole	?Saxo-Norman
46	Deposit	45	Soft, mottled dark-brownish-grey + mid-orange silty-sand, mod. chalk pieces, occ. charcoal flecks	Posthole fill	?Saxo-Norman
47	Cut		c. 3m by 3m or larger ?square pit, depth c. 1.4m, well-sloping side	?Extraction pit	Medieval
48	Deposit	47	Firm, yellowish-brown silty-sand, 50% chalk rubble (av. 80mm)	Fill	Medieval
49	Cut		>1.7m L, >0.9m W, 0.55m D, fairly steep sided, slightly sloping base	Cess pit	Saxo-Norman
50	Deposit	49	Soft, dense, v.fine silty-sand, mid-brownish-grey, rare charcoal/chalk/burnt clay flecks, rare flints, 0.4m Deep	Upper fill	Saxo-Norman
51	Deposit	49	Similar to (50) with freq. dark-reddish-brown organic stains, max 130mm thick	Mid fill	Saxo-Norman
52	Deposit	49	V.friable, mid-orangey-grey silty-sand, mod. chalk lumps (up to 40mm), mod. organic mineralised lumps ?coprolites. 140mm thick	Basal fill	Saxo-Norman
53	Master		Mixed ?cess laden fills of pit [49]	Fill	Saxo-Norman
54	Deposit		mixed mid yellowish-brown to grey sandy-loam soil below modern levelling for concrete/flagstones, 0.3m to 0.5m deep	Soil build-up	Post-med+
55	Deposit	2	Loose rubble of chalk block and late brick, plus loose yellow sand	Well-infill	Modern
56	Deposit	42	Friable, mid-greyish-brown silty-sand, v.dense, occ. chalk pieces, occ. ang. Flints, C. 0.7m deep	Fill	Saxo-Norman
57	Deposit	42	Friable, dark-yellowish-brown silty-sand, occ. small burnt clay lumps, c. 0.2m deep	Fill	Saxo-Norman
58	Masonry		Hard ashy-grey mortar with flints, chalk lumps and brick frags.	Footings	c.1821
59	Masonry		Hard pale yellow chalky mortar set with courses of clunch, with freq, voids, rare flints	Footings	c.1821
60	Deposit		Loose crushed chalk pieces and flints	Footings	c.1821
61	Deposit		Firm to hard white chalk with occasional lenses of sand	Natural Geology	Quaternary

Appendix 1b: OASIS feature summary table

Period	Feature type	Quantity
Late Saxon (851 to 1065AD)	Cess pit	1
	Pit	2
	Posthole	1
	Quarry pit	1
Medieval (1066 to 1539AD)	Pit	8
Post-medieval (1540 to 1900AD)	Pit	3
	Posthole	1
	Well	1

Appendix 2a: Finds by Context

Context	Material	Quantity	Weight (g)
5	CBM - Brick	1	17
5	Pottery	4	23
8	Fired clay	1	10
8	Pottery	1	9
8	Animal Bone	3	27
9	Shell	1	1
9	Mortar render	1	8
9	CBM - Brick	1	255
9	Animal Bone	7	188
11	Shell	2	13
11	Fired clay	1	9
11	Flint – Worked	1	26
11	Flint – Burnt	9	1
11	Pottery	2	13
11	Animal Bone	1	17
13	CBM - Tile	1	36
13	CBM - Brick	2	858
19	Glass - bottle	1	4
21	Shell	1	2
21	Shell	6	70
21	Mortar render	2	84
21	CBM - Brick	2	149
21	Mortar	1	455
21	Pottery	2	68
23	Shell	1	2
23	Shell	2	17
23	Fired clay	4	82
23	Flint – Burnt	3	85
23	Pottery	9	119
23	Animal Bone	18	262
24	Shell	1	1
24	Fired clay	2	108
24	Pottery	6	117
24	Animal Bone	6	78
24	Animal Bone	1	92
29	Lava	1	358
29	CBM - Brick	1	10
29	CBM - Tile	1	17
31	CBM - Tile	2	102
33	Mortar	3	732
33	Shell	6	7
33	Clay Tobacco Pipe	1	7
33	CBM - Brick	1	17
33	Animal Bone	2	23
33	Animal Bone	1	485
33	CBM - Tile	9	436
35	Shell	2	11
35	Shell	3	50

Context	Material	Quantity	Weight (g)
35	Iron - Nail	1	7
35	CBM - Tile	4	138
35	Pottery	7	70
35	Animal Bone	20	251
36	Pottery	1	28
37	Shell	2	2
37	Pottery	1	6
37	Animal Bone	6	87
39	Chalk	1	275
39	Animal Bone - individual	27	7
43	Shell	2	25
43	Fired clay	6	213
43	Metalworking Debris	1	18
43	Flint – Worked	1	4
43	Pottery	8	52
43	Animal Bone	7	63
50	Flint – Burnt	3	287
50	Pottery	4	38
50	Animal Bone	5	55
51	Shell	1	8
51	Iron - Nail	1	4
51	Pottery	2	17
51	Animal Bone	1	10
52	Pottery	1	5
54	Iron - Nail	1	8
54	Lead	1	13
54	Pottery	10	209
54	Animal Bone	7	150

Appendix 2b: Finds summary table

Period	Material	Quantity
Early Neolithic (4000 to 3001BC)	Flint – End scraper	1
Late Prehistoric (4000 BC to 42 AD)	Flint - flake	1
Late Saxon (851 to 1065AD)	Animal bone	37
	Burnt flint	7
	Copper working waste	1
	Fired Clay	14
	Lead	1
	Iron nail	1
	Lava quern	1
	Pottery	31
	Shell	7
Medieval (1066 to 1539AD)	Animal bone	64
	Ceramic building material	16
	Pottery	17
	Shell	24
Post-medieval (1540 to 1900AD)	Animal bone	8
	Ceramic building material	15
	Chalk block	1
	Clay tobacco pipe	1
	Glass	1
	Iron nail	2
	Lead	1
	Mortar	7
	Pottery	5

Appendix 3: Archive summary table

Factual Type	Quantity
Site diary	1
Permatrace drawing sheets	5
Drawing sheet register	1
Context register sheets	2
Context Sheets	50
Photo Index	1
Digital Images	46
B & W film	1

Appendix 4: Pottery

Ctxt	Fabric	Type	No	Wt/g	MNV	Form	Rim	Handle	Base	Decoration	Notes
05	LPME	R	1	5	1	PP	UPPL				
05	GRE	D	1	4	1						grey core, not full thickness, may be med roof tile
05	LPME	U	2	14	2	PP					
08	BSFW	U	1	9	1						Poss. base of handle attachment?
11	EMW	U	1	5	1						
11	THET	U	1	8	1						
21	LMT	D	1	36	1					small IWLs	
21	GRIL	R	1	32	1	BL	EV				
23	THET	D	1	11	1	LSV				ATS	
23	EMW	U	2	12	2						
23	THET	U	1	7	1						
23	THET	U	4	47	4	LSV					thick sherds
23	THET	R	1	42	1	AC	4				
24	THET	U	4	57	4						
24	THET	B	1	53	1				S		thick
24	THET	D	1	7	1					ROULD	
35	GSW3	D	1	10	1						
35	LMT	D	1	3	1						
35	THET	B	1	13	1				S		
35	THETG	U	1	4	1						
35	GRIM	U	1	4	1						Poss. 1 spot of glaze ext.
35	SPEC	D	1	12	1						
35	GSW1	D	1	24	1					GGR	
36	LMT	R	1	28	1	JRH	THEV	horizontal		TH	
37	THET	U	1	6	1						
43	THET	U	3	14	3						
43	STNE	U	3	13	3						
43	THETG	U	2	25	2						
50	MCW	U	2	10	2					1 poss. ATS?	fabric sim to THET but no clear throwing rings
50	THET	U	1	14	1						
50	EMW	U	1	14	1						
51	STNE	B	1	8	1				S		
51	LSSH	B	1	9	1				S		surface shell leached
52	THET	U	1	5	1						burnt, oxidised exterior
54	LMT	B	1	21	1				S		fsm

Ctxt	Fabric	Type	No	Wt/g	MNV	Form	Rim	Handle	Base	Decoration	Notes
54	THET	D	1	6	1					ROULD	
54	THET	R	1	52	1	AC	FTEV			ROULD on rim edge	tapered rim
54	GRIM	D	2	19	1						
54	STAMB	H	1	25	1			wide strap			
54	GSW3	RH	2	36	1	MG	UPPL	narrow strap			underfired pink fabric
54	GSW3	R	1	21	1	MG	UPPL				
54	LMT	D	1	29	1						

Appendix 5a: Animal Bone

NB: NISP = Number of Individual Species elements Present

Context	Feature No.	Gnaw	Burnt	Context Qty	Wt (g)	Species	NISP	Adult	Juvenile	Neonatal	MNI	Element range	Measure	Count	Choped	Cut	Comments
8	6			3	27	Cattle	1	1				tooth					upper molar
8	6					Mammal	2					fragments					
9	15	1		7	188	Cattle	1		1			humerus			1		
9	15	1				Bird - Fowl	2	2				synsacrum, coracoid		1		1	Not fully fused at proximal end
9	15	1				Mammal	4					fragments					
11	10			1	17	Sheep/goat	1	1				horncore	1		1		Thumbprint depression on inner base of hc
23	22			18	262	Cattle	3	3				pelvis, humerus, radius		2	2	1	
23	22					Sheep/goat	3	3				horncore, skull, vert	1		1		small sheep horncore chopped at base
23	22					SM - Hare	1	1				tibia				1	shaft
23	22					Mammal	11					fragments					
24	22			7	170	Cattle	3	2				teeth, skull				1	upper molar and lower molar, both worn, skull frag and three teeth all worn
24	22	1				Sheep/goat	1	1				tibia			1		proximal tibia, some gnawing
24	22					Mammal	3					fragments					
33	32			3	508	Equid	1	1				tibia	1	1			large, robust, strong muscle attachments 15.5-16HH
33	32	1				Pig/boar	1		1			radius		1	1		unfused, slight gnawing
33	32					SM - Rabbit	1		1			femur		1			stocky rabbit femur, modern, male
35	34	1		20	251	Cattle	1	1				femur			1		proximal end
35	34					Sheep/goat	9	9				limbs, MT, jaws, vert	2	2	6	2	sag.ch vert, slender MT, M3 in full wear
35	34					Pig/boar	1		1			radius			1		radius
35	34					Bird - Goose	1	1				carpometacarpus	1	1		1	cut/scrapes at proximal end, fletching/quills
35	34		1			SM - Hare	1	1				tibia				1	shaft
35	34		1			Mammal	7					fragments					1 slightly charred
37	36			6	87	Cattle	1	1				metatarsal			1		proximal MT

Context	Feature No.	Gnaw	Burnt	Context Qty	Wt (g)	Species	NISP	Adult	Juvenile	Neonatal	MNI	Element range	Measure	Count	Choped	Cut	Comments
37	36					Sheep/goat	3	3				horncore, tooth, pelvis		1	2		sheep horncore chopped at base , lower molar
37	36					Mammal	2					fragments					
39	38			27	7	Bird - Magpie	27	27			1	incomplete skeleton		6			Adult Magpie, limbs, rear of skull, mandible, scapula, and fragments
43	42			7	63	Cattle	3	2		1	2	mp, tooth, radius		2	2		neonatal distal radius, adult upper molar and distal metatarsal
43	42					Sheep/goat	2	2				mandible, pph		1		1	prximal phalange, cut mandible - skinning
43	42					Mammal	2					fragments					
50	49		1	5	55	Sheep/goat	2					radius frags			2	1	1 frag charred
50	49					Bird - Fowl	1					tibiotarsus		1		1	distal end
50	49					Mammal	2					fragments			2		
51	49			1	10	Mammal	1					fragment			1		fragment of large mammal
54	54			7	150	Cattle	1	1				humerus		1	1		heavily chopped at distal end
54	54					Sheep/goat	5	5				mt, tibias, radius, vert		2	5	1	sag.chopped vertebrae, hole through proximal metatsral
54	54					Mammal	1					rib			1		

Appendix 5b: Animal Bone *Measurements following von den Driesch, 1976.*

Context	Species	Element	Fusion	Gl	Bd	BatF	Bfd	A	B	SD	Bp	BWmin	Bwmax
11	Sheep	Horncore	n/a									20.4	32.6
33	Equid	Tibia	f	360	78.6					44.2			
35	Sheep	Metatarsal	f	114.79		21.63	21.64	9.94	8.74	9.86			
35	Goose	Carpometacarpus	f	87.25	10.44						21.02		

Appendix 6: Environmental Macrofossil Assemblages

Key to Table

x = 1 – 10 specimens xx = 11 – 50 specimens cf = compare C.Pit = cess pit

Sample No.	**<1>**	**<2>**	**<3>**
Context No.	**24**	**43**	**53**
Feature No.	**22**	**42**	**49**
Feature type	**Pit**	**Pit**	**Cess Pit**
Cereals and other potential food plants			
Avena sp. (grains)	xx		x
Hordeum sp. (grains)	x	x	xcf
Triticum sp. (grains)	x		
Cereal indet. (grains)	x	x	x
(detached sprouts)	x		x
Ficus carica L.			x
Dry land herbs			
Bromus sp.		xcf	x
Large Poaceae indet.	xx		x
Sinapis sp.	xcf		
Wetland plants			
Sparganium erectum L.	x		
Tree/shrub macrofossils			
Corylus avellana L.	x	x	
Other plant macrofossils			
Charcoal <2mm	xx	xx	xx
Charcoal >2mm	xx	xx	x
Charcoal >5mm	x	x	x
Charred root/stem	x	x	x
Ericaceae indet. (stem)		x	
Indet. fruit/nut frag.			x
Indet. seed	x		
Other remains			
Black porous and tarry material		x	x
Bone	x	x	
Burnt/fired clay	x		x
Fish bone	x	x	x
Marine mollusc shell	x	x	
Mineralised concretions			x
Small coal frags.	x		x
Small mammal/amphibian bones	x		
Vitreous material	x	x	
Sample volume (litres)	**20**	**20**	**20**
Volume of flot (litres)	**<0.1**	**<0.1**	**<0.1**
% flot sorted	**100%**	**100%**	**100%**

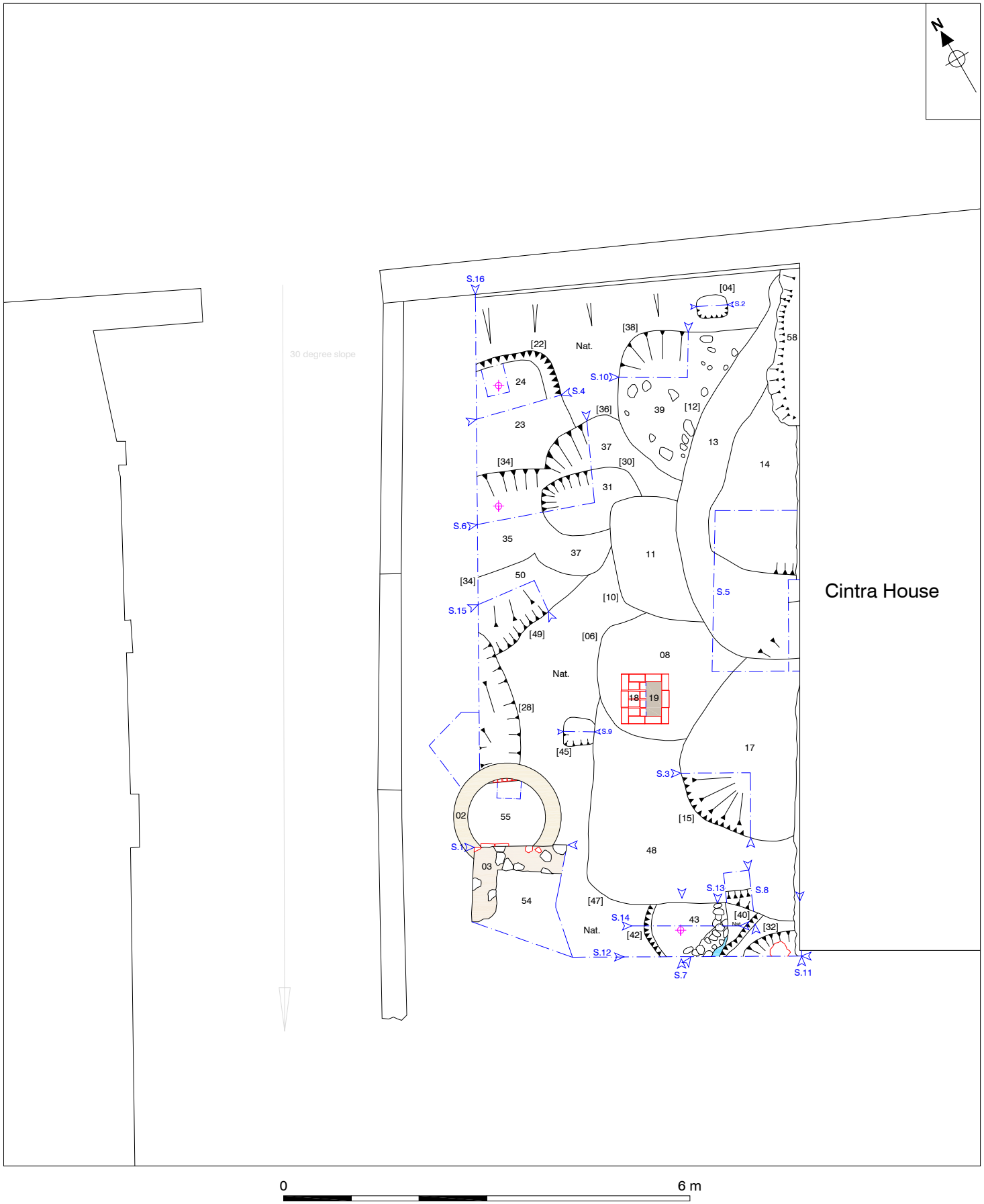


Figure 2. Unphased Trench Plan. Scale 1:75

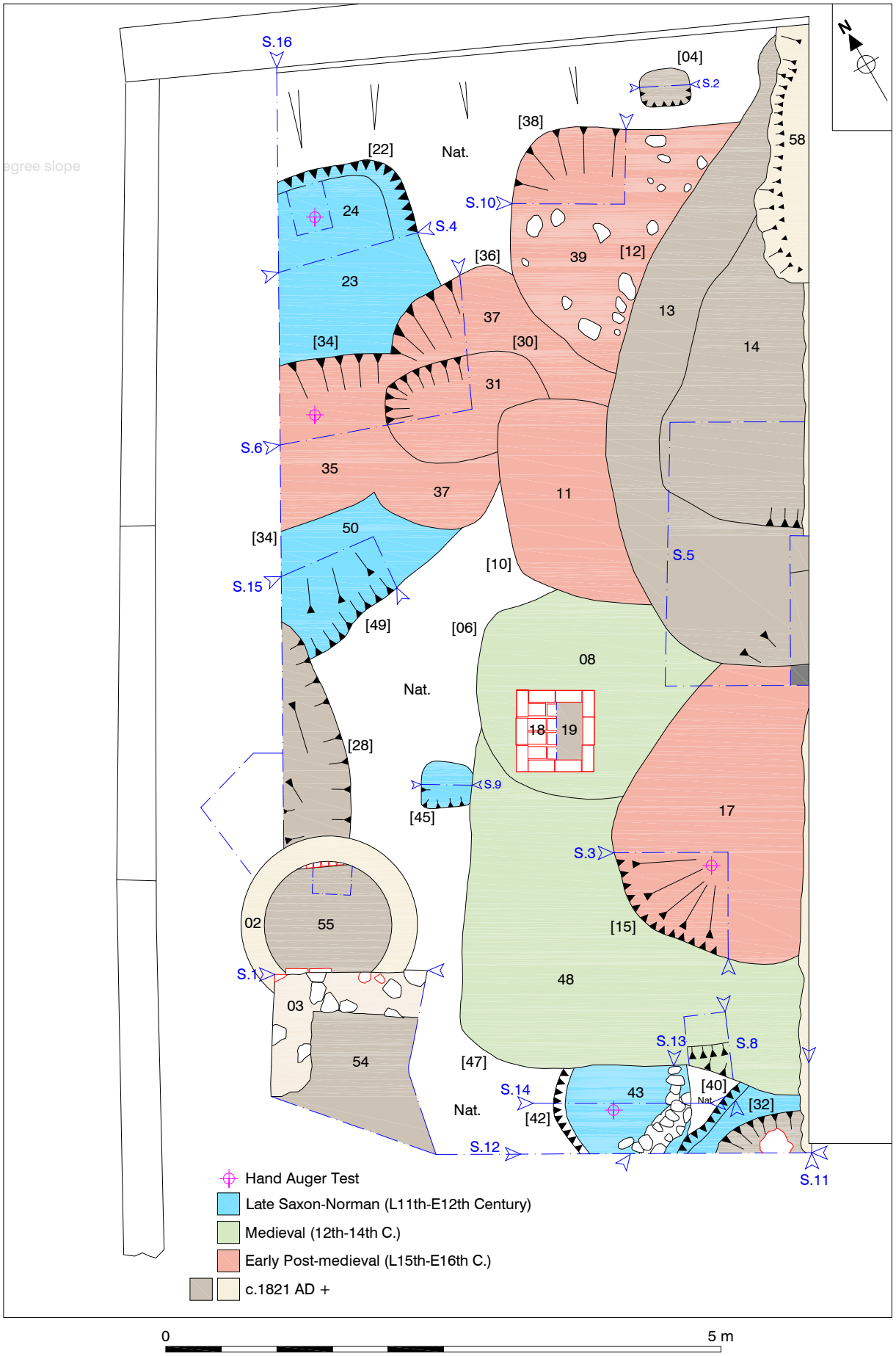


Figure 3. Phased Trench Plan. Scale 1:50

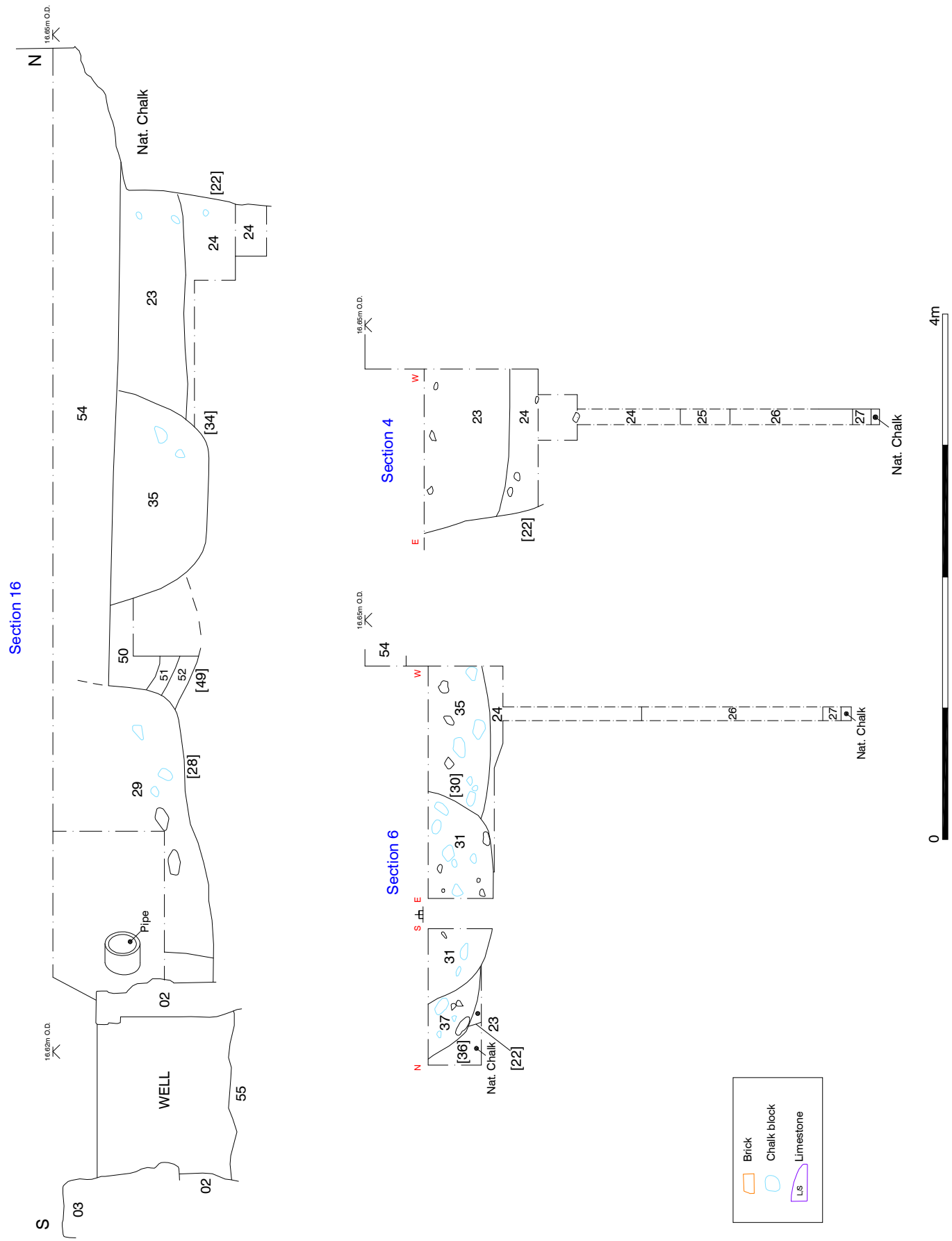


Figure 4. Recorded Sections 4, 6 and 16. Scale 1:40

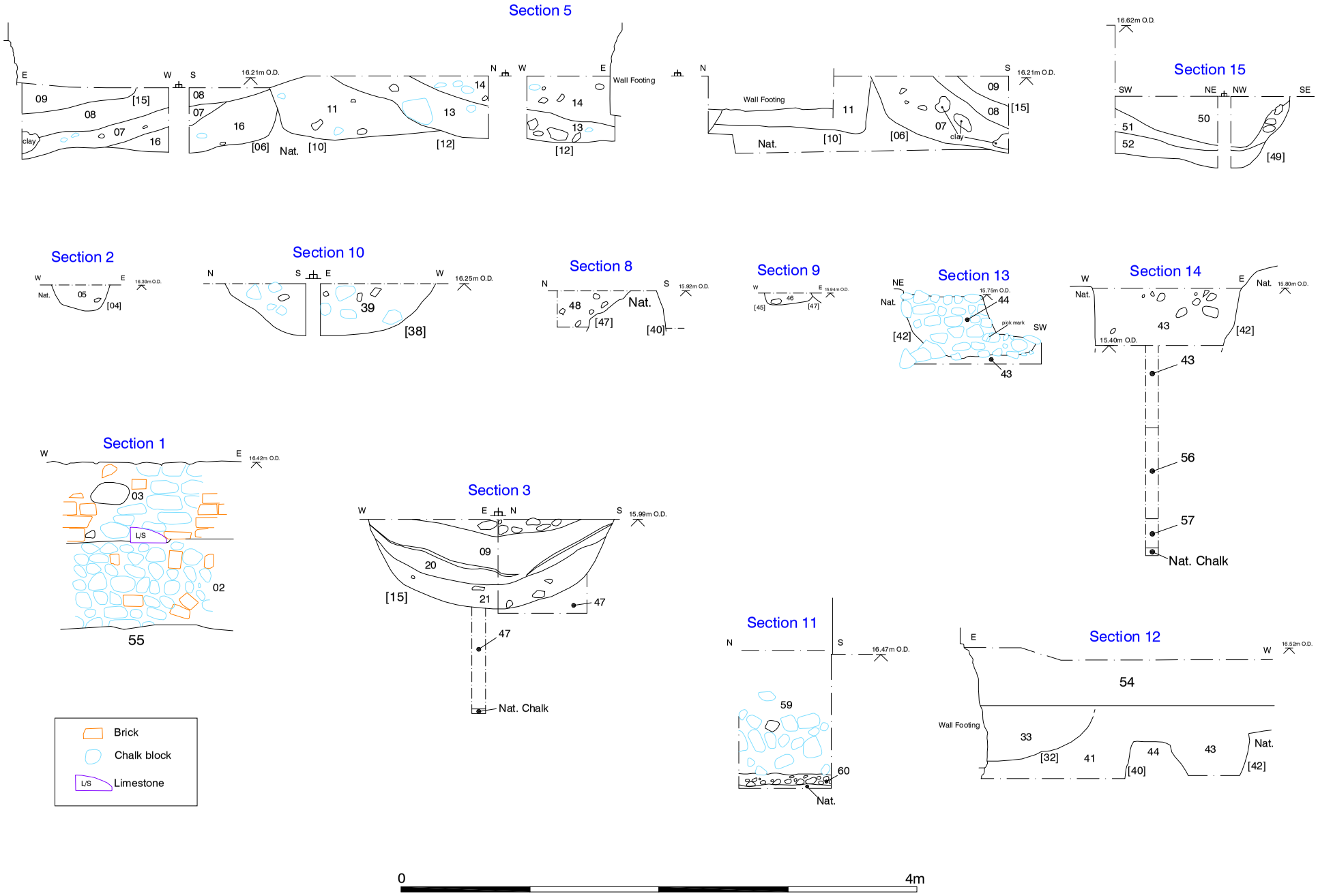


Figure 5. Recorded Sections 1, 2, 3, 5, and 8 to 15. Scale 1:40

OASIS DATA COLLECTION FORM: England

Printable version

OASIS ID: norvicar1-404858

Project details

Project name	An Archaeological Excavation at Cintra House, 31 White Hart Street, Thetford, Norfolk.
Short description of the project	The results of an excavation of the footprint of a rear extension to the rear of Cintra House, 31 White Hart Street, Thetford. Cintra house is a Grade II Listed Building dated to 1821 by a stone plaque in the south return. The work entailed the removal of a single-story 19th century extension and the creation of a larger extension with a footprint of c. 47m2, along with external and internal alterations to the property. Most significantly the property is located within the medieval defences on the northern side of the river, opposite close to the site of St Andrew's Church which fell out of use and was demolished in 1546. Late Saxon and medieval pits and a medieval well have been uncovered previously in the immediate area through excavation to the rear of Ancient House Museum off White Hart Street and Saxon pits and medieval to post-medieval building remains were uncovered ahead of development on the other side of White Hart Street. Excavation of the new extension footprint encountered a dense area of pits, confirming occupation activity here from the Late Saxon period. Four main phases of activity were identified which begin with Late Saxon to Norman period features, followed by medieval, early post-medieval and concluded with features relating to the construction of the 19th century house. The Saxo-Norman features include an c. 2.2m deep shaft-like pit with a chalk block reinforced upper edge, thought to have served as a dry storage pit; a cess-pit which included dietary evidence of animal bone, marine shells and grape seed pips; and the corner of a 3.4m deep chalk extraction pit.
Project dates	Start: 04-08-2016 End: 10-08-2016
Previous/future work	Yes / No
Any associated project reference codes	ENF141049 - HER event no.
Any associated project reference codes	NVC15/305 - Contracting Unit No.
Any associated project reference codes	3PL/2015/1237/F - Planning Application No.
Any associated project reference codes	NWHCM : 2019.168 - Museum accession ID
Type of project	Recording project
Site status	Listed Building
Current Land use	Residential 1 - General Residential
Monument type	CESS PIT Early Medieval

Monument type	PIT Early Medieval
Monument type	POST HOLE Early Medieval
Monument type	EXTRACTIVE PIT Early Medieval
Monument type	PIT Medieval
Monument type	PIT Post Medieval
Monument type	POST HOLE Post Medieval
Monument type	WELL Post Medieval
Significant Finds	END SCRAPER Early Neolithic
Significant Finds	FLAKE Late Prehistoric
Significant Finds	ANIMAL REMAINS Early Medieval
Significant Finds	BURNT FLINT Early Medieval
Significant Finds	METAL WORKING DEBRIS Early Medieval
Significant Finds	FIRED CLAY Early Medieval
Significant Finds	OFFCUT Early Medieval
Significant Finds	NAIL Early Medieval
Significant Finds	QUERN Early Medieval
Significant Finds	POT Early Medieval
Significant Finds	MOLLUSCA REMAINS Early Medieval
Significant Finds	ANIMAL REMAINS Medieval
Significant Finds	BRICK Medieval
Significant Finds	POTTERY Medieval
Significant Finds	MOLLUSCA REMAINS Medieval
Significant Finds	ANIMAL REMAINS Post Medieval
Significant Finds	ROOF TILE Post Medieval
Significant Finds	BUILDING MATERIAL Post Medieval
Significant Finds	CLAY PIPE (SMOKING) Post Medieval
Significant Finds	BOTTLE Post Medieval
Significant Finds	NAIL Post Medieval
Significant Finds	WASTE Post Medieval
Significant Finds	MORTAR Post Medieval
Significant Finds	POT Post Medieval
Significant Finds	ROOF TILE Medieval
Investigation type	'"Full excavation"'
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	NORFOLK BRECKLAND THETFORD Cintra House, No.31 White Hart Street, Thetford, Norfolk.
Postcode	IP25 1AA
Study area	47 Square metres
Site coordinates	TL 8694 8830 52.460157479365 0.751909065839 52 27 36 N 000 45 06 E Point

Project creators

Name of Organisation	Norvic Archaeology
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Norvic Archaeology
Project director/manager	Giles Emery
Project supervisor	Giles Emery
Type of sponsor/funding body	Landowner
Name of sponsor/funding body	Mr Jerry Barlow

Project archives

Physical Archive recipient	Norfolk Museums Service and Norvic Archaeology
Physical Archive ID	NWHCM : 2019.168
Physical Contents	"Animal Bones","Ceramics","Industrial","Metal","Worked stone/lithics"
Digital Archive recipient	Norfolk Museums Service
Digital Archive ID	NWHCM : 2019.168
Digital Contents	"Survey"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	Norfolk Museums Service
Paper Archive ID	NWHCM : 2019.168
Paper Contents	"Survey"
Paper Media available	"Context sheet","Diary","Drawing","Plan","Report","Section"

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	An Archaeological Excavation at Cintra House, 31 White Hart Street, Thetford, Norfolk.
Author(s)/Editor(s)	Emery, G
Other bibliographic details	Norvic Archaeology Report No 144
Date	2020
Issuer or publisher	Norvic Archaeology
Place of issue or	Norwich

publication	
Description	Spiral Bound
Entered by	Peter Watkins (peter.watkins@norfolk.gov.uk)
Entered on	19 October 2020

OASIS: