Hemingfords Flood Alleviation Scheme St Ives Cambridgeshire



Archaeological
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The Hemingfords Flood Alleviation Scheme St Ives, Cambridgeshire

ARCHAEOLOGICAL WATCHING BRIEF REPORT

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SUMMARY

Between September 2005 and May 2007, Oxford Archaeology (OA) carried out an archaeological watching brief between Hemingford Abbots and St Ives, Cambridgeshire (NGR: TL 2784 7149 to TL 3095 6992). The work was commissioned by Jackson Civil Engineering Ltd in advance of the construction of a 4.4 km length of flood defences. The watching brief revealed evidence of the former North Eastern Railway timber trestle causeway crossing alongside Town Bridge, St Ives, an unrecorded nonconformist cemetery north of Hemingford Grey and an earlier churchyard boundary wall alongside St James Church at Hemingford Grey. The remainder of the route traversed alluvial flood plains and other no evidence of significant archaeology was observed.

1 Introduction

1.1 Scope of work

1.1.1 Between September 2005 and May 2007 Oxford Archaeology (OA) carried out an archaeological watching brief between Hemingford Abbots and St Ives, Cambridgeshire (NGR: TL 2784 7149 to TL 3095 6992). The work was commissioned by Jackson Civil Engineering Ltd in advance of the construction of a 4.4 km length of flood defences. A project design was agreed with the Environment Agency detailing how OA would meet the requirements for a watching brief.

1.2 Location, geology and topography

1.2.1 The town of St Ives, Cambridgeshire is located approximately 17 km north-west of Cambridge (Fig. 1). The site itself runs along the flood plain, to the south and west of St Ives, south of the River Great Ouse. The site is level at approximately 6 m above OD, and is predominately farmland. The underlying geology is 1st Terrace River Gravel with an area of alluvium immediately south of St Ives (Geological Survey of Great Britain, sheet no. 187).

1.3 Archaeological and historical background

1.3.1 The archaeological background to the watching brief has been prepared for the project using published sources and a summary is reproduced here.

St Ives

- 1.3.2 The area around the Great Ouse area has been occupied from the earliest times with evidence for settlements in the area from both the Bronze and Iron Age periods. Roman activity in the form of a villa was also evident.
- 1.3.3 The history of the present town of St Ives begins with the collapse of the Roman Empire and the settlement of the area by the Saxons *c*AD 500 where they founded a small settlement called "Slepe", which was an old Saxon word meaning muddy. This settlement was at the west end of the present town of St Ives, around the site of the present parish church of All Saints. In AD 986 the local Saxon landowner,

- Mannesome, died and left his property to Ramsey Abbey, a Benedictine monastery where it remained abbey property for the next 500 years.
- 1.3.4 Soon after Slepe became the property of the Abbey a Saxon peasant discovered a stone coffin containing human remains. The local smith then had a series of visions of a figure claiming to be the Bishop Ivo. Abbot Eadnoth of Ramsey was convinced that the stone coffin contained the remains of the Persian Bishop St Ivo, who was said to have visited the area in the 6th century, and drew up plans for a shrine to be built on the spot where the stone coffin had been found. A priory was built around 1017 AD half a mile east of Slepe, and a fragment of stone wall which was part of the barn in the priory still stands in Priory Road, St Ives.
- 1.3.5 The village of Slepe is recorded in the Domesday Book of 1086 as having 60 households and was valued at £16.
- 1.3.6 By 1110, when Henry I granted Ramsey Abbey a charter allowing an annual fair the town is known as St Ives. These fairs lasted for approximately 400 years before being officially abandoned in 1511. In their day they were considered to be one of the premiere fairs held in England. The towns clothing industry attracted buyers from the continent, as well as people from all over the country, including English royalty.
- 1.3.7 By the 14th century, English looms were proving uncompetitive compared with the newer Flemish ones and the fair began to be replaced with a weekly market, which became known for it's woad, old clothes and eels, before developing into an important sheep, cattle and horse market.
- 1.3.8 In 1426 the old wooden bridge across the Great Ouse river dating to around 1100, was replaced by a new stone bridge, which was subsequently destroyed by Parliament in 1645.
- 1.3.9 During the 17th and 18th centuries St Ives became an important waterway route with lighters being used to bring coal in from the port of Kings Lynn and then return laden with corn.
- 1.3.10 By 1847, the railway line linking St Ives to Huntingdon and Cambridge was opened.

Hemingford Grey and Hemingford Abbots

- 1.3.11 The following history is taken from *Village History* by Mary Carter (Carter 2005).
- 1.3.12 During the Roman and Saxon periods Hemingford Abbots and Hemingford Grey were part of one estate. The name Hemingford means "the ford of the people of Hemma or Hemmi", presumably a Saxon chief. In the ninth century the estate was split into two and the Danes built a new settlement at the Thorpe in the eastern part of the old estate. By 1066 Little Hemingford, or Hemingford by St Ives, was acquired by Ramsey Abbey, the major landowner in the area.
- 1.3.13 Payn of Hemingford, a tenant of the abbey, started building the Manor House and parish church before he died in 1166. The Manor House is one of the oldest inhabited

buildings in the country and was originally a stone hall with an external staircase to the first floor and cellars underneath. A moat still surrounds the Manor House on three sides and the Norman windows can be seen on the south and west side of the house. The parish church has been enlarged and altered over the centuries but parts of the medieval building have survived in the nave and south aisle. The original tower collapsed in the middle ages and a new tower was built topped with a spire. In the 18th century it was destroyed by a hurricane and the spire was levelled off and eight ball finials placed on the angles.

- 1.3.14 The manor house, with its outbuildings and land, was located close to the river Ouse. To the south was the original Danish settlement in the Thorpe, each house having its own area of private land called a croft. To the north-east lay the church and located between them was the green where the stocks, a pillory and whipping post were once set up.
- 1.3.15 In 1276 the village acquired its modern name from the de Grey family, the new owners of the manor. But in the 15th century Henry VII seized the manor from George Grey the 3rd Earl of Kent as he was unable to pay his debts. The manor was leased to various nobles, amongst whom was the great-grandfather of Oliver Cromwell. By the 17th century the manor was owned by the Newmans, who were also part owners of Hemingford Abbots. In 1704 it was sold to Cornelius Denne, a merchant in St Ives and Bedfordshire, who passed it to James Mitchell of Fowlmere and his descendants.
- 1.3.16 At the beginning of the 17th century, the Ouse was blocked by weirs and overgrown by weeds. There had been frequent complaints over the centuries, particularly from citizens of Huntingdon, that the millers at Hemingford had diverted the water preventing the passage of their boats upriver. At one stage travel was almost impossible between Ely and Huntingdon. By 1625 the river was cleared as far as St Neots and later to Bedford. The village became a convenient stopping place for horse drawn barges taking coal to Bedford or corn to Kings Lynn.
- 1.3.17 The current windmill in Hemingford Grey was built in 1820 and was the last working mill in the county.

2 PROJECT AIMS AND METHODOLOGY

2.1 **Aims**

- 2.1.1 To identify and record the presence or absence, extent, condition, quality and date of archaeological remains in the areas affected by the development.
- 2.1.2 To preserve by record any archaeological features or deposits that may be disturbed or destroyed during the course of the groundworks.
- 2.1.3 To make available the results of the archaeological investigation.

2.2 Methodology

- 2.2.1 The groundworks associated with the construction of the new flood defences were all accomplished using mechanical excavators fitted with toothless grading buckets or trenching buckets as appropriate. These works included topsoil stripping along the route of the proposed flood defences, excavation of a core trench along the centreline of the proposed bank to anchor the clay core of the bank and ground reduction around the site of Town Bridge, St Ives in order to provide a wildlife habitat.
- 2.2.2 These works totalled 4.4 km in length and were undertaken in discrete phases concentrated on specific sites.
- 2.2.3 An overall site plan showing the extent and location of the work was maintained at 1:10,000 (Fig. 2), and separate plans showing excavated areas and the location of recorded sections were planned at a scale of 1:500 (Fig 3) and any recorded sections were drawn at a scale of 1:20. All excavations and sections were photographed using colour slide and black and white print film and a general photographic record of the work was also made. Recording followed procedures detailed in the *OA Field Manual* (ed. D Wilkinson, 1992).

3 RESULTS

3.1 **Description of deposits**

3.1.1 Because of the length of the site, and the breaking down of the work into separate stages the description of the deposits is spilt into 9 separate areas.

Area 1, Elizabeth Court to Low Road

- 3.1.2 This measured 400m in length and ran parallel to the A1096 St Ives road, alongside the rear of a housing estate (Elizabeth Court), past Mill Farm and up to Low Road. The works comprised topsoil stripping over the width of the easement, approximately 13 m wide, and the excavation of the core trench measuring 1.5 m wide by 1 m in depth along it's centreline. The southern and northern ends of the section ran across farmland, while the centre ran through woodland.
- 3.1.3 The underlying natural sand (19) was encountered at a depth of 1m below ground level at the northern end of the excavation (Fig. 4, Section 14). This was overlaid by a 0.2 m deep layer of orange brown small gravel (18), part of the Terrace River Gravels. This deposit became much sandier towards the centre of the site, changing to a layer of reddish brown sandy gravel (17), (Fig. 4, Section 13), which was overlaid by a 0.3 m deep layer of grey-brown clay silt (16). This contained quantities of small gravel and can also be considered part of the terrace gravels.
- 3.1.4 Within the southern half of the section the base of the trench came down onto a greyish red sandy clay (14) (Fig. 4, Section 12), a probable layer of alluvium. Overlying this was a 0.3 m deep layer of red-brown clay silt (15), also a layer of alluvium. At the southern extreme of the core trench a lens of yellow-brown sand (13), was exposed (Fig. 4, Section 11).

3.1.5 Running the length of the trench was a 0.4 m deep layer of red-brown clay silt (12) (Sections 11-14), a probable layer of alluvium. Within the central area of the site this deposit was overlaid by a 0.15 m deep lens of red-brown alluvial clay (11) (Fig. 4, Section 11). Sealing the site was a 0.35 m deep layer of dark brown silty loam (10) (Fig. 4, Sections 11-14), the present day topsoil and turf.

Area 2, A1096 to Town Bridge

- 3.1.6 This ran from the north-western side of the embankment of the A1096 across the flood meadow south-east of Town Bridge, up to the southern end of Town Bridge, and totalled 300 m in length. The excavations were similar to those already under taken with a 15 m wide easement stripped along the route of the flood defences and a core trench measuring 1.5 m wide by 1 m deep dug along it's centre line.
- 3.1.7 At the south-eastern end of the trench a yellow clay sand (24) was encountered 0.9 m below the level of the flood plain (Fig. 4, Section 21). This layer contained many angular gravels and is part of the river gravel terrace. This was overlain by a 0.3 m deep layer of orange-brown clay silt (22). This layer tipped down towards the north, where it was overlaid by a layer of grey-brown clay silt (23) at the northern end of the trench (Fig. 4, Section 22). Overlying both deposits of alluvium was a 0.25 m deep layer of dark orange-brown clay silt (21), also a layer of alluvium. Sealing this was a 0.2 m deep layer of dark grey-brown clay loam (20), the present day topsoil and turf. This deposit contained large quantities of post-medieval pottery and glass which might indicate that this area was used for the disposal of domestic refuse at some time.

Area 3, Town Bridge Wetland Habitat

- 3.1.8 This comprised the ground reduction within an area of approximately 0.9 hectare lying either side of Town Bridge, in order to provide a new wetland habitat area. These works comprised the topsoil strip of the entire area, reducing the depth of the flood plain by approximately 0.4 m and reinstating the topsoil (Fig. 3).
- 3.1.9 South-east of the bridge an area measuring 100 m by 55 m was reduced by a depth of 0.4 m. Exposed throughout the area was a layer of orange-brown silt clay (33), an alluvial continuation of layer 21, was exposed. This was overlaid by a 0.25 m deep layer of dark yellow brown clay silt subsoil (32). This deposit contained numerous fragments of brick, pottery and bottle glass as well as charcoal and cinder flecking suggesting that this was a layer of worked soil containing evidence of domestic refuse disposal similar to that observed within Section 2.
- 3.1.10 South-east of the bridge an area of approximately 110 m by 60 m was reduced by approximately 0.4 m in level. A similar stratigraphy to that observed within the northwest area was observed with the orange-brown silt clay (33) exposed throughout the area after the ground reduction. As in the north-western area this was sealed by a 0.25 m deep layer of the dark yellow-brown clay silt (32).

- 3.1.11 Along the northern edge of the habitat site evidence for the trackway of the North Eastern Railway Companies Huntingdon to Cambridge railway line was exposed on both sides of the bridge.
- 3.1.12 Within the north-western area a brick abutment marking the southern terminus of the railway embankment was observed (36). This comprised a 0.6 m wide brick wall constructed using 4 rows of brick in the form of an open ended box 22 m long by 12.5 m wide with rounded corners. Running eastwards from this abutment towards the bridge were a series of 0.45 m square timber piles. These were laid out in pairs measuring 5.5 m apart and the pairs were spaced approximately 8.5 m apart, linked occasionally by timber beams measuring 0.2 m by 0.45 m secured by 0.3 m long iron spikes. These were the remnants of timber trestles which carried the railway line as it passed across the flood plain. The use of trestles rather than an embankment was presumably to allow any flood water to rapidly drain back towards the river. There were 7 pairs of piles between the brick abutment and the bridge. Where the line of the railway crossed the line of the bridge 3 new brick arches were observed, constructed using hard engineering bricks. These were of a much more modern construction than the remainder of the brick arches within the bridge and were obviously a later insertion, possibly replacing a lifting section of bridge since the roadway would have been approximately 1.5 m higher than the railway track at this point.
- 3.1.13 South-east of the bridge the piles for the timber trestles continued running eastwards for 3 more pairs before running out of the eastern edge of the stripped area. The line of the railway track continues to the south of the malthouses (now converted to flats) before rejoining onto the railway embankment south of Priory Road.
- 3.1.14 All the piles had been truncated flush with the top of layer 32, probably using a chainsaw. This work together with the reduction of the railway embankment and buttress and the construction of the 3 new bridge arches would have occurred following the removal of the railway track as part of the Beeching cuts in the 1960s.
- 3.1.15 North-west of the bridge layer 32, the tops of the timber piles and the truncated remnants of the embankment buttress were sealed by a 0.25 m deep layer of dark grey-brown clay loam (31), the current layer of topsoil and turf.
- 3.1.16 South east of the bridge the subsoil 32 and the southern edge of the piles was overlaid by a 0.6 m deep lens of mixed yellow-brown clay and grey-brown clay silt (34). This deposit measured approximately 15 m E-W by 8 m N-S and contained numerous examples of modern construction debris, breeze blocks, bricks, plastic sheeting and lengths of plastic piping. This material appears to have originated from the conversion of the malthouses immediately east of the bridge to flats. Overlying this deposit was a 0.15 m deep layer of dark grey silt loam (35), a modern landscaping layer.
- 3.1.17 Sealing the subsoil 32 within the remainder of the ground reduction south-east of the bridge was a 0.2 m deep layer of dark grey-brown clay loam (31), the present day topsoil and turf, a continuation of Layer 21.

Area 4, South of Hemingford Meadow

- 3.1.18 This ran across the flood plain south-west of St Ives, alongside a drain feeding the Great Ouse.
- 3.1.19 These works comprised a 800 m length of flood defences running across the flood plain immediately south of the old railway line. As in previous sections they consisted of the topsoil strip 14.2 m wide along the length of the easement and the excavation of a core trench 1.6 m wide by 0.6 m deep along the centre line.
- 3.1.20 The underlying natural, a yellow sand containing gravel (43) was encountered at a depth of 0.8 m below ground level (Fig. 4, Sections 41 and 42), this deposit ran the length of the excavation, and is part of the river terrace formations. Sealing this was a 0.45 m deep layer of dark yellow-brown clay silt (42), a probable alluvial deposit. Overlying this was a layer of dark brown clay loam (43) measuring between 0.25 m and 0.35 m in depth. This deposit contained some charcoal flecking, but this was probably deposited by floods. No evidence of ploughing was visible in this layer which suggests that it may have always been permanent pasture. No evidence for any significant archaeology was observed within this section.

Area 5, The Mushroom Farm

- 3.1.21 This linked the old railway embankment in Meadow Lane to the earlier constructed bank south of Hemingford Meadow, and measured approximately 250 m in length. A strip measuring 15 m wide was topsoil stripped and a core trench was dug along the centre line. This stage was completed late in the season and the height of the water table dictated the depth of the core trench, in this case 1.5 m wide and only 0.4 deep.
- 3.1.22 The underlying natural gravel (53), a continuation of layer (43), was exposed within the base of the trench, immediately west of the previous section, at a depth of 0.8 m below ground level (Fig. 5, Section 51). This was sealed by a 0.5 m deep layer of dark yellow-brown clay silt (52), a continuation of layer (42), and a probable alluvial deposit. Overlying this at the western end of this section was a layer of made ground (54) (Fig. 5, Section 52), measuring 0.8 m deep and composed of a dark red-brown clay silt, and which formed part of the yard for the Mushroom Farm. This, and the exposed part of layer 52 was sealed by a 0.25 m deep layer of dark brown clay loam (51), the present day topsoil and turf.

Area 6, Meadow Lane

- 3.1.23 This section ran from Meadow Lane westwards towards the river before turning southwards and running along the south-east bank of the River Great Ouse. This length also includes the cemetery described more fully in a separate report (OA, 2007).
- 3.1.24 The section from Meadow lane to the river bank incorporates the old railway embankment from the Huntingdon to St Ives railway line, which terminates at the southern abutment of the old swing bridge over the River Great Ouse.

- 3.1.25 Between this abutment and a piled section of flood defences at Houghton Meadow Lock the river bank was cut back in order to construct a clay core for the new flood defences.
- 3.1.26 The underlying natural, a mixture of a compact beige flinty gravelly sand (66) and a soft mid brown sandy silt (65) was encountered at an average depth of 1.5 m below ground level (Fig.5, Section 61). This was overlain by a maximum 0.9 m thick layer of dark brownish black flinty sandy silt (63) which was later interpreted as a graveyard soil. Finds of pottery, human remains, animal bone, and coffin nails were recovered from this deposit.
- 3.1.27 Sixteen complete or partial skeletons were recovered from within the footprint of the new defences buried within this deposit. Sealing these inhumations and the graveyard soil (63) was a 0.15 m thick layer of compact gravel (64). No finds were recovered from this layer. Overlying this was a fairly compact black sandy silt (62) with a maximum thickness of 0.25 m, which in turn was overlaid by a 1.0 m thick layer of modern build up (61), consisting of various lenses of silty soil and rubble, probably associated with early attempts at flood defences. This was sealed by a 0.2 m deep layer of grey silt loam, (60), the present day topsoil.
- 3.1.28 Later historical research, combined with the dating evidence recovered, showed that this area had been part of non-conformist burial ground dedicated to the Society of Friends (Quakers) and dating from the late 1600s to the early 1700s.

Area 7, St James Church to Riverside Walk, Hemingford Grey

- 3.1.29 This length ran from the Churchyard of St James Church to the eastern end of the piled section of flood defences along the river front north-west of Hemingford Grey, a length of approximately 300 m. This work consisted of a trench 1.5 m wide and between 0.6 m and 1 m deep dug to contain the base of a concrete wall to be constructed along this section.
- 3.1.30 The trench ran from the south-western corner of the churchyard of St James and ran through woodland before turning southwards and running along the line of the old footpath. Approximately 10 m west of the current churchyard boundary a truncated wall was encountered (Fig. 5, Section 72).
- 3.1.31 A layer of dark grey-brown silt clay alluvium (75) was encountered at a depth of 0.6 m below ground level. This was overlaid by a 0.2 m deep layer of grey-brown silt clay, a continuation of the alluvial deposit (74). Overlying this layer was a 0.2 m deep layer of the buried soil horizon (73), a dark grey clay loam. Cut into this deposit was a 0.45 m wide by 0.4 m deep trench (77). This ran north-west to south-east, perpendicular to the course of the river. Built within this trench was a brick wall (78) using dark yellow unfrogged bricks measuring 0.225 m by 0.115 m by 0.055 m bonded with a lime mortar. This wall had been demolished to below ground level leaving only the bottom 5 courses of the brickwork still in situ.

- 3.1.32 Overlying the truncated remains of the wall and burying the original topsoil horizon was a 0.3 m deep layer of very dark grey silt loam (76), probably an accumulated deposit of leaf litter.
- 3.1.33 The wall runs parallel to the current south-west boundary of the churchyard and it is possible that it may have been an earlier churchyard boundary wall. There is the possibility that it may have been a property boundary that has been removed.
- 3.1.34 The trenching in this area was closely monitored in case the graveyard may have extended into this area in the past, but no evidence for inhumations within this area was observed.
- 3.1.35 At the western end of the section a continuation of the dark grey-brown silt clay alluvium (75) was encountered 0.8 m below the level of the foot path (Fig. 5, Section 71). This deposit contained much sand and small gravel and is a layer of alluvium. Overlying this was a 0.22 m deep layer of grey-brown silt clay (74). This was a very fine material and is another layer of alluvium. This deposit was overlain by a 0.22 m deep layer of dark grey clay loam (73). This deposit contained some gravel, fragments of brick and much charcoal flecking and is a probable buried topsoil horizon.
- 3.1.36 Sealing this layer was a 0.25 m deep layer of grey brown clay silt (72). This deposit contained much gravel and stone fragments and is a probable layer of made ground, possibly evidence of an attempt at earlier flood defences. Laid directly on top of this material was a layer of crushed stone and cinders, 0.1 m deep (71). This formed a footpath running alongside the river.

Area 8, Regetta Fields, Hemingford Abbots

- 3.1.37 This ran through open fields and a stretch of woodland from the western end of the riverside walk, Hemingford Grey to the eastern edge of the caravan park, a total length of approximately 450 m.
- 3.1.38 Visible running along the full length of the area was an earlier flood bank measuring approximately 8 m wide and whose height varied between 0.6 m and 1.3 m. The new flood defences were planned to be constructed immediately south of the old flood bank. An easement 5.2 m wide was excavated south of the centre line of the old flood bank with a core trench measuring 1.2 m wide by 0.5 m deep machined out butting up to the south side of the centre line (Fig. 6, Section 81).
- 3.1.39 Within the eastern end of the section a layer of gravel within a yellow-brown clay matrix (86) was encountered at a depth of 0.5 m below the current field level (Fig. 6, Section 82). This was overlaid by a 0.35 m deep layer of grey-brown clay silt (85). This deposit contained sand and small gravel and is a probable alluvial deposit. Overlying this was a 0.1 m deep layer of very dark grey-brown clay loam (84), the current topsoil and turf. Laid directly upon this layer was a 7 m wide and 0.25 m deep lens of yellow-brown silt clay (83), a layer of made ground forming the core of the earlier flood bank. This was overlain by a 6 m wide by 0.2 m deep layer of dark

- brown silt loam (82), a second layer of made ground used to raise the height of the earlier bank. Sealing these 2 layers of made ground was a layer of dark grey-brown clay loam (81), a layer of topsoil landscaping the top of the earlier flood bank.
- 3.1.40 At the western end of the section, in the field adjacent to the caravan park, the underlying natural of yellow brown clay gravel (86) was encountered at a depth of 0.4 m below the field level (Fig. 6, Section 83). This was overlaid by a 0.2 m deep layer of green-brown silt clay (88), an alluvial deposit. Sealing this was a 0.2 m deep layer of very dark clay loam (84), a continuation of the original topsoil and turf. Laid directly upon this deposit was a 4 m wide by 0.2 m deep layer of yellow-brown silt clay mixed with demolition rubble (87). This material formed the core of the earlier flood bank. The demolition rubble contained frogged bricks and plastic suggesting that it was of recent origin. Sealing this deposit was a 0.2 m deep layer of dark greybrown clay loam, which tapered off to the north and south, either side of the flood bank. This material was a landscaping deposit and a probable continuation of Layer (81).
- 3.1.41 Within this section a number of old water channels running N-S into the River Ouse were observed. These were probable erosion gullies left as flood water drained back into the river. These channels had been blocked by the construction of the earlier flood bank. No significant archaeology was observed.

Area 9, North of Common Lane, Hemingford Abbots

- 3.1.42 This ran from the western edge of the caravan park, through the back gardens of properties fronting Common Lane and terminating east of Black Bridge, a total length of approximately 800 m.
- 3.1.43 A 7 m wide easement was topsoil stripped along the length of the defences with a central 1.4 m wide by 0.5 m deep core trench excavated along it's length.
- 3.1.44 At the eastern end of the section, the underlying natural, a yellow brown clay alluvium with grey mottling (94) was encountered at a depth of 0.5 m below the current ground level (Fig. 6, Section 91). Within the central and western end of the section this deposit was overlaid by a layer of light red-brown sandy silt (93). This deposit contained numerous small pebbles and represents a layer of alluvium. Overlying this deposit and Layer 94 within the eastern extent of the section was a 0.35 m deep layer of dark yellow-brown silt clay (92) (Fig. 6, Section 92). This was a later deposit of alluvium. Sealing this was a layer of dark grey-brown silt clay loam (91), measuring between 0.15 m and 0.3 m in depth. This represents a layer of topsoil and turf. Despite this deposit running through domestic gardens there was little evidence of cultivation and it is probable that this deposit was originally part of flood meadows before being incorporated into landscaping at the rear of the gardens.
- 3.1.45 This eastern extent of this section passed adjacent to the northern graveyard wall of the 13th-century Church of St Margaret of Antioch, Hemingford Abbots. The stripping of the easement and the excavation of the core trench was given particular

attention within this region, however no evidence for the cemetery extending outside the present boundary of the graveyard was observed.

3.2 Finds

3.2.1 The only finds recovered during the course of the watching brief dated from the late post-medieval period, i.e. from the late 17th to late 20th centuries. These finds included fragments of pottery, bottle glass, clay pipe and brick. The fragments of brick were too small to be diagnostic and their presence was recorded, but they were not retained. The remainder of the artefacts were retained and will be deposited with a suitable museum in due course.

3.3 Palaeo-environmental remains

3.3.1 No deposits suitable for palaeo-environmental sampling were observed during the course of the watching brief.

4 DISCUSSION AND CONCLUSIONS

- 4.1.1 The watching brief exposed a scarcity of early archaeological sites along the route of the flood defences. The absence of residual finds from this period recovered during the course of the watching brief would appear to confirm the absence of any such sites. The probability is that the area through which the flood defences pass has always been low lying and prone to seasonal flooding, leading to settlement on the areas of higher ground to the north and south and the use of the flood plain only as rough or seasonal grazing.
- 4.1.2 The rise in activity during the late medieval and post-medieval period appears to be due in part to the use of the Great Ouse as a highway for grain shipment during this period, with a subsequent increase of population. However this activity appears to be mostly confined to the area around St Ives and areas of comparatively higher ground to the south and north, with the areas of flooding being kept as permanent pasture.
- 4.1.3 The continued risk of flooding prevented the settlement and intensive agricultural use of the low lying meadows around St Ives, Hemingford Grey and Hemingford Abbots leading to the open meadow system currently seen. The settlements of Hemingford Grey and Hemingford Abbots appear to have been founded on the southern edge of the flood plain on a shallow step marking the edge between the first and second gravel terraces.

APPENDICES

APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

Cxt	Туре	Depth/ Height	Width	Comments	Finds	Date
Area	1					
10	Layer	0.2 m	-	Modern topsoil	Pottery, glass, brick, iron	C19th/ C20th
11	Layer	0.25 m	-	Flood deposit	-	-
12	Layer	0.2 m	-	Flood deposit	-	-
13	Layer	> 0.4 m	-	Natural sand	-	-
14	Layer	> 0.4 m	-	Natural clay	-	-
15	Layer	> 0.4 m	=	Alluvial deposit	-	-
16	Layer	0.3 m	-	Terrace gravels	-	-
17	Layer	> 0.2 m	-	Terrace gravels	-	-
18	Layer	0.2 m	=	Terrace gravels	-	-
19	Layer	> 0.2 m	-	Alluvial sand	-	-
Area	2					
20	Layer	0.25 m	-	Modern topsoil and turf	-	C19th/ C20th
21	Layer	0.3 m	-	Buried soil horizon	Brick	C18th/ C19th
22	Layer	0.3 m	1	Alluvial deposit	-	-
23	Layer	> 0.5 m	ı	Alluvial deposit	-	-
Area	3					
31	Layer	0.25 m	-	Modern topsoil and turf	Pottery, bottle glass, clay pipe	C19th /C20th
32	Layer	0.25 m	ı	Earlier worked soil	Brick, charcoal	C19th
33	Layer	> 0.2 m	-	Alluvium	-	-
34	Layer	0.6 m	8 m	Construction debris	Brick, plastic	C20th
35	Layer	0.15 m	8 m	Landscaping layer of topsoil	-	C20th
36	Structure	0.5 m	12. 5 m	Truncated base of brick built buttress, end of railway embankment	Brick	C19th
Area	4					
41	Layer	0.3 m	_	Modern topsoil, permanent pasture	-	C18th/ C20th
42	Layer	0.5 m	-	Flood deposit	-	-

Cxt	Туре	Depth/ Height	Width	Comments	Finds	Date
Area	4					
43	Layer	>0.2 m	-	Natural gravel	-	-
Area	5					
51	Layer	0.25 m	-	Topsoil and turf	Brick	C20th
52	Layer	0.5 m	-	Alluvium	-	-
53	Layer	> 0.2 m	-	Natural gravel	-	-
54	Layer	0.8 m	-	Modern made ground	Brick	C20th
Area	6					
60	Layer	0.2 m	>4 m	Modern topsoil and turf	-	C20th
61	Layer	1.0 m	> 4 m	Modern made ground	-	C19th
62	Layer	0.25 m	> 4 m	Possible flood deposits	-	-
63	Layer	0.15 m - 0.9 m	> 4 m	Old graveyard soil	Pottery, clay pipe, charnel	C18th
64	Layer	0.15 m	>4 m	Redeposited gravel	-	-
66	Layer	> 0.6 m	-	Natural terrace gravel	-	-
Area	7					
71	Layer	0.1 m	2 m	Footpath surface	-	C20th
72	Layer	0.25 m	-	Made ground	-	C19th
73	Layer	0.22 m	-	Buried soil horizon	Brick	C19th
74	Layer	0.22 m	-	Flood deposits	-	=
75	Layer	> 0.2 m	-	Alluvium	-	-
76	Layer	0.3 m	-	Topsoil/ leaf mould	-	C19th
77	Cut	0.45 m	0.4 m	Foundation trench	-	C18th
78	Wall	0.45 m	0.4 m	Truncated base of earlier churchyard wall	-	C18th
Area	8					
81	Layer	0.15 m	8 m	Made ground, part of flood bank	-	C20th
82	Layer	0.2 m	6 m	Made ground, part of flood bank	-	C20th
83	Layer	0.25 m	7 m	Made ground, part of flood bank	-	C20th
84	Layer	0.1 m	-	Buried soil horizon, original ground level	-	-
85	Layer	0.35 m	-	Alluvial deposit	-	-
86	Layer	> 0.6 m	=	Terrace gravels	-	-

Cxt	Туре	Depth/ Height	Width	Comments	Finds	Date
Area	8					
87	Layer	0.2 m	>4 m	Made ground, part of flood bank	Brick, slate, concrete	C20th
Area 9						
91	Layer	0.15 m - 0.3 m	-	Topsoil	-	C19th/ C20th
92	Layer	0.35 m	=	Alluvium	-	-
93	Layer	0.15 m	-	Alluvium	-	-
94	Layer	> 0.1 m	-	Alluvium	-	-

APPENDIX 2 BIBLIOGRAPHY AND REFERENCES

Carter M, 2005 Village History

IFA, 2001 Standard and Guidance for Archaeological Watching Briefs

OA, 2005 Hemingfords Flood Alleviation Scheme, St Ives, Cambridgeshire: Written Scheme of Investigation for an Archaeological Investigation

OAU, 1992 Field Manual (1st edition ed. Wilkinson D)

APPENDIX 3 SUMMARY OF SITE DETAILS

Site name: Hemingfords Flood Alleviation Scheme, St Ives, Cambridgeshire

Site code: SIHFA 05

Grid reference: TL 2784 7149 to TL 3095 6992

Type of watching brief: Machine excavation of 4.4 km length of topsoil stripping and excavation of a 1.4 m wide by 0.7 m deep core trench. Ground reduction of approximately 0.9 hectare

Date and duration of project: Between 28th September 2005 and 19th May 2007, 20 months.

Area of site: Approximately 132 hectares

Summary of results: The watching brief revealed evidence of the former North Eastern Railway timber trestle causeway crossing alongside Town Bridge, St Ives, an unrecorded non-conformist cemetery north of Hemingford Grey and an earlier churchyard boundary wall alongside St James Church at Hemingford Grey. The remainder of the route traversed alluvial flood plains and no other evidence or significant archaeology was observed.

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Cambridgeshire County Museums Service in due course.

The 330000

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Figure 1: Site location

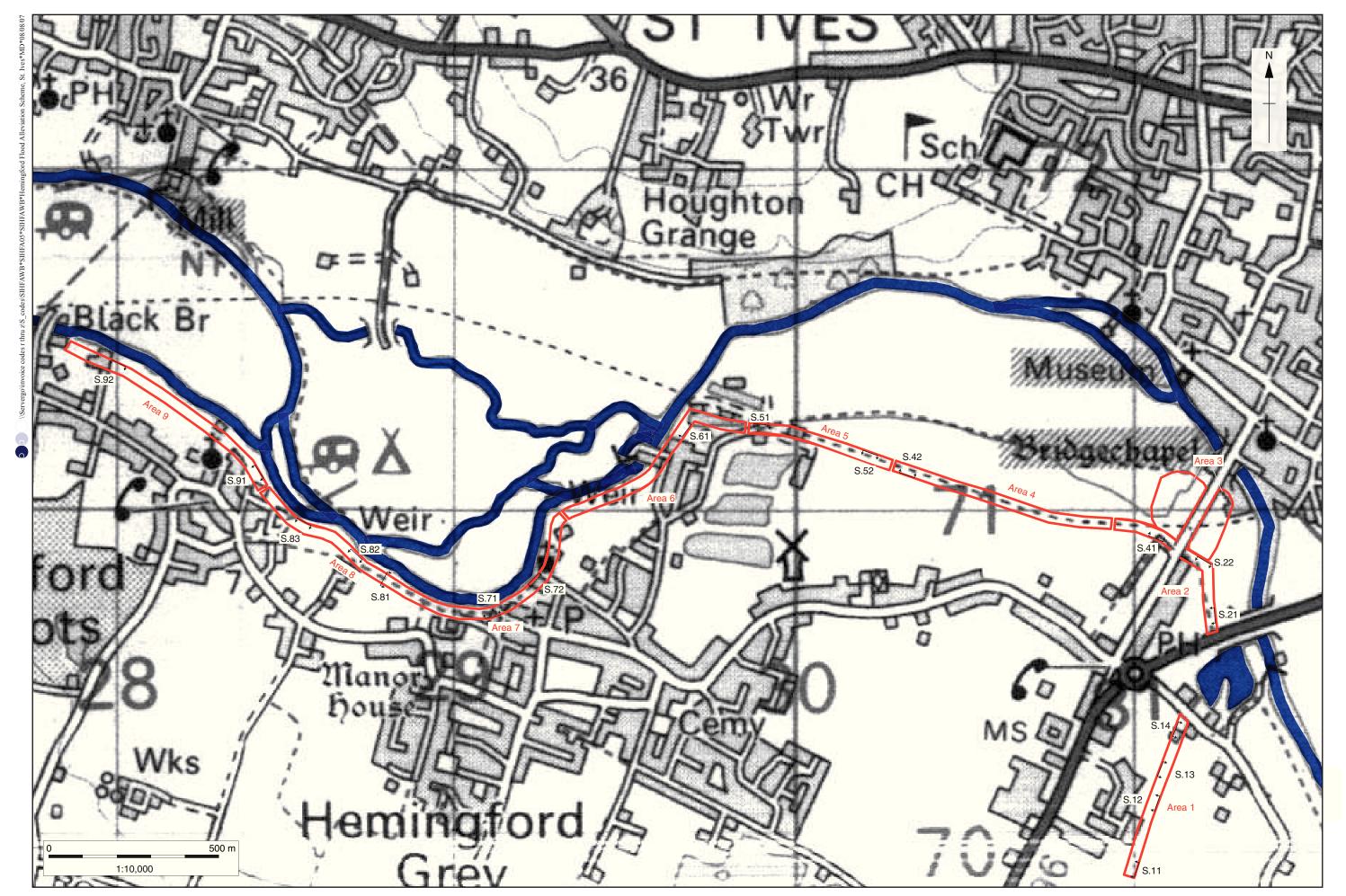


Figure 2: Site plan

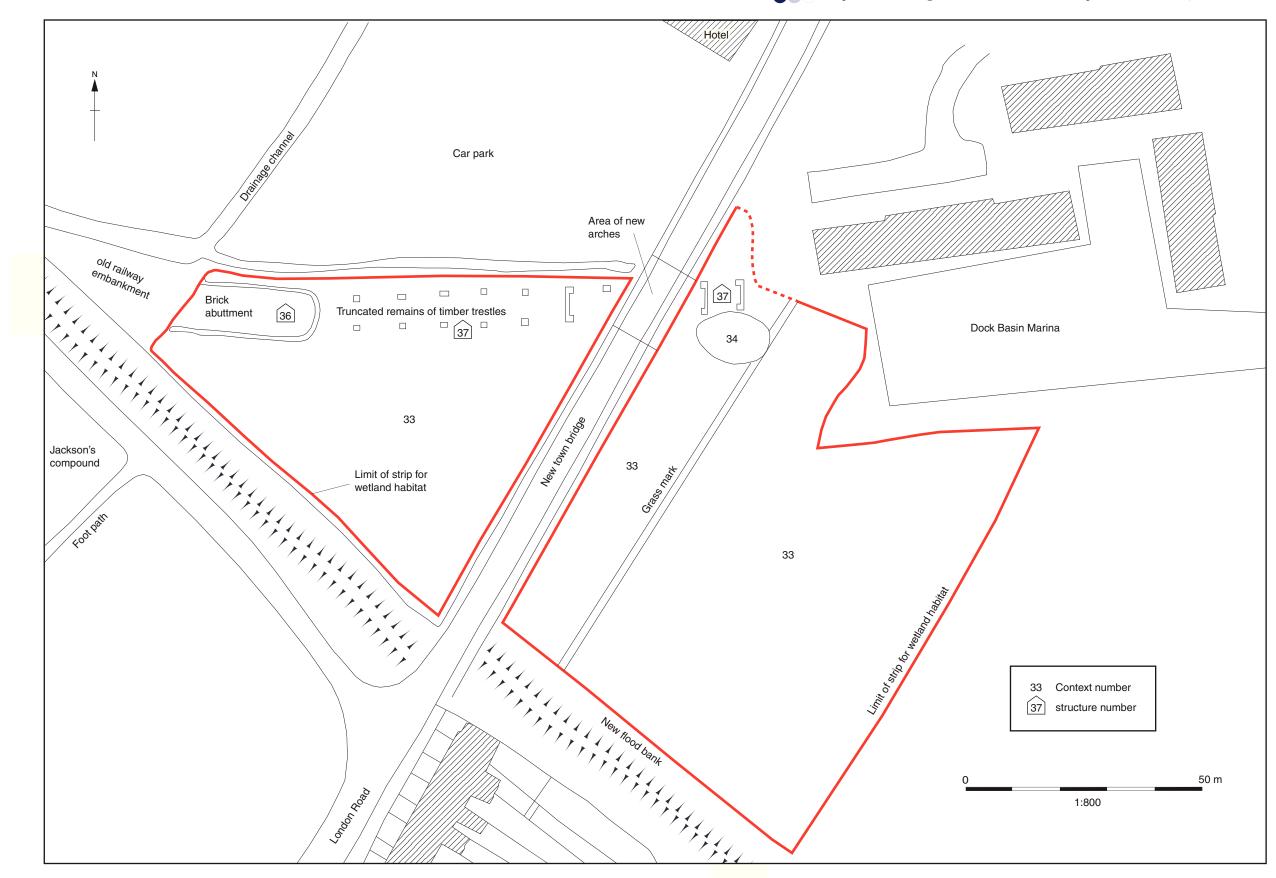
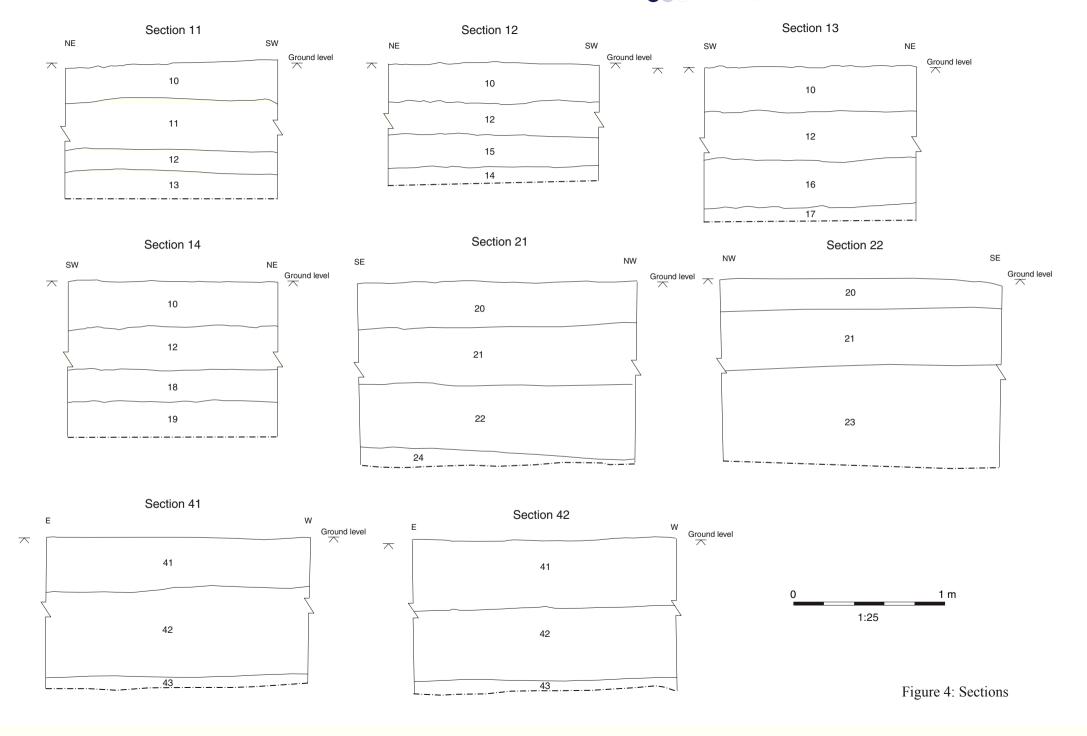
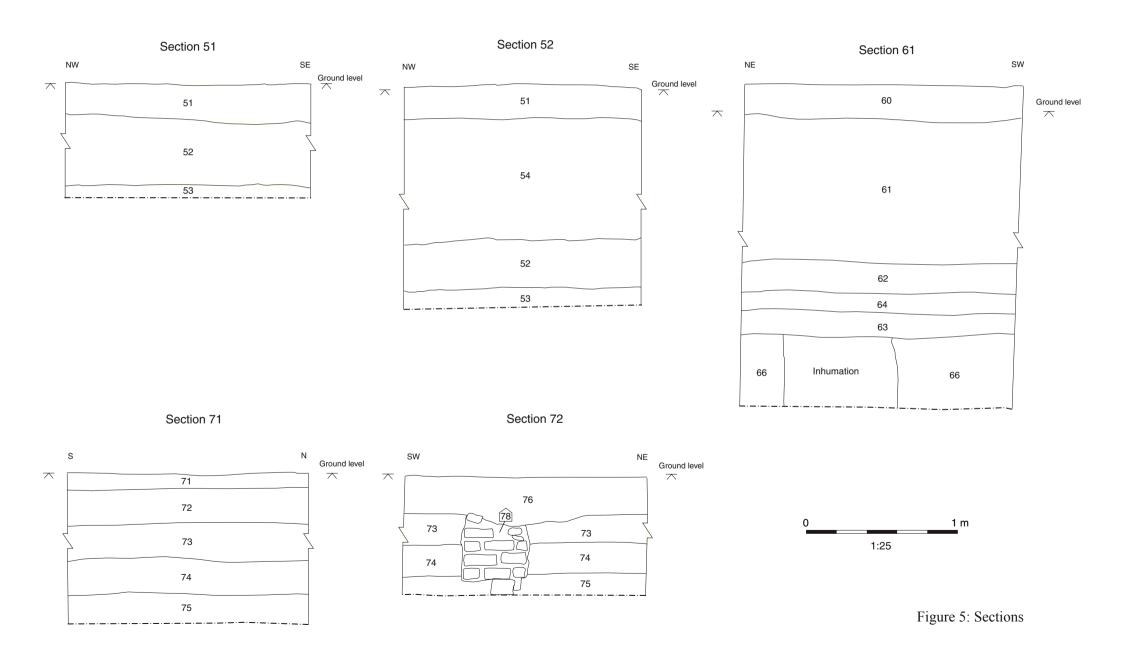
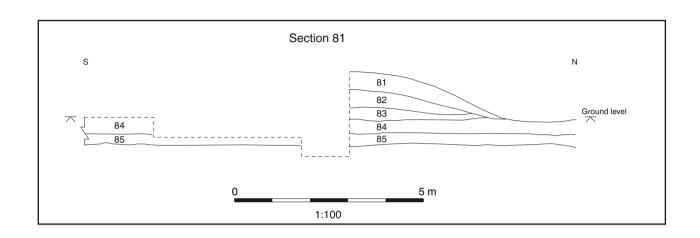
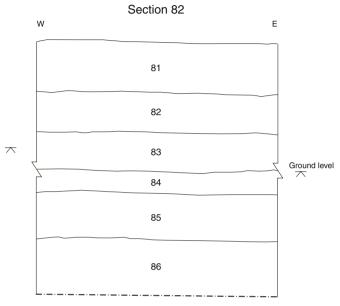


Figure 3: New wetland habitat









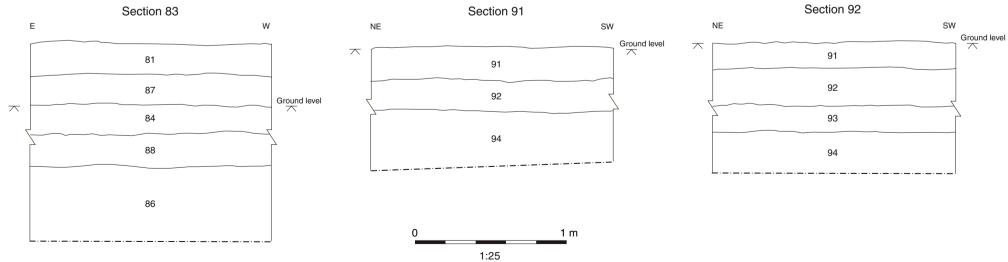


Figure 6: Sections



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