Full Sutton to Stamford Bridge Pipeline, East Riding of Yorkshire

Monitoring of Geotechnical Investigations

For Morrison Water Services

December 2022

Ecus Ltd

Report to: Morrison Water Services

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Executive Summary

Ecus Ltd was commissioned by Morrison Water Services, on behalf of Yorkshire Water, to carry out archaeological monitoring of geotechnical investigations along the route of a new wastewater pipeline between Full Sutton and Stamford Bridge, East Riding of Yorkshire (between NGR: SE 70674 55333 and SE 74089 55289). The works comprised a watching brief during excavation of nine trial holes (machine-excavated test pits) and five hand-dug borehole starter pits.

The work followed a desk-based assessment and geophysical survey of the route, and none of the monitored ground investigations took place in areas where archaeological features were known to be present.

At each of the locations, either modern topsoil or modern surfacing overlay a varying thickness of subsoil. Natural deposits along the route were either silty sand or clay. No archaeological features or deposits were identified during the ground investigations and no significant artefacts recovered. This negative finding corroborated the results of the desk-based assessment and geophysical survey for these parts of the pipeline route.

1. INTRODUCTION

1.1.1 Ecus Ltd was commissioned by Morrison Water Services, on behalf of Yorkshire Water, to carry out archaeological monitoring of geotechnical investigations along the route of a new wastewater pipeline between Full Sutton and Stamford Bridge, East Riding of Yorkshire (between NGR: SE 70674 55333 and SE 74089 55289; Fig. 1). The new pipeline will require planning permission from East Riding of Yorkshire Council and Ryedale District Council (North Yorkshire) while other elements of the scheme will be constructed under permitted development rights.

1.1.2 Paragraph 194 of the National Planning Policy Framework (MHCLG 2021) states 'Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.' The monitoring work formed part of the evaluation stage of the project.

1.1.3 The geotechnical investigations were carried out between 22 November and 5 December 2022, and followed a methodology laid out in a Written Scheme of Investigation (Ecus 2022a) agreed by Humber Archaeology (archaeological advisors to East Riding of Yorkshire Council) and the City of York council so that the work formed part of an approved scheme of works. The archaeological work comprised monitoring of excavation of nine trial holes (machine-dug test pits) and five hand-dug borehole starter pits. An additional trial hole was not excavated due to poor ground conditions.

1.1.4 This report has been prepared in accordance with national guidance (Historic England 2015a; Association of Local Government Archaeological Officers 2015). Following approval by the client it will be submitted to Humber Archaeology and NYCCHS.

2. Site Background

2.1 Site description

2.1.1 The proposed development area (PDA) is located to the west and south of Stamford Bridge, c.11km east of the centre of York. The route of the proposed scheme follows the west and south edge of Stamford Bridge before turning east towards Full Sutton, running through agricultural fields.

2.1.2 The PDA follows a relatively level route westwards from Full Sutton, along the valley of Millsike Beck, at an average height of c.16m above Ordnance Datum (aOD) before descending to c.10m aOD adjacent to the River Derwent, west of Stamford Bridge.

2.1.3 Bedrock to the east of Stamford Bridge consists of Triassic mudstone of the Mercia Mudstone Group, while that beneath Stamford Bridge and to the west and south comprises Permian and Triassic sandstone of the Sherwood Sandstone Group (BGS 2022). Superficial deposits across most of the study area are comprised of Quaternary silty clay of the Thorganby Clay Member, although Stamford Bridge is built on silty, gravelly sand of the Naburn Sand Member and the floodplain of the River Derwent at the west side of the scheme is covered in clay, silt, sand and gravel alluvium. The soils throughout most of the study area are mapped as being of the Worcester Association, being slowly permeable reddish clayey soils over mudstone and typically used for dairying and stock rearing, although in drier areas suited to winter cereals, as in the Stamford Bridge area (Soil Survey of England and Wales 1983; Jarvis *et al*. 1984, 314–5). At the west end of the route, adjacent to the River Derwent, are soils of the Everingham Association, deep stoneless sandy soils suited to cereals and root crops (*ibid*., 190-3).

2.2 Archaeological and historical background

2.2.1 The archaeological and historical background for the PDA has been set out in detail in the historic environment desk-based assessment (DBA) (Ecus 2022b), which is summarised below.

Designated heritage assets

2.2.2 There are no World Heritage Sites or Historic Parks and Gardens within the vicinity of the scheme.

2.2.3 There is one Scheduled Monument in the area, *Derventio* Roman town (NHLE 1416328). This is located to the south of Stamford Bridge on both banks of the River Derwent.

2.2.4 Immediately to the south-east of Stamford Bridge is the Registered Battlefield of the Battle of Stamford Bridge (NHLE 1000035).

2.2.5 The DBA identified 14 Listed Buildings within the area studied. Two of these, Stamford Bridge Railway Viaduct (NHLE 1083841) and the road bridge over the River Derwent (NHLE 1346426),

are listed Grade II*, the others are all Grade II. However, with the exception of the railway viaduct, all of the Listed Buildings are located away from, and will not be impacted by the proposed route.

Conservation Area

2.2.6 The core of Stamford Bridge is designated as a Conservation Area (East Riding of Yorkshire Council 2009).

Previous Archaeological Investigations

2.2.7 The Humber and North Yorkshire County Council Historic Environment Records (HERs) record 33 previous archaeological interventions within, or covering, the area studied by the DBA, which also noted an additional intervention. Of these, interventions close to the west end of the route had produced significant results.

2.2.8 In 1995, fieldwalking (surface collection of artefacts) was carried out by students, working under the Humber Archaeology Partnership, in a field on the west side of Low Catton Road. This work recovered a significant quantity of Roman pottery of 1st–4th-century date, mainly concentrated on the higher ground in the east part of the field closest to Low Catton Road and the proposed pipeline route.

2.2.9 The second intervention was carried out in 2003 by Northern Archaeological Associates in advance of construction by Yorkshire Water of a new pipeline forming part of the Etton Wold Water Treatment Works Nitrate Reduction Scheme. The work included a desk-based assessment, geophysical survey and excavation along a route running to the south and south-east of Stamford Bridge (NAA 2007). The pipeline south-west from Moor Lane ran westwards parallel to the north bank of Millsike Beck, crossing High Catton and Low Catton Roads. It then continued west to the edge of the River Derwent floodplain where it turned northwards before crossing the river adjacent to the south-western corner of Forresters Walk. The work revealed significant archaeological remains including a Bronze Age burnt mound to the east of High Catton Road and extensive remains of *Derventio* Roman town (NHLE 1416328) to the west of Low Catton Road.

2.2.10 Two smaller watching briefs have been undertaken within Stamford Bridge close to the west end of the current pipe route, at 87 Low Catton Road and 65 Low Catton Road. However, neither identified any archaeological features or artefacts.

Prehistoric period (500,000 BC – AD 43)

2.2.11 The HER records that a Neolithic flint arrowhead has been found in the field west of Low Catton Road, which will be traversed by the pipe route. The 2003 pipeline excavations to the south of Stamford Bridge recorded a further 66 pieces, mainly found residually in later features (NAA 2007, 13–14). The material ranged in date from Mesolithic to Early Bronze Age and indicated the

presence of a 'background' of such material in the vicinity of Millsike Beck.

2.2.12 As noted above, the 2003 pipeline work identified a Bronze Age burnt mound and associated troughs and pits near the north bank of Millsike Beck to the east of High Catton Road (NAA 2007). Burnt mounds are dumps of discarded stones, which were heated in a fire and then used to heat water in the troughs, although there is some disagreement as to whether the resulting heated water was used for cooking or some other activity. Together with nearby finds of Bronze Age axes recorded on the Portable Antiquities Service database, this suggests that Millsike Beck was a focus for significant Bronze Age activity. From a similar context, a Bronze Age dagger has been recovered from the River Derwent at the north edge of Stamford Bridge.

2.2.13 A cropmark of what has been interpreted as a Late Bronze Age or Early Iron Age ritual enclosure is located in a field to the south of the pipeline route between Moor Road and High Catton Road. Within the same field are cropmarks of an undated curvilinear enclosure and field system and two groups of Iron Age square barrows, while more square barrows may be present in the adjacent field to the north-east.

2.2.14 Other evidence for the late prehistoric period consists of cropmarks recorded from aerial photographs and interpreted as prehistoric on the basis of form or their relationship to other features of known date. Many were recorded from photographs taken in the 1970s and the sites were no longer visible during the more recent Vale of York Mapping Project carried out by English Heritage, suggesting that some have been disturbed or destroyed by recent agricultural activity.

2.2.15 South of Moor Lane at the east end of the pipeline route are fragmentary cropmarks of a field system thought to be of Iron Age or Roman date. In the area between Moor Lane and Moor Road crossed by the route are more cropmarks of enclosures and a field system also thought to be of Iron Age or Roman date, while on the north bank of Millsike Beck east of Moor Road is an area of cropmarks of enclosures aligned on trackways.

2.2.16 In the fields adjacent to HMP Full Sutton, there are extensive cropmarks of a sinuous trackway running northwards, with other marks that could represent parts of an associated field system and an enclosure.

Romano-British period (AD 43 – 410)

2.2.17 Since the mid-19th century, finds of Roman objects have hinted at the presence of significant Roman settlement at Stamford Bridge. However, it was not until the 1970s that aerial photography revealed a c.50ha area of linear features to the south of the village. These were indicative of settlement activity focused along a road running from east-northeast to west-southwest and crossing the River Derwent. A second road branched off at SE 7045 5455, running to the north-

east below the modern settlement.

2.2.18 A Roman road has also been suggested running from south-east to north-west, broadly following the line of Moor Lane, and leading towards a suggested Roman crossing of the River Derwent at the northern edge of Stamford Bridge village. Cropmarks of a Roman fort have been recorded on the south bank of the Derwent in this area, and an oven was excavated in 1954 in a location corresponding to the north-west fort rampart. A more certain Roman road has been recorded running to the south-east from immediately to the east of Stamford Bridge (SE 7740 4870) and heading towards Market Weighton (RRRA gazetteer Margary Road 2e). This was identified during the 2003 pipeline works. Both of these roads would be crossed by the pipeline route.

2.2.19 As noted above, previous archaeological fieldwork projects have provided more detail about the settlement, now classified by Historic England as a minor Roman town and thought likely to equate to *Derventio*, mentioned in the Antonine Itinerary. On the west side of the River Derwent, c.13ha of the settlement has been recorded by fieldwalking and monitoring of groundworks, which have recorded a well, enclosure ditches and building foundations dating from the 1st–4th centuries AD (Lawton 1994).

2.2.20 The pipeline constructed in 2003 ran to the south of Stamford Bridge from east to west, passed through 'back-plot' areas of the Roman town to the south of, and mostly parallel to, the Roman road (NAA 2007). The excavations recorded extensive, but plough-truncated, Roman remains in the area to the west of Low Catton Road, including enclosure ditches, pits, kilns and several burials, the features ranging in date from the 1st–4th centuries. Where the pipeline route turned northwards at the edge of the Derwent's floodplain, it crossed the line of the Roman road and part of the road agger and surface, together with a roadside ditch, were investigated. Evidence for a possible bridge over the Derwent in this area is represented by the find of a large stone block, which could have formed part of a bridge abutment.

2.2.21 There is some evidence that the Roman town extended northwards beyond the scheduled area and beneath at least part of the modern settlement. This includes cropmarks of a Roman enclosure (now built over) and finds such as a Roman bead.

2.2.22 Although not included in the HER data, excavation in advance of a housing development on Moor Road in 1998 found a group of cremation burials succeeded by at least two phases of ditched agricultural enclosures aligned along trackways and dated between the 2nd and 4th centuries (Roe 2001). Small rectangular structures were thought to be of agricultural function and other finds included a wicker-lined pit and a kiln or oven.

2.2.23 Beyond the Roman town, there is widespread evidence for Roman activity. Many of the cropmarks

of enclosures, trackways and field systems recorded across the study area could be of either Iron Age or Roman date.

Medieval (AD 410 – 1540)

2.2.24 No early medieval archaeological remains are recorded from the study area.

2.2.25 Stamford is Old English for 'stone or stony ford'. The first surviving documentary evidence for Stamford Bridge dates from c.1075 when it was called *Stanford brycg* (Mills 1998, 323), confirming the early presence of a bridge, and a bridge is also mentioned in some accounts of the Battle of Stamford Bridge of 1066.

2.2.26 On 25 September 1066, the battle of Stamford Bridge was fought between the invading forces of King Harald Hardrada of Norway and those of King Harold II of England. The main battle is thought to have been fought in the area of Battle Flat to the south-west of the modern settlement (centred on SE 720 553), and the area is now designated a Registered Battlefield (NHLE 1000035). It has been suggested, however, that the Roman bridge 1.3 km to the south-west may still have survived in some form at this time, and that the battle could therefore have taken place further to the west (to the south of Stamford Bridge).

2.2.27 The medieval village of Stamford Bridge probably formed part of the Manor of Catton, which was acquired by the Percy family (East Riding of Yorkshire Council 2009, 8). There is documentary evidence for mills on the Derwent from c.1130-5. Some physical evidence for the medieval village, in the form of occasional archaeological features and potsherds, has been identified during investigations at The Firs on Main Street, Daneswell Garage, the Manor House and at Weir Caravan Park.

2.2.28 A medieval silver ring has been found just to the south-east of Stamford Bridge.

2.2.29 The villages of Stamford Bridge and Hundeburton (close to the eastern end of the pipeline scheme) remained small, the Poll Tax of 1377 giving them a combined population of only 62. Nevertheless, there is extensive evidence for medieval or early post-medieval agriculture around both settlements in the form of ridge and furrow cultivation surviving as either cropmarks or upstanding earthworks. Excavation has shown that some ridge and furrow was still in use (or may have been created) in the early post-medieval period. Evidence from LiDAR shows that earthwork remains of ridge and furrow are present in many of the modern fields crossed by the pipeline route.

Post-medieval and modern (AD 1540 – present day)

2.2.30 The post-medieval period saw increasing development within Stamford Bridge, but Hundeburton was abandoned. Stamford Bridge initially remained small, with only 18 houses recorded in the 1673

Hearth Tax Returns (East Riding of Yorkshire Council 2009), but by 1801 the population had risen to 170 and doubled in the following 50 years. However, even by 1851 it consisted essentially only of properties fronting Main Street (Ordnance Survey 1854a). The First Edition Ordnance Survey map sheets (1854a and b) show that the surrounding landscape had already been Enclosed, with the surviving rural road layout and the same basic field framework as the modern landscape layout but with more divisions creating smaller strip fields. Many of these appear to have been divisions of the earlier ridge and furrow landscape, with some boundaries following the reverse-S shape of the furrows.

2.2.31 The study area was crossed from north-west to south-east by the line of the (now dismantled) railway running between York and Market Weighton. It was constructed in 1847 for the York and North Midland Railway Company and depicted on the First Edition Ordnance Survey maps of the area (1854a and b). The viaduct across the River Derwent is Listed Grade II*.

2.2.32 During the 19th century a brickyard and kiln, accompanied by extensive clay pits, were present on the south bank of Millsike Beck at Beachwood House, adjacent to the pipeline route. The site was described as 'Old clay pit' by 1909 (Ordnance Survey 1911b).

2.2.33 By the early 20th century, there had been only small expansion to Stamford Bridge and the surrounding countryside had changed little (Ordnance Survey 1911a and b). There was some expansion of the village during the first half of the 20th century, particularly the development of Stamford Bridge West in 1931, and some removal of field boundaries to create larger fields in the surrounding area (Ordnance Survey 1953a and b). The settlement has continued to expand to the south-west and east during the latter half of the 20th century and the beginning of the 21st.

Geophysical survey

2.2.34 As part of the current project, a magnetometer survey was undertaken in September and October across areas along the route totalling c.14ha (Ecus 2022c).

2.2.35 Potential archaeological features were visible within the survey data. Of three certain or probable Roman roads that cross the pipeline route, only that running to the north-east from the Roman town was clearly represented on the survey. The Roman road from Barmby Moor to Stamford Bridge was not identified at the expected location but may have altered course in order to cross Millsike Beck, while a third possible Roman road following the route of Moor Lane crossed the route in an area which was not surveyed. Elsewhere along the route, no evidence for settlement was found, although some anomalies possibly related to adjacent areas of cropmarks of Iron Age or Romano-British field systems, trackways and enclosures. Other anomalies representing undated boundaries and possible pits were recorded in several areas, along with evidence of ridge and furrow and more modern ploughing regimes.

3. Monitoring methodology

3.1 General

3.1.1 Ecus is a Chartered Institute for Archaeologists Registered Organisation.

3.1.2 All work was undertaken by experienced Ecus staff who are corporate members of the CIfA or who demonstrably work to an equivalent standard for fieldwork.

3.2 Standards and Guidelines

3.2.1 The methodology was based upon the following published standards and guidelines of practice:

- Yorkshire, the Humber & the North East: A Regional Statement of Good Practice for Archaeology in the Development Process (South Yorkshire Archaeology Service 2018);
- CIfA Code of Conduct (Chartered Institute for Archaeologists 2021);
- Standard and guidance for an archaeological watching brief (Chartered Institute for Archaeologists 2020a);
- Standard and guidance for the collection, documentation, conservation and research of archaeological materials (Chartered Institute for Archaeologists 2020b);
- Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives (Chartered Institute for Archaeologists 2020c);
- Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide (Historic England 2015a);
- A Strategy for the Care and Investigation of Finds (English Heritage 1995); and
- First Aid for Finds (Watkinson and Neal 2001).

3.3 Aims and Objectives

3.3.1 The aim of the archaeological monitoring was:

- to identify the presence and location of archaeological remains within the area of development.

3.3.2 The objectives of the monitoring was to:

- establish the presence, nature, extent, preservation and significance of any archaeological remains within the PDA;
- provide a detailed record of any such archaeological remains;

- recover and assess any associated structural, artefactual and environmental evidence, where safe to do so;
- carry out a programme of investigation that met with national and regional standards (Historic England 2015a; CIfA 2020a-c and 2021; South Yorkshire Archaeology Service 2018); and
- prepare an illustrated report on the results of the archaeological monitoring to be deposited with Humber and North Yorkshire County Council Historic Environment Records.

3.4 Monitoring Methodology

3.4.1 The trial holes were excavated using a mechanical excavator fitted with a toothless bucket. The borehole starter pits were hand-dug by the GI contractor. The monitoring archaeologist was allowed time to examine and record the pits.

3.4.2 The location of each intervention was plotted by the GI contractor using GPS, in accordance with Historic England metric survey guidance (Historic England 2015b). The excavations were recorded following the designations used by the GI contractors.

3.4.3 A full record (written, graphic and photographic, as appropriate) was made of the full deposit sequence visible at each location. Written recording was undertaken in a digital format using the Diggit application (https://www.diggitarchaeology.com). Each context record fully described the location, extent, composition and relationship of the subject and has been cross-referenced to all other assigned records.

3.4.4 A photographic record of each pit was taken in digital format at a minimum resolution of 10 megapixels and included a clearly visible, graduated metric scale where possible to do so. A register of all photographs was kept. All photography was undertaken in accordance with Historic England digital imaging guidance (Historic England 2015c).

3.4.5 In the event, no finds were recovered and no deposits suitable for soil sampling were encountered.

4. Monitoring results

4.1.1 A total of nine trial holes and five borehole starter pits were excavated. A tenth planned trial hole was not excavated due to unsuitable ground conditions at that location. The surveyed locations of trial holes and the boreholes (except Borehole 1A) are set out in Table 1.

Intervention	Location	Level at ground surface
Trial Hole 1	SE 73845 55198	15.32m aOD
Trial Hole 2	SE 73603 54884	15.73m aOD
Trial Hole 3	SE 73437 55037	14.87m aOD
Trial Hole 4	SE 72950 454859	14.53m aOD
Trial Hole 5	SE 72512 54782	14.39m aOD
Trial Hole 6	SE 72098 54572	15.43m aOD
Trial Hole 7	SE 71448 54522	14.29m aOD
Trial Hole 8	SE 71379 54543	14.20m aOD
Trial Hole 9	SE 71119 54538	14.25m aOD
Borehole 1	SE 74105 55226	15.04m aOD
Borehole 2	SE 74125 55251	15.00m aOD
Borehole 3	SE 70698 55213	8.29m aOD
Borehole 4	SE 70653 55282	8.21m aOD

4.2 Trial holes

Trial hole 1

4.2.1 This was located in an arable field to the north-west of the junction between Moor Lane and the trackway to Low Burtonfields Farm (geophysical survey Field 14). Trial hole 1 was 3.80m long, 0.60m wide and 2.80m deep. Mid brown clayey silt topsoil (context **001**) 0.30m thick overlay 0.16m of mid brownish-orange sandy silt subsoil (**002**). The natural deposit was mid orange-yellow silty sand (**003**). No archaeological features were identified.

Trial hole 2

4.2.2 Trial Hole 2 was located along the southern side of the same field as Trial Hole 1, where the field

boundary departs from Moor Lane. It measured 3.90m by 0.60m and was 2.20m deep. The topsoil was brownish-orange clayey silt oil (**200**) 0.32m thick. Below this, a subsoil layer 0.16m thick consisting of orange-brown sandy clay (**201**) overlay natural yellowish-orange coarse sand (**203**) which was not cut by archaeological features.

Trial Hole 3

4.2.3 This was excavated close to the north bank of Millsike Beck to the south of Low Burtonfields Farm (geophysical survey Field 13). Trial Hole 3 was 3.50m long, 0.65m wide and typically 1.60m deep. Below c.0.31m of brownish-orange silty clay topsoil (**300**) was a 0.16m thick layer of brownish-orange sandy clay subsoil (**301**) (Plate 1). This overlay natural light yellowish-orange sandy silt (**302**).

Trial Hole 4

4.2.4 Trial Hole 4 was positioned on the north bank of Millsike Beck to the north of Beechwood House. It lay close to cropmarks of probable Iron Age or Roman enclosures noted by the desk-based assessment (Ecus 2022b, HA 37), although the geophysical survey (Ecus 2022c, Field 12) did not identify any features in the immediate vicinity.

4.2.5 At this location there was 0.25m of mid brownish-orange silty clay topsoil (**400**). Below this, 0.20m of mid yellowish brown silty clay subsoil (**401**) overlay natural orange-yellow sandy clay (**402**). No archaeological features were identified.

Trial Hole 5

4.2.6 This was also located in an arable field on the north bank of Millsike Beck, to the north-west of Winchmore. The desk-based assessment and geophysical survey (Field 11) did not identify any archaeological features near this location. Trial Hole 5 was 2.70m long, 0.70m wide and 2.70m deep (Plate 2). Topsoil 0.30m thick comprised mid brownish orange clayey silt (**500**), which sealed a 0.26m layer of orange-brown sandy clay subsoil (**501**). The natural deposit at this location was yellowish-orange coarse sandy silt (**502**) containing small chalk fragments.

Trial Hole 6

4.2.7 Located to the south of the Millsike Beck and north-west of White House Farm, Trial Hole 6 lay at the western edge of an arable field (geophysical survey Field 8). The desk-based assessment had identified the presence of Iron Age square barrows and possible square barrows (Ecus 2022b, HA33 and HA35) in both this and an adjacent field. However, the geophysical survey in this field, which was carried out closer to the beck than the trial hole location, did not identify any significant surviving features.

4.2.8 Trial Hole 6 was 3.60m long, 0.60m wide and was excavated to a depth of 1.90m. At this location

there was 0.30m of mid brownish-orange silty clay topsoil (**600**) overlying 0.20m of orange-brown silty clay subsoil (**601**). The natural deposit was yellowish brown sandy clay (**602**). No archaeological features were identified.

Trial Hole 7

4.2.9 This trial hole was located in an arable field to the south of the Millsike Beck at the eastern side of High Catton Road. Although located opposite the known Roman town, no significant archaeological remains had been identified in this field by either the desk-based assessment or the geophysical survey (Field 6).

4.2.10 Trial Hole 7 was 3.00m long, 0.70m wide and 2.85m deep. The brownish-orange silty clay topsoil (**700**) was 0.30-0.35m thick and overlay a significant accumulation of subsoil (**701**). This was typically 0.95m thick at this location and consisted of light orange-brown silty clay. Below the subsoil was natural yellowish-brown sandy clay (**702**).

Trial Holes 8 and 9

4.2.11 These excavations were positioned on the southern bank of the Millsike/Smackdam Beck in the field at the western side of High Catton Road, Trial Hole 8 adjacent to the road and Trial Hole 9 further to the west. As with Trial Hole 7, although located opposite the known Roman town these trial holes were located in an area devoid of known archaeological remains and the geophysical survey (Field 5) had not identified significant anomalies.

4.2.12 Trial Hole 8 was 3.00m long, 0.6m wide and excavated to a depth of 2.80m (Plate 3). Topsoil (**800**) at this location was a 0.30m thick deposit of brownish-orange silty clay. Beneath this was a 0.40m thick deposit of orange-brown silty clay subsoil (**801**) overlying natural orange-yellow sandy clay (**802**).

4.2.13 Trial Hole 9 was of similar size, 2.70m long, 0.60m wide and 2.70m deep (Plate 4). A similar deposit sequence was observed to that seen in Trial Hole 8 (topsoil **900** over subsoil **901** and natural clay **902**), although here the subsoil (901) was slightly thinner at 0.33m.

4.2.14 No archaeological features were observed in either trial hole.

Trial Hole 10

4.2.15 A tenth trial hole, which was to have been dug in a field to the north of the Roman town, was not excavated.

4.3 Borehole starter pits

4.3.1 The borehole starter pits were 0.25-0.50m in diameter and hand-dug by the GI contractors to a

nominal depth of c.1.20m in order to check for the presence of any services. Thereafter, excavation into natural deposits was carried out using a 150mm percussion drilling rig (Plate 5).

Starter pits 1, 1A and 2

4.3.2 These were excavated at the eastern end of the pipeline route adjacent to Full Sutton Prison (Fig. 2). The location comprised a levelled area of hardstanding outside the security fence and to the south-east of Moor Lane.

4.3.3 In the starter pit for Borehole 1, below the modern surface of gravel (**1100**) was a 0.50m thick deposit of orange-brown silty clay subsoil (**1101**). This overlay natural brownish-orange pebbly clay (**1102**). At this point (c.0.5m below ground level) the starter pit filled with water and no further observations were possible (Plate 6).

4.3.4 Borehole 1A was located close to Borehole 1 but recorded a different deposit sequence. The gravel surface (**1500**) was up to 0.22m thick and overlay a 0.46m thick deposit of greyish-green silty clay (**1501**) containing fragments of brick throughout. Below this was natural, wet, orange-brown clayey silt (**1502**).

4.3.5 Borehole 2, located a short distance to the south-west, contained a similar deposit sequence to Borehole 1, with 0.17m of gravel surface (**1200**) sealing 0.34m of subsoil (**1201**) above the natural clay (**1202**).

Starter pit 3

4.3.6 Borehole 3 was located on the floodplain at the south-eastern side of the River Derwent to the south-west of the disused railway viaduct. The desk-based assessment and geophysical survey (Field 2) had not identified any archaeological remains in this area.

4.3.7 The starter pit established that there was 0.30m of turf and mid brown silty clay topsoil (**1300**) overlying 0.50m of dark brown silty clay subsoil (**1301**). The natural deposit was orange-brown sandy clay (**1302**).

Starter pit 4

4.3.8 This was located on level ground at the foot of the scarp up from the floodplain at the north-western side of the River Derwent opposite Borehole 3. Again, the desk-based assessment and geophysical survey (Field 1) had not identified any known archaeological remains in the vicinity.

4.3.9 At this location there was 0.20m of brownish-orange silty clay topsoil (**1400**). This overlay a 0.70m thick layer of orange-brown silty clay subsoil (**1401**). The natural deposit consisted of wet, orange-yellow sandy silt (**1402**).

5. Discussion and conclusion

5.1.1 No archaeological features or deposits were identified during the monitoring programme, and no significant artefacts were recovered.

5.1.2 None of the excavated trial holes or boreholes were located in areas where archaeological remains had been anticipated, based on the findings of the desk-based assessment and geophysical survey. The negative results from the monitoring of the ground investigation works supported this conclusion.

Archive

5.1.3 At this stage, and in anticipation of further archaeological mitigation along the pipeline route, the archive will initially be retained by Ecus at their Barnard Castle offices in order to be incorporated into a single combined archive for the whole project.

5.1.4 If no further archaeological works are undertaken, the archive from the watching brief will be deposited with the receiving museum or digital repository, as appropriate.

5.1.5 An OASIS online record (http://ads.ahds.ac.uk/project/oasis/) of the work has been created for submission to the local Historic Environment Records / Archaeological Data Service (Appendix A). This will include an uploaded .pdf version of the report (a copy will also be included within the archive).

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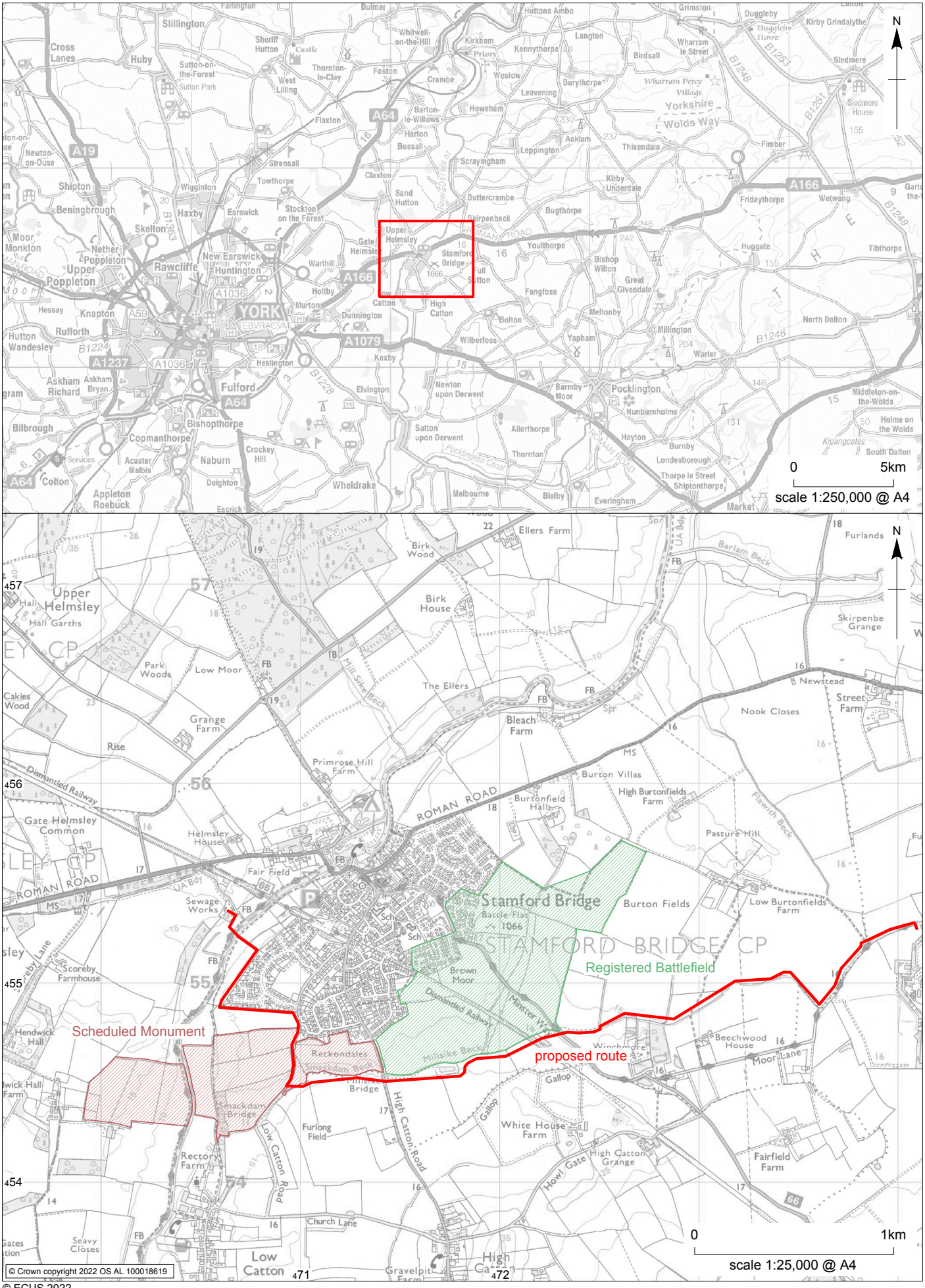
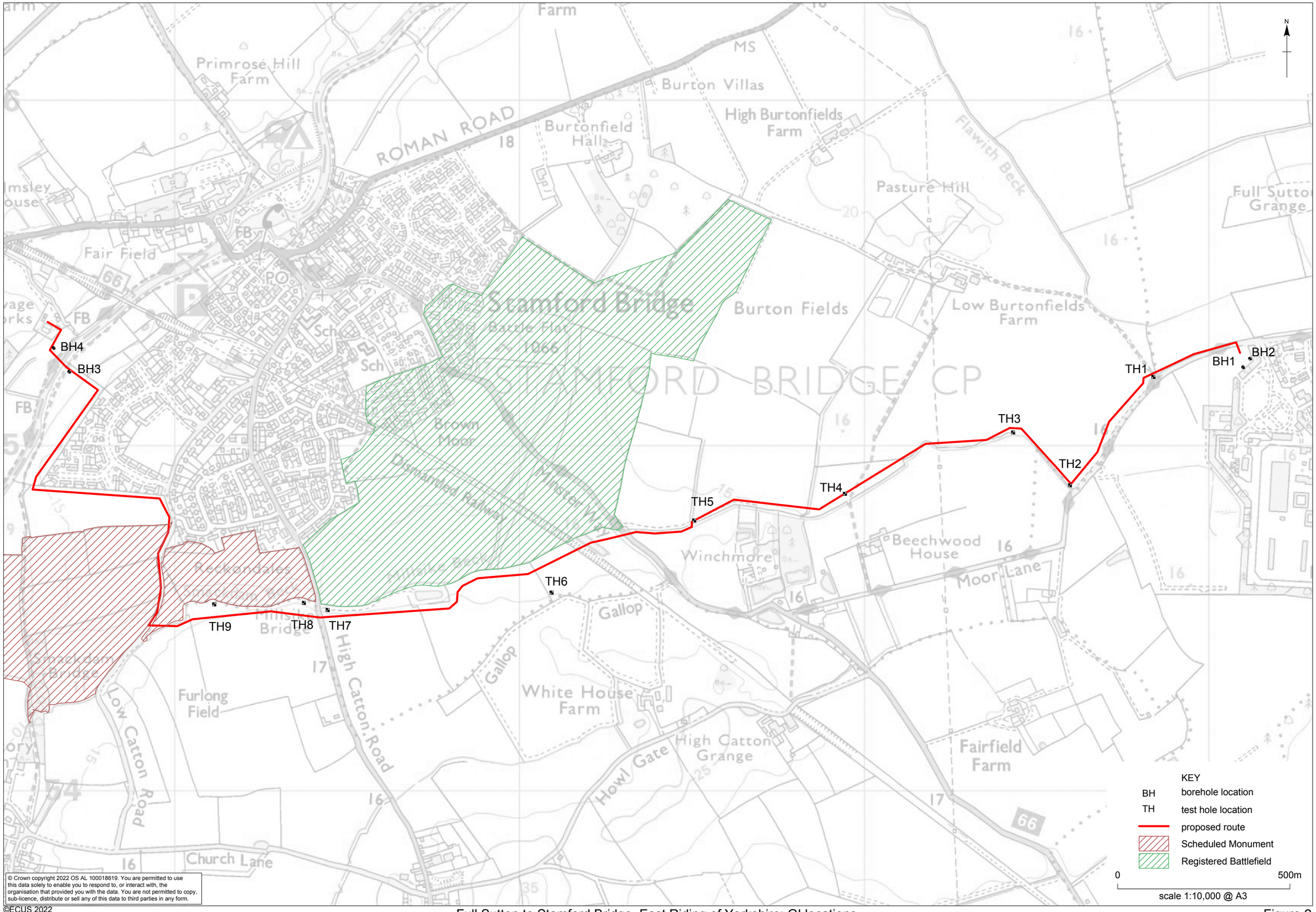


Full Sutton to Stamford Bridge, East Riding of Yorkshire: site location

Figure 1



Full Sutton to Stamford Bridge, East Riding of Yorkshire: GI locations

Figure 2

Appendix A: OASIS form

Summary for ecusltd1-511907

OASIS ID (UID)	ecusltd1-511907
Project Name	Watching Brief at Full Sutton to Stamford Bridge, East Riding of Yorkshire
Sitename	Full Sutton to Stamford Bridge, East Riding of Yorkshire
Activity type	Watching Brief
Project Identifier(s)	Project 2166
Planning Id	
Reason For Investigation	Planning: Pre application
Organisation Responsible for work	ECUS ltd
Project Dates	22-Nov-2022 - 05-Dec-2022
Location	Full Sutton to Stamford Bridge, East Riding of Yorkshire NGR : SE 72370 54747 LL : 53.9837188913569, -0.897880987872836 12 Fig : 472370,454747
Administrative Areas	Country : England County : East Riding of Yorkshire District : East Riding of Yorkshire Parish : Stamford Bridge
Project Methodology	Ecus Ltd was commissioned by Morrison Water Services, on behalf of Yorkshire Water, to carry out archaeological monitoring of geotechnical investigations along the route of a new wastewater pipeline between Full Sutton and Stamford Bridge, East Riding of Yorkshire. The works comprised a watching brief during excavation of nine trial holes (machine-excavated test pits) and five hand-dug borehole starter pits.
Project Results	No archaeological features or deposits were identified during the monitoring programme, and no significant artefacts were recovered. None of the excavated trial holes or boreholes were located in areas where archaeological remains had been anticipated, based on the findings of the desk-based assessment and geophysical survey. The negative results from the monitoring of the ground investigation works supported this conclusion.
Keywords	
Funder	
HER	Humber HER - unRev - STANDARD City of York HER - noRev - LITE
Person Responsible for work	Eddie Dougherty
HER Identifiers	
Archives	

ecus

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