



Northamptonshire Archaeology

Archaeological trial trench evaluation on land off Meadow Lane, Bedford, July 2012



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Northamptonshire
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OASIS REPORT FORM

PROJECT DETAILS		OASIS No. 130275	
Project name	Archaeological trial trench evaluation on land off Meadow Lane, Bedford, July 2012		
Short description	Archaeological trial excavation was undertaken by Northamptonshire Archaeology, on behalf of Bedford Borough Council, on land off Meadow Lane, Bedford. The ground had been scraped, compacted and heavily disturbed. No archaeological features or deposits positively identified on the site. Only one possible ditch was noted, and this trench flooded before this could be investigated. Modern and early modern land drains were also present.		
Project type	Evaluation		
Site status	None		
Previous work	None		
Current Land use	Waste ground		
Future work	Unknown		
Monument type/ period	None		
Significant finds	None		
PROJECT LOCATION			
County	Bedford Borough		
Site address	Meadow Lane, Bedford		
Study area	4.6ha		
OS Easting & Northing	NGR SP 508807 249448		
Height m OD	22.5-23.5m OD		
PROJECT CREATORS			
Organisation	Northamptonshire Archaeology		
Project brief originator	Mr Geoff Saunders, Bedford Borough Council		
Project Design originator	Northamptonshire Archaeology		
Director/Supervisor	Adrian M Chadwick		
Project Manager	Anthony Maul		
Sponsor or funding body	Bedford Borough Council		
PROJECT DATE			
Start date	02/07/2012		
End date	04/07/2012		
ARCHIVES	Location	Content	
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Digital		Report text and figures	
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ARCHAEOLOGICAL TRIAL TRENCH EVALUATION ON LAND OFF MEADOW LAND, BEDFORD, JULY 2012

ABSTRACT

In advance of the proposed construction of a gypsy and traveller site on land off Meadow Lane, Bedford, Northamptonshire, Northamptonshire Archaeology undertook an archaeological evaluation in July 2012. The original scheme proposed eight trial trenches 50m in length in order to establish the presence or absence of archaeological remains, and to characterise any archaeology if present, although physical constraints from flooding and made ground necessitated slight alterations to the trenching layout.

Apart from modern disturbance and modern or early modern land drains, only one possible feature was identified in Trench 4, but this trench flooded before the feature could be investigated.

1 INTRODUCTION

The development area (hereafter referred to as 'the site') consists of a triangular plot of land approximately 4.6 hectares in extent located on the south-eastern side of Bedford, centred on NGR SP 508807 249448 (Fig 1). The site is currently disused or waste ground, but was previously utilised as a construction compound during the construction of the A421 bypass. Access to the site is via a short tarmac drive from a gate off Meadow Lane to the south-west. The site has large earthen bunds on two sides constructed prior to its use as a compound, and it is bordered to the south by an abattoir, to the south-west by Meadow Lane, to the west by a hedge and the A421 bypass, to the north-east by fields and to the east by quarried land now containing several small lakes.

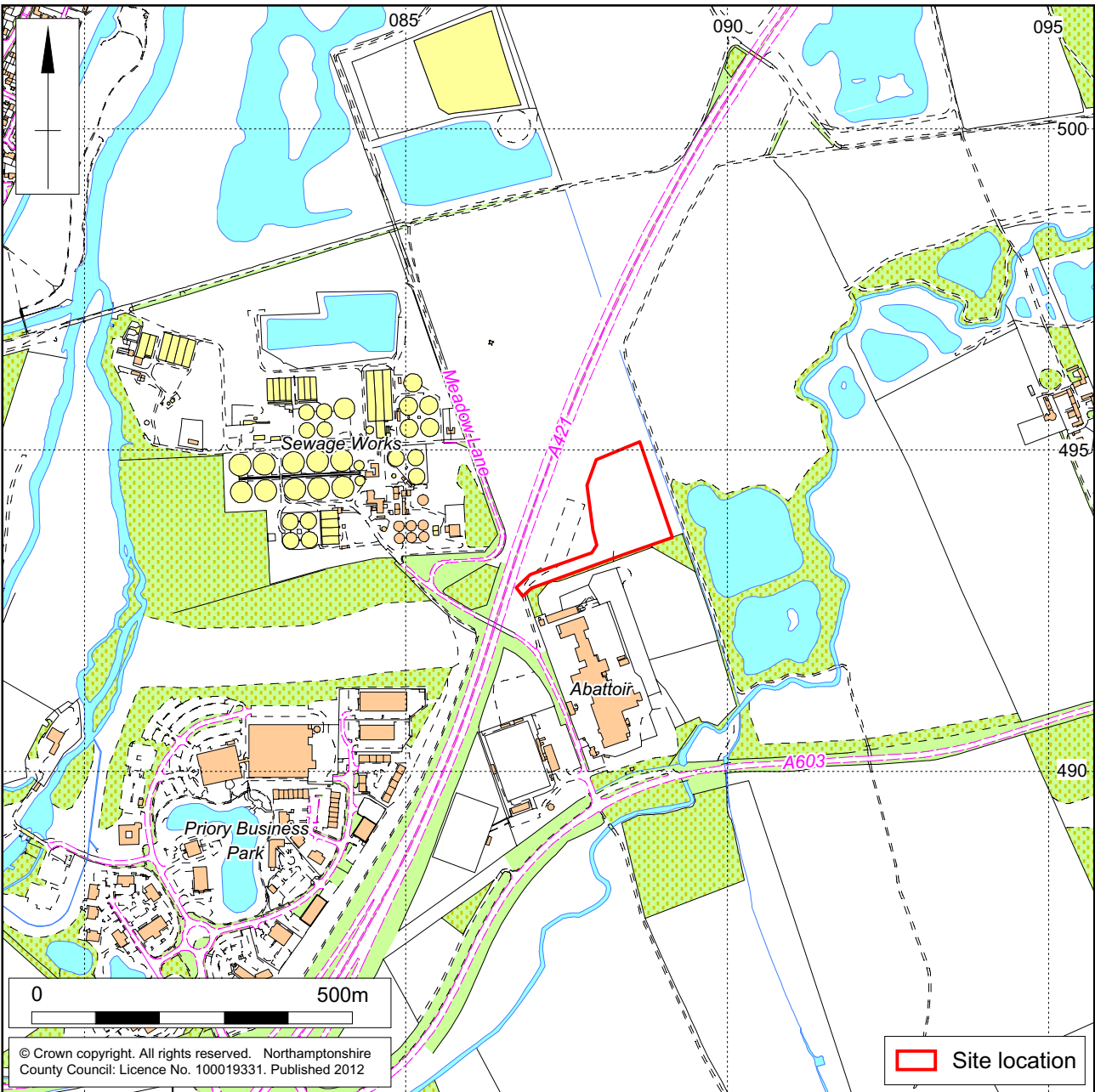
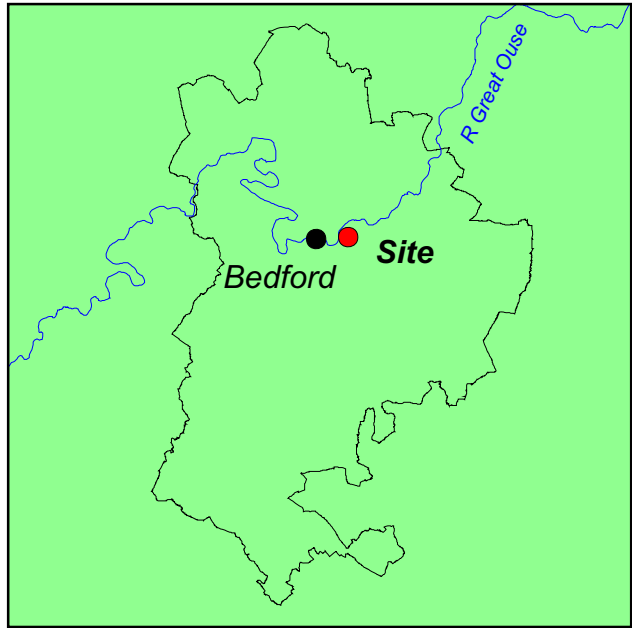
Bedford Borough Council applied for planning permission to develop the site as a purpose-built gypsy and traveller emergency stopping place with services and a site manager's office. The Bedford Borough Council Historic Environment Planning Services Team required that a programme of archaeological investigation should take place, and produced a Brief outlining the requirements of such work (Saunders 2012). Northamptonshire Archaeology (NA) were commissioned to undertake this work, and a Written Scheme of Investigation (WSI) was prepared to satisfy the requirements of the Brief (NA 2012). This WSI proposed the methodology by which the archaeological evaluation was to be carried out. The WSI was accepted by the Historic Environment Team Officer, and the evaluation fieldwork took place on the 2nd-4th July 2012.

2 BACKGROUND

2.1 Geology and topography

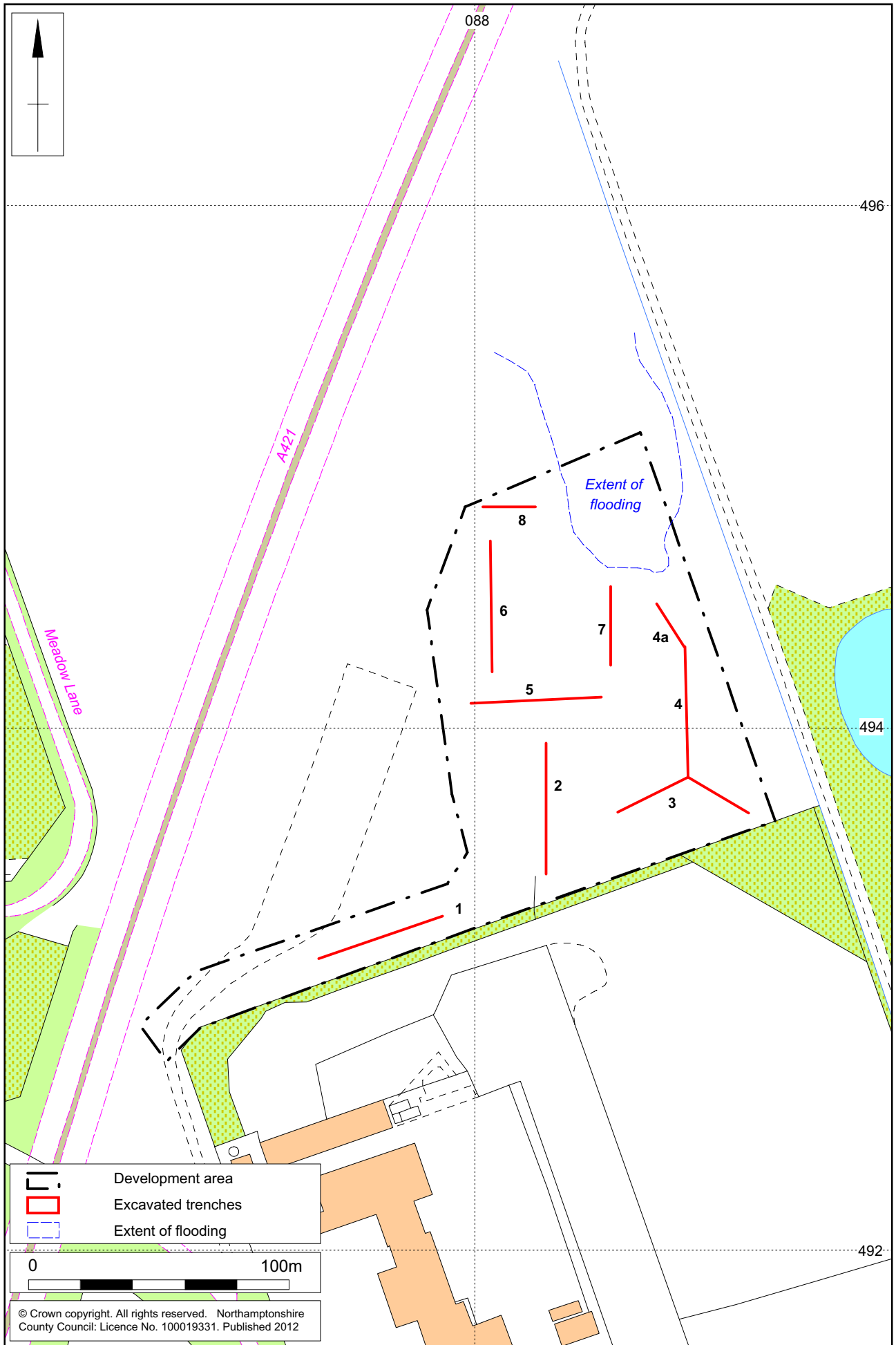
The site currently consists of flat, low-lying areas of hard standing and scrub ground at a height of approximately 22.5-23.5 metres above Ordnance Datum (OD).

The underlying geology consists of fluvial sands and gravels of the Stoke Goldington and Felmersham Members of the Ouse Valley Formation, above the Jurassic deposits of Oxford Clay Formation (BGS 2010, sheet 203).



Scale 1:10,000

Site Location Fig 1



Scale 1:2000

The excavated trenches Fig 2

2.2 Archaeological background

The site lies close to significant concentrations of Neolithic and Bronze Age features and monuments situated on the river terraces of palaeochannels of the River Great Ouse, which were probably open during the Neolithic and Bronze Age and flowed on broadly west to east alignments. This evidence has been summarised elsewhere (Dawson 2004; Malim 2000; Oake *et al* 2007). Approximately 1 kilometre to the north-east, the Cardington/Cople/Willington monument complex included a large causewayed enclosure, mortuary enclosures, a 'paperclip' enclosure and the ring ditches of probable round barrows, as well as later prehistoric and Romano-British enclosures, field systems and pits, and traces of Saxon occupation (Dawson 1996, 43-44; Oake *et al* 2007, 30-31, fig. 3.4; e.g. HER EBB562, EBB650, EBB670, EBD134, EBD138, EBD317, EBD453, MBD586). At Willington Plantation, excavations identified a number of features including a Neolithic square enclosure with a central burial, two Bronze Age ring ditches and an Iron Age enclosure (Dawson 1996).

At the Biddenham Loop c 6km to the west of the site, extensive excavations have revealed Bronze Age round barrows, Late Bronze Age and Iron Age pit alignments and a series of Iron Age and Romano-British rural settlements (Luke 2008). Programmes of archaeological work ahead of the construction of sections the A421 southern bypass to the west, north and east of the site have also revealed concentrations of activity, particularly evidence for Iron Age and Romano-British inhabitation (Barker, Luke and Wells 2006; Timby *et al* 2007; e.g. HER EBB650).

As part of the WSI, Northamptonshire Archaeology consulted the Bedford Borough Historic Environment Record (HER) for an inventory of all recorded archaeological events and monuments within a 500m radius of the site. The following archaeological investigations have been undertaken within the area:

HER ref.	Event of monument
EBB670	Archaeological assessment: Willington, Dog Farm
EBD208	Archaeological evaluation: Bypass, Norse Road link
EBD453	Archaeological evaluation: Cople, Octagon Farm
EBD317	Archaeological evaluation: Elstow Brook widening, Phases 1 & 3
EBD138	Archaeological evaluation: Riverside Meadows
EBB777	Archaeological evaluation: Willington, Castle Mill Airfield
EBB618	Archaeological evaluation: Willington, Dog Farm
EBD134	Archaeological evaluation: Willington, Octagon Farm south
EBB753	Archaeological watching brief: Marston Vale cycle path
EBB562	Desk-based assessment: Bedford Valley River Park
EBB677	Desk-based assessment: Riverside Meadows
EBB774	Desk-based assessment: Willington, Castle Mill Airfield
EBD301	Geophysical Survey: Bedford Bypass Survey II
EBD455	Geophysical Survey: Bedford Bypass Survey III
EBD136	Geophysical survey: Bedford, Meadow Lane
EBD298	Geophysical survey: Cardington
EBD137	Geophysical survey: Riverside Meadows
EBB778	Geophysical survey: Willington quarry, north
EBB669	Geophysical survey: Willington, Dog Farm
EBD299	Geophysical survey: Willington, Dog Farm
EBD135	Geophysical survey: Willington, Octagon Farm south
EBB650	Post-excavation assessment: Bedford southern bypass
EBD306	Quantification and assessment: Cardington, Mill Farm

Most of the investigations above identified archaeological remains, or confirmed the presence of known features. The inventory of sites below was also prepared, excluding standing buildings and Listed Buildings:

Period	HER ref.	Monument or find
Palaeolithic	572	Hand axes x2
Neolithic	299	Polished flint axe
Neolithic	585	Causewayed enclosure, cropmarks
Neolithic	1480	Cursus and enclosures, cropmark
Neolithic	1905	Henge, excavated
Neolithic/Bronze	DBD1311	Barrow, SAM
Neolithic/Bronze	DBD3713	Mortuary complex, SAM
Neolithic/Bronze	DBD4492	Barrow and mortuary enclosure, SAM
Neolithic/Bronze	DBD3712	Mortuary enclosure, SAM
Neolithic/Bronze	DBD3711	Mortuary enclosure, SAM
Neolithic/Bronze	DBD1310	Mortuary complex, SAM
Neolithic/Bronze	DBD2733	Causewayed enclosure and later settlement, SAM
Bronze Age	302	Mound, conjecture
Bronze Age	302	Ring ditch, cropmark, excavated
Bronze Age	586	Ring ditch, excavated
Bronze Age	586	Occupation evidence, excavated
Bronze Age	1480	Barrows and ring ditches, earthworks, cropmarks, excavated
Bronze Age	1905	Cremation, inhumation ring ditch, cropmarks, excavated
Bronze Age	8114	Pit, excavated
Iron Age	1480	Drove and field system, excavated
Iron Age	15009	Ditch, cropmark, excavated
Iron Age/Roman	18926	Settlement, cropmarks
Iron Age/Roman	302	Occupation evidence, excavated
Roman	302	Inhumation burial and coffin, excavated
Roman	302	Lime kiln, excavated
Roman	585	Enclosure, cropmarks
Roman	585	Hearth, 4th century, excavated
Roman	586	Occupation evidence, excavated
Roman	586	Enclosure, cropmark, excavated
Roman	717	Road, Viatores 223, conjecture, earthwork
Roman	738	Road, Viatores 224, conjecture, cropmark, surface deposit
Roman	1480	Pit, kiln and well, excavated
Roman	11949	Road, agger surface destroyed
Saxon	302	Inhumation, excavated
Saxon	586	Occupation evidence, excavated
Saxon	586	Well, excavated
Medieval	586	Occupation evidence, excavated
Medieval	1480	Ridge and furrow
Medieval	2623	Cardington watermill, demolished
Medieval	8114	Occupation evidence, excavated
Post-medieval	586	Occupation evidence, excavated
Post-medieval	2623	Engine house, demolished
Post-medieval	7200	Brick kiln, demolished
Post-medieval	11823	18th century summerhouse, demolished
Post-medieval	11824	18th century brick kiln, demolished
Post-medieval	11833	19th century railway line, demolished
Post-medieval	11943	18th century house and furnace, demolished

3 AIMS, OBJECTIVES AND METHODOLOGY

3.1 Aims and objectives

The principal aim of the archaeological evaluation was to identify the location, extent, nature, date and quality of archaeological deposits and features within the site, as part of the mitigation of the impact of the development upon the archaeological resource, in accordance with Policy HE12 of Planning Policy Guidance 5: Planning for the Historic Environment (PPG5, DCLG 2010), now superseded by the National Planning Policy Framework (NPPF, DCLG 2012).

The national framework for research is set out by English Heritage (EH 1991). The local and regional research frameworks are set out by Glazebrook (1997), Brown and Glazebrook (2000), Medlycott (2008, revised 2011) and Oake *et al* (2007). The more detailed aims of the investigation as laid out in the WSI were to:

- Identify, investigate and record all archaeological deposits, exposed during the trial trenching evaluation;
- Determine and record the date, extent, character, state of preservation and depth of burial of any archaeological deposits;
- To provide information as to the archaeological potential within the site, and to provide for further effective archaeological investigation either in advance of, or during early construction phases;
- Create a permanent archive and record of the archaeological information collected during the course of the fieldwork and analysis.

The specific objectives of the project were to:

- Assess the degree of disturbance caused by the use of the site as a compound during the construction of the Bedford southern bypass (A421);
- Establish the potential of the site for adding to knowledge of the hinterland of the Neolithic and Bronze mortuary complex at Cardington/Cople/Willington.

3.2 Methodology

Site procedures for the investigation and recording of potential archaeological deposits and features were defined in the Northamptonshire Archaeology WSI (NA 2012), and agreed with the Bedford Borough Council Historic Environment Planning Services Team Officer. The topsoil and subsoil were removed by a JCB-type CAT mechanical excavator equipped with a 1.80m wide toothless ditching bucket, although over the areas of hard standing it was often necessary to use a toothed bucket to remove the uppermost compacted tarmac and rubble makeup deposits, before switching to the toothless bucket. The trenches were assigned individual trench sheets and the depth and physical characteristics of the deposits were recorded following standard Northamptonshire Archaeology procedures (NA 2011). All deposits were given a separate context number.

The trenches containing archaeological remains were planned (scale 1:50) and section drawings were made at an appropriate scale (1:10 or 1:20). Levels related to Ordnance Datum were taken on the trenches at appropriate points and section datum, based on the GPS surveyed points. The fully machined trenches and

representative sections through the trench profiles had digital, colour slide and black and white print record photographs taken of them, and in addition scale section drawings were also made of representative trench sections. The work was carried out according to standards specified by the Institute for Archaeologists (2008), the principles of MAP2 and MoRPHE (English Heritage 1991, 2009), and the guidelines detailed in *Standards for Field Archaeology in the East of England* (Gurney 2003). All procedures complied with the Northamptonshire County Council Health and Safety provisions and Northamptonshire Archaeology Health and Safety at Work Guidelines. Arrangements were made with Bedford Museum for the deposition of the site archive and finds (Accession no. BEDFM: 2012.40).

4 THE EXCAVATED EVIDENCE

4.1 Introduction

No archaeological features or deposits were confirmed in the excavated evaluation trenches, and no artefacts were recovered. One possible ditch feature was identified in Trench 4, but the trench flooded before this feature could be investigated, although its location was planned (Fig 5). Only a few modern or early modern land drains were recorded elsewhere, and it seems probable that this feature too was a land drain.

Some revision to the proposed trench plan was necessitated by the extensive areas of flooding across the northern and north-eastern parts of the site, which in some places formed standing water at least c. 0.30m in depth (Fig 2, rear cover image). Trench 7 was only 30m in length, as the proposed northern 20m was under standing water. Trench 8 was moved 10m further to the west, but it was still only possible to machine 20m of its length due to the standing water to the east. In order to compensate for this reduced sampling, an extra 10m of trench was added to the northern end of Trench 4, as Trench 4a, but standing water again prevented any additional machining northwards of this. The lowest-lying sections of Trenches 2, 4, 5, 7 and 8 also began to take in water soon after machining, and in the case of Trenches 4 and 7 this ingress of water flooded them completely (front cover image).

It was clear from the outset that there had been significant ground disturbance on the site. The large bunds on the north-eastern and southern boundaries of the site were up to 5m high, and had been formed by scraping the topsoil and subsoil off the entire area. The underlying natural subsoil was often very clean and compact, indicating that some of it too had been removed. The complete lack of 19th and 20th-century ceramics from what had once been farmland also strongly indicated that the former topsoil had been completely removed.

Much of the central and southern part of the site had then been covered in a Terram-type membrane, along with layers of made ground up to 0.40m thick, formed from compacted concrete, stone, brick and tarmac fragments. A thin topsoil had begun to form over this due to the growth of scrub vegetation, but in places it was not possible to machine through this compacted made ground, and instead smaller 'test pits' or sondages had to be machined at intervals along the trench – this was the case in Trenches 2 and 5. In places there had also been considerable disturbance caused by large service trenches that had supplied water and electricity to the construction compound, and in Trenches 2 and 5 in particular there had also been some contamination of the natural subsoil by spilled diesel.

4.2 Trench 1

Trench 1 was 50m long and 1.80m wide, and orientated broadly north-east to south-west (Fig 2). The natural subsoil (102) was at a depth of 0.20-0.28m, and consisted of mottled reddish-brown and dark reddish-brown clayey sand with occasional rounded and subangular pebbles and gravel, and some manganese staining. The subsoil (101) was 0.14-0.20m thick, and formed from reddish-brown and light to mid-grey brown clayey sand with very occasional rounded pebbles. The topsoil (100) was dark greyish-brown sandy loam, between 0.06-0.14m thick.

The total depth of Trench 1 to the top of the undisturbed natural subsoil (102) varied between 0.20 to 0.28m. No archaeological features or deposits were identified, although a modern land drain cut with a ceramic pipe extended obliquely across the trench on a north-south alignment.

4.3 Trench 2

Trench 2 was 50m long and 1.80m wide, and orientated north to south (Fig 2). The natural subsoil (203) consisted of mottled orange-brown and dark orange-brown clayey sand with bands of flint and sandstone gravels. The subsoil (202) was mottled yellowish-brown clayey sand between 0.22-0.37m thick with occasional rounded pebbles, sometimes stained with diesel. Above this in all but the extreme south of Trench 2 was a layer of modern hard standing or made ground (201) consisting of compacted and crushed brick and reinforced concrete fragments up to 0.36m thick (Figs 3-4). This in turn lay beneath a thin layer of dark grey-brown silty loam topsoil (200) that was up to 0.07m thick where it had formed across the made ground, and up to 0.22m thick where (201) was not present (rear cover image).

The total depth of Trench 2 to the top of the undisturbed natural subsoil (203) varied between 0.40m to 0.74m. The extremely compact and tenacious nature of the made ground deposit (201) made machining very difficult, and it was not possible to strip all of it from the full length of the trench, even with a toothed bucket. In agreement with the Bedford Borough Council Historic Environment Planning Services Team Officer Mr Geoff Saunders, however, three smaller test pits 3-5m long were excavated through the made ground where it was possible to do so, revealing the full depth of the deposits. No archaeological features or deposits were identified at the base of the three deeper sections, which very quickly flooded with water.

4.4 Trench 3

Due to a mistake made during the initial machining, Trench 3 differed from its originally planned 50m length and east-west alignment, and instead was machined as two conjoined 25m lengths of trench, one orientated north-east to south-west, and the other north-west to south-east (Fig 2). It was still 1.80m wide.

The natural subsoil (303) consisted of mottled reddish-brown and orange-brown clayey sand and sandy gravel with occasional small pebbles and bands of gravel. The subsoil (302) was 0.14-0.19m thick, and formed from orange-brown clayey sand with occasional small pebbles and patches of gravel. Extending for approximately 11m from the south-western end of the trench was a layer of modern hard standing or made ground (301) consisting of compacted and crushed brick and concrete fragments up to 0.51m thick. This was slightly less compacted than in Trench 2, however, and so it was possible to remove this deposit in its entirety.

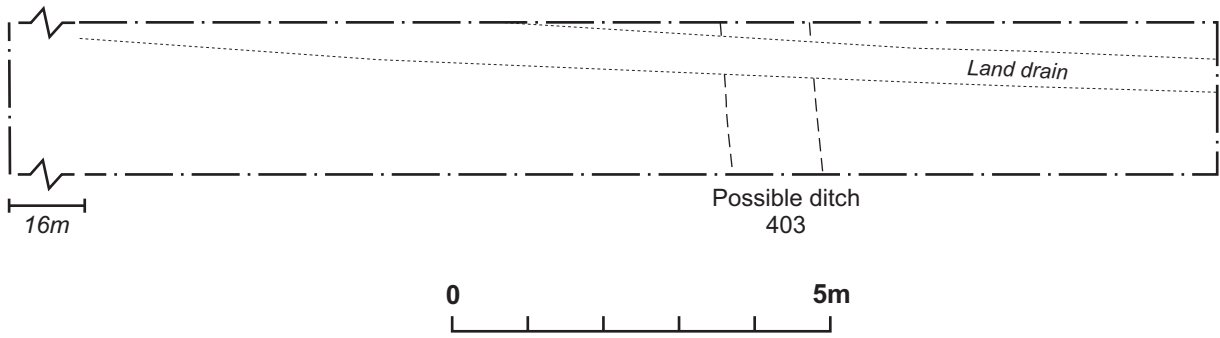


Machining Trench 2, showing part of the compact made ground deposit (201) Fig 3

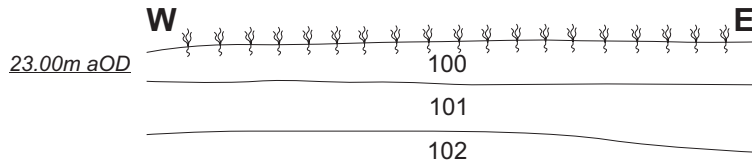


West facing section of Trench 2 in one of the deeper test pits, showing the depth of made ground (201) and also staining caused by diesel contamination Fig 4

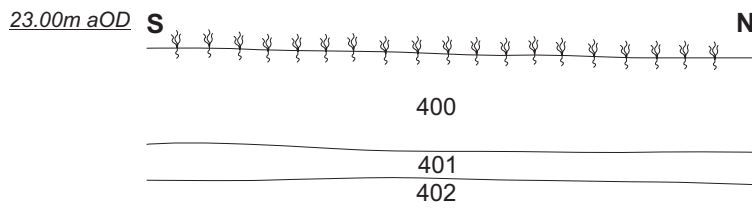
Trench 4 →



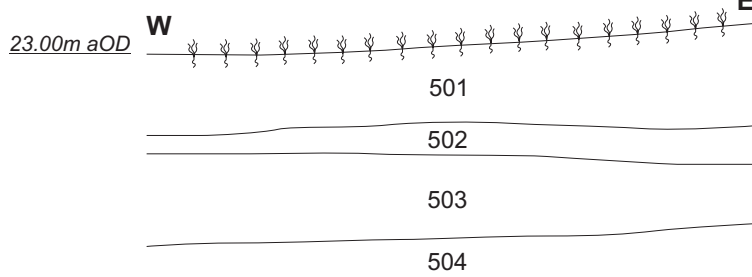
Section 1 - Trench 1



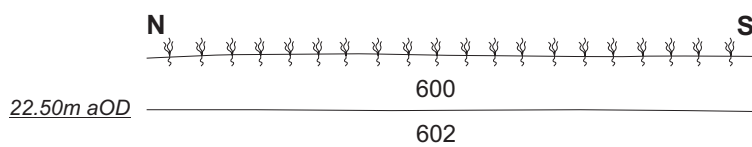
Section 2 - Trench 2



Section 3 - Trench 5



Section 4 - Trench 6



The topsoil (300) was dark greyish-brown clayey loam with moderate quantities of small rounded pebbles, between 0.03-0.21m thick.

The total depth of Trench 3 to the top of the undisturbed natural subsoil (303) varied between 0.30 to 0.70m, being deepest where the made ground layer had been deposited. No archaeological features or deposits were identified.

4.5 Trench 4

Trench 4 was 50m long and 1.80m wide, and orientated north to south (Figs 2, 6). Due to the flooding across the northern part of the site that limited sampling in that area, an extra 10m of trench labelled Trench 4a was machined from the original northern end point of Trench 4, on a north-west to south-east alignment. The natural subsoil (402) consisted of orange-brown clayey sand and sandy clay with occasional rounded pebbles. The subsoil (401) was orange-brown sandy clay between 0.15-0.29m thick with very occasional rounded pebbles, and the topsoil (400) was up to 0.22m thick and consisted of dark brown clayey sandy loam with moderate quantities of pebbles.



Trench 4 looking north, with the southernmost land drain cut just visible beyond the photographic scales, prior to it being investigated Fig 6

A modern land drain up to 0.30m wide was identified 4.5m from the southern end of Trench 4, on a near south-south orientation, and confirmed through a quick hand-dug spade slot. Extending obliquely along the trench for approximately 16m again on a near north-south alignment was another probable land drain cut up to 0.40m wide – although it was not excavated it was very straight edged and narrow and

filled with material almost identical to the surrounding natural subsoil, indicating that it had been backfilled soon after being dug. These characteristics make it unlikely to have been an 'open' archaeological feature such as a gully or ditch. This probable land drain cut across another earlier feature 5m from the northern end of Trench 4 with a mottled, slightly darker greyish-brown silty fill (403) on a broadly east to west alignment, and up to c 1m wide (Fig 5).

The soil in this eastern part of the site was heavily waterlogged, and so soon after machining water began to seep into Trench 4 and 4a. Unfortunately, the trench had flooded completely by the time it came to hand excavate sections through the near north-south orientated land drain and the possible underlying feature, and so no further investigation of these putative features was possible (see Discussion, section 5 below), although they were planned (Fig 6). The total depth of Trench 4 to the top of the undisturbed natural subsoil (102) varied between 0.25 to 0.37m.

4.6 Trench 5

Trench 5 was orientated east-west and also intended to be 50m long and 1.80m wide (Fig 2), but modern gravel-filled trenches cut across the proposed trench line. These were probably 'French drains', but rather than machine through them the trench was excavated as three discontinuous segments 20, 15 and 10m in length.

The natural undisturbed subsoil (504) consisted of mixed reddish-brown clayey sand and bands of flinty gravels. The subsoil (503) was orange-brown clayey sand between 0.10-0.16m thick with occasional small rounded pebbles. Above this and extending across the trench was a layer of disturbed or redeposited made ground (502) up to 0.13m thick consisting of sand, brick and tile fragments, stained in places with diesel contamination and beneath layer of Terram-type membrane, which was covered with further made ground (501) consisting of hard standing formed from crushed tarmac, brick and reinforced concrete up to 0.32m thick. This extended for c 15m across the eastern part of the trench. This in turn lay beneath a thin layer of dark brown clayey sandy loam topsoil (500) that was up to 0.02m thick.

The total depth of Trench 5 to the top of the undisturbed natural subsoil (504) varied between 0.25m to 0.58m. The extremely compact nature of the made ground (501) near the centre of the trench made machining difficult, and as with Trench 2 it was not possible to strip all of it from the trench. In agreement with Mr Geoff Saunders, however, the most tenacious 5m length of this made ground was left unexcavated, though elsewhere the full depth of the deposits was revealed. No archaeological features or deposits were identified at the base of the deeper eastern section of the trench, which soon flooded with water (Fig 7).

4.7 Trench 6

Trench 6 was orientated north-south and was 50m long and 1.80m wide (Fig 2). The natural subsoil (602) consisted of mixed dark brown and dark orange-brown silty gravels and compact dark brown and dark grey-brown sandy silt with moderate rounded pebbles. There were also many grey-blue mottles from manganese staining. There was no real subsoil present on this part of the site, but extending for c 25m from the southern end of the trench there was a layer of made ground (601) consisting of compact crushed brick, stone, concrete and redeposited tarmac fragments up to 0.25m, usually above a Terram-type membrane. The topsoil (600) was dark grey-brown sandy silty loam between 0.05-0.15m thick, and across the northern half of Trench 6 it was directly above the natural subsoil.



Trench 5 looking west, with the greatest disturbance and depth of made ground in the foreground, and unexcavated hard standing in the distance Fig 7

The total depth of Trench 6 to the top of the undisturbed natural subsoil (602) varied between 0.15m to 0.30m, being shallower to the north. The centre of the trench was disturbed by modern narrow membrane-lined trenches backfilled with brick rubble, gravel and clinker – these had presumably been for services for some of the larger portable cabins on the bypass construction compound. Approximately 15m from the northern end of Trench 6 a possible feature was identified that was filled with darker grey-brown silty material, but after investigation this proved to be simply a shallow and irregular natural depression in the underlying subsoil that was not an anthropogenic feature.

4.8 Trench 7

Trench 7 was orientated north-south and was 1.80m wide, but due to the presence of an extensive pool of standing water to the north, it could only be excavated for a length of 30m (Figs 2, 8). The natural subsoil (703) consisted of mixed and compact reddish-brown clayey sand with moderate quantities of mixed pebbles and patches of silty sand. The subsoil (702) was dark orange-brown clayey sand up to 0.14m thick with occasional small rounded pebbles. Extending northwards for approximately 9m from the southern end of Trench 6 was made ground deposit (701), consisting of compacted and crushed stone, brick, concrete and sand up to 0.24m thick lying on top of Terram-type membrane. The topsoil (700) consisted of dark greyish-brown sandy loam with moderate quantities of rounded pebbles, between 0.10-0.18m thick.

The southern end of the trench had also been subjected to a great deal of irregular modern disturbance, with narrow irregular, sinuous channels or 'gullies' dug into the natural subsoil (703) and filled with dark grey-brown topsoil, sand and gravel. These may have been animal burrows, or the result of disturbance associated with the construction compound.

The total depth of Trench 7 to the top of the undisturbed natural subsoil (703) varied between 0.30m to 0.44m, being shallower to the north and deepest where the made ground layer had been deposited. No archaeological features or deposits were identified. The trench began to flood soon after it was machined, and eventually completely filled with water.



Trench 7 looking north, with disturbance in the foreground Fig 8

4.9 Trench 8

Trench 8 was orientated east-west and was 1.80m wide, but due to the presence of the extensive pool of standing water to the east, it could only be excavated for a length of 20m (Fig 2), despite its western end being moved 10m west of its original proposed location. The natural subsoil (802) consisted of a mixture of compact orange-brown sandy silt and clayey sand, and bands of silty, flinty gravels. The subsoil (801) was reddish-brown clayey sand with very occasional mixed rounded pebbles, between 0.07-0.10m thick. The topsoil (800) consisted of dark grey-brown sandy loam, with a depth of 0.10-0.18m.

Near the western end of the trench there were two small irregular features filled with dark grey-brown topsoil and the result either of animal burrowing or disturbance associated with the construction compound.

The total depth of Trench 8 to the top of the undisturbed natural subsoil (802) varied between 0.22m to 0.27m, being deeper to the west. No archaeological features or deposits were identified. The eastern part of the trench began to flood soon after it was machined (rear cover, top left).

4.10 Reliability of techniques and results

The reliability of the results is considered to be generally good. The archaeological evaluation took place in damp but relatively clear conditions, and the light and visibility were generally good. Although some trenches had to be repositioned or were slightly shortened, this did not adversely affect the overall sampling of the area of the site, apart from the north-eastern area where work proved impossible due to the presence of standing water.

5 DISCUSSION

No archaeological features or deposits were confirmed in any of the evaluation trenches.

In Trench 4, one possible ditch feature was identified, although the trench flooded before it could be investigated. It was probably cut by a later land drain, but it is likely that it either represented an earlier land drain, similar to the example at the southern end of the trench, or was just slightly more silty material that had accumulated in a depression in the underlying natural subsoil, as in Trench 6.

There had clearly been considerable disturbance across the site. The large bunds of stockpiled material to the north-east and south indicated that the topsoil and probably some of the natural subsoil had been scraped off the site, and this may have resulted in extensive truncation. The compact nature of the natural subsoil immediately underneath the Terram membrane and made ground layers also suggested this truncation, and that this had been followed by rolling and compaction. The site had been farmland until a few decades ago, and one would have expected some 19th and 20th-century pottery to have been introduced into the soil through practices such as manuring. The complete absence of any ceramics altogether, however, was also a marked indicator of how much material had been removed off site. If any archaeological features had once been present on the site, it is likely that only the largest and deepest would have survived. In addition, there were also some intrusive modern service trenches, possible animal burrowing, and diesel contamination.

In other archaeological investigations in the general area of the floodplain of the Great Ouse deposits of alluvium have been identified, as at Riverside Meadows, Mill Farm 2.5-3km east of the site where up to 1.5m of such deposits were recorded, indicating extensive past overbank flooding, and also waterlogged prehistoric soils underneath the alluvium (HER EBD138; Shepherd 1995). On the site off Meadow Lane, the extensive areas of standing water caused by the wet weather and the fact that many trenches flooded soon after having been machined all indicated that the water table was relatively high in this low-lying area. The modern and early modern land drains also suggest problems with drainage in the past. Given this and the entirely negative results, it is possible that the site is situated in a genuinely archaeologically blank area, and also had soils that were largely waterlogged in the past. This part of the floodplain of the River Great Ouse might thus have only been used for the seasonal grazing of livestock or similar low-intensity practices.

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APPENDIX: ARCHAEOLOGICAL CONTEXT INVENTORY

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
1	50m x 1.8m, NE-SW		22.92-23.35m OD	0.20-0.28m, 22.64-23.05m OD
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
100	Topsoil	Dark greyish-brown sandy loam	Across trench, 0.06-0.14m thick	-
101	Subsoil	Reddish-brown & light to mid-grey brown clayey sand with very occ. rounded pebbles	Across trench, 0.14-0.20m thick	-
102	Natural subsoil	Mottled reddish-brown & dark reddish-brown clayey sand with occ. rounded & subangular pebbles & gravel, some manganese staining	Across trench	-

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
2	50m x 1.8m, N-S		22.92-22.98m OD	0.40-0.74m, 22.24-22.52m OD
<i>Context</i>	<i>Context type</i>	<i>Description</i>	<i>Dimensions</i>	<i>Artefacts/Samples</i>
200	Topsoil	Dark grey-brown silty loam	Across trench, 0.07-0.22m thick	-
201	Made ground	Compacted, crushed brick and reinforced concrete frags	Across trench, 0.23-0.36m thick	
201	Subsoil	Mottled yellowish-brown clayey sand with occ. rounded pebbles, some diesel staining	Across trench, 0.22-0.37m thick	-
202	Natural subsoil	Mottled orange-brown & dark orange-brown clayey sand with flint & gravel	Across trench	-

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
3	50m x 1.8m, NE-SW & NW-SE		22.48-23.11m OD	0.30-0.70m, 22.06-22.41m OD
Context	Context type	Description	Dimensions	Artefacts/Samples
300	Topsoil	Dark greyish-brown clayey loam with small pebbles	Across trench, 0.03-0.21m thick	-
301	Made ground	Compact, crushed brick & concrete frags	11m long, 1.8m wide, 0.51m thick	
302	Subsoil	Orange-brown clayey sand with occ. small pebbles & patches of gravel.	Across trench, 0.14-0.19m thick	-
303	Natural subsoil	Mottled reddish-brown & orange-brown clayey sand & sandy gravel, occ. small pebbles & gravel	Across trench	-

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
4	60m x 1.8m, NS & NW-SE		22.48-22.73m OD	0.25-0.37m, 22.23-22.36m OD
Context	Context type	Description	Dimensions	Artefacts/Samples
400	Topsoil	Dark brown clayey sandy loam with moderate pebbles	Across trench, 0.16-0.22m thick	-
401	Subsoil	Orange-brown sandy clay with very occ. pebbles	Across trench, 0.15-0.29m thick	-
402	Natural subsoil	Orange-brown clayey sand & sandy clay with occ. rounded pebbles	Across trench	-
403	Deposit/fill	Mottled, dark greyish-brown silt	1.8m long, c. 1m wide	-

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
5	20, 15 & 10m x 1.8m, E-W		23.10-23.12m OD	0.25-0.58m, 22.54-22.82m OD
Context	Context type	Description	Dimensions	Artefacts/Samples
500	Topsoil	Dark brown clayey sandy loam	Across trench, up to 0.02m thick	-
501	Made ground	Crushed tarmac, brick & reinforced concrete up to 0.32m thick	15m long, up to 0.32m thick	-
502	Made/redeposited ground	Sand, brick & tile fragments, stained with diesel	Across trench, up to 0.13m thick	-
503	Subsoil	Orange-brown clayey sand with occ. pebbles	Across trench, 0.10-0.16m thick	-
504	Natural subsoil	Mixed reddish-brown clayey sand & flinty gravels	Across trench	-

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
6	50m x 1.8m, N-S		22.75-23.06m OD	0.05-0.15m, 22.60-22.76mOD
Context	Context type	Description	Dimensions	Artefacts/Samples
600	Topsoil	Dark grey brown sandy silty loam	Across trench, 0.05-0.15m thick	-
601	Made ground	Compact crushed brick, stone, concrete & redeposited tarmac frags	25m long, up to 0.25m thick	-
602	Natural subsoil	Mixed dark brown & dark orange-brown silty gravels & compact dark brown & dark grey-brown sandy silt with pebbles, manganese staining	Across trench	-

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
7	30m x 1.8m, N-S		22.66-22.96m OD	0.10-0.18m, 22.45-22.52m OD
Context	Context type	Description	Dimensions	Artefacts/Samples
700	Topsoil	Dark greyish-brown sandy loam with pebbles	Across trench, 0.10-0.18m thick	-
701	Subsoil	Dark orange-brown clayey sand up to 0.14m thick with occasional small rounded pebbles	Across trench, up to 0.14m thick	-
702	Natural subsoil	Compact reddish-brown clayey sand with moderate quantities of mixed pebbles & silty sand	Across trench	-

Trench No	Length, width & alignment	NGR	Surface height	Depth & height of natural
8	20m x 1.8m, E-W		22.72-22.73m OD	0.10-0.12m, 22.45-22.51m OD
Context	Context type	Description	Dimensions	Artefacts/Samples
800	Topsoil	Dark grey-brown sandy loam	Across trench, 0.10-0.18m thick	-
801	Subsoil	Reddish-brown clayey sand with very occ. pebbles	Across trench, 0.07-0.10m thick	-
802	Natural subsoil	Compact orange-brown sandy silt & clayey sand, bands of silty, flinty gravels	Across trench	-



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