



North Fringe to Hengrove Package (NFHP) Metrobus – Zone 4 M32 Bus-only junction, Bristol

Archaeological Watching Brief Report



Bristol City Council Planning Application Ref: PT14/1004/F
Bristol City Museum Accession Code: BRSMG 2015/95
Ref: 110831.01
October 2016



**North Fringe to Hengrove Package (NFHP)
Metrobus – Zone 4
M32 Bus-only junction, Bristol**

**Report for
Archaeological Watching Brief**

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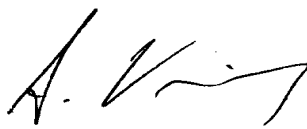
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Summary

Wessex Archaeology was commissioned by Atkins to undertake archaeological monitoring and recording during groundworks associated with Zone 4 of the North Fringe to Hengrove Package (NFHP) Metrobus scheme (Centred on National Grid Reference 362740, 177175, Planning Application ref. PT14/1004/F).

Monitoring of ground reduction associated with road widening and the excavation of service trenches took place in locations to the north and south of the M32, between 30th of November 2015 and 3rd October 2016. Geophysical anomalies identified in a previous survey proved to be natural features. The only features of note were a shallow east-west aligned drainage ditch that contained a few sherds of modern ceramics and a stone drain of probable late 18th or early 19th-century date associated with Stoke Park house.



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Acknowledgements

Wessex Archaeology would like to thank Atkins for commissioning and funding the project. We would also like to thank Bob Jones (Senior Archaeological Officer for Bristol City Council), for his assistance throughout the project.

The fieldwork was carried out by Sam Fairhead, Simon Flaherty, Michael Fleming, James Hicks and Stewart Wareing. The report was compiled by Michael Fleming, with illustrations by Nancy Dixon. The project was managed for Wessex Archaeology by Andy King.



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Report for Archaeological Watching Brief

1 INTRODUCTION

1.1 Project Background

1.1.1 This document has been prepared by Wessex Archaeology (WA) for Atkins for submission to Bristol City Council (the Client). It contains the results of archaeological monitoring and recording during groundworks associated with Zone 4 of the North Fringe to Hengrove Package (NFHP) Metrobus scheme (Planning Application ref. PT14/1004/F), hereafter referred to as 'the Site'.

1.1.2 This section of the NFHP scheme involves the construction of a new bus-only junction with an associated park and ride car-park, which will have access to the M32 and the existing Stoke Lane. The Zone 4 area extends across land to the north and south of the M32. The groundworks were undertaken by separate contractors and comprised:

- *Ground reduction associated with road construction*
- *Excavation of service trenches*

1.1.3 The former Senior Archaeological Officer (SAO) advising Bristol City Council, Bob Jones, applied a planning condition (Planning Application ref. PT14/1004/F, Condition 18) which stated that groundworks in these locations should be monitored by means of an archaeological watching brief.

1.2 Site Location, Topography and Geology

1.2.1 The areas covered by the watching brief included a length of utility trenching and a material-storage compound within the grounds of Stoke House to the north of the M32 (centred on NGR 362705 177204) described here in detail as Area A and the former Stapleton allotments and smallholdings between the M32 and the B4058 (Frenchay Park Road) immediately north-east of Stoke Lane, (centred on NGR 362097). Surveyed features in this location are described in detail as Area B (**Figure 1**).

1.2.2 In Stoke Park, north of the M32 ground level sloped gradually downwards from north-east to south-west at an average height of c. 50m above Ordnance Datum (aOD). Ground level within the former allotment area was fairly flat at an approximate height of c. 44m aOD.

1.2.3 The underlying geology of the Site is recorded as Mercia Mudstone dating to the Triassic Period. There are no superficial deposits recorded (British Geological Survey (BGS) 2015).



2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological background to the Site is drawn from Appendix A of the scheme's Environmental Statement (Atkins 2012) and other primary and secondary sources, including the Bristol Historic Environment Record (BHER) and the online Heritage Gateway.

2.2 Summary

2.2.1 The village of Frenchay, c. 1 km north-east of the Site, has 13th-century origins. The place name may indicate that the area was initially wooded.

2.2.2 The Grade II Registered Stoke Park (List Entry 1000129) extends up to the south-western side of Stoke Lane. It is probable that the Site was agricultural land from the medieval period onwards, either as part of the Stoke Park holdings or later as part of the network of farms and smallholdings depicted on post-medieval mapping. The grounds of the Grade II* Listed Stoke House were landscaped in the later 18th century, when the earlier Tudor mansion was rebuilt. Part of the landscaping included construction of an ornamental lake, traditionally known as the Duchess Pond.

2.2.3 The 1882 published edition Ordnance Survey (OS) plan, depicts the Stoke House grounds as undeveloped pasture. Frenchay Park Road and Stoke Lane were already in existence at that date. By 1916 the southern area of the present watching brief Site had been developed as allotments. The M32 motorway was constructed during the second half of the 20th century, appearing on OS mapping by the early 1970s. Construction of the motorway bisected the grounds of Stoke House and the ornamental lake was partly filled in.

2.2.4 There are no recorded findspots within the boundaries of the Site. The majority of the recorded HER entries in the immediate vicinity relate to post-medieval parks and Listed Buildings.

2.3 Previous Survey

2.3.1 Between March and September 2015 the former allotments were subject to a programme of geophysical survey (WA 2015). Despite extensive large-scale ferrous responses some anomalies were located which were interpreted as possible archaeology, along with trends that had an agricultural or horticultural origin. OS mapping dating from 1916 shows rectilinear allotment boundaries and/ or drainage features which mirrored the anomaly alignments.

3 AIMS AND OBJECTIVES

3.1.1 With due regard to the Chartered Institute for Archaeologists' (CIfA) *Standard and guidance for archaeological excavation and watching briefs* (CIfA 2014a/b), the principle aim of the fieldwork was to record any archaeological remains exposed, using appropriate methods and practices, and in compliance with the *Code of Conduct* and other relevant by-laws of CIfA.

3.1.2 In furtherance of the project aim, the following objectives were defined:

- *to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works; including*

- *To ensure their preservation by record to the highest possible standard;*
- *To confirm the approximate date or date range of the remains, by means of artefactual or other evidence;*
- *To determine or confirm the approximate extent of any remains;*
- *To determine the condition, state of preservation and significance of the remains and to place them within their historical context; and*
- *To determine the degree of complexity of the horizontal and/or vertical stratigraphy present.*
- *To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard; and*
- *To prepare a report on the results of the watching brief.*

4 METHODOLOGY

- 4.1.1 All works were carried out in accordance with the methodology outlined in the *Written Scheme of Investigation* (WA 2015) in order to meet the aims and objectives of the watching brief. The fieldwork comprised the monitoring of the utility trenching and materials compound within Stoke Park (Area A) and intrusive groundworks within the former allotments (Area B) to characterise identified geophysical anomalies (see **Figure 1**).
- 4.1.2 Groundworks in both areas took place over a period of several months as construction of the bus-only junction progressed. The southern area was stripped of topsoil and modern overburden, using a mechanical excavator, fitted with a toothless grading bucket where possible, under constant supervision by an experienced WA archaeologist. Machine excavation proceeded to formation level or the top of archaeological levels, whichever was encountered first. Exposed anomalies and features were investigated by hand-excavation.
- 4.1.3 Recording of exposed deposits and features was undertaken using WA's *pro forma* recording sheets, with all features and deposits being assigned a unique context number. A complete drawn record of excavated archaeological features and deposits was compiled. This included both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections), and with reference to a Site grid tied to the Ordnance Survey National Grid. The Ordnance Datum (OD) height of all principal features and levels were calculated and plans/sections annotated with OD heights.
- 4.1.4 A full photographic record of the fieldwork was made using a Pentax K50 digital camera with a 16 megapixel image sensor. The photographic record illustrates the general context of construction works, exposed features and deposits and general views of the Site as a whole. The digital images will be subject to managed quality control and curation processes which will embed appropriate metadata within the image and ensure long term accessibility of the image set.
- 4.1.5 Site survey was carried out using a Leica Viva series GNSS unit using the OS National GPS Network through an RTK network with a 3D accuracy of 30 mm or below. All survey data was recorded using the OSGB36 British National Grid co-ordinate system.

5 ARCHAEOLOGICAL RESULTS

- 5.1.1 Detailed descriptions of all exposed deposits are presented in **Appendix 1**, with a summary of the results provided below.
- 5.1.2 A slight variation in geological deposits was revealed across the Site between the areas north and south of the M32 as Mercia mudstone becomes more prevalent to the north-west. This is shown in the topsoil and natural descriptions for both areas. The southern area contained a mid grey-brown clay-silt topsoil overlying a mid red-brown clay with occasional red-purple mudstone outcrops (**101, 102, 203; Plate 1**). The northern area contained a mid grey-purple silt-clay topsoil overlying mid red-purple, natural clay with more common mudstone outcrops (**301, 304, 305, 307**).
- 5.1.3 A series of recent made-ground deposits were uncovered along the monitored trench route in Area A (**Figure 1**) beginning close to the former original location of the Duchess Pond. Initially these deposits extended to a depth of up to 4m below present ground level (**302, 303; Plate 2**) and although decreasing in depth towards the east, the made-ground continued along the remainder of the trench route. The deposits have been interpreted as being associated with the partial backfilling of the pond for construction of the M32
- 5.1.4 The trenching also revealed part of a stone-built drainage culvert on a north-east to south-west alignment (**308, 309, 310; Plate 3**). The drain would have been associated with Stoke Park House and from its construction method and materials, probably dated from the late 18th or early 19th century.
- 5.1.5 The geophysical anomalies previously identified in the former allotments were revealed in advance of road-construction, all of which turned out to be natural features. In addition in Area B, a series of land drains and a south-east to north-west aligned drainage ditch (**103; Plate 4**) were also exposed.

6 CONCLUSION

- 6.1.1 With the exception of a single north-east to south-west aligned stone-built culvert, associated with the former Stoke Park House, to the north of the M32, and a 20th-century south-east to north-west aligned, linear feature associated with the allotment area to the south, no features or artefacts of archaeological importance were discovered. Extensive made-ground deposits north of the M32 are associated with backfilling of the Duchess pond at the time of the motorway's construction.

7 STORAGE AND CURATION

7.1 Museum

- 7.1.1 The Site archive will be deposited with the Bristol Museum and Art Gallery under accession number **BRSMG 2015/95** and the unique Wessex Archaeology site code **110831** where it can be freely copied without reference to Wessex Archaeology, for the purposes of archaeological research or Development Control within the planning process.

7.2 Archive

- 7.2.1 The complete project archive which includes paper records, photographic records, graphics, and digital data, will be prepared in accordance with Bristol Museum Service conditions of acceptance and in general follow nationally recommended guidelines (SMA 1995; ClfA 2014b; Brown 2011; ADS 2013). Until accepted, the archive will be temporarily retained at the premises of Wessex Archaeology West, Bristol.



7.3 OASIS

- 7.3.1 An OASIS online record form will be completed for the watching brief under reference **wessexar1-232070**, including an uploaded .pdf version of the entire report (two hard copies will also be included with the archive deposition).

7.4 Copyright

- 7.4.1 The full copyright of the written/illustrative archive relating to the Site will be retained by Wessex Archaeology Ltd under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The Museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use shall be non-profit making, and conforms to the *Copyright and Related Rights regulations 2003*.

7.5 Security Copy

- 7.5.1 In line with current best practice (Brown 2011), on completion of the project a security copy of the written records will be prepared, in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

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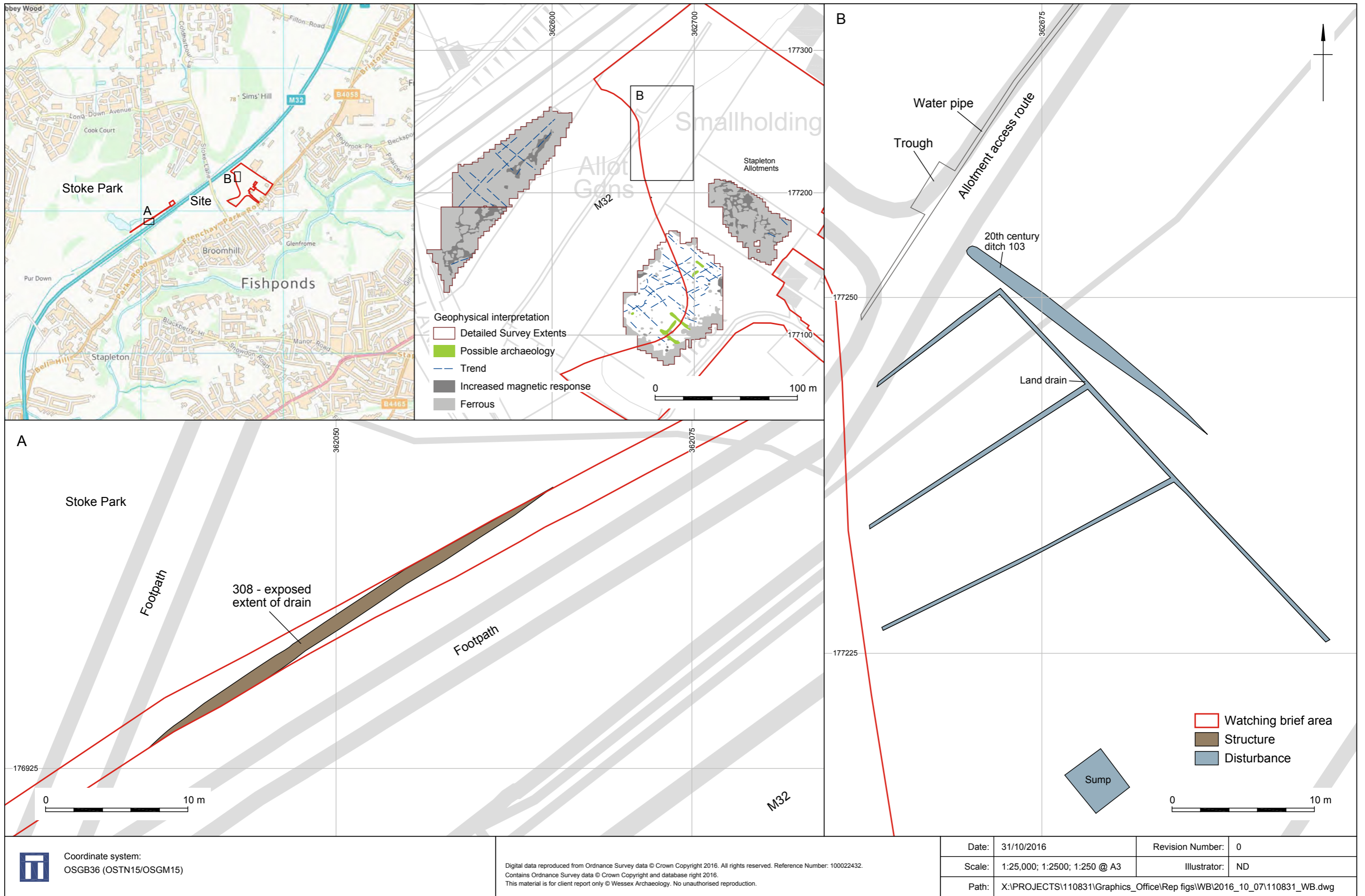
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9 APPENDICES

9.1 Appendix 1: Context Summary Table

Context	Description		Dimensions (m)	Depth below surface (m)
101	Topsoil	Mid. grey-brown clay-silt	Area S. of M32	0 - 0.36
102	Natural	Mid. red-brown clay	Area S. of M32	0.36 - 1.80
103	Cut of Linear	Cut of modern E-W ditch	20m + Length 1m Width 0.34m depth	0.25 – 0.36
104	Secondary Fill of Linear	Mid. grey-brown clay-silt fill of linear [103]	20m + Length 1m Width 0.34m depth	0.25 – 0.36
105	Bedrock	Mid. red-brown Mudstone	Area S. of M32 (Bank)	1.80+
201	Made Ground	Light grey stone overburden	Access Road S. of M32	0 – 0.43
202	Made Ground	Dark grey clay	Access Road S. of M32	0.43 – 0.49
203	Natural	Mid. red-brown sand-silt-clay	Access Road S. of M32	0.49+
301	Topsoil	Mid. grey-purple silt-clay	Area N. of M32	0 – 0.12
302	Made Ground	Mid. yellow-grey clay	Area N. of M32	0.12 -0.53
303	Made Ground	Mid. red-purple clay	Area N. of M32	0.53 – 3.60
304	Natural	Mid. red-purple clay with possible mudstone inclusions	Area W. of M32	3.60 – 4.00
305	Topsoil	Dark grey-brown sand-silt	Area N. of M32	0 – 0.12
306	Subsoil	Dark brown sand-silt	Area N. of M32	0.12 – 0.50
307	Natural	Mid. orange-brown silt-sand	Area N. of M32	0.50 – 2.12
308	Culvert	NE – SW aligned Sandstone drainage culvert bonded by mortar	2.14m Length 1.14m Width 0.90m Depth	0.90
309	Cut of Culvert	Cut of [308]	2.14m Length 1.14m Width 0.90m Depth	0.90
310	Secondary Fill of Culvert	Mid. brown silt-clay	2.14m Length 1.14m Width 0.90m Depth	0.90



Site location and plan of surveyed features

Figure 1



Plate 1: North-east facing representative section of deposits south of M32



Plate 2: North-west facing representative section of made-ground deposits within Stoke Park



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Plate 3: Oblique view of drain 308. View from the west



Plate 4: Pre-excavation view along route of 20th-century ditch 103, from the west

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