



Castle Mill Sluice Decommissioning Bedford, Bedfordshire

Archaeological Watching Brief



Accession Number: BEDFM 2021.109
Ref: 260340.03
September 2022



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Document Information

Document title Castle Mill Sluice Decommissioning, Bedford, Bedfordshire
Document subtitle Archaeological Watching Brief
Document reference 260340.03

Client name BAM Nuttall Ltd
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Site location St Neots Road, Bedford
County Bedfordshire
National grid reference (NGR) 509249 250841 (TL 09249 50841)
Planning authority Bedford Borough Council
Museum name The Higgins Art Gallery And Museum Bedford
Museum accession code BEDFM 2021.109
OASIS Id wessexar1-509417

WA project code 260340
Dates of fieldwork 6/6/2022 to 26/07/2022
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Quality Assurance

Issue	Date		Author	Approved by
1	15/09/2022	Internal	JK	NO
2	26/09/2022	External	JK	NO



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Summary

Wessex Archaeology was commissioned by Wessex Archaeology was commissioned by BAM Nuttall Ltd, to undertake an archaeological watching brief during works at the Castle Mill Sluice

No archaeological features or deposits were encountered during the course of the archaeological watching brief and no artefacts were collected.

Due to the shallow nature of the works the natural geology was not encountered. In most cases, the presence of a subsoil suggests that the natural was intact and archaeological resources were preserved *in situ*.

Acknowledgements

Wessex Archaeology would like to thank BAM Nuttall Ltd, for commissioning the archaeological watching brief. Wessex Archaeology is also grateful for the advice of The Archaeological Officer for Bedford Borough Council, who monitored the project for the LPA, and to the BAM Nuttall staff for their cooperation and help on site.



Castle Mill Sluice Decommissioning Bedford, Bedfordshire

Archaeological Watching Brief

1 INTRODUCTION

1.1 Project background

- 1.1.1 Wessex Archaeology was commissioned by BAM Nuttall Ltd, to undertake an archaeological watching brief during works at the Castle Mill Sluice. The monitored works were at St Neots Road, Bedford, centred on NGR 509249 250841, (Figure 1).
- 1.1.2 The works consisted of the decommissioning of the Castle Mill Sluices and to modifying the existing infrastructure to incorporate a new weir structure under the footprint of the existing facilities, alongside a mechanism to improve fish passage.
- 1.1.3 The Archaeological Officer for Bedford Borough Council had advised that the intrusive elements of the scheme could have an impact on the archaeology in the area and had recommended an archaeological watching brief to monitor these intrusive activities.
- 1.1.4 The watching brief was undertaken in accordance with a written scheme of investigation (WSI) which detailed the aims, methodologies and standards to be employed (Wessex Archaeology 2022). The Archaeological Officer for Bedford Borough Council approved the WSI, on behalf of the Local Planning Authority (LPA), prior to fieldwork commencing. The watching brief was undertaken between 16/6/2022 and 26/07/2022.

1.2 Scope of the report

- 1.2.1 The purpose of this report is to provide the results of the watching brief, to interpret the results within their local or regional context (or otherwise), and to assess their potential to address the aims outlined in the WSI, thereby making available information about the archaeological resource (a preservation by record).

1.3 Location, topography and geology

- 1.3.1 The proposed watching brief is located on the River Great Ouse and its surrounding areas. The site is located to the southeast of Castle Mill Farm and roughly 4km to the east of the town of Bedford. It is also located between the two major routes of the A280 to the North and the A421 to the south.
- 1.3.2 Existing ground levels were between 22 m and 23 m above ordnance datum (AOD).
- 1.3.3 The underlying geology is mapped as the Peterborough Member Mudstone with superficial alluvial deposits of clay and silt. (British Geological Survey 2022).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

- 2.1.1 The archaeological and historical background was assessed in a prior heritage assessment (Jacobs 2021), which considered the recorded historic environment resource within a 500 m study area of the development. A summary of the results is presented below, with relevant



entry numbers from the Bedfordshire Historic Environment Record (BHER) and the National Heritage List for England (NHLE) included. Additional sources of information are referenced, as appropriate.

2.2 Archaeological and historical context

Prehistoric (pre-AD43) to Romano-British (43-410)

- 2.2.1 A scheduled monument is located approximately 340 m to the south-west of the site and consists of three barrows and a rectilinear enclosure, the buried remains of prehistoric mortuary activities (NHLE 1007322)..
- 2.2.2 The list entry records the remains of three barrows and a rectilinear enclosure initially recorded from aerial photographs and whilst no longer visible from ground level the scheduling includes three ring ditches which can clearly be seen from aerial photographs. Each of these ring ditches surrounds the area of a levelled burial mound.
- 2.2.3 The southern-most bowl barrow measures 30m in diameter and has a single ditch, the western-most barrow measures 25m in diameter and has a single ditch, whilst the eastern-most barrow is double ditched with its outer ring measuring 20m and its inner ring measuring 13m in diameter. A rectilinear enclosure overlies the western ring ditch which measures 70m NE-SW by 30m NW-SE and has a causeway 6m wide in its western end.
- 2.2.4 A trial trench dug in 1990 at the northern end of the monument confirmed its location and that it has been cut away by a modern drainage channel. The southern upcast has been sealed to preserve the archaeological level which include evidence of pits and post holes within the rectilinear enclosure.
- 2.2.5 The rectilinear enclosure is dated to the Late Iron Age by pottery found during the trial excavation and the ring ditches are of Bronze Age date.
- 2.2.6 Further assets recorded within the 500m study area relate to prehistoric and Romano-British settlement and occupation along the Great River Ouse previously identified from aerial survey and in advance of gravel extraction and residential developments.

Medieval (410-1540)

- 2.2.7 The southern part of the proposed access route is noted to lie within a broad area identified to form part of the former site of Castle Mill (HER MBD336). The mill is recorded to have been mentioned in the Domesday survey of 1086 and was described in the 16th century as three watermills under one roof. The site of the mill was destroyed in a fire in 1935.
- 2.2.8 The site of the mill also has communal value with nearby Risinghoe Castle (HER MBD335) which comprises of the remains of a medieval motte approximately 6m in height and 30m in diameter. It is thought that the castle was built by King Stephen in 1138 during the siege of Bedford and therefore would have been intended to be a short lived timber structure.

Post-medieval (1540-present)

- 2.2.9 Evidence for post-medieval activity within the study area includes a post-medieval boat house (HER MBD18316), a post-medieval lock (HER MBD18317) identified from historic mapping, the site of former brick kilns (HER MBD14498) identified from historic mapping, the site of a public house (HER MBD14499) identified from historic mapping, and the remains of a former 19th century brickworks (HER MBD1328) located to the east of the proposed access route.



- 2.2.10 One non-designated historic building is recorded within the study area. Castle Mill Staunch (HER MBD8016), a 19th century fixed weir of local value is located approximately 200m to the east of the Scheme.

3 AIMS AND OBJECTIVES

3.1 Aims

- 3.1.1 The aims of the watching brief, as stated in the WSI (Wessex Archaeology 2022) and as defined in the ClfA *Standard and guidance for an archaeological watching brief* (ClfA 2014a), were 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 the development or other works;
- 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
- guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

3.2 Objectives

- 3.2.1 In order to achieve the above aims, the objectives of the watching brief, also defined in the WSI (Wessex Archaeology 2022), were to:

- determine the presence or absence of archaeological features, deposits, structures, artefacts or ecofacts within the specified works area;
- record and establish, within the constraints of the works, the extent, character, date, condition and quality of any surviving archaeological remains (a preservation by record);
- place any identified archaeological remains within a wider historical and archaeological context in order to assess their significance; and
- make available information about the archaeological resource on the site by preparing a report on the results of the watching brief.

4 METHODS

4.1 Introduction

- 4.1.1 All works were undertaken in accordance with the detailed methodology set out within the WSI (Wessex Archaeology 2022) and in general compliance with the standards outlined in ClfA guidance (ClfA 2014a). The methods employed are summarised below.

4.2 Fieldwork methods

General

- 4.2.1 The works consisted of the decommissioning of the Castle Mill Sluices and to modifying the existing infrastructure to incorporate a new weir structure under the footprint of the existing



facilities, alongside a mechanism to improve fish passage. The watching brief monitored all below ground works as shown in **Figure 2**.

- 4.2.2 Where necessary, the surfaces of uncovered deposits were cleaned by hand to aid visual definition. Spoil from machine stripping and hand-excavated deposits was visually scanned for the purposes of finds retrieval.

Recording

- 4.2.3 All exposed deposits and features were recorded using Wessex Archaeology's pro forma recording system. A complete record of excavated features and deposits was made, including plans and sections drawn to appropriate scales (generally 1:20 or 1:50 for plans and 1:10 for sections) and tied to the Ordnance Survey (OS) National Grid.
- 4.2.4 A Leica GNSS connected to Leica's SmartNet service surveyed the location of archaeological features. All survey data is recorded in OS National Grid coordinates and heights above OD (Newlyn), as defined by OSTN15 and OSGM15, with a three-dimensional accuracy of at least 50 mm.
- 4.2.5 A full photographic record was made using digital cameras equipped with an image sensor of not less than 10 megapixels. Digital images have been subject to managed quality control and curation processes, which has embedded appropriate metadata within the image and will ensure long term accessibility of the image set.

4.3 Finds and environmental strategies

- 4.3.1 Strategies for the recovery, processing and assessment of finds and environmental samples were in line with those detailed in the WSI (Wessex Archaeology 2022). The treatment of artefacts and environmental remains was in general accordance with: *Standard and guidance for the collection, documentation, conservation and research of archaeological materials* (ClfA 2014b), *Environmental Archaeology. A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation* (English Heritage 2011) and ClfA's *Toolkit for Specialist Reporting* (Type 1: Description).

4.4 Monitoring

- 4.4.1 The Archaeological Officer for Bedford Borough Council monitored the watching brief on behalf of the LPA. Any variations to the WSI, if required to better address the project aims, were agreed in advance with the client and the Archaeological Officer for Bedford Borough Council.

5 STRATIGRAPHIC EVIDENCE

5.1 Introduction

- 5.1.1 No archaeological features or deposits were encountered during the course of the archaeological evaluation and no artefacts were collected.
- 5.1.2 The work was monitored intermittently and has been recorded as trenches to better describe what was monitored. **Figure 2** shows the locations of the trenches. Detailed descriptions of individual contexts are provided in the trench summary tables (**Appendix 1**).



5.2 Soil sequence and natural deposits

- 5.2.1 The soil sequence proved to be fairly uniform across the excavated area. The topsoil was a firm dark greyish brown clayey, slightly sandy silt with rare gravel components. On occasions it was also described as a silty clay and a silty sand. It was between 0.18 m and 0.25 m deep. In 5 of the trenches, excavations were shallower than the base of the topsoil.
- 5.2.2 In most trenches a subsoil was encountered, that had a clear horizon with the topsoil above. It was described as a firm mid reddish brown silty clay with sand and gravel inclusions (**Figure 3**).
- 5.2.3 In the southern excavations, near to the river, there was evidence of a made ground. These were a mix of soils, gravels and building rubble, possibly levelling work around the lock and the edge of the water (**Figure 4 and 5**).
- 5.2.4 The natural geology was not encountered during the works.

6 FINDS EVIDENCE

- 6.1.1 No artefacts were recovered during the watching brief.

7 ENVIRONMENTAL EVIDENCE

- 7.1.1 No deposits suitable for environmental sampling were encountered during the watching brief.

8 CONCLUSIONS

- 8.1.1 No archaeological features or deposits were encountered during the course of the archaeological watching brief and no artefacts were collected.
- 8.1.2 Due to the shallow nature of the works the natural geology was not encountered.
- 8.1.3 In most cases, the presence of a subsoil suggests that the natural was intact and archaeological resources were preserved *in situ*.
- 8.1.4 Trenches 22 to 24 near the river were up to 0.8 m deep. This may have been deep enough to truncate the natural geology, or it may have been that they made ground was there to build up the riverbank.

9 ARCHIVE STORAGE AND CURATION

9.1 Museum

- 9.1.1 The archive resulting from the watching brief is currently held at the offices of Wessex Archaeology in Salisbury. The Higgins Art Gallery and Museum has agreed in principle to accept the archive on completion of the project, under the accession code **BEDFM2021.109**. Deposition of any finds with the museum will only be carried out with the full written agreement of the landowner to transfer title of all finds to the museum.

9.2 Preparation of the archive

Physical archive

- 9.2.1 The physical archive, which includes paper records and graphics, will be prepared following the standard conditions for the acceptance of excavated archaeological material by The



Higgins Art Gallery and Museum, and in general following nationally recommended guidelines (Brown 2011; ClfA 2014c; SMA 1995).

9.2.2 All archive elements will be marked with the **accession code**, and a full index will be prepared. The physical archive currently comprises the following:

- 01 files/document cases of paper records

Digital archive

9.2.3 The digital archive generated by the project, which comprises born-digital data (e.g., site records, survey data, databases and spreadsheets, photographs and reports), will be deposited with a Trusted Digital Repository, in this instance the Archaeology Data Service (ADS), to ensure its long-term curation. Digital data will be prepared following ADS guidelines (ADS 2013 and online guidance) and accompanied by metadata.

9.3 Selection strategy

9.3.1 It is widely accepted that not all the records and materials (artefacts and ecofacts) collected or created during the course of an archaeological project require preservation in perpetuity. These records and materials will be subject to selection in order to establish what will be retained for long-term curation, with the aim of ensuring that all elements selected to be retained are appropriate to establish the significance of the project and support future research, outreach, engagement, display and learning activities, i.e., the retained archive should fulfil the requirements of both future researchers and the receiving Museum.

9.3.2 The selection strategy, which details the project-specific selection process, is underpinned by national guidelines on selection and retention (Brown 2011, section 4) and generic selection policies (SMA 1993; Wessex Archaeology's internal selection policy) and follows ClfA's *Toolkit for Selecting Archaeological Archives*. It should be agreed by all stakeholders (Wessex Archaeology's internal specialists, external specialists, local authority, museum) and fully documented in the project archive.

9.3.3 In this instance, given the relatively low level of finds recovery, the selection process has been deferred until after the fieldwork stage was completed. Project-specific proposals for selection are presented below. These proposals are based on recommendations by Wessex Archaeology's internal specialists and will be updated in line with any further comment by other stakeholders (museum, local authority). The selection strategy will be fully documented in the project archive.

9.3.4 Any material not selected for retention may be used for teaching or reference collections by Wessex Archaeology.

Documentary records

9.3.5 Paper records comprise site registers (other pro-forma site records are digital), drawings and reports (written scheme of investigation, client report). All will be retained and deposited with the project archive.

Digital data

9.3.6 The digital data comprise site records (tablet-recorded on site) in spreadsheet format; finds records in spreadsheet format; survey data; photographs; reports. All will be deposited, although site photographs will be subject to selection to eliminate poor quality and duplicated images, and any others not considered directly relevant to the archaeology of the site.



9.4 Security copy

- 9.4.1 In line with current best practice (e.g., 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.

9.5 OASIS

- 9.5.1 An OASIS (online access to the index of archaeological investigations) record (<http://oasis.ac.uk>) has been initiated, with key fields completed (**Appendix 2**). A.pdf version of the final report will be submitted following approval by the Archaeological Officer for Bedford Borough Council on behalf of the LPA. Subject to any contractual requirements on confidentiality, copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service (ADS) ArchSearch catalogue.

10 COPYRIGHT

10.1 Archive and report copyright

- 10.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by Wessex Archaeology under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. 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 conforms to the *Copyright and Related Rights Regulations 2003*.
- 10.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to Wessex Archaeology for the purposes of archaeological research or development control within the planning process.

10.2 Third party data copyright

- 10.2.1 This document and the project archive may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which Wessex Archaeology are able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material.



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APPENDICES

Appendix 1 Trench tables

Trench No 1		Length 115 m	Width 13 m	Depth 0.15 m
Easting 509052.73		Northing 509052.73		m OD 22.39
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
100		Topsoil	Firm to stiff dark grey brown with a reddish hue slightly sandy slightly gravelly silty CLAY. Sand is extremely rare fine to coarse. Gravel is rare sub-angular to rounded fine to coarse flint, chert, limestone, mudstone and quartzite ≤60 mm. Rare fragments of charcoal, concrete, tarmac, ceramic drainage pipe, tile and post-medieval / modern pottery. Bioturbated. Extremely rare tree roots ≤50 mm diameter. Horizon unknown.	0–0.15+

Trench No 2		Length 1.90 m	Width 1.35 m	Depth 0.35 m
Easting 509087.75		Northing 251122.13		m OD 22.21
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
200		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤60 mm. Heavily bioturbated. Abrupt contact.	0–0.20
201		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.20

Trench No 3		Length 2.10 m	Width 1.35 m	Depth 0.30 m
Easting 509085.89		Northing 251124.69		m OD 22.24
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
300		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤60 mm. Heavily bioturbated. Abrupt contact.	0–0.20



301		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.20–
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Trench No 4		Length 1.80 m	Width 1.35 m	Depth 0.35 m
Easting 509084.88		Northing 251127.56		m OD 22.26
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
400		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤60 mm. Heavily bioturbated. Abrupt contact.	0–0.25
401		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.25–

Trench No 5		Length 1.80 m	Width 1.35 m	Depth 0.35 m
Easting 509083.14		Northing 251130.42		m OD 22.21
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
500		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤60 mm. Heavily bioturbated. Abrupt contact.	0–0.25
501		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.25–



Trench No 6		Length 1.70 m	Width 1.35 m	Depth 0.30 m
Easting 509081.51		Northing 251132.81		m OD
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
600		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤ 60 mm. Heavily bioturbated. Abrupt contact.	0–0.20
601		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤ 60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.20–

Trench No 7		Length 1.90 m	Width 1.35 m	Depth 0.28 m
Easting 509089.35		Northing 251119.41		m OD 22.45
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
700		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤ 60 mm. Heavily bioturbated. Abrupt contact.	0–0.20
701		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤ 60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.20–

Trench No 8		Length 1.40 m	Width 1.35 m	Depth 0.35 m
Easting 509073.70		Northing 251128.42		m OD 22.39
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
800		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤ 60 mm. Heavily bioturbated. Abrupt contact.	0–0.20



801		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.20–
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Trench No 9		Length 1.60 m	Width 1.35 m	Depth 0.30 m
Easting 509075.36		Northing 251125.77		m OD 22.38
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
900		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤60 mm. Heavily bioturbated. Abrupt contact.	0–0.18
901		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.18–

Trench No 10		Length 1.70 m	Width 1.35 m	Depth 0.30 m
Easting 509076.99		Northing 251125.77		m OD 22.36
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1000		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤60 mm. Heavily bioturbated. Abrupt contact.	0–0.20
1001		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.20–



Trench No 11		Length 1.70 m	Width 1.35 m	Depth 0.25 m
Easting 509078.62		Northing 251120.47		m OD 22.39
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1101		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤ 60 mm. Heavily bioturbated. Abrupt contact.	0–0.19
1102		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤ 60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.19–

Trench No 12		Length 1.60 m	Width 1.35 m	Depth 0.25 m
Easting 509080.19		Northing 251117.78		m OD 22.39
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1200		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤ 60 mm. Heavily bioturbated. Abrupt contact.	0–0.18
1201		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤ 60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.18–

Trench No 13		Length 1.60 m	Width 1.35 m	Depth 0.30 m
Easting 509081.69		Northing 211115.15		m OD 22.39
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1300		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤ 60 mm. Heavily bioturbated. Abrupt contact.	0–0.20
1301		Subsoil	Firm mid reddish brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤ 60 mm. Contains rare angular coarse fragments of tarmac, brick and concrete.	0.20–



Trench No 14		Length 4.30 m	Width 2.90 m	Depth 0.10 m
Easting 509086.28		Northing 251110.41		m OD 22.38
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1400		Topsoil	Firm dark grey brown clayey slightly sandy SILT. Sand is fine to coarse. Very rare angular to rounded fine to coarse flint ≤60 mm. Heavily bioturbated. Abrupt contact.	0–

Trench No 15		Length 6.50 m	Width 3 m	Depth 0.50 m
Easting 509189.60		Northing 250851.26		m OD 23.11
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1500		Topsoil	Soft dark grey brown sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is sparse sub-angular to rounded fine to coarse flint ≤60 mm. Sharp contact. Bioturbated.	0–0.05
1501		Made ground	Mid brownish orange sandy Gravel. Sand is fine to coarse. Gravel is sub-angular to rounded fine to coarse flint with a medium cobble content ≤100 mm. Rare angular boulder sized fragments of concrete ≤500 mm.	0.05–

Trench No 16		Length 23 m	Width 5.80 m	Depth 0.20 m
Easting 509157.02		Northing 250973.32		m OD 22.58
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1600		Topsoil	Firm dark grey brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is rare sub-angular to rounded fine to coarse flint ≤50 mm. Heavily bioturbated.	0–

Trench No 17		Length 18.60 m	Width 4.20 m	Depth 0.60 m
Easting 509163.17		Northing 250939.96		m OD 22.38
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1700		Topsoil	Firm dark grey brown slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is very rare sub-angular to sub-rounded fine to coarse flint ≤60 mm. Bioturbated. Turf over. Abrupt contact.	0–0.20



1701		Subsoil	Firm Mid reddish brown slightly gravelly silty CLAY. Gravel is sparse sub-angular to rounded fine to coarse flint ≤ 60 mm.	0.20–
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Trench No 18		Length 17 m	Width 13.50 m	Depth 0.40 m
Easting 509030.19		Northing 251162.23		m OD 22.74
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1800		Topsoil	Firm Dark grey slightly sandy slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is very rare sub-angular to sub-rounded fine to coarse flint ≤ 60 mm. Bioturbated. Grass over. Diffuse contact.	0–0.10
1801		Made ground	Very firm to stiff dark grey brown with a reddish hue slightly sandy gravelly silty CLAY. Sand is fine to coarse. Gravel is moderate sub-angular to rounded fine to coarse flint ≤ 60 mm, rare angular coarse to cobbles of brick and concrete ≤ 150 mm. Fragments of gas marker tape and plastic.	0.10–

Trench No 19		Length 19 m	Width 7.70 m	Depth 0.10 m
Easting 509052.73		Northing 509052.73		m OD 22.39
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
1900		Topsoil	Firm dark grey brown slightly sandy slightly gravelly silty CLAY. sand is fine to coarse. Gravel is rare sub-angular to sub-rounded fine to coarse flint ≤ 50 mm. Turf over. Bioturbated. Very rare fragments of brick and concrete ≤ 30 mm.	0–

Trench No 20		Length 15 m	Width 2.10 m	Depth 0.40 m
Easting 509127.68		Northing 251025.79		m OD 22.84
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
2000		Topsoil	Soft very dark grey brown clayey SILT. Heavily bioturbated and covered in pine mulch. Sharp contact.	0–0.05



2001		Made ground	Mid brownish yellow mottled orange sandy GRAVEL. Sand is fine to coarse. Gravel is abundant sub-rounded to rounded fine to medium flint ≤20 mm and very common angular to sub-angular fine to coarse with high cobble and boulder content of brick and concrete ≤300 mm. Sharp contact.	0.05–0.20
2002		Made ground	Firm mid grey mottled bluish grey and orangish brown CLAY. Sparse cobbles and boulders of angular to sub-angular concrete ≤300 mm. Sharp contact. Desiccated. Contains fence post concrete.	0.20–
2003		Made ground	Mid reddish brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is common sub-rounded to rounded fine to coarse flint ≤60 mm, with rare sub-angular to angular cobbles of concrete ≤200 mm. Underlies 2002 in places.	0.30–

Trench No 21		Length 12.60 m	Width 9.10 m	Depth 0.30 m
Easting 509171.88		Northing 250925.38		m OD 22.32
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
2100		Topsoil	Very dark grey brown firm slightly gravelly slightly sandy silty CLAY. Sand is fine to coarse. Gravel is rare sub-angular to sub-rounded fine to coarse flint ≤50 mm. Bioturbated. Abrupt contact.	0–0.15
2101		Subsoil	Firm to stiff mid to dark yellowish / orangish brown mottled dark bluish grey slightly gravelly silty CLAY. Gravel is sparse sub-angular to rounded fine to coarse flint and chert ≤60 mm. Bioturbated. Clear desiccation cracks. Some disturbance by modern fence posts set in concrete.	0.15–



Trench No 22		Length 12.50 m	Width 12.10 m	Depth 0.70 m
Easting 509241.22		Northing 250863.11		m OD 23.17
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
2200		Topsoil	Dark grey brown slightly clayey gravelly silty fine to coarse SAND. Gravel is very common sub-angular to rounded fine to coarse flint ≤ 50 mm. Rare fragments of brick and concrete. Heavy bioturbation caused by large numbers of tree roots. Loose. Diffuse contact.	0–0.25
2201		Made ground	Mix of mid brownish yellow sandy GRAVEL and firm mid to dark brown slightly sandy gravelly CLAY. sand is fine to coarse. Gravel is super abundant sub-angular to rounded fine to coarse flint with a low cobble content ≤ 100 mm and sparse angular brick fragments ≤ 150 mm. Heavily bioturbated by tree roots. Likely that this layer is dredged out of river when sluice gates were constructed or when it was canalised.	0.25–

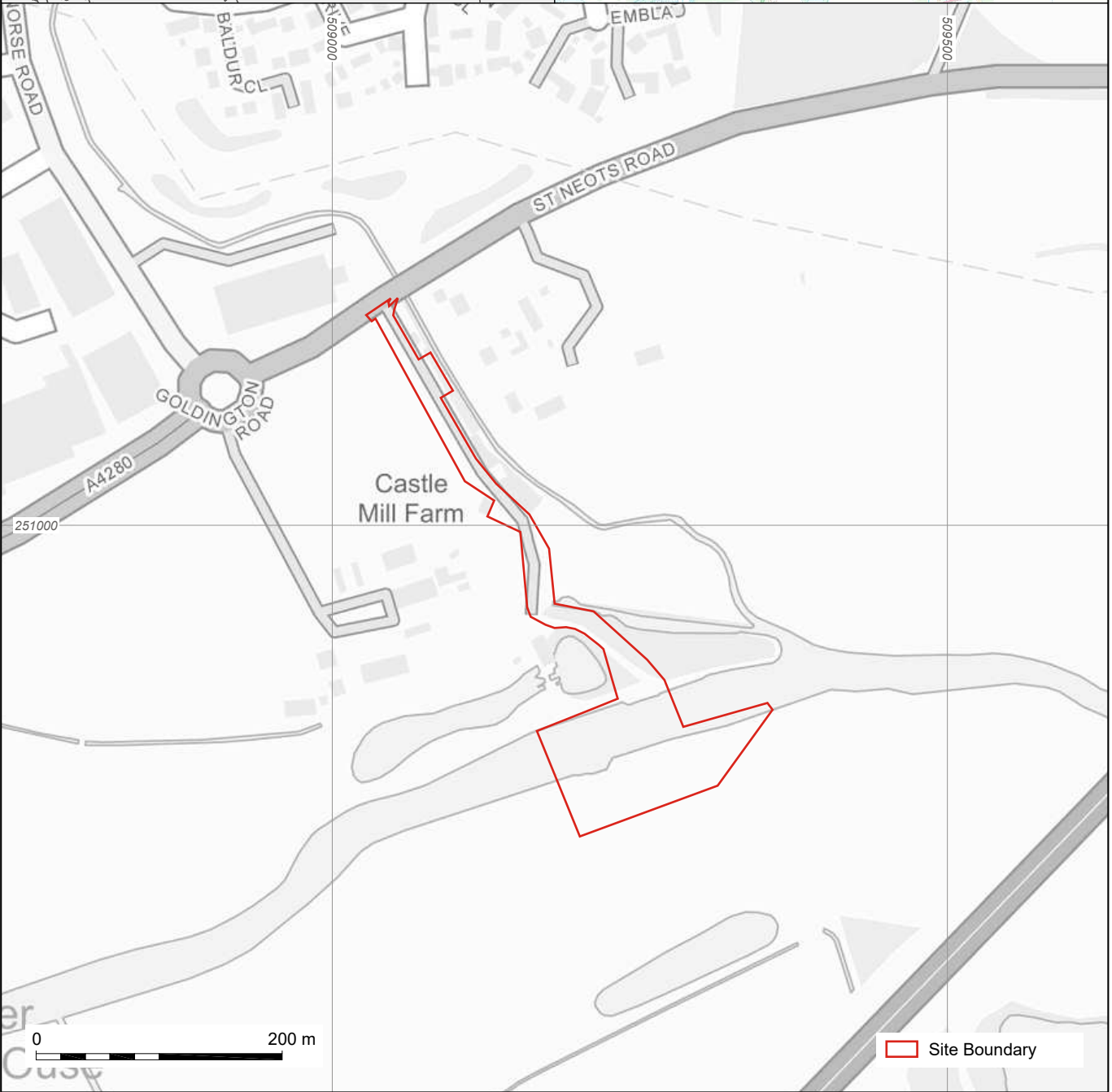
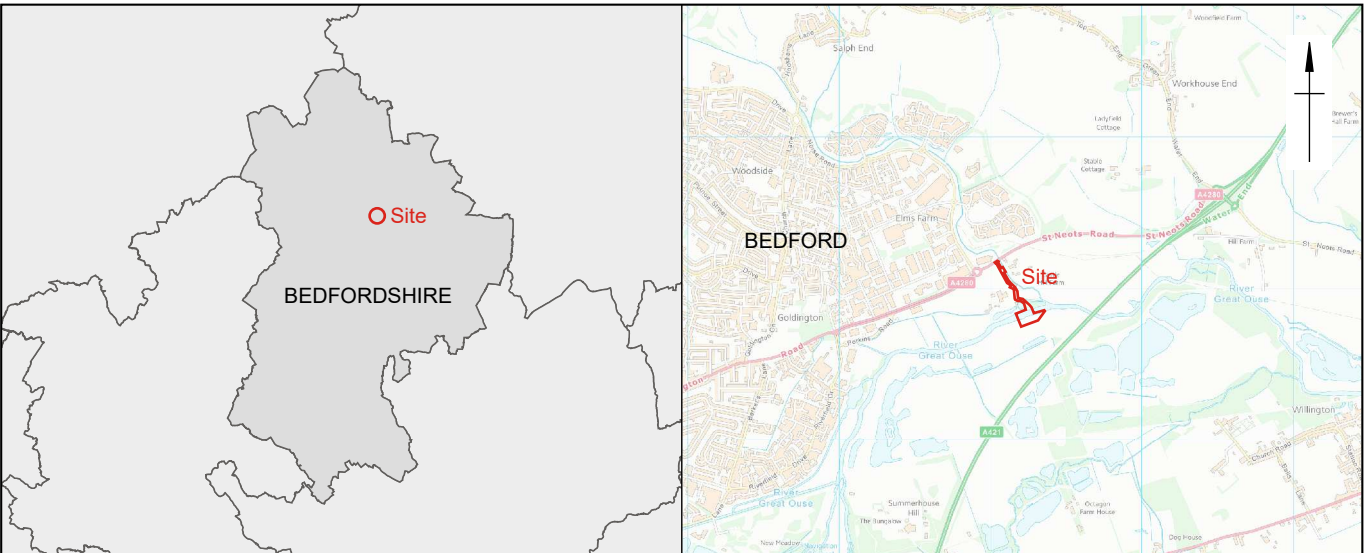
Trench No 23		Length 15 m	Width 2 m	Depth 0.80 m
Easting 509236.50		Northing 250873.86		m OD 23.17
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
2301		Topsoil	Mid greyish brown. Sandy silt. Common rooting.	0–0.20
2302		Made ground	Dark brownish grey. Silty sand. Filled with building materials such as brick and cement.	0.20–0.80+

Trench No 24		Length 20 m	Width 5 m	Depth 0.50 m
Easting 509252.95		Northing 250867.49		m OD 23.47
Context Number	Fill Of/Filled With	Interpretative Category	Description	Depth BGL
2401		Topsoil	Dark greyish brown. Sandy silt. Common rooting.	0–0.15
2402		Made ground	Dark brownish red. Sandy silt. Common brick and concrete rubble.	0.15–0.50+



Appendix 2 OASIS summary

OASIS ID (UID)	wessexar1-509417
Project Name	Watching Brief at Castle Mill Sluice Decommissioning, Bedford, Bedfordshire
Sitename	Castle Mill Sluice Decommissioning, Bedford, Bedfordshire
Activity type	Watching Brief
Project Identifier(s)	Castle Mill Sluice Decommissioning, Bedford, Bedfordshire
Planning Id	
Reason For Investigation	Emergency recording
Organisation Responsible for work	Wessex Archaeology
Project Dates	06-Jun-2022 - 26-Jul-2022
Location	Castle Mill Sluice Decommissioning, Bedford, Bedfordshire NGR : TL 09249 50841 LL : 52.145064092177, -0.404868020865867 12 Fig : 509249,250841
Administrative Areas	Country : England County : Bedfordshire
Project Methodology	Wessex Archaeology was commissioned by Wessex Archaeology was commissioned by BAM Nuttall Ltd, to undertake an archaeological watching brief during works at the Castle Mill Sluice
Project Results	No archaeological features or deposits were encountered during the course of the archaeological watching brief and no artefacts were collected.
Keywords	
Funder	
HER	Bedford Borough HER - noRev - LITE
Person Responsible for work	J, Kaines
HER Identifiers	
Archives	Documentary Archive, Digital Archive - to be deposited with The Higgins Bedford;



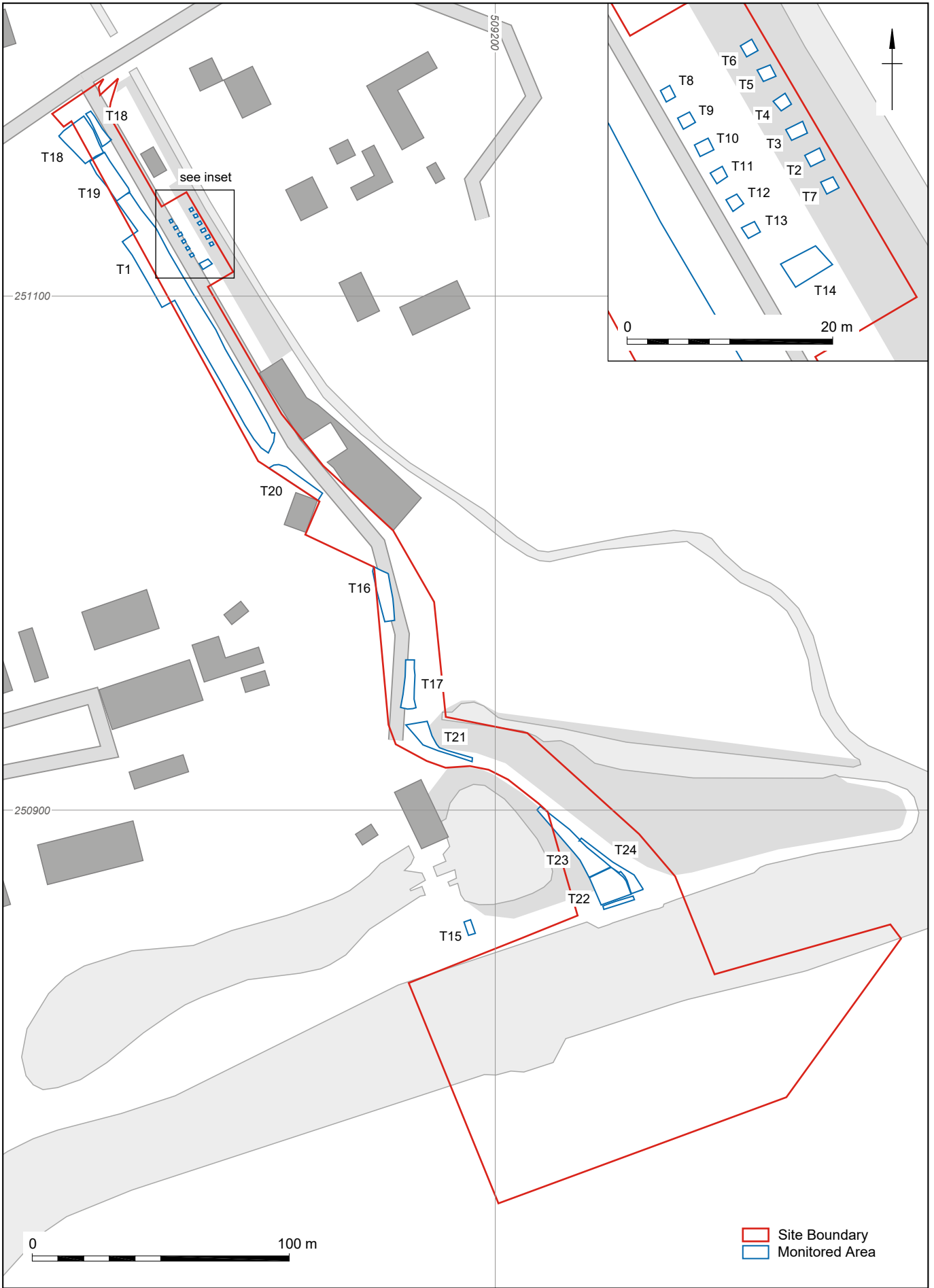
Coordinate system: OSGB 1936 British National Grid

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Figure 1: Site location





Coordinate system: OSGB 1936 British National Grid

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Figure 2: Areas monitored





Figure 3: West facing view through trench 17 (scale 1 m)



Figure 4: North-west facing view through trench 22 (scale 1 m)



Figure 5: South-east facing view through trench 15 (scale 1 m)



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