



Written Scheme of Investigation for Watching Brief

Land at Higham Lane, Capitol Close and Whinby Road,
Barnsley

Strata Sterling West Limited

Prepared by:

SLR Consulting Limited

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Acronyms and Abbreviations

AAF	Archaeological Archives Forum
ACIfA	Associate member of Chartered Institute for Archaeologists
ADS	Archaeology Data Service
aOD	above Ordnance Datum
Blg	Below ground level
CIfA	Chartered Institute for Archaeologists
DMP	Data Management Plan
FAME	Federation of Archaeological Managers and Employers
Ha	Hectares
HER	Historic Environment Record
km	Kilometre
MAP	Management of Archaeological Projects
MCIfA	Full Member of Chartered Institute for Archaeologists
MGC	Museum and Galleries Commission
MORPHE	Management of Research Projects in the Historic Environment
NGR	National Grid Reference
OASIS	Online Access to the Index of Archaeological Investigations
PPE	Personal Protective Equipment
RSA	Regional Science Advisor
SLR	SLR Consulting Limited
SMA	Society of Museum Archaeologists
UKIC	United Kingdom Institute for Conservation
WSI	Written Scheme of Investigation



1.0 Introduction

- 1.1 SLR Consulting Ltd (SLR) has been commissioned by Strata Streling Barnsley West Ltd to prepare a Written Scheme of Investigation (WSI) setting out the methodology for an archaeological watching brief on groundworks associated with highways works to the south of the M1 at Barnsley (NGR: SE 3151 0625); **Figure 1**.
- 1.2 Planning permission has been granted for highways works (planning reference 2020/0040) which includes a new roundabout at SE 31612 06179 (see **Appendix A**). At the location of the new roundabout the South Yorkshire Historic Environment Record references a potential for remains associated with a medieval (or later) farmstead (HER reference 05538).
- 1.3 It is anticipated, therefore, that groundworks associated with the new roundabout may affect below ground archaeological remains possibly associated with a farmstead of potential medieval origin.
- 1.4 A condition placed on the planning permission has therefore been stipulated referencing the necessity for an archaeological response. The condition is as follows:

(8) no development, including any demolition and groundworks, shall take place until the applicant, or their agent or successor in title, has submitted a written scheme of investigation (wsi) that sets out a strategy for archaeological investigation and this has been approved in writing by the local planning authority. The WSI shall include:

- the programme and method of site investigation and recording.
- the requirement to seek preservation in situ of identified features of importance.
- the programme for post-investigation assessment.
- the provision to be made for analysis and reporting.
- the provision to be made for publication and dissemination of the results.
- the provision to be made for deposition of the archive created.
- nomination of a competent person/persons or organisation to undertake the works.
- the timetable for completion of all site investigation and post-investigation works.

Thereafter the development shall only take place in accordance with the approved wsi and the development shall not be brought into use until the local planning authority has confirmed in writing that the requirements of the WSI have been fulfilled or alternative timescales agreed.

- 1.5 This document provides a methodology for the watching brief and conforms to the guidelines and standards laid down in the following documents:
- SYAS Archaeological Watching Brief Standards & Guidance (2023), see **Appendix B**.
 - Standard and Guidance for Archaeological Monitoring and Recording, Chartered Institute for Archaeologists: Reading (CIFA 2023).



- An archaeological watching brief will record and report on the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of conduct and other relevant regulations of CIfA.
 - Standards and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials, Chartered Institute for Archaeologists: Reading (CIFA 2014)
 - Collection, documentation, conservation and research of archaeological materials (hereafter finds work) will result in an ordered, stable, accessible archive using appropriate methods and practices. Finds work will result in report(s) intended for dissemination. The methods and practices employed must satisfy the stated aims of any project of which finds work comprises all or part, and comply with the Code of conduct, and other relevant regulations of CIfA.
 - Code of Approved Conduct for the Regulation of Arrangements in Field Archaeology, Chartered Institute for Archaeologists: Reading (CIFA 2019).
 - Management of Archaeological Research Projects in the Historic Environment (MoRPHE), Historic England: London (HE 2015).
- 1.6 This WSI has been approved by the South Yorkshire Archaeology Service, updated from a version prepared by Wardell Armstrong (Lines, A, 2026, pers comm., 19 June).



2.0 Background

The Site

- 2.1 The watching brief area located across the footprint of the roundabout (c.10m x 10m) is centred on NGR SE 31612 06179 and is located to the west of Junction 37 of the M1.

Geology & Topography

- 2.2 Two bands of geology are present such that the exact solid geology is difficult to differentiate from the mapping and may alter within the small footprint of the works. The Geology of Britain Viewer references solid geology as either:
- Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone. Sedimentary Bedrock formed approximately 310 to 318 million years ago in the Carboniferous Period. Local environment previously dominated by swamps, estuaries and deltas; and
 - Haigh Moor Rock - Sandstone. Sedimentary Bedrock formed approximately 315 to 318 million years ago in the Carboniferous Period. Local environment previously dominated by rivers.
- 2.3 No superficial deposits are recorded.
- 2.4 The roundabout is located at c.155-160m AOD at the base of rising ground to the north and the west, the ground to the south drops on a slight north facing slope occupied by the Capitol Park business park.

Archaeological and Historic Background

- 2.5 An Archaeological Desk Based Assessment for a Site immediately to the north of the roundabout was prepared by Wardell Armstrong in 2019. This was prepared in accordance with the South Yorkshire guidelines for the preparation of a desk-based assessment and is used as a basis for this section alongside the results of an updated HER enquiry (the HER re-consulted in May 2021).
- 2.6 With reference to the Historic Environment Record, the entry in closest vicinity to the roundabout (HER reference 05538) is in reference to the former site of a farmstead, see Plate 1. This is shown on the 1855 Ordnance Survey to the immediate east of (potentially) beneath the roundabout, see Plate 2.
- 2.7 A watching brief undertaken in 2006 during the demolition of the extant farm recorded a seventeenth century timber frame and documentary evidence is referenced as indicating the presence of a precursor of possible 12th to 14th century date. Other evidence for medieval activity in the area is referenced by medieval timber framed buildings c.900m south of the Site (HER references 01444/01 & 0154/0/0) at Dodworth which was recorded within the Domesday Survey (1086). Furthermore, medieval ridge and furrow earthworks are recorded c.725m west of the Site (HER reference 04984).





Plate 1: Location of roundabout shown in red. HER Entries in closest vicinity to the Site shown in orange

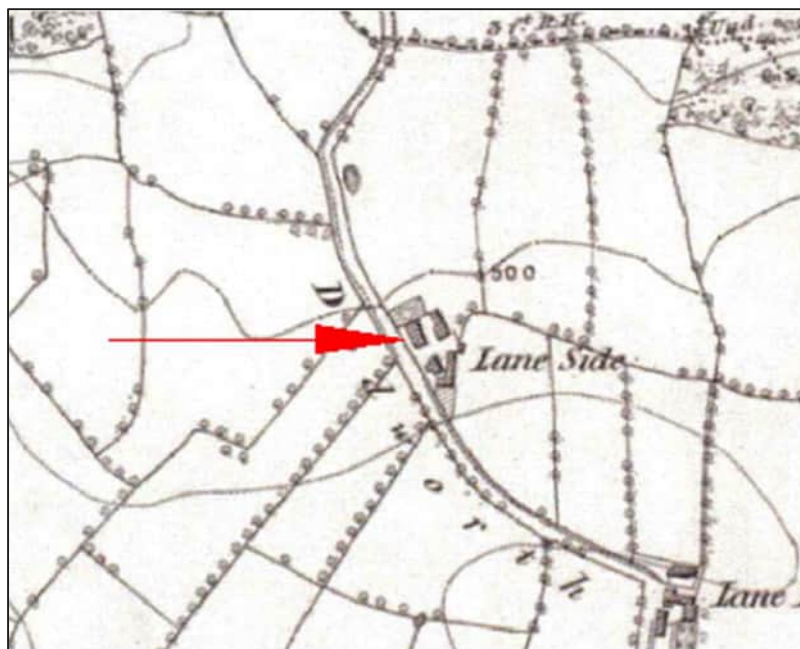


Plate 2: 1855 Ordnance Survey Map. Arrow showing approximate location of the new roundabout



- 2.8 Earlier activity of possible prehistoric date, although undated, was recorded by fieldwork undertaken at Capitol Park to the south of the Site between 2004 and 2006. This recorded the remains of a ditch c.210m east of the roundabout to be constructed which on morphology could be prehistoric (HER reference 05339). Definitive evidence for prehistoric activity within the area is limited to a flint assemblage of Mesolithic/Neolithic date c.680m west of the roundabout to be constructed (HER reference 05581/01).



3.0 Aims & Objectives

- 3.1 In the event that archaeological remains are present the programme of archaeological monitoring will aim to interpret and characterise them.
- 3.2 The general aims of the watching brief are to:
- determine the presence or absence of buried archaeological remains within the footprint of the ground disturbance associated with the new roundabout;
 - determine the character, date, extent and distribution of any archaeological deposits and their potential significance;
 - disseminate the results of the fieldwork through an appropriate level of reporting (including publication with the Yorkshire Archaeological Journal (or similar) if necessary);
 - inform upon the South Yorkshire Historic Environment Research Framework for the later medieval/post medieval period, in-particular themes such as medieval farming and timber framed barns.
- 3.3 In the event that archaeological remains are present which cannot be dealt with under a watching brief remit, requiring a greater level of resources which cannot be accommodated under the time constraints, the watching brief will 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. In this unlikely event, the sensitive area should be fenced off until such a time that the scope of a targeted archaeological response can be negotiated.



4.0 Watching Brief Methodology

Preliminaries and General Procedures

- 4.1 This scheme for an archaeological watching brief has been designed in order to satisfy the stated objectives of the project as set out under Section 3.
- 4.2 The watching brief is intended to watch all intrusive works associated with groundworks associated with the new roundabout, see **Appendix C**.
- 4.3 The duration of groundworks is unknown at this time.
- 4.4 SLR Consulting will stipulate that intrusive groundworks are carried out using a mechanical excavator fitted with a toothless ditching bucket to maximise the chance for identification of archaeological remains should they be present. However, a toothed bucket may be necessary in areas where substantial obstacles are present.
- 4.5 All machine excavation will be done under the close supervision of a suitably experienced archaeologist. Should archaeological deposits be revealed, time will be allowed for excavation by hand. Clean surfaces will be inspected and selected deposits excavated to retrieve artefactual material and environmental samples, as well as to determine their character, significance and date.
- 4.6 The archaeological contractor will ensure that access to the investigations is granted at all times to representatives of SLR Consulting, the Client and the South Yorkshire Development Control Archaeologist.

Investigation and Sampling Strategy

- 4.7 In the event that archaeological features are revealed these will be sampled sufficiently to characterise and date them and to determine their significance i.e. 10% of fills of linear features (unless the linear features are substantial in which case an alternative sampling strategy will be discussed with the planning archaeologist) and 50% of pit fills. Smaller discrete features such as postholes will be a 100% sampled.
- 4.8 Measures will be taken to protect particularly significant, valuable or sensitive archaeological remains from exposure, accidental damage and /or theft.

Recording

- 4.9 All features will be recorded using a Trimble TSC3 GPS unit (or equivalent) with sub-centimetre accuracy with each point recorded in relation to the OSGB36 geod model and coded to an internal database to provide a dataset that records feature type, context number, associated drawing numbers and any other feature specific information that may be relevant. Context numbers should not replicate any numbers allocated during previous phases of work. Digital context sheets are not proposed.



- 4.10 All written records will utilise the WA pro-forma record sheets. Plans and sections will be drawn on water resistant permatrace. Plans will be drawn to a scale of 1:20 and sections at 1:10.
- 4.11 A full digital photographic record of the work is to be kept. All images are to be taken using a digital camera with a suitable megapixel resolution. The photographic record is to be regarded as part of the site archive and the digital files will be labelled appropriately and cross-referenced in relation to a site-specific photography register.
- 4.12 All plans and sections will be levelled in respect to AOD and are to be drawn on polyester based drafting film and clearly labelled.
- 4.13 SLR Consulting will ensure that the complete site archive including finds and paleoenvironmental samples is to be kept in a secure place throughout the period of fieldwork and post-excavation process.

Human Remains

- 4.14 In the unlikely event that human remains, both inhumations and/or cremations, be exposed during the course of the evaluation, all works will be stopped and the local coroner informed. The area will be screened from view and discussions will held with the South Yorkshire Development Control Archaeologist and the client on options for their appropriate preservation in situ or for their removal in accordance with professional standards and guidelines.
- 4.15 SLR Consulting will have available within the team or on call an appropriately qualified and experienced osteoarchaeologist to supervise the excavation and removal of any human remains (where this is deemed necessary) from the site.
- 4.16 In the event that human burials are discovered and removal is requested, a Ministry of Justice Licence will be required (in accordance with Section 25 of the Burial Act 1857) before the remains can be lifted. The need for a Ministry of Justice Licence applies to both inhumation and cremated remains. Application for a Licence will be made by SLR Consulting.

Finds recovery and processing and treatment

- 4.17 All artefacts recovered during the course of the project are the property of the landowner. They will be suitably bagged, boxed and marked in accordance with Archaeological Archives Forum (Brown 2011) and EAC (2014) guidance, and deposited with the Experience Barnsley Museum.
- 4.18 On completion of the project, insignificant modern material, unstratified remains and objects that have been assessed as having no obvious grounds for retention will be discarded after a period of six months, unless there is a specific request to retain them (and subject to the collection policy of Experience Barnsley Museum).
- 4.19 Records of artefact assemblages will clearly state how they have been recovered, sub-sampled and processed.



Treatment of treasure

- 4.20 The Treasure Act 1996 (the “Treasure Act”) (3rd revision) sets out the precious metal content required for a find to qualify as treasure.
- 4.21 Should any treasure (defined under the Treasure Act 1996) (3rd revision) be discovered, it will be removed, if possible, to a secure location. Where removal is not practical on the same working day as the discovery, suitable security measures will be put in place to protect the find from damage, loss and theft.
- 4.22 Seven categories of object are now classed as treasure:
- any object other than a coin which is at least 10% silver or gold by weight and more than 300 years old;
 - any coins that are at least 10% silver or gold by weight and come from a single find, provided the find contains at least two coins with a gold or silver content of at least 10%. The coins must be at least 300 years old at the time of discovery. Where finds consist of coins that are less than 10% gold or silver by weight, there must be at least 10 coins in the find and they must be at least 300 years old at the time of discovery for the find to be considered treasure;
 - any object that contains metal, is at least 200 years old, and meet a specified threshold of historical archaeological, or cultural significance;
 - any object, of whatever, composition, that is found in the same place as, or that had previously been together with, another object that is treasure;
 - any object (other than a coin), any part of which is base metal, which, when found is one of at least two base metal objects in the same find which are of prehistoric date;
 - any object, (other than a coin) which is of prehistoric date, and any part of which is gold or silver; and
 - any object that would previously have been treasure trove but does not fall within the specific categories given above.
- 4.23 Upon discovery of any treasure, the Contractor will immediately inform the Employer (through the Archaeological Consultant), the local coroner, and the Portable Antiquities Finds Liaison Officer for LCC. Upon discovery of any treasure, the local coroner must be informed within fourteen days of discovery, in accordance with The Treasure Act 1996 Code of Practice and its amendment.

Environmental Sampling

- 4.24 The strategy and methodology for the sampling of deposits will be in accordance with English Heritage (Now Historic England) Centre for Archaeology Guidelines “Environmental Archaeology – A guide to the theory and practice of methods, from sampling and recovery to post-excavation” (2011). Where deemed appropriate the advice of the relevant Historic



England Regional Science Advisor will be sought in relation to the collection of palaeoenvironmental material, industrial residues or other relevant scientific material.

- 4.25 Where deposits are dry, bulk samples for the recovery of charred plant remains, small bones and finds, will be taken from sealed and datable features such as pits, ditches, hearths and floors. Each context will be sampled in isolation. The size of the sample is expected to be in the range of 20-40 litres per context or 100% of smaller contexts. Samples will not be taken from the intersection of features or where context horizons are not fully defined.
- 4.26 Mollusc samples of two litres each will be taken vertically from appropriate sections to investigate the changes of vegetation through time.
- 4.27 Where deposits are wet, waterlogged or peaty, monoliths will be taken along cleaned vertical surfaces for the retrieval of pollen, diatoms, ostracods and foraminifera. The numbers to be taken will be agreed with the client and Norfolk Historic Environment Officer. Where bulk samples are to be taken a minimum of 20 litres will be taken from visible layers or spits for the retrieval of plant macro-remains and insects.
- 4.28 Environmental samples from dry deposits will normally be processed by floatation following the fieldwork and the residues will be sorted to retrieve small bones, small finds and charcoal that has not floated. Environmental samples from wet deposits will normally be sent to specialists for processing in laboratory conditions.
- 4.29 Where guidance is relevant the appropriate English Heritage (Now Historic England) papers will be followed (EH 2006; 2007 & 2011).

Monitoring and Liaison

- 4.30 One weeks-notice of the commencement of site work will be given to the South Yorkshire Development Control Archaeologist along with the name, CV and contact number of the attending archaeologist.
- 4.31 SLR Consulting will allow the site records to be inspected and examined at any reasonable time during or after the archaeological fieldwork by the client, the South Yorkshire Development Control Archaeologist or any designated representative of the Local Planning Authority.
- 4.32 SLR Consulting will liaise closely with the South Yorkshire Development Control Archaeologist throughout the course of the watching brief and, in consultation with the Client, will arrange for on-site meetings if necessary.

Health and Safety

- 4.33 The Client will be asked to provide all information reasonably obtainable on contamination and confirm the location of services before the archaeological works commence.
- 4.34 Site staff will have an appropriate level of training to enable them to carry out fieldwork safely. Appropriate PPE as directed by the Client will be worn by field staff at all times.



- 4.35 The Client will be requested to provide details of their own risk assessment and specify PPE required before fieldwork commences.
- 4.36 SLR Consulting will abide by the Client's health and safety methodology as well as producing their own internal risk assessment and method statement document as required. If there is conflict between the Client's risk assessment and that of SLR Consulting's then the Client's will take priority, unless it is perceived to be placing the field team at greater risk.
- 4.37 All staff will assist the Client in maintaining the Site in a safe condition. Hazards will be appropriately identified and managed including identification of buried and above ground services/utilities.
- 4.38 In addition to the risk assessment and method statement, where appropriate a COSHH assessment will also be undertaken. Once onsite, these documents will be assessed, and any variations will be highlighted and added to the appropriate assessment. These will be re-evaluated periodically during the course of the fieldwork to make sure that they remain consistent to the Site-specific risks. All staff and visitors will be required to be inducted and sign these documents on first arrival to Site to show that they have read and understood the contents and any variations will be communicated as required.

Staffing

- 4.39 The project will be managed by a full Member of the Chartered Institute for Archaeologists or an archaeologist of equal standing.
- 4.40 The project will be undertaken by an experienced archaeological supervisor and be assisted by additional SLR Consulting's field staff as required should archaeological features be uncovered in a volume that cannot be dealt with by a single archaeologist.



5.0 Reporting and Dissemination

5.1 Reporting may be staged as follows:

- Minimum: Assessment Report.
- Further Reporting (as necessary):
 - Updated Project Design (to set out the scope and extent of further reporting requirements such as specialist analysis).
 - Specialist Analysis Reports (to analyse finds and or samples).
 - Post Excavation/Archive Report (Grey Literature Report) (consolidating all of the above).
- Publication (for the purposes of public dissemination, for example a journal article).

5.2 The minimum level of reporting would be an Assessment Report for the watching brief.

5.3 The necessity for further reporting after the Assessment Report stage would be determined by the features revealed and the finds assemblage/samples. The South Yorkshire Development Control Archaeologist would determine the necessity for further reporting.

Assessment Report

5.4 It is expected that the production and submission an Assessment Report could be undertaken in 4-6 weeks of completion of the watching brief.

5.5 As a minimum, the Assessment Report will include:

- A title page inclusive of a site address, a NGR, a WA report number, the OASIS code, the planning reference number (2020/0040) and a museum accession number for the project archive where this is required;
- a summary of the project's planning and archaeological/historic background;
- results – clear and concise stratigraphic descriptive text;
- an interpretation of the results;
- a catalogue and basic assessment of each category of artefact – to include basic specialist assessments (referencing local typologies) and a summary of potential for further work;
- a catalogue and basic specialist assessment of soil samples and ecofacts and a summary of potential for further work;
- an appendix containing a list and summary description of all contexts recorded; and
- reference to the project archive and its location.



Further Fieldwork/Reporting

- 5.6 In the event that the South Yorkshire Development Control Archaeologist requires analysis of finds and samples (in addition to processing and assessment undertaken at the Assessment stage), an Updated Project Designs would be prepared as necessary to set out the scope of specialist reports. For client information the UPD and would set out the scope and extent of specific required additional work, providing a document against which a subsequent cost estimate could be acquired.

Dissemination

- 5.7 The project will be registered with the Online Access to the Index of archaeological investigations (OASIS), where a digital copy of the report will be made available.
- 5.8 Suitable journal/monograph publication may also be required.

Archive Preparation and Deposition

- 5.9 The deposition of the final archaeological archive should comply with paragraphs 7.13-7.18 of SYAS Archaeological Watching Brief Standards & Guidance, **Appendix B**. A formal selection strategy and data management plan is included in **Appendix D**.
- 5.10 SLR Consulting will make arrangements for the deposition of the site archive with the Experience Barnsley Museum.
- 5.11 The site archive will include all project records and cultural material produced by the trial trenching and will be prepared in accordance with Archaeological Archives Forum and EAC guidance (Brown 2011; EAC 2014). Any additional guidelines from the archive regarding the deposition of the site archive will also be followed.



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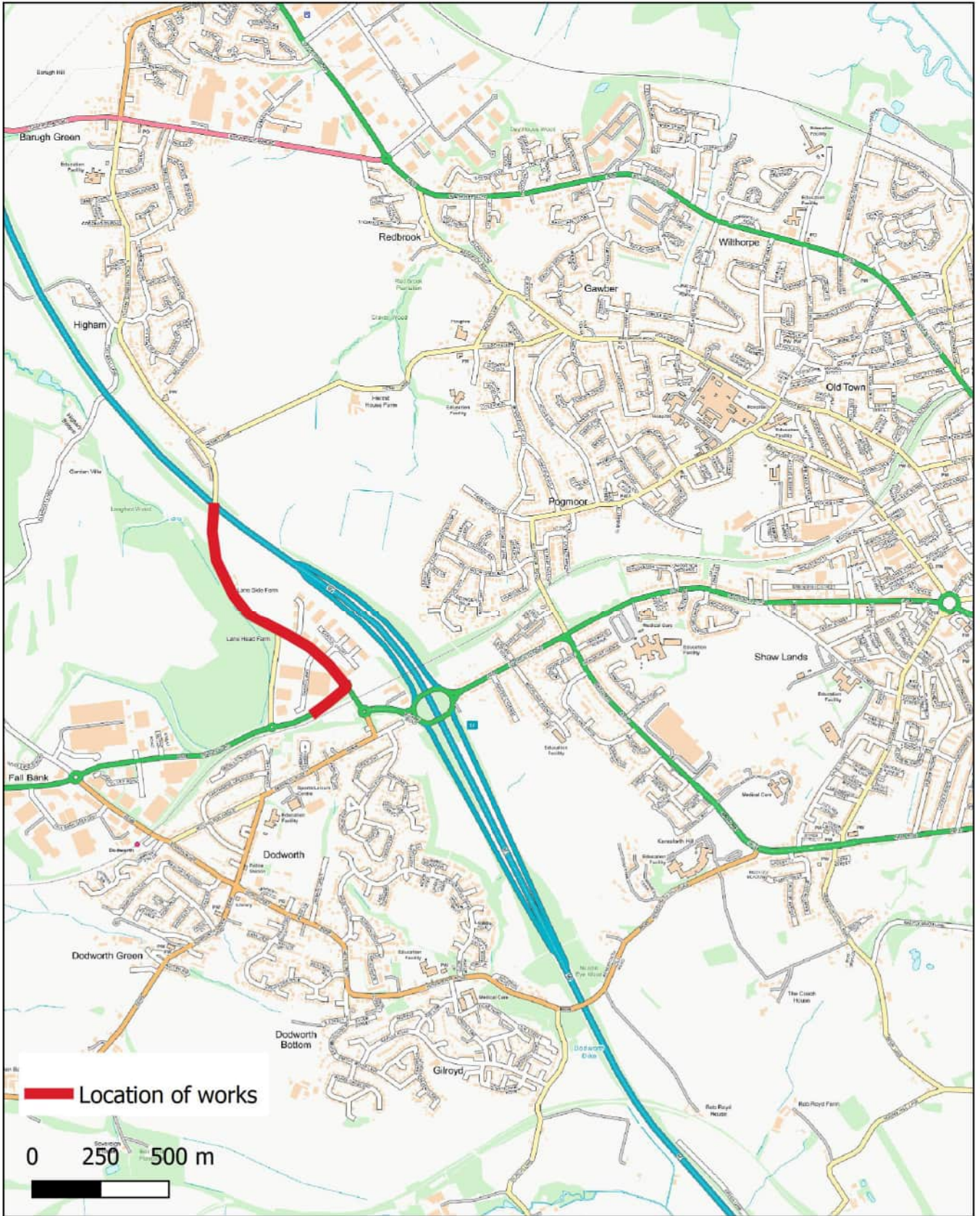
UKIC (1990) *Guidelines for the preparation of Excavated archives for long-term storage* United Kingdom Institute for Conservation of Historic and Artistic Works, London







Appendix A Site Location





CLIENT Strata Sterling Barnsley Limited	Drawing Number:ST18796/001		Revision:A
	Size:A4	Scale: 1:20,000	Date:June 2021
PROJECT Land at Higham Road, Capitol Close and Winby Road, Barnsley	Drawn By: CD	Checked By: AH	Approved By: CM
	DRAWING TITLE Figure 1 Site Location		 



**Appendix B SYAS Archaeological
Watching Brief
Standards and
Guidance**





Archaeological Watching Brief

Standards & Guidance

1 Requirement for Archaeological Watching Brief

- 1.1 An Archaeological Watching Brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons where there is a possibility that archaeological deposits may be disturbed or destroyed and where a more extensive programme of investigation is not warranted.
- 1.2 SYAS must be consulted in advance to agree the scope of necessary archaeological works and an appropriate methodology.
- 1.3 Note: All references are correct at time of publication, and it is the responsibility of the undertaking body to review the guidance and ensure that they refer to the most current.

Professional Standards

- 1.4 Archaeological work should be carried out using appropriate expertise and the archaeologists undertaking the work should be adequately qualified. It is good practice to use professionally accredited experts such as a ClfA Registered Organisation¹. SYAS also maintain an open list of archaeological contractors who operate in the region.²
- 1.5 All archaeological work needs to comply with:
 1. the Regional Statement of Good Practice for Archaeology in the Development Process;³
 2. the Chartered Institute for Archaeologist's (ClfA) standards and guidance;⁴
 3. Historic England's guidance on managing archaeological projects (MoRPHE)⁵
 4. Historic England's best practice guidance relevant to the project.⁶

Written Scheme of Investigation

- 1.6 The undertaking body may be required to produce a Written Scheme of Investigation (WSI) to set out a proposed methodology for the watching brief in sufficient detail.
- 1.7 The contents of a WSI on any given site should be agreed with SYAS.

¹ A register of Registered Organisations is available online: <https://www.archaeologists.net/lookingforanarchaeologist>

² Available online: <https://www.sheffield.gov.uk/home/planning-development/south-yorkshire-archaeology-service>

³ SYAS 2018

⁴ ClfA 2020a

⁵ Historic England 2015a

⁶ Available online: <https://historicengland.org.uk/advice/find/a-z-publications/>

- 1.8 The WSI should be formed in reference to relevant standards, and as a minimum contain:
1. Site location (illustrated on OS MasterMap or similarly detailed survey showing National Grid Coordinates);
 2. Context of the project (including planning background and consultations);
 3. Project stages and timetable;
 4. Monitoring arrangements;
 5. Description of the site identifying its geology, topography, condition etc.;
 6. Brief summary of the archaeological and historical background of the site and its environs;
 7. Detail implications (of 5 & 6 above) for archaeological and palaeo-environmental potential (of both buried and standing remains);
 8. Aims and objectives with reference to the South Yorkshire Historic Environment Research Framework;
 9. Detail the rationale behind the location of each recording area and a plan that clearly shows their location within the site;
 10. Summary of the specific outputs of the project (e.g. report, archives etc);
 11. Methodology for recording, sampling, assessment, analysis and reporting;
 12. Strategy for seeking preservation in-situ and/or additional recording of identified features of unexpected importance;
 13. Strategy for the deposition of the project archive (including a selection strategy and data management plan produced in accordance with ClfA guidance);
 14. Strategy for publication and dissemination of the results;
 15. Details of the competent person/persons or organisation undertaking the works.
- 1.9 The WSI must include an outline sediment sampling strategy based on suspected archaeology, and previous nearby discoveries. Provision should be allowed to revise this strategy in consultation with appropriate specialists, including the Historic England Science Advisor, during the fieldwork as appropriate to account for unexpected discoveries.
- 1.10 A template Written Scheme of Investigation covering archaeological watching briefs is available⁷, providing additional guidance and allowing any deviations from these standards to be identified and justified.

Selection Strategy & Data Management Plan

- 1.11 A proposed archive selection strategy must be included with the WSI, detailing the project-specific selection process, agreed by all stakeholders, for all records and materials arising from the work in creating the Archaeological Archive.
- 1.12 Where digital data is anticipated as an output of the project, the selection strategy must include a data management plan, setting out the methodology for data management from acquisition to deposition.
- 1.13 This should be produced in accordance with ClfA guidance.⁸

⁷ See guidance for archaeological projects, available online: <https://www.sheffield.gov.uk/syas>

⁸ Available online: <https://www.archaeologists.net/selection-toolkit> & <https://www.archaeologists.net/digital>

Monitoring

- 1.14 SYAS will be responsible for monitoring the contractor's work. The contractor must give a minimum of one week's notice of the commencement of fieldwork in order that arrangements for monitoring can be made.
- 1.15 Should features of unexpected importance or complexity be identified that would warrant special measures to record or protect them, then the supervising archaeologist should notify SYAS at the earliest opportunity to implement the appropriate strategy for their management.
- 1.16 If it becomes clear during the archaeological watching brief that little of archaeological interest is likely to survive on the site, the contractor should discuss their work with the monitor. A joint decision will be made on reducing the work to an intermittent watching brief or ceasing observation of groundworks.
- 1.17 Minor changes to an agreed WSI must be submitted to SYAS for written approval. Major changes will require the preparation of an updated WSI for submission to the approving body (SYAS or planning authority as appropriate).

2 Aims

- 2.1 The purpose of an archaeological watching brief is to allow the investigation of features and deposits of archaeological interest, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of disruptive works.
- 2.2 The work will be undertaken in reference to general aims and specific objectives formulated with reference to the South Yorkshire Historic Environment Research Framework⁹ and other period specific or thematic research frameworks/strategies, as applicable.

3 Scope

- 3.1 The archaeological watching brief will be maintained during all groundworks within the agreed area(s), including those for temporary works such as construction compounds, unless otherwise specified in the WSI.

Recommended Contingencies

- 3.2 Contingencies should be budgeted for and identified in the WSI, including, where relevant:
 1. Attendance of additional archaeologists to record areas of extensive or complex archaeology;
 2. Additional specialist sampling and scientific dating;
 3. Conservation of artefacts;
 4. Post-excavation analysis, in the event that detailed reporting is required;
 5. Publication of results.

⁹ Available online: <https://researchframeworks.org/syrf/>

4 Standards for Archaeological Watching Brief

- 4.1 Archaeological fieldwork will be undertaken in accordance with ClfA standards and guidance.¹⁰
- 4.2 Detailed procedures for investigation and recording will be undertaken in accordance with professional best practice, such as that established in Historic England's *Excavation Recording Manual*.¹¹
- 4.3 All records, finds and samples generated during the programme of works should be safely stored as part of a Working Project Archive (see Section 7).

Groundworks

- 4.4 During a continuous watching brief, all groundworks within the area(s) of the archaeological watching brief must be undertaken under archaeological supervision to allow for the identification and recording of any archaeological material that might be uncovered.
- 4.5 Machine excavation will be undertaken by backactor excavator, using a toothless bucket of appropriate width, to reduce ground levels in level spits. Excavated areas should not be smoothed with the back of the bucket. Under no circumstances will the machine be used to cut arbitrary trenches down to natural deposits.
- 4.6 Toothed buckets are only to be used in exceptional circumstances, and where express permission has been given by the supervising archaeologist.
- 4.7 During an intermittent watching brief, where archaeological remains are observed or suspected by contractors or plant operators outside of periods of archaeological supervision, they must immediately cease work in that area and notify the archaeological contractor.
- 4.8 Where features or deposits of potential archaeological interest are exposed or disturbed by groundworks, sufficient time will be allowed for the archaeological contractor to clean, assess, excavate, sample and record them.
- 4.9 Heavy plant or excavators must not be operated in the immediate vicinity of archaeological remains until the archaeological contractor has given explicit permission for operations to recommence at that location.

Investigation of Archaeological Features

- 4.10 Archaeological features and deposits will be cleaned and excavated by hand, where safe to do so, using appropriate tools and according to accepted principles of stratigraphic excavation.
- 4.11 Features and deposits will be investigated sufficient to characterise their nature and importance.
- 4.12 The stratigraphy of the area is to be recorded, even when no archaeological deposits have been identified.

¹⁰ ClfA 2020a

¹¹ Available from Historic England's website: <https://historicengland.org.uk/content/docs/research/historic-england-archaeological-recording-manual-2018/>

Removal of Contaminated Deposits

- 4.13 Wherever possible, the risk of contamination should be established prior to work commencing, and appropriate measures implemented to reduce or avoid risks in accordance with Historic England best practice guidance.¹²
- 4.14 Where hand excavation is not possible, any necessary machine excavation of archaeological features and deposits should be undertaken under the supervision of an archaeologist and in accordance with the agreed WSI.

Recording

- 4.15 A standard single context recording system will be used to keep a documentary record of all archaeological remains that are encountered. The individual contexts will be cross-referenced as appropriate to associated features that are exposed.
- 4.16 Stratigraphy will be recorded in all recording areas, even where no archaeological deposits have been identified, and a Harris Matrix diagram compiled.
- 4.17 All records will be checked for consistency and stratigraphic relationships.

Drawn Record

- 4.18 A range of survey methods may be applied depending on the nature of the archaeology encountered, including survey by hand, by total station, real-time kinematic global navigation satellite system (RTK GNSS), or photogrammetry. All measured survey will be undertaken in accordance with relevant guidelines.¹³
- 4.19 Hand-drawn and digital surveys will be annotated in the field to produce interpretative drawings with relevant context numbers and boundaries between features.
- 4.20 A drawing register will be maintained, recording the scale, location, date, subject, levels, and surveyor.
- 4.21 The extent of the excavated areas and archaeological features will be recorded in plan at an appropriate scale (1:500, 1:1250 or at most 1:2500), including the position of section lines, and tied into the National Grid.
- 4.22 All archaeological features will be drawn in plan and section at an appropriate scale (minimum 1:50 for plans and 1:20 for sections) with Ordnance Datum heights on each drawing.

Photography

- 4.23 Photographic recording (film or digital) will be required showing the site in context, all excavated areas and individual archaeological features, and including shots of work in progress.
- 4.24 Film photography will be undertaken using panchromatic black and white film no faster than ISO400, supplemented with colour slide film.

¹² Historic England 2017a

¹³ Including Andrews *et al*/2015 and Historic England 2017b.

- 4.25 Digital photography will be undertaken in accordance with standards set by Historic England and the recipient archive.¹⁴ All digital photography will be undertaken using a high-quality camera recommended to have no less than an APS-C or DX size sensor of 10 megapixels and to be capable of generating images in TIF (v6) or unprocessed RAW format.
- 4.26 Metric scales of appropriate size will be clearly and discreetly placed in photographs to preserve scale including, where colour is important factor, colour control patches.
- 4.27 A register recording the details of each image will be maintained, including subject, location, date, and photographer.

Finds and Samples

- 4.28 Provisions should be made for relevant specialists to visit the site where required.
- 4.29 The Historic England Science Advisor can be consulted for advice on appropriate approaches to sampling and other archaeological science components.

Artefact Recovery

- 4.30 All stratified archaeological finds will be collected, except for modern (mid-20th century or later) finds from topsoil and subsoil contexts unless it is determined that they are of archaeological interest. Unstratified archaeological finds will be collected where they are determined to be of intrinsic archaeological interest. All artefacts will be bagged and labelled by context.
- 4.31 Removal, packaging, and labelling of finds will be undertaken in accordance with 'First Aid for Finds'¹⁵ and specific Historic England guidance as required.

Environmental/Sediment Sampling and Scientific Dating

- 4.32 All sampling must be undertaken to a site-specific strategy to be set out in the project WSI. It is to be produced in consultation with specialist advice, and in accordance with best practice guidance (including specific guidance on industrial residues, geoarchaeology, and animal remains where appropriate).¹⁶
- 4.33 The sampling strategy should also identify a process for determining when scientific dating will be considered, such as radiocarbon dating, luminescence dating, archaeomagnetic dating, or dendrochronology.
- 4.34 Provision should also be made in the WSI for the sampling strategy to be refined at suitable stages during the fieldwork programme, utilising appropriate specialists where necessary including the Historic England Regional Science Advisor.

Human Remains

- 4.35 Should any inhumation or cremation burials be encountered, their extent, number and state of preservation will be established and SYAS will be notified to discuss an appropriate strategy for their management. Remains should not be removed or chased beyond the existing limits of excavation prior to agreement with SYAS.

¹⁴ Historic England 2015b. and Archaeological Data Service 2009

¹⁵ Watkinson and Neal 1998

¹⁶ Historic England 2011, 2018b, 2019 & 2022.

- 4.36 Where necessary, a licence for removal will be requested from the Ministry of Justice, and SYAS notified, and no development should take place until burials are removed or alternate arrangements made.
- 4.37 The treatment of human remains will be in accordance with the requirements of Civil Law and all relevant best practice guidance.¹⁷ The remains will be recorded in-situ before lifting in accordance with best practice guidance.¹⁸

Treasure

- 4.38 Written agreement must be sought from the landowner to confirm that they waive their right to receive a reward under The Treasure Act 1996 should eligible finds be made.
- 4.39 Artefacts defined as treasure under the Treasure Act 1996 (as supplemented by the Treasure (Designation) (Amendment) Order 2023) will be treated in accordance with the Treasure Act 1996 Code of Practice.¹⁹ All finds of treasure must be reported to the local coroner within 14 days of discovery. In the first instance, it is recommended that details of the find are provided to the local Portable Antiquities Scheme Finds Liaison Officer to confirm that it constitutes treasure. They will then be able to apply for a Treasure Reference Number and declare the find to the coroner on your behalf. SYAS should also be notified.
- 4.40 A short Treasure Report will be compiled for submission to the coroner.²⁰
- 4.41 Where recovery of treasure cannot be undertaken on the same working day as the discovery, suitable security measures will be taken to protect the finds from theft.

Post-Excavation

- 4.42 All finds are to be treated in accordance with current best practice guidance. Finds are to be cleaned and marked, according to accepted principles and in line with appropriate period/material guidelines.
- 4.43 For all categories of material recovered, including finds, palaeo-environmental, industrial and other specialist samples, an assessment by an appropriately experienced specialist will be undertaken in accordance with best practice guidance.²¹
- 4.44 Basic stratigraphic information will be supplied to the project specialists.
- 4.45 All sediment samples collected in accordance with the project sampling strategy should be processed, sorted, and assessed (excluding samples from obviously mixed deposits, etc.).
- 4.46 Scientific dating of suitable material should be undertaken where required to provide chronostratigraphy of features of archaeological interest.
- 4.47 Advice from appropriate specialists should be sought on the storage and conservation of unstable artefactual remains (e.g. metallic, wood or leather).
- 4.48 Ferrous objects, and a selection of non-ferrous objects (including all coins), will be x-radiographed in accordance with Historic England guidance.²²

¹⁷ APABE 2017

¹⁸ Brickley, et al., 2017 & Historic England 2018c

¹⁹ DCMS 2008

²⁰ A template treasure report can be requested from the Finds Liaison Officer

²¹ Watkinson and Neal 1998, Historic England 2011 & Barclay *et al.* 2016)

²² Historic England 2006

- 4.49 The specialists will provide assessment reports describing the material, proposing selection for the permanent archive, and identifying recommendations for further detailed analysis and illustration in consideration of any research potential.
- 4.50 For ceramic assemblages, recording shall be carried out in a manner compatible with existing typological series in local pottery reference collections, e.g. the South Yorkshire / North Derbyshire Medieval Ceramics Reference Collection.²³
- 4.51 The guidelines for handling Post Roman Ceramics produced by the Medieval Pottery Research Group are also to be followed, for relevant material: MPRG, 2001 "Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics" Medieval Pottery Res Group Occ Paper 2.

5 Reporting

Reporting

- 5.1 Depending on the results of the archaeological watching brief, and in consultation with SYAS, it may be necessary to prepare a post-excavation assessment report and updated written scheme of investigation. These will provide a brief assessment of the potential of the data collected during the fieldwork stage and establish what additional work (post-excavation analysis) is required to achieve the project aims and objectives.
- 5.2 Following completion of any additional works agreed with SYAS, or where a post-excavation assessment is not required, an analysis report will be produced.

Post-Excavation Assessment & Updated Written Scheme of Investigation

- 5.3 A post-excavation assessment report shall contain:
1. A summary of stratigraphy and finds and samples recovered (this should not be a detailed stratigraphic description of the entire site);
 2. A brief description of identified phases;
 3. A statement of potential for each component of data, carried out by appropriate specialists;
 4. Recommendations for further investigation and/or preservation, to be determined in consultation with SYAS.
- 5.4 Following finalisation of the post-excavation assessment report the WSI will be updated to:
1. Identify any changes to the aims and objectives of the project;
 2. Identify any material that would merit further study;
 3. Update the Selection Strategy and Data Management Plan.

Analysis Report

- 5.5 An analysis report shall contain:
1. An introduction including background information (with planning application details, where appropriate);
 2. The original research aims and objectives and rationale for selected area of investigation;
 3. An archaeological and historical baseline;

²³ Available online: http://archaeologydataservice.ac.uk/archives/view/ceramics_eh_2003/

4. A description of results;
5. A report of all find and sample categories, by appropriate specialists, including their future research potential;
6. The results of any scientific dating;
7. A discussion of the results including a phased interpretation of the site;
8. A summary of the results in their local, regional, and national context, and the extent to which the work has addressed the project aims and objectives;
9. Supporting illustrations, including as a minimum:
 - (a) A detailed location map;
 - (b) A detailed site plan showing all monitored areas, as excavated;
 - (c) All plans and sections;
 - (d) Detailed plans of archaeological features;
 - (e) Detailed sections of archaeological features;
 - (f) An overall (phased) site plan showing all archaeological features recorded;
 - (g) Selection of photographs of work in progress;
 - (h) Select artefact illustrations and/or photographs.
 - (i) Supporting tables of data, as relevant.
10. A detailed context index;
11. An archive index;
12. Acknowledgements identifying those involved in the project, including SYAS.

6 Standards for Publication and Dissemination

Public Engagement & Outreach

- 6.1 Archaeological work is undertaken for public benefit and SYAS encourage opportunities for public engagement to be integrated from the outset.
- 6.2 It is not anticipated that a watching brief will require public engagement and outreach from the outset, however the need for this should be reviewed and updated dependent on the results.

Dissemination of Results

- 6.3 Digital and physical copies of the report must be supplied to SYAS for incorporation into the South Yorkshire Historic Environment Record. Copies of any digital data must also be provided when requested.
- 6.4 Printed copies of reports will be included with the physical archive to the recipient museum.
- 6.5 Copies of the report, or details on where it can be accessed, should be provided to all external specialists involved in the project.
- 6.6 The archaeological contractor should initiate or update an online OASIS form²⁴ at commencement of the project. Details of the results and archive are to be added, along with a copy of all formal reports, upon completion of the project.

²⁴ Via the OASIS online portal hosted by the Archaeological Data Service <http://ads.ahds.ac.uk/project/oasis/>

Formal Publication

- 6.7 A summary report of an appropriate length, accompanied by illustrations (at 300dpi resolution), must be prepared and submitted in digital format, for publication in *Archaeology in South Yorkshire* or an equivalent SYAS publication.
- 6.8 Where results warrant it, and following discussion with SYAS, formal publication in the form of a journal article or monograph should be produced.

Furthering Research

- 6.9 Provision must be made for updating the South Yorkshire Historic Environment Research Framework where the results of a fieldwork project contribute towards agenda topics. This is to be achieved by adding 'comments' to relevant research questions briefly summarising the results and providing a bibliographic reference to the relevant report²⁵.

²⁵ The research framework is accessible online: <https://researchframeworks.org/syrf/> - new users must register for a new account to add comments.

7 Standards for Archaeological Archives

General

- 7.1 In accordance with regional policy,²⁶ the archaeological contractor must notify the relevant museum at project initiation, mid-point review and completion stages to discuss archaeological archiving requirements. The relevant form (Project Initiation Form/ Mid-point Review Form/ Completion Form) will be filled out and sent to the museum with a copy provided to SYAS. Template forms are available for download from the SYAS website.²⁷
- 7.2 Details of archiving arrangements should be confirmed with the client and landowner at the outset, and a budget allowed for to cover the museum's expected deposition charge.

Working Project Archive

- 7.3 All material (whether digital or physical) recovered or generated through the duration of the watching brief will be appropriately and securely stored in a working project archive. This will be undertaken in accordance with the selection strategy and digital data management plan set out at the commencement of the project (see paragraphs 1.11-1.13).

Physical Records

- 7.4 Any physical documents or drawings will be indexed, collated, and stored in a secure location when not in use.
- 7.5 Film photography will be processed at regular intervals throughout the duration of a project.
- 7.6 Digital security copies will be made of physical records at regular intervals, to be stored and backed up in a secure location. Documents and drawings will be scanned at an appropriate resolution (no less than 300dpi for documents and drawings, 600dpi for photographic prints, and 4000dpi for negatives or slides) and to an appropriate format (e.g. a lossless format, such as TIF, for scale drawings), and scans checked for quality.²⁸ Standards adhered to should be included in the Data Management Plan. If digitised data is to form part of the final digital archive it should be treated as set out for Born Digital Records below.

Born Digital Records

- 7.7 All digital records will be treated in accordance with a project data management plan.²⁹
- 7.8 Digital records will be routinely downloaded, stored, and backed up in a secure location.
- 7.9 All digital records will be consistently labelled, files logically structured, and embedded with appropriate metadata (or have their metadata stored in an accompanying spreadsheet).³⁰

²⁶ Turnpenny 2012

²⁷ See guidance for archaeological projects, available online: <https://www.sheffield.gov.uk/syas>

²⁸ For further guidance see: [Digitisation at The National Archives](#)

²⁹ ClfA guidance available online: <https://www.archaeologists.net/diqdigital>

³⁰ Archaeological Data Service 2009

Final Archaeological Archive

Selection Strategy

- 7.10 On the completion of fieldwork, the relevant specialists and recipient museum will be consulted to update the selection strategy set out in the WSI in accordance with best practice guidance.³¹
- 7.11 This should consider all documents, finds, samples, and digital files generated during the project, including illustrations.
- 7.12 The aim of this process is to produce a project archive that allows a full re-examination and interpretation of all the results of the project whilst avoiding replication, repetition, or the retention of materials not considered germane to future analysis.

Archive Deposition

- 7.13 The final archive will then be assembled in accordance with Archaeological Archives Forum, ClfA, and museum guidelines.³²
- 7.14 Agreement in principle for full transfer of title of finds to the recipient museum needs to be obtained at the outset. Confirmation of transfer of title from the landowner and confirmation of assignment of copyright, along with a full archive inventory, will be submitted with a project completion form³³ to the recipient museum. SYAS will be provided with a copy of the completion form, including the assigned accession number.
- 7.15 The recipient archive will be licensed to use the deposited material, in perpetuity, without restrictions; this licence will allow the archive to reproduce material, including for use by third parties, with the copyright owner suitably acknowledged.
- 7.16 It is preferred practice for generated material to be archived in its original medium (i.e. physical or digital). Digitising of physical records will only be considered where it retains the same level of accessibility and information as the original medium.
- 7.17 The physical archive will be deposited with the appropriate museum. A copy of the archive receipt will be provided to SYAS.
- 7.18 The digital archive will be deposited with a Trusted Digital Repository (CoreTrustSeal certified). For archaeological archives this is presently limited to the Archaeology Data Service (ADS) at the University of York. A link to the final digital archive will be provided to SYAS.

8 References

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³¹ AAF 2011, SMA 2020 & ClfA toolkit for selection archaeology: <https://www.archaeologists.net/selection-toolkit>

³² AAF 2011, ClfA 2020e & Turnpenny 2012

³³ Utilising the proforma agreement available online: <https://www.sheffield.gov.uk/home/planning-development/south-yorkshire-archaeology-service/guidance-for-archaeological-projects>

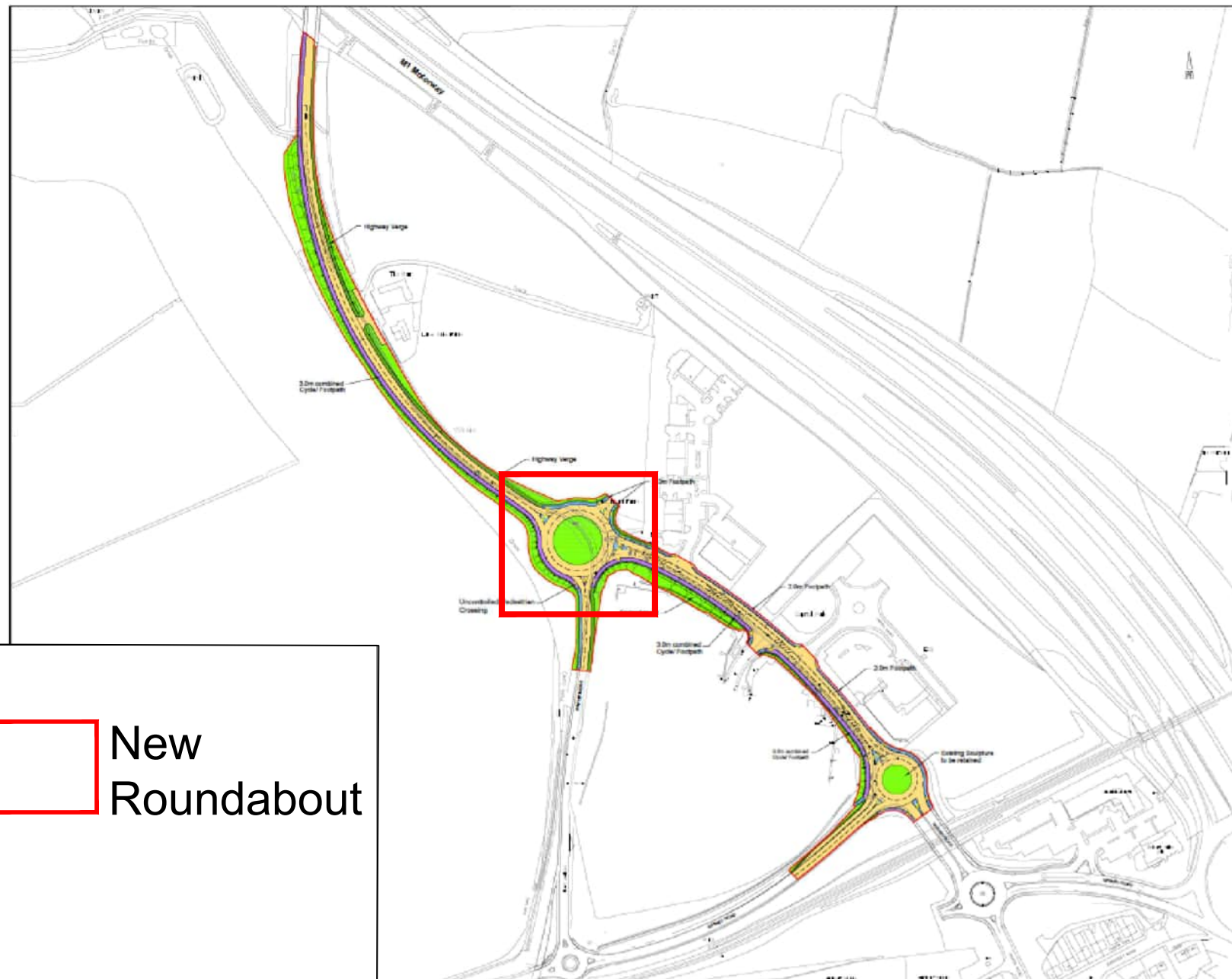
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- Historic England 2015b. *Managing Significance in Decision-Taking in the Historic Environment: Historic Environment Good Practice Advice in Planning 2.*
- Historic England 2015c. *Digital Image Capture and File Storage: Guidelines for Best Practice.*

- Historic England. 2015d. *Archaeometallurgy: Guidelines for Best Practice*.
- Historic England. 2015e. *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*.
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Appendix C Roundabout Location





- LEGEND**
- NEW CARBONADOY CONSTRUCTION & SUBTRACTED CARBONADOY
 - NEW FOOTWAY CONSTRUCTION & SUBTRACTED FOOTWAY
 - LANDSCAPED AREAS
 - HIGHWAY VERGE
 - COMBINED CYCLE FOOTPATH
 - Planning Application Area of Interest (S 85 (a)(b)(c))

This plan is prepared for the proposed development and is not to be used for any other purpose without the written consent of the planning authority.

No.	Description	Date



**J37 PHASE 2
PLANNING APPLICATION**

**GENERAL
LAYOUT**

Name	Date	Scale	Rev
11/03/2011	1:1		

Drawing No: **HD/C63.53.1/PA002**

David Shepherd, Senior Director (Place, Streetscape, Regeneration & Culture) (Business Unit 4)
 P.O. Box 1000, Barnsley
 S70 5BQ
 Tel: 01924 117171 Fax: 01924 112022

 **New Roundabout**



Appendix D Selection Strategy & Data Management Plan



Section 1: Project Administration

Project ID / OASIS ID
SLR Project No: 403.066973.00001 NGR: 431607 406165 Planning Application: 2020/0040 ECB Ref - TBC
Project Name
Land at Higham Lane, Capitol Close and Whinby Lane
Project Description
Watching Brief
Project Funder / Grant Reference
Strata Sterling Barnsley West Ltd
Project Manager
Gareth Davies MCIfA
Principal Investigator / Researcher
SLR Consulting Ltd
Data Contact Person
Project Manager
Date DMP Created
27/05/2026
Date DMP Last Updated
27/05/2026
Version
1
Related Data Management Policies
<p>A requirement for a digital data management plan is listed under section 9.6 of the CHET brief for the project. As stipulated in the project brief, the DMP will be treated as a 'living' document and will be periodically reviewed and amended throughout each stage of the project. In the event of any major amendments to the DMP, a revised version will be submitted to South Yorkshire Archaeology Service for review.</p> <p>The data management policy follows the 'Dig Digital' DigVentures guidance and template for managing and producing digital archives & data management plans, as well as implementing standards and guidance from ClfA & the Archaeology Data Service (ADS).</p> <p>https://digventures.com/projects/digital-archives/.</p>



Section 2: Data Collection

Data Collection & Creation - Selection Strategy

Following a strategy of selection after the project has been completed, many digital files may be removed from the archive in prep as they will not be necessary for deposition or may be duplicates of other files already included within the archive.

Advice and guidance on the selection strategy will also involve consulting with other colleagues internally within the company, to ensure that all relevant data produced for the project is included within the project archive. Useful resources such as the ClfA selection toolkit & digital archive guidance will be considered in this process of archiving via:

<https://www.archaeologists.net/selection-toolkit>

<https://www.archaeologists.net/digital>

The data that will be selected for inclusion within the archaeological archive will largely be present within the initial project folder. However, by reviewing the files within each project, the archive can be reduced significantly and become much more succinct and useful for potential future research. For example, multiple copies of the same image can be removed so that the 'Photos' folder contains a clear and organised representation of each shot taken on site. Likewise, duplicates of the report can be reduced to inclusion only of the final PDF/A copy rather than including all the previous versions which otherwise might cause confusion if the archive is later re-visited.

However, just as data can be removed from the archive, data will also be added. For example, any finds data or specialist reports will be copied over to the digital archive and reviewed in the same process.

Files are stored in the appropriate sub-folder (sub-divided by client/site) of the relevant SLR office projects drive. Relevant admin data (SLR document formats) will also be created and added to the archive, such as a completed 'Transfer of Ownership Form', the 'Documentary Archive Form' (an index to the contents of the documentary archive), 'Licence of Copyright Form', 'Archive Transfer Form' & a 'File List/Metadata' for the project.

Data Collection & Creation - File Re-Naming, Conversion & Selection Procedures/Examples

Documents:

The following ADS 'Guides for Good Practice' resources may also be reviewed for guidance on relevant data collection and acceptable file formats which support long-term access and preservation of an archive:

<http://guides.archaeologydataservice.ac.uk/g2gp/Contents>

As part of the archiving process, all DOC & PDF files will be converted to a PDF/A standard (via software such as PDF-Xchange Editor).

Each file within the project archive will also be re-named in the following order, ensuring all spaces are removed from file names: ECBRef_WorkPhase_FileName (_PDF/A if it is a converted PDF file).

Graphics:

Once complete, all graphics files will be reviewed as part of the selection strategy. Any PDF files will be combined into 1 PDF/A file and added to the main graphics folder for the project archive.

Within the selection strategy, any graphics files that do not have 'Fig' in the name or any .bak & .dxf files are likely to be deemed unnecessary for deposition and will be removed from the digital archive.

Photos:

During the selection strategy, any exact duplicates of photos from the site will be deleted before being compiled into 1 folder (or folders separated by different work phases). These will then be re-named in bulk with the ECBRef_WorkPhase_Photo-Number- with shot numbers added to the end of the file names.

When re-named, a contact sheet of the digital photos will be created and added to the 'Primary-Docs' file in the digital SiteRecords folder.



Data Collection & Creation - Selection Strategy

Folder Structure & File Organisation

The project folder will be re-named to include the ECB Reference and any spaces will be removed from the site name.

Within the main project folder, the following generic folder structure will be implemented, with each file organised into the appropriate folders:

Admin (File List & Metadata; PDF/A versions of the following: Transfer of Ownership Form, Documentary Archive Form, Licence of Copyright Form, Archive Transfer Form; OASIS Form, Brief & WSI)

Database (Finds Concordance, Sample Concordance & any other relevant Specialist Spreadsheet/Database Files)

Finds (PDF/A versions of any Specialist Finds Reports)

Graphics (PDF/A combined version of the PDF Figures used in the report, Any CDR, DWG & JPG figures)

Photos (Digital Site Photos)

Report (PDF/A version of the Final Report)

Appendices (PDF/A versions of the following: Any Appendix, the Photo Index & Finds Concordance)

Site Records ('Primary-Docs': A scanned copy of the Documentary Archive compiled with necessary digital files created for the archive)

Section 3: Documentation and Metadata

Metadata Documentation Format

When all digital files have been prepped, a File List & Metadata are required to be created and included within the digital archive.

A file list in the format of a text (.txt) document will be generated through SLR software and procedures and will feature basic information of the project archive data (file names, date/time of creation and file sizes in bytes).

Information from the file list will also be transferred and expanded on into a more detailed metadata file and saved as a text (.txt) document. The metadata file will therefore provide further file-specific information such as: software/camera type (examples: Adobe Acrobat/Microsoft Word/AutoCAD/CANON), software/camera versions (examples: Adobe Acrobat X Professional/Microsoft Office 2016/AutoCAD 2012 LT/Canon EOS 4000D), file conversions (example: 'The .pdf figure was created from the CoralDRAW original using CoralDRAW Graphics Suite X6 and converted to PDF/A'), as well as a brief summary of the contents of the documentary and physical archives (example of an WA metadata structure below).



Metadata Documentation Format

```

ECB5757_TT_Metadata

PAPER ARCHIVE - <1 Box
DOCUMENT FILE - Report, Field Records, Photographs & Drawings

REPORT - 5931
INTRO / OASIS FORM / BRIEF / WSI
EVALUATION TRENCH RECORD SHEET
CONTEXT REGISTER
CONTEXT SHEETS (1000 - 1039)
SHEET REGISTER
DRAWING REGISTER
DIGITAL PHOTO REGISTER / CONTACT SHEETS - SHOTS 1 - 44
EVALUATION TRENCH ARTEFACT SAMPLING OF TOPSOIL & SUBSOIL SHEET
SAMPLE REGISTER
A3 PERMATRACE DRAWINGS
MISC

FINDS

<1 Box of Finds

DIGITAL FILES

The Word processed documents were created in Microsoft Office Word using Microsoft Office 2016.
PDF/A versions were created directly from Microsoft Word using the Adobe PDF maker 9.0 plugin.
All PDF/A files conform to PDF/A-1b and have been verified using Adobe Acrobat Professional V.9.0.

DOCUMENTS

Admin

DATE AND TIME OF CREATION          FILE (BYTES)          FILE_NAME / CONTENT
01/12/2020 - 09:32          148,043              ECB5757_TT_Brief_PDFA.pdf
21/01/2021 - 10:29          36,230               ECB5757_TT_Documentary-Archive-Form_PDFA.pdf
21/01/2021 - 10:24          62,253               ECB5757_TT_Licence-of-Copyright-Form_PDFA.pdf
21/01/2021 - 10:24          60,040               ECB5757_TT_Museum-Transfer-Form_PDFA.pdf
01/12/2020 - 09:31          91,546               ECB5757_TT_OASIS-FORM_PDFA.pdf
01/12/2020 - 09:30          274,428              ECB5757_TT_Report-Approval_PDFA.pdf
01/12/2020 - 09:31          160,036              ECB5757_TT_Transfer-of-Ownership_PDFA.pdf
01/12/2020 - 09:31          766,758              ECB5757_TT_WSI_PDFA.pdf
28/01/2021 - 08:29          10,421               ECB5757_TT_File-List.txt
28/01/2021 - 08:33          12,184               ECB5757_TT_Metadata.txt

SiteRecords

DATE AND TIME OF CREATION          FILE (BYTES)          FILE_NAME / CONTENT
26/01/2021 - 09:13          31,152,154           ECB5757_TT_Primary-Docs_PDFA.pdf

```

Example section of a metadata document

It will be ensured that all files from the file list are also present in the metadata document under the relevant subject area. When all checks have been made, the file will be saved as ECBREF_WB_Metadata.txt.

Section 4: Ethics and legal compliance

Management of Ethical, Copyright and Intellectual Property Rights (IPR) Issues

Compliance of all ethics and legal matters will be maintained and verified throughout each stage of the project by the Project Manager.

Where formal permissions and/or license agreements are linked to data sharing, these will be included in the project archive folder. During the compilation of the digital archive, appropriate documents such as the 'Transfer of Ownership', 'Licence of Copyright Form', 'Archive Transfer Form', 'Purchase Order Form' & 'Deposition Letter' will be completed by the Archives Officer to accompany the archive and maintain compliance of legal archive management procedures.

The archive will also not be deposited until every effort to contact the original landowner has been made to gain a completed 'Transfer of Ownership Form'. However, after 3 failed attempts to contact the landowner, a 'Due Diligence Form' will be completed and will serve as sufficient transfer of ownership for the archive as per WA procedures.



Section 5: Data Security: Storage and Backup

Data Accessibility, Storage & Preservation Procedures

As previously specified, all data from the working project archive will be stored in a project specific folder on internal servers. These servers are routinely backed up at each stage of the project research, to maintain an up-to-date security copy of all the project data. Furthermore, all site records and data collected will be reviewed throughout stages of the project delivery to maintain data accuracy and security.

Project files will be shared with external specialists directly using the same servers, with the wider project team gaining access to only the files needed using a controlled permissions-based access.

Section 6: Selection and Preservation

Which Selection of Data to be Retained, Shared, and/or Preserved

A selection strategy of data will be implemented to create a project archive that can be effectively used for future research purposes.

Long-Term Preservation Plan

The digital archive generated as part of this project should be deposited with the Archaeology Data Service (ADS) - a Core Trust Seal certified data repository. The ADS instruction for depositors is available online and will be consulted during the preparation of the digital archive:

<https://archaeologydataservice.ac.uk/help-guidance/instructions-for-depositors/>

Digital Archive Completion & Deposition

Upon finalisation of the digital archives the archives will be uploaded to the ADS repository, ensuring sustainable long-term preservation for the data. The ADS will be contacted and consulted when the project reaches the archiving stage.

Archive Data Costing

All costs of digital archiving will have been considered within the initial costing breakdown of the project work. This will ensure that the cost of depositing the digital archive with the appropriate repository (Archaeology Data Service) is acknowledged at the forefront of the project research, as well as considering the cost of the overall data management and archiving process. The most current guidance and costs schedule will be checked regularly, and any changes will be updated on this document and internal systems accordingly to ensure the new costs are integrated into deposition costs.

Section 7: Data Sharing

Data Sharing & Accessibility Procedures

The project archive will facilitate suitable public access to any evidence acquired during the investigation through the records gathered and produced:

This objective will be achieved through implementing the selection strategy of the digital data (outlined in Section 2 of this document), ensuring that the archive contains a concise and coordinated record of the investigation that will allow efficient use in any potential future research.

Once the deposition of the archive has taken place, the digital data will remain preserved and accessible via the ADS.



Data Sharing & Accessibility Procedures

Data Sharing Restrictions

Any data specific requirements or legal/ethical restrictions and issues which are linked to specific data formats will be added to an updated version of this DMP and documented within the project archive.

Section 8: Responsibilities

Data Management Plan Responsibilities

The Project Manager will be responsible for developing the Written Scheme of Investigation (WSI) for the project, alongside updating and implementing the DMP for the project; ensuring that the DMP is reviewed and revised at each stage of the project research.

The Admin Team will be responsible for such processes as checking that the site to be deposited has been signed off and the report completed, as well as ensuring that the digital OASIS Form has been completed for the site to be archived.

The Field Team will be responsible for maintaining accuracy of documentation and data captured on site, which will be digitised upon completion of the fieldwork.

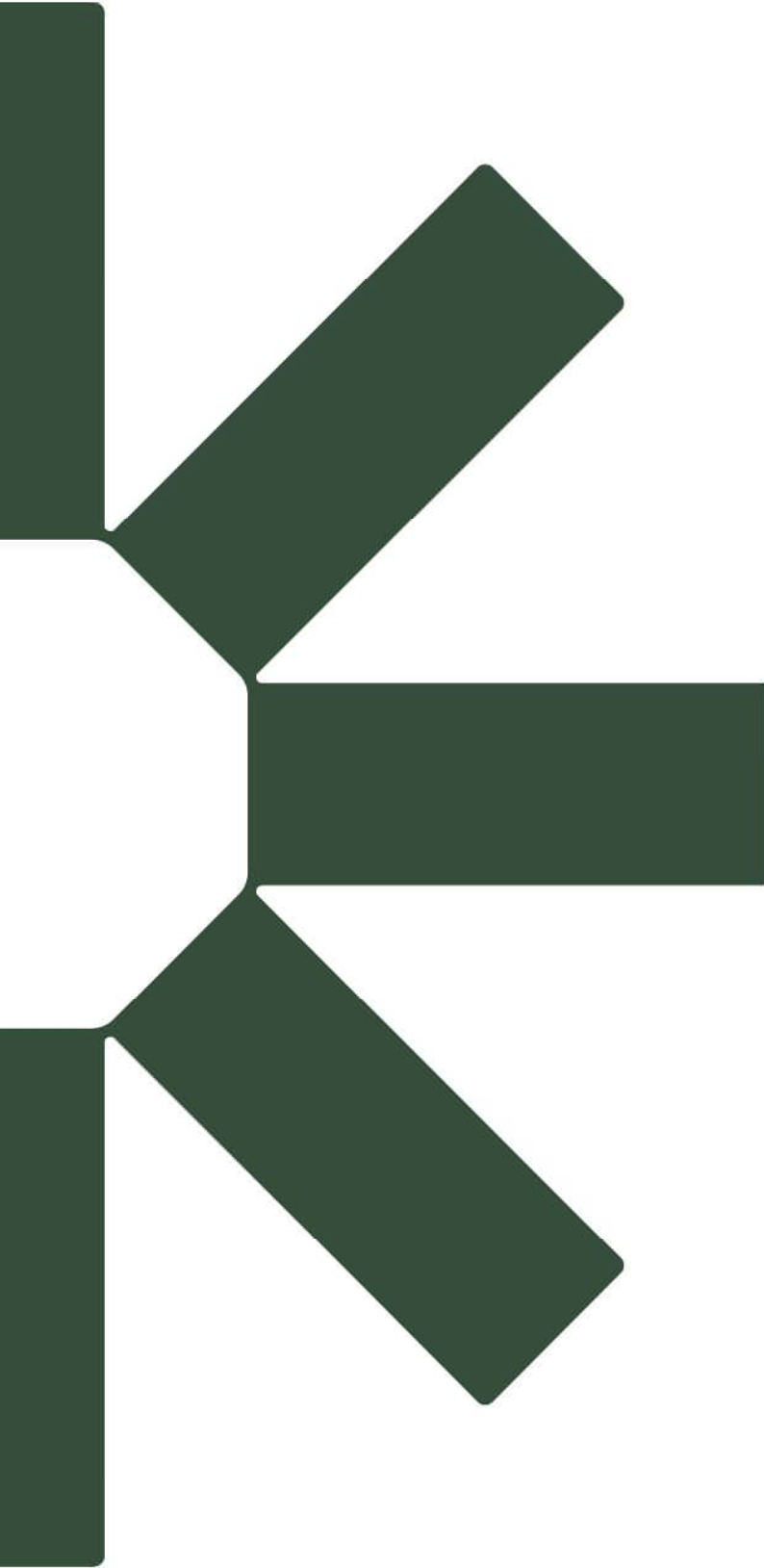
The Graphics Team will be responsible for creating and maintaining graphics files to be used in the production of the project report, which will be written by the Post-Excavation Team.

The overall compilation of the archive, including producing relevant forms, metadata, file conversions/re-naming, strategic selection and general archiving of all digital data in conjunction with digitising all relevant documentary material will be undertaken and verified by the Archives Officer.

The Finds Coordinator will prepare any relevant finds data (such as concordances) to be used for archiving. Finds Specialists will also be responsible for reviewing the finds and creating a digital dataset of the project findings.

Further details of the core project team are included within the Written Scheme of Investigation for the project.





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