WSI for Archaeological Strip, Map and Record

Branston Locks

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## Document Control Sheet

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Executive Summary

Amey plc, on behalf of Staffordshire County Council, is undertaking the construction of three access roads (henceforth ‘the scheme’) from Branston Road to facilitate a mixed-use development of the land at Lawns Farm, Branston, Burton-upon-Trent on behalf of the developer. The planning application for a mixed-use development was submitted to East Staffordshire Borough Council (ESBC) in 2012. An archaeological desk-based assessment and a Historic Environment Management Plan (HEMP) have been produced for the developer by their archaeological contractor to support their planning application. ESBC granted planning permission for this development in April 2015 and an archaeological condition (no. 53) was applied.

Amey plc will be responsible for the archaeological mitigation required to fulfil Condition 53 of the planning permission only within this scheme footprint (fig. 2 and 3). The construction methodology will comprise the levelling of the existing ground surface to build up the land for the construction of the access roads. It has been agreed with Staffordshire County Council’s Principal Archaeologist, taking into account the construction methodology, that an archaeological strip, map and record would be an appropriate level of archaeological mitigation for this scheme.
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Introduction

1.1 Project

Amey plc, on behalf of Staffordshire County Council, is undertaking the construction of three access roads (henceforth ‘the scheme’) from Branston Road to facilitate a mixed-use development of the land at Lawns Farm, Branston, Burton-upon-Trent on behalf of the developer. Planning permission for the mixed-use development was submitted to East Staffordshire Borough Council (ESBC) in 2012.

Condition 53 of the planning permission granted by ESBC in April 2015 states:

"No development of any phase shall take place until a scheme of archaeological work, to include the development of a Historic Environment Plan, post-excavation, reporting and appropriate publication in accordance with a written scheme of investigation, in relation to that phase has been submitted to and approved in writing by the Local Planning Authority. Any recommendations of the Historic Environment Management Plan shall be complied with during construction.”

The Historic Environment Management Plan (HEMP) was produced by AOC Archaeology Group for the mixed-use development in August 2015 (cf. s. 2.1).

The construction of access roads and Canal Bridge will involve levelling of the existing ground surface by approximately 300mm to a suitable formation level to commence earthworks fill. The area approved for soil strip is identified on drawing no. CDX8620/R06/07 (reproduced as fig. 2). The formation level will be raised by an average of 3m across the footprint of the proposals, with the most significant increase, circa 5.2m, being adjacent to the Canal Bridge abutments. The area for soil stripping comprises two areas of 1ha (north of the canal) and 2.5ha (south of the canal) and includes any proposed compound/storage areas (fig. 2).

This Written Scheme of Investigation (WSI) relates specifically to a strip, map and record exercise to be undertaken during the soil strip of the two areas to the north and south of the canal (fig. 2 and fig. 3).
2  Background and Scope of Works

2.1  Previous archaeological assessments

As part of the mixed-use development at Branston Locks (cf. fig. 1), a number of assessments have been undertaken in support of the planning application (P/2012/01467) and to meet planning condition no. 53 imposed by ESBC on the permission granted 14th April 2015.

A Heritage Statement was produced in October 2012 by AOC Archaeology Group as a desk-based assessment to understand the archaeological baseline and the potential impacts upon the cultural heritage resource relating to the mixed use development. The Heritage Statement identified that there was a Medium-High Potential for encountering evidence of human activity of prehistoric-Roman date; Medium Potential for evidence of Medieval activity and Medium-High Potential for evidence of Post-Medieval activity. Potential sites of all periods were evaluated as being of local to regional importance. The Heritage Statement identified that there would be a requirement for further archaeological mitigation to provide greater clarity of the archaeological potential across the development site.

The HEMP (AOC 2015) was produced to satisfy the planning condition and sets out the fieldwork strategy for the mixed-use development site. As part of this, a geophysical survey was undertaken, the preliminary results of which are incorporated into the HEMP.

The geophysical survey identified a number of possible archaeological features, including a possible track, coinciding with the scheme (fig. 3).

The HEMP lays down the requirements for an archaeological evaluation, as well as an archaeologically controlled soil strip (henceforth 'strip, map and record'), for areas which appear “sterile in terms of archaeological interest or low in potential” (ibid.:14).

2.2  Archaeological Baseline

The Heritage Statement (AOC 2012: 3) identified that there were a total of 34 designated heritage assets lying within 1km of the mixed use development site. Of these assets, only one Grade II Listed structure (Canal milepost) lies adjacent to this scheme and will not be directly impacted by it (fig. 3).
The Heritage Statement also noted a number of undesignated heritage assets identified on the Staffordshire HER as lying either within or adjacent to the mixed-use development boundary. This included cropmarks suggestive of Late Neolithic to Roman activity as well as further undated pits, enclosures and linear features across the mixed-use development site (ibid.: 4).

The line of an early medieval to medieval hollow way and/or park pale (possibly associated with Sinai deer park) lies within the area of this scheme (fig. 3). Part of this feature was also identified during the geophysical survey (AOC 2015: fig. 6). A further two features which may be of archaeological origin were also identified by the geophysical survey as lying within or immediately adjacent to the scheme boundary (ibid; cf. fig 3).

### 2.3 Consultation

Consultation has been undertaken with Staffordshire County Council’s (SCC) Principal Archaeologist to determine the likely impact of the scheme upon the below-ground archaeological remains. It was agreed that an archaeological evaluation would not be required for the area of the scheme due to the construction methodology for the access roads (cf. s. 1.1). Instead a strip, map and record would be undertaken sufficiently in advance of construction to enable appropriate recording and sampling of any archaeological features and/or deposits encountered.

### 2.4 Scope of Works

The scope of works relates to all of the road construction works being undertaken by Amey plc, on behalf of Staffordshire County Council, to facilitate the mixed-use development. Fig. 2 relates to the extent of the soil strip works, which incorporates the locations of any compounds/storage areas, requiring archaeological monitoring. It should be noted that further phases or extensions to the road construction works will be subject to the provisions of this WSI and will be treated as separate phases to this scheme; an addendum will be produced and attached to this WSI for any future phases.
2.5 Objectives

The objectives of the strip, map and record are:

- To ensure the adequate recording of any archaeological remains revealed during all soil stripping associated with the scheme.

- To identify and understand as far as possible the nature, depth, extent, date, character and relationship of each of the features identified across the scheme.

- To secure the analysis, conservation and long-term storage of any artefactual/ecofactual material recovered from the site.

- To integrate the results of all the works into the wider historic and archaeological context of the landscape and to address the West Midlands Research Framework (2012) where applicable.

- To ensure that an accurate and comprehensive record and report of any archaeological deposits found during works is produced and disseminated to the appropriate organisations, including the Staffordshire Historic Environment Record (SHER).
3 **Methodology**

3.1 **Strip, map and record**

The strip, map and record shall be undertaken in accordance with the Chartered Institute for Archaeologists (CIfA’s) ‘Standard and guidance for archaeological excavation’ (2014).

The archaeological contractor should undertake the strip, map and record as defined in s. 2.3 Scope of Works above and fig. 3, unless otherwise notified in writing or as an addendum to this WSI.

3.2 **Machine Stripping**

In line with the HEMP, the area identified in fig. 3 shall be stripped using a back-acting machine fitted with a straight-edged (toothless) bucket. The soil shall be removed in successive level spits down to the first significant archaeological horizon or to the top of the natural geology (subsoil or bedrock), whichever is encountered first. This work shall be undertaken under the supervision of the attending archaeologist(s). Archaeological deposits will not be removed by machine except where the procedure has been agreed between the archaeological contractor and SCC’s Principal Archaeologist. Potentially significant deposits should not be removed by machine before their character is reasonably understood.

All excavated material (‘spoil’) shall be kept separate from other deposits and shall be examined for any archaeological material/finds.

3.3 **Investigation of features**

On completion of machine stripping in an area, where appropriate the surface will be hand-cleaned to allow the identification and planning of archaeological features.

Archaeological deposits and features will be hand-excavated and recorded. A sufficient quantity of features shall be hand-excavated to allow their nature, extent and age to be determined.
Linear features will normally be subject to a 20% sample with slots of at least 1m width excavated at regular intervals. Excavation of any linear features will also include any ditch intersections and terminals. All discrete cut features, such as pits or post holes, will be subject to a 50% sample with plan and section drawn.

Should stratified deposits be present, sufficient excavation will be undertaken to ensure that the natural geology is reached and proven, all strata and their natures and relationships evaluated and recorded, and an appropriate sampling strategy implemented.

Should in-situ structural remains be encountered, sufficient excavation will be undertaken to confirm function, sequence, extent, chronology and method of construction.

All archaeological features and deposits will be issued with a unique number and will be recorded using standard context record sheets to include details of the nature, dimensions, appearance, relationships and location of each context. All archaeological features will be planned at an appropriate scale of 1:10, 1:20 or 1:50 in relation to the trench outline and sections will be drawn at the scale of 1:10.

Drawings will be on plastic drafting film and further site plans will be created by digital survey. A full digital photographic record of the work, with appropriate scales and identification, will be taken and maintained. All remains will be levelled with respect to Ordnance Survey data.

Every artefact recovered will be issued with a unique finds number and its details, including category, material(s), recovery context and location, will be recorded in a finds register. Every artefact will then be removed and packaged as appropriate to the material and condition and in accordance with CIfA standards and guidance. If appropriate, specialist advice will be sought relating to the lifting and treatment of sensitive objects.

Where applicable, and with the prior agreement of SCC’s Principal Archaeologist and in line with the HEMP, a representative sample of non-significant material, e.g. post-medieval pottery and building material, should be retained, with the remainder being discarded once recording has been completed.
3.4 Sampling

Where suitable deposits (such as organic or charcoal-rich soils) are encountered, samples will be taken for environmental analysis. A suitable sampling strategy and methodology will be established by the archaeological contractor in consultation with SCC’s Principal Archaeologist, the Amey Environmental Team and, where appropriate, the Historic England Regional Science Advisor.

In line with the HEMP, this shall typically constitute bulk samples, 20L for wet and 40L for dry contexts. Sampling methods will follow Historic England’s guidelines (English Heritage 2011).

3.5 Sensitive Material

Upon discovery of sensitive material (e.g. human remains or particularly significant features or artefacts, especially possible treasure items), all excavation shall cease and the archaeological contractor will establish a clearly visible cordon around the area of discovery. They will be responsible for informing all other contractors and subcontractors to avoid any disturbance within the cordoned area.

The archaeological contractor will also be responsible for the prompt notification of the Amey’s Environmental Team, SCC’s Principal Archaeologist and the appropriate authorities, e.g. HM Coroner for South Staffordshire for cases of human remains and possible treasure objects. The area will then be treated as directed by them.

All individual burials would be either fully excavated or left intact, and all will be planned and recorded on a specialised skeleton context form. If the burials are to be fully excavated then all appropriate permissions will be sought in advance as appropriate.

If potential treasure items are discovered, the archaeological contractor shall follow the procedures described in the ‘Treasure Act 1996: Code of Practice (2nd Revision)’ (2002). Once appropriate recording has been undertaken and where practicable, any and all relevant items shall be removed from the field and held in a secure facility and in appropriate conditions. They will be kept, treated, packaged and transported as directed by the Coroner.

Should the scale of features and/or deposits require it, further appropriate field staff will be made available to augment the monitoring archaeologist(s).
3.6 Monitoring by Curatorial Staff

Sufficient opportunity will be granted to the SCC Principal Archaeologist to monitor the archaeological mitigation as necessary.
4 Post-Excavation

4.1 Contexts

The context database from across the scheme will be consolidated, computerised and cross-referenced to the drawn, photographic and finds registers to ensure consistency, to identify or indicate collections and complexes of features, including palaeoenvironmental features (e.g. old river channels), and to identify changes in stratigraphy.

4.2 Finds

All artefacts recovered and retained from the strip, map and record exercise will be processed, numbered and packaged as suitable for their constituent material(s) and conditions (cf. s. 3.3 for discard policy). If appropriate, they will be cleaned and they will be marked/tagged with their site and individual codes.

All such finds would be the property of the landowner(s) except where they satisfy certain criteria specified in the Treasure Act 1996 and may be determined by a Coroner as treasure. Where it is suspected that recovered items conform to those criteria, the Coroner will be informed (cf. s. 3.5).

All artefacts would be accompanied with appropriate documentation suitable for transfer to and deposition in the appropriate local Museum. The Museum will be consulted with regard to their requirements for such transfers, including the issuing of an accession code.

4.3 Soil Samples

Any soil samples retrieved from the assessment trenches will be clearly marked, giving their locations, contexts and the dates on which the samples were taken. Sample sizes may vary (cf. s. 3.4).

The samples will be double-bagged and labelled with a minimum of the site code, context number(s) and date of collection. They will be made available for examination for potential flora and fauna remains, for radiocarbon analysis etc.
4.4 **Drawings**

An overall site plan will be produced, displaying the locations and identifying numbers for all features and artefacts.

The field drawings (cf. s. 3.3) of all relevant features and deposits will be reproduced digitally and to appropriate professional standards, if necessary to publication quality. The locational and orientation details would be included, as would relevant context information.

4.5 **Photographs**

A register will be generated of all site photographs, detailing the photograph number, location, subject, date and orientation. Copies of those photographs will be used to illustrate all reports, and digital copies will be made available to the client.
5 Further Analysis and Deposition

5.1 Artefacts, samples etc.

If recommended by SCC’s Principal Archaeologist and Amey’s Environmental Team, specialist analyses of objects and materials will be undertaken dependent upon their potential to contribute to an understanding of the site. These techniques could include the provision of specialist reports on artefacts (e.g. pottery, flints etc), animal or human bones, scientific dating procedures (e.g. dendrochronological or radiocarbon analysis), X-ray photography, artefact illustration, conservation of metallic or organic material and the processing and analysis of soil and other organic samples.

The production of specialist reports will be overseen by the archaeological contractor and the results incorporated into the final report.

The archaeological contractor will make arrangements to forward the artefacts to the relevant local Museum (Potteries Museum & Art Gallery, Stoke-on-Trent). They would be appropriately packaged will all necessary documentation and transported in a suitable manner to the relevant local Museum.

5.2 Site Archive

The site archive will contain all the data and materials generated during fieldwork, including records, finds, drawings, photographs and environmental samples. The project archaeologist will ensure that the archive is quantified, ordered, indexed and internally consistent. Adequate resources should be provided during fieldwork to ensure that records are checked. Archive consolidation will be undertaken following the conclusion of fieldwork.

The site archive would be assembled in accordance with guidelines set out in CIfA’s ‘Standards and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives’ and in accordance with ‘Guidelines for the Preparation of Excavation Archives for Long-term Storage’ (United Kingdom Institute for Conservation, 1990), and ‘Standards in the Museum Care of Archaeological Collections’ (Museums and Galleries Commission, 1994).
The integrity of the primary field records will be preserved and the archive offered to the relevant local Museum; secure copies in digital format will be held by the archaeological contractor. A copy will also be offered to the Archaeology Data Service (ADS) based at the University of York.
6 Reporting

6.1 Final Report

A final report will be produced in accordance with current CIfA standards and guidance (2014) and will include:

a) a non-technical summary

b) overview of the documented history and archaeology of the site

c) a full descriptive text detailing the features and deposits identified and an interpretation of their age and function, quality and value;

d) descriptions of the artefacts, referring to the contexts from which they were recovered;

e) plans and section drawings of significant features and deposits, cross-referenced with the text;

f) illustrative annotated photographs of features, deposits, artefacts and samples, cross-referenced with the text; and

g) an analysis of the results of the works, including all specialist reports where available, in the context of the wider archaeological landscape.

There should also be lists of contexts, artefacts and samples, and where appropriate sequence diagrams (e.g. Harris matrices).

At least two colour slides (or high-resolution digital images) showing general views of fieldwork in progress and, where appropriate, key finds or features shall be submitted in addition to the final report. These shall be used for educational and promotional displays.

If appropriate, the final report would include recommendations for further work.

The final report should be completed within three months of completion of the fieldwork. A draft report will be submitted for approval to the SCC’s Principal Archaeologist and, once approved, a single hard copy and a digital copy will be submitted to the SHER held by Staffordshire County Council, along with a GIS shapefile showing the location and extent of the scheme. The project should be reported via OASIS (Online Access to the Index of archaeological investigations) and an archive-quality digital copy deposited with
the Archaeology Data Service (ADS) based at the University of York.

The archaeological contractor should be prepared to produce output in other reporting and dissemination formats, including publicity material and public talks, should it be required or requested.
7 Health and Safety

Health and Safety takes priority over field work requirements. All project staff conducting field work should do so under a defined Health and Safety policy and should observe safe working practices.

Risk Assessments should be carried out and documented for every project. All archaeologists have a professional and moral responsibility to report unsafe practice.

The archaeological contractor should ensure that project staff have sight of and are familiar with the Client’s and/or their Contractor’s health and safety policies for this scheme.

Before the commencement of the archaeological fieldwork, a Site Specific Risk Assessment will be carried out and documented, and dynamic risk assessments undertaken each day to account for changing site conditions.

The archaeological contractor will ensure that all project staff undertaken an appropriate site induction and abide by its requirements.

The archaeological contractor would ensure that all field archaeologists would be informed of:

• the tasks which they would be expected to perform;
• the locations of their work areas;
• hazards on and around the sites, in particular involving the use of plant;
• the site facilities available and their locations;
• the H&S equipment and materials available and their locations;
• the identities and locations of the First Aiders; and
• the location of the nearest hospital.

The archaeological contractor will provide evidence of current appropriate health and safety training of all project staff.
8 References


Chartered Institute for Archaeologists (2014) *Standards and Guidance for archaeological excavation*.

Chartered Institute for Archaeologists (2014) *Standards and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives*.


English Heritage (2011) *Environmental Archaeology: A guide to the theory and practice of methods, from sampling and recovery to post-excavation*.
Appendix A  Figures
Figure 2: Location Plan
Figure 3: Approved drawing (No. CDX8620/RO6/07) showing area of 300mm soil strip (scheme boundary)