

Tanner's Hall Farm Wind Turbine,
Crook, County Durham

Report on an Archaeological Watching Brief



Solstice Heritage
Crabtree Hall Business Centre
Little Holtby
Northallerton
North Yorkshire
DL7 9NY

www.solsticeheritage.co.uk



Looking west towards the neighbouring turbine.

Tanner's Hall Farm Wind Turbine, Crook, County Durham

Report on an Archaeological Watching Brief

Planning Ref: 13/00317/CM

Prepared for:	Mr A. Layfield Tanners Hall Farm Stockley Lane Crook County Durham DL15 0TS
Prepared by:	Jim Brightman BA (Hons), MLitt, MIfA Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9LN
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EXECUTIVE SUMMARY

This report details the results of a programme of archaeological monitoring undertaken on land at Tanner's Hall Farm, Crook, County Durham during groundworks for the erection of a single wind turbine and associated infrastructure. The area of groundworks comprised a 4m wide access track and a 20m x 30m area to house the main turbine and substation. The stripped area measured a total of c.0.2ha in plan, and was reduced to a relatively uniform depth of c.0.35m, the thickness of the topsoil.

Once the overburden had been removed, it was observed that the whole monitored area had been previously extracted for opencast mining and reinstated with a mixed clay deposit. Any features of archaeological or palaeoenvironmental significance will have been removed.

1. INTRODUCTION

1.1 PROJECT BACKGROUND

This report has been prepared by Solstice Heritage on behalf of Mr A. Layfield to outline the results of an archaeological watching brief. The work was requested by Durham County Council (DCC) as a condition of planning permission for the construction of a single wind turbine and associated infrastructure on land north-east of Tanner's Hall Farm, Crook, County Durham.

1.1 SITE LOCATION

The wind turbine is situated north-east of Tanner's Hall Farm c.3km north-east of the village of Crook, County Durham, centred at grid reference 417858 537463. The groundworks monitored comprised the turbine base and the associated access and infrastructure (Fig. 1 Appendix 1).

1.2 PREVIOUS WORK

There has been no previous evaluation work on the site. Previous interventions within 2km of the turbine location predominantly relate to work in advance of coal extraction to the east or small-scale development-led assessment and evaluation in Stanley Crook to the west. The work at Brandon South Opencast to the east of the proposed turbine identified medieval and post-medieval land boundaries and is most notable for the lack of evidence for the north-south aligned Roman Road thought to run c.1km to the east of the site (Archaeological Practice 1995).

1.3 POTENTIAL SIGNIFICANCE

There are no known archaeological features within the footprint or immediate vicinity of the turbine and its associated infrastructure, and consultation of freely available digital vertical aerial photography shows that the arable field is cut by a series of parallel field drains, though none were visible during the monitoring work.

The closest known archaeological remains to the proposed site are earthwork banks and linear features of indeterminate date in the plantation to the north. These may be associated with the supposed late prehistoric promontory fort c.750m north-east, later reinterpreted as medieval in date and now destroyed by 20th century opencast operations (noted in Brightman 2013). These remains, along with the putative line of a Roman Road to the east initially suggested a low potential for late prehistoric or Roman period remains to be identified through the monitoring works.

1.4 AIMS AND OBJECTIVES

An archaeological watching brief is defined as:

"A formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, intertidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive" (IfA 2008a, 2).

The overarching aim of the watching brief was:

- To ensure that significant archaeological remains were not destroyed without first being adequately recorded.

The objectives of the watching brief were:

- To record, excavate and environmentally sample any archaeological deposits of significance observed during the groundworks
- To establish the date, character and significance of any archaeological and palaeoenvironmental deposits, including in relation to other similar features within the area
- To ensure there is a permanent record of the work undertaken deposited with the local Historic

Environment Record (HER) and made available online

- To ensure all work is undertaken in compliance with the Code of Conduct of the Institute for Archaeologists (IfA) (2000), the IfA Standard and Guidance for Watching Briefs (revised 2001), and the Regional Statement of Good Practice.

2. POLICY AND GUIDANCE FRAMEWORK

2.1 LEGISLATION

National legislation which applies to the consideration of cultural heritage within development and the wider planning process is set out in Table 1 below.

Title	Key Points
Ancient Monuments and Archaeological Areas Act 1979 (amended by the National Heritage Act 1983 and 2002)	Scheduled Monuments, as defined under the Ancient Monuments and Archaeological Areas Act (1979), are sites which have been selected by a set of non-statutory criteria to be of national significance. Where scheduled sites are affected by development proposals there is a presumption in favour of their physical preservation. Any works, other than activities receiving class consent under The Ancient Monuments (Class Consents) Order 1981, as amended by The Ancient Monuments (Class Consents) Order 1984, which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering-up a Scheduled Monument require consent from the Secretary of State for the Department of Culture, Media and Sport.
Planning (Listed Building and Conservation Areas) Act 1990	Buildings of national, regional or local historical and architectural importance are protected under the Planning (Listed Buildings and Conservation Areas) Act 1990. Buildings designated as 'Listed' are afforded protection from physical alteration or effects on their historical setting.
Hedgerows Regulations 1997	The Hedgerow Regulations (1997) include criteria by which hedgerows can be regarded as historically important (Schedule 1 Part III).

Table 1 Legislation relating to cultural heritage in planning

2.2 POLICY

2.2.1 NATIONAL

The principal instrument of national planning policy within England is the National Planning Policy Framework (NPPF) (CLG 2012) which outlines the following in relation to cultural heritage within planning and development:

Paragraph	Key Points
7	Contributing to protecting and enhancing the historic environment is specifically noted as being a part of what constitutes 'sustainable development' – the "golden thread" which, when met, can trigger presumption in favour.
17	A core planning principle is to "conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for the contribution to the quality of life of this and future generations".
128	During the determination of applications "local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting". This information should be proportionate to the significance of the asset and only enough to "understand the potential impact of the proposal on their significance".

129	Paragraph 129 identifies that Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise.
132	It is noted that significance – the principal measure of inherent overall heritage worth – can be harmed or lost through development within its setting. Heritage assets are an irreplaceable resource and any adverse effects require “clear and convincing justification” relative to the significance of the asset in question.
135	At paragraph 135 it states that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
139	At paragraph 139 it states that non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.
141	In paragraph 141 amongst other matters it states that planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

Table 2 Key passages of NPPF in reference to cultural heritage (archaeology)

2.2.2 LOCAL

Under planning law, the determination of an application must be made, in the first instance, with reference to the policies of the local development plan. For the proposed development this is represented by saved policies from the Wear Valley District Local Plan (1997) until superseded by the County Durham Plan, currently in consultation. Within the Wear Valley District Local Plan the following are key policies with reference to cultural heritage and given the nature of the proposed development:

Policy	Text
BE1	“The District Council will seek to conserve the historic heritage of the District by the maintenance, protection and enhancement of features and areas of particular historic, architectural or archaeological interest.”

Table 3 Key passages of Wear Valley District Local Plan in reference to cultural heritage (archaeology)

2.3 GUIDANCE

2.3.1 NATIONAL

During the assessment and preparation of this document, the following guidance documents have been referred to, where relevant:

Document	Key Points
National Planning Practice Guidance (NPPG) (CLG 2014)	The Department for Communities and Local Government (CLG) released the guidance to NPPF in March 2014 in a 'live' online format which, it is intended can be amended and responsive to comment, particular as case law develops in relation to the implementation of NPPF. In relation to cultural heritage the NPPG follows previous guidance in wording and 'keys in' with, in particular, extant English Heritage guidance documents. The NPPG references many similar terms to the previous PPS5 Practice Guidance.
Conservation Principles, Policies and Guidance (EH 2008)	This document sets out the guiding principles of conservation as seen by English Heritage and also provides a terminology for assessment of significance upon which much that has followed is based.
Standard and Guidance for Archaeological Watching Briefs (IfA revised 2008a)	This document represents non-statutory industry best practice as set out by the Institute for Archaeologists. This work has been undertaken to these standards, as subscribed to by Solstice Heritage.

Table 4 National guidance documentation consulted

1.1.1 REGIONAL

Archaeological work within County Durham is often required to comply with *Yorkshire, The Humber and The North East: A Regional Statement of Good Practice for Archaeology in the Development Process* (SYAS 2011). The key principles in relation to the proposed monitoring works are summarised in the table below:

Principle	Key Points
2	Archaeological work should be undertaken by professionally qualified and appropriately experienced archaeologists and organisations.
3	All archaeological work will have a scope agreed in advance with the archaeological curator (this document), and any changes to the scope or methodology will be agreed in writing with the archaeological curator.
4	Monitoring of archaeological work by the local archaeological curator will be the norm, and reasonable notice of commencement of fieldwork will be given by the archaeologist.
5	Archaeological work will be undertaken in accordance with the best practice guidance of English Heritage and the IfA.
6	The local Historic Environment Record should be consulted prior to the commencement of fieldwork.
7	Archaeological work in the planning process should have regard to national and local published research agenda (see section 4.2 below)
9	Reports and required data will be submitted to the archaeological curator and local HER in a timely fashion and in accordance with the agreed WSI.
10	Any comments made by the archaeological curator on reports and outputs will be made within a reasonable timetable of receipt.
11	Where appropriate significant archaeological findings will be submitted for publication in a suitable journal or journals.
12	Any archive produced will be deposited in an ordered and acceptable fashion within a reasonable timetable, the details of which will be given in the project report.
13	During the course of archaeological work arrangements will be made, where possible, for disseminating information about the site to the general public.

Table 5 Key principles of the Regional Statement of Good Practice

3. METHODOLOGY

3.1 FIELDWORK

The footprint of the turbine base, substation and associated trackway infrastructure, illustrated on Fig. 2 below, were excavated on Tuesday 2nd September 2014. All groundworks were monitored by a suitably qualified archaeologist, and a toothless ditching bucket was used for removal of all overburden.

Where archaeological features and deposits were encountered, these were to be recorded to the standards outlined in the relevant IfA Standard and Guidance. All features and deposits were to be recorded on pro-forma record sheets, drawn in plan and section at a suitable scale, and photographed. In addition to any specific features or deposits, a general record of stratigraphy was made on pro-forma record sheets.

Prior to fieldwork a full Written Scheme of Investigation (WSI) (Brightman 2014) was prepared and submitted to the local authority archaeologist. The methodological sections of this document have been included as Appendix 2 below.

3.2 POST-FIELDWORK

The primary site archive comprises site records and digital photography on cd. This has been used to compile this report, which will be deposited with the local HER in hard copy and digital format as the principal record of the monitoring work undertaken. Given the absence of archaeological features, deposition and preservation of the limited paper archive with a suitable local repository museum is not considered suitable, and this has been agreed with the DCC Senior Archaeologist. An OASIS record has been completed for this work, including a digital version of this report, the reference for which is solstice1-190650.

In the absence of any material culture, faunal or human remains, or deposits of palaeoenvironmental significance no further work was required to catalogue, process or assess such remains for integration within the report and archive. The procedures and strategy that would have been followed had such remains been encountered is set out within the earlier WSI and included in Appendix 2 below.

3.3 CHRONOLOGY

Where chronological and archaeological periods are referred to in this WSI, the relevant date ranges are broadly defined as follows:

- Palaeolithic (Old Stone Age): 1 million – 12,500 BP (Before present)
- Mesolithic (Middle Stone Age): 10500 – 4000 BC
- Neolithic (New Stone Age): 4000 – 2400 BC
- Bronze Age: 2400 – 700 BC
- Iron Age: 700 BC – AD 43
- Roman/Romano-British: AD 43 – 410
- Anglo-Saxon/Anglo-Scandinavian: AD 410 – 1066
- Medieval: AD 1066 – 1485
- Post-medieval: AD 1485 – 1750
- Industrial: AD 1750 – 1900
- Modern: AD 1900 – Present

3.4 QUALITY ASSURANCE

Solstice Heritage commits all fieldwork and post-fieldwork assessment, analysis, reporting and dissemination to be undertaken to the standards stipulated by the Institute for Archaeologists (IfA) as is outlined in Appendix 2 below. The project has been managed and fieldwork undertaken by Jim Brightman, who is a fully accredited member of the IfA (MIfA level).

3.5 ASSUMPTIONS AND LIMITATIONS



Data and information obtained and consulted in the compilation of this report has been derived from a number of secondary sources. Where it has not been practicable to verify the accuracy of secondary information, its accuracy has been assumed in good faith. All statements and opinions arising from the works undertaken are provided in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of this report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

3.6 COPYRIGHT

Solstice Heritage will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

4. RESULTS

4.1 GENERAL STRATIGRAPHY

The area of groundworks comprised a 4m wide access track that ran north for 30m from an area of existing hard standing before turning east and following the southern boundary of the turbine field for c. 208m. At c.65m from the east end of the track, the stripped track turned north for c.25m leading to the main turbine and substation which will sit in a 20m x 30m area for which the stripping was also monitored. The stripped area measured a total of c.0.2ha in plan, and was reduced to a relatively uniform depth of c.0.35m, the thickness of the topsoil; the area is shown on Figure 2 in Appendix 1.

The overburden comprised only a relatively modern loamy clay topsoil with an average depth of c.0.35m. This overlay a mixed clay deposit of made-ground representing reinstatement following 20th century open-cast mining across the whole of the monitored area (Fig. 3).

4.2 ARCHAEOLOGICAL AND PALAEOENVIRONMENTAL FEATURES

Given the removal and reinstatement of the ground down to, and including, the natural substrate, any remains of archaeological or palaeoenvironmental significance will have also been removed.

5. SOURCES

5.1 BIBLIOGRAPHY

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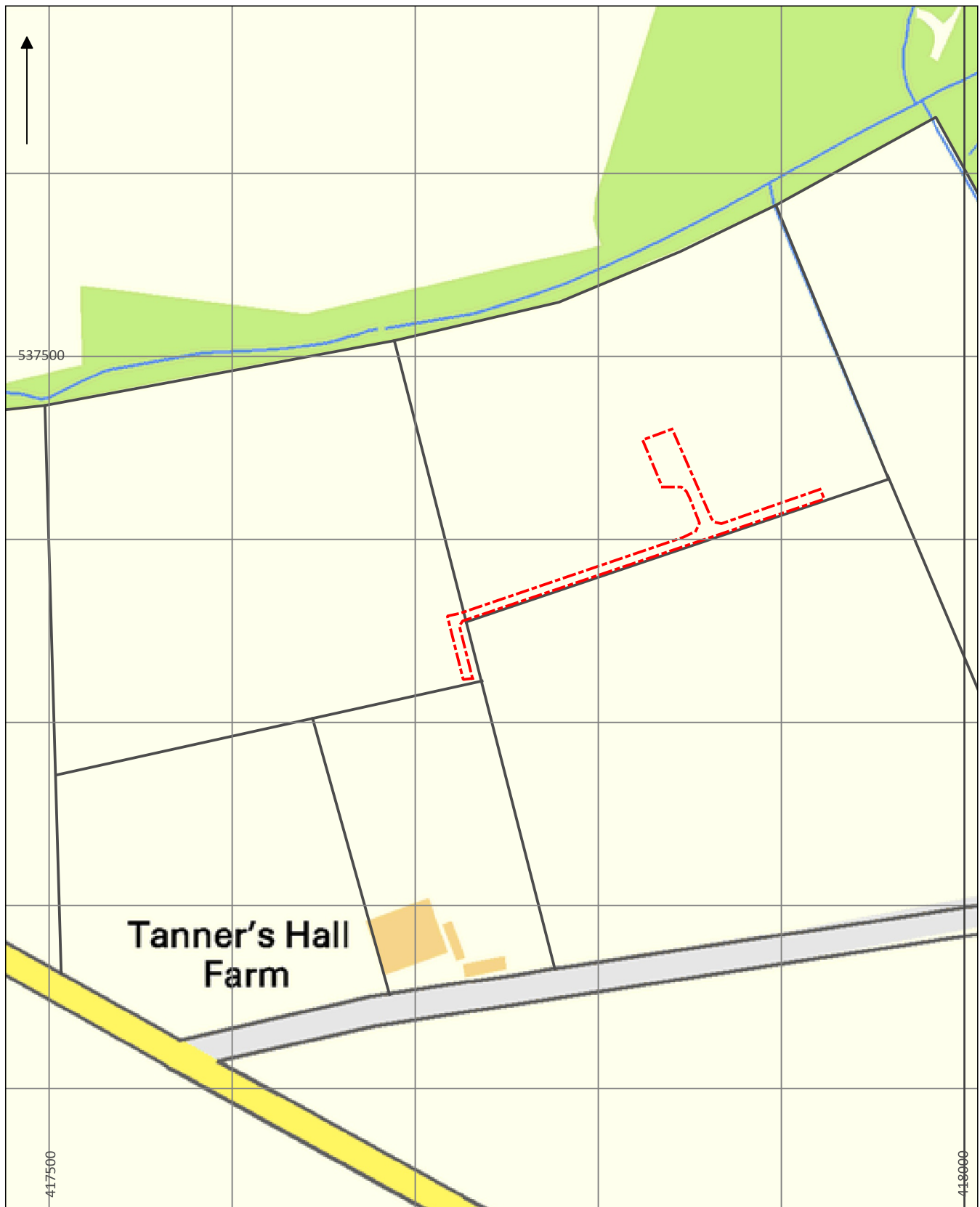
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APPENDIX 1 – ADDITIONAL FIGURES





<p>Project</p> <p>Tanner's Hall Farm Wind Turbine, Crook, County Durham</p> <p>Report on an Archaeological Watching Brief</p>	<p>Legend</p> <p> Turbine Location</p>	<p>Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9NY www.solsticeheritage.co.uk</p> 	
<p>Drawing</p> <p>Figure 1 Site Location</p>	<p>0 5 10 15 km</p>  <p>Contains Ordnance Survey data © Crown copyright and database right 2014.</p>	<p>Drawn By</p> <p>JB</p>	<p>Date</p> <p>Sept 2014</p>






<p>Project</p> <p>Tanner's Hall Farm Wind Turbine, Crook, County Durham</p> <p>Report on an Archaeological Watching Brief</p>	<p>Legend</p> <p> Monitoring Area</p>	<p>Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9NY www.solsticeheritage.co.uk</p> 	
<p>Drawing</p> <p>Figure 2 Site Plan</p>	<p>50 0 50 100 m</p>  <p>Contains Ordnance Survey data © Crown copyright and database right 2014.</p>		<p>Drawn By</p> <p>JB</p> <p>Date</p> <p>Sept 2014</p>



Fig. 3 Mottled clay 'made ground' deposited as part of the reinstatement following opencast mining

APPENDIX 2 – WRITTEN SCHEME OF INVESTIGATION

Only the methodology, resources and programming section of the WSI are included within this appendix in order to prevent unnecessary repetition.

ARCHAEOLOGICAL MONITORING

All groundworks will be monitored by a suitably qualified archaeologist and all mechanical excavation will be undertaken with a toothless bucket. Where archaeological or palaeoenvironmental features or deposits are encountered, groundworks will halt and suitable time will be afforded to the archaeologist to investigate, sample and record such remains. Equally the archaeologist will aim to minimise disruption to the programme of groundworks through good working practice.

Where standing structures are encountered, their full extent within the area of monitoring will be exposed and recorded. Where cut features are exposed, they will be cleaned and delimited as much as is practicable within the area of monitoring and investigated using the sampling strategy outlined in Table 6 below. Where cut features contain material culture or palaeoenvironmental remains of significance then they will be subject to a more rigorous sampling strategy, usually included 100% excavation of fill material and palaeoenvironmental sampling as detailed below.

Size/Nature of Feature	Minimum percentage of fill excavated and sampled
Cut feature less than c.1m in diameter or equivalent area	50%
Cut feature greater than c.1m in diameter or equivalent area	25% or until form, function and date can be adequately characterised
Linear features	10% in 1m slots evenly spaced along the length of the features though focussing on junctions and relationships with other features where present. Minimum sample of 2m length where the linear feature is less than 20m in total length.

Table 6 Sampling strategy for investigation of cut features.

RECORDING METHODOLOGY

All archaeological features will be recorded on *pro-forma* sheets creating a primary written record that will be accompanied by drawn and photographic records. A site diary giving a summary of each day's monitoring will also be maintained including overall interpretive observations.

A drawn record will be compiled of all features, including plan and section/profile illustrations, at a suitable scale (usually 1:10, 1:20 or 1:50) depending on the complexity and significance of the remains.

The photographic record of the monitoring will be undertaken in high-resolution digital format and black and white, archive-stable, print format. Photographs will be taken of all archaeological and palaeoenvironmental features in addition to general site photography locating the individual features in their wider context.

The total area of groundworks will be located and tied to the National Grid at a scale of 1:2500 or 1:1250 as practical. All features will be located accurately within this area and their height also accurately recorded above Ordnance Datum. The same level of accuracy will be applied to measuring the respective heights of the top and base of excavations.

SMALL FINDS

Given the relatively small size of the area to be monitored, all small finds will be initially retained and bagged by context for assessment at the post-fieldwork stage. Should an unexpected quantity of material be uncovered that is deemed to be of little significance then this will be noted but not retained, subject to the agreement of the DCC Senior Archaeologist.



Small finds will be handled, packed and stored in accordance with the guidelines in *First Aid for Finds* (Watkinson and Neal 1998).

In the event that finds of 'treasure' are uncovered then the local Coroner will be informed and the correct procedures will be followed as outlined under the *Treasure Act 1996*.

Within County Durham the procedure involves alerting the Finds Liaison Officer who then informs the coroner. The contact details for the Finds Liaison Officer are:

Portable Antiquities Scheme
Heritage, Landscape and Design
5th Floor
County Hall
Durham
County Durham
DH1 5UQ

HUMAN REMAINS

In the event of human remains being uncovered, including evidence of cremations, these will be initially left in situ, protected and covered from view. Should removal of the remains be deemed necessary then a licence will be obtained from the Ministry of Justice (MoJ) prior to excavation proceeding. Exhumation of human remains will proceed in accordance with the MoJ licence and all health and safety regulations and guidance.

SCIENTIFIC AND PALAEOENVIRONMENTAL SAMPLING STRATEGY

AIM OF THE SAMPLING STRATEGY

Given the uncertainty of the presence or level of archaeological remains likely to be encountered as part of this monitoring, the general aim of the scientific and palaeoenvironmental sampling strategy is:

- To provide information on the nature of human activity and the past environment in the immediate area, in relation to the archaeological deposits uncovered during the project.

OVERVIEW

Table 7 below provides an overview of the basic sampling strategy. Sampling levels and feature-specific approaches may vary from this broad outline in accordance with the characteristics and potential of individual features to address the aims and objectives outlined above. Should the nature of archaeological remains observed during the course of fieldwork be markedly different to that anticipated, then modifications to this sampling strategy will be agreed with the DCC Senior Archaeologist. Sampling and assessment methodologies will follow best practice as set out in relevant guidance documents, including *Environmental Archaeology* (English Heritage 2011).

Potential Data	Botanical Macrofossils		Pollen, Foraminifera	Radiocarbon Dating		Archaeometallurgy/Industrial Residue
Sample Type	Bulk (flotation)	Min. Sample Size	Monolith/ Subsample	Individual	Bulk (residue)	
Feature or Context Type		Min. Excavated Sample				
Structural or occupational features (isolated or with little observed palaeoenvironmental potential)	-	50%	-	Individual samples where observed during excavation and suitable sample recovered from bulk flotation	-	
Structural or occupational features (concentrated, containing material culture, or with demonstrable palaeoenvironmental potential)	40 litre or 100% of excavated fill	100%	Subsample of single fill or monolith sample of stratigraphy where suitable		40 litre or 100% of excavated fill	
Isolated pit features (Prehistoric to Early Medieval containing material culture)		100%				
Isolated pit features (medieval containing material culture)		100%				
Isolated pit features (Post-medieval containing material culture)		50%		-		
Isolated pit features < c.1m in diameter or equivalent area (undated or with little observed palaeoenvironmental potential)	-	50%		-	-	
Isolated pit features > c.1m in diameter or equivalent area (undated or with little observed palaeoenvironmental potential)	-	25%		-	-	

Linear features (associated with structural or occupational features)	40 litre or 100% of excavated fill	10% or 2m if less than 20m in total length	Monolith sample of preserved stratigraphy where suitable (e.g. laminated ditch deposits)	Individual samples where observed during excavation and suitable sample recovered from bulk flotation	40 litre or 100% of excavated fill
Linear features (isolated)	-			-	-
On-site processing methods	On-site flotation using graduated sieves with a minimum of 500 micron mesh		None beyond approved storage and packaging methods	None beyond approved storage and packaging methods	Residue from on-site flotation

Table 7 Outline of scientific and palaeoenvironmental sampling strategy

HEALTH AND SAFETY

All archaeological work will be undertaken in a safe manner in compliance with the Health and Safety at Work Act 1974. A full risk assessment will be undertaken in advance of the commencement of work, a copy of which will be available on site for the duration of the fieldwork. Solstice Heritage has a full Safety, Health and Environment Policy which can be supplied upon request.

EXTENSIVE REMAINS AND/OR SIGNIFICANT FINDS

In the event of discovery of archaeological remains which are more extensive and/or significant than could reasonably have been anticipated then the following procedure will be followed:

- The archaeological remains will be fenced off and no machinery or contractors other than project archaeologists will operate in the area.
- The client, DCC Senior Archaeologist and any other key stakeholders will be informed and an agreement will be reached on any amendments to the methodology and project scope.
- Where required, a modified WSI, or addendum to this document, will be prepared and agreed with all stakeholders.

POST-FIELDWORK METHODOLOGY

SMALL FINDS PROCESSING

All finds will be processed and catalogued in line with standard guidance documents including First Aid for Finds (Watkinson and Neal 1998) and the Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials (IfA 2008b).

SPECIALIST ASSESSMENT AND ANALYSIS

After processing artefacts and ecofacts will be quantified and assessed to provide an overview of their potential to meet the aims and objectives of the project. This will be undertaken, where necessary, by a relevant specialist, as set out below, and will include a statement on the potential and requirement for further analysis. Where extensive analysis is recommended and justified by the potential of the assemblage or sample then this will be undertaken after agreement with the client and DCC Senior Archaeologist.

REPORTING

Following completion of any specialist assessment and analysis, all information will be synthesised in a project report, which will include as a minimum:

- Planning application number, OASIS reference number and site grid reference
- A non-technical summary of results
- Introduction
- Aims and method statement
- Legislative, policy and guidance framework
- Tabular summary of data outlining all archaeological deposits, features, classes and numbers of artefacts and spot dating of significant finds
- Specialist reports (where necessary)
- Discussion of results
- Illustrative photography
- Location plan of the site of at least 1:10000 scale
- Extent plan of the area of monitoring at a suitable and recognised scale positioning all archaeological and palaeoenvironmental features and deposits in relation to the national grid
- Plans and section of all archaeological features at a suitable scale (see section 5.2 above)
- Above Ordnance Datum (aOD) levels on plans and incorporated into the text

- A copy of this WSI as an appendix

Any variation to the minimum requirements above will be approved in advance in writing by the DCC Senior Archaeologist. One bound hard copy and one digital copy will be supplied to the client and to the DCC Senior Archaeologist (for inclusion in the DHER) upon completion.

ARCHIVING

Within 6 months of the completion of all post-fieldwork stages of the project, a full archive will be compiled and deposited with a local recipient museum. The archive will be compiled in accordance with the Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives (IfA 2009). The archive and all material contained in it will be compiled according to the guidelines of the recipient museum, and will include as a minimum:

- A list of archive contents, by box if required
- Hard copies of all relevant project documentation
- Digital material created for the project
- Artefacts and ecofacts for which there is a reason for retention (e.g. inherent significance, potential for future analysis).

Should there be no material archive arising from the project then, as a minimum, the project report will be submitted to the County Durham HER in bound hard copy and digital format, and project details and a copy of the report will be made available through OASIS (see below).

OASIS

Solstice Heritage is registered with the Online Access to Index of Archaeological Investigations (OASIS) Project and fully supports all project documentation and records being made available through the OASIS website. Upon completion of the post-fieldwork reporting and archiving, an OASIS record will be completed, and a copy of the project report will be uploaded.

PUBLICATION AND DISSEMINATION

In the event that formal publication and/or wider dissemination is deemed necessary, then a suitable format will be agreed with the client and the DCC Senior Archaeologist. This may include a digital download document made freely available or publication in a local, regional or national journal.

EXTENSIVE REMAINS AND/OR SIGNIFICANT FINDS

In the event of discovery of archaeological remains which are more extensive and/or significant than could reasonably have been anticipated then this will require a more detailed post-fieldwork approach. Should this be required, a suitable and proportionate post-fieldwork methodology will be agreed with the client and the DCC Senior Archaeologist upon completion of fieldwork, including a suitable level of publication and/or dissemination as noted above.

RESOURCES AND PROGRAMMING

FIELDWORK STAFF

The project will be managed by Jim Brightman of Solstice Heritage. Jim holds full accredited professional membership of the Institute for Archaeologists (IfA) at MIfA level. It is anticipated that the fieldwork will also be undertaken by Jim Brightman, though in the event of a change, details of fieldwork staff will be confirmed in writing to the DCC Senior Archaeologist prior to commencement.

POST-FIELDWORK STAFF

The post-fieldwork reporting and archiving will also be managed by Jim Brightman. Details of other post-fieldwork or reporting staff will be confirmed in writing to the DCC Senior Archaeologist prior to commencement.

SPECIALIST INPUT

Should specialist input be required for assessment and analysis at post-fieldwork stage, then it is intended that the following specialists be used:

Specialism	Specialist	Company/Institution
Lithics	Spencer Carter	Independent specialist
Prehistoric pottery	Dr Clive Waddington	ARS Ltd
Romano-British Pottery	Dr Gerry Evans	Barbican Research Associates
Roman brick/tile	Alex Croom	Tyne and Wear Archives & Museums
Early glasswork	Dr Hilary Cool	Barbican Research Associates
Medieval/Post-medieval pottery	Dr Chris Cumberpatch	Independent specialist
Archaeometallurgy	Dr Gerry McDonnell	Independent specialist
Clay pipe	Dr Susie White	University of Liverpool
Industrial/later glasswork	Chris Howard-Davies	Oxford Archaeology North (OAN)
Industrial/later brickwork	Ian Miller	OAN
Industrial/later metalwork	Chris Scott	ARS Ltd
Conservation of artefacts	Jennifer Jones	Archaeological Services Durham University (ASDU)
Botanical macrofossils	Dr Charlotte O'Brien	ASDU
Pollen	Dr Charlotte O'Brien	ASDU
Human remains	Milena Gyrzbowska	ARS Ltd
Faunal remains	Milena Gyrzbowska	ARS Ltd
All dating techniques	Dr Gordon Cook	Scottish Universities Environmental Research Centre (SUERC)

Table 8 Proposed specialist input to post-fieldwork stages

This list is subject to change depending on individual availability of specialists and the specific requirements of the archaeological and palaeoenvironmental remains uncovered during the course of fieldwork.

FIELDWORK PROGRAMME

It is currently intended that the groundworks be undertaken in the week starting 1st September 2014. A minimum of two weeks' notice of commencement of groundworks will be given to the DCC Senior Archaeologist.

POST-FIELDWORK PROGRAMME

The post-fieldwork process will commence immediately upon completion of the fieldwork. Unless a more in-depth post-fieldwork process has been agreed as an addendum to this document, then a report will be compiled within two months, subject to any required specialist input. An OASIS record will be completed and any archive will be deposited within six months of the completion of the post-fieldwork phase.

MONITORING

The DCC contact for monitoring of the project will be:

Lee McFarlane
DCC Senior Archaeologist
Heritage, Landscape and Design Team
Planning Service
Regeneration and Economic Development

Durham County Council
County Hall
5th Floor
Durham
DH1 5UQ
Tel: 03000-267009
Lee.mcfarlane@durham.gov.uk