STANDARDS AND GUIDELINES FOR ARCHAEOLOGICAL PROJECTS IN WORCESTERSHIRE.

December 2010
Amended March 2016

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STANDARDS AND GUIDELINES FOR ARCHAEOLOGICAL PROJECTS IN WORCESTERSHIRE

Prepared by the Planning Advisory Section

Worcestershire Archive and Archaeology Service
Worcestershire County Council

Revision March 2016

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Report 604
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Scope

This document is primarily for archaeological contractors undertaking projects as part of the planning process, but it is also relevant as guidance to good practice for anyone undertaking archaeological projects within the county. It specifies the standards required of archaeological projects by the County Archive and Archaeology Service in its role as archaeological advisor to the local authority and as curator of archaeology in the county. It should be read in conjunction with any brief that is prepared as part of the planning process and also with the Code of Conduct of the Institute for Archaeologists. It is important that both the planning brief and this supplementary guidance are adhered to in order that a planning condition may be judged to have been discharged satisfactorily. Different requirements apply to projects within the City of Worcester.
Foreword

The modern landscape of Worcestershire is the product of human activity extending over thousands of years. This has contributed greatly to the character, economic base and attractions of the area. But although many generations have contributed to the multi-layered tapestry of remains, the scale of modern redevelopment has now brought an unparalleled power to sweep this heritage away. Once gone, it can never be replaced.

The Historic Environment* should be seen as a finite, and non-renewable resource, in many cases highly fragile and vulnerable to damage and destruction. Appropriate management is therefore essential to ensure that they survive in good condition. In particular, care must be taken to ensure that the historic environment is not needlessly or thoughtlessly destroyed. It can contain irreplaceable information about our past and the potential for an increase in future knowledge. It is part of our sense of national identity and is valuable both for its own sake and for its role in education, leisure and tourism.

April 2012 saw the replacement of PPS5 with the new National Planning Policy Framework. While substantially slimmer in content that PP5, NPPF still retains the core principles of heritage protection and management that its predecessor provided.

* All aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, and landscaped and planted or managed flora. Those elements of the historic environment that hold significance are called heritage assets.
The Government’s overarching aim is that the historic environment and its heritage assets should be conserved and enjoyed for the quality of life they bring to this and future generations. To achieve this, the Government’s objectives for planning for the historic environment are:

- to deliver sustainable development by ensuring that policies and decisions concerning the historic environment:
  - recognise that heritage assets are a non-renewable resource
  - take account of the wider social, cultural, economic and environmental benefits of heritage conservation; and
  - recognise that intelligently managed change may sometimes be necessary if heritage assets are to be maintained for the long term.

- To conserve England’s heritage assets in a manner appropriate to their significance by ensuring that:
  - Decisions are based on the nature, extent and level of that significance, investigated to a degree proportionate to the importance of the heritage asset
  - Wherever possible, heritage assets are put to an appropriate and viable use that is consistent with their conservation
  - The positive contribution of such heritage assets to local character and sense of place is recognised and valued; and
  - Consideration of the historic environment is integrated into planning policies, promoting place-shaping.

- To contribute to our knowledge and understanding of our past by ensuring that opportunities are taken to capture evidence from the historic environment and to make this publicly available, particularly where a heritage asset is to be lost.
1 Requirements for an archaeological project.

The following requirements are considered by the County Archive and Archaeology Service to be necessary for successfully achieving the aims of an archaeological project. Failure to meet any of these requirements may not provide the necessary level of information as required in the planning process. In the case of an Evaluation this may result in a refusal of (or refusal to determine) a planning application or may not result in a satisfactory discharge of a Programme of Works or Watching Brief condition. These requirements apply as guidelines to best practice for work undertaken outside the planning process, to encourage consistent standards for all archaeological projects.

- The Code of Conduct of the Institute for Archaeologists (IfA) must be observed. This represents a basic measure of the professionalism of any archaeologist, whether or not they are members of the Institute. This ensures a high standard of archaeological work and professional ethics amongst all archaeologists undertaking archaeological work in the County.

- Archaeological projects will also be expected to adopt the advice of the Standard and Guidance leaflets issued by the IfA.

- As verification of the above, contracting organisations that have been formally assessed as Registered Archaeological Organisations (RAO) of the IfA are preferred.
All projects undertaken in the County must abide by current legislation, with regard to:

- Ancient Monuments
- Treasure
- Burials and Human Remains
- Health and Safety
- Environmental and ecological protection
- Any other, as appropriate to the project
  (see annex 2 for summary list)

It will be the responsibility of the contractor to ensure that the developer/applicant has secured appropriate consents for all archaeological groundwork’s prior to commencement of fieldwork. Advice may be sought from the Archive and Archaeology Service, English Heritage or the County Ecologist.

The guidelines below (sections 2-14) should be followed in all projects undertaken as part of the planning process and are advised as good practice in all other circumstances. Project Managers should ensure that all staff (including external specialists) engaged on a project are fully aware of its purpose and scope, and of all requirements set forth in the Brief.

1.1 Research Frameworks

Archaeological projects undertaken through the planning process are tailored to the specific threats of individual developments. Nevertheless, such work should be undertaken in the context of local and national research frameworks. It is therefore important that archaeological contractors are fully aware of the purpose behind the particular type and scale of recording.

The Planning Advisory Section takes account of a wide range of research frameworks in framing the Brief. This includes an assessment of archaeological research needs in the context of a detailed knowledge of the County Historic Environment Record.

Research frameworks which are relevant to the county include national research frameworks (e.g. Exploring Our Past, English Heritage 1993), local research frameworks (e.g. Regional Research Strategy, 2004, in preparation – http://www.arch-ant.bham.ac.uk/wmrrfa), period based research strategies (e.g. Saving Our Prehistoric Heritage, Landscapes Under Threat The Prehistoric Society, 1988) and specialist research strategies (e.g. Medieval Settlement Research Group 1990s).

The results of any piece of fieldwork should inform the research cycle and should take into account local, regional and national research frameworks. In particular, archaeological projects carried out within historic towns should be designed and carried out to test and further the understanding of these towns as published by the Central Marches Historic Towns Survey (reports on-line via www.worcestershire.gov.uk/archaeology/library), and by subsequent projects designed to test the hypotheses that were raised.
1.2 Written Scheme of Investigation

Any specification, project design or Written Scheme of Investigation (WSI) prepared in advance of an archaeological project must include a methods statement. Where a brief has been issued, the methods statement demonstrates to the Applicant and the Planning Advisory Section of the County Historic Environment and Archaeology Service how all the requirements will be met and how the Archaeological Contractor intends to supply the required level of information.

- The Planning Advisory Section will advise on the suitability of methods statements in the Written Scheme of Investigation in addressing the aims of a desk based assessment, evaluation, watching brief or other programme of works.
- Where the Applicant is seeking competitive quotations the Section can advise on the relative merits and suitability of each proposal (the lowest quote may not provide the required information and may therefore not give the best value for money).
- The Planning Advisory Section cannot, however, take any responsibility for any archaeological contractor successfully achieving (or otherwise) the requirements of the Brief.
- The Written Scheme of Investigation should identify the range of general techniques that will be used. These will include one or more of the following, augmented by other specialist techniques as appropriate.

- Desk based study
  
  **Collation and assessment of existing sources (eg HER search, other documentary sources, aerial photographs)**
  A desk based assessment should also include a site visit

- Non-intrusive survey
  
  **Observation and recording**
  **Field walking**
  **Geophysical survey**
  **Earthwork survey**
  **Building survey**

- Intrusive investigation
  
  **Observation and recording**
  **Excavation**
  **Watching brief**
  **Auger survey / Palaeoenvironmental sampling**
  **Intrusive building recording**
The proposal or Written Scheme of Investigation should specify the methods to be used for each of the above fieldwork techniques, and will also include statements on the following (as appropriate):

- Artefact and environmental recovery strategy,
- Geophysical survey methods
- Site clearance method,
- Excavation methods,
- Recording format,
- Data analysis,
- Artefact conservation and deposition,
- Environmental analysis,
- Report structure,
- Archive format (digital / paper) and deposition.

Where considering sampling strategy, including environmental deposits, archaeological contractors must specify the factors to be used (such as the nature of the potential archaeological site, the proportion of the application area to be affected, the use of a variety of prospecting techniques). Sample ratios will be site specific. The final trench locations must be approved before the commencement of fieldwork, subject to factors beyond control (e.g. unexpected services).

Many projects will comprise a number of stages, as identified in the methods statement. It is essential that sufficient time be built into the work programme to allow the results of each stage of work to be incorporated into the next stage (i.e. geophysical survey leading to final trench layout). The Planning Advisory Section welcomes the opportunity to participate in the assessment of each stage so as to help ensure that the final report fulfils the archaeological planning condition.

**Costings**

The role of the Archive and Archaeology Service in respect of providing advice is to ensure that the proposed work is of sufficient scope and quality to meet the terms of any planning condition. It does not normally comment on cost unless specifically asked to by the developer. In which case, this information is treated in strictest confidence between the Historic Environment Advisor and the Service Manager.

It is, however, strongly advised that the developer and prospective contractor have reached a complete understanding (in writing) what any costing actually comprises before work commences. Archaeological contractors should make it clear if a quotation covers the whole project to the completion of the final report, or not. This is especially true of any tendering situation.
When submitting a proposal or Written Scheme of Investigation it is essential that as well as the above, the following facts and information are included. Failure to incorporate this information will lead to non acceptance of the WSI.

- The Site Name
- The Fieldwork Type
- Traceable Source for WSI (contractors reference no. - site code etc)

- The planning application for which the work is being undertaken.
- The applicant and or agent for which the work is being undertaken.
- The planning authority for which the work is being undertaken.
- The HER references (not activity number for the work the WSI is for).

- The reference to the brief.
- The aims as detailed in the brief.

- Details of the resources to be applied for field and post excavation work (staff and time).
- A clear explanation of any contingencies.
- A clear environmental sampling strategy (’as appropriate’ is not acceptable)
- Named specialist provision.

- Details of methodology and standards proposed to fulfill the brief.
- Details of the Report structure and content.
- Health & Safety requirements.
- Confirmation that the HER search will be undertaken prior to commencement of works.

The more detailed a Written Scheme of Investigation is, the greater potential for successful acceptance.
1.3 The Curatorial Agreement

While these standards and guidelines are aimed at the archaeological contractor and specifies the minimum standards of work expected, it is also acknowledged that organisations also need some confidence in the working relationship between themselves and the curator. To this end we have our ‘Curatorial Agreement’ as follows.

Worcestershire County Council employs three Historic Environment Advisors (Planning Archaeologist) who share responsibility for advising and administering historic environment advice across five districts, all public utilities and county schemes. There will inevitably be times when immediate response to enquiries cannot always be achieved, however we aim to provide the following response times*.

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<thead>
<tr>
<th>Request Type</th>
<th>No. of Working days from receipt of request</th>
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<tr>
<td>pre-determination brief</td>
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<tr>
<td>pre-application brief</td>
<td>10</td>
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<tr>
<td>conditional brief</td>
<td>10</td>
</tr>
<tr>
<td>Evaluation WSI check</td>
<td>3</td>
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<tr>
<td>Conditional work WSI Check</td>
<td>10</td>
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<tr>
<td>Evaluation report Check</td>
<td>5</td>
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<tr>
<td>Conditional Report Check</td>
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*At times of high work load, annual leave etc the shorter response times may be exceeded, however in the event of this occurring you will be informed in writing with a revised date of formal response.

All WSI will be checked against our WSI checklist to ensure consistency and quality. A copy of this checklist will be provided to you.

All reports are checked against our Report checklist to ensure consistency and quality. A copy of this checklist will be provided to you.

Any rejection of WSI or Report will be accompanied by reasons for rejection. A copy of this will be provided to the developer/client and the archaeological contractor.

From January 2011 applicants will be charged for the production of briefs, checking and approval of WSI’s and reports and for the provision of a formal letter confirming, upon completion of works, that the works have fulfilled the requirements of condition. Visit the Archive & Archaeology Services website for details of current fees.
2 The County Historic Environment Record

The County Historic Environment Record is a record of all known archaeological sites in the county and is a readily accessible source of information. Unless otherwise agreed with the Planning Advisory Section, the HER must be consulted before fieldwork commences, in particular where the final details of an evaluation are to be decided (for example in the precise location of sample trenches). Consultation should include discussion of the range of potential sources with the staff of the HER. Other relevant HERs must also be consulted for sites bordering other counties or the City of Worcester.

The HER currently consists of c. 54,000 records, recorded on:

- a GIS map base of the whole county linked to:
  - a computerised database
  - site files including plans, photographic and documentary material
  - a collection of aerial photographs of the county
  - a specialist reference library
  - a collection of additional material stored by parish or subject area

A copy of the basic HER record will be provided to a contractor as part of the required HER search. This should be regarded as an index to current knowledge rather than an end in itself. Contractors should ensure that they consult any supporting documentation (i.e. the
collection of aerial photographs in the HER) and also take advantage of any specialist local knowledge of HER staff.

The Historic Environment Record manages the ceramic database and its on-line version (www.worcestershireceramics.org), and is seeking to improve the quality of finds and environmental indices contained within the HER. The cooperation of all those engaged in fieldwork in the county is sought to ensure that finds information is recorded in a systematic fashion so that its value to other researchers can be maximised. External specialists must use the county type fabric and form series.

The Historic Environment Record is not currently seeking to put the full Record on-line. Instead a number of thematic on-modules are being developed. These include the on-line archaeology library and all contractors are encouraged to provide copies of reports in PDF format so that they can be included. The HER can arrange for PDFs to be produced at cost price (subject to copyright). Part of the HER is available via English Heritage’s ‘Heritage Gateway’ website (www.heritage-gateway.org.uk) but users should be aware that this is not the complete record.

### 2.1 Access and charging policy

- A leaflet outlining the Access and Charging Policy of the HER is available separately.

- Users of the HER will normally be asked to agree in writing to abide by these guidelines using the user’s declaration form. Regular contributors may be asked to complete a single annular form.

- Access to the HER is by appointment during office hours.

- Access to information held on the HER may be refused in certain cases.

- A charge will normally be made for reuse of HER data for commercial purposes, or where the costs could have been reasonably included within a grant application.

  - Charges will depend on the nature of the enquiry and the use to which the information will be put.
  - Fees may be waived in certain circumstances.
  - The basic fee and a range of costs can be supplied for guidance.

- The County Archive and Archaeology Service reserve all rights of Copyright on behalf of the HER and all other originators of material held within the HER.

- Users are required to inform the HER of new sites or information which may come to light as a result of their researches.

- While the County Archive and Archaeology Service attempt to ensure the accuracy of the information, it cannot take responsibility for inaccuracies or omissions.

- The majority of sites included on the record are on private property and no automatic right of access should be assumed.
3 Documentary sources

Documentary sources are of vital importance to any archaeological project and must be consulted as part of a Desk Based Assessment. The level of the documentary research must be stated. Where further documents are likely to exist the type of source and location must be stated, with the reason why these were not consulted.

As a minimum consultation of the following will normally be expected (where available):

- All sources indexed through the relevant entries in the HER
- Relevant cartographic sources e.g. Ordnance Survey First Edition County Series, Tithe and early estate maps (as available). Some tithe maps are available on-line at www.worcestershiremaps.org.uk with a wider range of analysis possible via the HER office.
- Aerial photographs
- Historic documents (e.g. Charters, registers, estate papers)
- Place-name evidence
- Secondary and analytical sources (including local studies and any reports on previous archaeological investigations)

Desk Based Assessments must not simply repeat the content of the records for the defined area. Its purpose is to properly and thoroughly present a synthesis of the available evidence, based upon existing records, cartographic sources, geotechnical date etc. in order to, as far as reasonably possible, predict the likely nature of the historic environment. The Results of the DBA will be used to formulate, where appropriate more detailed evaluation methods such as trial trenching, environmental sampling or full scale excavation.
3.1 Repositories

As well as the HER, the following should be consulted:

- County Archive
- National Library of Air Photos, Swindon (where appropriate)

In addition, the following should be considered where appropriate:

- National Monuments Record (English Heritage, Swindon)
- Local study libraries
- The National Archive (formerly Public Record Office)
- Satellite and LIDAR imagery (where available)
4 Buried Remains

The location, extent and nature of buried remains are of fundamental importance in many archaeological projects. An adequate record and full interpretation is therefore essential.

- Excavation or other investigation must be sufficient to determine the nature of buried remains.
- A written stratigraphic record must be made of all archaeological deposits and underlying natural deposits revealed.
- A drawn and photographic record must be made. (Digital photography is acceptable – minimum resolution should be 6 mega pixel, presented as an archivally-recommended TIFF file)
- Recording of significant remains will need to be of sufficient accuracy to allow the identification of their location in three dimensions, and their interpretation, by any other archaeologist.
- Archaeological deposits must be dated as closely as possible and placed in a chronological sequence.
- Any limitations to recording must be identified.
- An assessment must be made of the extent and significance of buried remains.
- The results of finds analysis and ecofactual analysis should be integrated with the interpretation of the stratigraphic sequence.
- An ordered archive must be compiled, consisting of all information recorded on site and all post-excavation interpretative information, appropriately listed and cross-referenced.
**Sampling**

Archaeological Evaluations

There is a presumption that 100% of archaeological features within a trial trench will be sampled, however where extensive numbers of features, or clusters of apparent identical features (pit or post hole group) occur, then a representative sample of these shall be excavated. Where it is proposed not to sample all features in a trench, this must be agreed with the curator. During evaluation works, features must be sampled sufficiently to determine where possible date, character and significance.

Archaeological Excavations

The area defined in the brief or hereby agreed shall be stripped under close archaeological supervision using a toothless bucket to a depth where significant archaeological deposits are exposed. This is typically at the subsoil / natural boundary. All features of archaeological significance shall be planned at a suitable scale and sampled. Where extensive numbers of features, or clusters of apparent identical features (pit or post hole group) occur, then a representative sample of these shall be excavated.

Sampling ratios shall be as follows:

- Enclosure ditches: 50%
- Linear boundaries: 10%
- Pits: 50-100% depending upon date and quantity of material culture present
- Burials: 100%
- Structural remains: 100%
5 Building Recording

Historic buildings or other structures may be recorded in their own right, or as part of an investigation of buried remains. Historic buildings take many forms, from medieval timber framed barns to Cold War bunkers.

The archaeological analytical survey of the building required will need to be undertaken by a suitably qualified individual with a proven track record in archaeological building recording, in order to meet these standards and conforming to Institute for Archaeologists & English Heritage guidance.

Recording, whether as evaluation or conditional will aim to:

- Define the history, character, date, function and techniques of construction, phasing and significance of the structure(s).

- Assess and reference primary and secondary documentary sources and photographs relating to the building (and where appropriate its occupants).

- Document the structure photographically using 35mm (or larger format) black & white and colour print photographs or high-resolution digital images (minimum resolution should be 6 mega pixel), all with suitable scales, of the following.

- Where appropriate, all archaeological contractors must provide in their quote a contingency for a limited level of dendrochronological survey. Should primary phase
timbers be suitable and not reused from earlier structures then this absolute dating method will be applied. Dendrochronological survey must follow ‘Dendrochronology: Guidelines on Producing and Interpreting Dendrochronological Dates’ (English Heritage).

- Provide a detailed measured survey at an appropriate scale, or the collation and annotation of existing survey drawings (plans and elevations).

- **Phased** plans of the building, with photo locations clearly marked, and a location plan related to the national grid. *This may be based on an existing survey plan.*

All recording works shall be in line with methods detailed in ‘Understanding Historic Buildings – A guide to good recording practice. English Heritage, February 2006

The level of recording works carried out through the planning process will be detailed in the brief.
6 Non-Intrusive Survey

Non-intrusive survey techniques should be suitable to the ground conditions and expected nature of deposits. They should only be undertaken by appropriately qualified persons or organisations. Excavation may be necessary to test the results of non-intrusive survey techniques.

Techniques to be considered include:

- Geophysics
  A methods statement must be produced by the geophysical survey contractor, detailing the method(s) to be applied and suitability for its use on the specific site (geology & soil type).
  
  *A critical appraisal of the techniques used must be undertaken.*

- Earthwork survey
  
  *Plans must be produced to an appropriate scale and with accuracy.*
  
  *The scales of survey and reproduction must be clearly stated.*

- Field Walking (find scatters)
  
  *Collection, sampling and plotting methodologies must be clearly stated.*

- Auger Survey
  
  *Collection, sampling and plotting methodologies must be clearly stated.*

- Metal Detector Survey:
  
  The defined area shall be surveyed / scanned with a metal detector, (of appropriate technical specification and operated by an experienced and responsible user). All artefacts other than non-diagnostic or of recent date shall be recovered from the topsoil only. All finds shall be spatially recorded at an appropriate scale. Finds shall be cleaned and conserved in the appropriate manner.
7 Artefactual Material

Artefacts are of prime importance for dating and characterising archaeological remains and are very important indicators of past social and economic organisation.

Assessment will need to be undertaken by a suitably qualified individual with a proven track record in artefact analysis, in order to meet these standards and conforming to Institute for Archaeologists & English Heritage guidance.

- The Institute for Archaeologists Guidelines for Finds Work must be adhered to.
- Collection and discard policies must be included in the methods statement and report.
- A blank statement ‘there were no finds’, or similar, will not be acceptable. Reasons for the absence of anticipated finds should be given.
- Where possible, the identification of artefacts should be based on recognised local, regional and national typologies.
- The Worcestershire Type Fabric Series must be used as the basis of ceramic reporting. This is to maintain consistent standards of ceramic analysis within the county, make data sets from all field work accessible to all users and facilitate synthesis.
- Individual artefacts must be dated where possible, and a terminus post quem should be recorded for each context.
- Finds assessments and reports must include identification, dating and quantification of all artefacts by count and weight.
- Records of all artefacts by context should be available in the site archive.
- The significance and date of residual material must be considered. Finds from topsoil and from unstratified contexts may also be significant and should be recorded.
• The results of finds analysis should be integrated into the report.

• Finds indices are now included in the HER record. To help the HER staff achieve a consistent record we request that all finds reports include a short summary table (see Annex 4).

• The potential of artefacts as indicators of site formation processes should be considered.

• Material with potential for further study in its own right should be highlighted.
8 Environmental Material

Archaeological deposits contain environmental information. These are vital to the understanding of the past environment, diet, living conditions, and agricultural or industrial economy.

The analysis required will need to be undertaken by a suitably qualified individual with a proven track record in environmental archaeology, in order to meet these standards and conforming to Institute for Archaeologists & English Heritage guidance.

- The environmental potential of a site must be assessed by one or more specialists, and provision should be made for site visits, specialist sampling and specialist analysis if appropriate.

- The Written Scheme of Investigation must include consideration of sampling and flotation of selected stratified and datable deposits in order to recover environmental remains, in conjunction with hand collection of large animal bones. Where environmental sampling is not included in the project then the reasons must be stated in the report.

- Selection of deposits for sampling would normally be on the basis of professional judgement. Deposits formed in situ are of primary importance. The following are significant environmental indicators: animal bones charred or mineralised plant macrofossils, molluscs, insects and pollen. The significance of waterlogged organic material, alluvium and buried soils associated with archaeological deposits must also be considered.

- Assessment of the environmental remains must include, for each sample, a record of the types of material present and their abundance. These records should be available in the site archive.

- The results of environmental analysis must be integrated into the report.
• Environmental indices are now included in the HER record. To help the HER staff achieve a consistent record we request that all environmental reports include a short summary table (see Annex 5).

• Environmental sampling policies must be stated in the report.

• The potential of environmental material to identify site formation processes should be considered.

• Material with potential for further study in its own right should be highlighted.
9 Significance of Archaeological Deposits

The significance of the archaeological deposits is crucial in determining future archaeological strategies and in making recommendations within the planning process.

- An assessment, based on appropriate analysis, of the state of deposit preservation and significance must be undertaken. Physical, artefactual and environmental aspects must all be considered.

- In all cases, local significance, in the context of current models of development, typology and survival must also be considered.

- Where appropriate the non-statutory criteria for the scheduling of ancient monuments used by the Department of the Environment may be employed as a guide in assessing the significance of deposits. English Heritage also produced a number of manuals on monument assessment for the Monuments Protection Programme (these may be consulted through the HER).
10 Recommendations

The Institute for Archaeologists identifies that it is reasonable for a client to seek an opinion of the significance of discoveries from their archaeological contractor, and this view is supported by the Planning Advisory Section. Where recommendations are made by a contractor it must be clearly expressed that the recommendations are those of the contractor and may differ from those ultimately provided to the planning authority by the Planning Advisory Section. This should be made clear to a client. The Planning Advisory Section will be happy to discuss any recommendations at report draft stage.
The Planning Advisory Section welcomes the opportunity to comment on draft reports. There is the possibility, otherwise, that further information may be requested after the production of the report.

- The report must consist of the following:
  - non-technical summary
  - background to the site derived from documentary sources
  - aims including any additional requirements made by the client
  - methods, as outlined in the methods statement and as amended in the field
  - location and size of archive
  - discussion of site formation processes, based on deposits, finds and environmental evidence
  - discussion of the results (see below)
  - assessment of significance (see above)
  - geophysical or other specialist reports must be included as appendices

- The location of archaeological fieldwork must be clearly indicated on a location plan at a suitable and clear scale, which should be readily related to the Ordnance Survey National Grid.

- The location of significant archaeological remains must be clearly graphically represented at an appropriate scale. This information may be required by architects and engineers when considering the design of developments.

- A plan must be provided at a scale of 1:100 or greater, sufficient to allow the work to be tied into any subsequent archaeological operations on the site.
• Identifiable heights related to the OD must be provided, unless previously agreed.
• The depth from the ground surface to the top of significant archaeological deposits, and the thickness (or depth to base of features) of those deposits must be clearly presented both in the conclusions and in graphical format.
• All plans, sections, elevations and maps must include a scale and north arrow
• The report must be explicit about the basis for dating contexts and phases of activity.
• All reports should include summary tables of the finds and environmental results (see Annexes 4 and 5) as well as the specialist reports themselves.
• The discussion of the results must consider documentary evidence, deposit analysis, and formation processes, artefactual evidence, environmental evidence and significance. Even if the results are negative a reasoned statement to this effect must be included.
• Where appropriate, research, management and presentation opportunities must be considered within the report. Additionally, a critical appraisal of the evaluation strategy may be included.
11.1 Illustration

While it is acknowledged that individual archaeological organisations may have their own house style or variable access to CAD or GIS, it is imperative that the quality and presentation of all illustrations is of a standard.

The Association of Archaeological Illustrators and Surveyors have provided guidance on standards and these are presented in Annex 6.

Location Plans

- The location of archaeological fieldwork must be clearly indicated on a location plan at a suitable and clear scale, which should be readily related to the Ordnance Survey National Grid.
- The figure shall include a county outline with the site location marked within.
- The figure shall include an OS map at 1:25000 or 1:10000 depending on size of site.
- All use of original OS mapping must clearly show the archaeological contractor's OS license.

Trench and Site Plans

- Must be based upon OS master map data (1:1250)
- There is a preference for cad based illustration that allows ready export of the illustration. [This is particularly important for evaluation works, where the drawings could be imported into architect's plans etc to enable better and more accurate mitigation measures.]
- A coloured phase plan of complex sites must be included in the report.

Section Drawings

- Should include levels.
- Must indicate the direction of the section e.g. "west-south-west facing section".
- There is a preference for cad based illustration that allows ready export of the illustration.

Finds Illustration

- Where significant finds require illustration in the report, this must be carried out by a suitably qualified and experienced archaeological illustrator. Refer to the Association of Archaeological Illustrators and Surveyors for guidance.

Building Recording

- The drawing conventions shall follow that prescribed in "Understanding Historic Buildings – a guide to good recording practice" English Heritage 2006
It is preferred that a draft copy of the report be submitted to the planning advisory section prior to submission of the final report. This should preferably be in PDF format. Although there may be concerns about client confidentiality at this stage, this procedure does avoid the embarrassment of the Planning Advisory Section having to report to the client that a particular piece of work is unacceptable.

Upon approval of the draft report:

- One digital .pdf copy of the report must be lodged with the County Historic Environment Record within three months of completion of fieldwork. A digital copy should also be deposited with Oasis (http://www.oasis.ac.uk/) the English Heritage’s Online Access to the Index of Archaeological Investigations website.

- All reports submitted as part of the development control process are considered to be within the public domain and will be included on the Online Archaeology Library 3 months after submission unless the report is deemed to be archaeologically or commercially sensitive by the Archive and Archaeology Service Manager. Contact the HER if you feel that your report is sensitive and should not be available over the internet. Or if copyright restrictions mean that parts of the need to removed.

- Consequently, use of the on-line library is covered by a variety of legal instruments to protect us, our users and those who supply data to us. (See Annex 7)

- The contractor should obtain all necessary copyright clearances for publishing on the internet.

For pre-determination evaluation reports, the report must be submitted to the County Archaeological Service's Planning Advisory Section at least ten working days in advance of the relevant planning officer deadlines, unless otherwise agreed.

Other reports must normally be submitted to the Planning Advisory Section within three months of completion of fieldwork.

Most full reports will remain as archive / technical reports (‘grey literature’) with limited circulation. These may be published electronically as they stand as PDF files. The project must, however, also be published through an appropriate permanent medium. In many cases this form of publication may consist of a summary including location, reasons for the evaluation, and outline of results. This may be published through the appropriate county journal (Transactions of the Worcestershire Archaeological Society) or West Midlands Archaeology (Council for British Archaeology, West Midlands).
12 The Archive

Archaeologists have a duty to present the results of their work in a public archive and to disseminate a report on them.

- Any archival material should be deposited with an appropriate museum which has Museum and Galleries Commission approved archaeological storage facilities. For Worcestershire, these are Worcester City Museum (for sites within the city council boundaries), or the County Museum (all other areas). There is now a joint archaeology store between the City and County Museums.

- Samples of any new ceramic fabric or forms discovered in a project should be deposited with the County Type Fabric and Form Series (held within the Historic Environment Record at the offices of the Archive and Archaeology Service).

- Depositors must accept the financial responsibility for finds storage. The current (2010) rate is a one off payment of c£14 + VAT per box. The quantity of finds requiring storage will need to be considered at the assessment stage, following completion of fieldwork. Contact the County Museum (Keeper of Archaeology) for further advice.

- The selected museum must be approached in advance and a copy of their collections policy obtained (including requirements for archives).

- Worcestershire County Museum has a draft document on the conditions for acceptance of archaeological archives and artefacts. For further information contact the Keeper of Archaeology.
Wherever possible archives should be prepared in digital format. This allows security copies to be easily made and for the archive to be made accessible via the HER, museum catalogues and the internet. Digital archives should follow accepted national standards (guidance may be obtained from ADS).

For further guidance see ‘archaeological Archives – A guide to best practice in creation, compilation, transfer and curation by Duncan H Brown, 2007.'
13 Monitoring

The Planning Advisory Section encourages active dialogue between contractor and curator to enable the best possible outcome for both the archaeology and the client.

• Access must be provided to staff of the Planning Advisory Section, to allow for fieldwork to be monitored.
• A minimum of five working days notice is required prior to any fieldwork commencing, unless otherwise agreed.

Archaeological trenches should not be backfilled without first consulting the Planning Advisory Section.
Annex 1
Useful addresses and phone numbers

The following address and phone numbers are correct as of 9th March 2016

Planning Advisory Section
Worcestershire Archive & Archaeology Service
The Hive
Sawmill Walk
The Butts
Worcester
WR1 3PD
Tel: 01905 822866

Inspector of Ancient Monuments
English Heritage West Midlands
The Axis
10 Holliday Street
Birmingham
B1 1TG
Tel: 0121 625 6820

County Archive
Worcestershire Archive & Archaeology Service
The Hive
Sawmill Walk
The Butts
Worcester
WR1 3PD
Tel: 01905 822866

Worcestershire Coroner's Officer
The Court Office
Bewdley Road
Stourport on Severn
DY13 8XE
Tel: 01299 824029

County Ecology Officer
County Hall
Spetchley Road
Worcester
WR5 2NP
Tel: 01905 766723

Historic Environment Record
Worcestershire Archive & Archaeology Service
The Hive
Sawmill Walk
The Butts
Worcester
WR1 3PD
Tel: 01905 822866

Institute for Archaeologists
Institute for Archaeologists
Miller Building
University of Reading
Reading
RG6 6AB
Tel: 0118 9316446

County Museums Officer
Worcestershire County Museum
Hartlebury Castle
Hartlebury
Kidderminster, DY11 7XZ
Tel: 01299 250416

Keeper of Archaeology
Worcester City Museum
Foregate Street
Worcester
WR1 1DT
Tel: 01905 25371
Annex 2
Legislation relevant to archaeological heritage management.

The range of legislation affecting archaeological sites and discoveries should be familiar to an archaeological contractor or consultant. Attention is, however, also drawn to the potential hazard of commencing fieldwork without consulting equivalent environmental protection legislation. Even accidental damage to wildlife habitats or protected ecology can result in severe penalties to a developer and/or their contractor.

The following lists the legislation that refers to archaeology (excluding maritime law)

1. Primary Legislation

- Agriculture Act 1986
- Ancient Monuments and Archaeological Areas Act 1979
- Burial Act 1857
- Countryside Act 1968
- Disused Burial Grounds (Amendment) Act 1985
- Electricity Act 1989
- Environment Act 1995
- Environmental Protection Act 1990
- Forestry Act 1967
- Land Drainage Act 1991
- National Heritage Act 1983
- Planning (Consequential Provisions) Act 1990
- Planning (Hazardous Substances) Act 1990
- Planning (Listed Buildings and Conservation Areas) Act 1990
- Planning and Compensation Act 1991
- Protection of Military Remains Act 1986
- Town and Country Planning Act 1990
- Water Act 1989
- Water Industry Act 1991
- Water Resources Act 1991
- Wildlife and Countryside (Amendment) Act 1985
- Wildlife and Countryside Act 1981
2. Secondary legislation and guidance

- Ancient Monuments (Class Consents) Order, S.I.1981 No.1302
- Ancient Monuments (Class Consents) Order, S.I.1984 No.222
- Ancient Monuments (Class Consents) Order, S.I.1994 No.1381
- DOE/DNH: PPG15 Planning and the Historic Environment 1994
- DOE: Circular 1/85 The use of conditions in planning permissions
- DOE: Circular 15/88 Environmental assessment
- DOE: Circular 8/87 Historic buildings and conservation areas - policies and procedures
- DOE: MPG1 General Considerations and the Development Plan System 1988
- DOE: MPG10 Provision of raw material for the cement industry 1991
- DOE: MPG5 Minerals Planning and the General Development Order 1988
- DOE: PPG1 General Policy and Principles 1992
- DOE: PPG12 Development Plans and Regional Planning Advice 1992
- DOE: PPG7 The Countryside and the Rural Economy 1992
- Operations in Areas of Archaeological Importance (Forms of Notice, etc) Regulations, S.I.1984 No.1285
- Town and Country Planning (General Development Procedure) Order S.I.1995 No.419
- Town and Country Planning (General Permitted Development) Order S.I.1995 No.418
Annex 3
Information for finds specialists and post-excavation managers.

The Worcestershire HER has now completed a project to record all artefacts produced by archaeological activities in the county, irrespective of date or type. We now enter all new information as reports are submitted and this document is intended to provide a guide as to how we would like information submitted to the HER. The aim of this is to enable us to provide you with a complete and consistent data set. If you have any concerns about this please contact Aisling Nash via anash@worcestershire.gov.uk

Worcestershire had no consistent record of artefacts within the HER so creating such a dataset has involved considerable resources. Given the scale of the task, the record for each site does not detail individual finds but provides a general, consistent index which will allow you to identify those sites which are likely to be most productive for your research. The creation of these indices is the first step towards transforming the HER into a useful tool for finds research. For example, you will be able to search for all sites within a certain area (or the whole county) which produced Roman bronze objects and then possibly refine the search to include only those with specialist reports on Roman bronze objects. Using the HER GIS the results can be plotted onto a range of map bases and can be used with other artefact or monument searches. For example all the Roman bronze objects from rural sites which have produced Roman coins.

To help us achieve a consistent record we would like all finds reports to include a short summary table. This is not intended to determine the type of analysis undertaken nor the structure of the report as this needs to be suitable for the relevant material and research questions. The function of this table is to allow us to enter correct, consistent data as quickly as possible.

A similar index system is being used for environmental remains. This will include unworked bone, wood, horn etc. Worked bone, wood or horn will be entered in the artefact index.

Please remember that all artefacts must be included not just those from stratified contexts. This is particularly important for the earlier periods where often the only evidence of activity may come from, for example, Roman pottery found in a post-medieval context.

The following are examples of tables compiled from recent field projects
### Example 1 Evaluation of late Iron Age and Roman site

<table>
<thead>
<tr>
<th>Date (see note 1)</th>
<th>Artefact type (see note 2)</th>
<th>Count</th>
<th>Weight (g)</th>
<th>Specialist report? (see note 3)</th>
<th>Key assemblage? (see note 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd century BC to 1st century AD</td>
<td>pottery</td>
<td>192</td>
<td>2533</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>1st century to 2nd century AD</td>
<td>pottery</td>
<td>90</td>
<td>200</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>pottery</td>
<td>1456</td>
<td>17040</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>ceramic roof tile</td>
<td>280</td>
<td>457</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>brick</td>
<td>9</td>
<td>109</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>plaster</td>
<td>2</td>
<td>45</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>stone roof tiles</td>
<td>20</td>
<td>8903</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>iron objects</td>
<td>42</td>
<td>305</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>bronze object</td>
<td>1</td>
<td>40</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>lead object</td>
<td>2</td>
<td>100</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>iron slag</td>
<td>20</td>
<td>164</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>stone object</td>
<td>1</td>
<td>3600</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>vessel glass</td>
<td>4</td>
<td>10</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>window glass</td>
<td>6</td>
<td>12</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Roman</td>
<td>worked bone</td>
<td>3</td>
<td>24</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>18th to 19th century</td>
<td>pottery</td>
<td>10</td>
<td>34</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Post-medieval</td>
<td>iron objects</td>
<td>5</td>
<td>106</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Undated</td>
<td>iron objects</td>
<td>6</td>
<td>110</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>
### Example 2 Finds from Field walking

<table>
<thead>
<tr>
<th>Date (Note 1)</th>
<th>Artefact type (Note 2)</th>
<th>Count</th>
<th>Weight (g)</th>
<th>Specialist report? (Note 3)</th>
<th>Key assemblage? (Note 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Later Mesolithic to</td>
<td>flaked stone object</td>
<td>12</td>
<td>78</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>later Neolithic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roman</td>
<td>pottery</td>
<td>5</td>
<td>27</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Medieval</td>
<td>pottery</td>
<td>44</td>
<td>429</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>1540 to 1750</td>
<td>pottery</td>
<td>43</td>
<td>605</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>1750 to present</td>
<td>pottery</td>
<td>2998</td>
<td>17271</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>17th century</td>
<td>clay pipe</td>
<td>1</td>
<td>8</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Late medieval to</td>
<td>ceramic roof tile</td>
<td>35</td>
<td>1025</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>early post-medieval</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18th to 19th century</td>
<td>clay pipe</td>
<td>803</td>
<td>2611</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>19th to 20th century</td>
<td>vessel glass</td>
<td>176</td>
<td>2174</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>19th to 20th century</td>
<td>window glass</td>
<td>24</td>
<td>47</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>18th to 19th century</td>
<td>Industrial kiln waste</td>
<td>50</td>
<td>543</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Post-medieval</td>
<td>Stone roof tile</td>
<td>10</td>
<td>97</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Post-medieval</td>
<td>ceramic roof tile</td>
<td>164</td>
<td>6086</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Post-medieval</td>
<td>iron objects</td>
<td>32</td>
<td>1204</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Post-medieval</td>
<td>CU alloy object</td>
<td>1</td>
<td>33</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Undated</td>
<td>slag</td>
<td>15</td>
<td>176</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

**Notes**

1. In some cases the date will be "Undated". In most cases, especially if there is not a specialist report, the information entered in the Date field will be a general period such as Neolithic, Roman, medieval etc (see Appendix 1 for a list of general periods used in the Worcestershire HER). Very broad date ranges such as late Medieval to Post-medieval are occasionally acceptable for artefacts which can be hard to date for example roof tiles but if you have more specific dates, such as 13th to 14th century, use these instead. Specific date ranges which cross general period boundaries can also be used, for example 13th to 17th century.

2. Artefact type is a broad general category (for thesaurus see Appendix 2). Remember that the table will be used to create a summary of the finds information and is not a substitute for the more detailed definitions which are needed in the main finds report, tables and archive. The table includes very general headings such as “glass” which allowed us to enter the often very vague information found in early reports. In modern reports we would expect the most detailed term available to be used for example “Vessel Glass”

3. Not all evaluations of small excavation assemblages have specialist reports on all classes of objects. An identification (eg clay pipe) and a quantification is not a specialist report. A short discussion or a more detailed record identifying types and dates is a specialist report. This field is designed to point researchers to reports where they will find out more than merely the presence or absence of material of a particular type and date.

4. This field should be used with care. It is designed to point researchers to reports where they will be able to locate the most important assemblages for any given material for any given date.
Appendix 1 - Main Period date ranges used in the Worcestershire HER

<table>
<thead>
<tr>
<th>Period</th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palaeolithic</td>
<td>-500,000</td>
<td>-1,001</td>
</tr>
<tr>
<td>Mesolithic</td>
<td>-10,000</td>
<td>-4,001</td>
</tr>
<tr>
<td>Neolithic</td>
<td>-4,000</td>
<td>-2,351</td>
</tr>
<tr>
<td>Bronze Age</td>
<td>-2,350</td>
<td>-801</td>
</tr>
<tr>
<td>Iron Age</td>
<td>-800</td>
<td>42</td>
</tr>
<tr>
<td>Roman</td>
<td>43</td>
<td>410</td>
</tr>
<tr>
<td>Post Roman</td>
<td>411</td>
<td>1,065</td>
</tr>
<tr>
<td>Medieval</td>
<td>1,066</td>
<td>1,539</td>
</tr>
<tr>
<td>Post medieval</td>
<td>1,540</td>
<td>1,900</td>
</tr>
<tr>
<td>Modern</td>
<td>1,901</td>
<td>2,050</td>
</tr>
</tbody>
</table>

Appendix 2 – Thesaurus of Artefact Types

Worcestershire HER complies with the Standard English Heritage thesaurus, which can be accessed via the English Heritage website:

http://thesaurus.english-heritage.org.uk/
Annex 4
Information for environmental specialists, finds managers and post-excavation managers.

The Worcestershire HER has now completed a project to record all environmental material produced by archaeological activities in the county, irrespective of date or type. We now enter all new information as reports are submitted and this document is intended to provide a guide as to how we would like information submitted to the HER. The aim of this is to enable us to provide you with a complete and consistent data set. If you have any concerns about this please contact Aisling Nash via anash@worcestershire.gov.uk

Worcestershire had no consistent record of environmental material within the HER so creating such a dataset has involved considerable resources. Given the scale of the task, the record for each site does not detail species but provides a general, consistent index which will allow you to identify those sites which are likely to be most productive for your research. The creation of these indices is the first step towards transforming the HER into a useful tool for environmental research. For example you will not be able to find every site where, for example, a particular type of mollusc has been found but you will be able to discover which sites of a particular period have produced molluscs and which of these sites have detailed reports. You will be able to search for all sites within a certain area (or the whole county) which produced, for example, molluscs from Roman contexts and then possibly refine the search to include only those with specialist mollusc reports. Using the HER GIS the results can be plotted onto a range of map bases and can be used with other environmental, artefactual or monument searches. For example all the Roman rural sites excavated after 1950 which have produced molluscs.

A similar index system is being used for artefacts. This will include worked bone, wood, horn etc. Unworked bone, wood or horn will be entered in the environmental index. Finds managers should ensure that unworked bone, wood, horn which is not sent to a specialist is still entered in the table.

To help us achieve a consistent record we would like all environmental reports to include two pieces of information

1) A clear statement of the retrieval methods.

This might be best constructed as a simple table

<table>
<thead>
<tr>
<th>Method of retrieval</th>
<th>Yes/No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand retrieval</td>
<td>Y</td>
</tr>
<tr>
<td>Bulk sample</td>
<td>Y</td>
</tr>
<tr>
<td>Spot sample</td>
<td>N</td>
</tr>
<tr>
<td>Auger</td>
<td>N</td>
</tr>
<tr>
<td>Monolith</td>
<td>N</td>
</tr>
<tr>
<td>Observed</td>
<td>N</td>
</tr>
</tbody>
</table>

The Observed box is for fieldwork such as watching briefs on bore holes where environmental remains may have been observed but not hand retrieved or sampled.
2. Short summary table of the results.
This is not intended to determine the type of analysis undertaken nor the structure of the report as it is expected that these will reflect the potential of the material and the research questions. The function of this table is merely to allow us to rapidly enter correct, consistent data. The table should contain the following fields.

2.1 Type
This is a broad general category (for thesaurus see Appendix 3). Remember that the table will be used to create a summary of the environmental information and is not a substitute for the more detailed definitions which are needed in the main environmental reports, tables and archive.

2.2 Preservation
This needs to be completed for each material type. There are two broad categories

- Not decayed (for example bone or teeth)
- Modified (i.e. preserved by some process or set of conditions) Please indicate whether preservation is due to desiccation, charring, mineralisation or anaerobic/anoxic conditions. For a thesaurus see Appendix 1.

2.3 Quantity
At this basic level of recording it has been decided that a quantification is not helpful given the variety of methods of quantification needed for different types of material. The database does include tables for quantity, however, as it is hoped that in the future more detailed information will be entered on at least some specific types of environmental material for example seeds or pollen.

2.4 Specialist report?
Not all evaluations of small excavation assemblages have specialist reports on all classes of environmental evidence. An identification (e.g. large mammal bone) and an assessment of quantity or a quantification is not a specialist report. This field is designed to point researchers to reports where they will find out more detail about material of a particular type and date. In many cases this will be a species list and discussion.

2.5 Key assemblage?
This field should be used with care. It is designed to point researchers to reports where they will be able to locate the most important assemblages for any given material for any given period. Most assemblages will not, on their own, be important research resources.

2.6 Date
In some cases the Date will be "Undated". In most cases the information entered in the Date field will be a general period such as Neolithic, Roman, medieval etc (see Appendix 2 for a list of periods used in the Worcestershire HER). Very broad date ranges such as Iron Age to Roman are acceptable if the date is not known but if there are Iron Age and Roman remains these should be entered as two records. If specific dates are available, such as 13th to 14th century, please use these instead. Specific date ranges which cross general period boundaries can also be used, for example 15th to 17th century.
2.7 Example of a summary table

<table>
<thead>
<tr>
<th>Type (see 2.1)</th>
<th>Preservation (see 2.2)</th>
<th>Specialist report? (see 2.4)</th>
<th>Key assemblage? (see 2.5)</th>
<th>Date (see 2.6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human bone</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>Medieval</td>
</tr>
<tr>
<td>Human teeth</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>Medieval</td>
</tr>
<tr>
<td>Large mammal bone</td>
<td>Not decayed</td>
<td>N</td>
<td>N</td>
<td>Undated</td>
</tr>
<tr>
<td>Small mammal bone</td>
<td>Not decayed</td>
<td>N</td>
<td>N</td>
<td>Undated</td>
</tr>
<tr>
<td>Large mammal bone</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>9th to 16th century</td>
</tr>
<tr>
<td>Small mammal bone</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>9th to 16th century</td>
</tr>
<tr>
<td>Fish bone</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>9th to 16th century</td>
</tr>
<tr>
<td>Large mammal teeth</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>9th to 16th century</td>
</tr>
<tr>
<td>Small mammal teeth</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>9th to 16th century</td>
</tr>
<tr>
<td>Plant macrofossils</td>
<td>Mineralisation</td>
<td>Y</td>
<td>Y</td>
<td>14th - 15th century</td>
</tr>
<tr>
<td>Pollen</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>9th to 16th century</td>
</tr>
<tr>
<td>Wood</td>
<td>Waterlogged</td>
<td>N</td>
<td>N</td>
<td>18th century</td>
</tr>
<tr>
<td>Mollusc shell</td>
<td>Not decayed</td>
<td>Y</td>
<td>N</td>
<td>9th to 16th century</td>
</tr>
<tr>
<td>Food remains</td>
<td>Charring</td>
<td>Y</td>
<td>N</td>
<td>14th to 15th century</td>
</tr>
</tbody>
</table>

Appendix 1 – Preservation

<table>
<thead>
<tr>
<th>Not modified</th>
<th>Modified</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Desiccated</td>
</tr>
<tr>
<td></td>
<td>Charred</td>
</tr>
<tr>
<td></td>
<td>Mineralised</td>
</tr>
<tr>
<td></td>
<td>Anaerobic or</td>
</tr>
<tr>
<td></td>
<td>Anoxic</td>
</tr>
<tr>
<td></td>
<td>Not specified</td>
</tr>
</tbody>
</table>
Appendix 2 - Main Period date ranges used in the Worcestershire HER

<table>
<thead>
<tr>
<th>Period</th>
<th>Begin</th>
<th>End</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palaeolithic</td>
<td>-500000</td>
<td>-10001</td>
</tr>
<tr>
<td>Mesolithic</td>
<td>-10000</td>
<td>-4001</td>
</tr>
<tr>
<td>Neolithic</td>
<td>-4000</td>
<td>-2351</td>
</tr>
<tr>
<td>Bronze Age</td>
<td>-2350</td>
<td>-801</td>
</tr>
<tr>
<td>Iron Age</td>
<td>-800</td>
<td>42</td>
</tr>
<tr>
<td>Roman</td>
<td>43</td>
<td>410</td>
</tr>
<tr>
<td>Post Roman</td>
<td>411</td>
<td>1065</td>
</tr>
<tr>
<td>Medieval</td>
<td>1066</td>
<td>1539</td>
</tr>
<tr>
<td>Post medieval</td>
<td>1540</td>
<td>1900</td>
</tr>
<tr>
<td>Modern</td>
<td>1901</td>
<td>2050</td>
</tr>
</tbody>
</table>
Appendix 3 – Thesaurus of Environmental Types

Worcestershire HER complies with the Standard English Heritage thesaurus, which can be accessed via the English Heritage website:

http://thesaurus.english-heritage.org.uk/
Annex 5

Association of Archaeological Illustrators and Surveyors
Draft Guidance Notes on Standards for Maps, Plans and Sections.

The following notes set out the standards that should be achieved by illustrators and surveyors commissioned to produce Maps, Plans and Sections for publication.

Commissioning the work:

The format of the drawing(s) must be agreed beforehand with the commissioning party, (i.e. a line manager, colleague or external client), and set out in writing to avoid misunderstanding.

This agreement should take the form of a written brief supplied to the illustrator by the commissioner. The brief must be prepared in consultation with the illustrator- a commissioner will expect the illustrator to do their utmost to fulfil the brief but equally, the illustrator must not be set an unrealistic or unachievable task. At all times the commissioner must be aware that just as they are a specialist in their particular field, the illustrator is an equally professional colleague with equally specialist skills in their field.

Execution of the Work:

Every illustration will have its own requirements, style and format, depending on the client, method, media and aim of the illustration. There are however common factors that must be observed to make the drawing intelligible to the client and to its audience.

Copyright issues:
Copyright ownership of the final illustration should be determined by written agreement between the parties concerned. One aspect which is often overlooked is that any map or plan based on data supplied by the Ordnance Survey or any other mapping agency will be subject to copyright and written permission must be obtained before using such data whether in whole or as the template for a base map. Any map using such data must indicate whose mapping data has been used and that permission for this use has been obtained.

Scales:
Any map, plan or section drawing must be prepared and reproduced to an intelligible scale. Thus a location map might incorporate elements at 1:25000, 1:10000, 1:2000, 1:500 or similar depending on the size of the area to be depicted. Site plans equally might be set at 1:250, 1:100, 1:50, again depending on the size of the site. Individual trenches, features or sections might be set at 1:40, 1:20, 1:10. The essential element is that the user of the drawing must be able to take any component of that drawing and easily relate it to real world measurements. The practice of shrinking a drawing to an arbitrary scale to fit it into a convenient space in the publication is not acceptable professional practice.

Orientation:
Every map or plan must have an indication of the direction of north. Accepted convention in the western world is that North is usually located at the top of the plan or map and it is normal to follow this convention in archaeological publication drawing. However, the shape of an area of land, orientation of an excavation area or even an individual feature may not always make this possible. Therefore to remove any doubt or confusion, an indication of the orientation must be included. This can be done either by using a north arrow or in some cases by co-ordinates at the intersections of at least two grid squares. It must be clear however what form of north is actually indicated by the direction arrow or co-ordinates- a 'site north' may differ somewhat from OS grid north and OS Grid north will differ significantly from magnetic north. The exact style of direction indicator will usually be defined by the graphics office house style.
Section and elevation drawings equally require orientation. The minimum requirement is a statement in the caption to indicate that a particular view faces towards a particular compass direction. It is better however to label each end of the elevation/section drawing with its appropriate compass direction. Where a section or elevation changes direction significantly, the point of change must be indicated and labelled accordingly, usually with letters relating to a plan showing where the section/elevation was taken.

Relative height on a section must be indicated. This is usually done by placing an appropriate symbol at each end of the drawing to indicate a horizontal line and labelling that symbol with appropriate figures. This is normally expressed in metres above Ordnance Datum and should be correct to the nearest centimetre. Arbitrary sections where no surveying has taken place may be labelled as ‘above’ or ‘below’ the temporary site datum from which levelling measurements are taken, but every effort should be taken to correct this to an actual OD figure. It should also be borne in mind that some deep excavations or those in intertidal areas may actually be below Ordnance Datum.

Labelling.
Most maps, plans and sections will require some labelling. The font, size and placement of this labelling must be undertaken with care. The labelling should be easy to read, unobtrusive and not obscure the very features the drawing is there to depict.

Conventions and Keys
Most organisations will have their own, or use someone else’s, conventions for indication different components of the features being depicted. These can include different deposit types and different stone types as well as the line styles used to indicate edges of trenches, boundaries of contexts, intrusive features and so on. Whilst the use and interpretation of these may be second nature to those producing or using the drawing ‘in-house’, they may not be so obvious to someone from a different unit or background. Any drawing incorporating such features must either include a key within its composition or have a caption reference to such a key elsewhere in the publication.

Scale bars.
Most organisations will have their own style as part of their house conventions. Any such scale bar must be fit for its purpose. This means that the scale bar must be accurate and correct for the scale of the drawing of which it is part. The units employed on the scale bar must be indicated. Subdivisions of the scale bar must correspond to real, commonly used subunits. Thus a 3-metre scale bar should be subdivided into metre or half-metre divisions, not into five arbitrary subdivisions for artistic effect.

Archiving and Storage.
Most drawings produced using the traditional media of drafting film and ink or pencil are, so far as is known, stable for archive purposes. The stability of adhesives used on dry transfer lettering is less certain so where possible any labelling should be repeated on the drawing using a non-photographic blue pencil.

The stability of Digital drawings is currently open to question. This is partly due to issues such as the corruption of data and the physical stability of CD/disk/card storage. Of equal concern is the facility to open and access older digital files, owing to rapid changes in operating systems, software packages and file formats. The optimum solution is to maintain such files as live documents, loading, updating and saving them when new versions of the software originally used to produce them become available. Electronic storage and archiving advice can be sought from the Archaeology Data Service at the University of York.

In all cases, back-up copies of drawings, whether physical copies or digital files, must be made and stored elsewhere in conformity with the organisations’ disaster planning scheme.
Annex 6

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Worcestershire Archive & Archaeology Service
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Sawmill Walk
The Butts
Worcester
WR1 3PD

Tel: 01905 844824
e-mail: ehancox@worcestershire.gov.uk

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