

BEST PRACTICE STANDARD:**Archaeological services in fixed price contracts**

The standard and guidance procedures for archaeological services in fixed price contracts used in the Republic of Ireland.

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ABBREVIATIONS USED:

DAGHI Department of Arts, Heritage, Gaeltacht and the Islands

DEHLG Department of the Environment, Heritage and Local Government

IAI Institute of Archaeologists of Ireland

JIA Journal of Irish Archaeology

MS Method Statement

NMI National Museum of Ireland

NMS National Monuments Service

NRA National Roads Authority

ROI Republic of Ireland

1. The Standard¹

This standard is the minimum quality requirement to be met by an individual or corporate member of the IAI when undertaking archaeological services under a fixed price contract (phases 1-4 or individual phases), in order to protect the archaeological heritage.

2. Definitions²

The following terms are used in the procurement of archaeological services under a fixed price contract and in this standard:³

Test excavation or Testing Where the purpose is to establish the nature and extent of archaeological deposits and features present in a location which it is proposed to develop (though not normally to fully investigate those deposits or features but sufficient to determine nature, extent and significance) and allow an assessment to be made of the archaeological impact of the proposed development. Testing should not be used as a substitute for archaeological excavation.

Specific assessment/evaluation of archaeological features⁴ 'strip and map', or 'pre-excavation services' Where testing has revealed archaeology that is predicted to be impacted by the development, this archaeology is fully cleaned back and recorded in preparation for full excavation.

¹ At the time of writing the National Monuments Acts 1930-2004 is the main legislation governing archaeological works in the Republic of Ireland. This standard acknowledges that there are codes already in place for IAI members: *Code of Professional Conduct*, *Code of Conduct for the Treatment of Archaeological Objects*, *Code of Conduct for Archaeological Assessment Excavation (testing code)* and *Code of Conduct for Archaeological Excavation* (all 2006) available at www.iai.ie.

² As defined in *Frameworks and Principles for the Protection of the Archaeological Heritage* (DAHGI 1999, pp 27-32) and *Policy and Guidelines on Archaeological Excavation* (DAHGI 1999a). Definitions and job specifications for different grades of archaeologist such as director, supervisor, technician, specialist etc. are usually detailed in the fixed price contract.

³ This list is not exhaustive. Other services will be considered in the IAI Technical Advice Sheet Series.

⁴ This type of archaeological work is not defined in the two documents referred to in note 2. This type of work could be considered to be a final part of testing, or the initial preparation part of an excavation.

On-site Excavation Where a proposed development is predicted to impact negatively on any archaeology revealed in testing and assessment and where the archaeology cannot be preserved *in situ*, then 'preservation by record', i.e. full excavation, may occur. This requires the on-site excavation by hand and recording of the features revealed.

Post-Excavation This refers to the archaeological work required after the on-site part of the works has been undertaken. (Sample processing and analysis, stratigraphic reporting, finds cataloguing, specialist reports, radiocarbon dating, finds conservation, synthesis, conclusions, final reporting, publication, archiving.) Post-excavation is part of the preservation by record approach.

Archiving Following the on-site excavation and post-excavation parts of a project, the site has been 'preserved by record' when the record has been archived with the regulatory bodies. This record comprises the archive; paper and digital material, artefacts and ecofacts (see section 6.6. below).

Fixed Price This refers to a lump sum amount for services required. In the event that a service cannot be clearly defined at tendering, notional amounts or a percentage fee can be employed.⁵ In the case of some archaeological services fixed price tenders, daily rates are requested and hours applied. When the project can become more clearly defined, these rates are used to calculate a lump sum for services required.

Tender A formal offer of services made to satisfy a set of terms, in exchange for payment.

Tender Assessment Fixed price tenders may be assessed using a number of methods, usually either lowest price or best price (most economically advantageous tender). It is important for IAI members to be aware of the type of assessment in any particular fixed price tender.

⁵ These lump sum and percentage fee explanations are derived from, *Capital Works Management Framework Guidance Note on the Appointment of Consultants for Construction-related Services* (ROI Dept of Finance 2006, 19).

3. Key Principles⁶

A number of key principles are pertinent to this standard. They are:

A **Contract** is an agreement between two or more people to do something, especially one formally set forth in writing and enforceable by law and/or a document recording those terms of an agreement and signed by all parties. It is advised that all work conducted by an IAI member is subject to some form of written contract.

Below-cost pricing⁷ of a tender for the purposes of deliberately not adhering to stated contractual requirements and standards is not acceptable professional conduct as it will eventually lead to failure to comply with this standard. Members must cover all legislative obligations such as health and safety and employee remuneration. Members must cost projects so that this best practice standard can be maintained. Should the tender documentation, such as the item coverage, units of measurement or Bill of Quantities be considered deficient in any regard by the member, they should immediately highlight this fact to the service procurer.

It is the **Responsibility** of the licence holder/site director⁸ to ensure that the full archive of the excavation is submitted to the regulatory bodies on completion of the project. The method statement, site direction, interpretation, reporting and archiving of the archaeological project rests with the licence holder/site director. In the case of ministerial directions on approved road schemes, the senior archaeologist, site director and archaeological firm have responsibilities under the project contract.

⁶ These key principles are further outlined in the IAI Codes of Conduct.

⁷ Current competition legislation prohibits the fixing of rates for any archaeological services. Joint Labour Committees have never operated in the archaeological profession. Members are advised that they should cover both their legislative obligations and their overheads in order to comply with this standard. Members may require professional advice, such as quantity surveying *etc.* in the completion of archaeological tenders.

⁸ In this document 'licence holder' refers to excavation licences. 'Site director' refers to works carried out under ministerial consents (for National Monuments) and ministerial directions (for approved road schemes and a project contract) which are issued finds registration numbers by the regulatory bodies.

The **Method Statement (MS)** is considered a key document in which archaeological methodologies and works programmes are clearly stated. The licence holder/site director who attends on site is expected to be the author of the MS.⁹

Licence Transfer. If licence holder/site director changes during any phase of a project prior to the submission of the archive, the responsibility should be formally transferred in writing to another licence holder/site director and the regulatory bodies informed of the transfer in writing for their approval.¹⁰

Full Disclosure of Data. In the event that a different licence holder/site director is responsible for different phases of a project then full disclosure of all archaeological data from one phase to another must be undertaken. This includes information required to properly cost later phases of work.

Report Writing. The licence holder/site director on site is responsible for the writing of the final report of the project. This is considered a professional and ethical obligation. The licence holder/site director is the principal writer and must oversee all aspects of the compilation of the final report, including interpretation.¹¹

Testing is a particularly important part of an archaeological project as this phase assesses the potential to encounter archaeological remains, while also providing crucial data on the type of features, deposits, artefacts, ecofacts and their state of preservation. The phase in effect 'front-loads' the archaeological component of a project, allowing subsequent phases to be undertaken effectively.

4. Purpose

The purpose of this standard is to set minimum quality criteria for archaeological services under a

⁹ Guidelines of what is expected in a MS are provided in the relevant IAI Codes of Conduct documents.

¹⁰ The transfer of 'E' numbers (excavation licences or finds registration numbers for ministerial consents and directions) are issued on foot on a method statement submitted by a named individual. If this individual is to change then the regulatory bodies must be notified to ensure that the new individual compiling the record is of sufficient experience to undertake the task.

¹¹ In the final report there must be a signing-off section where the licence holder/site director confirms their input and agreement with the interpretation and conclusions of the report.

fixed price contract to which all IAI members are expected to comply. This is to ensure the continued measurable quality of work and archaeological heritage protection undertaken by IAI members in their pursuit of the preservation¹² of the archaeological heritage.

5. Occurrence

Archaeological services may be procured by a variety of clients. Such contracts may be on a phased basis or one contract may cover more than one phase or all phases of archaeological services required. The procedures below are set out on a phased basis and follow how fixed price contracts are being employed at the time of writing.¹³ Fixed Price Contracts may also be used to procure the service of archaeological monitoring.¹⁴

6. Procedures to Comply with the Standard

6.1 Tendering Phase¹⁵

- Non-archaeological terms of contract should be read and understood in advance of tender submission.
- All non-specific archaeological items covered by national legislation and European regulation

¹² Preservation *in situ* and preservation by record are key principles in government archaeological policy. Preservation *in situ* should always be presumed to be the first option. In the event that *in situ* preservation is impossible, preservation by record may be permitted. Developments are assessed on a case-by-case basis for preservation by record (please refer to DAHGI 1999, 24-25. See note 2).

¹³ At the time of writing several procurers employ fixed price contracts. For example, the National Roads Authority (NRA) uses the term 'stages' in its documentation. This document uses the word 'phases' to differentiate archaeological services.

¹⁴ This standard generally applies to archaeological monitoring and is to be read in conjunction with the *Code of Conduct for Archaeological Monitoring* (IAI 2006) which details the specifics of this service.

¹⁵ There will be guidelines and specifications included in tender documentation. It is the responsibility of the member to make themselves fully aware of all terms and conditions of tender before submission of any completed tender. These may include but are not limited to contractual obligations such as preliminary works, re-instatement and maintenance, penalty clauses, performance bonds, collateral warranties, professional indemnity insurances *etc.* On occasion independent legal advice may be required.

must be covered and priced sufficiently, such as Health and Safety and employee welfare.

- During the project familiarisation stage a clear understanding of the archaeological component of the works must be reached prior to tendering which includes a site inspection.¹⁶
- Archaeological environmental specialists must be consulted by tenderers during this phase for specialist advice.¹⁷
- The member must ensure that the item coverage in the tender document is properly costed to enable the archaeological works to be carried out in an effective manner according to an approved Method Statement (MS) and this standard.¹⁸

A successful tender and contract award

- A detailed MS should be produced in advance of the works phase to cover all archaeological items in the contract, which will have to be approved by the National Monuments Service (NMS) and the National Museum of Ireland (NMI) and the client's archaeological representative.¹⁹ The MS will detail the procedures employed to fulfil all archaeological items covered in the contract.
- Archaeological site personnel employed should equate to the project and qualifications required in the item coverage.

6.2 Testing (phase 1)

- An approved MS is required which properly covers all items in the contract.
- The MS should be prepared by the licence holder/site director who must also attend on site during the works.²⁰

¹⁶ Please refer to *IAI Code of Conduct for Archaeological Excavation* (first edition May 2006).

¹⁷ Artefact specialists may also be consulted.

¹⁸ Where a member is an employee or on contract to an archaeological firm they are advised to have their own contractual arrangements with that firm to ensure they can carry out their work in accordance with this standard.

¹⁹ The IAI recommends that the client consults an archaeologist prior to the tendering of any archaeological works and takes the advice of a consultant archaeologist before and throughout the tendering process and throughout the contract until the contract has been satisfactorily completed. See IAI Technical Advice Sheet 001.

²⁰ IAI members are reminded of the responsibility of the individual licence holder in the current legislation regulating archaeological works at the time of writing (see key principles section). Works carried out under ministerial consents and

- The entire project’s archaeological dimension remains the responsibility of the licence holder/site director until a satisfactory report is accepted by the NMS and NMI and the conserved finds, ecofacts, paper and digital material are archived or transferred (see below).²¹
- A daily log should be maintained by the licence holder/site director including photographic record, work in progress, features, finds identified and a sampling register (in consultation with a specialist).
- Progress/discovery reports should be delivered to client at agreed regular intervals.
- A copy of the original MS, daily log and interim reports should be available for inspection on site at all times, by representatives of the NMS/NMI/client.
- Where machinery is being used to test a site, there must be a minimum of one archaeologist per machine.
- Testing must be targeted.²² The percentage or square meterage of testing must be assessed on a site-by-site basis and must be of a level adequate to properly assess the archaeology and predict impact/risk.
- The final testing report should fulfil the item coverage in the contract if item coverage is provided and *as a minimum* must contain:²³
 - a. Archaeological aims of the Project
 - b. Overview of the landscape that has been tested
 - c. Description of project
 - d. Dates and assessment duration
 - e. Methodology employed
 - MS (and reasoning for any variations)
 - Machinery employed
 - Staff employed
 - Ground Conditions

ministerial directions are subject to method statements and other contractual conditions which the member should be aware of.

²¹ At the time of writing the individual licence holder is legally responsible for the archaeological reports, artefacts and ecofacts and not the archaeological firm that is awarded the contract. In the case of ministerial consents and ministerial directions issued to client authorities on relevant road projects the site director and/or archaeological firm are bound by method statements and contractual arrangements.

²² Intrusive testing should be based on other non-intrusive forms of investigation, for instance, when geophysics has been undertaken.

²³ This list is based on *IAI Code of Conduct for Archaeological Assessment Excavation* (IAI 2006, section 7.1.4). Please also refer to *Guidelines for authors of reports on archaeological excavations* (DEHLG 2006).

f. Gazetteer of all sites and features uncovered:

- Trench location
- IG/ITM
- OD height
- Written Description
- Dimensions
- Associated samples taken (sample type, code, context, number of samples)
- Associated finds (short description with registration numbers)
- Initial stratigraphic Information/Context list
- Suggested date based on available information
- AOI

g. A drawing(s) showing full extent of scheme, trenches opened, and locations of all features described in **f.** This drawing must show revision control and final sign-off by licence holder/site director.

h. An impact assessment on the archaeological features exposed and suggested mitigation for the protection of the archaeological heritage.

i. Statement(s) from an environmental archaeologist(s) on the nature and future works required for archaeological samples taken to-date, including details of any sample assessment work carried out at phase 1 and 2. The statement(s) must also provide an assessment of the number and types of samples required at phase 3 and the types of analyses required at phase 4.²⁴

j. Statements from conservator(s) on the nature and future conservation works required on the artefacts found during the testing.

k. A signing-off section signed by the licence holder/site director that they are the principal writer and that they agree with the interpretation(s) presented. Reports issue to NMS, NMI and client and any other additional bodies that may be included in contracts from time to time.

– **In the event:**

a. That a subsequent phase of the project is awarded to another archaeological contractor under a new contract, arrangements shall be put in place to transfer the archive, the artefacts and ecofacts to the phase 2 or 3 archaeological contractor. NMS and NMI to be advised of this transfer in writing with proof of transfer. (The IAI expects members to pass over the entire archive of an archaeological project (i.e. full disclosure) in view of the need for continued protection of the archaeological heritage, see key principles above.)

OR

b. Should no further phases of a project be undertaken after this phase, phase 1 archaeological contractor proceeds to section 6.6 procedures.

²⁴ Sample processing and assessment and sample dating at this phase (1 & 2) can be enormously beneficial to the drawing up of phase 3 plans for environmental work, particularly those occurring in wetland areas/bogs.

6.3 Assessment of Archaeological Features 'strip and map' 'pre-excavation services' (phase 2)²⁵

- This phase should be covered in the phase 1 approved MS which properly covers all items in the contract, and which should include a clean-back after stripping in phase 2.
- The MS should be prepared by the licence holder/site director attending on site.
- A daily log should be maintained by the licence holder/site director including photographic record, work in progress, features and finds identified.
- Progress/Discovery reports should be delivered to the client at agreed regular intervals.
- A copy of the original MS, daily log and interim reports should be available for inspection on site at all times, by representatives of the NMS/NMI/client.
- Adjustments to statement(s) by environmental archaeologist(s) on sampling requirements for phase 3 and analysis requirements at phase 4 should be made on the basis of any new features revealed during Phase 2.
- Reporting requirements as parts (a-k) in section 6.2. In the event that no report is required at this phase, a revision control and final sign-off of mapping is required as part (g) section 6.2 above.

6.4 On-site Excavation (phase 3)²⁶

In addition to the IAI Code of Conduct procedures, the following apply to fixed price contracts:

- Tenderers must include a contingency sum for archaeological features that may not have been visible in testing phase. Members are not permitted to knowingly leave archaeological features unexcavated within the limits of the excavation area, unless by prior agreement with NMS.
- Provision must be made for a thorough clean-back of the entire area in this phase within the limits of excavation to identify all possible archaeological features, including those which may not have been visible during the testing

²⁵ At the time of writing, phases 1 and 2 of a project usually form one contract.

²⁶ Please refer to *IAI Code of Conduct for Archaeological Excavation* (IAI 2006, sections 1-6).

phase. (A record must be made of this cleaning back including photographically and included in the stratigraphic report.) Cleaning-back around individual features *only* is not acceptable.

- On the basis of statements provided by environmental archaeologist(s) and other specialists at the end of Phase 1 and 2, and any assessment and dating of sampled material at Phase 1 and 2²⁷ the tenderer must specify the number, type and purpose of samples to be taken in each MS. This should be done in consultation with named environmental specialists. Adequate financial provision must be made for both on-site and off-site processing of samples at phase 3 as on-site processing is not appropriate for all classes of bioarchaeological material.
- Samples must be taken in accordance with stated aims in the MS and from specific numbered contexts. This must be recorded in site documentation in the form of the sample register and be cross-referenced.²⁸
- All site records as detailed in Code of Conduct (note 26) must be available on site for inspection by NMS/NMI/client representative.
- In the event that a different contractor, for whatever reason, is engaged to carry out phase 4, the IAI expects full disclosure by members of data and transfer of artefacts and ecofacts in view of the need for continued protection of the archaeological heritage (see key principles above).

6.5 Post-Excavation (phase 4)²⁹

This phase is crucial to all archaeological projects. Phase 3 has excavated the record, the purpose of phase 4 is to draw together all strands of that record, in order to enable 'preservation by record' of the archaeological site into the future. In addition to the IAI Code of Conduct procedures, the following apply to fixed price contracts:

²⁷ It should be noted that sampling of a wide variety of environmental material may be required in any one contract. Consultation with environmental specialist(s) is essential. Please refer to *IAI Guidelines for Archaeological Sampling*.

²⁸ Please refer to *IAI Guidelines for Archaeological Sampling*. Other guides are available such as the NRA guide on sampling (forthcoming).

²⁹ Please refer to *IAI Code of Conduct for Archaeological Excavation* (IAI 2006, sections 7-8) and the *IAI Sampling Guidelines*.

- All samples deemed worthy of full analysis by the appropriate environmental specialist(s)³⁰ must be processed, analysed and reports submitted.
- Artefacts requiring conservation and/or analysis must be processed, conserved, documented and stored in an appropriate manner. Reports must be incorporated into final report (see below).
- The licence holder/site director on the site must have a lead role in the compilation of the preliminary and final reports for the site and should be employed to do so (see key principles above).
- Should the on-site licence holder/site director not have the lead role in the writing of reports, this requires the transfer of the active excavation licence or ‘E’ number to another licence holder of similar experience. This transfer must be approved in writing by the NMS and the NMI.³¹
- The preliminary/stratigraphic excavation report should fulfil the item coverage in the contract if item coverage is provided and *as a minimum* must contain:³²
 - a. Context/feature descriptions, draft plans and photos.
 - b. Preliminary Stratigraphic Sequence/matrix
 - c. Interim Finds Catalogue.³³
 - d. Post-excavation design and schedule for completion of final report.
- Follow the agreed schedule, which should include for all specialist reports, radiocarbon dates, artefact conservation, synthesis and conclusions.
- The final excavation report should fulfil the item coverage in the contract if item coverage is provided and *as a minimum* must contain:

³⁰ Sample analysis should be signed-off by the particular environmental specialist. Recommendations for the retention or disposal of extracted material, retents and unprocessed samples must be included in these reports. The research questions of the licence holder/site director should be considered when sampling strategies are agreed.

³¹ It is best practice that licence holder/site director write stratigraphic and final reports. This concept is set out in the key principles above. In the event of a transfer of responsibilities, please refer to note 10.

³² This list is based on *IAI Code of Conduct for Archaeological Excavation* (IAI 2006, section 8.1.4). Please also refer to document in note 23.

³³ Please refer to *IAI Code of Conduct for the Treatment of Archaeological Objects in the context of an archaeological excavation* (IAI 2006); *NMI Advice Notes for Excavators* (2010 or as updated).

- a. Archaeological aims of the project and overview.
- b. Description and background of project
- c. Description of areas excavated, MS, any agreed deviations from project design.
- d. Dates and duration of excavation
- e. Methodology employed
 - overview ground conditions
 - any archaeological problems encountered
- f. A Description of the main features and phases of the site (this is to be supported by the (amended) context/feature description list and stratigraphic sequence/matrix of the preliminary report which can be included as a section or an appendix to final report).
- g. A full detailed artefact catalogue with appropriate artefact drawings/images.
- h. A comprehensive discussion, interpretation and synthesis, including specialist results, of the archaeological findings of the excavation. See point L below.
- i. A statement of the significance of the archaeological findings of the excavation on a local, regional and national level. Why is this site important?
- j. Concluding remarks and recommendations for future research and archaeological knowledge creation.
- k. Supporting maps, sections, plans, photographs, illustrations.³⁴
- L. Specialist final reports (including artefact and environmental). It is recommended that these be included as sections in report rather than appendices. Their content should be incorporated and referred to in point h above.
- m. Bibliography and references used in text.
- n. Preliminary archive content listing (for approval by NMS and NMI archiving facilities see below). Reports issue to NMS, NMI and client and any other additional bodies that may be included in contracts from time to time.

6.6 Archiving

Archiving is paramount to conclude the ‘preservation by record’ policy adopted when an archaeological site is excavated. It also provides for future research and archaeological knowledge creation. In addition to any terms of the fixed price contract the following applies:³⁵

- Should the licence holder/site director not have the lead role in the writing of reports, this

³⁴ It is advised that these are created at a size and quality that would be easily transferred to publication.

³⁵ Please refer to *IAI Code of Conduct for Archaeological Excavation* (IAI 2006, section 9). Other pertinent documents in relation to archiving are *Dublin City Archaeological Archive Guidelines* (Dublin City Council no date), *Policies on Archaeological Archives in Ireland* (Royal Irish Academy Archaeology Committee forthcoming). For the knowledge creation debate see *Repositioning Irish Archaeology in the Knowledge Society* (University College Dublin 2006) and *The Appropriateness of Key Performance Indicators to Research in Arts and Humanities Disciplines: Ireland’s contribution to the European debate* (Royal Irish Academy 2011). It is suggested that digitally archived material is presented in a stable compatible format which can be manipulated into the future.

requires the transfer of the active excavation licence to another licence holder of similar experience to take responsibility for archiving process until completed.³⁶

- Archiving is the responsibility of the phase 4 archaeologist.
- NMS archive facility procedures must be followed by IAI members.³⁷
- NMI archive facility procedures must be followed by IAI members.³⁸

6.7 Dissemination Obligations of Members³⁹

Notwithstanding any terms in a fixed price contract, under item 1.5 of the *IAI Code of Professional Conduct* (IAI 2006) 'members shall fully support the principle of facilitating the dissemination of the archaeological results gathered during the course of a commission or project'. Therefore the following applies:

- Members shall, at the completion of a fixed price contract, publish the final report or a summary of same either in paper format in a monograph, an edited book chapter, a journal article, such as *JIA*,⁴⁰ or electronically via the internet, with the intention of making the excavation results easily accessible to all interested parties.⁴¹
- Members shall inform the IAI administration of any publication so that an IAI members' list of publications may be circulated.
- Engagement with the local community is encouraged by the IAI. This public engagement could be achieved through site visits,

³⁶ Please refer to key principles section and note 10.

³⁷ The NMS will issue their guidelines presently. Draft guidelines have been produced (2010).

³⁸ NMI have guidelines in this regard (2010 and revisions).

³⁹ There are a few instances when the *Excavation Bulletin* summary will suffice as publication of a site. However, for the majority of archaeological excavations they are worthy of some form of additional publication. In the event of the non-publication of data from an archaeological excavation, there is a possibility that after a fixed period of time the NMS will open the archive for public research (NMS guidelines forthcoming).

⁴⁰ The *Journal of Irish Archaeology* is the official journal of the IAI. The IAI has a mentoring programme in place for early career publishers who would like assistance in bringing projects to publication in the *JIA*. Contact the IAI board (JIA representative) for details.

⁴¹ This requirement is in addition to the summary provided in the *Excavations Bulletin*.

exhibitions, presentations, media releases and heritage week.⁴²

⁴² These would have to be undertaken within the terms of the fixed price contract and/or with the prior agreement of the client.