



Appendix 10.1 Methodology for Archaeological Watching Brief (AWB)

1. Introduction

Archaeological Watching Brief (AWB) is a form of mitigation which is required when engineering works impact on areas that have been assessed as having some degree of archaeological potential and where conventional testing methods are deemed insufficient. The range of archaeological resources that require monitoring include both historical and prehistoric material and features.

An AWB should be undertaken by a qualified and licensed archaeologist during engineering groundworks works during the construction stage. A qualified archaeologist should inspect the site at an interval that will depend upon the archaeological potential of the area in question and the nature and duration of the construction programme. Details of the frequency of inspection will be provided to AMO for review and comment once the detailed construction programme has been finalised. A construction programme should be provided to the archaeologist carrying out such Watching Brief prior to the commencement of site works in order to arrange the inspection schedule. The archaeologist should be notified no less than 3 working days prior to any changes to the construction programme so that arrangements can be made to monitor the works. The Engineer should facilitate arrangements and liaise between the archaeologist and construction contractor.

The Watching Brief process entails the observation of the engineering works by qualified archaeologists in order to identify any archaeological material or features revealed during engineering groundworks. Site staff within the project area should inform the archaeologist in case of discovery of antiquities in the course of excavation works. Upon identification of such material or features the archaeologists will require immediate access to the excavation area for recording of the material/features *in situ*, artefact/ecofacts retrieval and sample collection. The archaeologist should recommend and agree with AMO appropriate mitigation measures/follow up action(s) including arranging more time and resources to conduct necessary archaeological works.

These guidelines serve two basic purposes: firstly, to ensure that the archaeological resources are adequately recorded and recovered and secondly, that appropriate measures are taken on site to create a minimum of delays to the engineering schedule.

2. Detailed Methodology of the Archaeological Watching Brief (AWB)

2.1 Watching Brief Personnel & Licence Requirements

Watching Brief should be undertaken by a qualified archaeologist, who must apply for a licence under the Antiquities and Monuments Ordinance (Cap. 53) from the Antiquity Authority before the commencement of archaeological fieldwork. Such licences are valid for a period of 12 months, and for projects lasting longer than one year it will therefore be necessary to renew the licence. In order to facilitate such licence renewal, the archaeologist must provide with the application an interim report summarising the works conducted and findings made during the existing licence period. All staff employed by the archaeologist must be suitably qualified and experienced for their roles.

2.2 Areas to be monitored

The areas which require AWB must be defined and submitted by the qualified archaeologist under the project and agreed with AMO prior to commencement of works.



2.3 Site access

Archaeologists should be allowed reasonable access to relevant areas of engineering groundworks, so that deposits can be examined and recorded. Trenches may require temporary shoring and engineering groundworks might need to be temporarily rescheduled, to provide a safe environment for such works. Provision should be made, at the earliest stage of construction programming, for specific blocks of time to be available for unrestricted archaeological access to areas of groundworks in the identified area of archaeological potential.

2.4 Monitoring and retrieval methodology

The table below shows the various categories of archaeological material and features that are most likely to occur in local contexts. Also listed are the recommended type and degree of recording and retrieval required for each category.

CATEGORIES OF ARCHAEOLOGICAL MATERIALS	Retrieval & Recording Procedures
<p>1. HUMAN BURIAL</p> <p>Skeletal remains Items associated with human burial, i.e. grave goods</p>	<p>Full Recording & Recovery of Human Remains & Associated Artefacts & Ecofacts</p> <ul style="list-style-type: none"> ▪ Complete recording by photography, drawing, written description ▪ Full measurement of burial and surrounding matrix ▪ Retrieval of human remains and associated artefacts & ecofacts ▪ Retrieval of surrounding soil for further analysis
<p>2. INTACT FEATURES</p> <p>Structural/architectural remains Undisturbed contexts, e.g. hearth, midden, habitation area, assemblages of artefacts and/or environmental material</p>	<p>Full Recording of Archaeological Features & Recovery of Artefacts/Ecofacts</p> <ul style="list-style-type: none"> ▪ Recording and measurement of salient features by photography, drawing and written description ▪ Retrieval of artefacts & ecofacts ▪ Retrieval of samples from the surrounding matrix
<p>3. INTACT ARTEFACTS</p> <p>Complete objects, e.g. pottery, metal objects, stone and bone tools. The objects are complete but isolated and are not part of assemblage of feature</p>	<p>Recovery of Artefacts & Record of Matrix</p> <ul style="list-style-type: none"> ▪ Retrieval of objects ▪ Recording by written description, drawing and photography ▪ Sampling of surrounding matrix
<p>4. ISOLATED & FRAGMENTARY MATERIAL</p> <p>Pottery sherds, non-human bone, other artefact fragments (e.g. metal, tile, glass). There are no complete objects, the material</p>	<p>Recovery of Archaeological Material & Recording as Appropriate</p> <ul style="list-style-type: none"> ▪ Retrieval of fragmentary artefacts & ecofacts ▪ Recording by written description, drawing and photography, as appropriate



CATEGORIES OF ARCHAEOLOGICAL MATERIALS	Retrieval & Recording Procedures
is isolated and fragmentary in nature	▪ Sampling of surrounding matrix
5. DEPOSITS WITH ARCHAEOLOGICAL POTENTIAL Soil deposits which exhibit characteristics associated with archaeological remains in Hong Kong	Sampling of Deposit ▪ Recording of soils by photography and written description ▪ Collection of soil samples from deposits displaying archaeological potential

Any archaeological materials recovered during the programme should be properly recorded and submitted to the AMO. Upon the discovery of significant archaeological remains, the qualified archaeologist will contact immediately both the AMO informing them of the discovery and the Site Engineer to ensure a temporary suspension of works. The archaeologist is required to prepare a written brief regarding the findings upon the request from the AMO. Any follow-up works, if required, should be conducted following consultation and agreement with the AMO.

2.5 Recording forms for Archaeological Watching Brief (AWB)

Full and proper records (written, graphic, electronic and photographic as appropriate) should be made for all work undertaken. Standardised forms are used for the recording of any archaeological material identified during the AWB and these would typically include the following:

- Registers to record the finds, special finds, contexts, photographs, drawings, levels and samples;
- Context description forms; and
- A daily record form designed specifically for AWB. This form must locate clearly the area of works monitored, the nature and extent of the works, and summaries of the day's findings all cross-referenced to register numbers used that day.

2.6 Safety requirements

Archaeologists and staff employed in monitoring must follow the safety procedures enforced by the contractors on site.

2.7 Archaeological Watching Brief Report

The procedures and result of the AWB should be presented in report form, following standards set by the AMO for reports on other types of archaeological field work. This includes details of the overall programme, methodology, sampling strategy, implementation, findings and interpretation. The report should be submitted to the AMO for approval in draft and, following resolution of any comments, in final form. All data, material and records forming the site archive must be submitted to the AMO upon completion of the project. The Watching Brief report should contain, as a minimum, the following elements:

- Non-technical summary
- Site location (including maps and relevant drawings) and descriptions
- Context of the project



- Geological and topographical background
- Archaeological and historical background
- General and specific aims of field works monitoring
- Reference to relevant legislation
- Field methodology
- Results
- Conclusion
- Recommendations
- Appendices and supporting illustrations including maps, drawings, photos of site and finds
- References

In addition to the draft and final Watching Brief Report, periodic progress reports will be compiled for the separate works areas and submitted to AMO. The duration which each progress report should cover is to be decided in agreement with AMO, bi-monthly progress reports are proposed.

2.8 Mitigation Measures

The Contractor should be sufficiently flexible to allow any necessary contingency arrangements to be implemented. Should significant archaeological materials be discovered, appropriate mitigation measures will be designed and implemented with the prior approval of the AMO.