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(for information)

## **Selection of Engineering Consultants for Hong Kong Government Projects**

### **Introduction**

These brief notes describe the way in which consultants are selected and appointed for Government engineering and related consultancies. The Government needs to employ such consultants when the necessary expertise or manpower is not available in the relevant department. In doing this, the department concerned must ensure that the best interests of public are served by the employment of capable and experienced consultants at fair but reasonable fees.

2. Engineering consultants are professionals in their field, whose training and standing parallel those of other professionals such as architects, lawyers, accountants, doctors, etc. They provide professional advice and service to their clients. Consultants are employed to undertake planning and feasibility studies, to carry out designs and to supervise construction undertaken by contractors.

3. The professional fee paid to a consultant forms only a small part of the cost of the particular project. For a large project, the total fee for the feasibility, design and construction supervision is typically less than 10% of the overall project cost. However, the consultant has the responsibility to ensure that the detailed planning and design of the project meet the client department's full requirements in a cost-effective manner. The professional expertise of a consultant is therefore the most important factor for a Government department to consider when selecting a consultant for a particular project.

### **Types of Consultancy**

4. Consultants are appointed for one or more of the following stages of a project:

- |                         |   |
|-------------------------|---|
| (a) Feasibility Stage   | - initial investigations into a problem to establish a number of possible solutions.  |
| (b) Investigation Stage | - preliminary design to establish a single workable option.                           |
| (c) Design Stage        | - production of a detailed design, including drawings and documentation for tendering |

- (d) Construction Stage      the construction (to be undertaken by a contractor).  
- supervision of the construction of the facility.

## **Engineering & Associated Consultants Selection Board**

### Jurisdiction

5. The selection and conditions of appointment of consultants for all Government engineering projects is controlled by the Engineering & Associated Consultants Selection Board (EACSB). The Board's jurisdiction covers consultancies in the fields of :

civil engineering	environmental engineering	development
geotechnical engineering	water resources	planning
structural engineering	chemical engineering	transportation
mechanical engineering	biological engineering	landscape architecture
electrical engineering		

### Terms of Reference and Membership

6. The EACSB operates under the delegated authority of the Secretary for the Treasury. Its terms of reference are :

- (a) to approve the selection and appointment of engineering and associated consultants for all public works projects (except those of the Housing Authority and Architectural Services Department),
- (b) to advise the Secretary for Works on selection and appointment procedures, and to recommend changes as necessary,
- (c) to promulgate guidance on approved selection and appointment procedures resulting from Board decisions, and
- (d) to review the performance of engineering and associated consultants.

7. The Chairman and Members of the EACSB are appointed by the Secretary for the Treasury, and are :

Chairman :                      Director of Civil Engineering

Members :                      (a) Principal Assistant Secretary, Treasury (Works),  
Finance Branch  
(b) Deputy Secretary/Works Policy, Works Branch

In attendance :                (a) Technical Secretary/Headquarters, Civil  
Engineering Department (Secretary)  
(b) for a particular submission, the Head of  
Department or his representative not below D2  
rank

8. It should be noted that the Architectural Services Department and the Housing Department operate their own Consultants Selection Boards.

#### Databank on Consultants

9. The EACSB maintains a list and databank of all consultants wishing to carry out consultancy work in Hong Kong. This list, which currently contains information on almost 150 consultants, is available to all departments for their reference. When compiling a Longlist (see para. 14 below) of suitable consultants, a department refers to the EACSB list but also takes account of its own experience of consultants' past performance as well as unsolicited approaches from interested consultants.

10. The Works Digest, published quarterly, lists consultancy studies planned to commence within the forthcoming six-month period.

### **The Consultant Selection System**

#### Outline

11. Prior to June 1991, engineering consultants were selected entirely on the basis of their technical ability, and fees were then negotiated after selection. Selection is now carried out in conformity with Works Branch Technical Circular No. 16/95, entitled "The Selection and Appointment of Engineering and Associated Consultants", which provides for an element of fee competition.

12. The selection of the winning consultant for an assignment is now based on a 'two-envelope' system of the kind used by the World Bank. Short-listed consultants are required to submit a Technical Proposal and a separate Fee Proposal. The envelopes containing the Technical Proposals are opened by the project department, and an assessment of the technical competence of the consultants is made according to a previously approved technical/fee weighting, which leads to the selection of the winning consultant.

13. This system ensures that proper priority is given to the technical merit of the consultants, while adequate account is taken of the cost of the consultancy.

#### Consultant Selection Procedure

14. The following procedure must normally be followed by any department wishing to employ a consultant :

- (a) Identify the need and obtain approval to employ a consultant.
- (b) Obtain funding approval for using a consultant.
- (c) Prepare an outline Brief and obtain an agreement number from the EACSB Secretary.

- (d) Prepare a Longlist of suitable consultants based on EACSB records, past performance of consultants, and expressions of interest from consultants. Agree on a marking system to assess the Longlist submissions.
- (e) Invite expressions of interest from the Longlisted consultants in the form of a four-page submission summarising how they would approach the assignment.
- (f) Made an assessment of the Longlist submissions, and arrive at a Shortlist of the three or four most suitable consultants.
- (g) Prepare the draft Brief, the Conditions of Employment, and the Schedule of Fees for the consultancy.
- (h) Prepare a proposed marking scheme and a technical/fee weighting.
- (i) Determine the membership of the Assessment Panel that will meet to mark and assess the consultants' proposals.
- (j) Make the first EACSB submission to obtain approval to the Shortlist of consultants and to those items prepared at (g), (h) & (i).
- (k) Invite Technical Proposals and Fee Proposals from the approved Shortlist of consultants.
- (l) Convene a pre-submission meeting with all the Shortlisted consultants with a view to resolving any queries in relation to the assignment and to finalise the Brief and other documentation.
- (m) Receive the Technical Proposals, and assess these according to the approved marking scheme, and send the results to the EACSB Chairman.
- (n) Receive the Fee Proposals from the EACSB Chairman, and make an overall assessment using the approved technical/fee weighting to arrive at a winning consultant.
- (o) Make the second EACSB submission to seek approval for appointment of the winning consultant.
- (p) Sign the agreement with the winning consultant and commence the assignment.

### Assessment of Proposals

15. The marking system adopted by a department to assess the Technical Proposals submitted by Shortlisted consultants is required to be based on the following :

- |     |                                     |           |
|-----|-------------------------------------|-----------|
| (a) | Consultant's relevant experience    | 5% - 10%  |
| (b) | Response to the Brief               | 15% - 25% |
| (c) | Approach to cost-effectiveness      | 15% - 20% |
| (d) | Methodology and work programme      | 15% - 25% |
| (e) | Ability and experience of key staff | 30% - 40% |

16. One of the following three technical/fee weightings must be used to assess consultants' combined Technical and Fee Proposals :

- (a) For multidisciplinary complex consultancies that require special emphasis on technical input - 80% technical : 20% fee.

- (b) For less complex Feasibility studies and Investigation-stage consultancies, and for Design and Construction consultancies of above average complexity - 70% technical : 30% fee.
- (c) For technically straightforward Design and Construction consultancies - 60% technical : 40% fee.

### **Methods of Payment**

17. Depending on the nature of the consultancy, the method of fee payment to a consultant can be one of, or a combination of more than one of, the following :

- (a) Lump-sum fee, fixed when the consultant is appointed, but subject to additional payments for inflation.
- (b) Time charges, under which the consultant is reimbursed appropriate hourly rates for staff against the production of time-sheets.

18. Whenever possible, the EACSB ensures that a consultancy is based on a lump-sum fee.

### **Monitoring of Consultants' Performance**

19. The day-to-day management of consultants is the responsibility of the individual department, which are required to submit confidential reports twice annually on the performance of the consultants under their control. These reports are reviewed by the EACSB, and are taken into account by departments compiling Longlist and Shortlists of consultants.

**EACSB Secretariat**  
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