

## TECHNICAL MEMBER COMPETENCIES - ESTIMATING

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Formulation of a cost estimate through to submission of a tender document to a client, including co-ordination with planning, procurement, surveying and management.

To exhibit knowledge of all civil engineering contracts, but also to support and recommend strategies to the other members of the construction team. It involves preparation of tender and contract documents, the measurement of quantities, cost control, preparation of valuations and financial accounts, the production and settlement of claims and the performance of advisory and administrative functions requiring a good knowledge of contractual matters.

### Range Indicators

Competency will be demonstrated in the application of relevant knowledge, understanding and skills set out in the estimating competency requirements. Such knowledge and skills will normally be obtained through structured education, training and development, and the requisite level of work experience.

This area of specialism includes the following core skills:

- To be able to demonstrate knowledge and experience of financial control procedures within the civil engineering industry.
- The ability to measure and interpret specifications and drawings.
- To be able to demonstrate knowledge and experience of contract structures and documentation.
- To be able to demonstrate knowledge of risk analysis in the context of construction.
- To be able to demonstrate knowledge of preparation and use construction programmes, analyse and prepare tenders and cost data.
- To be able to demonstrate knowledge of construction techniques, sustainable and environmental construction and practical application of health and safety on site.
- The ability to understand and use commercial management and administration skills.

Communication, computing and health and safety skills apply to all specialisms and are described elsewhere. All applicants for Technical Membership are required to satisfy these levels of competence.

### Evidence Guide

Evidence of successful achievement of this competency would be effective and efficient management of the estimating process together with the application of appropriate systems for monitoring and collection of cost data, at the minimum levels as stated in the competency details and range of elements

TECHNICAL MEMBER COMPETENCIES - ESTIMATING

|     | Competency       | The ability to use financial control procedures encountered within the industry |                    |   |   |   |
|-----|------------------|---|--------------------|---|---|---|
| CM8 | Optimum Standard | Activity Details  | Date of Assessment |   |   |   |
|     |                  |   | A                  | K | E | B |
| A   | K                | Analysis of tender budget information.  |                    |   |   |   |
| B   | K                | Preparation of profitability forecasts and cash flow.                           |                    |   |   |   |
| C   | K                | Collation of cost and value information.  |                    |   |   |   |
| D   | A                | Internal valuations and management accounts.                                    |                    |   |   |   |
| E   | A                | Company accounting system(s).   |                    |   |   |   |
| F   | K                | Cost planning and pre-contract cost control.                                    |                    |   |   |   |
|     |                  | Supervisor's signature:   | Date:              |   |   |   |

TECHNICAL MEMBER COMPETENCIES - ESTIMATING

|     | Competency       | Demonstrate ability to measure, record and value work in accordance with appropriate rules |                    |   |   |   |
|-----|------------------|--|--------------------|---|---|---|
| CM9 | Optimum Standard | Activity Details   | Date of Assessment |   |   |   |
|     |                  |  | A                  | K | E | B |
| A   | E                | Preparation of bills of quantities, schedules of rates and activity schedules.             |                    |   |   |   |
| B   | K                | Preparation and submission of interim and final accounts.                                  |                    |   |   |   |
| C   | K                | Measurement of the works and agreements with client and subcontractors.                    |                    |   |   |   |
| D   | K                | Formulation and agreement of dayworks and contemporary records.                            |                    |   |   |   |
| E   | K                | Preparation and negotiation of claims.   |                    |   |   |   |
|     |                  | Supervisor's signature:  | Date:              |   |   |   |

TECHNICAL MEMBER COMPETENCIES - ESTIMATING

|      | Competency       | Demonstrate knowledge and experience of contract structure and documentation                                  |                    |   |   |   |
|------|------------------|---|--------------------|---|---|---|
| CM10 | Optimum Standard | Activity Details  | Date of Assessment |   |   |   |
|      |                  |   | A                  | K | E | B |
| A    | K                | Preparation of estimates and tender submissions.  |                    |   |   |   |
| B    | K                | Interpretation of specifications and preambles.   |                    |   |   |   |
| C    | K                | Risk analysis.  |                    |   |   |   |
| D    | K                | Analysis of drawings, technical reports and bills of quantities.  |                    |   |   |   |
| E    | K                | A sound working knowledge of the various forms of conditions of contract used for civil engineering projects. |                    |   |   |   |
|      |                  | Supervisor's signature:   | Date:              |   |   |   |

TECHNICAL MEMBER COMPETENCIES - ESTIMATING

|      |                  | Demonstrate knowledge and usage of Civil Law in the context of construction   |                    |   |   |   |  |
|------|------------------|---|--------------------|---|---|---|--|
| CM11 | Optimum Standard | Activity Details  | Date of Assessment |   |   |   |  |
|      |                  |   | A                  | K | E | B |  |
| A    | K                | Knowledge of construction and contract law.   |                    |   |   |   |  |
| B    | K                | Advising on contractual matters and formulating correspondence.   |                    |   |   |   |  |
| C    | K                | Understanding of disputes resolution.   |                    |   |   |   |  |
| D    | K                | Understand the provisions of the standard forms of contract and sub-contract commonly in use in the civil engineering industry. |                    |   |   |   |  |
| E    | K                | The Health and Safety at Work and Environmental Health Acts.  |                    |   |   |   |  |
|      |                  | Supervisor's signature:   | Date:              |   |   |   |  |

|      |                  | Demonstrate knowledge and ability in planning and programming                  |                    |   |   |   |
|------|------------------|--|--------------------|---|---|---|
| CM12 | Optimum Standard | Activity Details   | Date of Assessment |   |   |   |
|      |                  |  | A                  | K | E | B |
| A    | A                | Preparation of various types of construction programmes.                       |                    |   |   |   |
| B    | K                | Use of the programme for: A) Planning the works.                               |                    |   |   |   |
| C    | K                | Ditto: B) Analysis and preparation of extension of time and disruption claims. |                    |   |   |   |
| D    | A                | Benchmarking and performance indicators (Key Performance Indicators).          |                    |   |   |   |
|      |                  | Supervisor's signature:  | Date:              |   |   |   |

TECHNICAL MEMBER COMPETENCIES - ESTIMATING

|      | Competency       | Demonstrate appreciation and knowledge of construction techniques and uses of technology       |                    |   |   |   |
|------|------------------|--|--------------------|---|---|---|
| CM13 | Optimum Standard | Activity Details   | Date of Assessment |   |   |   |
|      |                  |  | A                  | K | E | B |
| A    | K                | Construction techniques with particular emphasis upon projects with which personally involved. |                    |   |   |   |
| B    | K                | Working knowledge of plant, equipment, materials and labour.                                   |                    |   |   |   |
| C    | K                | Sustainable engineering and environmentally friendly construction.                             |                    |   |   |   |
| D    | K                | Practical application of health and safety on site.  |                    |   |   |   |
|      |                  | Supervisor's signature   | Date               |   |   |   |

TECHNICAL MEMBER COMPETENCIES - ESTIMATING

|      | Competency       | Demonstrate the ability to understand and use commercial management and administration skills   |                    |   |   |   |
|------|------------------|---|--------------------|---|---|---|
| CM14 | Optimum Standard | Activity Details  | Date of Assessment |   |   |   |
|      |                  |   | A                  | K | E | B |
| A    | K                | Preparation of internal reports.  |                    |   |   |   |
| B    | K                | Management, selection and control of sub-contracts and finances, including disputes settlement.   |                    |   |   |   |
| C    | A                | Representation of the financial and contractual interests of your employer/client in progress meetings.   |                    |   |   |   |
| D    | A                | The principles of insurance, including professional indemnity and the handling of insurance claims.   |                    |   |   |   |
| E    | K                | Analysis of rates and prices, agreement of variations and or compensation events.   |                    |   |   |   |
| F    | K                | Administration of Quality Assurance procedures.   |                    |   |   |   |
| G    | K                | Co-ordination of buying, accounts, production control/planning. Supply chain management and procurement techniques, estimating and surveying functions. |                    |   |   |   |
| H    | K                | A working knowledge of labour costs, employment legislation and Working Rule Agreements.  |                    |   |   |   |
| I    | E                | The ability to demonstrate and use knowledge of data storage and retrieval systems.   |                    |   |   |   |
|      |                  | Supervisor's signature:   | Date:              |   |   |   |