



## COMPETENCY STANDARDS FOR QUANTITY SURVEYORS IN THE ASIA-PACIFIC REGION

The Pacific Association of Quantity Surveyors (PAQS) has as a major component of its charter the recognition that there is a world market for professional services and employment requiring the mobility of members within this market and particularly the Asia-Pacific region. The PAQS is also mindful of the need to enhance their members' existing skills, develop new skills and to encourage high standards of technical and professional conduct.<sup>1</sup>

With this in mind and recognising the growing needs of international clients in the Asia-Pacific region, the following document has been prepared to establish the minimum level of competency standards clients may expect from professional QS who are members of PAQS Institutes.

This document is intended to serve many purposes but the following are the essential ones:

- (a) define the competencies expected by the industry;
- (b) establish the benchmark for competency
- (c) provide the basis for evaluation of the adequacy of the courses provided by higher education institutions seeking accreditation of their courses in relation to the competency standards.
- (d) identify a number of specialist or further skills that the Quantity Surveyor could acquire through working in a specific area or on particular projects or on the job training.
- (e) identify skills or services which will be needed in the future and establish directions for the profession in tandem with the changing environment.

### INTRODUCTION

This document is a precis of the PAQS Competency Standards for Quantity Surveyors or Construction Economists. They provide the basis for the development and evaluation of the level of competency of Quantity Surveyors – Construction Economists throughout the Asia-Pacific region. The competencies described in this publication cover the broad range of expertise provided by the modern Quantity Surveyor and extend beyond some of the more traditional Quantity Surveying services.

Competency has been defined as the ability to perform the activities within an occupation to the standard expected for employment. This precis describes the “Basic Skills” and “Core” competencies and lists those other competencies which are regarded as “Specialist”. These may both change over time to meet the demands of a diversified profession.

Higher education institutions seeking accreditation for courses in Quantity Surveying or Construction Economics will be expected to provide an appropriate level of education that satisfies these “Basic Skills” and “Core” Competencies described in this document.

Competency standards describe the skills required of the Quantity Surveyor in providing professional services and are structured as follows:

Areas of Professional Competence	Described in broad terms, the areas of professional competence required of a Quantity Surveyor and the basic skills to be acquired in order for him to effectively provide the various services of a Quantity Surveyor.
Unit of Competency	Describes in broad terms a particular element of a Quantity Surveyor's function in terms of performance criteria, range indicators and evidence guides.
Performance Criteria	Specifies the outcomes to demonstrate acceptable performance achieved for each element of competency.
Range indicators	Frame the boundaries which the Performance Criteria apply on: <ol style="list-style-type: none"> <li>(a) the process involved</li> <li>(b) the understanding of factors, principles, legislation, procedures, trends, techniques, sources, standards and practices</li> <li>(c) the application of the unit at various levels of the profession: <ul style="list-style-type: none"> <li>• Probationer or Graduate</li> <li>• Associate or Full Member</li> <li>• Fellow</li> </ul> </li> </ol>
Evidence Guides	Give an indication of tangible results that confirm satisfactory demonstration of competence.

<sup>1</sup> Extract from the PAQS Agreement of 20 May 1994

Entry or Graduate/Probationer level Quantity Surveyors first demonstrate acquisition of these competencies by successful completion of their tertiary degree course. This enables them to proceed to Graduate or Probationer membership level of PAQS member Institutes where these competencies are improved and expanded through supervised “on the job” training and experience over a minimum period specified by the relevant PAQS member Institute (in most cases it is a minimum period of two years). Their competencies are then reassessed by the PAQS member Institute through a review process and an Assessment or Test of Professional Competence, which they must pass before proceeding to Associate or Full member level.

Associates/Full members and Fellows may acquire the additional competencies through further formal education (post graduate studies), continuing professional development or “in-house” training and work experience.

**CAVEAT**

The many competencies described in this document may be acquired by individual Quantity Surveyors over a lifetime of professional practice, education and training.

Most Quantity Surveyors should have attained the competencies listed as “core” or essential, either after graduation from their tertiary course and in their first five to ten years of on the job training.

A number of the other competencies are quite specialised and therefore optional and might only be acquired by Quantity Surveyors working in a specific area or on particular projects.

It is therefore unlikely that all these competencies will be found in any one Quantity Surveyor. However, in many Quantity Surveying practices the balance of these competencies is likely to be provided by pooling all the skills of the various staff.

**BASIC SKILLS**

The basic skills that a competent Quantity Surveyor must acquire are:

<b>Quantification/Measurement.</b>	The ability to <ul style="list-style-type: none"> <li>• understand and apply the standard method of measurement relevant to the area of practice</li> <li>• understand and apply standard phraseology of building trades and elements</li> <li>• quantify, enumerate and measure.</li> </ul>
<b>Communication Skills</b>	The ability to: <ul style="list-style-type: none"> <li>• communicate effectively, orally, in writing and with visual aids</li> <li>• combine fact or ideas into a complex whole</li> <li>• prepare written information in a formal way which clearly conveys meaning.</li> </ul>
<b>Personal and Interpersonal Skills</b>	The ability to: <ul style="list-style-type: none"> <li>• demonstrate self confidence time management and self motivation and enthusiasm</li> <li>• understand the role and motivation of others and participate in professional and inter-professional teamwork</li> <li>• identify and assess problems and find innovative solutions</li> <li>• set and achieve personal objectives and targets</li> <li>• understand and, where appropriate, apply marketing and negotiating skills.</li> </ul>

<b>Business and Management Skills</b>	<p>The ability to:</p> <ul style="list-style-type: none"> <li>• recognise the need for cost-effective use of appropriate resources</li> <li>• understand the process of quality control and assurance, and understand appropriate certification</li> <li>• recognise consumer and client needs and the process for their satisfaction</li> <li>• understand accounting principles, including budgets and cash flows</li> <li>• understand the scale of fees and charges for professional services</li> <li>• be familiar with general economic principles.</li> </ul>
<b>Professional Practice</b>	<p>The ability to:</p> <ul style="list-style-type: none"> <li>• recognise the nature and significance of property development in all its forms</li> <li>• understand the role responsibilities and legal liabilities of Quantity Surveyors in matters of practice</li> <li>• understand and apply the ethics of professional practice</li> <li>• understand and apply legislation relevant to providing a professional service including registration of Quantity Surveyors and quantity Surveying practices</li> <li>• understand the role of Quantity Surveyor in a multi-disciplinary project team</li> <li>• understand the structure of the national Institute of Quantity Surveyors, its by-laws and rules of conduct.</li> </ul>
<b>Computer and Information Technology</b>	<p>The ability to:</p> <ul style="list-style-type: none"> <li>• understand and apply basic computer skills relevant to area of practice</li> <li>• understand the use and relevance of information technology.</li> </ul>
<b>Construction Technology</b>	<p>Acquire knowledge of:</p> <ul style="list-style-type: none"> <li>• Construction processes and technologies</li> <li>• Construction activities and sequencing of activities</li> <li>• Source and use of building materials including testing and assessing techniques</li> <li>• Design and installation of building services</li> <li>• Principles of building science in respect of heat, light and sound</li> <li>• Principles of building science in relation to structures including analysis, design and stability</li> <li>• Principles of construction including demolition methods, formwork design, erection techniques plant and equipment</li> <li>• Principles of site surveys</li> <li>• Interpretation of building plans, construction codes and regulations</li> <li>• Specification writing.</li> </ul>
<b>Construction Law and Regulation</b>	<p>Acquire knowledge of:</p> <ul style="list-style-type: none"> <li>• Laws and regulations relevant to the construction industry</li> </ul> <p>Various forms of building and construction contracts.</p>

These Basic Skills form the platform from which a competent Quantity Surveyor can develop and are an integral part of the various units of competence.

These abilities and knowledge may be developed during tertiary education or by personal development. Some may be included as modules of QS or Construction Economics courses.

## AREAS OF CORE PROFESSIONAL COMPETENCE

### Range Indicators for All Competencies

Competencies in the various performance criteria listed will be demonstrated in the execution of typical work undertaken as a professional Quantity Surveyor. The work in question will call for the application of extensive knowledge appropriate to the discipline. Such knowledge will normally be acquired through a structured program of education to degree level incorporating training and work experience.

This activity would be based on a clear understanding of the processes involved and include:

- analysis of the financial implications of construction process
- construction and financial practices in the construction industry
- life cycle implications where required
- appropriate recording and documentation of information including costings

Practitioners would demonstrate a thorough understanding of:

- factors affecting the industry
  - micro and macro economic factors
  - technological factors
  - the influence of inflation on construction costs
- principles of construction and the use of materials
- the legislative and regulatory requirements of the industry.

**Additional Range Indicators for specific competencies are shown on later pages.**

**Communication and computing skills would also be applied in conjunction with all these competencies.**

Discrimination between the application of these units at the levels of Entry Graduate, Associate and Fellow (or Expert) is chiefly in terms of the level of autonomy or supervision of the work required and the degree of leadership exercised. The type of projects on which the practitioner has worked and the range of experience would also be taken into account.

#### **Entry Graduate**

The Entry Graduate would demonstrate these competencies in work undertaken under the supervision of a more senior practitioner. The Entry Graduate would be able to work effectively and develop through experience and added responsibility the ability to work under general guidance on the accepted range of work carried out by a professional Quantity Surveyor.

#### **Associate/Member**

The Associate would demonstrate these competencies in the course of work associated with the application of appropriate knowledge to recognised tasks either self managed or expert practitioner supervised activities. The Associate/Member would have had varied experience and worked on a range of projects.

#### **Fellow (or Expert)**

Competencies would be demonstrated in the course of undertaking tasks associated with the self managed application of appropriate knowledge to recognised tasks and leadership of others in the performance of the professional activities. The Fellow (or Expert) would be expected to have had considerable experience and demonstrated competency over a wide range of projects.

### **Evidence Guide for all Competencies**

Evidence of successful achievement of these competencies would be effective and efficient management or implementation of the particular competency's process and the setting up and application of appropriate systems for monitoring of activities.

## CORE COMPETENCIES

### PROJECT COST MANAGEMENT COMPETENCIES - COST MANAGEMENT

Project cost management involves various cost management and procurement procedures to ensure that the Client's budget is properly established and maintained.

#### COST MANAGEMENT

Cost management of a project includes establishing the budget and then effectively monitoring and reporting against that budget on a regular basis, cost planning the evolving design, preparing appropriate contract documentation and advising on variations and claims during the progress of the project.

#### COMPETENCY STANDARD UNIT 1 - STRATEGIC PLANNING

##### Additional Range Indicators

- strategies for gathering data and carrying out research on current construction costs and future predictions
- analysis of data relating to costing, budgeting and cashflows including financial implications of various options
- use of appropriate analysis and evaluation techniques in reporting to the Client
- application of principles of cost management and elemental cost analysis

ELEMENT	PERFORMANCE CRITERIA
1.1 Provide strategic advice on the costs and benefits of various courses of action on a construction project	1.1.1 Various techniques for value optimisation established and implemented 1.1.2 Advice on various courses of action provided
1.2 Conduct economic and financial analysis for the life of a construction project	1.2.1 Relevant financial and economic data collected 1.2.2 Financial and economic data analysed for life of project
1.3 Provide input into the development of the project brief	1.3.1 Relevant data collected 1.3.2 Input into project brief provided
1.4 Conduct compliance and management studies	1.4.1 Requirements of relevant government planning and environmental legislation and regulation researched 1.4.2 Strategy developed for compliance and management of the project in line with established requirements
1.5 Prepare cost benefit analyses	1.5.1 Data for cost benefit analyses accessed and evaluated 1.5.2 Cost benefit analyses prepared

**PROJECT COST MANAGEMENT COMPETENCIES - COST MANAGEMENT**

**COMPETENCY STANDARD UNIT 2 - BUDGETARY PROCESS**

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
<p>2.1 Establish and maintain cost management and monitoring procedures</p>	<p>2.1.1 Control systems established</p> <p>2.1.2 Cost administration procedures established</p> <p>2.1.3 Cost reporting and forecasting systems established and maintained</p> <p>2.1.4 Variation control systems established and maintained</p>
<p>2.2 Co-ordinate Client's construction cash flow</p>	<p>2.2.1 Required data collected</p> <p>2.2.2 Appropriate procedures established for co-ordination of cash flow</p>
<p>2.3 Appraise Contractor's cost reporting systems</p>	<p>2.3.1 Contractor's cost reporting systems evaluated</p> <p>2.3.2 Advice on required changes and adjustments given</p>
<p>2.4 Establish budget for project</p>	<p>2.4.1 Cost budgets for all contracts prepared and established</p> <p>2.4.2 Work package scope established</p>
<p>2.5 Prepare cost reports</p>	<p>2.5.1 Format of cost reports established</p> <p>2.5.2 Cost section of project progress report prepared based on appropriate data</p>

**PROJECT COST MANAGEMENT COMPETENCIES – COST MANAGEMENT**

**COMPETENCY STANDARD UNIT 3 – COST ESTIMATING**

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
<p>3.1 Prepare estimates</p>	<p>3.1.1 Scope of estimates researched and prepared</p> <p>3.1.2 Detailed estimates prepared</p> <p>3.1.3 Estimates for proposed changes and variations prepared</p> <p>3.1.4 Cash flow prepared</p>
<p>3.2 Develop cost components</p>	<p>3.2.1 Cost factors researched and developed</p> <p>3.2.2 Productivity factors developed</p> <p>3.2.3 Unit rates developed</p>
<p>3.3 Assess and advise on the accuracy of cost estimates</p>	<p>3.3.1 Cost estimates reviewed and evaluated</p> <p>3.3.2 Advice provided on accuracy of estimates</p>
<p>3.4 Prepare estimating procedures and conduct estimate reviews</p>	<p>3.4.1 Procedures for estimating researched and appropriate procedures prepared</p> <p>3.4.2 Estimate reviews conducted according to sound principles and accepted professional practice</p>

**PROJECT COST MANAGEMENT COMPETENCIES – COST MANAGEMENT**

**COMPETENCY STANDARD UNIT 4 – COST PLANNING**

ELEMENT	PERFORMANCE CRITERIA
4.1 Establish project cost objectives and parameters	4.1.1 Project cost objectives clarified with Client, colleagues and other appropriate personnel 4.1.2 Project cost parameters and constraints identified and verified 4.1.3 Understanding of development processes involved in costing demonstrated
4.2 Access data to produce estimate/indicative costs	4.2.1 Appropriate data gathering structures and relevant schedules developed 4.2.2 Data for cost estimates/indicative costs collected and evaluated 4.2.3 Documentation inputs to estimates/indicative cost processes prepared
4.3 Analyse time related cost data	4.3.1 Time related cost data analysed
4.4 Undertake project cost estimate	4.4.1 Project cost estimate completed using time-related cost data
4.5 Analyse and advise on various alternative design solutions	4.5.1 Analyses of design construction details completed 4.5.2 Design solutions evaluated 4.5.3 Appropriate design solutions developed, compared and selected
4.6 Prepare project and procurement plan	4.6.1 Implementation and procurement plan clearly specified 4.6.2 Stages of the project identified with defined outcomes
4.7 Prepare cost plan	4.7.1 Documentation input into cost plan prepared based on sound principles and accepted practice 4.7.2 Cost plan developed based on information collected and understanding of life cycle costing and process models
4.8 Undertake scope audit	4.8.1 Scope audit undertaken based on sound principles and accepted practice
4.9 Provide advice to Clients on estimate, cost alternatives and cost plan	4.9.1 Involvement in on-going planning/review cycle maintained 4.9.2 Advice on cost plan provided to Client based on analysis of data 4.9.3 Time lines and deadlines met

## PROJECT COST MANAGEMENT COMPETENCIES – PROCUREMENT

Procurement involves the various processes by which a construction contract is achieved including the use of the appropriate project delivery system and standard form of contract, the method of tendering and contractor selection, the provision of bills of quantities and the subsequent acceptance of a tender.

### COMPETENCY STANDARD UNIT 5 – GENERAL PROCUREMENT ADVICE

#### Additional Range Indicators

- Strategies for gathering data and carrying out research on project delivery systems, contractor selection and forms of contract.
- Analysis of data including financial implications of various options.
- Use of appropriate analysis and evaluation techniques in reporting to Client.
- Methods of construction and analysis of buildability.
- Appropriate recording and documentation of information including registration of interest, preparation of bills of quantities and work breakdown structures.
- Dispute resolution procedures.

ELEMENT	PERFORMANCE CRITERIA
5.1 Collect information required to specify procurement requirements	5.1.1 Clients objectives established and confirmed 5.1.2 Objectives of process specified 5.1.3 Market conditions evaluated and options reviewed
5.2 Evaluate project delivery systems	5.2.1 Project delivery systems reviewed 5.2.2 Forms of contract reviewed
5.3 Provide input into the development of the project brief	5.3.1 Relevant data collected 5.3.2 Input into project brief provided 5.3.3 Insurance policies assessed.

**PROJECT COST MANAGEMENT COMPETENCIES - PROCUREMENT**

**COMPETENCY STANDARD UNIT 6 – CONTRACT DOCUMENTATION [BILLS OF QUANTITIES]**

ELEMENT	PERFORMANCE CRITERIA
6.1 Establish Client requirements and advise on alternative contract document type	6.1.1 Client objectives, risk acceptance and other factors assessed. 6.1.2 Alternative contract document types explained to Client 6.1.3 Client agreement on selected contract document obtained.
6.2 Recommend and agree method of measurement and input document requirements	6.2.1 Alternative method of measurement types explained to Client. 6.2.2 Expected quality and timing of input documents assessed 6.2.3 Client agreement on method of measurements obtained 6.2.4 Input documents schedules, time-tabled and prioritised.
6.3 Develop management plan for resources and other requirements	6.3.1 Trade or other document breakdown determined 6.3.2 Appropriate resource levels quantified and allocated.
6.4 Access and distribute input documents	6.4.1 Input documents validated and registered 6.4.2 Input documents distributed to Quantity Surveying team.
6.5 Prepare Bill of Quantities	6.5.1 Measurement (software) system established and set up 6.5.2 Items described, measured, signposted and quantified 6.5.3 Items sorted in appropriate sequence 6.5.4 Preliminaries, trade or other sections and subsection headings added 6.5.5 "Rates to include" and other pricing and measurement preamble clauses added 6.5.6 Item reference added 6.5.7 Elemental or other analysis codes added.
6.6 Undertake quantity and other checks	6.6.1 Input document discrepancies and/or omissions noted and queried during measurement 6.6.2 "To take" lists prepared during measurement 6.6.3 Final input documents checked for Bill completeness 6.6.4 Final output documents checked for spelling, omissions etc 6.6.5 Cost significant items and quantities "bulk" checked
6.7 Prepare Addenda as required	6.7.1 Final Bill adjusted for corrections to input documents and errors and/or omissions

**PROJECT COST MANAGEMENT COMPETENCIES – PROCUREMENT**

**COMPETENCY STANDARD UNIT 7 – TENDERING PROCESS**

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
7.1 Manage tendering process	7.1.1 Tender and contract documents prepared 7.1.2 Trends evaluated and analysed 7.1.3 Contracts negotiated 7.1.4 Changes evaluated and negotiated 7.1.5 Results of tendering process communicated to Client
7.2 Prepared documentation inputs to the tender	7.3.1 Advice on appropriate tender documentation provided 7.3.1 Bills of Quantities or work breakdown structure to aid tendering process prepared
7.3 Initiate tenderer selection process	7.3.1 Tenderer selection criteria determined 7.3.2 Tenderer data accessed 7.3.3 Documentation for registration of tenderer interest prepared and placed in appropriate publications.
7.4 Advise on the selection of tenderers	7.4.1 Tenderers' proposals and credentials analysed against criteria 7.4.2 Possible tenderers listed and validity confirmed 7.4.3 Short list prepared 7.4.4 Client advised and approval obtained.
7.5 Evaluate and negotiate tenders	7.5.1 Data gathered using appropriate tendering structures and procedures 7.5.2 Project objectives and parameters established 7.5.3 Tenders received evaluated and negotiated 7.5.4 Project implementation and procurement plan identified 7.5.5 Analysis of financial and non-financial returns made.

## PROJECT COST MANAGEMENT COMPETENCIES - CONTRACT ADMINISTRATION

Contract administration involves effective cost management of the project during the construction phase including preparation of cost management documents, management of cashflow including progress payments and rise and fall calculations, negotiation of claims and scope changes, dispute resolution and progressive reporting to the Client.

### COMPETENCY STANDARD UNIT 8 – ACCOUNT MANAGEMENT

#### Additional Range Indicators

- Analysis of the financial implications of construction process, rise and fall calculations and outcomes of negotiations on variations and claims.
- Application of principles of contract administration
- Strategies for gathering data and carrying out research on current trends in contract administration
- Analysis of data relating to contract performance and cashflows
- Analysis of the financial implications of construction process, rise and fall calculations and outcomes of negotiations on variations and claims
- Application of principles of contract administration
- A thorough understanding of dispute resolution procedures.

ELEMENT	PERFORMANCE CRITERIA
8.1 Prepare construction cost management document	8.1.1 Cost management document prepared (priced bill of quantities or priced work breakdown structure) 8.1.2 Cost management document approved by contracting parties
8.2 Manage cash flow during construction	8.2.1 Parameters relating to cash flow established 8.2.2 Data accessed, processed and evaluated 8.2.3 Cash flow forecast progressively updated in light of current information 8.2.4 Outcomes communicated to Client and management team 8.2.5 Information transferred to project report
8.3 Recommend progress payments during construction phase	8.3.1 Procedures for handling progress payments developed and implemented 8.3.2 Reports from specialist consultants obtained and evaluated 8.3.3 Negotiations with contractors conducted and compliance with contract ensured 8.3.4 Value of work in progress certified and information transferred to project report
8.4 Clarify the extent of rise and fall costs and access data	8.4.1 Sound data gathering techniques employed 8.4.2 All required data accessed 8.4.3 All data analysed and evaluated using appropriate process and following accepted professional practice

<p>8.5 Record outcomes of data gathering and analysis process</p>	<p>8.5.1 Information transferred to project report</p> <p>8.5.2 Status confirmed</p>
<p>8.6 Conduct negotiations on adjustment of rise and fall costs</p>	<p>8.6.1 Negotiation carried out based on sound preparation and accurate data</p> <p>8.6.2 Negotiation conducted in a professional manner to achieve acceptable outcomes</p>
<p>8.7 Prepare progressive financial reports during construction phase</p>	<p>8.7.1 Format for progressive financial reports developed</p> <p>8.7.2 Required financial information accessed and analysed</p> <p>8.7.3 Report compiled and results conveyed to relevant personnel and Client</p>
<p>8.8 Arrange settlement of accounts during construction phase</p>	<p>8.8.1 Relevant data collected, analysed and evaluated</p> <p>8.8.2 Report compiled and negotiation undertaken</p> <p>8.8.3 Information transferred to the project report</p> <p>8.8.3 Penalties/bonuses assessed</p> <p>8.8.8 Relevant personnel kept informed at all stages of process</p>
<p>8.9 Communicate with Client</p>	<p>8.9.1 Client kept informed at all stages</p> <p>8.9.2 Technically sound and factually accurate advice provided to Client</p> <p>8.9.3 Client briefed on process and outcomes</p> <p>8.9.3 Final outcome and rationale for outcome presented to Client</p>

**PROJECT COST MANAGEMENT COMPETENCIES – CONTRACT ADMINISTRATION**

**COMPETENCY STANDARD UNIT 9 – CONSTRUCTION CHANGE MANAGEMENT**

ELEMENT	PERFORMANCE CRITERIA
<p>9.1 Establish extent of proposed and actual scope changes</p>	<p>9.1.1 Proposed and actual scope change clarified</p> <p>9.1.2 Parameters and objectives clarified;</p> <p>9.1.3 Contract status confirmed</p>
<p>9.2 Collect all data relevant to scope changes</p>	<p>9.2.1 Data gathering structure and schedules established</p> <p>9.2.2 Data evaluated following accepted professional principles and practice</p>
<p>9.3 Conduct negotiation on scope changes</p>	<p>9.3.1 Negotiation carried out based on adequate preparation and following sound principles</p> <p>9.3.2 Negotiation conducted in a professional manner to achieve acceptable outcomes</p>
<p>9.4 Manage cost claims during construction</p>	<p>9.4.1 Procedures for handling cost claims developed and implemented</p> <p>9.4.2 Status confirmed</p> <p>9.4.3 Relevant data collected and evaluated</p> <p>9.4.3 Negotiations on cost claims undertaken based on data collected</p>
<p>9.5 Communicate with Client</p>	<p>9.5.1 Client kept informed at all stages</p> <p>9.5.2 Technically sound and factually accurate advice provided to Client</p> <p>9.5.3 Client briefed on process and outcomes</p> <p>9.5.4 Final outcome and rationale for outcome explained to Client</p>

## ASSET FINANCIAL MANAGEMENT COMPETENCIES – FEASIBILITY STUDIES

Asset financial management involves independent advice on the cost of ownership of property particularly in the areas of feasibility, tax, audits, life cycle cost analysis and technical due diligence.

### COMPETENCY STANDARD UNIT 10 – FEASIBILITY STUDIES

Feasibility studies assess the viability of a project over its expected life and are a necessary prerequisite to any effective decision making process including obtaining finance.

#### Additional Range Indicators

- research and data gathering strategies related to the collection of predictive information
- analysis of data on property cycles
- the use of appropriate methodologies to analyse supply and demand statistics
- use of appropriate analysis and evaluation techniques including discounted cash flows and sensitivity analyses
- appropriate recording and documentation practice particularly in relation to compilation of data on completed projects

ELEMENT	PERFORMANCE CRITERIA
10.1 Access information required for feasibility study	10.1.1 Project objectives and parameters established based on communication with Client 10.1.2 Data required for study accessed 10.1.3 Documentation inputs prepared including compilation of database of completed projects 10.1.4 Relevant information entered into database
10.2 Undertake analysis for feasibility study	10.2.1 Data evaluated and analysed 10.2.2 Implementation and procurement plan identified 10.2.3 Project stages and outcomes of each stage defined 10.2.4 Financial and non financial returns analysed
10.3 Show understanding of property economic issues	10.3.1 Property market cycles analysed 10.3.2 Supply and demand statistics analysed 10.3.3 Inflation projections made and analysed 10.3.4 Interest rate projections made and analysed
10.4 Communicate outcomes of study to Client	10.4.1 Client given accurate information and advice leading to acceptable functional and financial outcomes

## SPECIALIST COMPETENCIES

The following "Specialist" competencies are subject to the same broad range indicators and evidence guide as the "core" competencies plus additional specific indicators.

In some QS practices the "Specialist" competencies may be primary business functions.

"Specialist" competencies are:

1.	Tax Depreciation
2.	Special Assessment
3.	Audit pre/post contract
4.	Technical Due Diligence
5.	Compliance Issues
6.	Project Management
7.	Project Risk Management
8.	Quality Assurance
9.	Arbitration
10.	Expert Witness/Evidence
11.	Business Management
12.	Research and Development
13.	Cost Information Data Base
14.	Claims and Dispute Resolution
15.	Construction Financial Audit
16.	Resource Analysis
17.	Life Cycle Cost Analysis
18.	Project Value Management
19.	Computer Services
20.	Measurement and Statistical Analysis
21.	Constructability Analysis and The Environment