

What is a Quantity Surveyor (QS)?

The Quantity Surveyor, also known as a Construction Economist, or Cost Manager, is one of a team of professional advisers to the construction industry. Quantity Surveyors work on projects ranging from office blocks, schools, hospitals, factories to bridges, railways, oil and mining development, shipbuilding and large process engineering works such as oil refineries. Anywhere, indeed, that major construction work is carried out. As advisers they estimate and monitor construction costs, from the feasibility stage of a project through to the completion of the construction period. After construction they may be involved with tax depreciation schedules, replacement cost estimation for insurance purposes and, if necessary, mediation and arbitration.

Qualifications

Quantity Surveyors have usually completed an appropriate tertiary degree course and undertaken work experience which qualifies them for membership of the Australian Institute of Quantity Surveyors (AIQS).

TAFE Certificates and Diplomas qualify technicians who assist quantity surveyors in the office or on site, where they may specialise in particular aspects of the profession.

Areas of employment

Quantity surveyors are employed predominantly on major building and construction projects as consultants to the owner, in both the public and private sectors. They may also work as academics in the building and construction disciplines and in financial institutions, with developers and as project managers.

Quantity surveyors work in the private sector with consulting firms, in the public sector mainly with the State Government Departments/Authorities and the Australian Construction Service, and increasingly with building contractors, financiers, property developers, project managers and universities.

In the course of their work, quantity surveyors work closely with architects, financiers, engineers, contractors, suppliers, project owners, accountants, insurance underwriters, solicitors and Courts and with all levels of government authorities.

The process

Quantity surveyors get their name from the Bill of Quantities, a document which itemises the quantities of materials and labour in a construction project. This is measured from design drawings, to be used by the contractors for tendering and for progress payments, for variations and changes and ultimately for statistics, taxation and valuation.

At feasibility stage, quantity surveyors use their knowledge of construction methods and costs to advise the owner on the most economical way of achieving his requirements. Quantity surveyors may use techniques such as Cost Planning, Estimating, Cost Analysis, Cost-in-use Studies and Value Management to establish a project budget.

During design the quantity surveyor ensures that the design remains on budget through Cost Management. Essential additions are offset by identified other savings.

On completion of design and drawings, the quantity surveyor may prepare a Bill of Quantities, which is issued with the specification, for use by contractors in submitting tenders. The contractor's quantity surveyors/estimators generally prepare tenders, and may price alternatives for consideration.

The quantity surveyor is usually involved in assessing tenders and may also have been asked to advise on the type of contract or special clauses in it.

During construction the quantity surveyors are called on to fairly value progress payments at regular intervals. They will also value changes to design or quantities which may arise by reference to appropriate Bill of Quantities rates. The contractor's quantity surveyor/contract administrator will have prepared claims for progress payments and additional work.

When construction is complete the quantity surveyor can produce depreciation schedules of the various project components and advise on realistic insurance replacement costs. In the case of construction disputes the quantity surveyor is often called on as an expert witness, and some quantity surveyors act as arbitrators. Both the contractor's and owner's quantity surveyors will be involved in this.

In addition to new projects, quantity surveyors also use their skills in refurbishment of old buildings, alterations to existing buildings and insurance replacement estimates. In public authorities they maintain cost statistics on a state or nation-wide basis, and there are opportunities for academic careers in the building disciplines.

Precision

Quantity surveyors must have orderly and analytical minds and be prepared to work to very rigid time schedules. As decisions involving large sums of money are often made using information produced by them they must be accurate in all aspects of their work.

