Cost Management of Construction Projects

Donald Towey

The cost manager/quantity surveyor plays a pivotal role in the financial and contract management of construction projects, although the exact nature of the service they provide depends on the project employer’s terms of engagement. This can mean acting as consultant in a range of roles including cost and advisory services for budget setting to initiate a project, cost management through the design and construction phases, contract administration and acting as the client side project manager to oversee the entire building process.

Cost Management of Construction Projects focuses on the cost manager/quantity surveyor engaged by the project client, and discusses key elements that help drive project success including measurement (based on the New Rules of Measurement published by RICS), procurement, cost planning, contract administration and project cost management. With examples, it provides a thorough guide to the role in the workplace and in the field, directly addressing the day to day situations faced by the cost manager/quantity surveyor.

Donald Towey MRICS has extensive experience of the construction industry. His experience began as an estimator with a glass/glazing contractor in Manchester. Following a number of positions with UK contractors he relocated to Australia and has worked with a number of developers and main contractors, as well as doing freelance work. He is currently working in contracts management in Sydney.

Also Available
Construction Quantity Surveying: A Practical Guide for the Contractor’s QS
Donald Towey
Paperback, 9780470659427

Willis’s Elements of Quantity Surveying
11th Edition
Sandra Lee, William Trench & Andrew Willis
Paperback, 9781444335002

Willis’s Practice and Procedure for the Quantity Surveyor
13th Edition
Allan Ashworth, Keith Hogg & Catherine Higgs
Paperback, 9780470672198
Cost Management of Construction Projects
Cost Management of Construction Projects

Donald Towey  
MRICS

WILEY Blackwell
Dedicated to my late parents, Jim and Peg Towey
Contents

Preface xi

1 Practice Procedures 1
1.1 Organisation and structure 1
   1.1.2 Marketing and regulating 3
1.2 Methods of appointment 6
   1.2.1 Client engagement 6
   1.2.2 Contracts of services 10
   1.2.3 Contracts of service 11
1.3 Business development 13
   1.3.1 New business and cold calling 14

2 RICS New Rules of Measurement (NRM) 19
2.1 What is NRM? 19
   2.1.1 Status of NRM 19
2.2 RICS NRM2: Detailed measurement for building works 21
   2.2.1 Usage 21
   2.2.2 Structure 22
   2.2.3 Information required for BQ preparation 22
   2.2.4 Tabulated works sections and rules 25
   2.2.5 Measurement rules for building components/items 29
2.3 Taking off 36
   2.3.1 Measurement example – Substructure 42
   2.3.2 Measurement example – Superstructure walls 45
2.4 Bill of quantities (BQ) 46
   2.4.1 Composition 63
   2.4.2 Breakdown structure 63
   2.4.3 Cost centres 74
   2.4.4 Bills of addendum and reduction 76
   2.4.5 Software and BQ production 79

3 Pre-contract Cost Management 81
3.1 Cost planning 81
3.2 Plans of work 83
3.3 Development 85
3.4 Design influence on cost 88
   3.4.1 Time, cost and quality relationships 88
   3.4.2 Redundant performance and circulation areas 89
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.4.3</td>
<td>Building height</td>
<td>90</td>
</tr>
<tr>
<td>3.4.4</td>
<td>Modulation</td>
<td>91</td>
</tr>
<tr>
<td>3.4.5</td>
<td>Building shape</td>
<td>92</td>
</tr>
<tr>
<td>3.4.6</td>
<td>Buildability</td>
<td>94</td>
</tr>
<tr>
<td>3.4.7</td>
<td>Environmentally friendly buildings</td>
<td>95</td>
</tr>
<tr>
<td>3.4.8</td>
<td>Life-cycle costs</td>
<td>96</td>
</tr>
<tr>
<td>3.5</td>
<td>Setting a budget</td>
<td>98</td>
</tr>
<tr>
<td>3.5.1</td>
<td>Client preparation</td>
<td>98</td>
</tr>
<tr>
<td>3.5.2</td>
<td>Estimating techniques for the feasibility study</td>
<td>98</td>
</tr>
<tr>
<td>3.5.3</td>
<td>Estimate techniques for setting the budget</td>
<td>109</td>
</tr>
<tr>
<td>3.6</td>
<td>Early design development</td>
<td>115</td>
</tr>
<tr>
<td>3.6.1</td>
<td>Creating cost targets</td>
<td>115</td>
</tr>
<tr>
<td>3.6.2</td>
<td>Element measuring</td>
<td>120</td>
</tr>
<tr>
<td>3.6.3</td>
<td>Element rate costing</td>
<td>124</td>
</tr>
<tr>
<td>3.7</td>
<td>Ongoing design development</td>
<td>130</td>
</tr>
<tr>
<td>3.8</td>
<td>Self-checking of design development</td>
<td>141</td>
</tr>
<tr>
<td>3.9</td>
<td>Action on variances</td>
<td>142</td>
</tr>
<tr>
<td>3.9.1</td>
<td>Value management</td>
<td>143</td>
</tr>
<tr>
<td>3.10</td>
<td>Final design proposals and production information</td>
<td>144</td>
</tr>
<tr>
<td>3.11</td>
<td>Cost planning accuracy</td>
<td>145</td>
</tr>
<tr>
<td>4</td>
<td>Procurement Systems</td>
<td>147</td>
</tr>
<tr>
<td>4.1</td>
<td>Procurement definition</td>
<td>147</td>
</tr>
<tr>
<td>4.2</td>
<td>Meeting the client's objectives</td>
<td>147</td>
</tr>
<tr>
<td>4.3</td>
<td>Influencing reports and the need for change</td>
<td>149</td>
</tr>
<tr>
<td>4.3.1</td>
<td>The Banwell Report</td>
<td>149</td>
</tr>
<tr>
<td>4.3.2</td>
<td>Constructing the Team (Latham)</td>
<td>149</td>
</tr>
<tr>
<td>4.3.3</td>
<td>Rethinking Construction (Egan)</td>
<td>150</td>
</tr>
<tr>
<td>4.3.4</td>
<td>Achieving Excellence in Construction (OGC)</td>
<td>151</td>
</tr>
<tr>
<td>4.3.5</td>
<td>Modernising Construction (NAO)</td>
<td>151</td>
</tr>
<tr>
<td>4.3.6</td>
<td>Strategies for Sustainable Construction (Government)</td>
<td>152</td>
</tr>
<tr>
<td>4.3.7</td>
<td>Never Waste a Good Crisis (Wolstenholme)</td>
<td>152</td>
</tr>
<tr>
<td>4.4</td>
<td>Procurement routes</td>
<td>154</td>
</tr>
<tr>
<td>4.4.1</td>
<td>The client's brief and influence on procurement routes</td>
<td>154</td>
</tr>
<tr>
<td>4.4.2</td>
<td>Traditional pathways</td>
<td>155</td>
</tr>
<tr>
<td>4.4.3</td>
<td>Design and build</td>
<td>162</td>
</tr>
<tr>
<td>4.4.4</td>
<td>Construction management schemes</td>
<td>164</td>
</tr>
<tr>
<td>4.4.5</td>
<td>Private Finance Initiative (PFI)</td>
<td>168</td>
</tr>
<tr>
<td>4.4.6</td>
<td>Public Private Partnership (PPP)</td>
<td>174</td>
</tr>
<tr>
<td>4.4.7</td>
<td>Prime contracting</td>
<td>177</td>
</tr>
<tr>
<td>4.4.8</td>
<td>Partnering and strategic alliances</td>
<td>180</td>
</tr>
<tr>
<td>4.4.9</td>
<td>Project alliances</td>
<td>181</td>
</tr>
<tr>
<td>4.4.10</td>
<td>Framework arrangements</td>
<td>183</td>
</tr>
<tr>
<td>4.4.11</td>
<td>Public procurement and European legislation</td>
<td>184</td>
</tr>
</tbody>
</table>
4.5 Appropriate procurement selection
4.5.1 Risk analysis
4.5.2 Risk management
4.5.3 Health and safety management
4.5.4 Consultant selection
4.5.5 Contractor selection
4.5.6 Pre-qualification Questionnaire (PQQ)
4.5.7 Invitation to Tender (ITT) and the tender period
4.5.8 Tender assessment
4.5.9 Due diligence

5 Construction Contracts
5.1 Freedom of contract and contract law
5.1.1 Formation of a contract
5.2 Construction contracts
5.2.1 Contract characteristics
5.2.2 Selection of suitable forms
5.2.3 Remedies for breach of contract
5.3 Industrial standard forms of contract
5.3.1 The Joint Contracts Tribunal (JCT)
5.3.2 New Engineering Contract (NEC)
5.3.3 GC/Works Contracts
5.3.4 Association of Consultant Architects (ACA)
5.3.5 Institution of Civil Engineering (ICE)
5.3.6 Institution of Engineering and Technology (IET)
5.3.7 Institution of Chemical Engineers (IChemE)
5.3.8 Fédération Internationale des Ingénieurs-Conseils (FIDIC)
5.3.9 Be Collaborative Contract
5.3.10 Orgalime
5.4 Form recommendation
5.5 Pre-contract signing audit report
5.6 Commitment to commence
5.7 Project insurances
5.7.1 Contract works insurance
5.7.2 Injury to persons
5.7.3 Damage to surrounding property
5.7.4 Joint Fire Code
5.7.5 Public and products liability insurance
5.7.6 Off-site materials insurance
5.7.7 Professional indemnity insurance
5.8 Project securities
5.8.1 Cash retention
5.8.2 Bank guarantees
5.8.3 Bonds
5.9 Contract administration
6 Post-contract Cost Management 258
6.1 Professional appointment 258
6.1.1 Project initiation 258
6.1.2 Project identification and document control 259
6.2 Conflict management 263
6.2.1 Conflict avoidance 263
6.2.2 Dealing with conflict 264
6.3 Cost management 267
6.3.1 Cash flow 267
6.3.2 Breakdown of the contract sum 269
6.3.3 Variations to the contract sum 272
6.3.4 Contractor’s claims 281
6.3.5 Third party variations and claims 283
6.3.6 Spurious, contentious or vague variations and claims 284
6.3.7 Fluctuations 287
6.3.8 Valuation of works in progress 289
6.3.9 Final account 298
6.3.10 Project Bank Accounts (PBA) 302
6.4 Insolvency 304
6.4.1 In administration 305
6.4.2 Winding up 306
6.4.3 Contractor insolvency 306
6.4.4 Client insolvency 308
6.5 Client progress reports 309
6.5.1 Works in progress reports 309
6.5.2 Defects liability period reports 310
6.6 Performance feedback 311

Further Reading 313
Index 314
In my first book “Construction Quantity Surveying – A Practical Guide for the Contractor’s QS”, the role of commercial management of building projects was discussed through the eyes of the contractor. This book is written in contrast and focuses on cost and advisory services a cost manager can provide when engaged by a project client which is independent of the contractor. As clients often strive to obtain buildings for less in terms of the time it takes to design and build a project and the price involved, the cost manager is expected to have a broad understanding of the design, construction and management processes for a range of project types for which this book is intended to act as a guide.

This book will be of value to project managers and contract managers involved with the design and building processes and administration of construction contracts. It will also benefit members of main and principal contracting businesses wishing to undertake design and build projects who seek assistance regarding aspects of cost management. The book will also benefit students enrolled on construction management, quantity surveying and other related courses and anyone with an interest in the construction process.
1 Practice Procedures

1.1 Organisation and structure

In business terms, the term ‘practice’ is a word used to describe the office of a private firm comprising professional people practising in their dedicated fields of work. In the construction industry, these people practise in the fields of cost management, quantity surveying, project management and the commercial management of construction projects. The services a firm can offer might extend to cost and advisory services for the various engineering disciplines associated with a construction project, and the management of occupied buildings. The firm’s business potential is driven by demand derived from the number of clients seeking the services, which relies on the economic status of the locality, nation and construction industry at any time.

The creation of a firm requires private equity, which is the value of assets less any associated liability and is created from a partnership(s) or investor(s) who buys a portion of equity in the business. Firms or practices vary in size, ranging from partnerships with few employees to large businesses employing staff under a hierarchical management structure. In England, Wales and Scotland, partnerships comprising two or more individuals are required to trade as a corporate body under the Limited Liability Partnerships Act 2000, and in Northern Ireland under the Limited Liability Partnerships Act (Northern Ireland) 2002. These partnerships have legal existence that trade independently of their members; each partner is not personally liable for the others’ actions by way of negligence or default. Larger practicing firms usually comprise a chairperson, directors, other professionals and technical staff to assist in the running of the business. The hierarchical management structure of a large firm practicing in cost management is shown in Figure 1.1.

Figure 1.1 demonstrates the delegation of authority and levels of responsibility, which usually depend on qualifications, length of service, experience and expertise in certain fields of work. Collaborative teamwork is usually encouraged throughout the structure, with workshops allowing staff members with specialised skills to
share their knowledge and aid career development of others, irrespective of their position or title. For example, a senior quantity surveyor who may have experience with infrastructure such as road construction and highway maintenance may provide training on estimating the costs of works to anyone with limited skills in the subject. Support staff includes secretaries, administrators and accountants who have the computer and office skills vital to the business structure and who assist technical and professional staff to set up and run projects. In addition, support staff usually manage the business’s quality control system to handle documents including:

- Logging and recording awarded projects
- Digital and hard copy control of drawings and documentation
- Filing methods for managing computer and office space
- Maintaining records of business development
- Arranging meetings
- Updating the firm’s policies and procedures file
- Coordinating the flow of information for distribution.

In order to carry out business dealings, a firm requires legal recognition and the acknowledgement of its responsibilities at common law. In order to create a legal identity, it is necessary for the firm to register its business. In the United Kingdom this is with Companies House, a regulatory body for company
registration that maintains company records as required by the Companies Act 2006. It might also be necessary to register for value added tax (VAT) if turnover is in excess of the stated threshold, as services tax will be chargeable to clients on invoices raised by the firm. Firm members may be self-employed with each responsible for their own taxation and insurance payments. However, if firm members are not self-employed but are employees, it will be necessary to register them with a system whereby tax is deducted from each wage payment as pay-as-you-earn (PAYE). PAYE addresses tax deductions and national insurance contributions payable to the tax office when they are deducted from the salary payments of employees.

The premises of a firm must be suitable for trading and, if not owned by the firm, an agreement with a property owner must be in place. This agreement defines obligations of the firm as a tenant, and the responsibilities of the owner/tenant that must include insurance cover for the building including fire damage and building contents. The firm must also purchase public liability insurance in the event of an injury or accident to a visitor whilst on the premises and employers’ liability insurance in case an employee becomes injured or ill whilst in their place of work.

### 1.1.2 Marketing and regulating

In order for a firm to market itself as reputable, it must be regulated by and affiliated with at least one regulatory body. The prominent regulatory body for quantity surveyors/cost managers is the Royal Institution of Chartered Surveyors (RICS). The RICS is the leading international body that regulates members and firms to ensure ethics and professional conduct are maintained. Professional members are termed ‘Chartered Surveyors’, and the Institution has the largest network of quantity surveyors worldwide. Founded in 1868, the RICS is a regulating body that recognises qualifications in land, property and construction. It has in excess of 100,000 professional members worldwide (as at 2013), of which 40% are quantity surveyors. The Institution has a number of Professional Groups, including Quantity Surveying and Construction and Project Management, which share an interest with the cost management of construction projects. Other construction Professional Groups are Building Control and Building Surveying. The Institution has aims that:

- Promote research for development
- Regulate and maintain membership ethics and standards
- Carry out market surveys with comments and forecasts for business and governments
- Improve and promote the various professions through educational links
- Publish books appropriate to the business of the RICS.

Approximately one-third of members are in the student class. This class offers students career advice and help with studies but, in addition, opportunities to
build a network of contacts in the industry via RICS matrics that aim to provide an active programme of social and charity events. Students enrolling on this route must have commenced one of the accredited (cognate) courses. These include Higher National Certificates and Diplomas (HNC/HND), or degree courses relevant to the profession which can act as stepping-stones towards chartered status.

**Membership criteria**

The traditional method for obtaining chartered status is along the graduate route. It requires candidates to graduate with a cognate degree and complete a structured training programme combined with work experience. Traditionally, a postgraduate starts structured training and experience towards completing the RICS acclaimed APC (Assessment of Professional Competence), which is the measure of an acquired qualification linked with practical training and experience in a relative field of work, e.g. quantity surveying. Students enrolled on cognate courses can begin the APC pathway whilst studying or in employment; it involves regular meetings with a counsellor who is a member of the RICS. The structured training and work experience minimum timeframe for training is two years. During this time, the student records their training and experience in a logbook and produces a mandatory record that includes details of professional development. This information is collated as part of a Critical Analysis Report which is issued as a final submission. Subject to the submission being acceptable, as a final assessment the candidate attends a professional interview with a RICS panel that discusses the Report and tests the candidate’s understanding of professional practice and ethics. The panel later completes its assessment with a recommendation for membership or a deferral. If successful, the student is invited to enrol as a professional member and, if accepted, receives chartered status and is permitted to use the initials MRICS. Alternative routes to the graduate pathway are Associate, Senior Professional, Adaptation and Academic. These are suitable for persons with various levels of experience, qualifications or who are members of affiliated organisations with the entry requirements varying.

Individuals and companies may apply for chartered status and, once accepted, are bound by the Rules of Conduct for maintaining ethical standards. The RICS is self-regulating and responds to the needs of the profession. As a result, membership routes may change from time to time, so those interested in becoming members ought to become acquainted with current information which can be found on the RICS website, www.rics.org.

**Professional and ethical standards**

A fundamental and core belief of the RICS is for its individual members to inspire confidence in the way they do things that is demonstrated by a clear set of professional and ethical standards which guide behaviour. To ensure uniformity of standards, the RICS produces a set of standards which were streamlined in 2012 where each member is expected to:
• Act with integrity – by being honest and straightforward in all that the member does
• Always provide a high standard of service – by ensuring that a member’s client or other to whom the member has a responsibility receives the best possible advice, support or performance of the agreed terms of engagement
• Act in a way that promotes trust in the profession – by acting in a manner, whether it is in a professional capacity or in private life, that promotes the member, firm, member’s organisation and the profession in a professional and positive way
• Treat others with respect – by treating people from all walks of life with courtesy, politeness and consideration including being aware of cultural sensitivities and business practices
• Take responsibility – by the member being accountable for all their actions, not blaming others if things go wrong and, if suspecting something isn’t right, being prepared to do something about it.

The RICS has a separate guide entitled ‘Rules of Conduct for Firms’ that sets out standards of professional conduct for a firm to trade when it is regulated by the RICS. The rules are not a repeat of obligations required under common law, such as the methods dealing with discrimination or employment law and occupational health and safety, as the Institution is not empowered to legislate. The rules are the result of a root-and-branch review of regulations created by the Institution that adopt a set of ‘principles-based Rules’. These Rules regulate firms through ‘proportionality, accountability, consistency, targeting and transparency’ to provide a level of protection for the public and uphold the reputation of the profession. Practicing firms are required to have at least one principal as a RICS professional member who is eligible to register the firm and confirm observation and compliance with byelaws and regulations. Members and firms that comply with the regulations can use the RICS logo on their letterheads and advertisements to demonstrate chartered status. This also acts as a marketing tool which attracts clients to a firm that is regulated by a reputable source.

A further guide entitled ‘Rules of Conduct for Members’ follows the same scope for firms and is published for individual use as a reference for maintaining personal and professional standards. The Rules have a theme of enforcing a member’s understanding of their responsibilities that include: acting with competence and integrity when providing their services which must be in a timely manner regarding customer care; avoiding conflicts of interest; remaining solvent; and cooperating with a RICS Regulatory board including supplying information if so requested. Members are also required to plan, undertake, evaluate and record as evidence the details of continual professional development (CPD). CPD is a method of personal development for learning and involves training gained from, for example, private study, coursework, workshops, etc in order that members remain competent in their chosen fields of work.
**Professional indemnity insurance**

A fundamental rule of the ‘Rules of Conduct for Firms’ is the mandatory requirement for firms to ensure that previous and current work is suitably covered by professional indemnity insurance. Broadly, this insurance provides a level of protection in the event of an occurrence leading to misfortune that is possible to recover under a limited financial sum stated in a policy provided by an insurance company. Policies may be general where they outline the amount of cover applicable for any event, or may be provided specifically with a named client and/or particular project which could apply for projects or services where long-term arrangements exist. The objective of the cover is to ensure a firm is protected from a financial burden it could not afford to pay in the event of a claim or expenses payable to a third party, such as a court or legal professional who would address the event. RICS Regulations state that a member firm must have a policy that is current to meet ‘each and every’ claim, including civil liabilities. A civil liability might apply in a situation when a business is sued in tort (a civil wrong) for an event that only becomes apparent after a prolonged period with far-reaching consequences for persons other than those named in the agreement for services between the firm and its client. Insurance companies deal with these claims as remote events that include the public, individuals or businesses affected directly or indirectly by an event giving rise to a claim. This scenario presses the need for a policy clause to include a run-off period for a specified number of years in the event of the insolvency of one or both parties to the agreement for services. Each policy must be worded and underwritten by a listed insurer and it is prudent to include adequate cover for the actions of past and present employees who carried out duties for a client in the name of the firm, as this provides the firm and client with long-term protection.

1.2 Methods of appointment

1.2.1 Client engagement

For a firm to be engaged by a client, the process usually commences with the firm submitting an offer for its services that, when accepted by the client, creates a simple contract. A simple contract is a method of carrying out business dealings and should define the terms and conditions of the engagement in writing. A written document signed by both parties is evidence of the existence of a contract. Other types of simple contract include verbal agreements and where the conduct of the parties indicate the existence of an agreement, which may be hard to prove as evidence if a dispute arises in which a third party is appointed to either resolve, or give advice on the resolution of a dispute.

When the terms of appointment are under negotiation or inconclusive and not in writing, a simple contract by conduct comes into force if services commence based upon an understanding. A pitfall for a firm in this situation
is that commencement of the services may be swift and founded upon trust, especially if with a client that is a new business to the firm. This poses a degree of risk to the parties and, for this reason, copies of communications, i.e. letters, etc, should be retained in a project file to demonstrate the pattern of dealings and pending terms of an agreement. Such informal arrangements can exist when a cost consultant is hired by a new client to provide a ballpark estimate within a short timeframe on the understanding it will create new business opportunities. In this scenario, if the new business opportunities do not go ahead and there is a misunderstanding over how much, if anything is due for providing the estimate, how is the consultant to be reimbursed for the time spent? It would be hard for a third party such as a court to enforce payment without proof of a written contract when making its ruling as it may need to rely on evidence, verbal statements and witnesses. If a court is involved, the ruling for reimbursement may be an award by Quantum Meruit, i.e. to be paid as much as has been reasonably earned where the court assesses an amount as damages, which may not be the desirable outcome.

If a project involves a range of services over a long term, the alternative is for the firm and client to enter into a contract under seal or deed. This is a formal arrangement whereby the contract is proved by evidence of sealing at a date in time. The sealing may be in the traditional form of a wax seal or as proof in handwriting by signatories in the presence of witnesses representing each party, as it leaves no doubt of the intentions of the parties.

In general, and in order to commence negotiations towards creating an agreement, a document is submitted to a client as a bid or fee proposal. This usually takes the form of a letter detailing the services on offer and an amount to be charged. This style of bidding provides the client with an insight into the structure of the business and experience of its team members whilst demonstrating commitment to the client and the client’s project. Table 1.1 shows a sample letter and proposal for professional quantity surveying (PQS) services during the construction phase of a new aged care centre and for a defined period after the building works are complete.

If a client accepts a firm's offer unconditionally and communicates it that way, a contract is brought into existence. However, where a client accepts an offer, which can mean price and/or the terms and conditions of a firm's offer, yet amends something or appends a new price and/or terms and conditions, it becomes a counter offer and cancels the original, making it null and void. If this situation occurs, the authors of the contract, together with any newly named parties on the counter offer, must communicate acceptance of the new terms and conditions in order to formalise the agreement, as an offer must be accepted in order for a contract to exist. In the absence of an absolute agreement, with the services proceeding and a dispute arising that needs to be arbitrated for resolution, it may be hard to prove to a counsellor whose terms and conditions are binding on the parties. To avoid this unpleasant scenario, and when negotiating new terms and conditions, it is wise to identify objectives and express them in clear, concise and unambiguous wording to create 'a meeting of the
Table 1.1

Dear Sirs

PARK LEA AGED CARE DEVELOPMENT – QUANTITY SURVEYING SERVICES

We thank you for the opportunity to submit our fee proposal for the provision of Cost management quantity surveying services on the above project during the construction and post-construction phases.

Mr. XXX will be our Group Leader who will lead a team of professionals and has comprehensive experience of successfully cost managing aged care projects and delivering within pre-determined budgets.

We have allowed for the scope of services as directed that reflects our service provision in satisfying your requirements and achieving value for money. Our fee proposals are usually a % of the pre-determined budget when a full range of services is required. However, because your particular requirements are for services during the construction phase and Rectification period only, we have assessed the fee on time involvement and is a fixed price. The range of our commitments and breakdown of the fee are enclosed, together with a copy of our professional indemnity insurance cover note.

Should you require any further information in respect of our firm or professional services on offer, please do not hesitate to contact us.

Yours faithfully

For and on behalf of Q-Es Services

Encl.

Scope of Services (Construction phase)

1. Monitor, prepare and issue monthly reports on the financial position of the project. This includes our independent assessment of current and anticipated variations and their final cost together with financial reconciliation statements, anticipated monthly expenditure to the end of the project and advice on corrective actions to be taken if there is concern with the final cost limit.

2. Liaise with your appointed project manager or agent, lead consultant, main contractor and named sub-contractors where applicable for the preparation of our monthly reports.

3. Assess and value the works in progress on a once monthly basis in line with the contract sum including negotiating the value of monthly payments with the main contractor and submitting reports and recommendations for payment to the project manager or agent acting on your behalf. This includes an assessment to the value of materials stored on or off the site that are a true requirement for the project in accordance with the Terms and Conditions of the contract you have with the main contractor.

4. Provide assistance with identifying any potential savings and negotiate variations with the main contractor as the need arises.
In order for any business to survive, its financial income must exceed expenditure, which is a prerequisite for a practicing firm to remain solvent. Income is derived from the payment of fees for services complete which is based upon fixed sums or hourly rates. A method of arriving at a fixed sum is to ascertain the estimated project cost or contract sum a client has with a contractor and calculate a fee based upon a percentage or fraction of that amount. The stated percentage is usually low because a contract sum can be substantial with the figure to charge at the discretion of partners or directors of the firm. Alternatively, the fixed sum assessment can take the form of the total number of hours estimated to complete a range of services charged at hourly rates set by the firm’s partners or directors. Where the range of services is undefined, a schedule of hourly rates can be offered in lieu, meaning there is no commitment to a fixed price. This can be affirmed at a later date when a client's requirements become certain.

Once a fee proposal has been accepted and the services commence, a system is required to keep track of the hours spent carrying out tasks. Staff members are required to complete timesheets stating the nature and duration of specific work.
which are then given to a project leader or accountant to reconcile. Timesheets are usually coded to a project using a unique number with the tasks coded from a database, for example C101 Cost planning new projects, F101 Final account preparation, and so on. Hours allocated against tasks on the timesheets are usually submitted weekly to the person responsible for reconciling. Completion of timesheets is necessary in order to reconcile the actual time spent on tasks compared with the estimated time calculated for inclusion in the fee proposal. Care is required when entering information on timesheets as the summary of tasks could differ from the scope of agreed services. This may be due to error of entries on timesheets, which creates unrecognised scope and, if this is the case, the project leader will need to investigate and correct accordingly.

1.2.2 Contracts of services

Large firms may engage second-tier consultants on contracts of services on a temporary basis to work on specialist portions of a project or gap fill for employees on leave. Their engagement can be via companies, other firms, organisations, or the self-employed who work freelance. When their services are required by a firm and are part of a range of services concluded in an agreement with the firm’s client, any amounts payable by the firm are not charged separate to the client as the client will usually be paying for an all-inclusive service. The arrangement for engaging these consultants is suitable for firms that provide cost advice where a specialist opinion of the cost of particular works is required. This can include the supply and installation of building services or any requirement for a building where a client appoints consultants to provide a design service only without input to cost advice. Where this is the case, the responsibility for assessing trade costs rests with the cost manager’s firm that may seek specialist advice if employees of the firm lack specific training or qualifications in these areas. However, on large projects it is common for designers to issue advice to the cost manager stating an opinion of cost to carry out the physical works in accordance with their design if part of the designer’s agreement with the client. Where this arrangement exists, design consultants coordinate only and the firm does not hire the designers for advice as they are bound to the client to provide design information only. Here, the design consultants relay opinions of cost for information only to the cost manager who considers any associated work such as builder’s work in connection to determine a final estimate.

Where designers are not bound to provide opinions of cost to a client or the cost manager’s firm, the cost manager may engage second-tier consultants to provide a level of information in order to create an estimate of cost. In general, terms of appointment with these consultants may mean the cost manager is a single point of contact with the client for cost advice. However, a firm will usually rely on the experience and skill of their own staff primarily and only seek input from others to fulfill their obligations. When seeking external advice into aspects of cost, it is important for the cost manager to coordinate the design with the second-tier consultants. The agreement between the practicing
firm and these consultants means they operate as independent contractors and incur their own employment and insurance costs. Reimbursement is usually based upon a fixed price or an hourly rate, where the cost to employ, including insurance, equipment, etc, is included. For payment purposes, the independent contractor submits an invoice to the firm, which is paid gross, without deductions, meaning independent contractors are responsible for their own taxation payments. However, some firms offer flexibility for individuals who do not operate as a business and pay the contractor regularly without deducting income tax. This method aids the self-employed as it provides regular income and is more frequent than arrangements under usual credit terms when operating as a business.

There are rules under the Construction Industry Scheme (CIS) which set out the responsibilities for both employers and independent contractors for the deduction and payment of taxation as required by HM Revenue and Customs, and it is wise for both the employer and the independent contractor to be aware of these responsibilities.

The terms of engagement include an appointment letter and contract signed by the parties that state:

- The scope of services to be provided
- Timeframe and period for review
- Remuneration
- Use or ownership of equipment
- Location of the work
- Confidentiality of the agreement.

This arrangement permits flexibility for both parties as it is temporary and serves the purpose of acting as a probationary period for the freelance and self-employed who may wish to negotiate a permanent position with the firm. Until any date of permanent appointment, the firm retains or engages the services of the independent contractor and/or second-tier consultant(s) under a contract of services.

### 1.2.3 Contracts of service

Employees of a firm are staff members who carry out contracts of service under an employment contract. The normal method of appointment is for a contract to be drawn up under employment law. The formal process is for the firm to make an offer of employment outlining the terms and conditions of the appointment that include (but are not limited to) the following:

- Employment title
- Duties and responsibilities
- Normal location of work and hours, including lunch break
- Remuneration, including date(s) of review
- Overtime requirements and reimbursement
- Use of vehicles and company equipment
- Listings of fringe benefits, including pension or superannuation contributions and payment of professional subscription fees
- Leave entitlement with pay, including sick, maternity and paternity leave
- Methods of avoiding conflict of interest and impartiality
- Visa residency status
- Company policy on unpaid leave of absence for jury service
- Methods in place for changing the Terms and Conditions of employment whilst employed
- Periods of notice.

With a contract of service, the employer deducts taxation on a PAYE basis and the employee is not liable for tax payments to the government.

**Rights and obligations**

Whether engaged under a contract of services or service, a binding contract comes into force upon the acceptance of a formal offer. Notwithstanding the wording of an agreement, employers have a duty of care to acknowledge their responsibilities and an obligation to create a working environment that complies with health and safety legislation. The employee under a contract of service has statutory rights under employment legislation and the incumbent has certain privileges not generally provided to those hired under a contract of services. This includes:

- Workers rights
- Compensation
- Remedies for unfair dismissal
- Redundancy payments
- Access to industrial tribunals and conciliation officers.

In addition, incumbents may enjoy benefits gained by changes in legislation whilst employed by the firm. The legislation applicable to employees falls under the Employment Rights Act 1996, which includes common law rights that deal with:

- Dismissal and complaints to tribunals
- Reasonable notices for changes to employment contracts
- Flexible working and time off rights
- Redundancy and loss of earnings payments
- The requirement of a written contract.

The terms of appointment and legislation are not restricted to those working in a firm and are general employment provisions applicable to any industry as permitted by employment law.
With the alternative methods of appointments now available, firms offering advisory and management services can afford to be flexible with their recruitment options. Whilst doing so, they are in a position to maintain a high level of service and responsibility to clients.

### 1.3 Business development

The contraction, neutrality or growth of a firm depends on the business development plan it creates, and each business will be different in its attitude, intention, commitment and forecasting. If a business is working at capacity, it may wish to suspend growth because accepting more work without appropriate resources could lead to a decline in services and quality. Likewise, if senior partners retire or staff with specialist skills leave, a firm may decide to complete their contractual obligations and thereafter put a new business plan in place that omits the specialist skills, thus cancelling the degree of services previously on offer. Alternatively, a business may wish to expand or increase turnover and employ additional staff whilst maintaining existing client relationships and seeking new ones. For this reason, a forward-thinking business will employ a business development manager to focus on industrial trends, carry out research into the potential of future demands and create a portfolio of clients in order to achieve business development objectives.

One reliable method by which a firm can ensure it has work is to retain existing clients with whom it has a longstanding relationship. Clients may have differing views on their selection of firms and on the subject of cost advisory and cost management services may retain a panel of cost managers. The reasons a client may opt for this include:

- Experience of prior dealings with the firm
- Recognition of qualifications and expertise
- Agreement to fixed prices for fees.

Alternatively, a client may choose to tender the services it requires in an open competitive market, which is a matter for the client and not usually a reflection on past performance of the firm.

Effective business development for a practicing firm (or any business) includes recording feedback from existing clients to learn about its past performance, which can be monitored with the use of key performance indicators (KPIs). KPIs assist any firm or organisation to define and measure their progress towards objectives for both short- and long-term goals. As the industrial needs for a firm’s services may change over time, KPIs are a useful management tool to monitor future requirements that can be adjusted to suit the changes. Indicators must be quantifiable with clear goals that set targets and are best presented in either a table or graph which is reviewed and updated at least once a year. For example, a business development strategy may require a firm to increase its
turnover by 30% over a one-year period and decides to target sectors of the industry seen as thriving in order to achieve the objective. Here, targeted sectors should be identified and recorded on a spreadsheet with each allocated a fraction or percentage of the total target increase the firm is seeking. It is important to be flexible with the idea as the plan is subject to change as a result of market conditions which may fluctuate, and the plan should be updated in line with revised trends.

1.3.1 New business and cold calling

If a firm wishes to seek public sector clients with open tender policies, a method of outsourcing is through the *Official Journal of the European Union (OJEU)*, a journal that records the status of public contracts under tender in the European Union. European legislation makes it mandatory for member states to advertise tenders for public project supplies, works or services when the value exceeds certain thresholds. Project management, advisory services and cost management are deemed services and the current threshold set in January 2012 stands at £173,934 (or €200,000) excluding VAT. This means it is mandatory for the supply of services equalling this sum or more to be tendered through the *OJEU*. With this process, clients requesting tenders list their requirements online using one of three procedures. The ‘Open procedure’ permits receipt of tenders from any interested party; ‘Restricted procedures’ exist for invitations to tender for the supply of services from businesses that have standing and competence in particular fields of work; and ‘Negotiated procedures’ are for long-term arrangements on large projects where clients negotiate directly with tendering firms. More information can be found on [www.ojec.com](http://www.ojec.com).

When a firm seeks clients from either the private or public sector whose awards for works are below the European Union threshold, the business development manager will need to develop a working relationship that starts with ‘cold calling’. This is the most distant point of making contact and includes seeking contacts through a number of avenues including:

- Internet research
- Telephone and yellow pages searches
- Direct mailing
- New construction sites
- Building and business directories
- Database registration and subscription with companies that provide marketing communication.

The selling technique in the first instance is for the business development manager to issue a formal notice of introduction in the form of a letter as an Expression of Interest (EOI) to prospective clients that explains why the firm considers it can be of benefit to the client. The letter should not be generic or overwhelming in content and its aims should be to reflect a client’s specific
needs in order to grasp the attention of the reader in the opening sentences. A suggested list of contents includes:

- Profile of the business including any mission statement for the future
- Level of experience specific to the client’s needs
- Range of services on offer
- Past and present projects, including level of involvement and financial value
- List of referees and contacts which must be current
- A signed policy statement regarding Health and Safety practices and Environmental issues
- Affiliations with key members of the industry including institutions and organisations
- How the firm deals with a client’s scope of services and second-tier consultants
- The type and use of information technology systems in place
- Staffing structure and size of the firm
- Examples of any past projects in some detail that are relevant to the business of the new client
- Sample of fee submission proposal.

After a reasonable length of time (say two weeks), the sender of the letter should approach the addressee with a telephone call or email requesting a meeting. A telephone call is the favourable option as conversation prior to a meeting helps break the ice and permits the individuals to have had some human contact. The object of cold calling is to get a foot in the door and create a business relationship with a new client. Cold calling requires a level of determination and strength of will, as rejection is more frequent than acceptance which can be uncomfortable to deal with at first. For this reason, it is better to recognise the rejection as not a reflection of the firm’s business development strategy, but one of inaccurate timing in contacting the client. However, this may create anxiety for the business development manager for which the following techniques can aid relief:

- Remind oneself that any offer of services is of value to the business
- Adopt a mentality that the services on offer are beneficial
- Focus on the business potential
- Maintain contact with the first point of contact, for example telephonist/receptionist, personal assistant, who is the person contacted prior to the person who is the decision maker
- Always remain calm
- Maintain a business development timeframe and do not exceed it, as it can be exhaustive
- Practise with colleagues
- Remind oneself that the process is about a professional making contact with another professional
- Keep a list of ongoing contact information and ask colleagues for advice towards a decision of whether to maintain the communication or withdraw to focus on another.
A milestone achievement for business development is for a potential client to include the firm on a selective panel list. This usually involves a number of background checks prior to tendering, and if a potential client states the requirement as proceeding, it is a positive step. Traits for successful business development for individuals include:

- Confidence
- Attitude
- Clarity
- Presentation
- Knowledge gained from experience
- A dare-to-fail attitude requiring courage without appearing as too pushy or aggressive.

In order to gain the confidence of a prospective client, it is necessary to be proactive and ask questions at a deeper level in order to have an understanding of their needs and wants. Some common mistakes made when seeking new business include:

- Believing an email or letter is sufficient to arrange a meeting or win business
- Expecting a potential client to respond to an email, fax or telephone call
- Thinking 'As I am a professional, I do not need to seek business. They should come to me'
- Not researching a client sufficiently enough to identify their business
- Talking in terms of services on offer rather than a service that has a solution to a client's needs.

A suitable method for keeping track of business development dealings and feedback is to record activities in a pipeline document. Members of a firm involved with business development should review this document regularly for strategic decision making. A sample pipeline report document for use by a firm that provides a broad range of services is shown in Table 1.2. A dangerous pitfall in understanding the document is to consider the cold calling section as a wish list, especially if the firm has high growth expectations. For this reason, the document should be considered as a reference for information which displays communication activities with potential clients. The document should be reviewed regularly by business managers and updated with additional names, amendments or deletions as required.

In addition to dealing with client potential, a business development manager may be responsible for overseeing the internal running and organisation of a business. This includes updating internal policies and procedures covering health, safety, the environment and quality control including the assessment of existing management systems and examination of administration costs for running the business. The level of involvement for internal monitoring