

Your APC pathway guide to Building Surveying



Your pathway guide to Building Surveying

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Introduction

About the APC

The RICS/SCSI Assessment of Professional Competence (APC) ensures that those applying for RICS/SCSI membership are competent to practise and meet the high standards of professionalism required by RICS/SCSI. There is a wide range of pathways available to qualify as an RICS/SCSI member covering 19 different areas of practice, at APC (Chartered) level.

The APC normally consists of:

- a period of structured training
- a final assessment.

The structured training is based on candidates achieving a set of requirements or competencies. These are a mix of technical, professional, interpersonal, business and management skills.

How to use this guide

This guide is designed to help you understand more about qualifying as an RICS/SCSI member in building. The material is set out in three sections.

Section one- provides information on this area of practice with a general overview of the valuation pathway.

Section two- lists the competency requirements of the building surveying APC.

Section three- describes the main technical competencies associated with building, providing expanded sector specific guidance on each of them. This forms the main part of the guide.

About the competencies

The APC aims to assess that you are competent to carry out the work of a qualified chartered surveyor. To be competent is to have the skill or ability to perform a task or function. The RICS/SCSI competencies are not just a list of tasks or functions, they are also based upon attitudes and behaviours. The competencies have been drawn up in a generic way so that they can be applied to different areas of practice and geographical locations. This guide is designed to help you interpret these competencies within the context of building surveying.

The competencies are defined at three levels of attainment and each APC pathway has its own specific combination of competencies that you must achieve at the appropriate level. You must reach the required level in a logical progression and in successive stages:

Level 1 – knowledge and understanding

Level 2 – application of knowledge and understanding

Level 3 – reasoned advice and depth of technical knowledge.

The competencies are in three distinct categories:

Mandatory competencies – the personal, interpersonal, professional practice and business competencies common to all pathways and compulsory for all candidates. These are explained in more detail in the APC Requirements and competencies guide.

Core competencies – the primary competencies of your chosen APC pathway.

Optional competencies – a set of competencies selected by the candidate from a list defined for the particular pathway. In most cases there is an element of choice. These are mostly technical competencies, but certain mandatory competencies also appear on the optional competency list and candidates are permitted to select one of these at a higher level.

This guide only deals with the principal core and optional competencies associated with this area. It does not cover the mandatory competencies.

Choosing your competencies

It is important that you give careful thought to your choice and combination of competencies. Your choice will inevitably reflect the work you do in your day-to-day environment (driven by the needs of your clients/employer). Your choice and combination of competencies will be a reflection of your judgement. At the final assessment interview, the assessors will take these choices into account. They will expect you to present a sensible and realistic choice that reflects the skills needed to fulfil the role of a surveyor in your field of practice.

This guide should help candidates and employers with a degree of assistance in choosing the competencies that are most appropriate to their area of practice.

How to find help

SCSI Education and Membership will be able to help you with any general APC queries:

T 01 6445500

education@scsi.ie

www.scsi.ie

About building surveying

Building surveying is one of the widest areas of surveying practice. Chartered building surveyors are involved in all aspects of property and construction from supervising large mixed use developments to planning domestic extensions. This varied workload can include everything from the conservation and restoration of historic buildings to contemporary new developments.

Building surveyors work in most real estate markets including residential, commercial, retail, industrial, leisure, education and health. Consequently there are a wide variety of opportunities for chartered building surveyors to work in both the commercial, private, and public sectors. Some chartered building surveyors work for property owning clients and contractors as well as in a number of specialist niche areas such as insurance, rights to light, party wall matters etc.

As well as strong technical skills, building surveyors need to have strong people skills and the highest levels of integrity. Clients, whether a large corporation or a individual member of the public, need to have the utmost confidence in the impartial advice given by chartered building surveyors.

Chartered building surveyors are clearly differentiated from the rest of their market by their enhanced technical knowledge and professional standards. Achieving the chartered status will enhance your professional status with employers and clients alike leading to more and varied employment opportunities.

Building surveying APC

Building surveyors provide professional technical advice on land, property and construction for commercial companies and consultants, central and local government, and private individuals.

Whichever sector they work in, building surveyors' knowledge and understanding of construction technology and building pathology means they are ideally equipped to provide a wide range of services including the following:

- Managing design and construction
- Undertaking building surveys and measured surveys
- Analysing design and building defects
- Preparing strategies for asset management and property maintenance
- Preparing insurance valuations and claims

- Preparing strategic property advice covering land ownership, lease conditions, boundaries, title matters (including easements, licences and covenants etc), and landlord and tenant legislation
- Project management and development monitoring
- Miscellaneous services including accessibility and energy audits, specialist surveys (asbestos, damp etc), conservation advice and sustainability advice.

Chartered Alternate Designations related to this pathway

All candidates qualifying under the building surveying APC pathway will be entitled to use the designation chartered building surveyor.

Pathway Requirements

Building surveying APC

Mandatory	
Level 3	<ul style="list-style-type: none"> Ethics, rules of conduct & professionalism
Level 2	<ul style="list-style-type: none"> Client Care Communication and negotiation Health and safety Sustainability
Level 1	<ul style="list-style-type: none"> Accounting principles and procedures Business planning Conflict avoidance, management and dispute resolution procedures Data management Diversity, inclusion and teamworking Inclusive environments
Core	
Level 3	<ul style="list-style-type: none"> Building pathology Construction technology and environmental services Contract administration Design and specification Inspection Legal/regulatory compliance
Level 1	<ul style="list-style-type: none"> Fire safety
Optional	
Two to Level 2	<ul style="list-style-type: none"> BIM management Commercial management Client care (to level 3), or Conflict avoidance, management and dispute resolution procedures or Health and safety (to Level 3) or Inclusive environments or Sustainability Conservation and restoration Contract practice Design economics and cost planning Development/project briefs Fire safety Housing maintenance, repair and improvements or Maintenance management Insurance Landlord and tenant Measurement Procurement and tendering Project finance Quantification and costing Risk management Works progress and quality management
Plus one to Level 2 from the full list of technical competencies, including any not already chosen from the optional list.	

Competency Guidance

The pages that follow are intended to provide guidance for users on the main competencies associated with building surveying.

The guidance has been drawn up by experienced practitioners and aims to give you a clear and practical understanding of how to apply the listed core and optional competencies in the context of building surveying. The guidance does not cover the mandatory competency requirements.

The official competency definitions (at levels one, two and three) are provided, followed by a description of the key knowledge and activities that are likely to fall within the scope of each competency.

The information provided is designed to be helpful but informal guidance. The knowledge and activities described under each competency are not exhaustive, and should not be relied upon as any form of revision list. Candidates must satisfy themselves and their employers that they have reached the required level of attainment before applying for final assessment.

The competencies are arranged in alphabetical order.

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Building information modelling (BIM) management

Reference no. T087

Description of competency in context of this sector

This competency encompasses the establishment and management of the information modelling systems on projects. It covers collaborative process and technological principles involved in implementing Building Information Modelling (BIM).

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the technical, process and collaborative aspects of the use of BIM on projects.

Examples of knowledge comprised within this level are:

- Understanding of BIM strategies and implementation
- Understanding of the various technical options and solutions for information modelling
- Understanding of the collaborative processes necessary for BIM adoption
- Knowledge of standard classification systems and their use in infrastructure
- Knowledge of relevant internationally recognised management standards such as Construction Operations Building Information Exchange (COBie)

Level 2

Develop and apply management systems to facilitate the use of BIM on projects including unified control and reporting procedures.

Examples of activities and knowledge comprised within this level are:

- Preparation of a BIM execution plan
- Design and implementation of a BIM management process
- Analysis of comparative BIM solutions
- Maintenance of an information model
- Agree and implement contractual aspects of BIM such as separate protocol
- Facilitate and manage project team members for BIM implementation

Level 3

Show how the knowledge and experience gained in this competency has been applied to advising clients and/or senior management on BIM strategy.

Examples of activities and knowledge comprised within this level are:

- Analysing, assessing, evaluating and reporting on options for BIM strategies at a corporate or project level
- Designing and advising on collaborative strategies for the successful implementation of BIM on projects
- Advising on the contractual and commercial implications of using BIM on projects
- Advising on options for software and protocols on BIM projects
- Advising on technical information systems requirements for BIM at corporate or project level

Building pathology

Reference no. T006

Description of competency in context of this sector

Building pathology is core to many areas of surveying. It is essential that all candidates have an understanding of defects analysis, and the likely resultant defects from failures in building fabric. This will range from the effects of a defective waterproof covering at simple building pathology, to much more complex defects such as interstitial condensation, and the possible effects on building fabric. Candidates will be expected to have an in-depth knowledge of the range of defects found in typical buildings in their locality, as well as an understanding of defects that they may come across more infrequently. In order to be competent in building pathology and defects analysis candidates will need to have detailed construction technology knowledge.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate your knowledge and understanding of building defects, including collection of information, measurements, and tests.

Examples of knowledge comprised within this level are:

- On typical building defects explain cause and effect of these for example, dampness, timber defect, building movements
- Building defects likely to be encountered in typical building surveying activities
- Differing types of testing, and the limitations of the tests, for example the use of damp meters, and borescopes
- Construction detailing of different building types and through ages of construction.

Level 2

Apply your knowledge to undertake surveys, use survey and other information to diagnose cause and mechanisms of failure.

Examples of activities and knowledge comprised within this level are:

- Identify in detail cause and mechanics of varying types of failure
- Using detailed examples, explain the relationship between observations taken on site and the diagnosis of failure in building fabric
- Information gathered from several sources, including if necessary specialist inspections, to diagnose and explain building fabric failure
- Demonstrate an understanding of the appropriate level of detail required in typical reports, including examples of layout, and the use of sketches/ drawings and photographs

Level 3

Give reasoned advice and appropriate recommendations, including the preparation and presentation of reports.

Examples of activities and knowledge comprised within this level are:

- Explaining the causes of failure, and the likely results of failure, together with recommendations of appropriate remedial measures
- Analysing information gathered from inspections to formulate the necessary remedial/preventative works including specific detail, in the form of a schedule of works, if required with sketches/ drawings and photographs
- Discussing in detail examples of unusual defects you have identified and the remedial works recommended.

Client care

Reference no. T003

Description of competency in context of this sector

This competency covers how a surveyor meets a client's brief in respect of a specific appointment and how they deal with a client from a business and professional perspective. The term 'client' as it is used in this competency means not only the contractual party who has appointed the surveyor, but also all of the stakeholders in a project with whom the surveyor has to engage. This competency is closely linked to Ethics, Rules of Conduct and professionalism, which defines professional behaviour and sets out some mechanisms for protecting clients.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles and practice of client care including:

- The concept of identifying all clients/ colleagues/third parties who are your clients and the behaviour that is appropriate to establish good client relationships
 - The systems and procedures that are appropriate for managing the process of client care, including complaints
- The requirement to collect data, analyse and define the needs of clients.

Examples of knowledge comprised within this level are:

- The information contained within a client's brief
- Defining your scope of services within the limits of your competence and PI insurance • How fees are established
- The use of standard forms of appointment
- Mechanisms contained within an appointment document
- Insurance requirements (legal and RICS/ SCSI)
- How stakeholders are identified and how their status within the project is established • Formal communication systems with clients and stakeholders
- Complaints handling procedures
- Key Performance Indicators (KPIs)
- The methods of data gathering during the inception stage of a project including client briefings and site based information
- The law applicable to your area of practice, in particular those relating to employment law, statutory compliance, consents and approvals
- The principles of the preparation of alternative outline proposals including the methodology of preparing an option appraisals
- The principles of preparing outline schedules of work.

Level 2

Provide evidence of practical application of the principles and practice of client care in your area of practice.

Examples of activities and knowledge comprised within this level are:

- Compiling an appointment document
- Establishing project stakeholders and their status
- Setting up communication systems with a client and stakeholders
- Issuing reports to a client e.g. cost reports
- Dealing with a complaint
- Measurement of KPIs
- Analysing the data gathered through the client briefing process and formulating a detailed client brief
- Consulting with the statutory authorities on the consents and other approvals required
- Preparing alternative outline design proposals, including option appraisals
- Preparing outline schedules of work
- Assessing client relationships, team performance and stakeholder interfaces on international projects.

Level 3

Provide evidence of reasoned advice given to clients and others

Examples of activities and knowledge comprised within this level are:

- Developing tailored proposals linked to business strategies
- Presenting a prioritised and informed brief to enable decision making
- Value management with stakeholders to ensure delivery against client expectations
- Advising on the need for statutory and other consents and approvals
- Presenting alternative proposals including option appraisals
- Presenting outline schedules of work
- Agreeing the level of fees with a client
- Issuing an appointment document
- Ensuring insurances are in place
- Setting performance levels and KPIs
- Monitoring compliance with the scope of services
- Monitoring performance internally and externally against client/stakeholder performance levels
- Reporting to clients and stakeholders
- Using KPIs to improve performance.

Commercial management

Reference no. T010

Description of competency in context of this sector

This competency covers the commercial management of construction works. Candidates should have an awareness of how commercial competitiveness balances against profitability. They must have a thorough understanding of the financial processes used to achieve profitability and how these integrate with the overall delivery of the project.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles of the management of construction projects.

Examples of knowledge comprised within this level are:

- Identifying and understanding the components that make up the cost of the project to the contractor
- Understanding of the effect that the design and construction processes have on the cost
- Awareness of the techniques used to reconcile the cost against income
- Awareness of the techniques to financially manage sub-contractors and suppliers
- Understanding the use of cashflows.

Level 2

Apply your knowledge to the financial management of construction projects, including regular monitoring and reporting on cashflow and profitability.

Examples of activities and knowledge comprised within this level are:

- Collecting of data for reports
- Carrying out cost to completion exercises
- Preparing cashflows
- Preparing reports such as liability statements, cost to complete and cost value reconciliations
- Applying value engineering processes
- Preparing and submitting cost data for in-house and/or external use in relation to areas such as cost of preliminaries, comparative cost of different construction techniques and taxation allowances.

Level 3

Monitor, report and advise on project cashflows and profitability. Evaluate and advise on the financial implications and appropriate management actions.

Examples of activities and knowledge comprised within this level are:

- Monitoring, analysing, reporting and advising at a senior level on project cashflows and profitability for internal use
- Evaluating and advising on financial implications and appropriate management actions.

Conflict avoidance, management and dispute resolution procedures

Reference no. M006

Description of competency in context of this sector

This competency covers the surveyor's involvement with the avoidance, management and resolution of disputes in construction projects. Candidates should be aware of the various processes and techniques commonly used in the industry. They should have a detailed understanding of how these are applied in practice.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the techniques for conflict avoidance, conflict management and dispute resolution procedures including for example adjudication and arbitration, appropriate to your APC pathway.

Examples of knowledge comprised within this level are:

A basic knowledge and understanding of some of the following, as most appropriate to your market sector/areas of specialism:

- Common causes of disputes
- The contribution of some of the following to dispute avoidance:
 - Risk management (its basic principles and techniques)
 - Early warning systems
 - Partnering techniques
 - Clear and robust client briefings
- Theories of negotiation and the role of effective communication and negotiation
- The primary features, advantages and disadvantages of a range of dispute resolution procedures and their surrounding statutory and/or non-statutory legal/ judicial context (e.g. how forms of contract deal with dispute resolution, and the scope of such clauses):

continued next page >

Level 2

Provide evidence of practical application in your area of practice having regard to the relevant law.

Examples of activities and knowledge comprised within this level are:

- Adopting – or encouraging the adoption of (as appropriate) – suitable dispute avoidance techniques
- Negotiating actively on behalf of clients (e.g. performance failure, unavailability, contract variations, contract interpretations and payment) prior to third-party referral
- Assisting in the collation or preparation of claims/counterclaims and submissions
- Assisting in the identification, gathering and collation of facts and expert evidence for use in expert reports
- Sufficient understanding of the main points of the statutory or non-statutory law relevant to/underpinning any particular dispute resolution process and its application

Level 3

Provide evidence of the application of the above in the context of advising clients in the various circumstances referred to above.

Examples of activities and knowledge comprised within this level are:

- Advising clients of the most suitable means of dispute avoidance on their projects, and of dispute resolution procedures appropriate to their individual circumstances, demonstrating appreciation of when to seek further specialist advice and when to advise clients within the scope of the insurance cover of the candidate's organisation.
- Involvement in, or assistance with, a referral to a third-party resolution process and associated management of that process on behalf of client.

NB: Please note that the roles of acting as a third-party dispute resolver – or expert witness, are – for the vast majority of candidates – not likely to be an activity that is undertaken. It is only a small minority of candidates with substantive work experience for whom this is likely to be relevant.

Conflict avoidance, management and dispute resolution procedures

Reference no. M006

(continued)

Examples of likely knowledge, skills and experience at each level

Level 1

(Continued)

Examples of knowledge comprised within this level are: (continued)

- Mediation (could include contracted and project mediation) and conciliation
- Dispute Resolution Boards (DRBs)
- Dispute Resolution Advisers (DRAs) –Adjudication
- Independent expert determination
- Arbitration
- Litigation
- The possible roles of a surveyor as an expert witness and/or an advocate, to include an awareness of the existence and scope of applicability of RICS guidance for expert witnesses and advocates
- The range of nominating bodies and services available to resolve disputes, and particularly the role of the RICS/SCSI Dispute Resolution Service and any specialised dispute resolution schemes it offers relevant to your market sector
- The RICS Global Professional Statement on Conflict of Interest and any appropriate SCSI guidance.

Level 2

Level 3

Conservation and restoration

Reference no. T012

Description of competency in context of this sector

This competency is about understanding historic buildings/structures and the factors that influence performance and future ongoing use. This requires a sound understanding of principles, philosophy, materials, architectural history and the law to enable practical sustainable solutions to be devised to ensure ongoing benefit for the built heritage. Conservation and restoration can be compatible, but can more frequently bring about conflict and this competency seeks to ensure the candidate is equipped to understand the issues and negotiate solutions.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles, techniques and methods applied to conservation and restoration.

Examples of knowledge comprised within this level are:

- The law applicable to conservation
- The definitions used in conservation (such as listed building, scheduled ancient monument, conservation area)
- The principles of conservation
- Identification of age, styles and materials
- Understanding the diversity of materials and techniques used in the construction of historic structures
- Differentiating between conservation and restoration (as well as preservation and refurbishment)
- The lime cycle
- Breathable building technology
- Understanding factors that lead to redundancy of a building.

Level 2

Undertake an inspection or object identification to identify all the relevant factors that may affect the conservation or restoration of the subject matter.

Examples of activities and knowledge comprised within this level are:

- Undertaking condition surveys
- Undertaking architectural assessments
- Preparing statements of significance
- Preparing reports identifying materials, periods of construction (including historic alterations), typical defects/problems
- Preparing and submitting applications –eg listed building consent
- Preparing schedules of work for standard repairs using traditional materials
- Assessing the impact of modern technology and repair methods on traditional buildings, structures, elements and materials
- Assessing and reporting on factors that are resulting or could result in redundancy.

Level 3

Provide evidence of reasoned advice on the conservation or restoration of the subject matter and/or manage the conservation or restoration process.

Examples of activities and knowledge comprised within this level are:

- Preparing a conservation management plan
- Preparing a sustainable/justifiable philosophical approach to guide both present and future works (repairs and alterations)
- Preparing schedules of work in detail for a variety of situations (non standard)
- Undertaking programme of works over a period of years
- Providing advice on appropriate repair methods
- Providing advice on appropriate works to ensure continued use of a building, or to bring back into use a redundant building
- Discussing and advising upon alternative repair methods
- Considering assessing and advising upon non standard approaches to repair and re-use
- Advising on situations where incompatibility of materials is found to be detrimental to the future of the structure or element
- Negotiating where conservation is perceived to be a barrier to the future use of a building and/or restoration.

Construction technology and environmental services

Reference no. T013

Description of competency in context of this sector

This competency covers the design and construction of buildings and other structures. Candidates should have a clear understanding of the design and construction processes commonly used in the industry. They should have detailed knowledge of construction solutions relevant to their projects.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles of design and construction relating to your chosen field of practice.

Examples of knowledge comprised within this level are:

- The stages of design from inception to completion
- Impact of current legislation and regulations (both national and international)
- How the various elements of the building work and inter-relate
- The process of constructing the works
- Operational and maintenance processes post contract.
- Alternative construction details in relation to functional elements of the design such as different types of piling or structural frame solutions
- How construction design solutions vary for different types of buildings such as clear span or acoustic requirements

Level 2

Apply your knowledge to the design and construction processes.

Examples of activities and knowledge comprised within this level are:

- Utilise knowledge of current regulations and design standards to ensure compliance with legislation
- Prepare annotated sketches and specification detailing how elements interact
- Identification of mechanical and electrical services relevant to the area of work.

Level 3

Advise on the selection and application of particular processes within your area of experience. This should include liaison with specialists and consultants to develop project specific design and construction solutions.

Examples of activities and knowledge comprised within this level are:

- Advising on the choice of construction solutions for your project
- Reporting on the impact of different design solutions and construction processes on cost and programme.

Contract administration

Reference no. T016

Description of competency in context of this sector

This competency covers the role of a surveyor administering a construction contract. Candidates should be aware of the roles and responsibilities of the administrator under the main forms of contract. They should have a detailed understanding of the contractual provisions relating to the forms of contract that they have administered.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the contractual, legislative and statutory terminology/requirements, of a construction contract

Examples of knowledge comprised within this level are:

- The various standard forms of contract and sub-contract used in the industry
- Basic contractual mechanisms and procedures applied at various stages of the contract
- The roles and responsibilities of the administrator.
- The duties of the parties
- What is required to create a building contract
- What is included in Preliminaries and Preambles.

Level 2

Implement administrative procedures necessary for the smooth running of a construction contract.

Examples of activities and knowledge comprised within this level are:

- Issuing instructions
- Dealing with payment provisions
- Managing variation procedures
- Involvement with dispute avoidance
- Dealing with completion and possession issues
- Issuing certificates.

Level 3

Advise on the administrative procedures necessary for the smooth running of a construction contract including document control techniques and systems, meetings and reporting procedures.

Examples of activities and knowledge comprised within this level are:

- Resolving disputes
- Assessing and recommending entitlement for extension of time
- Assessing and recommending entitlement for loss and expense
- Advising all parties of their contractual rights and obligations
- Completion of Certification and agreement of final account
- Outlining and recommending to a client the proposed contract preliminaries
- Assessing the quantum of a contractor's claim

Contract practice

Reference no. T017

Description of competency in context of this sector

This competency covers the various forms of contract used in the construction industry. Candidates should have an awareness of all of the main standard forms of contract and a thorough understanding of contract law, legislation and the specific forms that they have used.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the various forms of contract used in the construction industry and/or your area of business.

Examples of knowledge comprised within this level are:

- Basic contract law and legislation
- Contract documentation
- The various standard forms of contract, warranty and subcontract
- When the different contract forms would be used
 - Basic contractual mechanisms and procedures at various stages of the contract
 - The contents of a written consultant appointment, warranty and novation agreement
- General contractual provisions such as letters of intent, insurances, retention, bonds, liquidated and ascertained damages, early possession, practical completion and other common contractual mechanisms.

Level 2

Apply your knowledge of the use of the various standard forms of contract at project level, including the implications and obligations that apply to the parties to the contract.

Examples of activities and knowledge comprised within this level are:

- Producing contract documentation for construction and consultant agreements
- Understand the status of documents relating to a contract, minutes of meetings, instructions, contractor quotations
- Third-party rights including relevant legislation and the use of collateral warranties
- Applying general contractual provisions such as letters of intent, insurances, retention, bonds, liquidated and ascertained damages, sectional completion, practical completion and other common contractual mechanisms

Level 3

Provide evidence of reasoned advice, prepare and present reports on the selection of the appropriate form of contract and warranties for your chosen procurement route. This should include advising on the most appropriate contractual procedure at the various stages of a construction or other contract.

Examples of activities and knowledge comprised within this level are:

- Assessing and recommending the appropriate form of contract and/or sub-contract for your chosen procurement route
- Advising on the most appropriate contractual procedure at the various stages of a contract
- Evaluating and advising on the appropriateness and implications of proposed contractual amendments.

Design and specification

Reference no. T021

Description of competency in context of this sector

This competency involves the skills involved in the design and specification of construction projects. Building surveyors are usually involved in refurbishment of property, and in some cases new build projects. Knowledge of the stages of design and specification, from inception to completion is an essential building surveying skill.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the design process and the scope and content of related documentation.

Examples of knowledge comprised within this level are:

- The various stages of the design process
- The application of the CDM Regulations in the design process
- The functional requirements and performance of building materials and components
- The health and safety regulations including the implications on design
- The effect of technical standards and statutory regulations, such as planning, on the design process
- The structural implications of design to the load bearing components of building fabric
- The ability to interpret the requirements of a client's brief, in order to satisfy their requirements
- The general issues surrounding sustainability in design such as materials, sources, transportation and energy efficiency
- The concepts of Modern Methods of Construction
- Preambles to contract documentation.

Level 2

Prepare designs and specifications, including at outline and detail levels.

Examples of activities and knowledge comprised within this level are:

- How to apply spatial parameters and requirements
- Preparation of sketch designs to demonstrate compliance with a client's brief, while satisfying statutory requirements
- Detailing of how components are installed, connect and perform
 - Development of initial proposals to a detailed stage (including sections and details) and obtaining statutory consents
 - Preparing Design Risk Assessments (DRA) of the proposed design, to satisfy the requirements of the health and safety regulations
- Express recognised performance standards and guidance
- Investigate suitable sustainable features and incorporate them within a design.
- Completion of Design Risk Assessments, of the proposed design, to satisfy the requirements of the CDM Regulations, including DRAs in connection with the future maintenance of the building
- Provision of advice to clients regarding sustainability issues surrounding the proposals for their building.

Level 3

Provide evidence of reasoned advice, prepare and present reports on the property assets of insolvent companies and individuals and/or in the administration of Fixed Charge Receivership appointments.

Examples of activities and knowledge comprised within this level are:

- Carry out the preparation of the design and specification of a building project from outline proposals to completion of the design and specification process
- Apply knowledge and application of the specification process, including detailed knowledge of the main methods of specification
- Apply knowledge and application of the design and specification process, and its relevance and importance to the procurement and execution of the contract selected for the building works
- Advising clients regarding sustainability issues surrounding the proposals for their building
- Managing the design process to incorporate design works by others in the specification.

Design economics and cost planning

Reference no. T022

Description of competency in context of this sector

This competency covers the impact of design and other factors on cost throughout the life of the building and the control of cost during the pre-contract stage. Candidates should have an awareness of how design decisions and construction processes impact on construction and operational costs. They must have a thorough understanding of techniques used to manage and control costs pre-contract

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the main factors that affect design economics over the whole life of a building. Demonstrate knowledge and understanding of how cost planning assists in the financial control of projects during the design development stage.

Examples of knowledge comprised within this level are:

- The main factors that affect design economics over the whole life of the building including capital and life cycle costs
- How cost planning assists in the financial control of projects during the design development stage
- The various stages of cost planning
- Sources of cost data
- Adjustments that may be required for factors including location, specification, time and market forces.

Level 2

Apply your knowledge to the cost management of design development on a project from feasibility to design completion. Prepare and submit cost data to in-house and/or external data collection agencies.

Examples of activities and knowledge comprised within this level are:

- Producing estimates and cost plans
- Carrying out life cycle costing exercises
- Applying value engineering processes
- Preparing cost reports
- Preparing and submitting cost data to in-house and/or external data collection agencies.

Level 3

Give strategic and reasoned advice, including the preparation and presentation of reports with reference to cost, time, quality and buildability. Advise on various market factors and trends in construction costs. Comment on accuracy and risk.

Examples of activities and knowledge comprised within this level are:

- Preparing and presenting reports with reference to cost, time, quality and buildability, including qualifications and exclusions
- Evaluating building design efficiency
- Assessing/evaluating market factors and trends in construction costs
- Analysing the accuracy of predicted cost using benchmarking techniques
- Interrogating historical cost data
- Using value and risk management techniques.

Development/project briefs

Reference no. T024

Description of competency in context of this sector

This competency is about understanding the key document used in determining client's main requirements before initiating a development. It also covers how well information provided by the client has been understood by the project team to establish their terms of reference, objectives, functional and operational requirements to manage the development. It also covers sufficient detail through the Project Execution Plan to enable the project team to manage the detailed design and specification of the work.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge of the techniques used for cost, quality and time-related forensic examinations in your area of practice.

Examples of knowledge comprised within this level are:

- A clear understanding of the scope/environment and background of the project
- Establish the project definition, explaining what it needs to achieve or address in relation to the client's objectives
- Establish ownership and stakeholders of the project
- Establish and understand clear terms of reference between the client and the project team before initiating the project.

Level 2

Apply your knowledge of cost, quality and time-related forensic examinations in your area of practice.

Examples of activities and knowledge comprised within this level are:

- Preparing and understanding the outline business case stating the client's required cost, time and performance/quality expectations
- Establishing success measurement criteria and benefits of the project to the client
- Establishing any known project risks, constraints and interfaces
- Developing an Outline Project Plan
- Implementing clear procedures for managing changes to the client's brief.

Level 3

Provide evidence of reasoned advice and report to clients on cost, quality and time-related forensic examinations in your area of practice.

Examples of activities and knowledge comprised within this level are:

- Advising whether the information collated by the project team accurately reflects the project brief
- Integrating a project within an over-arching programme of delivery, including understanding strategic parameters and dependencies
- Developing and implementing a Project Execution Plan that needs to be adhered to by the project team for managing the detailed design and specification of the construction works.

Fire safety

Reference no. T033

Description of competency in context of this sector

This competency is about having the skills to assess the level of fire safety in buildings, and in proposed building projects, and being able to advise how to achieve required levels of safety when they are not present.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the consequences of fire in a building, how it is modified by the enclosure and how the impact may be controlled. Apply fire safety principles to practical situations so as to minimise the risk from fire to personal injury or death, physical loss and adverse environmental impact.

Examples of knowledge comprised within this level are:

- How a fire might start in buildings, how it will spread and can be contained by the structure or layout
- How the structure might be protected
- Understand the methods for safe escape
- The responsibility of duty holders, such as occupiers or management undertaking risk assessments
- Systems to protect buildings and occupiers e.g. detection and suppression.

Level 2

Demonstrate knowledge and understanding of the combustion process; the physics and chemistry of fire; the physiological and psychological effects of fire; and the ability to assess means of escape systems according to circumstance, including fire safety management systems.

Examples of activities and knowledge comprised within this level are:

- Assessing project plans for fire safety compliance
- Inspecting projects to assess satisfactory implementation of fire safety features
- Inspect premises, record attributes and develop a fire safety audit
- Apply fire safety and engineering in a building project design specification process or to comply with recommendations from a risk assessment
- Inspect and complete fire safety audits of simple buildings.

Level 3

Apply the principles and understanding by preparing a fire safety strategy for a moderately complex assembly or commercial building with multiple uses and a relatively high occupancy.

Examples of activities and knowledge comprised within this level are:

- Preparing a fire safety strategy for a building
- Carrying out Fire Risk Assessments
- Present and recommend actions from a fire safety audit
- Develop and recommend a fire safety strategy
- Negotiate with fire officer or other statutory body on fire safety matters for clients.

Health and safety

Reference no. M008

Description of competency in context of this sector

This competency covers the relationship between the work of the building surveyor and health and safety issues within the construction industry. Candidates should be aware of legal, practical and regulatory requirements. They should have a detailed understanding of the health and safety processes and guidelines used to achieve this.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles and responsibilities imposed by law, codes of practice and other regulations appropriate to your area of practice.

Examples of knowledge comprised within this level are:

- Personal safety on site and in the office
- Procedures imposed by law
- The impact on health and safety of:
Design
Construction processes
Building maintenance
Employment of staff
- Knowledge of CDM regulations, and other relevant Health and Safety Law.

Level 2

Apply evidence of practical application of health and safety issues and the requirements for compliance, in your area of practice.

Examples of activities and knowledge comprised within this level are:

- Prepare risk assessments, such as designer versions for health and safety regulations compliance
- Work closely with the health and safety co-ordinator and assist in the health and safety process
- Undertake occupancy risk assessments
- Advise clients of the need for health and safety regulations compliance.
- Being involved in preparation of Design Risk Assessments and other relevant aspect of the CDM Regulations.

Level 3

Provide evidence of reasoned advice given to clients and others on all aspects on health and safety.

Examples of activities and knowledge comprised within this level are:

- Advise clients on the need for alternative design to comply with health and safety including the requirements for future maintenance
- Design and specify where health and safety affects the construction method
- Provide advice to clients on health and safety matters e.g. design and specification.

Housing maintenance, repair and improvements

Reference no. T039

Description of competency in context of this sector

This competency is about having the skills to assess maintenance and repair issues to the stock managed by housing providers and being able to advise and implement strategies on how to achieve adequate provision of housing.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the roles of owners, occupiers, providers and local authorities in the maintenance, repair and improvement of housing. Demonstrate knowledge of funding methods available, legislative requirements, and property related health and safety issues.

Examples of knowledge comprised within this level are:

- Housing policy and law relating to maintenance repair and improvements including decent homes, pathfinder projects, and neighbourhood improvements
- The nature and extent of maintenance and improvement operations in housing
 - The statutory and contractual rights and responsibilities of landlords and tenants regarding maintenance, repairs and improvements
- Planned, service level, and reactive maintenance
- Maintenance inspections and monitoring
- Maintenance planning, prioritising and programming
- Fiscal planning in housing maintenance management
- Maintenance procurement and contractor partnership agreements
- Effective communication with tenants and occupiers
- Energy and environmental management of housing.

Level 2

Apply your knowledge to assess the condition of housing, prepare reports and cost estimates. Advise on obtaining funding and prepare contracts in relation to the work programmes. Assess and advise on residents' needs.

Examples of activities and knowledge comprised within this level are:

- Carrying out condition surveys of residential property
- Receiving, prioritising and actioning repair notifications from tenants
- Formulating maintenance management policies
- Producing planned maintenance programmes
- Planning and monitoring maintenance expenditure and budgets
- Setting up and running partnership agreements, procurement contracts, and orders for maintenance and servicing works
- Inspecting completed maintenance works
- Consulting with tenants, contractors, and housing managers about the quality of the maintenance service and maintenance works
- Integrating maintenance policies with environmental requirements and policies
- Keeping appropriate records of buildings and works carried out.

Level 3

Manage work in progress and payments. Demonstrate and apply your understanding of defect liability and dispute resolution procedures.

Examples of activities and knowledge comprised within this level are:

- Providing assessments of condition and wants of repair for individual buildings or portfolios of residential properties
- Formulating and presenting a Maintenance Policy for a housing provider
- Presenting a Planned Maintenance Programme
- Recommending proposals for maintenance and improvement programmes to tenants
- Recommending budget and expenditure reports and predictions for building maintenance needs
- Preparing and negotiating partnership agreements with contractors and providers of maintenance and servicing works
- Preparing and implementing maintenance and servicing contracts and measured term agreements.

Inclusive environments

Reference no. T091

Description of competency in context of this sector

This competency is about the principles and processes that deliver accessible and inclusive environments, recognising the diversity of user needs and the requirement to put people (of all ages and abilities) at the heart of the process.

An inclusive environment recognises and accommodates differences in the way people use the built and natural environment. It facilitates dignified, equal and intuitive use by everyone. It does not physically or socially separate, discriminate or isolate. It readily accommodates and welcomes diverse user needs.

These principles and processes apply to all buildings, places, and spaces, and to equipment, in and around new property or in the adaptation of existing property, as well as to services provided to the public. Particular regard should be given to buildings, places and spaces that are open to the public; sports and entertainment venues; schools, colleges and educational establishments; hospitals and health facilities; and residential care facilities; as well as commercial and employment buildings.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate an understanding of the principles and processes that deliver accessible and inclusive environments, recognising the diversity of user needs and the requirement to put people (of all ages and abilities) at the heart of the process. In doing so, have regard to the legal, economic, sustainable and social case for making inclusion the norm not the exception.

Examples of knowledge comprised within this level are:

- Knowledge of best practice technical standards relevant to country of practice.
- Recognition of the diversity of user needs
- Local planning policy, building regulation and health and safety requirements as applied to inclusive environments
- Appreciate and distinguish between ethical issues as opposed to legal requirements

Level 2

Provide evidence of practical application of the principles and processes that deliver accessible and inclusive environments.

Examples of activities and knowledge comprised within this level are:

- Practical applications as applied to different types of building and their associated uses
- Practical applications as applied to different types of outside areas and their associated uses
- A recognition of both real and perceived sensitive situations in the design or use of inclusive environments
- Ability to recognise the need for and use appropriate language in the discussion and resolution of inclusivity challenges.

Level 3

Provide evidence of reasoned advice given to clients and others of the principles and processes that deliver accessible and inclusive environments.

Examples of activities and knowledge comprised within this level are:

- The scoping and briefing of design work or new buildings, or in relation to remodelled buildings and external spaces
- The design and specification of a building, landscape/public realm project from outline proposals to completion of the design and specification process
- The drafting of clauses in leases or user agreements as to how places and spaces might be accessed or used.

Inspection

Reference no. T044

Description of competency in context of this sector

The inspection of property is a core skill of all chartered building surveying activities. It is essential that candidates exhibit a knowledge and understanding of the core requirements of property inspection, for example the degree of detail required in connection with differing types of inspection. Assessors will be seeking confirmation that all candidates have a detailed knowledge of building construction and pathology, in order that they can competently carry out inspections of property for clients in order to fulfil the requirements of the client's brief.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the different requirements for inspection, together with the required information and factors affecting the approach to an inspection.

Examples of knowledge comprised within this level are:

- The requirements of the differing types of inspection, e.g. reacquisition, and Reinstatement Cost Assessments
- The methodology for completing a successful property inspection, including review of relevant documentation
- Building construction and pathology knowledge to enable competent inspection techniques
- Inspection techniques including, for example, concrete inspection and diagnosis techniques, the uses and limitations of boroscopes, the use of thermography in leak detection, etc.
- RICS/SCSI good practice of inspections.

Level 2

Undertake inspections and apply the information gained to prepare reports/schedules and/or registers of equipment, presenting appropriate information gained from the inspection.

Examples of activities and knowledge comprised within this level are:

- Undertaking inspections for a variety of reasons and taking accurate records
- Assisting in the preparation of professional reports
- Assisting in the preparation of Schedules of Condition and Dilapidations
- Commission of advanced inspection techniques for example infrared thermography, fibre optics, concrete testing.

Level 3

Give reasoned advice and recommendations arising from inspections.

Examples of activities and knowledge comprised within this level are:

- Preparing detailed Building Survey reports for clients, containing detailed information, conclusions and recommendations
- Assisting in providing detailed reasoned advice to clients relating to claims for dilapidations, including analysis of lease documentation
- Assisting or preparing detailed Building Survey reports, for example on a preacquisition basis, on a complex building structure for developers/investors
- Interpret and provide advice in relation to results of advanced inspections undertaken by others.

Insurance

Reference no. T045

Description of competency in context of this sector

Aspects of insurance affect all activities of a chartered building surveyor, from insurance required in building contracts, to reinstatement cost valuations, to the requirements for professional indemnity insurance. Chartered building surveyors cannot practice effectively without a knowledge and understanding of the impact of insurance on the various projects on which they are involved. The understanding of insurance is so important that it impacts on a number of other competencies, and it is considered that a working knowledge of insurance is a core skill of chartered building surveyors.

(This competency is best used by candidates involved in a slightly specialist role, for example, working for loss adjusters, and is unlikely to be suitable for candidates who do not have regular and continuing involvement in insurance).

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles and practices of insurance in relation to your area of practice.

Examples of knowledge comprised within this level are:

- The different types of insurance, PI, employer's liability, all risks
- The procedures, mechanism and risk limitations of insurance
- How a building surveyor's reinstatement valuation feeds into property insurance
- The different insurance provisions in a building contract, such as a part
- refurbishment to a new build
- Insurance requirements in different property leases
- The role of loss assessors and loss adjusters.

Level 2

Apply your knowledge and/or be involved with the insurance of construction and/or property-related matters.

Examples of activities and knowledge comprised within this level are:

- Undertake checks to ensure third parties (such as contractors) have suitable insurance
- Determine the required insurance of professional teams, employers and contractors
- Prepare a building surveyor's reinstatement valuation
- Undertake the role of building surveyor in a project occasioned by an insurance claim.

Level 3

Demonstrate a thorough understanding of the regulations and practice governing the insurance of construction and/or property-related matters.

Examples of activities and knowledge comprised within this level are:

- Provide advice and recommendations for the requirements of insurance of property and construction
- Explaining restrictions imposed by Regulations on providing advice regarding insurance matters, in relation to your field of practice
- Advising brokers/clients on requirements of insurance clauses of building contracts/development agreements
- Carrying out a reinstatement cost valuation of a complex multi storey, multi occupied building, and provide a comprehensive report to a client
- Acting in an insurance capacity in relation to a claim under a building contract insured risk
- Acting as a loss adjuster in a moderately complex claim under an insurance contract
- Providing detailed advice to a client as to the insurance requirements under a building contract, noting especially, amongst other matters, the effects of partial possession of the building.

Landlord & tenant

Reference no. T048

Description of competency in context of this sector

This competency is about managing the landlord and tenant relationship, covering all matters arising between the landlord and tenant, representing either party. Experience may be gained in relation to short or long leasehold tenancies.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the law and practice relating to landlord and tenant.

Examples of knowledge comprised within this level are:

- The principles of property law and policy
- The statutory framework applying to the landlord and tenant relationship
- The content, form and structure of leases in the context of residential lettings and/or leasehold transactions
- The landlord and tenant issues arising within leasehold enfranchisement negotiations and similar statutory processes.

Level 2

Apply the principles of the law and practice relating to landlord and tenant. Carry out relevant negotiations to provide solutions to issues affecting both owners and occupiers of real estate.

Examples of activities and knowledge comprised within this level are:

- Reading and interpreting leases
- Preparing, serving and responding to notices
- Entering in to negotiations
- Reaching an agreed solution and report recommendation to client
- Instructing legal advisors.

Level 3

Provide evidence of reasoned advice, prepare and present reports on the law and practice relating to landlord and tenant. Apply your knowledge to assist in undertaking relevant dispute resolution procedures.

Examples of activities and knowledge comprised within this level are:

- Providing strategic advice upon landlord and tenant matters, relating to individual properties or blocks of properties (such as service charges)
- Dealing with disputes
- Providing advice as to alternative dispute resolution options in the event of breakdown of negotiations and take any necessary action to protect the clients' position.
- Preparing reports containing recommendations prior to the commencement of negotiations
- Reaching an agreed solution and reporting recommendations to client.

Legal/regulatory compliance

Reference no. T051

Description of competency in context of this sector

The legal/regulatory compliance issues affecting building surveyors are increasing complex, and it is essential that all building surveyors have an in depth knowledge of the legal/regulatory compliance regime in which professional practice occurs.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of any legal/regulatory compliance requirements in relation to your chosen field of practice.

Examples of knowledge comprised within this level are:

- Statutory control of Building Works, including Building and Planning Acts within the country of practice
- Enforcement controls on unauthorised Building Works
- Statutory Control of Asbestos
- The implications of the Disability Discrimination Act
- Health and Safety as it affects the Construction Industry, including CDM
- The effects of European Legislation
- The Law and Practice of Dilapidations
- The Law and Practice of Building Contracts, as used by Building Surveyors
- Building reinstatement cost assessments
- Licences to alter premises
- Responsibilities and liabilities of providing professional advice and how this can be governed by written appointment agreements
- Leases and licences to alter premises.
- The law covering leasehold
- obligations and rules governing civil law procedure.

Level 2

Apply your knowledge to comply with legal/regulatory requirements in specific situations within your chosen field of practice.

Examples of activities and knowledge comprised within this level are:

- Carrying out of planning and building warrant applications, together with licence applications, for property alterations and other consents
- Carrying out inspections for schedules of condition and dilapidations, and negotiations with party representatives, in non complex matters
- Preparation of reinstatement cost valuations
- Providing advice to clients in respect of their statutory obligations, including DDA and asbestos
- Carrying out health and safety obligations during works for clients, including design works
- Applications for listed building consent, conservation area consents etc
- Reviewing and reporting on Lease obligations
- Party wall inspections and negotiations
- Rights to light inspections and negotiations

Level 3

Give reasoned advice, prepare and present reports on legal/regulatory requirements in relation to your chosen field of practice.

Examples of activities and knowledge comprised within this level are:

- Advise on the requirements for end of tenancy liability. Negotiate settlement and make recommendations to clients for settlement
- Negotiating end of tenancy liability, knowledge of case law etc.
- Negotiating with other professional representatives, after issuing of Schedules of Condition and Dilapidations
- Advise clients on the requirements for, submit and produce detailed supporting reports for asbestos audits and management, access, energy performance certificates, site regulation procedures, Planning Applications, and/ or Planning Appeals or environmental matters
- Provide advice to clients in respect of their statutory obligations, including access and asbestos
- Advise and recommend on the application of relevant lease clauses.

Maintenance management

Reference no. T053

Description of competency in context of this sector

Deliver maintenance services to a plan based on organisational need, either using an in-house work force, or maintenance contractors.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the maintenance requirements of buildings, structures and other real estate.

Examples of knowledge comprised within this level are:

- The nature and extent of maintenance operations
- The legal rights and responsibilities of owners and occupiers regarding maintenance repairs and improvements
- The statutory framework concerning building maintenance and occupation
- Planned, service level, and reactive maintenance
- Maintenance inspections and monitoring
- Maintenance planning, prioritising and programming
- Fiscal planning in maintenance management
- Maintenance procurement
- Effective communication with building occupiers
- Energy and environmental management of occupied buildings
- The relationship between maintenance and conservation.

Level 2

Manage and keep up-to-date maintenance information to determine and implement operational maintenance policies.

Examples of activities and knowledge comprised within this level are:

- Carrying out condition surveys of buildings
- Receiving, prioritising and actioning repair notifications from occupiers
- Formulating maintenance management policies
- Producing planned maintenance programmes
- Planning and monitoring maintenance expenditure and budgets
- Setting up and running procurement contracts and orders for maintenance and servicing works
- Inspecting completed maintenance works
- Consulting with owners and occupiers about the quality of the maintenance service and maintenance works
- Integrating maintenance policies with environmental and conservation requirements and policies
- Keeping appropriate records of buildings and works carried out.

Level 3

Provide evidence of reasoned advice, write and present reports on maintenance management.

Examples of activities and knowledge comprised within this level are:

- Providing assessments of condition and wants of repair for individual buildings or portfolios of properties
- Formulating and presenting a Maintenance Policy for an organisation
- Drafting and presenting a planned maintenance programme
- Preparing and presenting proposals for maintenance and improvement programmes to clients, tenants and occupiers
- Preparing budget and expenditure reports and predictions for building maintenance
- Preparing and negotiating partnership agreements with contractors and providers of maintenance and servicing works
- Preparing and implementing maintenance and servicing contracts and measured term agreements.

Measurement

Reference no. T057

Description of competency in context of this sector

This competency is relevant to all data capture and measurement of land or property. In the context of the property pathways it refers particularly to measurement of saleable/lettable areas for agency or valuation purposes. In the context of the Built Environment it refers particularly to measurement of sites and buildings for construction and maintenance purposes.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles and limitations of measurement relevant to your area of practice.

Examples of knowledge comprised within this level are:

- Relevant data capture techniques including the use of lasers and tapes
- The limitations of different methods of measurement
- Checking procedures for the instruments used and the calculations undertaken
- Potential sources of error from use of the instruments
- Understanding the basis on which measurements should be undertaken ie the core definitions of measurement and their application (Gross External Area, Gross Internal Area And Net Internal Area)
- Awareness of the appropriate standards and guidance relating to measurement with particular reference to the RICS/SCSI Code Of Measuring Practice
- The degree of accuracy that is required for different types of property and the use to which the measurements will be put
- The use and limitations of plans and drawings.

Level 2

Apply your knowledge to undertake measurement. Use basic and/or advanced instrumentation to collect data. Present appropriate information gained from measurement.

Examples of activities and knowledge comprised within this level are:

- Using the appropriate instrumentation (including lasers and tapes) to capture sufficiently accurate data, based on an understanding of limitations of different instruments
- Dealing with and advising on sources of error from use of instruments
- Applying the appropriate guidance correctly in practice to undertake measurement of a variety of properties, understanding the basis on which measurements should be undertaken
- Undertaking necessary calculations
- Preparing and presenting measurements in a manner appropriate for the purpose they are to be used, understanding the level of accuracy that is required for different types of property.

Level 3

Evaluate, present, manage, analyse data and/or apply spatial data and information. Show an advanced understanding of accuracy, precision and error sources.

Examples of activities and knowledge comprised within this level are:

- Please note this is only recommended for candidates with specialist knowledge and experience of sophisticated measurement and data capture practice.
- Most property candidates will only attain Level 2. For guidance on Level 3 please refer to RICS/SCSI Geomatics Pathway.

Project finance

Reference no. T067

Description of competency in context of this sector

This competency covers the effective cost control of construction projects during the construction phase. Candidates should be aware of the principles of controlling and reporting costs on any construction project. They should have a detailed understanding of the control and reporting processes used on their projects (please note: for surveyors working in contracting this competency covers externally issued cost advice and reports).

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the effective control of costs during a project. Demonstrate understanding of the legal and contractual constraints and the effect of time and quality on the cost of a project.

Examples of knowledge comprised within this level are:

- The effective control of costs during the construction phase of a project
- The legal and contractual constraints on the cost of a project such as changes in building legislation and design risk allocation
- The reporting and forecasting of costs during the construction phase
- The principles of contingencies/risk allowances.

Level 2

Apply your knowledge to the management of project costs. This should include the preparation and presentation of financial reports on the performance of a project at appropriate intervals, to provide effective forecasting of costs, risks and their financial implications.

Examples of activities and knowledge comprised within this level are:

- Managing project costs during the construction phase
- Reporting and forecasting costs for different procurement routes and client types
- Using cashflows in financial management
- Managing provisional sums/contingencies/risk allowances.

Level 3

Advise on strategies and procedures to control predicted expenditure in line with a budget.

Examples of activities and knowledge comprised within this level are:

- Implementing change control procedures within the contract
- Establishing reporting regimes/protocols
- Using risk management and analysis techniques.

Procurement & tendering

Reference no. T062

Description of competency in context of this sector

This competency covers how a project is structured and delivered in terms of risk allocation and contractual relationships and how tendering processes are used to establish a contract price. Candidates should have a clear understanding of the different types of procurement and tendering commonly used and the advantages and disadvantages of each to the parties involved. They should have a detailed working knowledge of the procurement routes and tendering procedures used on their projects.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the main types of procurement. Demonstrate knowledge and understanding of the tendering and negotiation processes involved in procurement.

Examples of knowledge comprised within this level are:

- The main types of procurement used in both the public and private sectors, both nationally and internationally
- Tendering and negotiation processes involved in procurement
- Ancillary processes such as partnering and framework agreements
- Codes of practice and procedures commonly used.

Level 2

Apply your knowledge to the implementation of the procurement routes selected for your projects and to carrying out tendering and negotiation processes relevant to them.

Examples of activities and knowledge comprised within this level are:

- Implementing procurement routes such as traditional, design and build and management forms
- Producing and/or compiling tender documentation such as letter of invitation, form of tender, health and safety documentation, design documentation and contractual details (Please note: pricing documents are covered under the Quantification and costing of construction works)
- Carrying out of tendering and negotiation processes such as single and two stage tendering, the use of codes of practice and electronic tendering.

Level 3

Give reasoned advice on the appropriateness of various procurement routes. Manage the tendering and negotiation process and present reports on the outcome.

Examples of activities and knowledge comprised within this level are:

- Evaluating the appropriateness of various procurement routes
- Managing the tendering and negotiation process
- Preparing procurement and tendering reports.

Quantification and costing

Reference no. T074

Description of competency in context of this sector

This competency covers the measurement and definition of construction works in order to value and control costs. Candidates should have an awareness of the various methods of quantifying and pricing construction works used throughout a project. They must have a thorough understanding of the specific methods used on their projects.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of the principles of quantification and costing of construction works as a basis for the financial management of contracts.

Examples of knowledge comprised within this level are:

- The quantification of construction works (including both measurement and definition)
- The various standard methods of measurement
- The costing of construction works
- The measurement of buildings and structures to agreed standards.

Level 2

Apply your knowledge to the quantification and costing of construction works, including the use of appropriate standard methods of measurement and forms of cost analysis. Carrying out measurement and costing of works at all stages of the construction process.

Examples of activities and knowledge comprised within this level are:

- Quantifying construction works at the various stages of a project
- Producing pricing documents such as bills of quantities, schedules of activities/works, schedules of rates or contract sum analyses.
- Carrying out the costing of construction works by methods such as tendered rates, quotations or dayworks.

Level 3

Advise on appropriate methods of quantification and costing for specific projects. Take responsibility for the preparing and issuing of pricing documents. Price or analyse such documents. Give advice on and/or supervise the valuation of construction works throughout a project.

Examples of activities and knowledge comprised within this level are:

- Advising on appropriate methods of measurement and costing
- Selecting of appropriate pricing documents
- Negotiating and agreeing the valuation of construction works at various stages of the project such as the contract sum, construction and final account.

Risk management

Reference no. T077

Description of competency in context of this sector

This competency covers the management of risk on construction projects. Candidates should be aware of the benefits to be gained and the techniques and processes used to manage risk. They should have a detailed understanding of how risk is dealt with on their projects.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate your knowledge and understanding of the nature of risk and, in particular, of the risks associated with your area of business/practice.

Examples of knowledge comprised within this level are:

- The principles of risk management
- How the various procurement routes deal with risk
- Mitigation strategies
- The techniques used to quantify risk
- The effect of risk on programme and cost.

Level 2

Apply your knowledge to carry out risk assessments taking into account all relevant factors. Understand the application of the various methods and techniques used to measure risk.

Examples of activities and knowledge comprised within this level are:

- Contributing towards the identification of risk
- Identifying who owns the risk in relation to the chosen procurement route on your project
- Contributing towards strategies to mitigate risk
- Contributing data towards the quantification of risk
- Considering the effect of risk on programme and management cost specific to their project.

Level 3

Provide evidence of reasoned advice and implement systems to manage risk by competent management in relation to specific projects.

Examples of activities and knowledge comprised within this level are:

- Advising on the appropriate procurement route in relation to the client's attitude to risk
- Recognising and advising on the appropriate methodologies and approach to risk on a project
- Taking ownership of the risk register and advising on appropriate risk mitigation strategies
- Applying techniques to quantify risk and advising clients on the appropriate level of contingency.

Sustainability

Reference no. M009

Description of competency in context of this sector

This competency covers the role of the building surveyor in dealing with the impact of sustainability issues on development and construction. Candidates should have an awareness of the various ways in which sustainability can impact on development and construction. They must have a thorough understanding of the impact made by sustainability on their projects and have been involved with the financial management of that impact.

Examples of likely knowledge, skills and experience at each level

Level 1

Demonstrate knowledge and understanding of why and how sustainability seeks to balance economic, environmental and social objectives at global, national and local levels in the context of land, property and the built environment.

Examples of knowledge comprised within this level are:

- The principles of sustainability within development and the construction process
- The relationship between property and the environment
- How national and international legislation, regulations and taxation relating to sustainability affect construction
- Criteria by which sustainability is measured in relation to finished buildings
- The principles of how design, technology and construction processes can contribute to sustainable building
- The principles of material resource efficiency within the supply chain
- The differences between the various sustainability 'labels' and methods such as BREEAM, LEED, SKA Rating, MEES and any other energy efficiency legislation.

Level 2

Provide evidence of the practical application of sustainability appropriate to your area of practice, and of awareness of the circumstances in which specialist advice is necessary.

Examples of activities and knowledge comprised within this level are:

- Carrying out capital cost and value engineering exercises to determine the impact of sustainability issues on design and construction processes
- Carrying out life cycle cost exercises which take account of sustainability issues
- Understanding the measures undertaken by governments and international bodies to encourage the reduction of the environmental impact of development.

Level 3

Provide evidence of reasoned advice given to clients and others on the policy, law and best practice of sustainability in your area of practice.

Examples of activities and knowledge comprised within this level are:

- Giving reasoned advice to your client and members of the project team on the financial impact of sustainability on a project
- Giving reasoned advice on the application of environmental law and policy
- Interpreting environmental reports and giving reasoned advice on the financial impact and programme implications on a project
- Giving advice on sustainable material selection and how performance baselines can be estimated
- Giving reasoned advice on sustainable solutions, not only from a financial perspective but also from a technical angle.

Works progress and quality management

Reference no. T085

Description of competency in context of this sector

Chartered building surveyors are frequently involved in the supervision of works on site. It is essential that candidates selecting this competency demonstrate a detailed knowledge of construction technology techniques, and the relevance of the techniques on site. Quality of workmanship is vital to ensure the long term functional ability of the element of the building design, and candidates will be expected to demonstrate detailed knowledge site quality requirements.

Examples of likely knowledge, skills and experience at each level

Level 1

Inspect and record progress and quality of building works.

Examples of knowledge comprised within this level are:

- The ability to carry out a site inspection, and the importance of recording progress of works
- A knowledge of the requirements of recording progress, and comparing to programmed works progress
- Knowledge of the requirement for quality descriptors as set out in the contract documentation
- The differences between the duties of a CA and those of a person appointed solely to report on progress and quality issues.

Level 2

Report and advise upon the adequacy of progress and quality of building works.

Examples of activities and knowledge comprised within this level are:

- Carry out inspections of works being completed on site, and prepare the necessary reports showing progress and quality issues that have arisen
- Prepare reports and advice for clients detailing the effects of additional instructions, amendments to specifications, and the likely effect on progress
- Record for in house and external purposes reports on quality of works on site, including any works rejected, and the reasons for doing so
- Compare progress of construction works at any stage of the works against the contract programme, or status of current gross financial valuation to original projections/cash flow.

Level 3

Manage and co-ordinate progress and quality of building works as a contract administrator/supervising officer or equivalent.

Examples of activities and knowledge comprised within this level are:

- Prepare cost reports for clients, on works progress, showing any deviation from expected progress
- Implement systems for recording progress and quality issues as part of CA/SO duties, and prepare reports for external circulation
- Show an understanding of the differences between the duties of a CA/SO, and those of a person appointed solely to report on progress and quality issues
- Act as a CA/SO, and incorporate into your duties the requirements for progress and quality reporting.

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Members' services are diverse and can include offering strategic advice on the economics, valuation, law, technology, finance and management in all aspects of the construction, land and property industry.

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