

1 Structure of the construction industry

From the moment you were born you have needed the built environment for work, rest and play, to provide shelter from the elements, to protect you and make your life comfortable.

The design and construction of buildings can be a complex operation that involves different professions, contractors, subcontractors and operatives on site. This unit explores the different personnel working within the construction industry and their roles and responsibilities, the training required and the qualifications needed to support their careers.

The type of work undertaken in the UK can vary from the construction of power stations and motorways, and commercial buildings through to domestic housing schemes. This variety involves a considerable number of construction personnel with different roles and responsibilities who work together in order to successfully complete a project, on time, to budget and to the right quality.

This unit will explore the variety of work undertaken, the different clients that instruct the work, and the economic and social benefits to the local and national economy.

Learning outcomes

After completing this unit, you should:

- 1 understand the diversity and complexity of the construction industry
- 2 understand the contribution the construction industry makes to our social and economic well-being
- 3 know about human resources in the construction industry
- 4 know about careers in the construction industry.

Assessment and grading criteria

This table shows you what you must do in order to achieve a pass, merit or distinction grade, and where you can find activities in this book to help you.

To achieve a pass grade the evidence must show that you are able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, you are able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, you are able to:
<p>P1 describe the range of work undertaken by the construction industry See Assessment activity 1.2, page 8</p>	<p>M1 distinguish between three activity areas involved in a given construction project in terms of roles and responsibilities See Assessment activity 1.2, page 8</p>	<p>D1 evaluate the kind of work commissioned by private, commercial and governmental clients See Assessment activity 1.1, page 7</p>
<p>P2 compare the types of client that use the construction industry See Assessment activity 1.1, page 7</p>		
<p>P3 describe the social and economic benefits of the construction industry in both national and local terms See Assessment activity 1.3, page 11</p>	<p>M2 compare the social and economic contribution made by different areas of the construction and built environment sector See Assessment activity 1.3, page 11</p>	
<p>P4 identify the personnel working in the construction industry See Assessment activity 1.4, page 16</p>	<p>M3 explain how operatives and craftspersons can develop their careers and progress to a technical or professional role in a given area of activity See Assessment activity 1.5, page 20</p>	<p>D2 evaluate two different organisational frameworks in terms of how they affect the interactions between members of the construction team See Assessment activity 1.4, page 16</p>
<p>P5 describe the roles and responsibilities of the personnel working in the construction industry See Assessment activity 1.4, page 16</p>		
<p>P6 identify the qualifications, training and development needed to support careers in the construction industry See Assessment activity 1.5, page 20</p>		

How you will be assessed

This unit will be assessed by an internal assignment that will be designed and marked by the staff at your centre. Your assessment could be in the form of:

- presentations
- case studies
- practical tasks
- written assignments.



Ryan, 14 years old

I've been interested in construction for a while. Just by looking around me I already had a pretty good idea of the different types of building work that are done. This unit made me think about the areas that I had not realised were part of the construction industry, such as oil rigs and building and maintaining roads.

Before doing this unit I hadn't realised how many different jobs, roles and responsibilities were involved. We visited three different kinds of building site and met a range of people who work in the construction industry. I enjoyed learning about the different aspects of work that each role is responsible for and is involved in. It was a good area to explore because it made me think about the sorts of job that I might be interested in looking into when I leave education, and what qualifications I will need.

Over to you!

- Which areas of this unit might you find challenging?
- Which section of the unit are you most looking forward to?
- Which areas of this unit do you already have a basic understanding of?

1. Understand the diversity and complexity of the construction industry



Build up

One industry, many parts

The construction industry covers a great number of different activities. For example, a 3-D walk-through computer modelling of a building is a construction activity service provided by a design specialist. Take a few moments to reflect on what you know about the construction industry and create a list of all the different activities that you think form a part of it.

1.1 Activity areas

Building

Building is the general terminology used for construction; it covers a wide variety of construction work, for example, a garden wall, a single building or project, or a housing estate of 250 homes.

Architecture

This is the design side of construction. It relies on professional architects and technicians who provide a design service for clients and strive to produce a design that meets the needs of the client, while being eye-catching and sustainable. In the UK there is a wide range of architecture spanning hundreds of years, from old buildings that survived the Great Fire of London to modern cities, such as Milton Keynes.

Planning

Planning is the process of controlling a built environment project. Quality planning is essential to every construction or building project. A built environment project requires labour, plant, materials and sub-contractors. Planning is necessary to coordinate, control, forecast and communicate a contract programme. A plan enables smooth progress of production on site, highlights problems that need to be solved and helps keep everyone informed and updated.

Surveying

This is the activity of measuring the land, the building and any external works, as well as the setting out of the building, its associated external works and any other items needed to be placed in position relative to the architect's drawings. Surveying requires the use of tools such as levels, tapes and theodolites to measure lengths and angles, and to

Key term

Surveying – measuring an area to establish its size and shape.

calculate areas and volumes. The people involved in this activity are known as surveyors.

Civil and structural engineering

This activity area involves considerably larger projects that are not classified as buildings, for example:

- large earthworks such as motorway embankments and cuttings
- water works such as reservoirs and harbours
- large concrete works such as dams
- other infrastructure works such as roads and railways.

The people who are involved in this work are known as civil engineers.

Structural engineering is the process of using mathematics to design and detail a structure in order to make it stable, able to support its loads and safe for the occupants.

Building services engineering

This covers the services that support a building, for example, the heating, lighting and waste disposal. Services can be simple or very complex, for example, lift systems, escalators, intelligent boiler systems and automatic window-opening systems. Some services, such as fire alarms, continuously monitor the surroundings to keep occupants at the right temperature, comfortable and safe.

Facilities and estate management

A building needs to be maintained (looked after) during its life. Some items need to be replaced when they wear out or break, and others, such as fire extinguishers, must be replaced more frequently for safety reasons. An estate manager oversees a team of people who undertake the care and maintenance of a large commercial building, for example, a college or university.

Facilities management involves letting out to contractors various activities that occur within a building, and managing and monitoring their performance. For example, in a large hospital complex, the cleaning, portering, air conditioning and laundry may be run by several contractors under the direction and control of a facilities manager.

Key term

Facilities – any activity required for the running and operation of a building.

Highways engineers

Highways are the road networks of the UK. They include every size of road, for example, small estate roads, major trunk roads, dual carriageways and motorways. Highways engineers are responsible for the construction of this infrastructure in accordance with drawings and safety legislation. This involves setting out and monitoring the work, as well as the construction and maintenance of the roadway and any bridges over it.

Did you know?

There are approximately 250,000 miles of road in the UK.

1.2 Client types

Private

Private clients are sole traders or domestic clients who would like to have a house building altered, extended or maintained. They enter into private agreements with a builder to undertake the work. The private client may have an architect who has produced the drawings if planning or building regulations require this.

Commercial

A commercial client is a factory or business that needs to undertake building works in order to produce a product or process. For example, a fast food company needs an outlet to sell its products from. The outlet usually has to be built quickly, and to be maintenance-free and adaptable. Small industrial factory units are commercial buildings that provide products and services. These small-to-medium enterprises add considerably to the UK economy.

Public limited companies

A public limited company, such as a bank, is one that trades on the stock exchange and is owned by its shareholders. A bank could have hundreds of branches that all need to be maintained and looked after and upgraded by refurbishment from time to time. It is also likely to have a large headquarters in a major city, which will need similar work doing.



Did you know?

A public limited company has the same initials (PLC) as a private limited company.

The Government

The Government can issue work at three different levels: through local councils, devolved administrations (Welsh Assembly and Scottish Parliament), and central government. Local councils have duties to construct and maintain services. They can issue work such as the following:

- constructing schools
- maintaining highways
- replacing windows
- maintaining houses
- carrying out building works on council properties.

Devolved administrations can instruct major capital works such as the new parliament buildings or infrastructure works.

Central government departments, such as the Ministry of Defence (MoD), or bodies such as the Highways Agency or National Health Service, purchase a great deal of construction services, usually using intermediate companies who specialise in managing large building projects.



Assessment activity 1.1

P2 D1

You have just started your work experience week for a local architectural office. Your supervisor keeps mentioning the word 'client'. Your supervisor, seeing that you have a lack of knowledge in this area, asks you to complete the following tasks as part of your work experience report.

- 1 Identify and compare the different clients that use the construction industry to produce their construction projects. **P2**
- 2 Produce a short evaluation report of the kind of work that private, commercial and government clients commission. **D1**

Grading tips

- 1 To achieve **P2** you could include references to private, public and commercial organisations. Look around the built environment in your local area and try to identify the clients who would have commissioned the buildings so you can make a list.
- 2 To achieve **D1** you could give a detailed example of each of the three types of client, showing the differences between them and exploring why each one is typical of that type of client.



PLTS

Creative thinker generate ideas of who different clients could be

Independent enquirer explore the needs of different clients



Functional skills

ICT use a computer to research your evaluation report

1.3 The range of work undertaken

Table 1.1: Examples of the work undertaken for different types of client

Area of work	Description of work
Agricultural	Farm buildings to house livestock and store feed (designed by specialist building designers)
Commercial	Factory units, private hospitals, and production facilities for business enterprises
Educational	Buildings for schools, colleges, academies and universities. The Building Schools for the Future (BSF) programme is currently rebuilding a large number of schools throughout the UK.
Health	Private, National Health Service and Community Services hospitals are a large work activity area that continually changes with the development of new technologies.
Industrial	Large-scale heavy industrial factories, for example, oil refineries, provide a great number of different construction opportunities from civil engineering to construction of associated offices.
Public buildings	Local council public buildings, for example, council offices, town halls, libraries and distribution depots; national public buildings, for example art galleries, museums and other facilities
Recreational and leisure	Facilities for the community, for example, fitness clubs, leisure clubs, sports facilities, pavilions and community sports projects. They are sustainable developments that have been funded by government grants and the lottery.
Residential	Domestic housing i.e., new homes and extensions and affordable rented accommodation for Housing Associations
Retail	Retail out-of-town units, inner-city shopping refurbishments and high-street shop developments
Transport infrastructure	Roads, railways, tram systems, underground trains, motorways and bridges
Utilities	Installing, maintaining and repairing the infrastructure of the UK's utilities (water, electricity and gas)



PLTS

Independent enquirer develop questions and ask them of the guest speaker

Reflective learner use what you learn on site to inform your report



Functional skills

English use your writing skills effectively to produce your assignment



Assessment activity 1.2

P1 M1

Your tutor has asked in a guest speaker who is a local construction contracts manager to talk to you about the range of work that is undertaken by the construction industry. As a result they have invited the class to visit a local construction project where you will meet the various personnel involved in its construction.

- 1 Write a short assignment describing the range of work that is undertaken by the construction industry. **P1**
- 2 Site manager, health and safety officer and architect are three of the many roles within the construction industry. Produce a short report that clearly distinguishes between the roles and responsibilities for supervision, safety and design on a project. **M1**

Grading tips

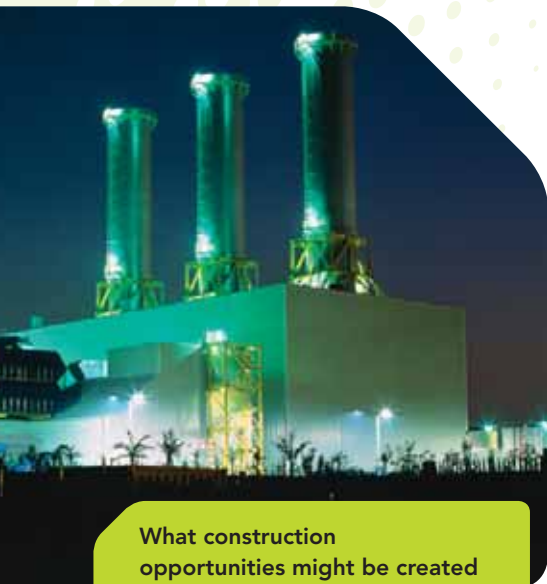
- 1 To achieve **P1** you could do some research into UK construction statistics.
- 2 To achieve **M1** make sure that you clearly distinguish between the roles and responsibilities for each of the three different people. You might decide to display this information in a table, e.g., job, role, responsibility.

2. Know the contribution the construction industry makes to our social and economic well-being

2.1 The construction economy

Economic benefits of construction

The UK construction industry makes a valuable contribution to the UK economy. Constructing the built environment creates jobs before (in the planning stages) and during construction. Once the works have been completed, more people are able to move into an area. The construction of factories and retail units also provides business opportunities. The construction industry employs over 2 million people in many different roles and uses a great number of suppliers for materials and plant, along with many different specialist subcontractors. It is a massive economic operation.



What construction opportunities might be created by new energy technologies?

Inner-city regeneration

Many of our inner-city centres have been run down with little or no investment as large retail parks have been developed and constructed outside the city centre. This has led to a decline in the take-up of shops, office space and housing developments in city centres. With the injection of regional enterprise funding from Europe and the Government, many inner cities are experiencing a new lease of life. In Leeds, for example, a housing boom has led to the development of many multi-storey flats.

Key term

Regeneration – redevelopment of land or the upgrading of older, rundown areas.

The housing market and property wealth

From the late 1990s to 2008, in the UK, the boom in housing brought about by the low cost of finance, coupled with the substantial rise in the average price of a house, produced wealth for many individuals and developers. The housing boom slowed considerably in 2009 as the global economic situation changed.

GDP

Gross domestic product (GDP) is a measure of the total expenditure of a country on goods and services within a certain time (normally a year). The construction industry contributes about 8 to 10 per cent of the UK's GDP.

Local and national contributions

Locally, the construction industry provides employment through projects, and creates a market for local plant and materials suppliers and all of the ancillary service areas that are required, such as waste skips and accommodation for workers.

Nationally, the construction industry undertakes work on infrastructure projects such as motorways and railway upgrades, sports stadia, for example, the Olympic Stadium, and contributes through the tax system to the wealth of the UK economy.

Did you know?

The UK construction industry:

- has an annual turnover of more than £100 billion
- accounts for almost 10% of the country's GDP
- employs two million people in more than 250,000 different companies.

2.2 The social economy: social benefits of construction

Security

Users of the built environment need to feel safe in their homes, at work and during social hours. Building regulations and other legislation ensure that safety is designed into a structure.

A low crime rate will make an area more attractive to potential investors, who bring in wealth to develop an area.

Key terms

Added value – a value that has not cost you anything directly but which has provided a second value to a project.

Aesthetics – a pleasing or beautiful appearance.

Added value

Adding value to a project can be done in several different ways, for example, by providing ample parking facilities that could be used when the offices are closed on Saturdays to support the local retail market and investment. Adding value is often a difficult item to consider when looking at the economic benefits of constructing the built environment.

Crime reduction

Investing in the built environment can help to reduce crime. Examples include investing in new infrastructure, community centres, CCTV systems, regular police patrols, designing out blind spots, the use of security lighting, and locked and gated communities.

Aesthetics

England has a rich history of excellent design. Historic buildings blend in with new skyscrapers, especially in the capital city of London. If you make an environment an attractive place to live then it will socially benefit the area as people then have a sense of belonging.

Urban renewal

Many areas have been subject to funding on 'enterprise action zones' and 'urban regeneration'. They use European Union (EU) and Government funds to demolish and rebuild old inner-city areas and breathe new life into them with a modern and attractive built environment.

Quality standards

Quality is achieved in the built environment through building regulations, planning legislation, British standards and commercial standards of quality design and construction.

Social contribution

The sustainability of a project can be enhanced by getting the local community involved and actively participating in the project. This gives a project a key sustainability factor. An example of this is the development of a sustainable housing estate where no cars are allowed.



The architect loved their design of this example of urban regeneration so much that they bought the top floor

Did you know?

All new buildings in the EU may have to comply with zero carbon building standards by 2019.



Assessment activity 1.3

P3 M2

The architect in your design office has been working with a client who has local and national offices which are to be refurbished with new shop fronts on a rolling programme.

- 1 Produce a report to describe the social and economic benefits of the refurbishment programme in both national and local terms. **P3**
- 2 Expand your report to consider the social and economic contribution made by different areas of the built environment sector, namely civil engineering, architectural design and housing development. **M2**

Grading tips

- 1 To achieve **P3** make sure that your local and national benefits are clearly two different areas that do not contain the same items.
- 2 To achieve **M2** make sure that you clearly distinguish between the sector areas. You might decide to display this information in a table.



PLTS

Creative thinker get ideas from your own experience and those of friends

Independent enquirer plan your research and evaluate your findings



Functional skills

ICT use the internet to research the benefits of the programme

3. Know about human resources in the construction industry

3.1 Roles and responsibilities of members of the construction team

Figure 1.1 below shows some of the responsibilities of the client and their design team at the design stage of the work.

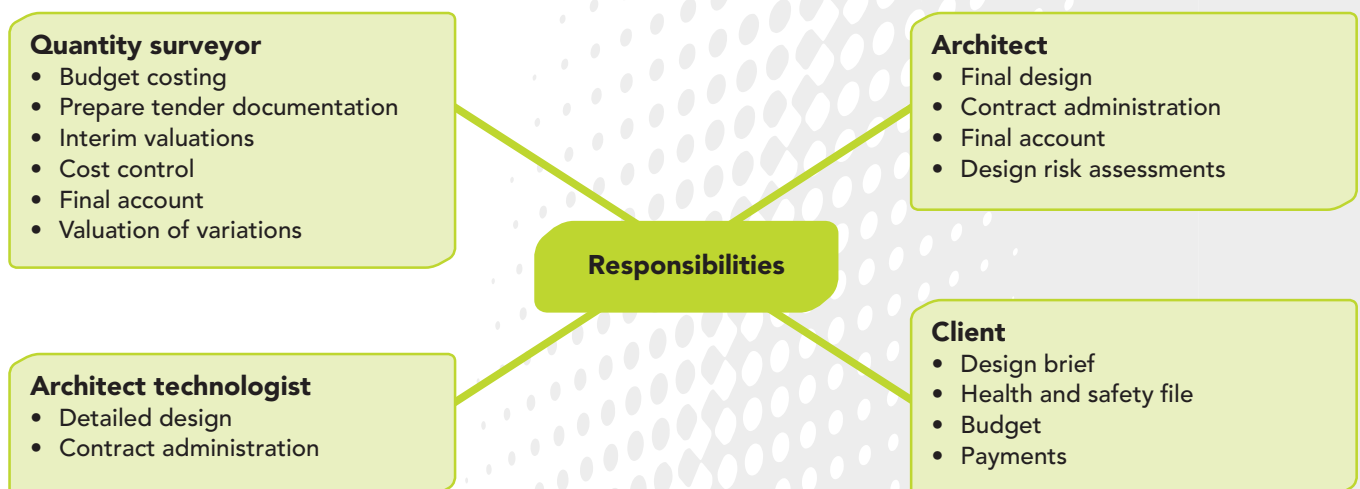


Fig. 1.1: Responsibilities of different team members in a built environment project

Building surveyor

A building surveyor may be responsible for a number of areas, for example, valuation of property for lenders, scheduling building defects, refurbishments and undertaking different types of building surveys, such as home information packs.

Land surveyor

This person deals with the measurement of land, which may involve the setting out of structures on the land in accordance with architects' drawings. Land surveyors often produce maps of the areas surveyed so that architects can make an accurate design for a structure.

Clerk of works

This person is often employed by a client to inspect, test and ensure that the construction work conforms to the quality standards that the designer requires. In effect they are the client's eyes and ears on the construction site.

Figure 1.2 on page 13 illustrates a typical construction site with the personnel who are involved with its supervision and running and their responsibilities during this period.

Estimator

This person is responsible for preparing the price or estimate of the cost of the work from the tender package prepared by the client's quantity surveyor. This estimate has to be carefully prepared to ensure that the best prices are obtained for materials and from subcontractors.

Buyer

As the name suggests, once a contract has been won, the buyer is responsible for purchasing all the materials from suppliers. The buyer has to ensure that the materials are delivered on time and within the estimator's costs stated in the tender.

Consulting engineers

These are engineers who work on the structure and its services, for example, mechanical and electrical design. They are highly qualified and specialist personnel who are required on complex projects.

Subcontractors

The subcontractor will be responsible for their package, for example, plastering, windows, electricals, plumbing or flooring. They have to work safely to the construction programme and produce work that meets the specification.

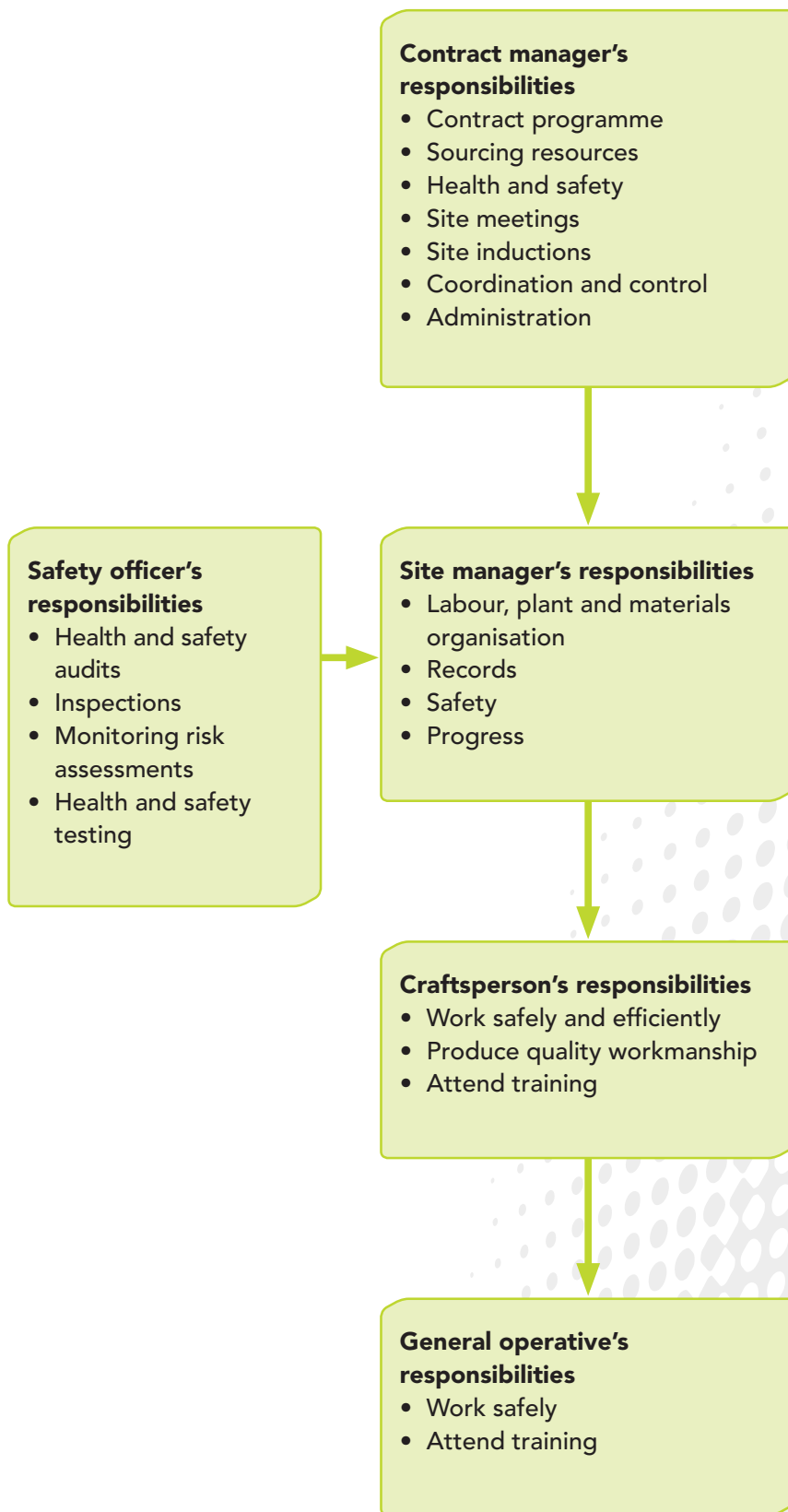


Fig. 1.2: Typical construction site set-up, detailing each role's responsibilities.

3.2 Interaction between team members

Simple organisational frameworks (top-down and flat structures)

Within an organisation, a management structure is used to control the business. This has various layers of management, with the most senior manager at the top of the tree.

Figure 1.3 below illustrates a top-down structure of management for a typical construction business. A top-down structure is more like a pyramid with several layers of management. Figure 1.4 below illustrates a flat structure of management. A flat management structure does not have as many layers as a top-down structure.

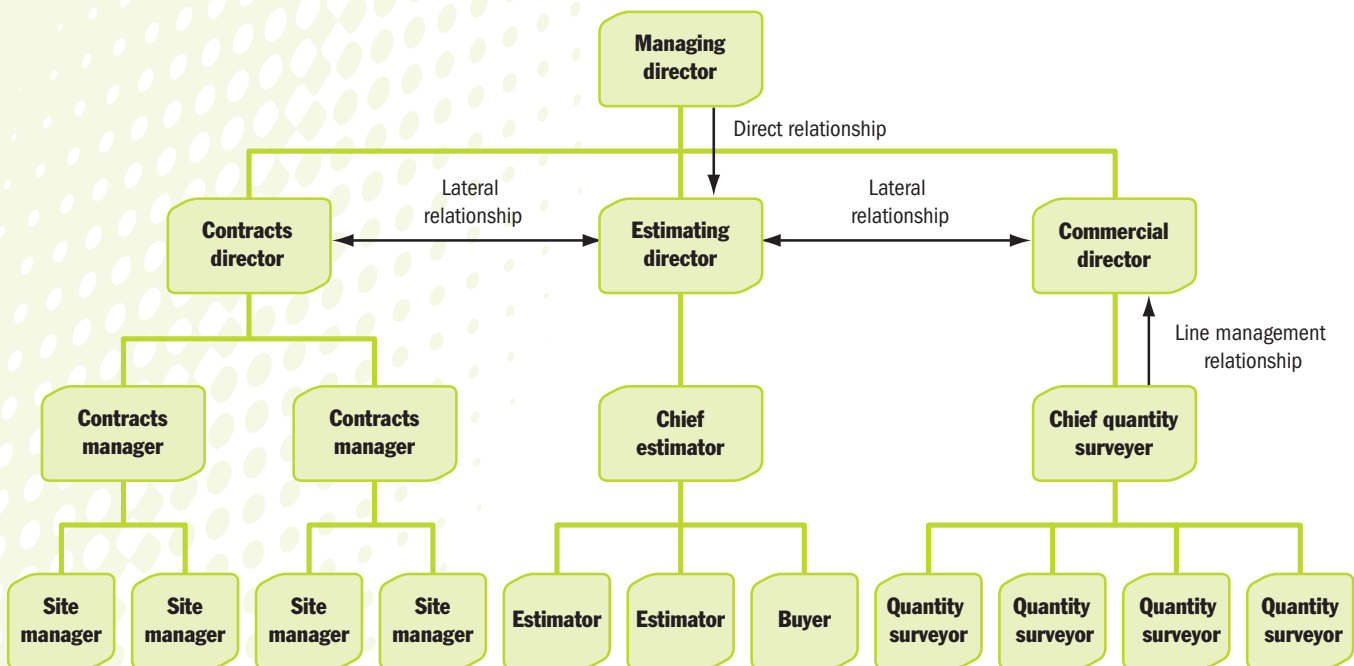


Fig. 1.3 A typical top-down structure

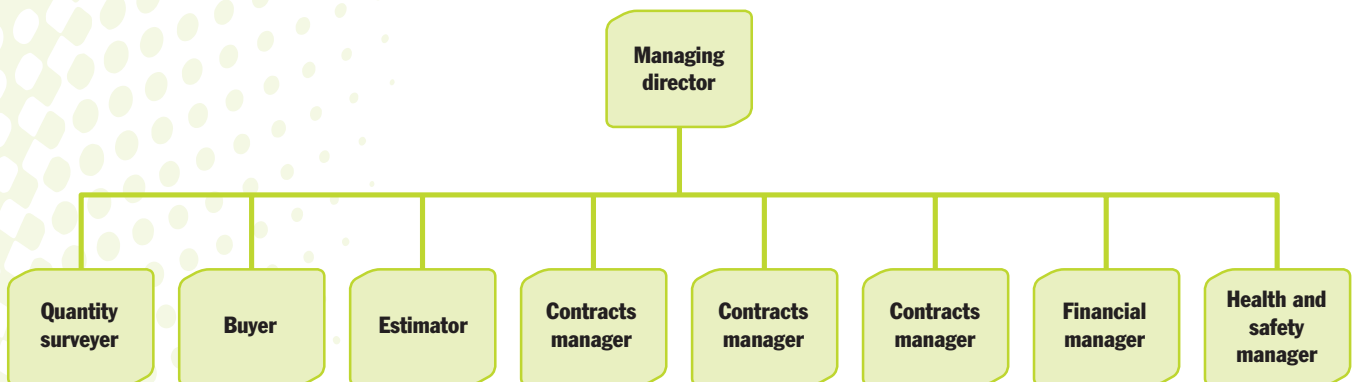


Fig. 1.4: A typical flat management structure

Direct and lateral relationships

The Managing Director in both of the structures has a direct relationship vertically downwards. This person is at the top of the structure and is the sole person in charge of the business. A lateral relationship is one which has people at the same level, for example, all the directors below the managing director are at the same level of responsibility. (See Fig. 1.3 on page 14.)

Service and line management relationships

Service or functional relationships involve people who work within a certain function, for example, the contracts director is responsible for the contracting side of the business, which includes the contracts managers and the site managers.

A line manager is the person to whom you report and take instructions from, for example, the quantity surveyor (QS) reports to the Chief QS who reports to the Commercial Director. (See Fig. 1.3 on page 14.)

Valuing others

Ensuring equality and diversity within an organisation helps to promote an excellent working environment for employees. Managers must value their workers and vice versa. Giving equal opportunities to all, and incorporating this into company policy, ensures that a company meets the employment laws of the UK.

Provision of safe working environment

Making workers safe is vital and is covered by the **HASAWA** (1974) which protects workers from harm. Employers have a legal duty to:

- keep all employees safe whilst at work
- provide all employees with personal protective equipment (PPE)
- undertake accident-prevention measures.

Key term

HASAWA – Health and Safety at Work etc. Act (1974).

Investment in staff training and development

Investing in staff and making them feel part of a team is a management skill that produces high levels of productivity from workers, and makes them feel motivated and competitive. Investors in People is a national award that recognises achievement in this area.

**PLTS**

Self-manager organise your time and resources well

Reflective learner adapt your communications to different audiences

**Functional skills**

English use your reading skills to gather and use information

**Assessment activity 1.4****P4 P5 D2**

The marketing manager at the construction company you are working for has asked you to produce some materials that can be given to schools to promote recruitment for future apprentice positions.

- 1 Produce an A5 poster that identifies the people who work in the construction industry. **P4**
- 2 Expand the content into a leaflet covering each identified person to include a description of their roles and responsibilities. **P5**
- 3 Produce two visual charts of different organisational frameworks that show the interactions between construction team members on a typical construction site and head office. **D2**

Grading tips

If you get chance to visit a construction site, ask for a copy of the management structure.

- 1 To achieve **P4** you could differentiate between operatives, craftspeople, technical, supervisory, managerial and professional personnel.
- 2 To achieve **P5** you could make sure that you differentiate between all the different types of personnel.
- 3 To achieve **D2** you could include description of how each organisational framework operates and where its use is most appropriate.

4. Know about careers in the construction industry

4.1 Career paths

There are many career paths to follow within the construction industry. Some of them are discussed below.

Professional

This tends to be a designated role, for example, an architect, quantity surveyor or structural engineer who has qualified professionally by passing exams to become a member of a professional organisation. The professional organisations are discussed later in this section.

Technical

In management, this position is often known as a technician. It is an intermediate position and is someone who has a technical knowledge of construction but is not a fully qualified professional. For example, an architectural technologist produces CAD (computer-aided design) drawing details around the main design that has been created by the architect. This is a common career pathway within the construction industry.

Craftsperson

Apprenticeships, in which you learn the trade over several years, are a good way to become a fully qualified tradesperson in the traditional crafts of joinery and brickwork. Some of the more specialised modern apprenticeships include plumbing, electrical work, roofing and plastering. Craftspeople use their hands to produce work which is classified as 'skilled'.

General operative

This is essentially semi-skilled working and involves those construction operations that require manual labour. Excavations, concreting, drain laying and external works are all jobs that would be undertaken by general operatives. The skill level in general operatives is recognised if they can finish concrete or power float, or undertake duties above that of a general labourer.

Bridging arrangements for progression from craft to technical occupations

By undertaking a Level 3 qualification, people in craft roles have the potential to progress to a supervisory role, move onto a higher national certificate (HNC), foundation degree (FD) or degree, and become a fully qualified Contracts Manager, should they so wish. There is also a wide range of NVQs which provide the opportunity to learn whilst training at work to become qualified for a technical role.

4.2 Professional career pathways

There are several professional organisations that serve the UK construction industry:

- Royal Institute of British Architects (RIBA)
- Chartered Institute of Building Services Engineers (CIBSE)
- Institute of Civil Engineers (ICE)
- Royal Institute of Chartered Surveyors (RICS)
- Chartered Institute of Building (CIOB).

Key term

Apprenticeship – a programme of learning and qualifications, completed in the workplace and college or training centre, that gives young people the skills, knowledge and competence they need to progress in their chosen career or industry.

Key term

Professional – a person whose occupation requires specialist learning.

Did you know?

The RIBA is more than 175 years old and has over 40,000 members worldwide.

They provide professional status that is recognised worldwide. Table 1.2 illustrates the main professional bodies in the UK construction industry and lists the type of professional who could become a member of each organisation.

Table 1.2: The professional bodies for professionals in the construction industry

Professional body	Type of professional
Royal Institute of British Architects (RIBA)	Architect
Chartered Institute of Building Services Engineers (CIBSE)	Building services engineer
Institute of Civil Engineers (ICE)	Civil engineer
Royal Institute of Chartered Surveyors (RICS)	Building surveyor Land surveyor Quantity surveyor Site manager
Chartered Institute of Building (CIOB)	Contracts manager

4.3 Benefits of professional pathways

There are many benefits of professional career pathways. Some are outlined in Table 1.3 below.

Table 1.3: Benefits of professional career pathways

Benefit	What it means
Professional approach	Membership of a professional body helps to project the right image and approach to working with construction clients and shows that you follow the association's codes of conduct on how to behave.
Reputation	If you have professional letters after your name then clients are able to tell that you have spent time qualifying and meet professional standards.
Lifelong learning	Continuous professional development (CPD) has to be undertaken by members of associations so their knowledge of their industry remains up to date.
Advancement	Advancing through the levels of management and achieving a professional status is motivating and gives you a sense of achievement.
Promotion prospects	Professional roles are the highest point within a career progression and are a point to aim for.
Salary	A professional person is normally paid a salary higher than a person in a technical or craft position in line with the expertise, skills and years of training they have undertaken.
Position	Being a professional gives you a standing or status within an organisation.
Ability	The ability of a professional is supported by the organisation that they belong to, which has strict entrance qualifications and requires a certain level of experience to be attained before full membership is given.
Client relationships	Clients will use a professional because of the experience and knowledge that this brings to the design and construction of a project

4.4 Training and education

Training

There are several ways to train construction personnel:

- on-the-job – learning by undertaking the work through an apprenticeship
- off-the-job – learning away from work on block release, for example, at a local college
- attendance at college – taking various qualifications alongside work
- distance learning – learning not by attending college, but by working through guided tuition, for example, a course online
- open learning – distance learning courses with no set timeframe that you study at your own pace.

Accredited qualifications

There is a wide range of accredited qualifications that can be worked towards:

- Apprenticeships – work-based qualifications that can be started at age 16
- Diplomas – a suite of Foundation, Higher and Advanced qualifications for learners aged 14–19
- certificates – part-time qualifications taken while working
- degrees – full-time or part-time university-awarded qualifications
- professional qualifications – the exams required to gain full professional status
- CPD – the ongoing lifelong learning associated with your professional qualification status
- short courses relating to new developments – for example, Construction (Design and Management) regulations (CDM) 2007
- licences to practise – for example, Construction Skills Certificate Scheme (CSCS) cards, Gas Safe membership.

**PLTS**

Independent enquirer evaluate the information you find on professional websites

**Functional skills**

English use your reading skills to compare and select the best information

**Assessment activity 1.5****P6 M3**

You have been asked by Connexions to help put together an information and guidance pamphlet on careers in construction as you have been working for a construction firm for over five years.

- 1 Identify the qualifications, training and development needed to support an architect, contracts manager and technician in the construction industry. **P6**
- 2 Explain how operatives and craftspeople can develop their careers and progress to a technical or professional role in a given area of activity. **M3**

Grading tips

- 1 To help you achieve **P6** you could visit the RIBA and CIOB websites where you will find information on the education and qualifications that are required to become a professional member.
- 2 To achieve **M3** you could consider the various qualifications and forms of training that can support progression.



Training on the job through apprenticeship schemes is a common route into jobs in the construction industry. Which route would you choose?



Simon is a joiner who works with a local construction company. He started work at 16 as a modern apprentice straight from school, spending four days at work under the guidance of a qualified joiner and one day at the local college to complete his NVQ Level 2.

Simon now has six years of site experience and is ready to step up the career ladder into running construction sites and to take on the responsibilities that come with such supervision.

Simon has discussed this with his boss at work, who has said that he would support Simon with this career progression, but Simon must go and seek advice and guidance on how to accomplish this.

Simon's first call should be to a local college to seek information on the Level 3 supervisory qualification, which is the next step on from the Level 2 qualification that he has.

There are two ways of doing this, either an NVQ Level 3 or a National Certificate in construction. Either will give him the necessary skills as he climbs the management ladder. From this he can progress onto a CIOB site manager course, an HNC Construction course or a FD Construction course, and eventually complete a degree if he wishes to take it that far.

Simon needs to talk to his boss about taking on some additional responsibility at work so he can get used to running small projects and then develop experience to take on much larger projects.

Simon will need to take on some health and safety responsibilities, the control of drawings, specifications and instructions and labour management on site. He must get used to issuing instructions, ordering materials and plant and ensuring that work progresses as agreed with the client. Communication is the most important skill that he must develop in order to assist with his work as a supervisor on site.

Think about it!

- 1 How long will it be before Simon can be qualified?
- 2 What other routes could Simon take to develop his career?
- 3 Where can he get more information from?

Just checking

- 1 What is surveying?
- 2 What type of work can local councils issue?
- 3 Why are some inner city areas in need of regeneration?
- 4 What are the social benefits of construction?
- 5 What does GDP mean?
- 6 What does 'added value' mean in relation to a construction project?
- 7 What is the difference between a flat management structure and a top-down management structure?
- 8 What is a lateral relationship?
- 9 What does 'professional' mean in terms of construction job roles?
- 10 List four benefits of joining a professional association.

Assignment tips

- Use the internet to research professional bodies.
- If you're interested in a career in the construction industry, find out about the level 3 construction courses available in your area. What sort of careers could they lead to?
- Find out about any local regeneration projects. What were the aims of each project?
- If you go on a site visit or if a site manager comes to your school/college:
 - research the company beforehand
 - prepare a list of questions to ask the people that you might meet, for example, you might ask the manager how they started in construction, or you might ask a general operative what they plan to do next
 - try to note down as much information as you can about the activities you see happening on site
 - ask the site manager if there is any literature you can take away.