



# Construction

# Building the world around us







## Construction

# Contents

- 3 What is Construction?
- 4 Stats & Facts: Did you know?
- 6 What are the career pathways & job roles?
- 8 Construction: Job Roles
- 10 Getting Into: Construction
- 11 Test Your Knowledge





The construction industry, sometimes called the built environment sector, is responsible for designing, building and maintaining the human-made structures around us, from buildings to bridges and railways.



Construction covers everything from start to finish in a building project, including planning and sourcing sustainable materials, ensuring safety and monitoring efficiency, and the different manual labour tasks that happen on construction sites.

From building someone's dream home or restoring a historic museum to producing the green factories of tomorrow, the construction sector is continually developing, restoring or maintaining our built environment.

The sector covers all built structures, so this career could lead to a wide range of opportunities in residential, commercial, industrial, or infrastructure industries, where you could undertake projects for individuals, businesses, or the public sector.

Whether you're innovating new green building designs as an architectural technologist, managing paperwork for exciting new building projects as a contracts manager, or using practical skills as a labourer, a career in construction means shaping and improving the world around you.

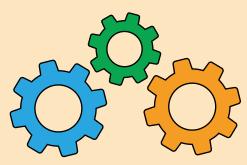
## **Stats & Facts**

# Did you know?

# Construction in Liverpool City Region:

- £1.2bn is generated annually by construction in the region.
- We are known as a 'gateway city' because of our impressive infrastructure.
- Approximately 47,000 Liverpool City Region residents work in construction.
- In the last 20 years, construction added
   £25bn to the regional economy.





# Construction in action in the Liverpool City Region

- Peel L&P and other companies, including Starlight Investments and Romal Capital, have contributed to the Liverpool Waters project, a thirty-year transformation of the city's northern docks that plans to revitalise the waterfront with shops, accommodation, leisure sites, offices, and an international football stadium.
- Alongside the Liverpool Waters project, Wirral Waters will regenerate the waterfront at Birkenhead, becoming an enterprise zone that could offer future sustainable infrastructure projects producing tidal energy.
- Up to £259m will be invested in the Liverpool City Region's construction sector, aiming to build up to 26,000 homes and make dozens of public buildings more energy efficient.
- Capital & Centric is leading the renovation of the historic Littlewoods cinema building into a brand-new media hub complete with film & TV studios, offering exciting construction opportunities for contractors.
- Liverpool Baltic Station is undergoing a £100m revitalisation, while the wider rail network is being improved by adding three new stations at Daresbury (Halton), Woodchurch (Wirral), and Carr Mill (St Helens).

# **Construction Good to know**

# What are the different types of construction?

There are four main areas of construction:

- Industrial construction focuses on large buildings like factories and manufacturing plants.
- Residential construction builds places for people to live.
- Commercial construction is for businesses, producing office buildings and shops.
- Infrastructure construction is the backbone of the built environment, including roads, bridges, and railways.

# What role does civil engineering play in construction?

Civil engineering knowledge offers the specialist skills and expertise needed to design, plan, and complete construction projects more efficiently in the built environment.

## CSCS card for working in construction

Reputable contractors require that their construction workers have a Construction Skills Certification Scheme (CSCS) card.
The card proves you have the skills and qualifications to do your job in construction.
There is an apprentice CSCS card too.

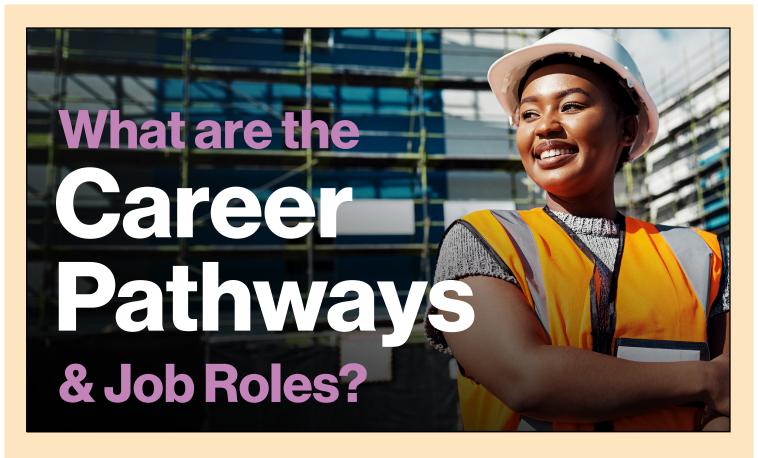




# Built Environment

The human-made structures, features, and facilities created and maintained to support people's lives, work, and health, collectively considered a distinct environment.

(Oxford English Dictionary)





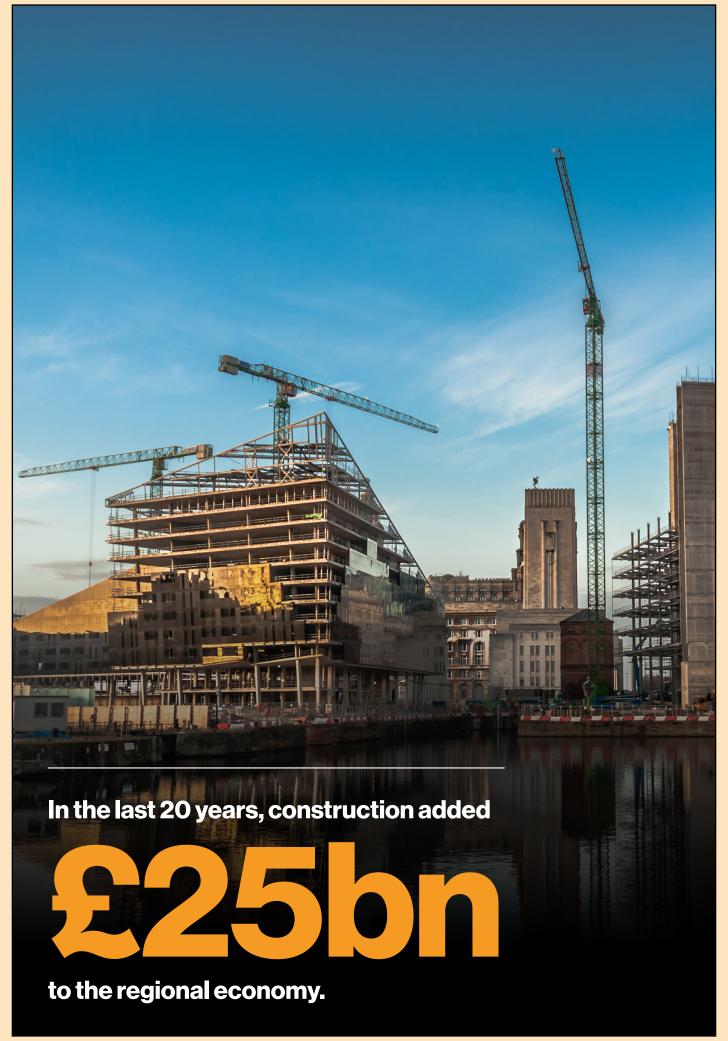


# Construction career pathways

In an entry-level job, you could be placed on a construction site, laying foundations as a bricklayer or protecting structures as a roofer.

A mid-level role could see you working with specialist materials or bespoke installations as a craft plasterer or carpenter. As your career progresses, you could develop management skills to become a construction site supervisor or a construction project manager.

Experienced individuals with knowledge and understanding of sector regulations or specialisms can advance into higher-level roles, such as building control officer or civil engineer.



# Construction Job Roles

There are hundreds of different job roles in construction. Here's just a sample:

Position	Role & tasks	Salary
Bricklayer	Lays bricks and blocks using traditional or modern construction methods. Uses mortar and tools to prepare and assemble bricks. Follows project plans and specifications to complete required designs. Checks building alignment and uses tools to shape and trim building blocks safely.	Up to <b>£25,000</b>
Demolition operative	Utilises safety knowledge to knock down structures in the built environment. Uses hand and power tools to demolish buildings and surfaces. Follows proper procedures and methods, interpreting regulations and survey data.	Up to <b>£30,000</b>
Painter and decorator	Prepares and covers the inside and outside of properties and structures with wallpapers, paints, coatings, and more. Works at all heights, sometimes using scaffolding or ladders to reach surfaces safely. Uses a variety of specialist tools and materials including sprays, brushes, varnishes, and fillers.	Up to <b>£32,000</b>
Digital engineering technician	Uses IT skills to provide detailed solutions to make building projects more efficient. Makes digital models and presentations of data. Assesses and records the project's environmental impact, using models to demonstrate sustainable construction methods.	Up to <b>£40,000</b>
Transport planner	Provides technical support in planning, design, and construction or assessment of transport projects.  Plans and carries out data collection and analysis, reporting any findings. Uses IT software to complete tasks, including making digital models. Considers social, environmental, economic impact of transport projects.	Up to <b>£44,000</b>



Position	Role & tasks	Salary
Construction site supervisor	Oversees workers on construction sites and projects using management skills. Ensures compliance with safety measures and understands the importance of risk assessments. Uses further knowledge of construction methods, materials, and quality to ensure projects are completed to the required standard.	Up to <b>£45,000</b>
Land surveyor	Measures and collects data relating to land by carrying out site inspections. Informs clients about land, property, and construction. Understands construction methods and how land can be utilised. Provides information on the environmental impact of different construction materials.	Up to <b>£50,000</b>
Smart home technician	Installs and sets up modern home networks such as heating, ventilation, and air conditioning systems. Understands and follows project outlines and safety regulations. Replaces and fixes old hardware to maintain smart systems and devices within the home.	Up to <b>£55,000</b>
Civil engineer	Deals with complex engineering problems within an infrastructure. Uses in-depth knowledge of core areas of the built environment, such as materials and structural integrity. Works as part of a team of engineers to provide effective solutions to engineering issues using new technologies and research.	Up to <b>£65,000</b>
Architect	Designs new buildings and plans renovations of existing buildings. Uses highly specialised knowledge, including IT skills, to make plans using advanced methods and techniques. Follows strict industry regulations and construction rules. Communicates with clients and design team to meet client needs while following regulations.	Up to <b>£68,000</b>



#### At entry-level

You can train for an entry-level role with a college course leading to a diploma in construction operations. If you want to learn on the job, you can do a level 2 construction-related apprenticeship, such as carpentry and joinery or construction equipment maintenance mechanic. Beyond that, there are different level 3 apprenticeships to explore, including landscape technician or construction support technician.

#### At mid-level

To develop your skills for a mid-level or advanced job role in construction, you could take a higher technical qualification (HTQ) or degree apprenticeship to progress into management or supervising. Other options include a foundation degree in civil engineering or architecture to transition to different areas like project planning and sustainability.

#### At senior level

To carry out more complex roles, such as civil engineer, town planner, or chartered surveyor, you will usually require a university degree in the relevant specialism or a degree apprenticeship, such as construction site management. Higher-level courses will combine technical knowledge with practical skills and project management.

# Subjects to study at school & beyond

- Design & technology
- Maths
- Science
- Business
- Engineering
- ICT
- Architecture

# Core skills and knowledge to build

- Hand-eye coordination
- Attention to detail
- Safety awareness
- Problem-solving
- Project management
- Sustainability knowledge
- Teamwork

## **Test Your**

# Knowledge



(Answers on back page)

#### Q1. What is construction?

- A. Solely the work that happens on a construction site.
- B. A method reserved for new buildings.
- C. Everything involved in the process of maintaining and developing our built environment.
- **D.** The planning process behind building work.

## Q2. Which of the following are jobs in the digital and creative sector? (Tick as many as you wish)

- IT software
- Power tools
- Medical equipment
- Hand tools

## Q3. There are 1000 construction companies registered in the Liverpool City Region.

True or false?

Q4. Approximately how many Liverpool City Region residents work in construction?

# Q5. Which companies are investing in the Liverpool and Wirral Waters project? (Choose as many as you wish)

- A. Capital & Centric
- B. Starlight Investments
- C. Peel L&P
- D. Romal Capital

# Q6. Which of the following industries could a career in construction find you in? (Tick as many as you wish)

- Commercial
- Fashion & textiles
- Consumer goods
- Residential

Q7. Give an example of an apprenticeship or training course that could prepare someone for a role in construction.

Q8. What are the skills necessary for construction? Name three.

## Q9. What role does a civil engineer play in construction?

- A. Fits and maintains smart home systems.
- B. Prepares and lays bricks.
- **C.** Surveys construction sites.
- Plans, designs, and oversees projects for the built environment.

Q10. Construction has contributed £\_\_\_\_ billion in the past two decades to Liverpool City Region's economy.



Ouiz Answers

Q1. C

Q2. IT software, Power tools, Hand tools.

Q3. False — There are 4,000+

Q4. Approximately 47,000

G5. False — There are 4,000+

G6. Residential, Commercial

G7. Level 20 r 3 apprenticeship such as carpentry and

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in construction management or civil engineering,

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METRO MAYOR LIVERPOOL CITY REGION



