

Unit 55: Design Procedures in Construction

Unit code: H/600/0439

QCF Level: 3

Credit value: 10

Guided learning hours: 60

Unit aim

The aim of this unit is to give learners the opportunity to develop knowledge of the key personnel involved in the different stages of the design process. Learners will also gain an understanding of how a client's design needs are influenced by different constraints, the different stages of the Royal Institute of British Architects (RIBA) Plan of Work and the organisation of design teams to produce design solutions.

Learning outcomes and assessment criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit.

Learning outcomes	Assessment criteria
1 Know the roles and responsibilities of designers, advisers and regulators	1.1 Describe the roles and responsibilities of designers, advisers and regulators associated with building design
2 Understand how the client's design needs are influenced by technical, environmental and legislative constraints	2.1 Identify the design needs of the client
	2.2 Explain technical, environmental and legislative constraints on building design
3 Understand the different stages of the Royal Institute of British Architects Plan of Work	3.1 Explain the stages of the design and construction process in terms of the Royal Institute of British Architects Plan of Work
	3.2 Explain the purpose of the drawings required to support planning approval

4 Understand how design teams are organised to produce design solutions	4.1	Explain how design teams are organised
	4.2	Explain the use of design processes to achieve final design solutions

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Unit content

1 Know the roles and responsibilities of designers, advisers and regulators

Roles and responsibilities of designers: architect; architectural technologist; building surveyor; structural engineer; mechanical and electrical engineer; lift engineer; interior designer; exterior designer eg landscape architect, highways engineer

Roles and responsibilities of advisers: quantity surveyors; site investigation consultants; town and country planning consultants; environmental consultants; lighting consultants; project managers; management contractors; site managers

Roles and responsibilities of regulators: planning supervisors; health and safety officers; town and country planning officers; building control officers; environmental health officers

2 Understand how the client's design needs are influenced by technical, environmental and legislative constraints

Client's design needs: spatial requirements; aesthetics; quality assurance; budget; best value goals; time constraints

Technical constraints: technical details; buildability; quality issues; health and safety plans; planned maintenance requirements

Environmental constraints: environmental impact of design choices eg materials, methods, service installations, recycling; sustainability eg local, regional, global compliance

Legislative constraints: Building Regulations; town and country planning; health and safety

3 Understand the different stages of the Royal Institute of British Architects Plan of Work

Stages: design phase; construction phase; post-practical completion phase

Design phase: pre-contract design process; appraisal; strategic brief; outline proposal; detailed proposal; final proposal; production of information (including drawings); tender documentation; tender action; mobilisation

Construction phase: construction to practical completion

Post-practical completion phase: feedback; operation of building; maintenance and repair

4 Understand how design teams are organised to produce design solutions

Organisation of design teams: benefits of working in organised teams; shared expertise; coordination; communication; partnerships; interactions; traditional design-led

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procurement including role of design team, leading of process from inception to practical completion; modern design procurement methods including role of designer within modern procurement systems, project management, management contracting, design and build, design management within Private Finance Initiative (PFI) and Public-Private Partnerships (PPP)

Design solutions: final design agreed with client and planning authorities

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