

Liverpool John Moores University

Title: CONTRACT PLANNING, DOCUMENTATION & MOBILISATION
Status: Definitive
Code: **5612BEFDL** (123966)
Version Start Date: 01-08-2017
Owning School/Faculty: Built Environment
Teaching School/Faculty: City of Liverpool College

Team	Leader
Stephen Wynn	Y

Academic Level: FHEQ5
Credit Value: 20
Total Delivered Hours: 80
Total Learning Hours: 200
Private Study: 120

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	72
Tutorial	5

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	FORMAL EXAMINATION	55	3
Report	AS2	REPORT	45	

Aims

The aim of this module is to provide students with an introduction to the preparation and planning of appropriate contract documentation and the management of the supply chain to ensure an efficient and successful outcome to the contract. The module focuses on the use of contract documents within the construction industry in general and the building services engineering sector in particular. The module has been designed to identify the roles and responsibilities of manufacturers, material

and component suppliers, direct and nominated subcontractors and the companies that are directly employed by the client.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify the various types of contract documents that are required on a building services engineering or construction project and compare the contractual provisions within the various contract documents.
- 2 Describe how standards and quality are specified in building services engineering and construction work.
- 3 Evaluate and apply the contract documents to all stages of a building services engineering or construction project.
- 4 Analyse the functions and effects of the various types of supply chain management organisational arrangements used within the construction and building services engineering process.
- 5 Identify the available procurement systems in the UK, and understand the strategic organisational planning and decisions for an effective supply chain management.
- 6 Discuss the issues and implications associated with the size and scope of subcontractors, material suppliers and component manufacturers, trends in new production technologies and in the management and organisation of construction works. Analyse the procurement and contractual implications of the different forms of subcontract.
- 7 Analyse the work of the contractor in respect of supply chain management, determining methods of planning, purchasing, programming, progressing and payments. Evaluate the different kinds of supply chain management arrangements.

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

FORMAL EXAMINATION	2	4	5	6
REPORT	1	3	7	

Outline Syllabus

Contract documents:

Drawings: layout, content, evolution through the design process, priority of drawings, ownership, return of drawings

Forms of contract: types, articles of agreement, conditions of contract, appendices, priority of information

Bills of quantities: purpose, preparation, uses, contents, types, bills of approximate quantities

Specification: project specification, performance specification, schedules of rates,

Schedules: for the various items of M&E building services equipment and components.

Master programme: its preparation and information requirements

Co-ordinated Project Information (CPI): common arrangements for production information.

Specification of standards and quality:

Specification: purpose and use, as a basis for tendering, in ordering materials, goods and components, on-site by the contractor/sub-contractor, clerk of works and others.

Contents: quality of materials, standards of work, samples of materials and workmanship, testing of materials and work, description of the work to be executed, pricing by the contractor, materials quality: use of British Standards, workmanship standards: use of Codes of Practice, National Building Specification.

Contractual Provision:

Issues relating to contract documents: different forms of contract, issues relating to contract documents within the different forms of sub-contract

Contractual requirements: copies of contract documents, availability of documents on site, discrepancies between documents, ownership of design, design obligations legal framework obligations, reasonable skill & care and fitness for purpose, design obligations within the supply chain, obligations passed down to subcontractors and suppliers, other information, priority information. Disputes and how they may arise, use of contract documents and the methods used for resolving them.

Application of contract documents: pre-contract and post-contract phases, drafting of specifications through clear, concise and accurate descriptions of materials, workmanship, work to be executed, use of information technology and specialist computer software.

Drafting of specification clauses: understanding of the client's brief, liabilities of the parties involved, user needs and requirements. Legal rights and responsibilities, statutory controls imposed on the project, factors relating to the environment, planning and building control requirements

Types of supply chain management organisation: contractor employed subcontractors, specialist subcontractors, nominated subcontractors, named subcontractors, labour only, artists and tradesmen, suppliers, manufacturers, prime cost sums, provisional sums.

Classification: by activities and functions, types of organisations, work carried out, specialisation, trends and developments in practice, effects such as efficiency, effectiveness and economy of the construction process.

Suppliers and component manufacturers: subcontractors: types and functions, specialist and non-specialist firms, suppliers, size, scope, types, products, goods,

materials, components, availability of raw materials, labour only firms

Off-site manufacture: products, trends, development, innovation; work on site, effects of off-site manufacture, assembly on-site, quality, precision. Modularisation techniques and management of costs and value, being paid as "off site"

Skill requirements: labour needs, materials handling and equipment, training and development, research and innovation practices.

Different kinds of suppliers: nominated and named subcontractors, contractor employed subcontractors, labour only firms, directly employed firms on behalf of the employer, suppliers: nominated, named, direct, builder's merchants, design incorporated sub-contractors.

Procurement methods and arrangements: contractual conditions, tendering arrangements, main contract implications, forms and agreements, intentions of parties, commencement and completion, control of the works, payments, insurance, determination. Identification and managing risk, transfer of risk within the supply chain.

Procurement and contractual arrangements: client's requirements and priorities, methods of procurement, relationship between and procurement arrangements and variable factors including time, cost, performance and risk, trends of current use of procurement methods used for construction and the building services sector including partnering arrangements.

Planning: programming, progressing and control, work packages

Legal requirements: and responsibilities, within the contract and at common law

Planning: incorporation of supply chain management within the contractor's overall contract programme, preplanning, short term planning, stages in the planning process, value chains and their importance in the construction process

Purchasing: selection, orders, specification, quality, goods received, standards, ownership of goods and materials, maintenance

Programming: techniques used, bar charts, linked bar charts, network analysis, precedence diagrams, line of balance, co-ordination of firms on site.

Progressing: review, recording against the programme, delays, interim payments, cash and trade discounts, retention, final payments, set-off, provisions in the main and subcontract conditions.

Learning Activities

Lectures, tutorials, case studies.

Notes

This module is a key module for students pursuing the 'commercial' pathway of the Building Services Engineering programme. It aims to provide students with an introduction to the preparation and planning of appropriate contract documentation and the management of the supply chain to ensure an efficient and successful outcome to the contract.