



Republic of Rwanda  
Ministry of Education



## CONSTRUCTION SITE MANAGEMENT

**BDCCM501**

### Manage Construction Site

#### Competence

RQF Level: 5

Learning Hours



Credits: 7

Sector: Construction and Building Services

Trade: Building Construction

Module Type: General

Curriculum: CBSBDC5001-TVET CERTIFICATE V IN BUILDING CONSTRUCTION

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<b>Purpose statement</b>	This General module describes the skills, knowledge and attitudes required to perform construction site management. It is meant for learners who have successfully completed level IV in building construction and pursuing level V in building construction. At the end of this module, learners will be able to manage construction site documents, Conduct the management of construction activities, Prepare and manage contract with minimum supervision.				
<b>Leaning assumed to be in place</b>	Roof construction, Ceiling installation, Acoustic and thermal insulation, Ornamental finishing works and Scaffolding operations, Reinforced concrete design, ARCHICAD software				
<b>Delivery modality</b>	<b>Training delivery</b>	<b>100%</b>	<b>Assessment</b>	<b>Total 100%</b>	
	Theoretical content	30%	Formative assessment	30%	
	Practical work:	70%		70%	50%
	<ul style="list-style-type: none"> <li>Group project and presentation</li> </ul>				
	<ul style="list-style-type: none"> <li>Individual project /Work</li> </ul>	50%			
			Summative Assessment	50%	

### Elements of Competency and Performance Criteria

Elements of competency	Performance criteria
<b>1. Manage Construction-Site Documents</b>	1.1 Site documents are properly identified according to the project requirements
	1.2 Site documents are properly applied according to the project requirements
	1.3 Site document are properly filed according to the usage.
<b>2. Conduct Construction management Activities</b>	2.1 Scheduling of works is adequately elaborated based on work break down structure and timeline
	2.2 Site installation works are effectively conducted according to the project requirements
	2.3 Execution of Activities is systematically monitored according to the project scheduling
	2.4 Resources are effectively managed according to the quality required
	Contract terms and conditions are properly developed in accordance with project deliverables, duration and cost

<b>3. Prepare Contract</b>	3.1 Payment plan is correctly prepared in accordance with expected deliverable activities and timeline
	3.2 Amendments and addendum are properly prepared in accordance with work changes and timeline
	3.3 Possible contractual disputes and resolutions are thoroughly discussed in accordance with work requirements and contract terms
<b>4. Manage Contract</b>	4.1 Contract is properly negotiated in accordance with deliverables and timeline
	4.2 Work deliverables are properly invoiced based on contract payment plan
	4.3 Work handover is properly done in accordance with contract terms
	4.4 Certificate of completion is requested and issued in accordance to contract terms

### Intended Knowledge, Skills and Attitude

Knowledge	Skills	Attitude
<ul style="list-style-type: none"> <li>✓ Identify construction site documents</li> <li>✓ Identify contract types and contract elements</li> <li>✓ Identify and manage contract related risks and changes</li> </ul>	<ul style="list-style-type: none"> <li>✓ Interpret site documents</li> <li>✓ Prepare the schedule of activities</li> <li>✓ Prepare the site installation works</li> <li>✓ Negotiate favorable contract terms with the client</li> <li>✓ Draft and review contract document</li> <li>✓ Elaborate the schedule of works</li> <li>✓ Prepare the payment plan</li> <li>✓ Prepare invoices and make follow-up</li> <li>✓ Coordinate site activities</li> <li>✓ Prepare progress report</li> </ul>	<ul style="list-style-type: none"> <li>✓ Make right decision within project execution</li> <li>✓ Work under unexpected timeframe and conditions</li> <li>✓ Pay attention to project details</li> <li>✓ Work collaboratively with team to achieve set project requirements</li> <li>✓ Pay attention to contract details</li> <li>✓ Stay updated on contract management best practices</li> <li>✓ Maintain punctuality during the execution of the contract</li> <li>✓ Respect the contract clauses</li> </ul>

## Course content

<b>Learning outcomes</b>	<b>At the end of the module the learner will be able to:</b> <ol style="list-style-type: none"><li>1. Manage Construction-Site Documents</li><li>2. Conduct Construction Management activities</li><li>3. Prepare Contract</li><li>4. Manage Contract</li></ol>
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### Learning outcome 1: Manage Construction-Site Documents

Learning hours: 15 Hours

#### Indicative content

- **Identification of construction site documents**
  - ✓ Planning documents
    - ✚ Work program(planner)
    - ✚ Contract
    - ✚ Drawings
    - ✚ Bills of Quantity
  - ✓ Execution documents
    - ✚ Logbook
    - ✚ Request for information(RFI)
    - ✚ Confirmation of verbal instruction(CVI)
    - ✚ Site reports
    - ✚ Approved Drawings by competent Authority
    - ✚ Minutes of meeting
    - ✚ Instruction books
    - ✚ Construction site forms
  - ✓ Management documents
    - ✚ Approvals and inspections books
    - ✚ Purchase order
    - ✚ Goods receipt note
    - ✚ Tests reports and construction material specifications
- **Use of site documents**
  - ✓ Collect information about site resources
  - ✓ Filling of site forms
  - ✓ Monitor the progress of works
  - ✓ Manage quality of works

- **Filing of site documents**

- ✓ Prepare site documents checklist
- ✓ Classification of filing documents
  - ✚ Physical
  - ✚ Digital
- ✓ Applying filing method of site documents
  - ✚ Alphabetical method
  - ✚ Numerical method
  - ✚ Chronological method
  - ✚ Geographical method
  - ✚ Subject method
- ✓ Protecting site documents

**Resources required for the indicative content**

Equipment	<ul style="list-style-type: none"> <li>• Projector, Printer, computer, shelves</li> </ul>
Materials	<ul style="list-style-type: none"> <li>• Pens, pencils , Chalk board , papers</li> </ul>
Tools	<ul style="list-style-type: none"> <li>• White board, site documents, books, pictures, internet, notebooks, files</li> </ul>
Facilitation techniques	<p><b>Group discussions, Scenario</b></p> <ul style="list-style-type: none"> <li>• The trainer asks the students to discuss on construction site documentation, prompting students to discuss various methods for completing site documents and gathering information on completed work and available site resources</li> <li>• The trainer divides the students into small, manageable groups and tasks each group with discussing the classification and filing methods of construction documents.</li> <li>• The trainer sets up a scenario focused on protecting site documents and he/she asks students to work in small, manageable groups to analyze strategies for safeguarding these documents</li> <li>• The trainer asks each group to present their work and provides feedback to close the session.</li> <li>• The trainer provides an expert view after each presentation.</li> </ul>
Formative assessment methods	<ul style="list-style-type: none"> <li>• Written assessment</li> <li>• Oral assessment</li> <li>• Field visit report</li> <li>• Product assessment</li> </ul>

<b>Indicative content</b>
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- **Elaboration of the schedule of works**
  - ✓ Review of construction drawings and specifications
    - ✚ Floor plan
    - ✚ Elevation plan
    - ✚ Roof plan
    - ✚ Foundation plan
    - ✚ Perspective
    - ✚ Sections
  - ✓ Develop Work breakdown structure (WBS)
  - ✓ Identification of Critical activities
    - ✚ Network diagram terminologies
    - ✚ Estimate duration of activities
    - ✚ Determination of critical activities
    - ✚ Determination sequence of activities
    - ✚ Rules of network drawing
  - ✓ identification of Scheduling methods
    - ✚ Gantt chart
    - ✚ Critical Path Method or Network Analysis System
  - ✓ Prepare schedule of work
- **Conduct site installation works**
  - ✓ Site fencing and demarcation
  - ✓ Site layout planning
  - ✓ Facilitation utilities
  - ✓ Site accessibilities
  - ✓ Allocation of site resources
- **Monitor Execution of Activities**
  - ✓ Regular site inspection
  - ✓ Site meeting coordination
  - ✓ Reporting (daily, weekly, monthly...)
  - ✓ Construction material sampling and testing
- **Management of Resources**
  - ✓ Human Resources
  - ✓ Equipment and Machinery

<ul style="list-style-type: none"> <li>✓ Materials</li> <li>✓ Deliveries and Supplies</li> <li>✓ Financial Resources</li> </ul>	
<b>Resources required for the indicative content</b>	
Equipment	<ul style="list-style-type: none"> <li>• Computer, printer, digital camera, PPE</li> </ul>
Materials	<ul style="list-style-type: none"> <li>• Papers</li> </ul>
Tools	<ul style="list-style-type: none"> <li>• Pen, Pencils, rulers</li> </ul>
Facilitation techniques	<p>Trainer guide, individual work, group discussion</p> <ul style="list-style-type: none"> <li>• The trainer will distribute various construction drawings to the students and assist them in reviewing them.</li> <li>• The trainer divides the students into small, manageable groups and asks each group to discuss how to determine the sequence of activities and various scheduling methods.</li> <li>• Trainer provides the site visit to the students to understand how to manage the site resources</li> <li>• Students present their performing tasks and make report of site visit</li> </ul>
Formative assessment methods	<ul style="list-style-type: none"> <li>• Written-based assessment</li> <li>• Oral Presentation</li> <li>• Product based</li> </ul>

<b>Learning outcome 3: Prepare Contract</b>	<b>Learning hours: 20 Hours</b>
<b>Indicative content</b>	
<ul style="list-style-type: none"> <li>• <b>Develop contract terms and conditions</b> <ul style="list-style-type: none"> <li>✓ Identification of project specification <ul style="list-style-type: none"> <li>✚ Contract conditions and provisions</li> <li>✚ Technical provision or condition</li> </ul> </li> <li>✓ Types of contract used in construction projects <ul style="list-style-type: none"> <li>✚ Lump sum contract</li> <li>✚ Unit price contract</li> <li>✚ Cost-reimbursement contract</li> </ul> </li> <li>✓ Elaborate contract terms and conditions <ul style="list-style-type: none"> <li>✚ Scope of work</li> <li>✚ Payment terms and schedule</li> <li>✚ Project timeline</li> <li>✚ Intellectual property rights</li> <li>✚ Liability and insurance provisions</li> </ul> </li> </ul> </li> </ul>	

- ✚ Parties responsibilities and obligations
- ✚ Confidentiality and non-disclosure agreements
- ✚ Forms of security

- **Preparation of payment plan**

- ✓ Initial deposit
- ✓ Milestone payments
- ✓ Percentage-based payments
- ✓ Time-based payments
- ✓ Turnover payment
- ✓ Retainer fees
- ✓ Final payment
- ✓ Progress billing
- ✓ Change order payments

- **Preparation of amendments and addendums**

- ✓ Identification of all changes
  - ✚ Changes to scope
  - ✚ Changes to the working plan
  - ✚ Changes to existing terms and conditions
  - ✚ Changes to timeline
  - ✚ Changes to payment terms
  - ✚ Force majeure
- ✓ Preparation of draft report of changes

- **Prepare contract dispute resolution**

- ✓ Identification of causes of contractual dispute
- ✓ Contractual dispute resolution team
- ✓ Contractual dispute resolution mechanisms

### Resources required for the indicative content

Equipment	<ul style="list-style-type: none"> <li>• Computer , Printer , Projector</li> </ul>
Materials	<ul style="list-style-type: none"> <li>• Paper , Flip chart</li> </ul>
Tools	<ul style="list-style-type: none"> <li>• Communication Tools , word processing software</li> </ul>
Facilitation techniques	<p>Trainer guide, individual work, group discussion</p> <ul style="list-style-type: none"> <li>• The trainer will provide the hand copies of contract to the students and help them to make review.</li> <li>• Trainer form small and manageable groups of students and asks the respective groups to discuss the preparation of payment plan, contract</li> </ul>

	<p>dispute resolution and clauses of amendments and present their addendum contracts.</p> <ul style="list-style-type: none"> <li>• Trainer allows students to share their experiences and wrap up the session</li> </ul>
Formative assessment methods	<ul style="list-style-type: none"> <li>• Written based assessment</li> <li>• Oral presentation</li> </ul>

<b>Learning outcome 4: Manage Contract</b>	<b>Learning hours: 15 Hours</b>
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<b>Indicative content</b>
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- **Negotiation of contract and approval**
  - ✓ Contract negotiation
  - ✓ Rules for contract negotiation
  - ✓ Contract approval processes
- **Invoice work deliverables**
  - ✓ Description of work deliverables
  - ✓ Types of work deliverables
  - ✓ Prepare invoice
- **Preparation of handover**
  - ✓ Describe types of handover
    - ✚ Partial handover
    - ✚ Provisional handover
    - ✚ Final handover
  - ✓ Description of handover report
  - ✓ Describe elements of handover
  - ✓ Prepare handover
  - ✓ Prepare As built drawings
- **Requesting certificate of completion**
  - ✓ Prepare request
  - ✓ Format of certificate of completion

<b>Resources required for the indicative content</b>
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Equipment	<ul style="list-style-type: none"> <li>• Projector, Printer, computer, MS Project</li> </ul>
Materials	<ul style="list-style-type: none"> <li>• Pens, pencils , Chalk board</li> </ul>
Tools	<ul style="list-style-type: none"> <li>• Communication Tools , word processing software</li> </ul>

Facilitation techniques	<p><b>Group discussions, Scenario</b></p> <ul style="list-style-type: none"> <li>• The trainer sets up a scenario involving contract negotiation and assigns students to small, manageable groups, giving each group different roles such as contractors, clients, and other relevant personnel. The groups are then asked to discuss the negotiation process, draft, and sign a contract</li> <li>• Trainer allows students to share their ideas and wrap up the session</li> </ul>
Formative assessment methods	<ul style="list-style-type: none"> <li>• Written based assessment</li> <li>• Oral presentation</li> </ul>

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