



TECHNICAL &
VOCATIONAL
EDUCATION &
TRAINING



National Competency Standard for CARPENTER (SHUTTERING) Qualification Code: CON06S09VI

[Endorsed by the MALDIVES ACCREDITATION BOARD (MAB)]



PREFACE

The ADB Loan 2028 MLD, Employment Skills Training Project's (ESTP) objective is to increase the number of Maldivians, men and women, actively participating in the labor force, employed and self employed. The Project will support the expansion of demand driven employment-oriented skills training in priority occupations and improve the capacity to develop and deliver Competency Based Skill Training (CBST). The Project aims to (i) provide youth with employment-oriented skills training; (ii) improve public perception of training and employment in locally available skills-oriented occupations; (iii) make available employment-related information to more Maldivians; and (iv) strengthen the capacity for labor administration and for labor market analysis.

The objective of the project is to deliver CBST programs to satisfy employer demand-driven needs. The National Competency Standards (NCS) provide the base for this training. Initially training will be focused on five key sectors: tourism, fisheries and agriculture, transport, construction and the social sectors. These sectors are included as priority sectors in the national development plan and play a vital role in the continued economic growth of the country.

The NCS are developed in consultation with Employment Sector Councils representing employers. They are designed using a consensus format endorsed by the Maldives Accreditation Board (MAB) to maintain uniformity of approach and the consistency of content amongst occupations. This single format also simplifies benchmarking the NCS against relevant regional and international standards.

NCS specify the standards of performance of a competent worker and the various contexts in which the work may take place. NCS also describes the knowledge, skills and attitudes required in a particular occupation. They provide explicit advice to assessors and employers regarding the knowledge, skills and attitudes to be demonstrated by the candidates seeking formal recognition for the competency acquired following training or through work experience. By sharing this information, all participants in the training process have the same understanding of the training required and the standard to be reached for certification. Certification also becomes portable and can be recognized by other employers and in other countries with similar standards.

NCS are the foundation for the implementation of the Technical and Vocational Education and Training (TVET) system in Maldives. They ensure that all skills, regardless of where or how they were developed can be assessed and recognized. They also form the foundation for certifying skills in the Maldives National Qualification Framework (MNQF).

NCS are developed by the TVET Section of Ministry of Higher Education, Employment and Social Security. The NCS are endorsed by the Employment Sector Councils of the respective sectors and validated by the Maldives Accreditation Board.

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National Competency Standard has been Endorsed by		
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Date of Endorsement:	Date of revision

KEY FOR CODING

Coding Competency Standards and Related Materials

DESCRIPTION	REPRESENTED BY
Industry Sector as per ESC (Three letters)	Construction Sector (CON) Fisheries and Agriculture Sector (FNA) Transport sector (TRN) Tourism Sector (TOU) Social Sector (SOC) Foundation (FOU)
Competency Standard	S
Occupation with in a industry Sector	Two digits 01-99
Unit	U
Common Competency	1
Core Competency	2
Optional/ Elective Competency	3
Assessment Resources Materials	A
Learning Resources Materials	L
Curricula	C
Qualification	Q1, Q2 etc
MNQF level of Qualification	L1, L2 etc
Version Number	V1, V2 etc
Year of endorsement of standard, qualification	By two digits Example- 07

2. NATIONAL CERTIFICATE II IN BAR BENDING	
3. Qualification code: CON06SQ1L209	Total Number of Credits:67

4. Purpose of the qualification		
The holders of this qualification will be competent to work in the Construction Sector as a shuttering carpenter. The level II qualification presented here will facilitate preparing students to the entry workplace tasks and the competency units are mapped in such a way to fulfill the knowledge and skills requirements of the “shuttering carpenter” occupation within the local construction Industry.		
5. Regulations for the qualification National	Certificate II in the occupation of shuttering carpenter will be awarded to those who are competent in units 1+2+3+4+5+6+7+8+9+10+11+12	
6. Schedule of Units		
Unit Title	Unit Title	Code
1	Practice Occupational Health and Safety Procedures	CON06S1U01VI
2	Participate in ‘workplace communication	CON06S1U02VI
3	Work in a Team Environment	CON06S1U03VI
4	Observe Procedures, Specifications and Manuals of Instruction	CON06S1U04VI
5	Perform Mensurations and Calculations	CON06S2U01VI
6	Prepare Construction Materials and Tools	CON06S2U02VI
7	Maintain Tools and Equipment	CON06S2U03VI
8	Prepare Stake-Out Building Lines	CON06S2U04VI
9	Fabricate Formworks	CON06S2U05VI
10	Install Formwork Components	CON06S2U06VI
11	Strip Formworks Components	CON06S2U07VI
12	Install Framing Works	CON06S2U08VI
7. Accreditation requirements	The training provider should have a workshop or similar training facility to provide the trainees the hands-on experience related to this qualification	
8. Recommended sequencing of units	As appearing under the section 06	

Units Details

no	Unit Title	Code	Level	No of credits
1	Practice Occupational Health and Safety Procedures	CON06S1U01VI	2	6
2	Participate in ‘workplace communication	CON06S1U02V	2	5

		I		
3	Work in a Team Environment	CON06S1U03V I	2	3
4	Observe Procedures, Specifications and Manuals of Instruction	CON06S1U04V I	2	3
5	Perform Mensurations and Calculations	CON06S2U01V I	2	3
6	Prepare Construction Materials and Tools	CON06S2U02V I	2	3
7	Maintain Tools and Equipment	CON06S2U03V I	2	3
8	Prepare Stake-Out Building Lines	CON06S2U04V I	2	7
9	Fabricate Formworks	CON06S2U05V I	2	8
10	Install Formwork Components	CON06S2U06V I	2	8
11	Strip Formworks Components	CON06S2U07V I	2	6
12	Install Framing Works	CON06S2U08V I	2	12

Packaging of National Qualifications:

National certificate II in shuttering carpenter will be awarded to those who are competent in No 1+2+3+4+5+6+7+8+9+10+11+12

Qualification Code: CON06SQ1L209

Competency Standard for

CARPENTER (SHUTTERING)

Unit No	Unit Title
1.	Practice Occupational Health and Safety Procedures
2.	Participate in 'workplace communication
3.	Work in a Team Environment
4.	Observe Procedures, Specifications and Manuals of Instruction
5.	Perform Mensurations and Calculations
6.	Prepare Construction Materials and Tools

Competency Standard for Carpenter (Shuttering)

7.	Maintain Tools and Equipment
8.	Prepare Stake-Out Building Lines
9.	Fabricate Formworks
10.	Install Formwork Components
11.	Strip Formworks Components
12.	Install Framing Works

DESCRIPTION OF AN Shuttering Carpenter

Shuttering carpenter will be working front line of the construction industry. Shuttering carpenters who are competent in this standard will be equipped to make shuttering (framework), and will measure the accuracy of the form work made for the concrete pouring to cast the concrete in. Shuttering carpenters will be working under the supervision of site supervisor.

COMPETENCY STANDARD DEVELOPMENT PROCESS

The competencies were determined based on the analysis of the tasks expected to be performed by the shuttering in the Maldives. The task analysis was based on the existing job descriptions used in both private and public sector. Competency standards used for similar type of training in other countries were also examined.

Competency Standard for Carpenter (Shuttering)

UNIT TILE	Practice Occupational Health and Safety Procedures				
DESCRIPTOR	This unit covers the outcomes required to comply with regulatory and organizational requirements for occupational health and safety.				
CODE	CON06S1U01VI	LEVEL	2	CREDIT	6

ELEMENTS OF COMPETENCE	PERFORMANCE CRITERIA
1. Identify Hazards and Risk	<p>1.1. Safety regulations and work place safety and hazard control practices and procedures are clarified and explained based on organization procedures</p> <p>1.2. Hazards/risks in the workplace and their corresponding indicators are identified and minimize or eliminate risk to co-workers, workplace and environment in accordance with organization procedures</p> <p>1.3. Contingency measures during workplace accidents, fire and other emergencies are recognized and established in accordance with organization procedures</p>
2. Evaluate Hazards and Risk	<p>2.1. Terms of maximum tolerable limits when exceeded will result in harm or damage are identified based on threshold limit values (TLV)</p> <p>2.2. Effects of the hazards are determined</p> <p>2.3. Occupational Health and Safety (OHS) issues and identified safety hazards are reported to designated personnel in accordance with workplace requirements and relevant workplace OHS legislation</p>
3. Control Hazards and Risk	<p>3.1. Occupational Health and Safety (OHS) procedures for controlling hazards/risk in workplace are consistently followed</p> <p>3.2. Procedures for dealing with workplace accidents, fire and emergencies are followed in accordance with organization OHS policies</p> <p>3.3. Personal protective equipment (PPE) is correctly used in accordance with organization OHS procedures and practices</p>

4. Maintain OHS awareness	4.1. Emergency –related drills and trainings are participated in as per established organization guidelines and procedures 4.2. OHS personal records are completed and updated in accordance with workplace requirements
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Range Statement

Unsafe situations may include but not limited to sharp cutting tools and instruments, fire hazards, spillage of materials, toxic chemical substances and faulty electrical wirings.

Safety regulations may include observance of Building Code, Fire Safety Code.

Hazard risks may include but not limited to physical, biological and chemical hazards.

Tools and Equipment used in this unit may include

The tools and equipment may include mask, gloves, goggles, Face mask/shield, ear muffs and overalls/ jump suit.

Materials may include

- Occupational Health and Safety Records; which includes Incident reports, Accident reports.

ASSESSMENT GUIDE

Forms of Assessment

Competency may be assessed through:

- Portfolio Assessment
- Interview
- Case Study/Situation

Assessment context

Competency may be assessed in the work place or in a simulated work place setting

Critical Aspects (for assessment)

Assessment requires evidence that the candidate:

- Explained clearly established workplace safety and hazard control practices and procedures
- Identified hazards/risks in the workplace and its corresponding indicators in accordance with company procedures
- Recognized contingency measures during workplace accidents, fire and other emergencies
- Identified terms of maximum tolerable limits based on threshold limit value- TLV.
- Followed Occupational Health and Safety (OHS) procedures for controlling hazards/risks in workplace
- Used Personal Protective Equipment (PPE) in accordance with company OHS procedures and practices

- Completed and updated OHS personal records in accordance with workplace requirements

Resources required for assessment

The following resources must be provided:

- Workplace or assessment location
- OHS personal records
- PPE
- Health records

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none"> • OHS procedures and practices and regulations • PPE types and uses • Personal hygiene practices • Hazards/risks identification and control • Threshold Limit Value -TLV • OHS indicators • Organization safety and health protocol • Safety consciousness • Health consciousness 	<ul style="list-style-type: none"> • Practice of personal hygiene • Hazards/risks identification and control skills • Interpersonal skills • Communication skills

UNIT TILE	Participate in 'workplace communication				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes required to gather, interpret and convey information in response to workplace environment.				
CODE	CON06S1U02VI	LEVEL	2	CREDIT	5

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
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Competency Standard for Carpenter (Shuttering)

1. Obtain and convey workplace inf	<ol style="list-style-type: none">1.1. Effective questioning, active listening and speaking skills are used to gather and convey information1.2. Specific and relevant information accessed from appropriate sources1.3. Appropriate medium is used to transfer information and ideas1.4. Appropriate non-verbal communication is used1.5. Appropriate lines of communication with supervisors and colleagues are identified and followed1.6. Defined workplace procedures for the location and storage of information used1.7. Personal interaction is carried out clearly and concisely
2. Participate in workplace meetings	<ol style="list-style-type: none">2.1. Team meetings are attended on time2.2. Meeting inputs are consistent with the meeting purpose and established protocols2.3. Workplace interactions are conducted in a courteous manner2.4. Meetings outcomes are interpreted and implemented
3. Complete relevant work related documents	<ol style="list-style-type: none">3.1. Ranges of forms relating to conditions of employment are completed accurately and legibly3.2. Workplace data is recorded on standard workplace forms and documents3.3. Errors in recording information on forms /documents are identified and properly acted upon

Range Statement

This may include but not limited to working with team members, contact with suppliers of materials, follow notices, circulars and memorandums, face to face communications with team members, observing meeting, compliance and obeying meeting instructions.

Tools, Equipment and machinery used in this unit may include

Equipment in this area may include:

- Telephone
- Mobile phone
- Forms
- Memo
- Electronic and two way radio
- Fax machines

- Computer
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Materials may include:

- Personnel forms
- Memos,
- Instruction forms
- Safety report form
- Fax

ASSESSMENT GUIDE

Forms of Assessment

- Direct Observation
- Oral interview and written test

Assessment Context

Competency may be assessed individually in the actual workplace or through accredited institution

Critical Aspects (for assessment)

Assessment requires evidence that the candidate:

- Prepared written communication following standard format of the organization
- Accessed information using communication equipment
- Made use of relevant terms as an aid to transfer information effectively
- Conveyed information effectively adopting the formal or informal communication

Resources required for Assessment

The following are required for assessment.

- Fax machine
- Telephone
- Writing materials
- Internet
- Computers

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
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Competency Standard for Carpenter (Shuttering)

<ul style="list-style-type: none"> • Effective communication • Different modes of communication • Written communication • Organizational policies • Communication procedures and Technology relevant to the enterprise 	<ul style="list-style-type: none"> • Follow simple spoken language • Perform routine workplace duties following simple written notices • Participate in workplace meetings and discussions • Complete work related documents • Estimate, calculate and record routine workplace measures • addition, subtraction, division and multiplication • Ability to relate to people of social range in the workplace • Gather and provide information in response to workplace requirements
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UNIT TITLE	Work in a Team Environment				
DESCRIPTOR	This unit covers the skills, knowledge and attitudes to identify role and responsibility as a member of a team.				
CODE	CON06S1U03VI	LEVEL	2	CREDIT	3

Elements of Competence	Performance Criteria
1. Describe team role and scope	1.1. The role and objective of the team is identified from available sources of information 1.2. Team parameters, reporting relationships and responsibilities are identified from team discussions and appropriate external sources

<p>2. Identify own role and responsibility within the team</p>	<p>2.1. Individual role and responsibilities within the team environment are identified</p> <p>2.2. Role and responsibility of other team members are identified and recognized</p> <p>2.3. Reporting relationships within team and external to team are identified</p>
<p>3. Work as a Team Member</p>	<p>3.1. Effective and appropriate forms of communications used and interactions undertaken with team members who contribute to known team activities and objectives</p> <p>3.2. Effective and appropriate contributions made to complement team activities and objectives, based on individual skills and competencies and work place context</p> <p>3.3. Observe protocols in reporting and using standard operating procedures</p> <p>3.4. Contribute to development of team work plans based on understanding and individual competencies of the members</p>

Range Statement

The activities in this unit may include working in a team environment with specific enterprise or sector.

Limited discretion, initiative and judgement demonstrated on the job, either individually or in a team environment, observance of occupational Health and Safety Standards, follow standard operating and/or other workplace procedures, follow safety, environmental, housekeeping and quality guidelines and follow job procedures

Tools, Equipment and machinery used in this unit may include

- Telephone
- Mobile Phone
- Fax Machine
- Internet
- Computer

Materials may include:

Materials related to this activity may include

- Writing materials
- Memos
- Instruction forms

ASSESSMENT GUIDE

Forms of Assessment

Competency may be assessed through:

- Observation of the individual member in relation to the work activities of the group
- Observations of simulation and or role play involving the participation of individual member to the attainment of organizational goal

Assessment Context

Competency may be assessed in workplace or in a simulated workplace setting

Assessment shall be observed while task are being undertaken whether individually or in group

Critical Aspects (for assessment)

Assessment requires evidence that the candidate:

- Operated in a team to complete workplace activity
- Worked effectively with others
- Conveyed information in written or oral form
- Selected and used appropriate workplace language
- Followed designated work plan for the job

Resources Required for Assessment

The following resources MUST be provided:

- Access to relevant workplace or appropriately simulated environment where assessment can take place
- Materials relevant to the proposed activity or tasks

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none">• Communication process• Team structure• Team roles• Group planning and decision making	<ul style="list-style-type: none">• Communicate appropriately, consistent with the culture of the workplace• Inter personal skills

UNIT TITLE	Observe Procedures, Specifications and Manuals of Instruction				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes on identifying, interpreting and applying services to specification and procedures are identified.				
CODE	CON06S1U04VI	LEVEL	2	CREDIT	3

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
1. Identify and access specification/manuals	1.1. Appropriate manuals are identified and accessed as per job requirements 1.2. Version and date of manual are checked to ensure that correct specification and procedures are identified
2. Interpret Manuals	2.1. Relevant sections, chapters of specifications/manuals are located in relation to the work to be conducted 2.2. Information and procedure in the manual are interpreted in accordance with industry practices
3. Apply information in manual	3.1. Manual is interpreted according to job requirements 3.2. Work steps are correctly identified in accordance with manufacturer's specification 3.3. Manual data are applied according to the given task 3.4. All correct sequencing and adjustments are interpreted in accordance with information contained on the manuals specification
4. Store Manual	4.1. Manual or specification is stored appropriately to prevent damage, ready access and updating of information when required in accordance with information contained on the manual or specifications

Range Statement

In the context of this unit, the procedures, specifications and manuals of instruction may include the manufacturer's specification manual, a repair/ maintenance manual and periodic maintenance manual.

Information and procedure in the manual are interpreted in accordance with industry practices and manual data are applied according to the given task.

Tools, Equipment and machinery used in this unit may include

Nil

ASSESSMENT GUIDE

Forms of Assessment

Competency should be assessed through:

- Direct observation
- Questions/interview

Assessment of underpinning knowledge and practical skills may be combined

Assessment context

Competency assessment must be undertaken in accordance with assessment guidelines

Assessment may be conducted in the workplace or a simulated environment

Critical Aspects (for assessment) Assessment

requires that the candidate:

- Identified and accessed specification/manuals as per job requirements
- Interpreted manuals in accordance with industry practices
- Applied information in manuals according to the given task
- Stored manuals in accordance with company requirements

Resources required for assessment

The following resources should be provided:

- All manuals/catalogues relative to construction sector

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
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Competency Standard for Carpenter (Shuttering)

<ul style="list-style-type: none"> • Types of manuals used in construction sector • Identification of symbols used in the 	<ul style="list-style-type: none"> • Reading and comprehension skills required to identify and interpret construction manuals and specifications
<p>manuals of units of</p> <ul style="list-style-type: none"> • Identification and units of measurements conversion 	<ul style="list-style-type: none"> • Accessing information and data

UNIT TITLE	Perform Mensurations and Calculations				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes in identifying and measuring objects based on the required performance standards.				
CODE	CON06S2U01VI	LEVEL	2	CREDIT	3

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
1. Select Measuring Instruments	1.1. Object or component to be measured is identified, classified and interpreted according to the appropriate regular geometric shape 1.2. Measuring tools are selected/identified as per object to be measured or job requirements 1.3. Correct specifications are obtained from relevant sources 1.4. Appropriate measuring instruments are selected according to job requirements 1.5. Alternative measuring tools are used without sacrificing cost and quality of work
2. Carry out measurements and calculations	2.1. Accurate measurements are obtained according to job requirements 2.2. Alternative measuring tools are used without sacrificing cost and quality of work 2.3. Calculation needed to complete work tasks are performed using the four basic process of addition (+), subtraction (-), multiplication (x) and division (/) including but not limited to: trigonometric functions, algebraic computations 2.4. Calculations involving fractions, percentages and mixed numbers are used to complete workplace tasks 2.5. Numerical computation is self-checked and corrected for accuracy 2.6. Instruments are read to the limit of accuracy of the tool 2.7. Systems of measurement identified and converted according to job requirements/ISO 2.8. Workpieces are measured according to job requirements

Range Statement

Mensurations and calculations in this unit may include geometric shapes that includes but not limited to the following;

- Round

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- Square
- Rectangular
- Conical
- Triangle
- Sphere

Tools, Equipment and machinery used in this unit may include Tools and equipment may include but not limited to;

- Steel Tape Measure
- Triangle
- 45 x 90 degrees or 30 x 60 degrees triangle
- Steel Rule
- Combination Gauge
- Try Square
- Carpenters (Steel) Square
- Calculator

Materials needed

Writing papers, drawing papers, pieces of timber (varied sizes and species) and nails (with varied sizes.)

PREPARE CONSTRUCTION MATERIALS AND TOOLS

ASSESSMENT GUIDE

Forms of assessment

Competency should be assessed through:

- Actual demonstration
- Direct observation
- Written test/questioning related to underpinning knowledge

Assessment Context

Competency assessment may occur in workplace or any appropriate simulated environment

Assessment shall be observed while task are being undertaken whether individually or in group

Competency assessment must be undertaken in accordance with approved assessment guidelines

Critical Aspects (for assessment)

Assessment requires that the candidate:

- Selected and prepared appropriate measuring instruments in accordance with job requirements
- Performed measurements and calculations according to job requirements.

Resources required for assessment

The following resources should be provided:

- Workplace location
- Problems to solve
- Measuring instrument appropriate to carry out tasks
- Instructional materials relevant to the propose activity

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none"> • Trade mathematics/ mensuration • Four fundamental operation • Linear measurement • Dimensions • Unit conversion • Ratio and proportion • Trigonometric functions • Algebraic equations 	<ul style="list-style-type: none"> • Performing calculation by addition, subtraction, multiplication and division; trigonometric functions and algebraic equations • Visualizing objects and shapes • Interpreting formulas for volume, areas, perimeters of plane and geometric figures • Proper handling of measuring instruments

UNIT TITLE	Prepare Construction Materials and Tools				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes on identifying, Requesting and receiving construction materials and tools based on the required performance standards.				
CODE	CON06S2U02VI	LEVEL	2	CREDIT	3

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
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1. Identify materials	1.1. Materials are listed as per job requirements 1.2. Quantity and description of materials conform with the job requirements 1.3. Tools and accessories are identified according to job requirements
2. Requisition materials	2.1. Materials and tools needed are requested according to the list prepared 2.2. Request is done as per company standard operating procedures (SOP) 2.3. Substitute materials and tools are provided without sacrificing cost and quality of work
3. Receive and inspect materials	3.1. Materials and tools issued are inspected as per quantity and specification 3.2. Tools, accessories and materials are checked for damages according to enterprise procedures 3.3. Materials and tools are set aside to appropriate location nearest to the workplace

Range Statement

This may include specification on the brand name of materials, size, capacity and kind of application.

It also includes the use of job order forms, requisition slip and borrower slip forms.

Tools, Equipment and machinery used in this unit may include

Tools and equipment may include carpentry hand tools, power tools, masonry tools, plumbing and electrical tools.

Materials may include

- Materials needed may include timbers, plywood, hardboards, and hardware like nails, bolts, concreting materials, plumbing and electrical materials.
- It includes brand name, size, capacity and kind of the materials.

ASSESSMENT GUIDE

Forms of Assessment

Competency should be assessed through:

- Direct Observation.

Competency Standard for Carpenter (Shuttering)

- Interview/questioning related to the topics in underpinning knowledge.
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Assessment Context

Competency assessment may occur in workplace or any appropriate simulated environment

Competency assessment must be undertaken in accordance with assessment guidelines.

Critical Aspects of Assessment

Assessment requires that the candidate:

- Selected and used appropriate processes, tools and equipment to carry out task
- Identified functional and non-functional tools and equipment
- Checked, lubricated and calibrated tools, equipment and instruments according to manufacturer's specifications
- Replaced defective tools, equipment and their accessories
- Observed and applied safe handling of tools and equipment and safety work practices
- Prepared and submitted inventory report, where applicable
- Maintained workplace in accordance with OHS regulations
- Stored tools and equipment safely in appropriate locations and in accordance with company practices

Resources Required for Assessment

The following resources should be provided:

- Workplace
- Maintenance schedule
- Maintenance materials, tools and equipment relevant to the proposed activity

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
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Competency Standard for Carpenter (Shuttering)

<ul style="list-style-type: none"> • SAFETY PRACTICES <ul style="list-style-type: none"> Use of PPE Handling of tools and equipment Good housekeeping • MATERIALS, TOOLS AND EQUIPMENT <ul style="list-style-type: none"> Types and uses of lubricants Types and uses of cleaning materials Types and uses of measuring instruments and equipment • PREVENTIVE MAINTENANCE <ul style="list-style-type: none"> Methods and techniques Procedures 	<ul style="list-style-type: none"> • Preparing maintenance materials, tools and equipment • Proper handling of tools and equipment • Performing preventive maintenance • Following instructions
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UNIT TITLE	Maintain Tools and Equipment				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes on checking condition, performing preventive maintenance and storing of tools and equipment based on the required performance standards.				
CODE	CON06S2U03VI	LEVEL	2	CREDIT	3

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
1. Check condition of tools and equipment	1.1. Materials, tools and equipment are identified according to classification and job requirements 1.2. Non-functional tools and equipment are segregated and labelled according to classification 1.3. Safety of tools and equipment are observed in accordance with manufacturer's instructions 1.4. Condition of PPE are checked in accordance with manufacturer's instructions

<p>2. Perform Basic Preventive Maintenance</p>	<p>2.1. Appropriate lubricants are identified according to types of equipment</p> <p>2.2. Tools and equipment are lubricated according to preventive maintenance schedule or manufacturer's specifications</p> <p>2.3. Measuring instruments are checked and calibrated in accordance with manufacturer's instructions</p> <p>2.4. Tools are cleaned and lubricated according to standard procedures</p> <p>2.5. Defective instruments, equipment and accessories are inspected and replaced according to manufacturer's specifications</p> <p>2.6. Tools are inspected, repaired and replaced after use</p> <p>2.7. Work place is cleaned and kept in safe state in line with OHS regulations</p>
<p>3. Store Tools and Equipment</p>	<p>3.1. Inventory of tools, instruments and equipment are conducted and recorded as per company practices.</p> <p>3.2. Tools and equipment are stored safely in appropriate locations in accordance with manufacturer's specifications or company procedures</p>

Range Statement

In the context of this standard maintenance of tools and equipment includes the use of cleaning materials, lubricants, rust remover, and spare parts needed in the maintenance of carpentry hand tools and equipment, including safety equipment like goggles. Gloves and overalls.

Tools, Equipment and machinery used in this unit may include

Tools and equipment may include carpentry tools like cutting tools, (saws) Boring tools (auger bits, brace, hand drills, drill bits and measuring instruments (steel tape measure, try square , spirit level, plumb bob.) and power tools (portable saw and portable power drills.)

Materials may include

Materials may include Lubricants, Rust remover, Rugs and Spare Parts for Portable Power tools.

ASSESSMENT GUIDE

Forms of Assessment

Competency should be assessed through:

- Direct observation
- Written test/questioning related to underpinning knowledge

Assessment Context

Competency assessment may occur in workplace or any appropriate simulated environment

Competency assessment must be undertaken in accordance with assessment guidelines

Critical Aspects (for assessment) Assessment

requires that the candidate:

- Selected and used appropriate processes, tools and equipment to carry out task
- Identified functional and non-functional tools and equipment
- Checked, lubricated and calibrated tools, equipment and instruments according to manufacturer's specifications
- Replaced defective tools, equipment and their accessories
- Observed and applied safe handling of tools and equipment and safety work practices
- Prepared submitted inventory report, where applicable
- Maintained workplace in accordance with OHS regulations
- Stored tools and equipment safely in appropriate locations and in accordance with company practices

Resources Required for Assessment

The following resources should be provided:

- Workplace
- Maintenance schedule
- Maintenance materials, tools and equipment relevant to the proposed activity/task

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
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Competency Standard for Carpenter (Shuttering)

<ul style="list-style-type: none"> • SAFETY PRACTICES <ul style="list-style-type: none"> Use of PPE Handling of tools and equipment Good housekeeping • MATERIALS, TOOLS AND EQUIPMENT <ul style="list-style-type: none"> Types and uses of lubricants Types and uses of cleaning materials Types and uses of measuring instruments and equipment • PREVENTIVE MAINTENANCE <ul style="list-style-type: none"> Methods and techniques Procedures 	<ul style="list-style-type: none"> • Preparing maintenance materials, tools and equipment • Proper handling of tools and equipment • Performing preventive maintenance • Following instructions
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UNIT TITLE	Prepare Stake-Out Building Lines				
DESCRIPTOR	This unit covers the knowledge, skills and attitude for preparing stake –out materials and fixing stake-out building lines.				
CODE	CON06S2U04VI	LEVEL	2	CREDIT	7

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
1. Prepare Materials for building lines	1.1. Appropriate Personal Protective Equipment (PPE) is selected and used according to job requirements and OSHC standards 1.2. Related plans and details are correctly interpreted according to job requirements 1.3. Materials, hand tools and equipment is prepared consistent with job requirements 1.4. Materials are properly staged and freed from defects 1.5. Unexpected situations are responded to in line with company rules and regulations 1.6. Housekeeping is performed according to safety regulations
2. Set Batterboards	2.1. Batterboards are set away from the building line excavation 2.2. Batterboards are properly secured with tolerances for dimensions at ± 5 mm, and levelness of ± 3 mm 2.3. Unexpected situations are responded to in line with company rules and regulations 2.4. Housekeeping is performed according to safety regulations

3. Fix	Stake-Out	Building	<p>3.1. Stake-out building lines are properly secured for reference in excavating building foundation</p> <p>3.2. Marking lines are squared and plumbed from the batterboard lines with tolerance of ± 3 mm on all measurement, levelness, squareness and rigid</p> <p>3.3. Worksite is cleaned and kept in safe state according to OSHC regulations</p> <p>3.4. Daily work report is accomplished in accordance with company rules and regulations.</p>
Lines			

Range Statement

- Personal Protective Equipment must always be worn while performing the job
- Plans and details of the job to be performed are prepared indicating the exact location, dimensions and elevation of the work to be done. Symbols and abbreviations clearly defined and interpreted
- Quality and Quantity of materials are clearly indicated

Tools, Equipment and machinery used in this unit may include

Range of carpentry hand tools and equipment may include Hand saws, Claw Hammer, Plumb Bob, Pullpush rule. Steel tape measure, Try Square, Chalk and Line, PickMatch/Pickmatok, Level Hose. Sledge Hammer, Framing/Carpenters Square.

Materials may include:

Materials may include pieces of lumber, 2"x 2" and 2"x 3" with various lengths, Common Nails, G.I. Wires, Fishing Line or Nylon Cord, ½ inch thick plywood of assorted sizes.

ASSESSMENT GUIDE

Forms of Assessment

Competency must be assessed through:

- Direct observation/practical demonstration of application to tasks
- Questioning related to underpinning knowledge

Assessment Context

Competency may be assessed in the work place or in a simulated work place setting

Assessment shall be done while tasks are undertaken individually under limited supervision

Critical aspects (for assessment)

Competency assessment requires evidence that the candidate:

- Interpreted related plans and details according to job requirements

Competency Standard for Carpenter (Shuttering)

- Selected and prepared materials, hand tools and equipment, and PPE according to specifications and job requirements
- Set and aligned dimension of work accurately according to job requirements
- Applied organizational quality procedures and processes in staking-out building lines
- Complied with safety regulations for worksite operation
- Identified faults and problems and reported to immediate supervisor/foreman for necessary action

Resources required for assessment

The following resources must be provided:

- Work place location
- Plans and details relevant to the task
- Hand tools and equipment appropriate for preparing building lines
- Materials relevant to the proposed activity
- Appropriate PPE

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none"> • Types and uses of PPE • Mensuration • Related plans and details interpretation • Materials, hand tools and equipment uses and specification. • Knowledge of building layouts • Company rules and regulations 	<ul style="list-style-type: none"> • Using PPE • Interpreting inter-related plans and details • Preparing stake materials • Cutting/setting batter boards • Aligning stake- out of building lines and excavation • Metering tape reading • Following company rules and regulations

UNIT TITLE	Fabricate Formworks				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes in fabricating formworks. It includes preparing materials, lay outing, fabricating and assembling formworks.				
CODE	CON06S2U05VI	LEVEL	2	CREDIT	8

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
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<p>1. Prepare materials for fabricating formworks</p>	<p>1.1. Appropriate PPE is selected and used according to job requirements and OSHC specifications</p> <p>1.2. Related plans and details are interpreted according to job requirements</p> <p>1.3. Materials, hand and power tools and equipment are selected and prepared consistent with job requirements</p> <p>1.4. Materials are re-checked and properly staged according to job requirements otherwise defective materials or not in specifications are reported to immediate superior</p> <p>1.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>1.6. Housekeeping is performed according to safety regulations</p>
<p>2. Lay-out dimension of form sheating and stiffeners</p>	<p>2.1. Form sheating and stiffeners are measured and marked according to job specifications</p> <p>2.2. Form sheating and stiffeners are laid out and cut with tolerances of ± 3 mm for all measurements and squareness</p> <p>2.3. Form sheating and stiffeners for column, beam, wall, slab and stairs are consistent with standard spacing for studs or nailer with tolerance of + 10 mm. O.C</p> <p>2.4. Unexpected situations are responded to in line with company rules and regulations</p> <p>2.5. Housekeeping is performed according to safety regulations</p>
<p>3. Assemble Form Panels</p>	<p>3.1. Materials and/or fabricated form sheating and stiffeners are correctly positioned for assembly</p> <p>3.2. Assembled form panels are checked for squareness, levelness and alignment to specified tolerance</p> <p>3.3. Temporary fixing and/or permanent assembly techniques</p>
	<p>are applied to hold form panels together as per job requirements</p> <p>3.4. Assembled form panels are checked for compliance with job requirements</p> <p>3.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>3.6. Clean up worksite according to safety regulations and OSHC specifications</p> <p>3.7. Daily work report is accomplished in accordance with company rules and regulations</p>

Range Statement

In the context of this unit;

- Plans and details are prepared indicating exact location, dimensions, elevations with all symbols and abbreviations properly defined and explained
- The plans and details are interpreted according to job requirements; materials, hand tools and power tools are properly selected and used correctly
- Form sheathing and stiffeners are measured and cut to required dimensions, assembled and correctly positioned
- Assembled panels are checked for levelness , alignment and overall compliance to job requirements

Risk may include; Injury to personnel/workers and damage to materials.

Tools, Equipment and machinery used in this unit may include

Tools and equipment in this unit may include but not limited to;

Portable Power tools which includes; circular saw, electric drill, Jig saw and table –cut-off saw.

Hand tools which includes; Claw Hammer, Pull-push rule, zigzag rule, steel square, plumb bob, Level hose, Spirit Level, Adjustable wrench, Try square, marking gauge, Crow Bar, chalk line, pencil and chisel.

Materials may include;

Plywood sheets- $\frac{1}{4}$ "thick and $\frac{1}{2}$ "thick. Pieces of timber, 2 "x 2" and @" x 3" with various lengths in feet, Steel form, pipe, plate

ASSESSMENT GUIDE

Forms of Assessment

Competency must be assessed through:

- Direct observation of application to tasks
- Questions related to underpinning knowledge
- Demonstration

Assessment Context

Competency may be assessed in the work place or in a simulated work place setting

Assessment shall be done while tasks are undertaken individually under limited supervision

Critical Aspects (for assessment)

Competency assessment requires evidence that the candidate:

- Interpreted related plans and details
- Selected and prepared materials, power and hand tools, equipment and PPE consistent with job requirements

Competency Standard for Carpenter (Shuttering)

- Used safe and effective power and hand tools
- Laid out and cut form sheathing and stiffeners according to specified tolerances
- Assembled form panels are checked for compliance with the job requirements and specified tolerances
- Applied organizational quality procedures and processes
- Completed work without damage to materials or injury to personnel

Resources required for Assessment The following resources must be provided:

- Work place location
- Materials, power and hand tools and equipment appropriate for formworks fabrication
- Plans and details and specifications relevant to the task
- Appropriate PPE

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none"> • Mensuration • Related plans and details interpretation • Materials, power and hand tools and 	<ul style="list-style-type: none"> • Using PPE • Applying mensuration • Interpreting related plans and details
<ul style="list-style-type: none"> • equipment uses and specification • Knowledge of formworks fabrication procedures • Economic use of material • Safe and effective use of power and hand tools • Company rules and regulations • 	<ul style="list-style-type: none"> • Following fabrication procedures • Following safe and effective use of power and hand tools • Using materials economically • Communicating effectively • Following company rules and regulations

Competency Standard for Carpenter (Shuttering)

UNIT TITLE	Install Formwork Components				
DESCRIPTOR	This unit covers the knowledge skills and attitudes in installing/stripping formwork components for concrete work. It includes preparing materials, lay-outing /assembling scaffolds and braces and removing of shoring.				
CODE	CON06S2U06VI	LEVEL	2	CREDIT	8

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
1. equipment als , tools installing formworks	<p>1.1. Appropriate PPE is selected and used according to job requirements and OSHC specifications</p> <p>1.2. Related plans and details are correctly interpreted according to job requirements</p> <p>1.3. Formworks components/materials, power and hand tools and equipment are selected and prepared consistent with job requirements</p> <p>1.4. Materials are re-checked and properly staged according to job requirements otherwise damaged materials are reported to immediate superior</p> <p>1.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>1.6. Housekeeping is performed according to safety regulations</p>
2. Layout-out Assemble scaffolds and braces	<p>2.1. Appropriate PPE is selected and used according to job requirements and OSHC specifications</p> <p>2.2. Work area is cleared for safe lay-outing and assembling of scaffolds and braces</p> <p>2.3. Scaffolds and braces are laid-out and assembled with tolerance of + 3mm for all measurements and squareness</p> <p>2.4. Connectors, braces, locks and screws are properly secured according to job requirements</p> <p>2.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>2.6. Housekeeping is performed according to safety regulations</p>
3. Set/fix form panels of building components	<p>3.1. Appropriate PPE is selected and used according to job requirements and OHS A specifications</p>

	<p>3.2. Formworks components are laid-out with tolerance of ± 3 mm for measurement, alignment, squareness, levelness, levelness and with form oil</p> <p>3.3. Form panels are set/fixed for components with tolerance to reference structure of + 3mm</p> <p>3.4. Connectors, braces, locks and screws are properly secured according to job requirements</p> <p>3.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>3.6. Daily report is accomplished according to company rules and regulations</p> <p>3.7. Housekeeping is performed according to safety regulations.</p>
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Range Statement

- In the context of this unit, formworks and components are laid-out, connectors, braces, locks and screws are properly secured according to job requirements.
- Scaffolds and braces are laid out and assembled according to job requirements.

Tools, Equipment and machinery used in this unit may include

Tools, Equipment and machinery may include but not limited to;

Hand saw, law hammer, Spanners, measuring tools i.e. pull-push rule, steel tape measure, Chalk line, Plumb bob, level hose, Fishing line, Spirit level, Crow bar, Try square.

Materials may include:

Materials may include pieces of lumber, 2" x 2", and 2" x3" of varied lengths Plywood, Steel Channel, Scaffolds, Shoring, nails and bolts.

ASSESSMENT GUIDE

Forms of Assessment

Competency must be assessed through:

- Direct observation of application to tasks
- Questions related to underpinning knowledge
- Demonstration

Assessment Context

Competency may be assessed in the work place or in a simulated work place setting.

Assessment shall be done while tasks are undertaken individually under limited supervision.

Critical aspects (for assessment)

Competency assessment requires evidence that the candidate:

- Interpreted related plans and details according to job requirements
- Selected and prepared materials, power and hand tools, equipment and PPE are consistent with job requirements
- Laid-out/assembled scaffolds/braces and form components/panels according to job requirements and specified tolerances
- Complied with safety regulations for worksite operations
- Followed safe and effective operational use of power and hand tools and equipment
- Communicated interactively with others to ensure safe and effective workplace operations
- Completed work without injury to personnel or damage to equipment

Resources required for assessment

The following resources must be provided:

- Work place location
- Hand and power tools and equipment appropriate for installation of formwork components
- Materials relevant to the proposed activity
- Plans and details relevant to the task
- Appropriate PPE

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none"> • Knowledge of PPE • mensuration • Interpreting plan and details • Knowledge on materials, power and hand tools and equipment • knowledge assembling and fixing procedures 	<ul style="list-style-type: none"> • Using PPE • Applying mensuration • Interpreting plan and details • Preparing materials, power and hand tools and equipment • Following assembling and fixing procedures • Following safe and effective use of power and hand tools
<ul style="list-style-type: none"> • safe and effective use of power and hand tools company rules and regulations • 	<ul style="list-style-type: none"> • Using materials economically • Communicating effectively • Following company rules and regulations

Competency Standard for Carpenter (Shuttering)

UNIT TITLE	Strip Formworks Components				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes in stripping formwork components and accessories for concrete work. It includes preparing tools, equipment and staging of materials, shoring and re-shoring operations.				
CODE	CON06S2U07VI	level	2	Credit	6

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
1. Prepare staging area, tools and equipment	<p>1.1. Work instruction is secured from immediate superior according to company rules and regulations</p> <p>1.2. Appropriate PPE is selected and used according to job requirements and OSHC specifications</p> <p>1.3. Formwork components and accessories staging area is identified and prepared based on job requirements</p> <p>1.4. Formwork components power, hand tools and equipment are selected and prepared consistent with job requirements</p> <p>1.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>1.6. Housekeeping is performed according to safety regulations</p>
2. Strip formworks of building components	<p>2.1. Formwork components and accessories are removed carefully, safely and sequentially</p> <p>2.2. Formwork components and accessories are sorted, arranged and properly staged according to company rules and regulations/manufacturer's recommendations</p> <p>2.3. Formwork components and accessories are cleaned, oiled and stored according to company rules and regulations/manufacturer's recommendations</p> <p>2.4. Formwork components and accessories, which are beyond repair, are discarded otherwise repaired in accordance with company rules and regulations</p> <p>2.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>2.6. Housekeeping is performed according to safety regulations</p>
3. Shore or/and re-shore and removal	<p>3.1. Appropriate PPE is selected and used according to job requirements and OSHA specifications</p> <p>3.2. Formworks components are shored and re-shored in</p>

	<p>accordance with stripping procedures</p> <p>3.3. Shores are removed in accordance with standard dismantling procedures</p> <p>3.4. Shores, tools and equipment are cleaned, maintained and stored properly according to company rules and regulations</p> <p>3.5. Unexpected situations are responded to in line with company rules and regulations</p> <p>3.6. Daily report is accomplished according to company rules and regulations</p> <p>3.7. Housekeeping is performed according to safety regulations</p>
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Range Statement

In the context of this unit;

- Formworks include form panels and scaffolds. In this unit, formwork components and accessories are removed carefully, safely and sequentially.
- Formwork components are shored and re-shored in accordance with stripping procedures; shores, tools and equipment are cleaned, maintained and stored properly.
- Housekeeping is performed to safety regulations.

Tools, Equipment and machinery used in this unit may include

Tooling and equipment may include but are not limited to;

Claw hammers, crow bar, tool holster, Spanners, Brooms, Gloves, Safety shoes, Safety hat, dust mask and overalls/working clothes.

Materials may include

Materials may include cleaning materials, rust remover and lubricants.

ASSESSMENT GUIDE

Forms of assessment

Competency must be assessed through:

- Direct observation of application to tasks
- Questions related to underpinning knowledge
- Demonstration

Assessment context

Competency may be assessed in the work place or in a simulated work place setting

Assessment shall be done while tasks are undertaken individually under limited supervision

Critical Aspects (for assessment)

Competency assessment requires evidence that the candidate:

- Followed work instructions
- Selected and prepared power and hand tools, equipment and PPE are consistent with job requirements
- Performed stripping, shoring and removal of shoring procedures
- Complied with safety regulations for worksite operations
- Followed safe and effective operational use of power and hand tools and equipment
- Communicated interactively with others to ensure safe and effective workplace operations
- Completed work without injury to personnel or damage to materials

Resources required for assessment

The following resources must be provided;

- Work place location
- Hand and power tools and equipment appropriate for stripping of formwork components
- Appropriate PPE

UNDEPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none"> • Types and uses of PPE • Formwork components power and hand tools and equipment use and specification • Interpretation of instruction, • Safety rules and regulations • Safe and effective use of power and hand tools • Proper storing and maintenance of formwork components • Knowledge of stripping, shoring and removal of shoring procedures • Company rules and regulations 	<ul style="list-style-type: none"> • Using PPE • Interpreting instructions • Following safety rules and regulations • Preparing formwork components • Following stripping, shoring and removal of shoring procedures • Following safe and effective use of power and hand tools • Following proper storing and maintenance of formwork components and accessories • Communicating effectively • Following company rules and regulations

UNIT TITLE	Install Framing Works				
DESCRIPTOR	This unit covers the knowledge, skills and attitudes in installing framing works. It includes preparing materials, lay-outing-erecting and assembling supports.				
CODE	CON06S2U08VI	LEVEL	2	CREDIT	12

ELEMENTS OF COMPETENCIES	PERFORMANCE CRITERIA
1. Prepare Materials for Framing	1.1. Appropriate PPE is selected and used according to job requirements OSHC specifications 1.2. Related plans and details are correctly interpreted according to job requirements 1.3. Materials, power and hand tools and equipment are selected and prepared consistent with job requirements 1.4. Materials are re-checked and properly staged according to job requirements 1.5. Defective materials are reported to immediate supervisor following standard operating procedures 1.6. Unexpected situations are dealt with according to company rules and regulations 1.7. Housekeeping is performed according to safety regulations
2. Lay-out/erect and assemble post, girts and supports	2.1. Appropriate PPE is used according to job requirements and OSHC specifications 2.2. Posts and girts are laid-out according to working drawings and specifications with tolerance of $\pm 3\text{mm}$ on all measurements, plumbness and levelness 2.3. Post, girts and support are erected/assembled based on plans and specifications 2.4. Unexpected situations are dealt with according to company rules and regulations 2.5. Housekeeping is performed according to safety regulations

<p>3. Layout Out/Install Floor joist</p>	<p>3.1. Appropriate PPE is used according to job requirements and safety regulations</p> <p>3.2. Floor joists are set out, cut and fixed, and laterally supported in accordance with working drawings and specifications</p> <p>3.3. Floor joists are trimmed for floor openings and fixed with fastenings according to working drawings and specifications</p> <p>3.4. Floor joists are laid-out/installed with tolerance of $\pm 3\text{mm}$ on all measurements and levelness</p> <p>3.5. Unexpected situations are dealt with according to company rules and regulations</p> <p>3.6. Housekeeping is performed according to safety regulations</p>
<p>4. Layout/install wall studs</p>	<p>4.1. Appropriate PPE is used according to job requirements and safety regulations</p> <p>4.2. Wall studs are identified and installed based on working drawings and specifications with tolerance of $\pm 3\text{mm}$ on all measurements, plumbness, levelness and squareness</p> <p>4.3. Unexpected situations are dealt with according to company rules and regulations</p> <p>4.4. Housekeeping is performed according to safety regulations</p>
<p>5. Lay-out fabricate/Install Roof Frames</p>	<p>5.1. Appropriate PPE is used according to job requirements and safety regulations</p> <p>5.2. Types of roofs and other components are fabricated, laid out and installed according to working drawings and specifications with tolerance of $\pm 3\text{mm}$ maximum on all dimensions, plumbness, levelness and squareness</p> <p>5.3. Roof components are installed according to working drawings and specifications</p> <p>5.4. Unexpected situations are dealt with according to company rules and regulations</p> <p>5.5. Housekeeping is performed according to safety regulations</p>

<p>6. Layout/Install Ceiling Joist/Frames</p>	<p>6.1. Appropriate PPE is used according to job requirements and safety regulations</p> <p>6.2. Ceiling joists/frames are laid out/installed according to working drawings and specifications with ± 3 mm tolerance on all dimensions, levelness and squareness</p> <p>6.3. Unexpected situations are dealt with according to company rules and regulations</p> <p>6.4. Daily report is accomplished according to company rules and regulations</p> <p>6.5. Housekeeping is performed according to safety regulations</p>
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Range of Statement

In the context of this skill standard, the unit covers the preparation of framing works, Layout out and install floor joist, wall studs, roof frames, ceiling joist, including assembly of girts and supports

It also deals on the performance of good housekeeping according to safety regulations and accomplish daily reports and accomplishment reports.

Tools, Equipment and machinery used in this unit may include

This unit will include the use of the following tools and equipment, but not limited to;

- Carpentry Hand tools like Hand Saws, Hammer, Plumb bob, level hose, Spirit level, steel tape measure, pull-push rife, Pencil, Framing Square, Crow bar, Chisel, and portable power tools like Electric Saw, Electric Drill, Electric Planer, Jig saw, Sanders.

Materials may include:

Pieces of lumber, (wet and kiln dried lumber) of varied sizes and species, nails with varied sizes, Bolts and nuts, Hanger Ceiling (expansion bolts) and metal brackets.

ASSESSMENT GUIDE

Forms of assessment

Competency must be assessed through:

- Direct observation of application to tasks
- Questions related to underpinning knowledge

Assessment Context

Competency may be assessed in the work place or in a simulated work place setting.

Critical Aspects (for assessment)

Competency assessment requires evidence that the candidate:

- Interpreted related plans and details according to job requirements
- Selected and prepared materials, hand and power tools, equipment and PPE are consistent with job requirements
- Complied safety regulations for worksite operations
- Followed safe and effective operational use of tools and equipment
- Completed work operations without injury to personnel and damage to materials
- Communicated interactively with others to [Resources Required for Assessment](#)

The following resources must be provided:

- Work place location
- Power and hand tools and equipment appropriate to installation of frames
- Materials relevant to the proposed activity
- Drawings and specifications relevant to the task
- Appropriate PPE

UNDERPINNING KNOWLEDGE AND SKILLS

Underpinning Knowledge	Underpinning Skills
<ul style="list-style-type: none"> • Types and uses of PPE • Mensuration • Working drawings and specifications interpretation • Materials, power and hand tools, equipment use and specification • Principles of framing • Procedures for installing framing works • Safe and effective use of power and hand tools • Economic use of material 	<ul style="list-style-type: none"> • Using PPE • Applying mensuration • Interpreting working drawings and Using materials economically. • Following procedures for installing framing works • Following safe and effective use of power and hand tools • Following staging and storing procedure • Following company rules and regulations
<ul style="list-style-type: none"> • Staging and storing procedure of materials • Company rules and regulations 	