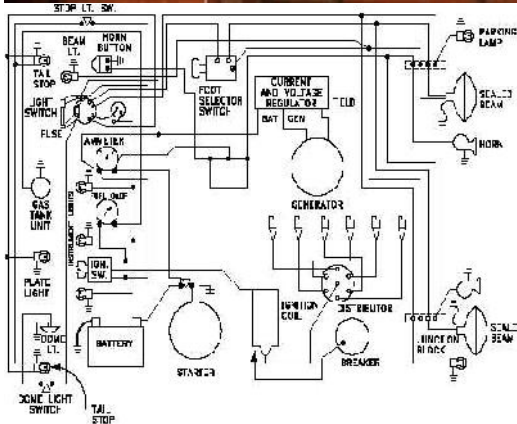
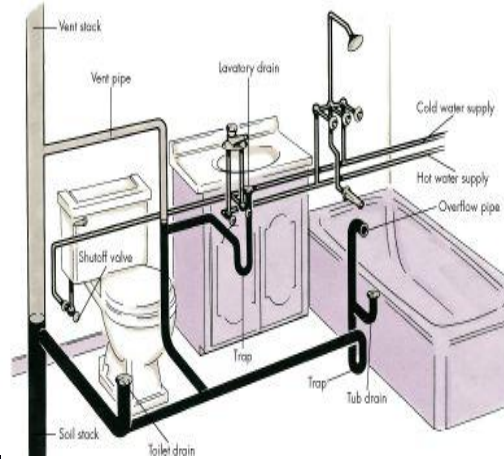


COMPETENCY STANDARD-CONSTRUCTION SECTOR



CONSTRUCTION SUPERVISOR

DIPLOMA LEVEL IV, FINAL DRAFT

ADB Grant 0211-LAO-Strengthening Technical and Vocational Education and Training (STVET) Project



**ADB Grant 0211-LAO
Strengthening Technical and Vocational Education and Training (STVET) Project**

LAO PDR

Occupation Area: Construction

Job Title: Construction Supervisor

Competency Standard; Construction Supervisor,
Diploma Level 4

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A Foreword

In order to ensure that the LAO PDR grows competitively over the coming years, we need to establish an ethos of excellence in everything that we do. This includes, particularly the Education & Employment sectors, as symbolised by Technical Vocational Education & Training (TVET)

Research has shown that countries without a functioning and effective TVET system will lose out in the competitiveness ratings, with a consequence negative impact on growth.

This Competency Standard was developed through the Strengthening Technical Vocational Education Training (STVET) Project, managed by SMEC with the support of the Asian Development Bank.

A.1 Project Title;

Strengthening Technical Vocational Education & Training in the LAO PDR

A.2 Project Donor & Number;

ADB Grant No. 0211-LAO (SF)

B Purpose of this Competency Standard

The Purpose of the Competency Standard (CS) for the **Construction Supervisor** is to provide the basis for Competency Based Training (CBT) Programmes resulting in Competent Electrical Installers to support the Construction Sector in the Lao PDR.

C Competency Standard/Qualification Description/Job Description

This Competency Based Standard (CS) is for **Construction Supervisor Level 4**, which level is defined in the Prime Minister Decree Number 0036/PM published in 2011.

The qualification covers the Basic Common & Core Competencies required by the Construction Industry for **Construction Supervisors**.

Persons deemed competent following assessment based on this Competency Standard can:-

- *Supervise work of others on a range of construction sites & environments*
- *Supervise construction works involving multi disciplines & environments*
- *Perform high level work involving decision making*
- *Be responsible for equipment*
- *Supervise interpretation of plans & designs*
- *Solve work problems using contracts, systems, methods, tools & information*

This CS sits at NVQF Level 4 in Lao PDR, and is developed in line with CBT principles.

D Outline of this Competency Standard

This Competency Standard contains **Units of Competency** as detailed within. These **Units** form the basis for CBT Learning Programmes for Electrical Installer. Each **Unit** contains the **Elements of Competency**, with each **Unit** being able to stand alone when applied in a work situation.

Each **Unit** can be amended in content or structure to meet the evolving needs of the **Construction Supervisor**. Changes and amendments to this Competency Standard will be made in line with the existing Quality Assurance Procedures as approved by the appropriate authority.

This Competency Standard is structured in line with the approved Manual for Developing Competency Standards, developed as a part of the STVET programme.

For Quality Assurance purposes, each Unit is coded in line with the example below;-

Code Example

<i>Occupation</i>	<i>Job</i>	<i>Sub Sector</i>	<i>Level</i>	<i>Unit Type</i>	<i>Unit No.</i>	<i>Version No</i>
Construction	Construction (Supervisor)	0		Basic		
712	7120	0	4	1	01	01

Code example above displayed as;-

712.7120.041.01.01

Each Competency Standard for a Job contains a mix of Units structured as follows:-

Basic Units; **Cover a range of Occupations**
Common Units; **Common to jobs in the Construction Sector**
Core Units; **Technical & Specific to this job**

E Basic Units of Competency

Unit 1 Supervise application of key communication skills in the workplace

Basic

Unit Code	712.7120.041.01.01
Unit Descriptor	<i>This unit covers the knowledge, skills and attitudes required to supervise the application of key communication skills in the workplace.</i>

Unit 1 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1.1. Meet common and specific communication needs of clients and colleagues	1.1 Specific communication needs of clients and colleagues are identified and met 1.2 Different approaches are used to meet communication needs of clients and colleagues 1.3 Conflict is addressed promptly and in a timely way and in a manner which does not compromise the standing of the organization
2.1. Contribute to the development of communication strategies	2.1 Strategies for internal and external dissemination of information are developed, promoted, implemented and reviewed as required 2.2 Channels of communication are established and reviewed regularly 2.3 Coaching in effective communication is provided 2.4 Work related network and relationship are maintained as necessary 2.5 Negotiation and conflict resolution strategies are used where required 2.6 Communication with clients and colleagues is appropriate to individual needs and organizational objectives
3. Represent the organization	3.1 When participating in internal or external forums, presentation is relevant, appropriately researched and presented in a manner to promote the organization 3.2 Presentation is clear and sequential and delivered within a predetermined time 3.3 Utilize appropriate media to enhance presentation 3.4 Differences in views are respected 3.5 Written communication is consistent with organizational standards 3.6 Inquiries are responded in a manner consistent with organizational standard

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4. Facilitate group discussion	4.1 Mechanisms which enhance effective group interaction is defined and implemented 4.2 Strategies which encourage all group members to participate are used routinely 4.3 Objectives and agenda for meetings and discussions are routinely set and followed 4.4 Relevant information is provided to group to facilitate outcomes 4.5 Evaluation of group communication strategies is undertaken to promote participation of all parties 4.6 Specific communication needs of individuals are identified and addressed
5. Conduct interviews	5.1 A range of appropriate communication strategies are employed in interview situations 5.2 Records of interviews are made and maintained in accordance with organizational procedures 5.3 Effective questioning, listening and nonverbal communication techniques are used to ensure that the required message is communicated.

Unit 1 Supervise application of key communication skills in the workplace

Basic

Range of Variables

VARIABLES	RANGE
1. Strategies	1.1 Recognizing own limitations 1.2 Referral to specialists 1.3 Utilizing techniques and aids 1.4 Providing written drafts 1.5 Verbal and non-verbal communication
2. Effective group interaction	2.1 Identifying and evaluating what is occurring within an interaction in a non-judgmental way 2.2 Using active listening 2.3 Making decision about appropriate words, behaviour 2.4 Putting together response which is culturally appropriate 2.5 Expressing an individual perspective 2.6 Expressing own philosophy, ideology and background and exploring impact with relevance to communication
3. Types of Interview	3.1 Related to staff issues 3.2 Routine 3.3 Confidential 3.4 Evidential 3.5 Non-disclosure 3.6 Disclosure
4. Interview situations	4.1 Establish rapport 4.2 Elicit facts and information 4.3 Facilitate resolution of issues 4.4 Develop action plans 4.5 Diffuse potentially difficult situation

Unit 1 Supervise application of key communication skills in the workplace

Basic

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of Competency	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> 1.1 Demonstrated effective communication skills with clients accessing service and work colleagues 1.2 Supervised use of relevant communication techniques and strategies to meet client particular needs and difficulties
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Communication process 2.2 Dynamics of groups and different styles of group leadership 2.3 Communication skills relevant to client groups
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1 Full range of communication techniques including: <ul style="list-style-type: none"> 3.1.1 Full range of communication 3.1.2 Active listening 3.1.3 Feedback 3.1.4 Interpretation 3.1.5 Role boundaries setting 3.1.6 Negotiation 3.1.7 Establishing empathy 3.2 Communication skills required to fulfill job roles as specified by the organization
4. Resource Implications	The following resources MUST be provided: <ul style="list-style-type: none"> 4.1. Variety of Information 4.2. Communication tools 4.3. Simulated workplace
5. Methods of Assessment	Competency may be assessed through:- <ul style="list-style-type: none"> 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context for Assessment	<ul style="list-style-type: none"> 6.1. Competency may be assessed in the workplace or in an accredited workplace environment 6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 2

Supervise development of teams & individuals

Basic

Unit Code	712.7120.041.02.01
Unit Descriptor	<i>This Unit covers the Skills Knowledge & Attitudes required to supervise the planning of individual and team development needs and facilitate the development of workgroups</i>

Unit 2 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Supervise team leadership development	1.1. Supervise Learning and development needs implementation in line with organizational requirements 1.2. Learning plan to meet team leadership developmental needs is collaboratively developed and implemented 1.3. Team leaders are encouraged to self-evaluate performance and identify areas for improvement 1.4. Feedback on performance of team leaders & members is collected & evaluated against planned outcomes.
2. Foster individual and organizational growth	2.1. Learning and development program goals and objectives are identified to match the needs. 2.2. Learning delivery methods are appropriate to the learning goals, the learning style of participants & availability of equipment and resources 2.3. Supervise workplace learning and coaching/ mentoring to facilitate individual and team achievement of competencies 2.4. Resources and timelines required for learning activities are identified and approved in accordance with organizational requirements
3. Monitor and evaluate workplace learning	3.1. Feedback from individuals, teams is used to identify and implement improvements in future learning arrangements 3.2. Supervised outcomes and performance of individuals/teams are assessed and recorded to determine the effectiveness of development programs and the extent of additional support 3.3. Modifications to learning plans are negotiated to improve the efficiency and effectiveness of learning 3.4. Records and reports of competency are maintained in line with SOP & QMS
4. Develop team commitment and cooperation	4.1. Open communication processes to obtain and share information is used by team 4.2. Decisions are reached by consensus in accordance with

Competency Standard, Construction, Construction Supervisor

	the teams agreed roles and responsibilities 4.3. Mutual concern and support is developed within the team
5. Facilitate accomplishment of organizational goals	5.1. Team members actively participated in team activities and communication processes 5.2. Teams members developed individual and joint responsibility for their actions 5.3. Collaborative efforts are sustained to attain organizational goals

Unit 2 Supervise the development of teams & individuals

Basic

Range of Variables

VARIABLES	RANGE
1. Learning & development needs	1.1 Supervision, Coaching, mentoring. 1.2 Formal/informal learning program 1.3 Internal/external training provision 1.4 Work experience/exchange/opportunities 1.5 Personal study 1.6 Career planning/development 1.7 Performance appraisals 1.8 Workplace skills assessment 1.9 Recognition of prior learning
2. Monitor performance	2.1. Quality assurance and/or procedures manuals. 2.2. Goals, objectives, plans, systems and processes 2.3. Legal and organizational policy/guidelines and requirements 2.4. Safety policies, procedures and programs 2.5. Confidentiality and security requirements 2.6. Business and performance plans 2.7. Ethical standards 2.8. Quality and continuous improvement processes and standards
3. Feedback	Formal/informal performance appraisals 3.1. Obtaining feedback from supervisors & Colleagues. 3.2. Obtaining feedback from clients 3.3. Personal and reflective behaviour strategies 3.4. Routine and organizational methods for monitoring service delivery
4. Learning delivery methods	4.1 On the job coaching or mentoring 4.2 Problem solving 4.3 Presentation/demonstration 4.4 Formal course participation 4.5 Work experience 4.6 Involvement in professional networks 4.7 Conference and seminar attendance 4.8 Induction

Unit 2 Supervise development of teams & individuals.

Basic

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of Competency	<p><i>Assessment requires evidence that the candidate::</i></p> <ul style="list-style-type: none"> 1.1. Identified and supervised learning opportunities for team members 1.2. Gave and received feedback constructively 1.3. Supervised participation of individuals in team work 1.4. Negotiated learning plans to improve the effectiveness of learning 1.5. Prepared learning plans to match skill needs
2. Underpinning Knowledge	<ul style="list-style-type: none"> 2.1. Supervision, Coaching and mentoring principles 2.2. How to work effectively with team members with diverse work styles, aspirations, cultures and perspective 2.3. How to facilitate team development and improvement 2.4. Learning theory 2.5. Methods and techniques for extracting and interpreting feedback 2.6. Methods for identifying and prioritizing personal development opportunities and options 2.7. Career paths and competency standards in the industry
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1. Listening Skills. 3.2. Planning Skills 3.3. Learning methods/domains (Blooms taxonomy etc) 3.4. Communication skills including receiving feedback and reporting, maintaining effective relationships and conflict management 3.5. Coaching and mentoring skills 3.6. Monitoring & evaluation skills 3.7. Reporting skills to organize information; assess information for relevance and accuracy; identify and elaborate on learning outcomes 3.8. Facilitation skills to conduct small group training sessions 3.9. Interpersonal skills
4. Resource Implications	<p>The following resources should be provided:</p> <ul style="list-style-type: none"> 4.1. Materials relevant to the proposed activity or tasks

5. Methods of Assessment	Competency may be assessed through:- 5.4. Observation 5.5. Portfolio/Interview 5.6. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context for Assessment	6.1. Competency may be assessed in the workplace or in an accredited workplace environment 6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines.

Unit 3 **Supervise problem solving techniques in the workplace**

Basic

Unit Code	712.7120.041.03.01
Unit Descriptor	<i>This Unit covers the Skills Knowledge & Attitudes required to supervise the problem solving techniques in the workplace.</i>

Unit 3 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Problem analysis	1.1. Supervise evaluation and reporting techniques & reports 1.2. Supervise development of possible cause & solution statements based on findings
2. Solution identification	2.2. Supervise resolution decision making process in accordance with relevant procedures 2.2. Strengths and weaknesses of possible options are considered
3. Solution planning	3.1. Solution based report is prepared 3.2. Recommendations are presented to appropriate personnel
4. Solution implementation & supervision	4.1. Measurable objectives are identified 4.2. Resource needs are identified 4.3. Timelines are identified in accordance with plan 4.4. Corrective actions process is supervised 4.5. Recommendations are actioned & recorded
5. Monitor outcomes	5.1. Recommendations are prepared and submitted to line with procedures. 5.1. Supervised implementation of processes and improvements.

Unit 3 Supervise problem solving techniques in the workplace.

Basic

Range of Variables

VARIABLES	RANGE
1. Area of responsibility	Variables may include but are not limited to: 1.1. Work environment 1.2. Problem solution processes 1.3. Monitoring & evaluation 1.4. Preventative maintenance and diagnostic policy 1.5. Roles and technical responsibilities
2. SoP, QMS, OHS	2.1. As per company, statutory and vendor requirements (SoP & QMS) 2.2. Ergonomic and environmental regulations/factors must be considered during the demonstration of this competency 2.3. Cause & solution statements.
3. Communication	Variables may include but are not limited to: 3.1. Listening 3.1. Hand written and printed material 3.1. Electronic mail. 3.2. Verbal communication 3.3. Sign language 3.4. Display units/environments.
4. Documentation	4.1. Audit trails 4.2. Quality Assurance Procedures 4.3. Technical & Operating standards 4.4. Cause & solution records 4.5. Corrective action records

Unit 3 Supervise problem solving techniques in the workplace
Basic

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of Competency	Assessment requires evidence that the candidate: 1.1. Analyzed the problem 1.5. Identified possible solutions 1.5. Implemented solutions 1.5. Recommended solutions to higher management 1.5. Outcome evaluated/monitored
2. Underpinning Knowledge	2.1. QMS organizational systems and functions 2.2. Maintenance practices & data management 2.3. Data management hardware and software 2.4. Knowledge of the client business domain 2.5. Broad knowledge base of diagnostic tools 2.6. General principles of OHS 2.7. Divisional/unit responsibilities
3. Underpinning Skills	3.1 Supervise decision making by individuals & teams 3.2 Communication skills applied 3.3 Supervise Teamwork in reference to personal responsibility 3.4 Time management as applied to self-management. 3.5 Analytical skills in relation to routine malfunctions. 3.6 General customer service skills displayed. 3.7 Consistently & effectively applying questioning and active listening skills
4. Resource Implications	4.1. Assessment may require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating ability over a range of situations. 4.2. A bank of scenarios/case studies/what ifs.. 4.3. A bank of questions to determine the reasoning behind the observable actions.
5. Methods of Assessment	Competency may be assessed through:- 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>

<p>6. Context for Assessment</p>	<p>6.1. Competency may be assessed in the workplace or in an accredited workplace environment</p> <p>6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines.</p>
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Unit 4 Supervise data collection and analysis in the workplace.

Basic

Unit Code	712.7120.041.04.01
Unit Descriptor	<i>This Unit covers the Skills Knowledge & Attitudes required to supervise the collection & processing of data in the workplace</i>

Unit 4 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Study information requirements	1.1. Needs are identified using established research procedures 1.2. Relevant forms and recording systems are used to gather the information. 1.3. Respondents are selected to implement survey / research based on established procedures.
2. Data processed	2.1. Data are collected and collated based on the prescribed method. 2.2. Relevant data are used as references in accordance with the objectives of the program. 2.3. Information is compiled according to the required form.
3. Analyse, interpret and organize information gathered	3.1. Data are analysed using relevant methodologies 3.2. Where applicable, statistical analysis/methods are employed according to the objectives of the program 3.3. Graphs and other visual presentations are prepared to facilitate analysis / interpretation of information
4. Present findings/recommendations	4.1. Report on recommendations are prepared in line with procedures 4.2. Recommendations are presented to appropriate personnel. 4.3. Recommendations are followed-up & monitored as appropriate.

Unit 4, Supervise data collection and analysis in the workplace

Basic

Range of Variables

VARIABLES	RANGE
1. Research procedures	1.1. Front-end analysis 1.2. Surveys 1.3. Interviews 1.4. Functional analysis
2. Forms	May include but not be limited to: 2.1. Survey forms/Questionnaires 2.2. Personal information/Profile 2.3. Accident report form 2.4. Requisition slip 2.5. Job orders 2.6. Purchase request form 2.7. Incident report form
3. Methodologies	3.1. Qualitative methods 3.2. Quantitative methods
4. Statistical analysis/methods	4.1. Averages (Mean, Median, Mode) 4.2. Percentage 4.3. Ranks 4.4. Frequency Distribution 4.5. Statistical test
5. Data & Information	5.1. Raw data 5.2. Processed & packaged data 5.3. Papers/Research etc

Unit 4 Supervise data collection and analysis in the workplace

Basic

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of Competency	Assessment requires evidence that the candidate: <ol style="list-style-type: none"> 1.1. Determined information requirements based on organizational goals and objectives. 1.2. Used relevant forms and recording systems to gather data 1.3. Processed data based on the objectives of the program 1.4. Utilized relevant research methods based on the objective of the program 1.5. Analysed and organised information gathered 1.6. Submitted/Disseminated technical reports to concerned personnel
2. Underpinning Knowledge	<ol style="list-style-type: none"> 2.1. Data processing, Information analysis and interpretation 2.2. Research methods <ol style="list-style-type: none"> 2.2.1. Qualitative 2.2.2. Quantitative 2.2.3. Statistical 2.3. Report writing 2.4. Use of relevant software <ol style="list-style-type: none"> 2.4.1. Spread-sheets 2.4.2. Presentation graphics 2.4.3. Work processor 2.4.4. Statistical package
3. Underpinning Skills	<ol style="list-style-type: none"> 3.1. Effective Communication skills 3.2. Research & Analysis techniques & processes 3.3. Data reading & interpretation 3.4. Problem solving
4. Resource Implications	<ol style="list-style-type: none"> 4.1. Workplace or assessment location 4.2. Access to office equipment and facilities relevant to the unit 4.3. Case studies/scenarios
5. Methods of Assessment	Competency may be assessed through:- <ol style="list-style-type: none"> 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>

6. Context for Assessment	6.1. Competency may be assessed in the workplace or in an accredited workplace environment 6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines
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Unit 5

Plan & organise work for several work teams

Basic

Unit Code	712.7120.041.05.01
Unit Descriptor	This Unit covers the Skills Knowledge & Attitudes required to plan & organise work for several work teams

Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Set objectives	1.1 Work Objectives set are consistent with and linked to work activities in accordance with organizational aims 1.2 Objectives are stated as measurable targets with clear time frames 1.3 Support and commitment of team members are reflected in the objectives
2. Plan and schedule work activities	2.1. Tasks/work activities to be completed are identified and prioritized as directed 2.2. Tasks/work activities are broken down into steps in accordance with agreed set time frames 2.3. Resources are allocated as per requirements of the activity 2.4. Schedule of work activities is coordinated with personnel concerned
3. Implement work plans	3.1. Work methods and practices are identified in consultation with personnel concerned 3.2. Work plans are implemented in accordance with set time frames, resources & standards 3.3. Appropriate actions are implemented at all times
4. Monitor work activities	4.1. Work activities & performances are monitored and compared with set objectives 4.2. Deviations from work activities are reported and recommendations are in accordance with set standards 4.3. Reporting requirements are complied in accordance with SoP's & QMS 4.4. Reports are and maintained in accordance with standard operating procedures
5. Evaluate works plans & activities	5.1. Plans, strategies & implementation outcomes are evaluated with teams in line with SoP's & QMS 5.2. Evaluation outcomes are recorded and actioned as required. 5.3. All evaluation data is recorded and used to provide team & supervisor feedback .

Unit 5 Plan & organise work for several work teams.

Basic

Range of variables

VARIABLES	RANGE
1. Objectives	1.1. Specific 1.2. General
2. Resources	2.1. Personnel 2.2. Equipment & technology 2.3. Services 2.4. Supplies & materials 2.5. Sources for accessing specialist advice 2.6. Budget
3. Schedule work	3.1. Daily 3.2. Work-based 3.3. Contractual 3.4. Regular 3.5. Confidential 3.6. Disclosure 3.7. Non-disclosure
4. Work practices, standards & systems	4.1. Legislated regulations & codes of practices 4.2. Standard Operating Procedures 4.3. Quality Management Systems 4.4. OHS regulations
5. Work Plans	5.1. Daily 5.2. Project 5.3. Programme 5.4. Organisation 5.5. Resources 5.6. Skills development 5.7. Management
6. Feedback mechanisms	6.1. Reports 6.2. Verbal (formal & informal) 6.3. Questionnaire 6.4. Survey

Unit 5 Plan & organise work for several work teams.

Basic

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical Aspects of Competency	Assessment requires evidence that the candidate: <ol style="list-style-type: none"> 1.1. Set objectives 1.2. Planned & scheduled activities 1.3. Implemented work plans 1.4. Monitored work activities 1.5. Reported on work plans & activities 1.6. Evaluated & provided feedback on work plans & activities
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1. Organisation strategic plan 2.2. SOP's 2.3. QMS 2.4. OHS 2.5. Team work & consultation strategies
3. Underpinning skills	<ol style="list-style-type: none"> 3.1. Planning 3.2. Organising 3.3. Coordinating 3.4. Communication 3.5. Interpersonal 3.6. Motivation 3.7. Presentation 3.8. Reporting
4. Resource implications	<ol style="list-style-type: none"> 4.1. Tools, equipment, materials & facilities appropriate to planned activities 4.2. Work plans & schedules 4.3. Relevant supporting documents (drawings etc)
5. Methods of assessment	Competency may be assessed through:- <ol style="list-style-type: none"> 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context for Assessment	<ol style="list-style-type: none"> 6.1. Competency may be assessed in the workplace or in an accredited workplace environment 6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 6, Supervise environmental protection implementation

Basic

Unit Code	712.7120.041.06.01
Unit Descriptor	<i>This Unit covers the Skills Knowledge & Attitudes required to supervise environmental protection implementation in the workplace.</i>

Elements & performance criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Adopt environmental protection policy & principles.	1.1. Environmental legislations/conventions and local regulations are identified & adopted 1.2. Industrial standard/environmental practices are identified according to various environmental concerns & impact. 1.3. Environmental management support systems are established & operational
2. Implement specific environmental programs.	2.1. Programs/Activities are identified according to organizations policies and guidelines 2.2. Individual roles/responsibilities are determined and performed based on the activities identified 2.3. Environmental issues are identified & resolved in accordance with organizations' policies and guidelines 2.4. Environmental stakeholders are consulted based on company environmental guidelines.
3. Monitor activities on environmental protection /programs	3.1. Activities are periodically monitored and evaluated according to the objectives of the environmental programme. 3.2. Feedback from stakeholders are gathered and considered in proposing enhancements to the program based on consultations. 3.3. Data gathered are analysed based on environmental requirements. 3.4. Environmental protection recommendations are made & submitted based on the findings. 3.5. Environmental non-compliance issues are reported, monitored and managed.

Unit 6, Basic Supervise environmental protection implementation
Basic

Range of Variables

VARIABLES	RANGE
1. Regulations, policy, procedures	1.1. Clean air act/law 1.2. Clean water act/law 1.3. Solid waste management 1.4. Montreal protocol 1.5. Kyoto protocol
2. Environmental aspects	2.1. Air, water & noise pollution 2.2. Solid waste management 2.3. Deforestation & soil erosion 2.4. Radiation, radio frequency, microwaves, chemicals 2.5. Electrical materials & components safe recycling & storage.
3. Environmental standards	3.1. ISO 4001: 2004 & ISO 4004: 2004 3.2. ECC standards 3.3. Company environmental standards 3.4. ISO Internal & External auditor standards
4. Environmental auditing	4.5. Time structured 4.6. Individual & team 4.7. Auditing data reports.
5. Activities	5.1. Waste disposal (on-site and off-site) 5.2. Repair and maintenance of equipment. 5.3. Treatment, disposal & clean-up operations. 5.4. Laboratory and analytical test. 5.5. Supervision, Auditing, Monitoring and evaluation 5.6. Environmental advocacy programmes. 5.7. Reporting and compliance enforcement

Unit 6 Supervise environmental protection implementation.

Basic

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	1.1. Application of environmental legislation policy & procedures relating to a range of environmental issues. 1.2. Experienced in standard industrial environmental practices covering a range of environmental issues. 1.3. Implemented, monitored & audited environmental practices based on EMS 1.4. Resolved & reported on environmental problems and non-compliances based on EMS & existing legislation
2. Underpinning knowledge	2.1. ISO 14001;2004, 14004;2004 2.2. Company EMS, policy & procedures 2.3. Environmental protocols 2.4. Supervisory principles 2.5. Internal & external auditor (EMS) 2.6. Compliance & non compliance
3. Underpinning skills	3.1. Supervisory skills 3.2. Management of ISO 14001;2004, 14004;2004 3.3. EMS Auditing skills 3.4. Research & analysis. 3.5. Fault finding & solution planning 3.6. Report writing
4. Resource implications	The following resources must be provided;- 4.1. Assessment location 4.2. Assessment package, including case studies. 4.3. Legislation & Standards 4.4. EMS policy & procedures
5. Methods of assessment	Competency may be assessed through:- 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context of assessment	6.1. Competency may be assessed in the workplace or in an accredited workplace environment 6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines.

F. Common Units of Competency
Unit 1 Supervise preparation of materials & tools & equipment

Common

Unit Code	712.7120.042.01.01
Unit Descriptor	<i>This unit of Common Competency covers the knowledge, skills and attitudes required in supervising the preparation of construction materials, tools & equipment for assigned tasks.</i>

Unit 1 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Supervise planning of resource requirements.	1.1 <i>Resource requirements are planned for</i> as per job requirements 1.2 Quantity and <i>description of materials</i> conform with the job requirements 1.3 Resource planning list approved by supervisor in line with <i>Standard Operating Procedures(SOP)</i>
2. Supervise requisition & acceptance of resources	2.1 Supervisor approves request for materials, equipment, and tools according to the SOP. 2.2 Resource acceptance and fit for use check is supervised and recorded in line with SOP.

Unit 1 Supervise preparation of materials & tools & equipment

Common

Range of Variables

VARIABLES	RANGE
1. Materials, Tools, Equipment	Including but not limited to;- 1.1 Electrical supplies 1.2 Structural 1.3 Plumbing 1.4 Welding/pipefitting 1.5 Carpentry 1.6 Masonry
2. Description of Materials Tools, equipment	Requisition & Specification to include 2.1 Brand name 2.2 Size 2.3 Capacity 2.4 Application scope & range 2.5 Supervisor sign off
3. Standard Operating Procedures/Quality Management Systems	SOP & QMS covering, but not limited to;- 3.1 Job orders 3.2 Requisition orders 3.3 Borrower slips 3.4 Non-compliance records 3.5 Acceptance records 3.6 Resource management reports

Unit 1 Supervise preparation of materials & tools & equipment

Common

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	Assessment requires evidence that the candidate has:- 1.1 Supervised the identification & planning of resource materials according to quantity and job requirements 1.2 Supervised the acceptance of materials, equipment and tools according to the list prepared and as per company SOP. 1.3 Supervised the inspection of materials, tools & equipment as per quantity and job specifications 1.4 Approved the equipment, tools & equipment as being in conformance as per SOP/QMS
2. Underpinning knowledge	2.1 Functions & types of construction equipment, tools & materials. 2.2 Application & management of forms and data records. 2.3 Procedure implementation processes
3. Underpinning skills	3.1 Supervising preparation of tools, equipment & materials 3.2 Supervising management of tools, equipment & materials. 3.3 Supervising implementation of various procedures
4. Resource implications	The following resources should be provided: 4.1 Workplace location 4.2 Required relevant materials, tools & equipment 4.3 Relevant plans, drawings, procedures & specifications
5. Methods of assessment	Competency may be assessed through:- 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context of assessment	6.1. Competency may be assessed in the workplace or in an accredited workplace environment 6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 2 **Supervise compliance with procedures, specifications & manuals**

Common

Unit Code	712.7120.042.02.01
Unit Descriptor	<i>This Unit covers the Skills Knowledge & Attitudes required to supervise compliance with operating procedures, supporting specifications & manuals.</i>

Unit 2 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Review SOP's, specifications & manuals.	1.1 Supervise status review of SoP's for approved reports and compliance records in line with QMS requirements . 1.2 Existing specifications & manuals are reviewed as fit for use as per job requirements, in line with SOP & QMS.
2. Interpret compliance of SOP, manuals & specifications	2.1 Relevant documents are applied to work processes 2.2 Compliance requirements are interpreted, & applied to a range of work processes.
3. Recording & reporting	3.1 Compliance data is recorded for a range of work activities according to job & SoP requirements 3.2 Supervise the process of recording all non-compliance data & actions. 3.3 Ensure that all correct work processes are interpreted in accordance with information contained on the manual or specifications. 3.4 Supervise storage/processing of documents and reports

Unit 2 Supervise compliance with procedures, specifications & manuals

Common

Range of Variables

VARIABLES	RANGE
1. Technical documentation	1.1 Manufacturer's Specification Manual 1.2 Repair Manual 1.3 Maintenance Procedure Manual 1.4 Periodic Maintenance Manual.
2. Quality Management System documentation	2.1. ISO 9002 (Quality Management) 2.2. ISO 14000 (Environment) 2.3. ISO 19011 Auditing (Internal & external)

Unit 2 Supervise compliance with procedures, specifications & manuals.

Common Evidence Guide

1. Critical aspects of competency	<p>Assessment requires that the candidate:</p> <p>1.1 Identified and accessed specification/manuals as per job requirements</p> <p>1.2 Interpreted manuals in accordance with industry practices</p> <p>1.3 Applied information in manuals according to the given task</p> <p>1.4 Stored manuals in accordance with company requirements</p>
2. Underpinning Knowledge	<p>2.1. Electric Installation manuals used in construction sector</p> <p>2.2. Identification of symbols used in the manuals</p> <p>2.3. Identification of units of measurements</p> <p>2.4. Unit conversion</p> <p>2.5. Compliance documents & records</p>
3. Underpinning skills	<p>3.1. Supervisory processes</p> <p>3.2. Interpretation of construction manuals and specifications</p> <p>3.3. Accessing information and data</p> <p>3.4. Monitoring & evaluation</p> <p>3.5. Reporting</p>
4. Resource implications	<p>The following resources should be available/provided:</p> <p>4.1 Technical manuals/catalogues relevant to construction sector/Electrical Installation</p> <p>4.2 Relevant Quality & Environmental standards</p>
5. Methods of assessment	<p>Competency may be assessed through:-</p> <p>5.1. Observation</p> <p>5.2. Portfolio/Interview</p> <p>5.3. Questioning</p> <p>Assessment of knowledge & underpinning skills may be combined</p> <p><i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i></p>
6. Context of assessment	<p>6.1. Competency may be assessed in the workplace or in an accredited workplace environment</p> <p>6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines</p>

Unit 3 **Supervise interpretations of technical drawings & plans**

Common

Unit Code	712.7120.042.03.01
Unit Descriptor	<i>This Unit covers the Skills Knowledge & Attitudes required when supervising the interpretation of drawings, data and work plans by team members.</i>

Unit 3 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Analyse signs, symbols and data	1.1 Technical plans are obtained according to job requirements 1.2 Drawings and data are clarified according to job specifications 1.3 Signs symbols and data are determined according to classification or as appropriate in drawings
2. Interpret technical drawings and work plans	2.1 Resources are identified & listed according to the drawing & work plan 2.2 Drawing & plan defects identified & recorded as required 2.3 Supervisor & team match existing/available resources to job requirements 2.4 Work plan is finalised following the interpretation
3. Approve drawings & plans	3.2. Supervisor approves any/all drawing/plan changes. 3.2. Non compliances listed and feedback provided to issuing source (drawings & plans)

Unit 3 Supervise interpretations of technical drawings & plans

Common

Range of Variables

VARIABLES	RANGE
1. Technical plans	Including but not limited to: 1.1 Electrical plans 1.2 Construction plans 1.3 Architectural plans 1.4 Plumbing plans 1.5 Job requirements 1.6 Installation instructions 1.7 Components instruction
2. Work Plans	1.5. Milestones 2.6. Gantt Charts 2.7. Bar Charts 2.8. Timelines 2.9. PERT 2.10. Resources 2.11. Budgets
3. Classification	3.1. Electrical 3.2. Mechanical 3.3. Plumbing 3.4. Construction
4. Drawings	Technical & Construction Drawings including;_ 4.1. Orthographic views (Front, R&L side view, Top, Pictorial) 4.2. Schematic diagram 4.3. Electrical Installation 4.4. Plumbing Installation 4.5. Welding 4.6. Drawing symbols & lines
5. Drawing resources	5.1. Computer hardware & relevant software 5.2. Technical Drawing tools & equipment & related resources

Unit 3 Supervise interpretations of technical drawings & plans

Common

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	Assessment requires that the candidate: <ol style="list-style-type: none"> 1.1 Supervised interpretations of technical drawings according to work plan, job requirements and classifications 1.2 Supervised the identification of supporting resources 1.3 Supervised the development of the work plan to approval stage. 1.4 Determined job specifications based on working/ technical drawing
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1 Mathematics <ul style="list-style-type: none"> • Linear measurement • Dimension • Unit conversion 2.2 Drawings & Plan specifications <ul style="list-style-type: none"> • Electrical, mechanical plan, symbols and abbreviations • Drawing standard symbols
3. Underpinning skills	<ol style="list-style-type: none"> 3.1 Interpreting technical plans 3.2 Matching specification details with existing resources 3.3 Completion of range of drawings/orthographic drawings
4. Resource implications	The following resources should be provided: <ol style="list-style-type: none"> 4.1 Workplace 4.2 Computer hardware & software 4.3 Drawings and specification relevant to task 4.4 Materials and instrument relevant to proposed activity
5. Methods of assessment	Competency may be assessed through:- <ol style="list-style-type: none"> 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context of assessment	<ol style="list-style-type: none"> 6.1. Competency may be assessed in the workplace or in an accredited workplace environment 6.2. Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 4 *Approve drawings & plans*

Common

Unit Code	712.7120.042.04.01
Unit Descriptor	<i>This Unit covers the Skills Knowledge & Attitudes required when supervising technical & mathematical calculations.</i>

Unit 4 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Preparation	1.1 Supervised selection of components to be measured according to the defined <i>geometric shape</i> 1.2 Measuring tools are selected/identified as per object to be measured/job requirements 1.3 Correct specifications are obtained in line with <i>SOP</i> 1.4 Appropriate measuring instruments are selected according to job requirements.
2. Carry out measurements and calculations	2.1 Accurate measurements are obtained, calculated & recorded 2.2 Numerical computation is self-checked and corrected for accuracy 2.3 Instruments are read to the limit of accuracy of the tool 2.4 Supervised systems of measurement identification and conversion according to job requirements/ISO

Unit 4 Supervise technical & mathematical calculations

Common

Range of Variables

VARIABLES	RANGE	
1. Geometric shapes	Including but is not limited to: 1.1 Round 1.2 Square 1.3 Rectangular 1.4 Triangle 1.5 Sphere 1.6 Conical	
2. Measuring instruments	Depending on the task & geometric shape instruments will include but not be limited to: 2.1 Range of Micrometers, Verniers, Gauges 2.2 Straight edge 2.3 Try-square	2.4 Protractor 2.5 Steel rule 2.6 Voltmeter 2.7 Ammeter 2.8 Mega-ohmmeter 2.9 Kilowatt hour meter 2.10 Thermometers
3. Measurements and calculations	3.1 Linear 3.2 Volume 3.3 Area 3.4 Wattage 3.5 Voltage 3.6 Resistance 3.7 Amperage 3.8 Frequency 3.9 Impedance 3.10 Conductance 3.11 Capacitance	3.12 Displacement 3.13 Inside diameter 3.14 Circumference 3.15 Length 3.16 Thickness 3.17 Outside diameter 3.18 Taper 3.19 Out of roundness 3.20 Oil clearance 3.21 End play/Thrust clearance

Unit 4 Supervise technical & mathematical calculations

Common

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENT
1. Critical aspects of competency	Assessment requires that the candidate has:- 1.1 Selected and prepared appropriate measuring instruments in accordance with job requirements 1.2 Performed measurements and calculations according to job requirements/ ISO
2. Underpinning knowledge	2.1 Mathematics & Mensurations <ul style="list-style-type: none"> • Trigonometric functions • Algebraic equations • Linear measurement • Dimensions • Unit conversion • Ratio and proportion
3. Underpinning skills	3.1 Calculate using addition, subtraction, multiplication, division, trigonometry functions and algebraic equations & algebra 3.2 Visualizing objects and shapes 3.3 Calculate for volume, areas, perimeters of plane and geometric figures. 3.4 Supervision & recording of resulting data
4. Resource implications	The following resources should be provided: 4.1 Workplace location 4.2 Problems to solve 4.3 Relevant measuring instruments 4.4 Instructional materials relevant to the propose activity 4.5 Data recording documents
5. Methods of assessment	Competency may be assessed through:- 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context of assessment	6.1 Competency assessment may occur in workplace or any accredited simulated environment 6.2 Competency assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 5 **Supervise use & maintenance of tools & equipment**
Common

Unit Code	712.7120.042.05.01
Unit Descriptor	<i>This Unit of Competency covers the knowledge, skills and attitudes required when supervising the use & maintenance of tools & equipment.</i>

Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Condition checking	1.1. Supervise tools and equipment condition checking process 1. Supervise that tools & equipment status recording process is in line with SOP and job requirements.
2. Preventative maintenance (PM)	2.1 Tools & equipment are calibrated in line with specifications 2.2 Tools & equipment are lubricated in line with specification 2.3 Damaged tools & equipment are logged for replacement. 2.4 Supervisor oversees PM process & maintains PM records
3. Storage	3.1 Inventory of tools, instruments and equipment are conducted and recorded as per company practices 3.2 Tools and equipment are stored safely in appropriate locations in accordance with manufacturer's specifications or company procedures.

Unit 5 Supervise use & maintenance of tools & equipment

Common

Range of Variables

VARIABLES	RANGE
1. Materials	Including but not limited to: 1.1 Lubricants 1.2 Cleaning materials 1.3 Rust remover 1.4 Rugs 1.5 Spare parts
2. Tools and equipment	Including but not limited to: 2.1 Tools <ul style="list-style-type: none"> • Cutting tools - hacksaw, crosscut saw, rip saw • Boring tools - auger, brace, hand drill • Holding tools - vise grip, C-clamp, bench vise • Threading tools - die and stock, taps 2.2 Measuring instruments/equipment 2.3 Relevant Calibration devices
3. PPE	Including but not limited to: 3.1 Goggles 3.2 Gloves 3.3 Safety shoes 3.4 Aprons/Coveralls
4. Data logs & records	4.1 Condition check log 4.2 Preventative Maintenance log & records 4.3 Requisition documents 4.4 Inventory log 4.5 Inspection log 4.6 Standard Operating Procedures

Unit 5 Supervise use & maintenance of tools & equipment

Common

Evidence guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	Assessment requires that the candidate has: <ol style="list-style-type: none"> 1.1 Supervised the condition checking process 1.2 Selected and used appropriate processes, tools and equipment to carry out task 1.3 Supervised the PM process in line with SOP & QMS 1.4 Lubricated and calibrated tools, equipment and instruments according to manufacturer's specifications 1.5 Logged request for replacement of defective tools, equipment and their accessories 1.6 Prepared and submitted inventory report where applicable 1.7 Stored tools and equipment in accordance with SOP, QMS & OHS
2 Underpinning knowledge	<ol style="list-style-type: none"> 2.1 Tools & 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 calibration devices 2.2 Safety Practices <ul style="list-style-type: none"> • Use of PPE • Handling of tools and equipment • Good housekeeping
3 Underpinning skills	<ol style="list-style-type: none"> 3.1 Supervisory skills 3.2 PM Planning & management 3.3 Relevant Tools & equipment usage, storage 3.4 Condition checking & recording
4 Resource Implications	<ol style="list-style-type: none"> 4.1 Condition check log & manufacturers specifications 4.2 Preventative Maintenance schedule, log & records 4.3 Requisition documents 4.4 Inventory & inspection logs 4.5 Standard Operating Procedures 4.6 QMS

5 Methods of assessment	Competency may be assessed through:- 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
5 Context of assessment	6.1. Competency assessment may occur in workplace or any accredited simulated environment 6.2. Assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 6 Supervise OHS work issues in the Construction Industry

Common

Unit Code	712.7120.042.06.01
Unit Descriptor	<i>This Unit of Common Competency covers the knowledge, skills and attitudes to supervise OHS work issues within any sector of the Construction Industry.</i>

ELEMENTS & PERFORMANCE CRITERIA

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized terms are elaborated in the Range of Variables</i>
1. Risk identification	1.1 OHS Risk Hazards in the work area are identified, assessed and reported to a Supervisor/designated person . 1.2 Supervisor compiles an OHS risk report in line with SOP, QMS & OHS procedures 1.3 Hazardous materials on a work site are correctly identified and used according to company and legislated procedures.
2. Risk assessment	2.1. Supervisor & team assess the OHS risk hazards identified. 2.2. Supervisor implements & manages OHS risk assessment plan.
3. Risk prevention & supervision	3.1. Supervisor ensures that Safe work practices, duty of care requirements and safe work instructions are implemented & maintained. 3.2. OHS, hazard, accident or incident reports contribute to updating workplace procedures & National OHS legislation . 3.3. Correct personal protective equipment (PPE) and clothing for each area of construction work are identified, worn, correctly fitted, used and stored according to SOP. 3.4. Measures for controlling risks and construction hazards are applied including training & multi media signage . 3.5. Lists of designated OHS personnel names and contact data are visually available throughout the workplace in a range of media.
4. Emergency procedures	4.1. Response and evacuation procedures are known, practised and carried out effectively when required 4.2. Designated personnel are contacted in the event of an emergency. 4.3. First aid treatment of minor injuries is carried out correctly and details recorded for use by OHS Supervisor.

Unit 6 Supervise OHS work issues in the Construction Industry

Common

Range of Variables

VARIABLES	RANGE
1. Risk Identification & Assessment	1.1. Risk analysis models 1.2. OHS regulations 1.3. SOP 1.4. QMS 1.5. Risk reports 1.6. Incident reports
2. Risk Prevention & supervision	2.1. Safe work practices 2.2. Safety training & competency 2.3. Duty of care 2.4. Designated persons 2.5. Risk control plans 2.6. Multi-media signage
3. Emergency procedures	3.1. Response procedures 3.2. Evacuation procedures 3.3. First Aid treatment 3.4. External agency support (Fire, Ambulance, Hospitals)
4. PPE	Including but not limited to:- 4.1. Aprons, arm guards, caps, dust masks, respirators, ear muffs, gloves hard hats, reflective vests, overalls safety glasses, boots.
5. Hazards	Including but not limited to:- 5.1. People 5.2. Chemical spills 5.3. Work in confined spaces 5.4. Trenches, excavations 5.5. Falling objects 5.6. Gasses, fires 5.7. Hazardous materials 5.8. Extereme temperatures 5.9. Infectious diseases 5.10. Handling & moving equipment 5.11. Overhanging, protruding, sharp objects 5.12. Noise, dust, vapours 5.13. Uncontrolled site traffic 5.14. Working at heights

Unit 6 Supervise OHS work issues in the Construction Industry

Common

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	<p>A person demonstrating competency in this unit must be able to provide evidence of ability to;-</p> <ul style="list-style-type: none"> 1.1. Supervise the use of risk information, standards & specifications 1.1. Comply with a safety site plan & National & organisational OHS policy/procedures 1.1. Supervise the effective implementation of required safety actions relevant to a range of situations & in line with OHS policy and procedures.
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1. What makes a risk/hazard situation 2.2. Identifying types of risks/hazards 2.3. OHS & Construction terminology 2.4. Safe work practices 2.5. Emergency response procedure 2.6. Evacuation procedures 2.7. First Aid procedures.
3. Underpinning skills	<ul style="list-style-type: none"> 3.1. Identifying/assessing potential hazards 3.2. Hazard response management & team work 3.3. Communication skills 3.4. Hazard management skills 3.5. Crisis management
4. Resource implications	<ul style="list-style-type: none"> 4.1. Workplace or simulated work area 4.2. OHS data & records 4.3. SOP 4.4. QMS 4.5. Relevant resources 4.6. Reporting logs
5. Methods of assessment	<p>Competency may be assessed through:-</p> <ul style="list-style-type: none"> 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning <p>Assessment of knowledge & underpinning skills may be combined</p> <p><i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i></p>
5. Context of assessment	<ul style="list-style-type: none"> 6.1. Competency assessment may occur in workplace or any accredited simulated environment 6.2. Assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 7

MONITOR GENDER AND SOCIAL EQUITY PRINCIPLES AND POLICIES

Common

Unit Code	712.7120.042.07.01
Unit Descriptor	<i>This unit covers the knowledge, skills and attitudes to monitor application of principles and policies on gender and social equity contributing to positive and productive work environment. This unit deals with ensuring compliance to gender and social equity guidelines in the workplace; implementing gender and social equity in the workplace; and recognizing and preventing gender abuse and other forms of social inequities</i>

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Implement guidelines or rules of conduct related to gender and social equity in the workplace	<p>1.1 Workplace practices and work instructions relating to interacting with different social groups based on gender, ethnicity and disability implemented.</p> <p>1.2 Compliance to relevant legislation, codes and national standards that impact on gender and social equity are monitored in the workplace.</p> <p>1.3 Introduction of and amendments to guidelines in the work conduct related to gender and social fairness practices are monitored and implemented in accordance with organizational requirements.</p>
2. Monitor improvement in workplace guidelines in promoting gender and social equity	<p>2.1 Suggestions are noted and evaluated with designated personnel on how to improve social interaction and communication in the workplace to better promote gender and social equity</p> <p>2.2 Information is gathered and improvements are suggested to help improve workplace guidelines and policies in promoting observing gender and social fairness.</p> <p>2.3 Gender and social equity issues in the workplace practices are discussed in the workplace with colleagues and designated personnel.</p> <p>2.4 Contributions to the review of workplace guidelines and policies gender and social equity guidelines and policies are made within limits of responsibility</p>

<p>3. Monitor, recognize and act on suspected cases of gender and other forms of social inequity</p>	<p>3.1 Signs and manifestations of gender and social inequities and its impact in the workplace are monitored and recognized.</p> <p>3.2 Information about or observations of a suspected problem related to gender and social inequity are reported and acted upon.</p> <p>3.3 Location and extent of suspected gender and social inequities is accurately recorded.</p> <p>3.4 Reports on the effect of gender and social inequities are completed according to organizational guidelines.</p>
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Unit 7 MONITOR GENDER AND SOCIAL EQUITY PRINCIPLES AND POLICIES

Common

Range of Variables

VARIABLES	RANGE
1. Workplace practices and work instructions	May include but not limited to: 1.1 Social diversity awareness, recognition and analysis in the workplace 1.2 Use of gender fair and socially inclusive language in dealing with co-workers and students 1.3 Sexual harassment and bullying incident recording and reporting procedures 1.4 Verbal instructions from persons with responsibility related to gender and social equity awareness and sensitivity
2. Legislation, codes and national standards	May include but not limited to: 2.1 Code of Conduct on sexual harassment in TVET institutions under MoES 2.2 National Strategy for the Advancement of Women, 2005-2010 (includes goals and programmes to promote Lao women's education, skill levels, income generating opportunities, among others) 2.3 Lao PDR Law on Development and Protection of Women (Among others, aims to promote women's knowledge and competency, revolutionary morals and virtues, gender equality; seeks to eliminate all forms of discrimination against women; creates enabling conditions for women's participation; and for women to be equal force in national protection and development) 2.4 Labor Law of Lao PDR, 1994 (Articles 2, 39 & 35) 2.5 Constitution of Lao PDR, 2003 (Articles 22, 24 & 27, statement on women of all ethnic groups should receive equal treatment in terms of legal rights, economic and social opportunities) 2.6 National obligations to international human rights conventions (Convention on the Elimination of all Forms of Discrimination against Women (CEDAW), 1981; Convention on the Rights of the Child (CRC), 1990)

<p>3. Suggestions</p>	<p>May include but not limited to:</p> <p>3.1 Be sensitive in terms of gender, ethnicity and disability in verbal and non-verbal communication</p> <p>3.2 Stop the repetition of sexist and discriminatory sex jokes</p> <p>3.3 Create and share jokes that are not told at the expense of different social groups</p> <p>3.4 Recognize the rights of different social groups i.e. women, different ethnic groups, the disabled to equal access to training and skills development, respectful treatment, etc.</p>
<p>4. Designated personnel</p>	<p>May include but not limited to:</p> <p>4.1 Human resource Officer</p> <p>4.2 Supervisor</p> <p>4.3 Manager</p> <p>4.4 Owner</p>
<p>5. Workplace guidelines and policies in observing gender and social fairness.</p>	<p>May include but not limited to:</p> <p>5.1 Guiding workplace conduct against committing and reporting sexual harassment</p> <p>5.2 Using language that is sensitive in terms of gender, ethnicity and disability</p> <p>5.3 Information on personnel policies that are aligned with national and official policies and guidelines that uphold the rights of women, ethnic groups and the disabled</p> <p>5.4 Provision of separate and secure accommodations, toilets wash and resting areas for women, ethnic groups and disabled people</p> <p>5.5 The designation of a gender focal point among teachers, non-teaching staff and among student population.</p>
<p>6. Gender and social equity issues</p>	<p>May include but not limited to:</p> <p>6.1 Sexual harassment</p> <p>6.2 Bullying</p> <p>6.3 Voyeurism</p> <p>6.4 Different forms of gender-based violence</p> <p>6.5 Inappropriate and discriminatory language</p> <p>6.6 Sex jokes that are discriminatory against women, ethnic groups, disabled people</p> <p>6.7 Discrimination in the workplace</p>

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7. Signs or manifestations	May include but not limited to: 7.1 Sub-standard performance, social withdrawal of affected group or individual 7.2 Lack of motivation to advance or excel 7.3 Absenteeism, intention to resign without reason 7.4 Display of fear, nervous and seemingly irrational behavior of affected group in the presence of perpetrator
8. Reported	May include but not limited to: 8.1 Verbally (face-to-face or through communication equipment) 8.2 In writing (memo, notes, faxes, email or electronic messages) 8.3 Witness or third party accounts
9. Recorded	May include but not limited to: 9.1 Incident report 9.2 Public petitions 9.3 CCTV in the workplace

Unit 7 MONITOR GENDER AND SOCIAL EQUITY PRINCIPLES AND POLICIES

**Common
Evidence Guide**

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of Competency	Assessment must show that the candidate: <ol style="list-style-type: none"> 1.1 Demonstrated knowledge of workplace practices and work instructions. 1.2 Described relevant legislations, codes and national standards related to gender and social equity issues in the workplace 1.3 Followed workplace practices, policies and guidelines related to gender and social equity 1.4 Contributed to improve workplace guidelines in promoting gender and social equity 1.5 Recognized and reported on suspected cases of gender and other forms of social inequity 1.6 Reported, recorded or became aware of the need to report and document lack of compliance with guidelines and policies on gender and social fairness in the workplace
2. Underpinning Knowledge	<ol style="list-style-type: none"> 2.1 Relevant legislation from all levels of government on gender and other social equity issues involving ethnic groups and disability 2.2 Relevant gender and social equity official legislation, policies and workplace practices and procedures 2.3 Good practice approaches relevant to work area particularly in regard to observance of and compliance with guidelines and policies that uphold and promote gender and social equity. 2.4 Gender and other social equity issues, especially in regard to sexual harassment and gender and other discrimination in the workplace 2.5 Gender issues in workplace traditionally not associated with women 2.6 General work place practices and their potential impact on the gender and other dimensions of social equity.

<p>3. Underpinning Skills</p>	<p>3.1 Discuss and explain gender and other social equity issues in workplace</p> <p>3.2 Communicate with co-workers and students in an inclusive manner that respects the rights of the different groups that constitute the workplace and the classroom</p> <p>3.3 Recognize signs and manifestations of sexual harassment and other forms of gender-based violence in the workplace</p> <p>3.4 Follow workplace directions and instructions</p> <p>3.5 Ability to report and document cases of sexual harassment and other forms of gender-based violence and violence directed at other disadvantaged groups</p>
<p>4. Resource Implications</p>	<p>The following resources MUST be provided:</p> <p>4.1 Basic sensitization workshop on gender and other social equity issues</p> <p>4.2 Legislation, policies, procedures, protocols and local ordinances relating to gender and social equity.</p> <p>4.3 Case studies and scenarios relating to the reporting and handling of cases of sexual harassment and other forms of gender-based violence</p>
<p>5. Methods of Assessment</p>	<p>Competency may be assess through:</p> <p>5.1 Written or oral Examination</p> <p>5.2 Interview or Third Party Reports</p> <p>5.3 Certificate of attendance in basic sensitization workshop on gender and other social equity issues</p>
<p>6. Context for Assessment</p>	<p>6.1 Competency may be assessed in actual workplace or in an assessment center.</p> <p>6.2 Assessment must be undertaken in accordance with Lao PDR CBT assessment guidelines.</p>

G **Core Units of Competency**
Unit 1 **Supervise Contractors**
Core

Unit Code	712.7120.043.01.01
Unit Descriptor	<i>This unit of Core Electrical Competencies deals with the knowledge, skills and attitudes required when supervising building & construction contractors</i>

Unit 1 Elements & Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variables
1. Manage contractor selection	1.1. Contractor selection based on business plan requirements. 1.2. Formal contractor/subcontractor structures agreed and posted 1.3. Contractor risk planning completed and reported..
2. Review contractors performance.	2.1. Management plan developed for contractors/subcontractors to ensure contractual obligations are met 2.2. Contractor performance data records maintained in line with SOP/QMS 2.3. Contractor compliance risks identified & acted upon 2.4. Contractor terms of engagement reviewed & reinforced as required..
3. Evaluate contractor performance & compliance	3.1. Performance & compliance evaluation systems developed & managed. 3.2. Evaluation data gathered is managed in line with SOP/QMS regarding security & confidentiality. 3.3. Feedback & appeals systems established & managed. 3.4. All actions taken against a contractor will be in line with the agreed SOP, QMS & terms of engagement

Unit 1 Supervise Contractors

Core

Range of Variables

VARIABLES	RANGE
1. Contractor selection	1.1 Invitations to tender 1.2 Financial viability records/checks 1.3 Tender evaluation 1.4 Tender awarding/signing
2. Business plan & contractor structure requirements	2.1 Number of subcontractors required within contract timeframe 2.2 Calculating hours required per work activity 2.3 Calculating work required per work stage 2.4 Estimating project timeframe start to finish 2.5 Identifying work sequence & job roles
3. Reviewing contractor performance	3.1 Anecdotal evidence 3.2 Risk reports 3.3 Terms of engagement 3.4 Data reviews 3.5 Contractor observation
4. Contractor compliance requirements	4.1 Milestone & benchmark maintenance 4.2 Contractor involvement & input in project meetings 4.3 Monitoring & evaluation throughout term of contract. 4.4 Communication framework with all contractors

Unit 1 Supervise Contractors

Core

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	Assessment requires evidence that the candidate has:- 1.1 Supervised work planning & implementation effectively. 1.2 Identified subcontractor needs based on agreed workloads 1.3 Assessed the contractor review systems for validity 1.4 Established a contractor management system to manage timeframes 1.5 Demonstrated how to address below performance contractor performance
2. Underpinning knowledge	2.1. Tender procedures, regulations & procedures. 2.2. Industrial regulations structures & procedures 2.3. Industry subcontracting systems & processes 2.4. Licensing regulations 2.5. Subcontractor administration & performance systems 2.6. SOP & QMS requirements 2.7. ISO environmental standards (14000) 2.8. Safe work practices
3. Underpinning skills	3.1. Supervisory & Management skills 3.2. Financial planning skills 3.3. Planning & decision making 3.4. Tendering-works, services, supplies 3.5. Supervisory & monitoring skills 3.6. Computer operations 3.7. Monitoring & evaluation 3.8. Reporting and compliance planning
4. Resource implications	4.1. Workplace 4.2. Resources appropriate for Contract Supervisors 4.3. Relevant codes, regulations, SOP, QMS, 4.4. Computer with drawing software and Project management software
5. Methods of assessment	Competency may be assessed through: 5.1. Observation 5.2. Questioning 5.3. Portfolio/Interview or Third Party Reports <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context for Assessment	6.1. Competency may be assessed in actual workplace or in an accredited assessment center. 6.2. Assessment must be undertaken in accordance with LAO CBT assessment principles.

Unit 2 **Cost building & construction projects**

Core

Elements & Performance Criteria

Unit Code	712.7120.043.02.01
Unit Descriptor	<i>This Unit of Competency covers the skills, knowledge and attitudes required to supervise estimated costs for building & construction projects</i>

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variable Training Components
1. Interpret plans & specifications	1.1. Project plans & specifications sourced and interpreted. 1.2. Levels, heights, gradients & other relevant measurements are interpreted & recorded. 1.3. Supervise material quantities planning, based on plans, measurements & specifications
2. Calculate Labour costs	2.1. On site personnel numbers, categories and time requirements estimated & approved. 2.2. Labour hours for non-contract elements of on-site work are calculated 2.3. Costs/rates for all on-site work calculated & approved.
3. Establish physical resource requirements.	3.1. Physical resource requirements identified & recorded. 3.2. Supervise the calculations of materials list & quantities against standard quantities data list. 3.3. Supplier cost estimates obtained 3.4. Supervise the identification & costing of Plant & equipment requirements .
4. Develop estimated project costs	4.1. Labour rates & material costs are applied/recorded 4.2. Unit Cost estimates are applied & recorded 4.3. Operational support cost elements identified & costed (Insurance, Health, Environment Agency,, Waste management, and other relevant statutory or additional costs are applied) 4.4. Company overhead recovery & margins applied 4.5. Completed estimated project costs calculated for inclusion in tender.

Unit 2 Cost building & construction projects

Core

Range of Variables

VARIABLES	RANGE
1. Plans & specifications	1.1 Building codes 1.2. Materials lists & quantity schedules 1.3. Material specifications 1.4. Sketches & drawings 1.5. Statements of requirements
2. Plant/equipment Requirements.	Including but not limited to; 2.1. Communications equipment 2.2. Conveyors 2.3. Heavy equipment including, wheeled & tracked earthmoving equipment, trucks, articulated vehicles 2.4. Hoists, mobile & tower cranes 2.5. On site equipment including Compressors, Pumps, generators, portable lighting equipment, Listing equipment, portable compaction equipment
3. Units Costs	Including but not limited to; 3.1. Construction costs per square meter 3.2. Pipe installation costs per meter 3.3. Installation of sanitary ware per unit 3.4. Foundation laying per meter 3.5. Slab laying per square meter 3.6. Laying steel tray roofing per square meter. 3.7. Masonry walls per square meter 3.8. Tiling per square mater
4. Project Costs	Including but not limited to;- 4.1. Building/Construction costs 4.2. Construction costs 4.3. Statutory requirement costs 4.4. Consumables 4.5. Organisation & subcontract labour hours 4.6. Project Administration costs 4.7. Waste removal costs

Unit 2 Cost building & construction projects

Core

Evidence guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	Assessment requires evidence that the candidate has; <ol style="list-style-type: none"> 1.1. Identified materials required for the project 1.2. Complied information about materials supply 1.3. Interpreted measurements & calculated quantities & costs 1.4. Planned & allocated human resources 1.5. Identified & costed other project related costs 1.6. Produced documentation that meets the timeframes & quality standards required by the organization.
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1. Relevant Lao PDR construction codes & labour regulations 2.2. Reading & interpreting building drawings & specifications 2.3. Operation & structure of costing & contracting systems 2.4. Commissioning processes & regulations 2.5. Computer operations 2.6. Environmental laws & procedures 2.7. Knowledge of OHS
3. Underpinning Skills	<ol style="list-style-type: none"> 3.1 Communication skills 3.2 Reading & Interpretation of construction drawing & specifications 3.3 Contract resolution skills 3.4 Cost estimation for physical & human resources 3.5 Operating computers to manage data & report 3.6 Financial planning & control
4. Resource Implications	The following resources should be provided; <ol style="list-style-type: none"> 4.1. Workplace location. 4.2. Computer (Drawing Hardware & software & ancilliary equipment) 4.3. Cost estimating planning requirements & data records 4.4. Labour, Health & Insurance regulations
5. Methods of assessment	Competency may be assessed through:- <ol style="list-style-type: none"> 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context for assessment	<ol style="list-style-type: none"> 6.3. Competency assessment may occur in workplace or any accredited simulated environment 6.4. Assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 3 **Supervise services layout & connection methods for construction projects**

Core Elements & Performance Criteria

Unit Code	712.7120.043.03.01
Unit Descriptor	<i>This Unit of Competency covers the skills, knowledge and attitudes required when supervising services layout & connection methods for medium rise construction projects.</i>

ELEMENTS	PERFORMANCE CRITERIA <i>Italicized</i> terms are elaborated in the Range of Variable Training Components
1. Evaluate water methods, supply & layouts	1.1. Sketch domestic water supply , connection & layout from supply point in line with relevant regulations. 1.2. Explain process of maintaining water levels in storage tanks using single & two stage pumping systems 1.3. Water storage tanks limitations identified & addressed
2. Evaluate sewerage & drainage layouts & disposal methods	2.1. Sketch sewerage connections & layouts in line with relevant regulations & standards. 2.2. Assess stack types with reference to building type & number/type of fixtures 2.3. Assess methods to connect main drains to sewers in line with relevant regulations & standards. 2.4. Monitor collection, treatment & disposal of prohibited discharges in non-domestic buildings.
3. Evaluate mechanical ventilation & air distribution methods & layouts	3.1. Methods of mechanical ventilation and air distribution systems are identified & sketched. 3.2. Mechanical ventilation & air distribution system design layout is appropriate to the construction project requirements.
4. Evaluate range of hot water systems	4.1. Operating principles of hot water systems evaluated in line with construction requirements 4.2. Hot water system and design layout identified & approved in line with construction project requirements.
5. Specify requirements & layout for electrical & electronic installations.	5.1. External electrical supply procedures are identified and complied with. 5.2. Supervise Electrical installation system design, cabling and layout in line with LEC regulations & standards. 5.3. Supervise Electronic installation system design & layout in line with LEC regulations & standards.
6. Evaluate natural lighting systems	6.1. Roof construction methods for daylight transmission are evaluated for function. 6.2. Daylight lighting systems are evaluated against cost and maintenance values.
7. Supervise	7.1. Fire protection authorities for range of construction

design of fire protection standards	buildings are identified. 7.2. Sprinkler systems, fire hoses & extinguishing agents and applications are identified and in line with relevant regulations & standards. 7.3. Fire detectors, alarm systems and fire doors are designed in line with relevant construction regulations & standards. 7.4. Fire escape system requirements included in construction design.
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Unit 3 Supervise services layout & connection methods for construction projects

Core

Range of Variables

VARIABLES	RANGE
1. Water supply	Includes but not limited to: 1.1. Single & two stage pumping 1.2. Multi-function & single function 1.3. Tank storage supply, public water supply, reservoir heights 1.4. Town supply
2. Sewerage connection & layout	Includes but not limited to: 2.1. Graded or vertical discharge pipes 2.2. Inspection shaft, overflow relief gullies (ORG) 2.3. Local authority sewerage drainage systems 2.4. Septic or biochemical treatment unit 2.5. Pressure meter 2.6. Thermometer 2.7. Low voltage power supply (DC) 2.8. Computers (PC/laptop)/Programming console
3. Mechanical ventilation	Includes but not limited to: 3.1. Air conditioning applications 3.2. Air distribution including mechanical ventilation in enclosed areas 3.3. Air filtration systems and filters & ducting systems
4. Hot water systems	May include but are not limited to: 4.1. Area to be serviced 4.2. Available energy sources 4.3. Installation height 4.4. Number of outlets 4.5. Building usage & occupancy types 4.6. Type of system
5. Lighting systems	5.1. Artificial Lighting systems. 5.2. Natural lighting systems 5.3. Emergency lighting systems 5.4. Cabling access
6. Electronic/Electronic cabling systems	Includes the following but not limited to: 6.1. Cabling types <ul style="list-style-type: none"> • Data • Lift Control • Power supply • Telecommunications • Transmitters • Computers

	<ul style="list-style-type: none">6.2. Cabling access<ul style="list-style-type: none">• Installation• Maintenance• Repair• Extensions6.3. Equipment layout<ul style="list-style-type: none">• Computers• Telephones6.4. Safeguards
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Unit 3 Supervise services layout & connection methods for construction projects

Core

Evidence Guide

ASPECTS OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency	Assessment requires evidence that the candidate has; <ul style="list-style-type: none"> 1.1 Complied with OHS & organizational quality procedures & processes 1.2 Interpreted relevant codes & legislation relation to supervision & performance of service installations 1.3 Applied principles relating to service installations accurately. 1.4 Identified service installations, faults & hazards according to LEC requirements.
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1. Service installation terms, design concepts & principles 2.2. Device & system hazards 2.3. Installation & Cabling methods 2.4. Drawing interpretations & specifications 2.5. Nature of materials & effect on performance relating to service installations 2.6. Relevant licensing arrangements
3. Underpinning Skills	<ul style="list-style-type: none"> 3.1. Application of design concepts & principles relating to service installations 3.2. Supervision, communication & Problem solving skills 3.3. Relevant numeracy skills 3.4. Fault finding skills 3.5. Supervision of OHS procedures 3.6. Compliance Report writing
4. Resource Implications	The following resources should be provided; <ul style="list-style-type: none"> 4.1. Design brief, drawings, specifications, codes, design concepts, construction schedules 4.2. Research data, systems, information 4.3. Access to relevant legislation, regulations and codes of practice.
5. Methods of assessment	Competency may be assessed through:- <ul style="list-style-type: none"> 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context for assessment	<ul style="list-style-type: none"> 6.1. Competency assessment may occur in workplace or any accredited simulated environment 6.2. Assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines

Unit 4 Supervise Construction Works

**CORE
Elements & Performance Criteria**

Unit Code	712.7120.043.04.01
Unit Descriptor	<i>This Unit of Competency covers the skills, knowledge and attitudes required when supervising construction works projects.</i>

ELEMENTS & PERFORMANCE CRITERIA

ELEMENTS	PERFORMANCE CRITERIA
	<i>Italicized</i> terms are elaborated in the Range of Variable Training Components
1. Supervise the administration of claims & payment processes	1.1 All payments made in accordance with contract orders & allowances 1.2. Insurance claims resulting from site loss or damage are completed & processed in line with contract requirements. 1.3. Administrative processes are conducted & supervised in line with relevant regulatory & organizational requirements
2. Supervise & maintain on-site communications	2.1 Dairy of on-site communications & events is maintained & involves contractors, inspectors, unions, individuals, suppliers. 2.2. Site reports detailing specific supervisory inspections are prepared & maintained up to date. 2.3. Variation requests & outcomes are recorded, maintained and actioned as agreed.
3. Supervise compliance of quality control procedures	3.1 Project Quality Management System & procedures to assure work performance established & operational 3.2. Non-compliance issues regarding quality & time are recorded and actioned in line with QMS & contract. 3.3. External authority (fire, health etc) Inspections arranged and outcomes recorded.
4. Supervise completion of project administration processes	4.1 Project administration processes & preparation for practical completion are implemented in line with QMS & contract requirements. 4.2. Completion inspection procedure is communicated to client & applied. 4.3. Handover procedures implemented in line with contract & QMS. 4.4. Construction related certificates & relevant reports are provided to client at handover 4.5. Defects liability process commenced as closed in line with contract, QMS & defects lists.

Unit 4 Supervise Construction Works

Core

Range of Variables

VARIABLES	RANGE
1. Regulatory & organizational requirements	Include but not limited to:- 1.1. Building approval conditions 1.2. Contract documents & engineer reports 1.3. Environmental standards 1.4. Planning, Scheduling 1.5. Risk management 1.6. QMS 1.7. Safety planning & records 1.8. Variation & site visit records 1.9. Financial planning, control and processing
2. On site communication	Includes but not limited to;- 2.1. Supervising & allocating human resources 2.2. Facilitating dispute prevention & resolution. 2.3. Establishing functioning communication links with the regulatory authorities. 2.4. Supervising efficient scheduling & dispersal of plant & equipment 2.5. Maintaining environmental controls & obligations 2.6. Supervising on site meetings 2.7. Supervise expenditure 2.8. Supervise procurement planning & management
3. Quality Management procedures	3.1. Goods receiving 3.2. Work/contract quality auditing & compliance 3.3. Client review issues recorded & actioned
4. Project administration processes	4.1. Supervise Contract variations 4.2. Defect identification & rectification 4.3. Supervise Project progress 4.4. Supervise site inspections 4.5. Supervise certification process & attainment 4.6. Supervise payment processing

Unit 4 Supervise Construction Works

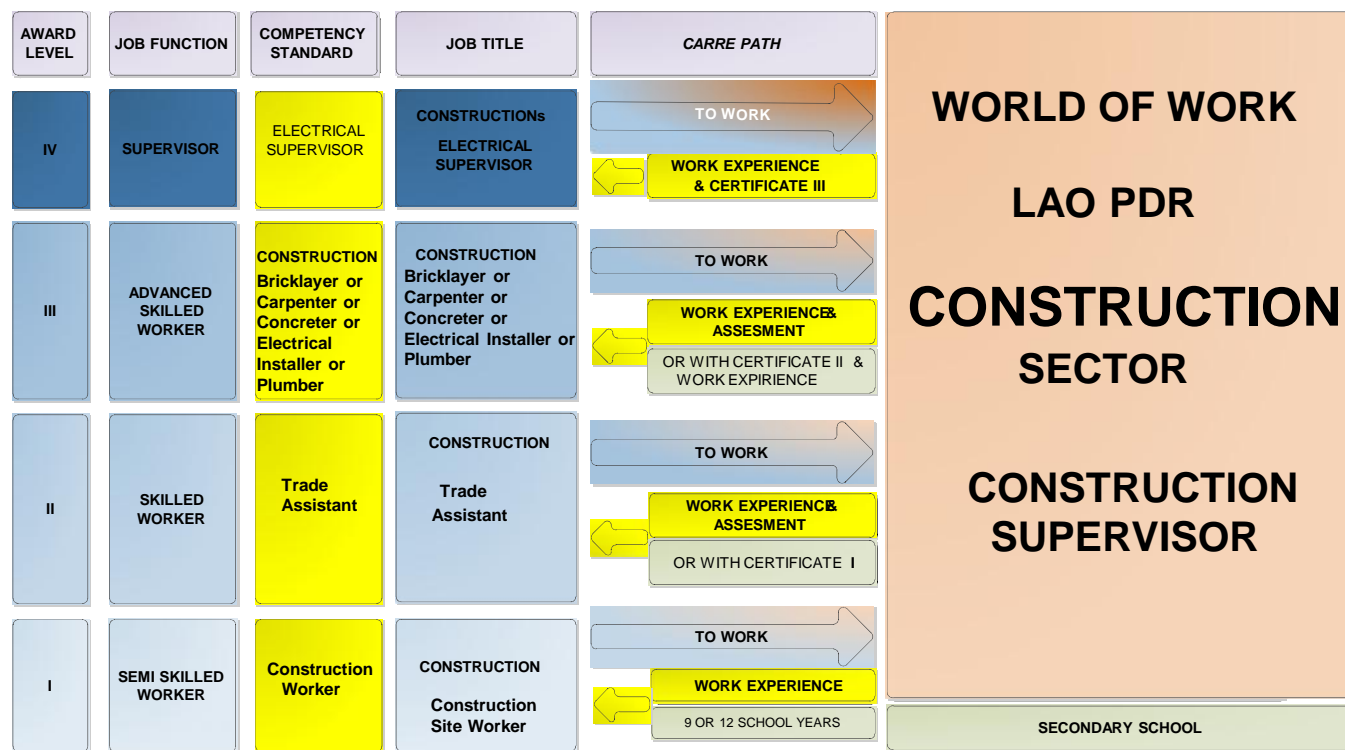
Core

Range of Variables

ASPECT OF COMPETENCY	EVIDENCE REQUIREMENTS
1. Critical aspects of competency.	1.1. Administer claims, variations, drawings for work completed & materials supplied, in line with contract & QMS 1.2. Establish onsite communication & information management systems. 1.3. Supervise site safety policy & procedures 1.4. Supervise quality of work provided in line with contract & QMS. 1.5. Maintain QMS compliance data records & actions recommended and achieved. 1.6. Supervise completion & close out process.
2. Underpinning Knowledge	2.1. Works/Service/Supplies contracts 2.2. Contract payment systems & obligations 2.3. Construction standards 2.4. Contractual certification requirements 2.5. Contract variation procedures & supporting documentation
3. Underpinning skills	3.1. Application of contract terms & conditions 3.2. Contract terms & QMS application 3.3. Communication & data maintenance systems 3.4. Supervisory/Management skills
4. Resource implications	4.1. On site safety signs & data records, site visit records, variation request records, accident records, QMS, relevant contract data records. 4.2. Construction codes, regulations & standards 4.3. Office equipment 4.4. Relevant construction literature.
5. Methods of assessment	Competency may be assessed through:- 5.1. Observation 5.2. Portfolio/Interview 5.3. Questioning Assessment of knowledge & underpinning skills may be combined <i>Evidence provided for Competency determination will be Valid, Sufficient & Current</i>
6. Context for assessment	6.1. Competency assessment may occur in workplace or any accredited simulated environment 6.2. Assessment must be undertaken in accordance with the Lao PDR CBT assessment guidelines



Entry, Awards & Career Progression Model-CONSTRUCTION



Entry to Learning or Employment at any level is dependent on the existing Learning or Work experience of the Learner. This Learning can be provided either in document format/Award as above or by way of work experience records and competency assessment, if required, or both.

Annex 2**Competency Standard development team Construction**

No.	Name and Surname	Organization/Company	Job Expert
1.	Mr Khampheng Sitthivong	STVET Project	NC
2.	Mr Paul Farrelly	STVET Project	IC

Resource Person / Methodologist

3.	Mr Chanthachone	Lao – Korea VTC	Plumber
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Resource Persons / Company & Industry

4.	Mr Phouvanh Vilahong	Luangpaseuth	Construction
5.	Mr Vilaphonexay Sihavong	Luangpaseuth	Construction

Resource Persons / Public & Private TVET Institutions

6.	Mr. Khamtanh Simalavong	Trainer Nampapa (W T C)	Plumber
7.	Mr Maytry Xamountry	Vocational Education Development Center	Electricity
8.	Mr Souvilay Laybouaban	Trainer (EDLTC)	Electricity
9.	Mr Taktoyoudtiya Homrasmy	Technical College Pakpasak Vientiane	Construction
10.	Mrs. Amphaychith Boubouathong	Technical College Pakpasak Vientiane	Construction
11.	Mr Phouvong Saliou	Savannakhet Vocational Technical School	Construction
12.	Mr Bounterm Khamisy	Vocational Education Development Center	Construction
13.	Mr Phasy Phanthavong	Trainer (EDLTC)	Electricity
14.	Mr Sifong Thongpasseuth	Technical College Pakpasak Vientiane	Construction