

REGISTERED NATIONAL STANDARD

UNIT OF COMPETENCY



Title:	Handle and prepare bricklaying and blocklaying materials ¹				
TQF Level:	3	Credits:	6	Version:	1
National standard code:	NS140-03				
Associated qualification (and code):	National Certificate in Bricklaying and Blocklaying Level 3 QR-03-NQ-028-01-1005-26-01				
Approval date:	10 September 2026		Review date:	10 September 2031	
Purpose:	This unit describes the skills and knowledge required to safely handle, prepare, sort and store bricklaying and blocklaying materials using both manual and mechanical methods. It includes preparing work areas, checking materials, mixing mortar, and cleaning up after tasks. The unit applies to preparatory bricklaying and blocklaying work for new or existing structures and is suitable for individuals with basic skills who perform routine tasks under the supervision of more experienced workers. All activities must be conducted in compliance with work health and safety legislation, environmental requirements, regulations and Tonga National Building Code. This unit underpins effective brick and block construction by ensuring materials are prepared correctly and safely before laying activities begin. In successfully completing this unit standard, learners are able to: • Prepare for bricklaying and blocklaying activities by interpreting plans and specifications • Safely handle, sort and stack brick and block laying materials on site • Mix mortar to specified ratios and required consistency • Apply safe manual and mechanical handling techniques • Maintain safe, orderly and environmentally responsible work areas • Select, use, check, maintain, and store appropriate tools and equipment • Identify faults in tools and report issues according to workplace procedures • Dispose of waste materials, reuse, or recycle in accordance with environmental requirements and codes of practice • Minimise environmental impact during plastering preparation tasks • Work under supervision while following workplace instructions and coordinating with experienced workers				

¹ Due to safety issues inherent in working with electricity and combustible substances, all training and assessment activities must be in accordance with Tonga National Building Code.

Learning Outcome 1 (LO1)	Organise materials for brick and block laying work
Performance standards	1.1 Read and interpret bricklaying and blocklaying requirements from plans, specifications and codes; 1.2 Follow relevant information from workplace procedures, workplace safety and environmental regulations; 1.3 Identify potential hazards and implement risk control measures. 1.4 Select and use personal protective equipment (PPE) appropriate for job;
Learning Outcome 2 (LO2)	Determine materials and tools for brick and block laying work
Performance Standards	2.1 Calculate brick and block material quantities required for the task; 2.2 Select tools and equipment for preparing materials; 2.3 Check the condition of the tools and equipment; 2.4 Organise the sequence of job tasks with others on site; 2.5 Check materials against the delivery docket and report damage and inconsistencies to supervisor.
Learning Outcome 3 (LO3)	Handle materials for brick and block laying work
Performance standards	3.1 Prepare work area for loading of materials; 3.2 Identify method of handling and moving onsite materials; 3.3 Follow job instructions to prepare, sort and handle materials; 3.4 Apply safe and effective manual handling techniques when unloading, lifting, moving and loading materials; 3.5 Position materials for ease of access and clear of walkways.
Learning Outcome 4 (LO4)	Prepare mortar for brick and block laying
Performance standards	4.1 Set up and stabilise cement mixer; 4.2 Conduct a pre-operation check on cement mixer; 4.3 Mix mortar using correct ingredient ratios and process as instructed; 4.4 Confirm the quality and consistency of the mortar with relevant person.
Learning Outcome 5 (LO5)	Clean up the work area

Performance standards	5.1 Clear the work area and dispose waste following environmental requirements; 5.2 Clean tools and equipment, check for serviceability. 5.3 Report damage or faults to relevant personnel; 5.4 Store tools and equipment following workplace procedures; 5.5 Store materials for reuse or recycle following workplace procedures.
Pre-requisites	NS133-03 Apply <i>Occupational Health and Safety</i> (OHS) requirements, policies and procedures
Co-requisites	N/A
Underpinning skill and knowledge	The following skills and knowledge underpin this unit standard: <u>Skills:</u> Work Preparation • Select and correctly use PPE • Read and interpret plans, specifications, and codes • Calculate quantities of bricks, blocks, and materials • Identify hazards and apply control measures • Prioritise and sequence tasks • Check and maintain tools and equipment Material Handling • Use safe manual handling techniques • Prepare, sort, stack, and position materials • Operate mechanical handling equipment to move pallets • Blend bricks and blocks for a consistent finish Mortar Preparation • Set up, stabilise, and check cement mixers • Mix mortar to specified ratios (M3 strength) • Assess and confirm mortar consistency Housekeeping • Dispose of, reuse, or recycle materials appropriately • Clean and store tools and materials

	• Follow workplace and environmental procedures <u>Knowledge:</u> Workplace and Safety • Workplace health, safety and environmental procedures • Hazard identification and risk control measures • Correct selection and use of PPE • Manual handling principles Technical • Bricklaying and blocklaying material types and properties • Ratios and components for mortar mixes • Brick and block blending techniques • Use, care, and limitations of tools and equipment • Operation and safety checks of cement mixers and mechanical lifting devices Work Process • Reading and interpreting plans and job specifications • Sequencing tasks and determining job priorities • Material checking procedures • Waste management and environmental requirements
Assessment requirements	<u>Assessment methods</u> may include more than one of the following: Direct Observation Assessment of learners while they are performing tasks in real time in a simulated environment. • The learner performs practical tasks. • The assessor watches the learner complete these tasks against a checklist or performance standards. Assessor Requirements • Use a structured observation checklist aligned to performance standards • Observe multiple occasions to ensure consistency of competence. • Record evidence of safe work practices, correct use of equipment, etc. • Provide immediate feedback where appropriate.

	• Ensure conditions reflect real workplace standards. Oral Questioning Verbal questions asked to assess the learner’s understanding of knowledge and reasoning. • Conducted during or after practical tasks. • Can be structured (planned questions) or informal (follow-up probing). Assessor Requirements • Ask questions that test underpinning knowledge • Use open-ended questions • Confirm learner understanding where practical performance is not enough. Record responses clearly (notes or checklist). • Adjust language to suit learner literacy levels. Written Test A structured assessment requiring learners to provide written responses. Short-answer questions, multiple choice, or case scenarios. • Typically conducted off-site or in a classroom environment. Assessor Requirements • Design questions that assess knowledge. • Ensure the test is clear, aligned to unit requirements and appropriate for language, literacy, numeracy levels • Mark responses using a marking guide or model answers. • Provide feedback and identify gaps in knowledge. • Ensure results reflect the learner’s independent performance. Work-Based Activity Assessment conducted in a real workplace while the learner performs actual job tasks. • Learners complete normal workplace duties. • Evidence is collected over time. • Assessor Requirements • Coordinate with workplace supervisors. • Gather evidence such as - Observation reports, Supervisor feedback, etc. • Verify that tasks meet unit performance standards. • Ensure authenticity (learner’s own work). • Confirm competence across different situations and timeframes.
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	Assessment should use a combination of the above methods to ensure sufficient, valid, authentic, and current evidence of competence in both skills and knowledge, in line with unit requirements. <u>Context of Assessment:</u> Competency is to be assessed in the workplace or a simulated workplace environment that accurately reflects a real workplace setting. Assessment is to comply with relevant regulatory or relevant standards' requirements. Assessment of essential knowledge will usually be conducted in an off-site situation.
Moderation arrangements	1. Training providers must have their own moderation system approved by TNQAB before accreditation is granted: a) Relevant internal moderation processes are documented; b) Assessment is planned for each unit, and moderation processes are integrated into such plan. 2. Unless specified elsewhere, external moderation is conducted by the National Qualifications unit of TNQAB for all unit components of a national qualification: a) Samples of assessed activities are submitted for moderation; b) Moderation (external) forms are available on request.
Resource requirements	1. Power point presentations. 2. Trainer's Guide 3. Learner's Guide 4. Tonga National Building Code 5. Videos 6. Plans and Specifications 7. Cement mixer 8. Brick cutting saw 9. Hand tools 10. Mortar boards 11. Measuring and gauging containers 12. Clay bricks, solid and hollow blocks 13. Pavers

	14. Cement, lime, sand 15. Mortar additives materials 16. Structured assessment and evidence-collection tools
Requirements to complete this unit	There are five (5) Learning outcomes and twenty-one (21) performance standards to measure competence. To demonstrate competence, the person studying this unit is: - Required to demonstrate all LOs to the expected standards; - Required to attain an Achieved Grade (Competent) to fulfil the requirements of the Unit Standard; - Eligible to three (3) attempts to achieve the required competency within 14 days of the first attempt. Failure to achieve the required competency after three (3) attempts on the specific part of the assessment will require the person studying this Unit to re-enrol for the same Unit.
Important notes and definitions	<u>Notes:</u> - All training and assessment activities must be in accordance with Tonga National Building Code. - Assessors must comply with the Tonga national assessment and moderation requirements. <u>Definitions:</u> <i>Aggregates</i> refer to sand or granular material used in mortar mixes. <i>Blocklaying</i> refers to construction using concrete or masonry blocks. <i>Brick Buggy</i> refers to equipment used to transport bricks on site. <i>Bricklaying</i> is a process of laying bricks with mortar to construct structures. <i>Bucket Gauging</i> refers for measuring materials for mortar mixes using volume. <i>Cement Mixer</i> refers to machine used to mix mortar components.

	7. <i>Clay Bricks</i> refer to fired clay units used in masonry construction. 8. <i>Electrical Hazards</i> refer to risks associated with electrical equipment and improper grounding. 9. <i>Environmental Requirements</i> are regulations and workplace procedures aimed at reducing environmental impact, including waste management and recycling. 10. <i>JSEA (Job Safety and Environmental Analysis)</i> refers to process identifying hazards and environmental risks. 11. <i>M3 Mortar Mix</i> is a standard strength classification of mortar used in masonry work. 12. <i>Manual Handling</i> refers to moving materials by hand using safe lifting techniques. 13. <i>Mechanical Handling</i> refers to use of equipment such as hoists to move materials. 14. <i>Mortar</i> refers to mixture of cement, lime, sand, water, and additives used for bonding masonry units. 15. <i>Pallet</i> refers to platform used to store and transport bricks or blocks. 16. <i>Refractory Bricks</i> refer to heat-resistant bricks used in high-temperature applications. 17. <i>Silica Dust Exposure</i> refers to health risk from inhaling fine dust from masonry materials. 18. <i>Solid/Hollow Blocks</i> refer to concrete masonry units with or without hollow cores. 19. <i>Tonga National Building Code</i> is a set of technical standards governing the design and construction of buildings in Tonga.
Public comments on unit	Please contact TNQAB National Qualifications Unit (email EnquireNQ@tnqab.to or Telephone 28136) if you like to discuss or suggest changes to the details of this unit.