

Unit ID: 25	
Domain	BRICKLAYING
Title:	Install and strip formwork for concrete slabs on ground and footings
Level: 3	Credits: 4

Purpose

This unit standard specifies the competencies required to install and strip formwork for concrete footings and slabs on ground for establishing levels and containment of finished concrete. The unit standard includes forming basic slabs, forming rebates to slabs on ground and steps to strip footings. This unit standard is intended for those who work as bricklayers and plasterers.

Special Notes

1. Entry information

Prerequisite:
 - Unit 3 - *Apply safety rules and regulations in bricklaying operations* or demonstrated equivalent knowledge and skills.
2. To demonstrate competence, at a minimum, form up a slab on ground a minimum of 9m² incorporating an edge rebate and internal corner to specifications and form up a step to a foundation excavation to specified masonry units. Perform these tasks ensuring correct identification of requirements and finishing of the tasks, correct selection and use of appropriate processes, tools and equipment and completing all work to specification.
3. Formwork shutters and/or edge boxing are to include an edge rebate. Types of formwork are to include but not be limited to prefabricated or in-situ. Formwork is to be rigid to withstand the mass of wet concrete and actions imposed during placement. Formwork is critical to comply with specifications to height and level.
4. Assessment evidence may be collected from a real workplace or a simulated real workplace or a simulated realistic environment in which bricklaying operations are carried out.
5. All inspection, operation and maintenance procedures associated with the use of tools and equipment shall comply with manufacturers' guidelines and instructions.
6. '*Specifications*' refers to any, or all of the following manufacturers' specifications and recommendations, site and workplace specific requirements.
7. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act No 6, 1992
 - Occupational Health and Safety Regulations No.18, 1997
 and all subsequent amendments.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Plan and prepare for work

Range

Planning and preparation is to include but is not limited to worksite inspection, equipment defect identification, assessment of conditions and hazards and determination of work requirements.

Tools and equipment are to include but are not limited to measuring tapes/rules, hammers, spirit levels, squares (combination/tri), nail bags, chisels, hand saws, saw stools, string lines, shovels, marking equipment, pinch bars, dumpy levels and may include but not be limited to power saws, power drills, nail guns, power leads, spanners, steel squares and bevels.

Materials are to include but are not limited to boxing (either timber, metal, masonry, fibre cement sheeting) and may include but not be limited to nails/spikes, bolts and nuts, coach screws, steel tie rods, metal brackets and patented metal fasteners.

Performance Criteria

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, confirmed and applied.
- 1.2 Safety requirements are followed in accordance with safety plans and policies.
- 1.3 Sign and barricade requirements are identified and implemented.
- 1.4 Plant, tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults are rectified or reported prior to commencement.
- 1.5 Material quantity requirements are calculated in accordance with plans and/or specifications.
- 1.6 Materials appropriate to the work application are identified, obtained, prepared, safely handled and located ready for use.
- 1.7 Environmental protection requirements for the project are identified and applied in line with environmental plans and regulatory obligations.

Element 2: Erect formwork

Range

Constructed formwork may include but is not limited to timber, metal or prefabricated for both footings and slabs on ground.

Performance Criteria

- 2.1 Design of footing and/or slab on ground is identified from job drawings, specifications and checked to be in accordance with legislative regulations and/or codes of practice.
- 2.2 Formwork is set out to requirements of drawings and specifications.
- 2.3 Fixing/fasteners are selected consistent with construction requirements of the job.
- 2.4 Formwork shutters and/or edge boxing are constructed and erected to site requirements and specifications.
- 2.5 Formwork support is braced to job requirements and specifications.
- 2.6 Block outs and cast in services are installed to specified locations.
- 2.7 Release agents are applied to formwork face, where specified, to manufacturers' specifications.

Element 3: Strip formwork

Performance Criteria

- 3.1 Edge boxing and bracing/strutting support is removed sequentially and safely.
- 3.2 Timber components are de-nailed, cleaned and stored/stacked safely for re-use or removal from site.
- 3.3 Steel components are cleaned, oiled and stored/stacked to manufacturer's maintenance recommendations.
- 3.4 Damaged formwork components are safely discarded after stripping.

Element 4: Clean up

Performance Criteria

- 4.1 Work area is cleared and materials disposed of, reused or recycled in accordance with legislation, regulations and job specifications.
- 4.2 Plant, tools and equipment are cleaned, checked, maintained and stored in accordance with manufacturers' recommendations and standard work practices.

Registration Data

Subfield:	General Construction
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