

Domain	BUILDING AND CIVIL CONSTRUCTION MANAGEMENT	Unit ID: 1921
Title:	Demonstrate an understanding and apply construction methods	
Level: 5		Credits: 10

Purpose

This unit standard is intended for those who demonstrate an understanding and apply construction methods. People credited with this unit standard are able to demonstrate an understanding of building process associated technologies, understand and apply building sub-structures principles and methods, understand and apply concrete technology, understand and apply building superstructures principles and method, understand and apply building finishing processes and elements.

This unit standard is intended for those who work in the building and civil construction environment.

Special Notes

1. Entry information:

Prerequisites

- *Unit 1157- Demonstrate basic knowledge of workplace health and safety or demonstrated equivalent knowledge and skills.*
2. Foundation type may include but not limited to simple strip foundations, stepped strip foundations, wall pier foundations, sleeper piers and deep strip foundations.
 3. Assessment evidence may be collected from a real workplace or simulated real workplace in which building and civil construction operations are carried out.
 4. Performance of all elements in this unit standard must comply with all relevant workplace requirements and/or manufacturers' specifications.
 5. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act 2007(Act no 11, 2007)
 - Regulations relating to the health & Safety of employees at work under Schedule 1 (2) of the Labour Act No.11 of 2007 and all subsequent amendments.
 - Local Authorities Act. 23, 1992
 - SABS 0400
 - Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977) 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

Elements 1: Demonstrate an understanding of building process associated technologies

Range

Building types include industrial, domestic, commercial.

Methods of Environmental Control include design for climate, solar control and prediction of the wind environment around buildings.

Building elements may include but not limited to walls, beams, columns and doors.

Performance Criteria

- 1.1 Building processes are explained.
- 1.2 Building elements of are explained.
- 1.3 Appropriate building technologies are identified and explained.
- 1.4 Economic factors that impact on the building process are identified and explained.
- 1.5 Environmental problems in buildings are identified and explained.
- 1.6 Methods of environmental control are identified and explained.

Elements 2: Understand and apply building sub-structures principles and methods

Performance Criteria

- 2.1 Elements of sub-structures are identified and explained.
- 2.2 Types and functional requirements of floors are explained.
- 2.3 Foundation types and their application are explained.
- 2.4 Causes of sub-structure failure are identified and remedied.

Elements 3: Understand and apply concrete technology

Performance Criteria

- 3.1 Temporary support work, formwork and shuttering for concrete works are designed and applied.
- 3.2 Reinforcing steel detail is extracted from drawings and applied.
- 3.3 The principles, properties and use of concrete in building works are explained.
- 3.4 The properties and application of concrete materials are explained.
- 3.5 Concrete materials are applied to design concrete mixes in accordance with specifications and job requirements.

Elements 4: Understand and apply building superstructures principles and method

Range

Elements of superstructures may include but not limited to walling (concrete, timber, and masonry walls), Roofing (including cladding), window and door frames and Built-in items.

Performance Criteria

- 4.1 Elements of super-structures are identified and explained.
- 4.2 The principles, processes and methods relating to super-structure works are understood and applied.
- 4.2 Materials for super-structure works are identified and applied.
- 4.3 Problems relating to super-structure works are identified and resolved.

Elements 5: Understand and apply building finishing processes and elements

Range

Finishing process may include but not limited to painting, tiling, plastering and screeds, glazing, ceilings and partitioning and finishing carpentry.

Performance Criteria

- 5.1 Finishing processes and elements are identified and explained.
- 5.2 Principles, processes and methods relating to finishing works are understood and applied.
- 5.3 Materials for finishing works are identified and applied.
- 5.4 Problems relating to finishing works are identified and resolved.

Registration Data

Subfield:	Civil and Building Services Engineering
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