

Unit ID: 1933	
Domain	Building and Civil Construction Management
Title:	Prepare for a construction project and develop a work plan
Level: 5	Credits: 15

Purpose

This unit standard is intended for those who prepare for a construction project and develop a work plan. People credited with this unit standard are able to interpret the project documentation with reference to quantities, calculate the required material quantities, establish a contract budget and cash flow, prepare a work plan, estimate the required human and equipment resources, assist with the development of a risk management strategy, planning and establish site facilities, set up management information systems, revise and analyse tender and estimating documents.

Special Notes

1. Entry information

Prerequisite:

- *Unit 1157- Demonstrate basic knowledge of workplace health and safety or demonstrated equivalent knowledge and skills.*

2. Glossary and abbreviations

'Specifications' refers to any, or all of the following: manufacturers' specifications and recommendations, site and workplace specific requirements.

3. Assessment evidence may be collected from a real workplace or simulated workplace environment in which building and civil construction management are carried out.

6. 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

Element 1: Interpret project documentation with reference to quantities

Performance Criteria

- 1.1 Project specifications are integrated with drawings, bills of quantities and general conditions of contract.
- 1.2 Bills of quantities, where applicable, are interpreted in terms of project documentation.
- 1.3 Drawings are interpreted in terms of project documentation.

Element 2: Calculate the required material quantities

Performance criteria

- 2.1 Calculations of required materials are made, taking into account material manufacturer specifications, material properties and work area size.
- 2.2 Units of measurement are identified for the different types of material specified in terms of the project specification.

Element 3: Establish a contract budget and cash flow

Performance criteria

- 3.1 Project resources are allocated according to the contract budget.
- 3.2 Budget is in accordance with revised resource cost and the prescribed format.
- 3.3 Cash flow is developed in accordance with project income and projected project costs.

Element 4: Prepare a work plan

Performance Criteria

- 4.1 Work plan is communicated to management.
- 4.2 Feasible work plan is developed.
- 4.3 Time durations for work activities are calculated.

Element 5: Estimate the required human and equipment resources

Performance criteria

- 5.1 Equipment resource requirements are computed from quantities calculated and project specifications/time frames.
- 5.2 Human resource requirements are computed from quantities calculated and project specifications/time frames.
- 5.3 Production rates for human and equipment resources are selected/determined for the activities and quantities involved.

Element 6: Assist with the development of a risk management strategy

Performance criteria

- 6.1 Risks and opportunities are analysed, qualified and quantified.
- 6.2 Strategies to maximise opportunities are developed and communicated.
- 6.3 Strategies to minimise risks are based on management decisions.
- 6.4 Accepted risks are included in the project plan.

Element 7: Plan and establish site facilities

Performance criteria

- 7.1 Organisation chart for the project is agreed utilising available personnel.
- 7.2 Existing services are identified.
- 7.3 Camp site services are established in accordance with the relevant utility authorities.
- 7.4 Communication is established with the relevant authorities and role-players.
- 7.5 Site facilities are established in accordance with the pre-plan and contract budget.

Element 8: Set up management information systems

Performance criteria

- 8.1 Planning information is incorporated into management information systems.
- 8.2 Information systems are adapted to suit project requirements.
- 8.3 Management information systems are introduced on site.

Element 9: Revise and analyse tender and estimating documents

Range

Information on actual contract conditions may include but not limited to include local sources and costs of materials, plant and equipment and alternative sources of natural materials, cost and availability of skilled labour, in-situ soil conditions and availability of construction water, materials sampling and testing and general site variables (e.g. slopes, drainage, existing services, etc.)

Performance criteria

- 9.1 Information regarding actual contract conditions is gathered to enable decisions on work methods to be made.
- 9.2 Where project data is insufficient, additional information is obtained from alternative sources.
- 9.3 Work methods which optimise the economical use of resources are identified, evaluated, recommended, agreed and applied.
- 9.4 Statements for revised and critical work activities are produced according to company requirements.
- 9.5 Tendered allowable unit costs for work items are analysed and revised.
- 9.6 Preliminary and general allowable are analysed and revised.
- 9.7 Initial tender assumptions are verified and the appropriate adjustments are made.

Registration Data

Subfield:	Civil and Building Services Engineering
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