

Domain	PLUMBING	Unit ID: 438
Title:	Carry out basic excavation as part of plumbing operations	
Level: 2		Credits: 4

Purpose

This unit standard specifies the competencies required to undertake basic excavation tasks as part of plumbing operations. It includes planning and preparing for work, locating the excavation site, erecting safety signs and barricades, digging the excavation and cleaning up the work area.

This unit standard is intended for those who work as plumbers.

Special Notes

1. Entry information:
 - Prerequisite
 - 434 - *Apply safety rules and regulations in plumbing operations* or demonstrated equivalent knowledge and skills.
2. Excavations may include but are not limited to provisions for new services and modification or repair existing services. Topography of the site is limited to flat surfaces.
3. Assessment evidence may be collected from a real workplace or simulated real workplace or an appropriate simulated realistic environment in which plumbing operations are carried out.
4. Performance of all elements in this unit standard must comply with workplace requirements and/or manufacturers' specifications.
5. 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.

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 adhered to.
- 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 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 are identified and applied in line with environmental plans and regulatory obligations.

Element 2: Mark out excavation site

Range

Setting out includes but is not limited to identification of services which can be damaged or impede excavation and marking out of the project.

Excavation may include but is not limited to excavating in gravel, sand, clay, shale and rock ground, wet ground, dry ground or loose.

Evidence of excavation of two types of ground is required for assessment purposes.

Performance Criteria

- 2.1 Excavation route is located, and line and depth established from site plans and instructions.
- 2.2 Site pegs and profiles are used to identify service markers and to set out service points.
- 2.3 Excavation limits are marked.
- 2.4 Safety signs and barricades appropriate to the project are erected in positions as required by site safety plan.
- 2.5 Temporary drainage system is established to divert surface and sub-surface water from excavation.
- 2.6 Service markers and taped areas are identified and damage or interference with underground services avoided.

Element 3: Dig excavation

Range

Trench and excavation support may include sheet material, shoring (timber, metal or piling).

Performance Criteria

- 3.1 Excavations are safely dug with hand tools to ensure correct route, line and depth.
- 3.2 Safety procedures are followed to minimise risk to self and others.
- 3.3 Excavation is cleaned free from loose material with hand tools and to job requirements and instructions.

Element 4: Clean up work area

Performance Criteria

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

Registration Data

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