



Australian Government

ICTCBL253 Construct underground telecommunications infrastructure

Release: 1

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Modification History

Release	Comments
Release 1	This version released with ICT Information and Communications Technology Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to construct underground telecommunications infrastructure, made up of conduits and enclosures, for cabling provisioning.

It applies to individuals in technical roles in civil construction who install pits and pre-built enclosures with connecting pipes for underground telecommunications infrastructure, predominantly in greenfield sites.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Telecommunications – cabling

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare to construct underground work	1.1 Obtain construction design plan from appropriate personnel to scope work and arrange for site access 1.2 Notify appropriate personnel of identified safety hazards and other services that will need to be considered 1.3 Obtain plant, tools and safety equipment to perform tasks safely and efficiently 1.4 Determine type of underground pit/manhole required for project as specified in construction design plan

ELEMENT	PERFORMANCE CRITERIA
2. Install enclosure	2.1 Use tools according to enterprise guidelines and work health and safety (WHS) regulations 2.2 Determine excavation meets specification of design plan 2.3 Place foundation of suitable material to provide safe and stable footing prior to installing underground enclosure in excavation 2.4 Place recognised barrier over construction where enclosure is to be installed over power cables according to enterprise requirements or agreements with other authorities 2.5 Install earth mat facility under enclosure as required by enterprise 2.6 Install enclosure specified in construction design plan according to manufacturer specifications using specified materials
3. Install connecting pipe works	3.1 Install conduit in trench to enterprise specifications 3.2 Connect conduit to enclosure according to manufacturer specifications and industry practice
4. Complete project	4.1 Complete reports and record alterations to plans using appropriate symbols, according to enterprise policy 4.2 Complete all labelling requirements according to industry standard 4.3 Recover obsolete materials and equipment, and return to appropriate point for disposal 4.4 Restore site according to enterprise or approving authority requirements and to customer satisfaction 4.5 Notify appropriate personnel of job completion and obtain sign-off

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance, but not explicit in the performance criteria.

Skill	Description
Reading	Interprets information from technical sources to identify relevant and key information
Writing	Documents outcomes and changes to plans using industry relevant terminology and recognised plan symbols
Numeracy	- Interprets scales and ratios on plans - Performs basic calculations appropriate to measuring and estimating size

Skill	Description
Navigate the world of work	• Takes personal responsibility for adherence to legal and regulatory responsibilities relevant to own work context, and draws attention to any issues that may affect self or others
Interact with others	• Identifies and follows accepted communication practices and protocols when liaising with clients, internal and external personnel on technical and operational matters
Get the work done	• Determines job sequence and works logically and systematically to undertake clearly defined tasks • Analyses task requirements to decide on appropriate equipment and practices • Implements actions as per plan, making slight adjustments if necessary, and addressing some unexpected issues • Automatically implements standard procedures for routine decisions in response to familiar problems

Unit Mapping Information

ICTCBL253 Construct underground telecommunications infrastructure supersedes and is equivalent to ICTCBL213 Construct underground telecommunications infrastructure.

Links

Companion Volume Implementation Guides are available from VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTCBL253 Construct underground telecommunications infrastructure

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Performance Evidence

The candidate must demonstrate the ability to perform the tasks outlined in the elements, performance criteria, and foundation skills, and to:

- interpret and apply design plans and prepare for construction
- install enclosures including pipe, pit and prefabricated manholes
- construct in two different soil types: sand, rock, soil or combination soil types
- shore an excavation site to meet enterprise and regulatory requirements
- use specialised hand or power tools and equipment normally used for excavation, pipe, conduit installation and site restoration safely
- complete and document specified work
- apply related work health and safety (WHS) requirements and work practices associated with excavation, enclosure installation and site restoration.

Note: Evidence must be provided at least once when a specific volume or frequency is not stated.

Knowledge Evidence

The candidate must demonstrate the knowledge required to perform the tasks outlined in the elements, performance criteria, and foundation skills, which includes knowledge about:

- legislation, codes, enterprise guidelines and other formal agreements that impact on the work activity, including excavation
- specific WHS requirements and environmental guidelines relating to the activity and site conditions, including typical safety issues and challenges that occur on site
- civil construction elements including:
 - operation of construction plant, tools and equipment
 - methods of enclosure construction
 - methods for laying foundations
 - construction design plans

- manufacturer requirements for safe operation of equipment
- relevant licence requirements for equipment used in constructing underground infrastructure.

Assessment Conditions

Skills must be assessed in a workplace or simulated environment where conditions are typical of those in a telecommunications work environment or workplace.

Access is required to:

- site/s where enclosure construction can be conducted
- construction equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on construction.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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