



Australian Government

ICTCBL401 Prepare design drawings and specification for a cable installation

Release: 1

ICTCBL401 Prepare design drawings and specification for a cable installation

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to prepare design drawings and specification for indoor or outdoor, domestic, commercial or industrial cable installations for communications applications compliant with appropriate Australian Communications and Media Authority (ACMA) technical standards.

It applies to technical staff who prepare design drawings and specifications for digital and analog, telephony, data, video, digital broadcasting, computer networks, local area networks (LAN), wide area networks (WAN) and multimedia cable communication installations on a client's premises.

Work functions in the occupational areas where this unit may be used are subject to regulatory requirements. Refer to the Implementation Guide Companion Volume or the relevant regulator for specific guidance on requirements.

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. Gather information on existing and proposed installation	1.1 Confirm cable installation requirements with client 1.2 Inspect site to confirm building plans where possible 1.3 Review existing cable plans and drawings
2. Determine installation options	2.1 Assess available installation options against client requirements and relevant legislation, codes, regulations and standards

ELEMENT	PERFORMANCE CRITERIA
	2.2 Establish and assess cost of options against client's budget 2.3 Select most suitable option based on function and cost considerations, and present to client
3. Prepare suitable drawings	3.1 Prepare clear and accurate cable installation drawings indicating proposed outlets and services 3.2 Provide drawings to relevant parties and file copies for later reference according to company policies
4. Prepare cabling specifications	4.1 Prepare detailed cabling specifications for cabling system 4.2 Prepare accurate costing from detailed specification, including equipment and material required
5. Verify specifications with client	5.1 Verify prepared documentation with client 5.2 Obtain authorisation and sign off from client to proceed according to company policy

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 2.1-2.3	- Analyses complex documentation from a variety of sources - Interprets and checks completeness and accuracy of information and data - Evaluates information and products from a variety of sources to ensure appropriateness for client needs
Writing	1.1, 2.3, 3.1, 4.1, 4.2, 5.1, 5.2	- Writes, edits and proofreads plans and documents to ensure clarity of meaning, accuracy and consistency of information - Records client information and completes organisational documents and correspondence using clear language and correct spelling, grammar and terminology
Oral Communication	1.1, 2.3, 5.1, 5.2	Use active listening and questioning to clarify requirements
Numeracy	1.2, 1.3, 2.1-2.3,	Performs mathematical calculations to check, interpret and

	3.1, 4.1, 4.2	confirm information for design specifications and drawings • Makes calculations appropriate for measuring, estimating materials and costs
Navigate the world of work	2.1, 5.2	• Takes full responsibility for following policies, procedures and legislative requirements and identifies organisational implications of new legislation or regulation on design parameters
Interact with others	1.1, 2.3, 3.2, 5.1, 5.2	• Selects and uses appropriate communication practices with others
Get the work done	1.1, 1.2, 2.1, 2.3, 3.2	• Accepts responsibility for planning and sequencing complex tasks and workload, negotiating key aspects with others and taking into account capabilities, efficiencies and effectiveness • Monitors progress of plans and schedules, and reviews and changes them to meet new demands and priorities

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTCBL401 Prepare design drawings and specification for a cable installation	ICTCBL4002A Prepare design drawings and specification for a cable installation	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for ICTCBL401 Prepare design drawings and specification for a cable installation

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Performance Evidence

Evidence of the ability to:

- determine installation requirements and options
- produce schematic and floor plan drawings based on design parameters
- produce specifications based on design drawings
- verify design drawings and specifications with client
- produce a costing of the design and specifications.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- recognise and apply the Australian Communications and Media Authority (ACMA) regulation requirements for Telecommunications Cabling Provider Rules in the design
- recognise and apply legislation, codes of practice and other formal resources that impact on the design
- recognise and apply industry recognised drafting principles and standards
- identify key features and operating requirements of resources and equipment required for the client cable installation
- identify and include the manufacturer's performance specifications for equipment and consumables in the design
- assess health and safety requirements relating to the design.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the telecommunications – cabling field of work and include access to:

- sites where cable installation may be conducted
- equipment currently used in industry
- relevant regulations, company policies and cabling specifications that impact on cable installation activities.

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

Links

Companion Volume implementation guides are found in VETNet -

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