



Australian Government

ICTPMG611 Prepare a detailed design brief

Release: 1

ICTPMG611 Prepare a detailed design brief

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 a detailed design brief to realise a building and equipment provisioning project, including costing, vendor and technology choices, scheduling and resourcing.

It applies to individuals with a high level of specialist technical skills and knowledge in optical telecommunications and IT networks using internet protocol (IP) systems for a new installation or upgrade of capacity or technology for an existing network or subsystem for convergence to next generation networks (NGN).

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

Unit Sector

Telecommunications – project management

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Evaluate design requirements	1.1 Consult relevant legislation, codes, regulations and standards that impact on project 1.2 Determine need for enhancement to new or existing telecommunications network from telecommunications project plan and associated project brief 1.3 Determine specific purpose and type of network growth and enhancement using collated data from other relevant sources 1.4 Consult client regarding enterprise criteria and determine

	timeframe for design plan 1.5 Establish and organise design resource requirements
2. Evaluate information to prepare design drawings	2.1 Obtain site access through consultation with affected property owners where project impacts on private property 2.2 Collect field data and propose ways to manage physical impediments that may affect building construction work 2.3 Verify existing equipment, equipment layouts and building services to plan for network growth 2.4 Ascertain impact of relevant heritage, environmental and other governmental legislation, and initiate action or organise consultative processes to gain approvals according to enterprise policy 2.5 Prepare design drawing according to enterprise requirements
3. Select design option	3.1 Analyse proposed network needs to determine set of realistic design options 3.2 Evaluate and select preferred design option according to approved enterprise criteria and discuss selected option with client 3.3 Assess system compatibility and make modifications to design
4. Prepare design plan	4.1 Prepare detailed design plan, including relevant geographical and topological information, equipment and material and cost estimates 4.2 Discuss final designs with planners and project management, and obtain approval to proceed 4.3 Produce final detailed design brief with drawings, material requirements, and testing and maintenance plans for operational staff to follow

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, 2.4	Analyses and interprets technical text in a variety of forms to determine key information, requirements and project design
Writing	1.4, 2.1, 2.3-2.5, 3.2, 4.1-4.3	Develops accurate technical documents and diagrams for a specific audience, using clear and detailed language and diagrams to convey explicit

		information
Oral Communication	1.4, 2.1-2.4, 3.2, 4.2, 4.3	Clearly articulates information using relevant language and persuasive techniques suitable for specific audiences
Numeracy	1.4, 1.5, 2.5, 4.1	- Uses mathematical calculations to determine costs, timelines and project specifications - Accurately produces charts and other diagrams that capture site plans
Navigate the world of work	1.1, 2.4, 2.5	- Monitors adherence to all legislative and regulatory rights and responsibilities, and organisational policies and procedures - Considers own role in terms of its contribution to the broader goals of the work environment
Get the work done	1.2, 1.3, 1.5, 2.1-2.3, 3.1-3.3, 4.1	- Reflects on the ways in which digital systems and tools are used or could be used to achieve work goals, and recognises strategic and operational applications - Uses a combination of formal, logical planning processes and an increasingly intuitive understanding of context to identify relevant project requirements and priorities - Makes a range of critical and non-critical decisions in relatively complex situations, taking a range of constraints into account - Recognises and addresses some unfamiliar problems of increasing complexity within own scope, recognising when to seek the advice of others

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPMG611 Prepare a detailed design brief	ICTPMG6034A Prepare a detailed design brief	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 ICTPMG611 Prepare a detailed design brief

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Performance Evidence

Evidence of the ability to:

- assess the implications of legislation, regulations and standards on project design
- analyse the network and enterprise needs to determine design options
- consult widely to ensure design represents client requirements
- prepare a design brief for building and equipment design provisioning
- prepare detailed design documentation to enable realisation of design.

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:

- explain common client telecommunications applications and related equipment
- identify and critique connections to carrier infrastructure or equipment
- describe cost-effective solutions in planning
- identify and explore current legislation relating to installation of telecommunications equipment and connection to carrier services
- review the range of client premises equipment (CPE)
- outline environmental impacts and options for green information and communications technology (ICT) installations
- review network and transmission equipment
- explain network topologies, and interface and interconnection solutions
- outline work health and safety (WHS) issues that are required to be included in the design brief for:
 - electrical safety
 - materials handling
 - physical hazards

- confined spaces
- heights
- lifting
- review the power requirements and electrical safety of the project
- explain technology of next generation networks (NGN)
- identify test equipment types.

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 – project management field of work and include access to:

- sites on which projects may be designed
- relevant databases, legislative requirements and other project related documentation.

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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