



Australian Government

CPPBDN4108 Draw layout of required services for Class 1 and 10 buildings

Release: 1

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Modification History

Release 1 This version first released with CPP Property Services Training Package Release 11.0.

New unit.

Application

This unit specifies the skills and knowledge required to draw the layout of services for Class 1 and 10 buildings, as defined by the National Construction Code (NCC). It includes reviewing project documentation, identifying the services required to comply with building regulations, codes and standards and drawing layouts for stormwater, sewerage, water supply, electrical and gas services.

The unit applies to drafters who work under the supervision of building designers or architects and use specialised knowledge to complete routine and non-routine tasks and deal with predictable and sometimes unpredictable drafting problems.

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

Pre-requisite Unit

Nil.

Unit Sector

Building Design

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

1 Confirm service requirements for Class 1 and 10 buildings.

1.1 Examine project documentation to clarify service requirements for Class 1 and 10 building.

1.2 Determine supply sources for utilities.

1.3 Review site and floor plans to identify connection points for services.

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| | 1.4 | Confirm client preferences for service provision. |
| 2 Draw stormwater layout. | 2.1 | Identify required methods for disposing of stormwater. |
| | 2.2 | Review site documentation to identify stormwater requirements. |
| | 2.3 | Interpret regulations, codes and standards relevant to stormwater systems and apply requirements to drawing to ensure compliance. |
| | 2.4 | Identify and review options for stormwater layout and select optimal layout to meet compliance and client requirements. |
| | 2.5 | Create and document stormwater drainage system layout. |
| 3 Draw sewerage layout. | 3.1 | Identify required methods for sewerage connection. |
| | 3.2 | Review site documentation to identify sanitary fixtures and sewerage requirements. |
| | 3.3 | Interpret regulations, codes and standards relevant to sewerage systems and apply requirements to drawing to ensure compliance. |
| | 3.4 | Identify and review options for sewerage layout and select optimal layout to meet compliance and client requirements. |
| | 3.5 | Create and document layout for sanitary fixtures and sewerage connections. |
| 4 Draw water supply layout. | 4.1 | Identify required methods for water supply and connection. |
| | 4.2 | Review site documentation to identify water supply requirements, type of hot water system and fixtures. |
| | 4.3 | Interpret regulations, codes, standards and local authority requirements relevant to water systems and apply requirements to drawing to ensure compliance. |
| | 4.4 | Identify and review options for position of hot water and |

		water fixtures and select optimal locations.
	4.5	Create and document layout for water connections and fixtures.
5 Draw electrical services layout.	5.1	Identify methods for supplying electricity to Class 1 and 10 buildings.
	5.2	Review site documentation to identify electricity source and electrical fixture requirements.
	5.3	Interpret regulations, codes, standards and local authority requirements relevant to electrical systems and apply requirements to drawing to ensure compliance.
	5.4	Identify and review options for locating switchboard and positioning electrical fixtures and electronic data cabling and select optimal locations.
	5.5	Create and document layout for electrical fixtures, electronic data cabling and electricity connection.
6 Draw gas services layout.	6.1	Identify methods for supplying gas to Class 1 and 10 buildings.
	6.2	Review site documentation to identify gas source and gas fixture requirements.
	6.3	Interpret regulations, codes, standards and local authority requirements relevant to gas systems and apply requirements to drawing to ensure compliance.
	6.4	Identify and review options for positioning gas fixtures and select optimal positions.
	6.5	Create and document layout for gas fixtures and gas connection.

Foundation Skills

As well as the foundation skills explicit in the performance criteria of this unit, candidates require:

- reading skills to interpret:

- service drawings and specifications in written and diagrammatic formats
- specialised vocabulary, acronyms and technical terms used in project documentation
- numeracy skills to apply measurements and calculations relating to service connections.

Unit Mapping Information

New unit.

Links

Companion volumes to this training package are available at the VETNet website -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

Assessment Requirements for CPPBDN4108 Draw layout of required services for Class 1 and 10 buildings

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by drawing the layout of services for two different Class 1 building projects, one of which includes an associated Class 10 building, as defined in the National Construction Code (NCC).

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- NCC, relevant regulations, Australian Standards and manufacturer specifications for services to Class 1 and 10 buildings
- stormwater drainage methods including local authority stormwater drains and on-site water retention systems
- stormwater components:
 - size and location requirements for eaves and box gutters, down pipes and in ground/concealed piping and surface water catchment
- sewerage connection; local authority sewerage drainage systems and on-site treatment units
- water connection:
 - reticulated water and on-site tanks
- types of hot water systems
- electricity sources:
 - mains electricity and on-site generation
- electrical fixtures:
 - general power outlets, lights, light switches, smoke detectors and ventilation systems
- gas sources:
 - mains gas and bottled gas
- design concepts and principles relating to service connections for Class 1 and 10 buildings
- safety measures including fire safety, electrical safety switches and tempering valves
- relevant licensing requirements

- service supply and connection terminology and definitions
- drawings and specifications for service layouts
- sustainable supply and resource use including water, energy and waste disposal.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations. Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting where these skills and knowledge would be performed. This includes access to:

- relevant regulations, codes and standards
- computer with internet access and word processing software
- technical references with current information on services
- drafting equipment for computer or hand drawing.

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