



Australian Government

CPCCB5009 Identify services layout and connection methods for Type B and C constructions

Release: 2

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Modification History

- Release 2 Updated reference to general construction induction training program.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is equivalent to CPCBC5009A Identify services layout and connection methods to medium rise construction projects. Change to title. Updated to meet the Standards for Training Packages 2012.

Application

This unit of competency specifies the skills and knowledge required to identify services requirements, layouts and connections from project drawings and specifications for Type B and C construction projects. It includes identifying and evaluating differing layouts for services to comply with building codes, regulations and standards.

This unit of competency applies to builders, project managers and related construction industry professionals responsible for determining services layouts using design concepts and principles relating to installations.

Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

Licensing, regulatory or registration requirements apply to this unit of competency in some jurisdictions. Relevant state and territory regulatory authorities should be consulted to confirm these requirements.

Pre-requisite Unit

Nil.

Unit Sector

Building and Construction

Elements and Performance Criteria

Elements describe the Performance criteria describe what needs to be done to

essential outcomes.	demonstrate achievement of the element.
1 Evaluate layout for water storage supply.	1.1 Sketch layout for residential water supply and connection from a town supply or tank storage to comply with relevant building regulations and standards. 1.2 Document single and two-stage pumping systems used to maintain water levels in storage tanks. 1.3 Identify and address limitations of multi-function and single function services connected to water storage tanks.
2 Evaluate layout and methods of sewerage and drainage disposal.	2.1 Sketch sewerage connection and layout in accordance with relevant building regulations and standards. 2.2 Assess number of fixtures and building type to determine stack type. 2.3 Identify fixture units. 2.4 Determine appropriate connection methods of main drains to local authority sewers against relevant building standards. 2.5 Assess disposal of sewerage from fixtures situated below the level of the local authority sewer. 2.6 Monitor collection, treatment and disposal of prohibited discharges for non-domestic buildings.
3 Assess layout of mechanical ventilation.	3.1 Identify and sketch methods of mechanical ventilation and air distribution. 3.2 Check mechanical ventilation and air distribution system design layout is appropriate to the building design and complementary to other services.
4 Evaluate the range of hot water systems.	4.1 Evaluate operating principles of various types of hot water systems. 4.2 Select suitable hot water system according to accepted and agreed requirements and specifications.

5	Evaluate lighting for a range of situations.	5.1	Identify roof construction used and outline methods for appropriate daylight transmission.
		5.2	Compare various service situations with methods of artificial lighting used.
6	Determine compliance of fire protection.	6.1	Identify authorities involved in plan perusal and site inspection for the various building classifications.
		6.2	Identify requirements for sprinkler systems and fire hoses for the various building classifications.
		6.3	Address fire detector and alarm systems and the application of fire doors.
		6.4	Identify extinguishing agents and their applications.
7	Plan installation of electrical and electronic services.	7.1	Identify electrical supply connection to site and comply with appropriate authority.
		7.2	Implement electrical design and provision for services.
		7.3	Identify and outline electronic cabling, type of service, categories of cabling, layout of equipment, safe guards, access for maintenance, repair and extensions.

Foundation Skills

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

- technology skills to:
 - use digital tools and devices to communicate and collaborate effectively with others
 - use equipment and programs to access and extract information and develop relevant documentation.

Unit Mapping Information

Supersedes and is equivalent to CPCCB5009A Identify services layout and connection methods to medium rise construction projects.

Links

Companion volumes to this training package are available at the VETNet website -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>