



Australian Government

**Assessment Requirements for
CPCCB6016 Assess construction faults in
large building projects**

Release: 1

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Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.

Supersedes and is equivalent to CPCBC6016A Assess construction faults in large building projects. Updated to meet the Standards for Training Packages 2012.

Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by identifying and assessing the impact of construction faults on a Type A building project.

In doing this, the candidate must identify, assess the impact of and determine remedial action for construction faults associated with at least two of the following:

- structural
- installation
- refurbishment
- renovation
- restoration.

Knowledge Evidence

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

- government building legislation and regulation
- building codes and standards
- the National Construction Code (NCC)
- project drawings, details and specifications
- design principles and behaviour of structural members undergoing stress, strain, tension, compression, bending or combined actions
- nature of materials and effects on performance
- structural design:
 - aesthetics
 - economy
 - equilibrium
 - functionality

- stability
- strength
- properties, characteristics and limitations of structural materials:
 - reinforced and pre-stressed concrete and tilt-up panels
 - composite steel and concrete
 - masonry
 - steel (cold-formed steel) and aluminium
- performance characteristics of columns analysis:
 - bending behaviour and performance of loaded support beams
 - eccentric and axial load effect
 - load spanning elements for bending moments, shear forces, deflection and torsion
 - effect of connections
 - effect of slab behaviour in relation to spans and stress distribution
 - effect of slenderness ratio
- high performance structural elements:
 - castellated beams
 - connections
 - fire resistance
 - laminated beams
 - pre-stressed beams
 - slabs
 - trusses
 - use of steel to reinforce concrete
 - waffle slabs
- applications of structural principles in buildings:
 - dead and live load calculations and characteristics
 - fire resistance of materials
 - impact of thermal effects
 - impact of time-dependent effects, including creep and shrinkage
 - impact of wind, snow, groundwater, earthquake, liquid pressure, rainwater and earth pressure actions
 - structural resistance of forms of construction
 - structural resistance of materials
- work health and safety (WHS) and organisational quality procedures and processes
- temporary structural elements:
 - bracing
 - close sheeting
 - formwork props
 - pressure resistant formwork
 - scaffolding sole plates

- shields
- shoring collar sets
- soldier sets.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment can be undertaken in the workplace or in a simulated workplace environment.

A simulated environment is one that realistically replicates workplace conditions, materials and equipment, interactions with others and workplace irregularities, and which meets industry standards for safety and environmental practices.

Candidates must have access to:

- relevant government building legislation codes and standards
- environmental and sustainability requirements
- manufacturer specifications and installation instructions
- organisational policies, procedures and workplace safety requirements
- project plans and specifications
- business equipment, technology and software to assess and remediate construction faults in large building projects and collaborate effectively with external professionals.

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>