

CPCCE4005 Apply structural principles to the planning of the demolition of a structure

Application

This unit of competency specifies the skills and knowledge required to apply structural principles when planning demolition, using conventional methods, of structures.

This unit of competency supports the needs of site managers, forepersons and other managers in the building and construction or demolition industry responsible for effecting a demolition plan.

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 unit *CPCCWHS1001 Prepare to work safely in the construction industry* meets this requirement.

Licensing, legislative, regulatory or certification requirements apply to demolition work in different states and territories. Candidates are advised to consult with the relevant regulatory authority.

Elements and Performance Criteria

Elements	Performance Criteria
1. Analyse the structural integrity of demolition project.	<p>1.1 Analyse integrity of structure from project plans and specifications, building standards and codes.</p> <p>1.2 Conduct pre-commencement site inspection to confirm analysis.</p> <p>1.3 Assess project for compliance with workplace safety and environmental requirements.</p> <p>1.4 Confirm analysis with relevant industry professionals.</p>
2. Apply structural principles to the planning of demolition project.	<p>2.1 Identify main structural principles that apply to the intended demolition.</p> <p>2.2 In conjunction with related industry professionals, confirm the structural performance characteristics of slabs, beams, columns and retaining walls and apply these to the planning of the demolition project.</p> <p>2.3 Confirm properties and behaviours of structure and their possible reactions to demolition, using standard industry formulas and performance comparisons.</p>
3. Evaluate worksite prior to demolition.	<p>3.1 Implement processes to analyse stability of soils and capacity of the site to support the demolition loads.</p> <p>3.2 Establish processes for demolishing wall systems and wall cladding systems in compliance with relevant Australian Standards and codes.</p> <p>3.3 Evaluate structural integrity of the roof and roof cladding system in preparation for demolition.</p>

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	3.4 Complete relevant documentation in accordance with workplace requirements.

Foundation skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Assessment Requirements for CPCCE4005

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by applying structural principles to the demolition planning of two different structures on two different demolition projects.

Performance must include:

- analysing the structural integrity of structures
- applying structural principles to the planning of demolition projects
- evaluating worksites prior to demolition.

Knowledge Evidence

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

- the compliance requirements of the relevant Australian Standards, Building Code of Australia (BCA), model codes of practice, environmental and work health and safety (WHS) legislation
- applications of structural principles in buildings
- design principles and behaviour of structural members undergoing stress, strain, compression, bending or combined actions
- interpretation and analysis of work drawings and specifications
- nature of materials and effect of performance during demolition of structures
- structural principles
- materials
- industry professionals
- documentation
- structural floor systems
- structural wall systems
- wall cladding systems
- relevant services
- structural roof systems
- roof cladding systems.

Assessment Conditions

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

Assessment of performance must be undertaken in the workplace or in a simulated workplace environment.

Assessors are responsible for ensuring that the candidate demonstrating competency has access to:

- documentation, including design brief drawings, specifications, codes, design concepts, construction schedules and other necessary supporting documents
- research resources, access to relevant legislation, regulations and codes of practice
- relevant computer software and hardware.

Links

Companion Volumes to this Training Package are available at the VETNet website:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>