



Australian Government

CPCCBBC4020 Build thermally efficient and sustainable structures

Release: 3

CPCBC4020 Build thermally efficient and sustainable structures

Modification History

- Release 3 Updated reference to general construction induction training program.
- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Element 1.2 changed to allow for continuing compliance with NCC.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
Supersedes and is equivalent to CPCBC4020A Build thermally efficient and sustainable structures. Updated to meet the Standards for Training Packages 2012.

Application

This unit of competency specifies the skills and knowledge required to apply sound principles of thermal efficiency as part of the implementation of sustainable building and construction processes in response to the need to respond to growing consumer demand for sustainable buildings and environmentally friendly developments.

It applies to National Construction Code (NCC) classifications:

- Residential - Class 1 and 10 buildings, maximum two storeys
- Commercial - Class 2 to 9, Type C only constructions.

This unit of competency supports the needs of builders, site managers and forepersons, and estimators in the building and construction industry.

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.

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

Pre-requisite Unit

Nil.

Unit Sector

Building and Construction

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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| 1 Apply legislative and planning requirements for thermal efficiency to the building process. | 1.1 Identify current relevant state, territory and council requirements for building thermally efficient structures. |
| | 1.2 Identify factors that contribute to the construction of a star rated dwelling identified within the NCC and assess the impact of regional climate differences. |
| | 1.3 Identify and negotiate client needs and expectations for the design and construction of thermally efficient structures. |
| | 1.4 Gather expert design and other advice as part of the planning and construction process. |
| | 1.5 Consult relevant Australian Standards to identify the implications for the conduct of the building project. |
| 2 Review design solutions for effectiveness and compliance. | 2.1 Identify impact of radiation, convection, conduction and evaporation on the thermal comfort of residents. |
| | 2.2 Evaluate orientation of the building, location and size of glazing, and use of thermal mass as design features for effectiveness and compliance with planning and other regulatory requirements. |
| | 2.3 Evaluate, cost and communicate effective strategies for insulating the structure to the client. |
| | 2.4 Assess building designs for their compliance with the energy efficiency requirements of the NCC. |
| | 2.5 Consult designers and clients to ensure final construction plans are effective, efficient and compliant. |
| 3 Manage the building process to ensure an effective outcome. | 3.1 Establish effective communications between designers, architects and clients to ensure effective thermal performance is embedded from the design to construction phase. |
| | 3.2 Confirm effective quality assurance processes are in place to evaluate and implement the building of a |

five-star dwelling.

- 3.3 Assess and communicate to client, cost-effective strategies to achieve desired level of thermal performance.
- 3.4 Assess and negotiate life cycle costs of various construction approaches with the client.

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 CPCBC4020A Build thermally efficient and sustainable structures

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>