



Australian Government

CPPBDN6106 Produce building information modelling for building design projects

Release: 1

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Modification History

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

Supersedes and is equivalent to CPPBDN5013A Develop and collaborate on building information models for small-scale building design projects. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to develop building information modelling (BIM) for residential, commercial or industrial building design projects. It includes BIM authoring, collaborating with consultants and contractors from other disciplines and creating project documentation using modelling software programs.

This unit is suitable for experienced building designers who draw on broad theoretical and technical knowledge and high-level technology skills to develop BIM models to support building design.

This unit forms part of the licensing requirements for people engaged in building design in some states and territories. For further information, check with the relevant regulatory authority.

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.

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|-------------------------------------|---|
| 1 Confirm BIM project requirements. | 1.1 Plan and confirm BIM project processes and schedules in consultation with relevant persons. |
| | 1.2 Identify accurate and reliable exchange procedures for project models. |

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| | 1.3 | Use outputs of appropriate functions of design technology tools to generate required project models. |
| 2 | Develop BIM project. | |
| | 2.1 | Apply information relating to building design project to plans for BIM development. |
| | 2.2 | Develop process map, task list and schedule for BIM implementation. |
| | 2.3 | Create three-dimensional (3-D) models according to workplace and project requirements and design technology software instructions. |
| | 2.4 | Embed building design data in project model objects in required project documentation. |
| | 2.5 | Identify and resolve possible conflicts between model elements. |
| | 2.6 | Check and test BIM to confirm accuracy and functionality. |
| 3 | Exchange and collaborate on project models. | |
| | 3.1 | Test transfer of BIM files to ensure integrity of format and data is retained. |
| | 3.2 | Provide BIMs to relevant persons for addition of specialist data according to data sharing protocols. |
| | 3.3 | Import or link BIMs or BIM data provided by relevant persons checking for integrity. |
| | 3.4 | Amend and manipulate BIMs in collaboration with relevant persons. |

Foundation Skills

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

- reading skills to research, interpret and apply complex technical instructions, legislation, codes and standards.

Unit Mapping Information

Supersedes and is equivalent to CPPBDN5013A Develop and collaborate on building information models for small-scale building design projects.

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 CPPBDN6106 Produce building information modelling for building design projects

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by producing interactive building information modelling (BIM) in consultation with project team, for one residential building design project and one commercial or industrial building design project.

Knowledge Evidence

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

- relevant legislation, regulations, codes and standards
- workplace and project requirements and limits
- software manufacturer specifications for BIM-capable building design software
- strengths and challenges of BIM-capable building design software
- benefits and challenges of a BIM approach to design production and documentation
- client requirements
- principles and strategies of:
 - project management
 - integrated project delivery
 - basic principles of structural engineering
- duty of care of building designers to ensure quality of designs
- contextual and site constraints
- design drawing and representation methods.

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 legislation, regulations, codes and standards
- technical references and software manuals
- computer with internet access and BIM-capable building design software.

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