Draft 0.1

This is our work-in-progress update to CPCCBC5006B Apply site surveys and set-out procedures to medium rise building projects: https://training.gov.au/Training/Details/CPCCBC5006B.

We are working with industry experts to ensure the updated unit:

- meets current and anticipated industry needs
- complies with current Standards for Training Packages
- is written in clear understandable English.

Information on our training package review and development process is available here: http://www.artibus.com.au/project-stage.

Summary of changes from current endorsed unit

Re-templated to meet Standards for Training Packages 2012.

Sequenced Elements and Performance Criteria.

Specified what and how performance is demonstrated in Performance Evidence.

Captured critical Range Statement items and included industry relevant knowledge in Knowledge Evidence.

Stated mandatory conditions and specific requirements for assessment.

CPCCBC5006
Apply site surveys and set-out procedures to medium rise building projects

Application

This unit of competency specifies the outcomes required to apply site surveys and set-out procedures to medium rise building and construction projects. It includes the skills and practices required to set out building projects, measure, record and interpret data using measuring and levelling equipment.

This unit of competency supports builders, surveyors and related construction industry professionals who have responsibility for applying design concepts and principles to survey and site set-out on medium-rise building and construction projects.

Prerequisite Unit

Nil.

Unit Sector

Construction.

Elements and Performance Criteria

1. Assess and select levelling equipment.	1.1	Identify specialised levelling and surveying equipment available on large building projects for various set-out and levelling procedures.
	1.2	Research and record differences between various types of specialised surveying equipment.
	1.3	Identify various components of levelling devices.
2. Select, test and operate levelling devices.	2.1	Select levelling devices appropriate for the set-out
	2.2	Perform basic tests on levelling device accuracy as per manufacturer specifications.
	2.3	Calculate and record effects of maladjustment in levelling devices using standard operating procedures.
	2.4	Carry out temporary adjustments to set up levelling equipment in accordance with standard operating procedures.
	2.5	Determine horizontal and vertical angles using levelling devices.
3. Conduct site set-out.	3.1	Obtain, read and identify site information and dimensions from project working drawings, site plan and surveyor's plans.
	3.2	Access, read and follow relevant workplace safety requirements.
	3.3	Identify correct location of survey pegs prior to positioning pilot pegs.
	3.4	Locate profile pegs at a working distance from survey pegs and parallel to pilot line.
	3.5	Set out overall of building or other structural members to specifications.

	3.6	Check vertical accuracy of each survey to a tolerance of 10 mm using different levelling devices.
4. Compute grid distances and coordinates.	4.1	Calculate coordinates and bearings, distances related to grids and general set-out work.
	4.2	Demonstrate angular relationship between different bearings (whole circle).
	4.3	Calculate bearing and distance between coordinates.
	4.4	Calculate coordinates of a point given the bearing and distance from a point with known coordinates.
	4.5	Determine offsets from a coordinated point given the bearing and distance from a point with known coordinates.
	4.6	Determine information necessary to set out a structure using a site plan.

Foundation Skills

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

- numeracy skills to:
  - interpret, calculate and transfer project plans dimensions to on-site set out.
- technology skills to:
  - use a range of sophisticated levelling equipment to optimise set-out outcomes
  - use applications to access, extract and share information

Unit Mapping Information

Supersedes and equivalent to CPCCBC5006B Apply site surveys and set-out procedures to medium rise building projects.

Links

Companion Volume Implementation Guide: to be added.

Assessment Requirements for CPCCBC5006 Apply site surveys and set-out procedures to medium rise building projects

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by using site survey information to set out a medium rise building.

In doing this, the candidate must:

- use two different specialised surveying and levelling devices
- apply survey and levelling principles for site set-out
- perform calculations and conversions using collected survey data

Knowledge Evidence

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

- design principles and work drawings and specifications
- National Construction Code and Australian standards
- building systems and application to survey and site set-out
- level and grade checking used to perform survey control to accuracy criteria
- functional and operational features of surveying and levelling equipment:
    - electronic distance measuring (EDM) equipment
    - laser
    - optical plummets
    - pegs methods
    - theodolite
- workplace safety requirements

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.

Candidates must be provided with:

- project working drawings, specifications and site set-out plans
- building codes and standards
- organisational and environmental quality documentation
- sufficient equipment and materials to facilitate site survey and set-out to a medium rise construction project.

Links

Companion Volume Implementation Guide: to be added.