



**Australian Government**

# **CPCCOM3006 Carry out levelling operations**

**Release: 1**

# CPCCOM3006 Carry out levelling operations

## Modification History

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

Supersedes and is equivalent to CPCCCM3006 Carry out levelling operations.  
Updated to reflect current industry terminology, tools and equipment.

## Application

This unit of competency specifies the skills and knowledge required to carry out levelling operations to establish correct and accurate set-out of buildings and components, meeting all relevant requirements of the National Construction Code (NCC), Australian Standards, work health and safety (WHS), and Commonwealth and state or territory legislation.

It includes:

- using the rise and fall and height of collimation methods
- setting up, testing and using levelling devices
- undertaking closed and open traverses using a range of levelling equipment
- calculating distances using stadia lines.

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 *CPCCWHS1001 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

Common

## Elements and Performance Criteria

Elements describe the essential outcomes.

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

1 Plan and prepare.	1.1 Read and interpret work instructions and plan sequence
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- of work.
- 1.2 Plan all work to comply with laws and regulations, Australian Standards, work health and safety (WHS) and environmental requirements, manufacturers' specifications, workplace requirements, drawings and specifications.
  - 1.3 Select tools and equipment, including personal protective equipment (PPE), check for serviceability and report any faults.
  - 1.4 Fit PPE correctly.
  - 1.5 Inspect work site, assess hazards and services, and apply risk controls, including required signage and barricades.
  - 1.6 Select materials required for task, calculate quantities, handle safely and prepare and position ready for use.
  - 1.7 Confirm team roles and verbal and non-verbal communication signals.
- 2 Carry out levelling procedures using rise and fall method.
    - 2.1 Set up and test instrument for operational effectiveness and accuracy.
    - 2.2 Set up or locate datum point.
    - 2.3 Take and record readings from the datum and at nominated or selected stations following project specifications.
    - 2.4 Identify backsights, intermediate sights and foresights, and book levels.
    - 2.5 Transfer instrument to another location, repeat process, and record change station and record readings.
    - 2.6 Calculate reduced levels for all stations using rise and fall method, and check accuracy of recordings using the three-check method.
  - 3 Carry out levelling procedures using height of collimation
    - 3.1 Set up and test instrument for operational effectiveness and accuracy, and check tolerances.
    - 3.2 Set up or locate datum point.

- method.
- 3.3 Take and record readings to datum and establish the height of collimation.
  - 3.4 Take readings at nominated or selected stations following project specifications, and record in field book.
  - 3.5 Transfer instrument to another location, establish new height of collimation, and record change station in field book.
  - 3.6 Calculate reduced levels using height of instrument method.
  - 3.7 Calculate reduced levels for all stations and record heights and levels in field book.
  - 3.8 Check accuracy of readings using height of collimation method of calculation and three check method.
- 4 Calculate distances using stadia lines.
- 4.1 Calculate distances from instrument to stations using staff, stadia lines, and identified factor of levelling instrument
  - 4.2 Record readings and distances.

## Foundation Skills

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

## Unit Mapping Information

Supersedes and is equivalent to CPCCCM3006 Carry out levelling operations.

## 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>