



Australian Government

CPPSIS5048 Conduct engineering surveys

Release: 1

CPPSIS5048 Conduct engineering surveys

Modification History

Release 1.

Replaces superseded equivalent CPPSIS5048A Conduct an engineering survey.

This version first released with CPP Property Services Training Package Version 3.

Application

This unit of competency specifies the outcomes required to conduct an engineering survey based on specifications and information in construction or engineering designs. The unit covers using surveying equipment to measure, record and reduce surveying data. It requires the ability to validate the accuracy of data, and identify discrepancies between specifications and actual activities.

The unit supports those who work under limited supervision in a surveying team.

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

Pre-requisite Unit

Nil

Unit Sector

Surveying and spatial information services

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions.

- | | |
|------------------------------------|--|
| 1. Prepare for engineering survey. | 1.1. Project requirements and specifications are identified and analysed to determine surveying data requirements in consultation with <i>appropriate persons</i> . |
| | 1.2. Key survey activities are planned according to available resources, project and organisational requirements. |
| | 1.3. Compliance with legal and statutory standards is planned according to project requirements. |

- | | |
|--|---|
| 2. Carry out engineering surveying tasks. | 2.1. Surveying equipment is selected, calibrated and checked to ensure correct operation and functionality, and problems are reported or resolved according to manufacturer specifications.

2.2. Identified survey components are measured according to project requirements and specifications.

2.3. Measured surveying data is reduced according to project requirements and specifications.

2.4. Measurements are validated and recorded according to project specifications and organisational requirements.

2.5. Problems are identified and resolved, and contingencies managed according to organisational requirements. |
| 3. Finalise and report engineering survey results. | 3.1. Survey is finalised and checked for compliance with project and organisational requirements.

3.2. Appropriate persons are notified of survey results according to organisational requirements.

3.3. Survey documentation is completed and data archived according to project and organisational requirements. |

Foundation Skills

This section describes the language, literacy, numeracy and employment skills essential to performance in this unit but not explicit in the performance criteria.

Skill	Performance feature
Planning and organising skills to:	plan and prioritise work to meet survey timeframes and resource constraints.
Numeracy skills to:	conduct precise measurements and computations relating to length, angle, elevation, area and volume.
Oral communication skills to:	- ask questions to clarify client requirements - explain and discuss survey results with appropriate persons.

- Reading skills to:
- analyse graphical and technical information in construction and engineering drawings.
- Writing skills to:
- prepare conformance and non-conformance reports
 - record technical information in organisational documentation.
- Technology skills to:
- calibrate specialised surveying equipment.
- Problem-solving skills to:
- select appropriate validation methods to verify accuracy of data.

Range of Conditions

This section specifies work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

- Appropriate persons*** must include at least one of the following:
- client
 - colleague
 - end user
 - engineer
 - manager
 - registered or qualified surveyor.

Unit Mapping Information

CPP SIS5048A Conduct an engineering survey

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>