



Australian Government

Assessment Requirements for CPPSIS6035

Conduct complex engineering set-out surveys

Release: 1

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Modification History

Release 1.

Replaces superseded equivalent CPPSIS6035A Conduct complex engineering set out surveys.

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

Performance Evidence

A person demonstrating competency in this unit must satisfy the requirements of the elements, performance criteria, foundation skills and range of conditions of this unit. The person must also conduct a complex engineering set-out survey for two different projects.

While conducting the above complex engineering set-out surveys, the person must:

- analyse survey set-out specifications, including:
 - cross-sections and plans
 - technical descriptions of surveying data and set-out requirements
- develop a project plan, including detail of:
 - project objectives and deliverables
 - constraints
 - risk management and contingency strategies
 - work activities
 - technologies and techniques to be used
- interpret engineering design information and specifications to identify components to be measured
- plan and document data collection methodologies that allow for contingencies
- schedule work tasks and organise resources and equipment
- apply industry-accepted standards for performing surveying measurements and computations
- communicate clearly with others to clarify and report work information and negotiate completion of tasks
- comply with industry-accepted standards for validating accuracy of surveying data and identifying errors and discrepancies
- comply with organisational, legal and statutory requirements for:
 - completing records and documentation
 - recording, storing and filing data
 - using, checking and storing surveying equipment
 - working safely and using personal protective equipment (PPE)
- conduct set-out measurements and calculations to meet engineering specifications using two of the following pieces of surveying equipment:

- current meter
- global navigation satellite system (GNSS)
- level
- tape
- theodolite
- total station
- implement project management mechanisms to ensure the survey is completed within required timeframes and complies with specifications
- review project outcomes against strategic organisational goals to identify links to future goals
- supervise staff to complete work tasks on time.

Knowledge Evidence

A person demonstrating competency in this unit must demonstrate knowledge of:

- accuracy and precision requirements for setting out surveying data
- data capture, set-out and reduction techniques
- industry-accepted methods for validating data to identify errors and discrepancies
- legislative, statutory and industry requirements and standards relating to work tasks associated with set-out surveys
- methods for calculating surveying data and verifying its accuracy using primary and secondary controls
- methods for establishing a control network that meets specified tolerances
- methods for setting up, levelling and calibrating surveying equipment
- organisational policies and procedures relating to:
 - health and safety relating to surveying activities
 - reporting and documentation
 - using and allocating resources
 - using the surveying equipment specified in the performance evidence
- project management techniques for scheduling, measuring and monitoring work progress and planning for contingencies
- reference and coordinate systems for surveying data, including Australian Height Datum and Map Grid of Australia.

Assessment Conditions

The following must be present and available to learners during assessment activities:

- equipment:
 - as specified in the performance evidence, including PPE
- materials:
 - paper for printing reports, documents and data
- specifications:

- organisational policies, procedures and documentation relating to work health and safety
- survey specifications, including relevant engineering plans and drawings
- relationships with team members and supervisor:
 - lead role in a team.

Timeframe:

- as specified by project requirements.

Assessor requirements

As a minimum, assessors must satisfy the assessor requirements in the Standards for Registered Training Organisations (RTOs) current at the time of assessment.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>