



Australian Government

CPPSIS5061 Locate underground services in surveying practice

Release: 1

CPPSIS5061 Locate underground services in surveying practice

Modification History

Release 1.

Replaces superseded equivalent CPPSIS5061A Locate underground services in surveying practice.

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

Application

This unit of competency specifies the outcomes required to locate underground services in surveying practice. The unit covers using specialised surveying equipment and electronic locating and geophysics methods, such as electro-magnetic detecting and ground penetrating radar, to identify and interpret targets on lines of subterranean assets. The unit also covers project management tasks relating to scheduling, recording, monitoring and reporting work progress, and planning for risks and contingencies. The unit requires the ability to perform surveying calculations and data reductions, read and interpret Dial Before You Dig (DBYD) plans, and to output data using equipment software.

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

Licensing, legislative, regulatory or certification requirements apply to this unit in some States. This unit may also require adherence to AS5488 Classification of Subsurface Utility Information (SUI). Relevant state and territory regulatory authorities should be consulted to confirm those requirements.

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. Plan location processes.

1.1. Project objectives, principal work activities, and constraints are identified and documented in consultation with ***appropriate persons***.

- 1.2. Geophysics methods to locate services and spatial data requirements are determined.
 - 1.3. Details of instruments and basic surveying techniques to be used are evaluated and determined according to project objectives.
 - 1.4. Surveying equipment is selected, calibrated and verified according to manufacturer specifications.
 - 1.5. Work is scheduled to be completed within available time according to organisational requirements.
2. Carry out surveying tasks.
 - 2.1. Project management mechanisms are implemented to schedule, measure, record and report work progress according to organisational requirements.
 - 2.2. Underground services are located and required components measured and marked according to project specifications.
 - 2.3. Surveying equipment is used to collect and scrutinise spatial data to determine targets on lines of subterranean assets.
 - 2.4. Measured spatial data is reduced to project reference system for comparison with design.
 - 2.5. Measurements are validated and recorded according to project specifications, organisational requirements and standards.
 - 2.6. Problems are identified and resolved, and contingencies managed according to organisational requirements and plans.
3. Finalise location processes.
 - 3.1. Location processes are finalised and achievements reviewed against project and organisational requirements.
 - 3.2. Appropriate persons are notified of results according to organisational requirements.
 - 3.3. Documentation is completed and spatial data archived according to 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
Numeracy skills to:	conduct surveying measurements and calculations relating to depth, dimension, direction, flow rates, position and angle.
Oral communication skills to:	ask questions to clarify project requirements.
Reading skills to:	- analyse graphical and technical information in cross-sections and plans - interpret and comply with DBYD plans.
Writing skills to:	record technical information in organisational documentation.
Technology skills to:	use geodetic software to output measured data.
Problem-solving skills to:	- apply risk control and contingency strategies to anticipated and identified problems - 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.

<i>Appropriate persons</i>	asset owner
must include at least	client
two of the following:	- colleague - end user

- engineer
- manager
- registered or qualified surveyor.

Unit Mapping Information

CPPSIS5061A Locate underground services in surveying practice

Links

Companion Volume implementation guides are found in VETNet -

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