

Draft 0.1

This is a draft update to CPPSIS5051 Apply land and planning law to surveying:
<https://training.gov.au/Training/Details/CPPSIS5051> .

Code changed to CPPSUR5051.

Standardised Licensing Statement in Application.

Changed PCs to active voice.

Reference to: 'two different surveying projects ' in first sentence of PE may be problematic at audit as no specific details provided.

Changed 'person' to 'candidate' in PE.

Range of Conditions added to Knowledge Evidence.

I've added mapping info.

TAG will need to reassess this as unit is redeveloped.

Unit of Competency

CPPSUR5051 Apply land and planning law to surveying

Modification history

Release	Comments
1	Replaces superseded equivalent CPPSIS5051A Apply land and planning law to surveying. This version first released with CPP Property Services Training Package Version 3.
	Replaces superseded equivalent CPPSIS5051 Apply land and planning law to surveying

Application

This unit specifies the skills and knowledge required to apply land and planning law to surveying. The unit covers marking out urban structures and identifying urban lots and related improvements using cadastral surveying methods and equipment. The unit also covers determining azimuth for identification and re-mark surveys, and undertaking mark-out surveys to fix front and rear corners, angles and line marks. It includes calculating identification surveys and preparing reports and sketches that identify physical constraints and environmental impacts. The unit requires the ability to set up, calibrate and use surveying equipment to measure, record and reduce surveying data; and to compile reports and sketches for submission to an approving authority as part of a development application. The unit requires knowledge of land and planning law, and of the submission process for local government building approvals.

The unit supports those who work under limited supervision in a surveying team, in areas such as town planning, surveying and mapping.

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

Prerequisite Unit

None

Unit Sector

Surveying and spatial information services

Elements and Performance Criteria

1. Determine survey requirements and azimuth.	<ul style="list-style-type: none">1.1 Gather relevant information to determine survey requirements in consultation with appropriate persons.1.2 Locate survey marks as indicated on survey plan.1.3 Establish position of parcel of land corners from identified survey marks.1.4 Establish right on boundary or parallel azimuth.1.5 Use monumented and non-monumented occupations to establish an azimuth parallel to street boundary.1.6 Adopt assumed azimuth to enable completion of field survey, and subsequent calculations and make adjustments to swing onto azimuth.1.7 Calculate azimuth derived from marks at opposite extremities of survey.
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	1.8 Interpret relationship between alignment marks, kerb lines, kerb as laid, and occupations when azimuth is fixed using alignment marks, kerbs and occupations shown in alignment plans.
2. Undertake mark-out survey and fix front and rear corners, angles and line marks.	2.1 Establish azimuth by direct or indirect means and front corners of allotment are fixed. 2.2 Establish side fix for the allotment using occupations, and monuments or reference marks. 2.3 Use direct methods to establish positions of rear corners. 2.4 Make traverse and calculations from street azimuth and side fix to set out rear corners by indirect means. 2.5 Identify requirement to use line marks on long or obstructed boundaries. 2.6 Identify and follow suitable checking procedure to validate positioning of all placed marks.
3. Meet local government building requirements.	3.1 Meet re-mark surveys and local government siting requirements for the issue of building certificate. 3.2 Adhere to relevant survey regulations relating to supervision and accuracy of surveys, field procedures, and survey searching. 3.3 Prepare field notes according to organisational requirements and legal and statutory standards.
4. Calculate identification survey.	4.1 Calculate position of improvements in relation to boundaries using industry-accepted methods. 4.2 Calculate position of improvements in relation to set-out buildings using coordinate system.
5. Prepare draft survey report and sketches.	5.1 Prepare draft survey report and accompanying sketches for a re-mark survey according to organisational requirements. 5.2 Incorporate physical constraints and environmental impacts of development into report.

Foundation Skills

Candidates require:

- learning skills to:
 - conduct research to identify survey information and task requirements
- planning and organising skills to:
 - plan and prioritise work to meet survey timeframes
- 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
 - discuss observations and evidence with appropriate persons
- reading skills to:
 - analyse graphical and technical information in construction and engineering drawings and survey plans
 - interpret legal information in land and planning laws
- writing skills to:
 - use templates to record field notes
 - write field notes that can be interpreted by a third party
- technology skills to:

- connect equipment to coordinate systems
 - set up and calibrate specialised surveying equipment
- problem-solving skills to:
 - select appropriate validation methods to verify accuracy of data.

Unit Mapping Information

Supersedes and is equivalent to CPPSIS5051 Apply land and planning law to surveying

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPPSUR5051 Apply land and planning law to surveying

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Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria of this unit by applying land and planning law to two different surveying projects.

While applying land and planning law to above projects, the candidate must:

- accurately calculate position of improvements in relation to boundaries and set-out buildings
- apply road alignment design and associated computations with accuracy and precision
- check and validate position of all marks
- communicate clearly with others to clarify and report survey information
- comply with organisational requirements relating to:
 - completing records and documentation, including field notes
 - meeting local government building requirements
 - recording, storing and filing data
 - setting up and using surveying equipment
 - working safely and using personal protective equipment (PPE)
- comply with relevant legal and statutory requirements and standards to ensure accuracy of survey, field procedures and searches
- conduct research to obtain survey information relating to:
 - boundary dimensions
 - design information
 - land title information
 - topographic features
- apply traverse surveying techniques and calculations
- follow standard operating procedures to perform cadastral surveying tasks using two of the following pieces of surveying equipment:
 - global navigation satellite system (GNSS)
 - level
 - tape
 - total station
- identify physical constraints and environmental impacts of planned developments, including those relating to two of the following:
 - drainage
 - easements
 - public reserves
 - sediment control
 - sewerage control
- implement project management mechanisms to ensure survey is completed within required timeframes and complies with specifications

- prepare clear and concise survey report and related sketches to accompany development application.

Knowledge Evidence

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

- accuracy and precision requirements for cadastral surveying data
- aspects of land and planning law impacting on surveying tasks, including:
 - common law and old system title
 - community title
 - crown land, alienation and native title
 - environmental protection
 - set-back requirements
 - strata title
 - Torrens title system
- data capture and set-out methodologies used in surveying
- data reduction techniques
- industry-accepted methods for validating surveying data to identify errors and discrepancies
- legislative, statutory and industry requirements and standards relating to cadastral surveying and local government building requirements
- methods for setting up and calibrating surveying equipment
- purpose of monuments in marking lines
- organisational policies and procedures relating to:
 - health and safety relating to survey activities
 - reporting and documentation
 - using the surveying equipment specified in the performance evidence
- possible community issues and repercussions relating to building permits
- reference and coordinate systems for surveying data, including Australian Height Datum and Map Grid of Australia
- submission process for local government building approvals
- appropriate persons:
 - client
 - colleague
 - engineer
 - local government representative
 - manager
 - registered or qualified surveyor
- industry-accepted methods:
 - coordinate system
 - direct methods
 - indirect methods, such as radiations.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- equipment:
 - as specified in the performance evidence, including PPE
- specifications:
 - survey specifications, including relevant surveying, construction and engineering plans and drawings
 - local land and planning laws
 - organisational policies, procedures and documentation relating to work health and safety and complying with planning submission processes
- relationships with team members and supervisor:
 - supervision by a registered or licensed land surveyor is required in some jurisdictions.

Links

Companion Volume Implementation Guide:

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