



Australian Government

Department of Education, Employment and Workplace Relations

AHCIRG315A Interpret irrigation plans and drawings

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This Unit of Competency specifies the outcomes required to read and interpret plans and drawings applicable to installing irrigation systems and defines the standard required to: interpret symbols and abbreviations on plans, and technical drawings; orientate a site plan; mark out boundaries and features on a site from a plan; and list the irrigation components required for installation from a plan.

Application of the Unit

This Unit applies to skilled workers in the irrigation servicing, food and fibre production and amenity horticulture industries, and is likely to be carried out under routine supervision within enterprise guidelines.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This Unit has employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Apply commonly used symbols and abbreviations	1.1 Commonly used symbols and abbreviations on plans are identified, understood and applied 1.2 Common irrigation terms used on plans are identified, understood and applied 1.3 Key features of irrigation plans, elevations and sections are identified 1.4 Scale, elevations and sections are identified from drawings
2 Locate and identify key features on a site plan	2.1 Irrigation site is identified from location drawings 2.2 True north and system orientation are identified from details provided on site plan 2.3 Key features of site plan are identified
3 Mark out and peg the site from a plan	3.1 Boundaries of the site are marked 3.2 Existing irrigation infrastructure on the site is identified 3.3 Electricity and communications infrastructure is identified on the site plan, marked out and safety procedures implemented 3.4 Pipelines identified on the plan are pegged out 3.5 Earthworks identified on the plan are pegged out
4 Identify required components for installation	4.1 Pipeline components required are annotated from plans and drawings 4.2 Water supply, distribution and delivery components are annotated from plans and drawings 4.3 Provision is made for receipt and storage of materials on site 4.4 Installation requirements and details of plans and drawings are confirmed with supervisor

Required Skills and Knowledge

This section describes the skills and knowledge required for this Unit.

Required skills include:

Ability to:

- interpret symbols and abbreviations used on plans
- interpret scale and specifications from plans and drawings
- recognise and mark out features on a site from a plan
- mark out boundaries and infrastructure position from a plan
- translate documented requirements into on-site activities and site and structural features from two-dimensional to three-dimensional formats
- use literacy skills to read, interpret and follow organisational policies and procedures, follow sequenced written instructions, record accurately and legible information collected and select and apply procedures for a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation, including questioning techniques, active listening, clarifying information and consulting with supervisors as required
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to work with and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge includes:

Knowledge of:

- identify types of drawings and their functions
- recognise commonly used scales, symbols and abbreviations
- a range of drawings and specifications relevant to the irrigation industry
- tools, equipment and materials relative to drawings/specifications
- measurements, calculations and quantities
- workplace safety requirements
- relevant acts, regulations and Codes of Practice
- basic industry calculations.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this Unit	The evidence required to demonstrate competency in this Unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following: • interpret symbols and abbreviations on plans • orientate a site plan for an irrigation system • mark out boundaries and features on a site from irrigation installation plans and drawings • list the irrigation components required for installation from a plan.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

The range statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.	
Irrigation plans may include:	plans for low volume, sprinkler and surface irrigation systems that may cover water supply, distribution, conveyancing and drainage.
Irrigation drawings	drawings may be part of the irrigation plan and cover the range of irrigation components (hardware) and structures (earthworks) used in commercial irrigation.

Unit Sector(s)

Irrigation