



Australian Government

Department of Education, Employment and Workplace Relations

LGAWORK304A Construct and maintain drainage systems

Release 2

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Modification History

LGAWORK304A Release 2: Layout adjusted.

LGAWORK304A Release 1: Primary release.

Unit Descriptor

This unit covers the construction and maintenance of drainage systems.

Application of the Unit

This unit supports the attainment of skills and knowledge required for competent workplace performance in councils of all sizes. Knowledge of the legislation and regulations within which councils must operate is essential. The unique nature of councils, as a tier of government directed by elected members and reflecting the needs of local communities, must be appropriately reflected.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency

Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Establish area for drainage works	1.1 Tools and safety equipment requirements are identified and obtained, and lines and levels are set up according to plan. 1.2 Lines and levels are set up according to plan. 1.3 Excavation is undertaken according to plan. 1.4 Excavation is secured to prevent injury to the public and workers. 1.5 Appropriate drainage is provided to allow for the diversion of uncontaminated stormwater from the work site and to prevent environmental damage. 1.6 Environmental protection devices are installed as required to meet requirements. 1.7 Formwork or shoring is provided where required. 1.8 Work is planned and undertaken in accordance with occupational health and safety (OHS) and traffic control requirements.
2 Construct or restore ground drainage	2.1 Pre-bedding is laid to specifications. 2.2 Pre-cast or moulded structures are placed to specifications.
3 Construct or restore surface drains	3.1 Surface drains are prepared and levelled according to plan. 3.2 Earth and rubble drains are constructed to plan.
4 Maintain drainage systems	4.1 Surface drains are inspected and cleared of weeds and debris. 4.2 Subsoil drainage systems are flushed and cleaned. 4.3 Culverts are cleared of debris, cleaned and if necessary reinstated. 4.4 Drains, access holes, pits and traps are cleaned and repaired and if necessary reinstated. 4.5 Pipes are rehabilitated using proprietary rehabilitation systems.
5 Rehabilitate works area	5.1 Verges and medians are surfaced and planted or turfed according to specifications. 5.2 Site is restored to required condition. 5.3 Private and public property structures are reinstated.
6 Complete necessary documentation	6.1 Construction and maintenance reports are completed and filed to meet council's requirements. 6.2 The as constructed plans and drawings are completed in accordance with completed works.

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit

Required Skills

- reading and interpreting plans and specifications, and plant and equipment capabilities
- measuring and calculating quantities

Required Knowledge

- OHS requirements
- work site traffic management
- materials technology related to drainage systems
- appropriate drainage options
- work scheduling, inspection and testing
- working in a team
- state and local environmental requirements

Evidence Guide

Overview of assessment requirements	A person who demonstrates competency in this unit will be able to perform the outcomes described in the Elements to the required performance level detailed in the Performance Criteria. The knowledge and skill requirements described in the Range Statement must also be demonstrated. For example, knowledge of the legislative framework and safe work practices that underpin the performance of the unit must be demonstrated.
Critical aspects of evidence to be considered	Appropriate materials are selected for the construction and maintenance of the works. Appropriate construction methods and processes are used. Plans and specifications are adhered to. Safety on work site is ensured. Australian standards are met.
Context of assessment	May be assessed: • on the job • simulated workplace environment • written assignment • short-answer test • oral questioning • observation • or any combination of the above
Relationship to other units(prerequisite or co-requisite units)	To enable holistic assessment this unit may be assessed with other units that form part of the job role.
Method of assessment	The following assessment methods are suggested: • observation of the learner performing a range of workplace tasks over sufficient time to demonstrate handling of a range of contingencies • written and/or oral questioning to assess knowledge and understanding • completion of workplace documentation • third-party reports from experienced practitioners • completion of self-paced learning materials including personal reflection and feedback from trainer, coach or supervisor
Evidence required for demonstration of consistent performance	Evidence will need to be gathered over time across a range of variables.

Resource implications In accordance with a range of variable requirements.

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 in the Performance Criteria is detailed below.

- Pipeline rehabilitation*** may include:
- folded and formed liners
 - cured in-place resin liners
 - spiral wound liners
 - slip liners
 - pipe grouting machines
- Drainage systems*** may include:
- above and in-ground stormwater
 - wastewater
 - fittings
 - culverts
 - traps
 - drains
 - access holes
 - geofabric strip drains and cloth
- Pipe types*** may include:
- concrete
 - polyvinyl chloride (PVC)
 - steel and fibre concrete
 - corrugated PVC and steel pipes
 - recycled plastics
- Relevant standards*** may include:
- Australian standards and other relevant standards

Unit Sector(s)

Operational Works