



Australian Government

Department of Education, Employment and Workplace Relations

LGAWORK305A Construct and maintain concrete structures

Release 2

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Modification History

LGAWORK305A Release 2: Layout adjusted.

LGAWORK305A Release 1: Primary release.

Unit Descriptor

This unit covers the construction and maintenance of concrete structures.

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 Divert or drain water from the work site	1.1 Appropriate drainage is provided to allow for the diversion of water from the work site and to minimise damage to the environment. 1.2 Safe and appropriate methods are used to pump or drain contaminated stormwater from excavations to prevent damage to the environment. 1.3 Environmental protection devices are installed to meet environmental regulations. 1.4 Work is planned and undertaken in accordance with occupational health and safety (OHS) and traffic control requirements.
2 Construct or maintain concrete structures	2.1 Excavation work, formwork and concrete reinforcement are set out according to plans and specifications. 2.2 Concrete and reinforced steel are placed and finished in accordance with specifications and relevant standards. 2.3 Pre-cast concrete sections are removed or installed in accordance with specifications. 2.4 Pre-stressing of concrete is undertaken in accordance with approved practice. 2.5 Appropriate maintenance methods are used and works are undertaken as specified.
3 Reinstate or landscape works area	3.1 Edges, shoulders and potholes are patched or repaired. 3.2 Pavement is profiled and resealed and material is recycled as appropriate. 3.3 Landscape works are carried out as required.
4 Maintain records	4.1 Information is recorded in accordance with council and legislative requirements. 4.2 Details are recorded clearly, accurately and legibly. 4.3 Records are secured, made accessible and kept up to date.

Required Skills and Knowledge

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

Required Skills

- concrete placement, compaction, finishing and curing
- formwork, shoring and falsework
- setting out
- scaffolding
- steel fixing
- reading and following plans and specifications
- operating plant and equipment
- earthworks
- measurement

Required Knowledge

- OHS requirements
- work site traffic management
- materials technology related to concrete construction
- 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 and processes are used for the effective construction and maintenance of concrete structures. Plans and specifications are adhered to. Safety at work site is achieved. 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.

- Formwork*** may include:
- elevated
 - table forms
 - boxing
 - place props
 - forms suspended
 - slip forms
 - steel forms
 - timber forms
- Concrete*** may include:
- concrete
 - grades of cement and mortar
 - pre-mixes
 - ready-mixes
- Concrete placement*** may include:
- basket box
 - wheelbarrow
 - concrete mixer
 - pumping
 - crane kibble
 - boom
- Maintenance methods*** may include:
- patching
 - joint repair
 - resurfacing
 - dowling
 - connecting to existing work
- Falsework*** may include:
- scaffolding
 - timber
 - steel
 - aluminium
- Earth stabilisation*** may include:
- cribblock
 - gabions
 - reinforced earth
 - stone pitching
 - stone blocking
 - sand bagging
 - geotextile fabrics
 - spray seeding
 - line
 - cement and bitumen

- Relevant standards*** may include:
- AS1012
 - AS1012.1
 - AS3610
 - AS3600
 - AS3799
 - and other relevant standards
- Records*** may include:
- time sheets
 - accident reports
 - delivery dockets

Unit Sector(s)

Operational Works