



Australian Government

RII50513 Diploma of Civil Construction Design

Release 3

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Modification History

Release	Comments
1	Replaces RII50509 Diploma of Civil Construction Design.
2	Packaging rules amended to comply with Standards for Training Packages.
3	Corrected modification history.

Qualification Description

The Diploma of Civil Construction Design reflects the role of personnel working as designers or design para-professionals who support professional engineers. They perform tasks involving a high level of autonomy and requiring the application of significant judgement in planning and determining the selection of equipment/roles/techniques for themselves and others. They are required to develop site specific work designs to ensure the implementation of the client's site requirements. They demonstrate the application of a broad range of technical, managerial, coordination and planning skills.

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

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

Requirements for completion of the qualification

The following table provides the packaging rules for this qualification, followed by the list of relevant units of competency.

Successful completion of twenty (20) units made up of:

- at least four (4) must be chosen from group A
- at least two (2) must be chosen from group B
- at least four (4) must be chosen from group C
- at least four (4) must be chosen from group D
- up to three (3) units may be chosen from Certificate IV, Diploma or Advanced Diploma level from this or any other Training Package or accredited course

Units chosen must be relevant to the job function.

There are no prerequisites to imported units listed in this qualification. Where a unit is imported as an elective care must be taken to ensure that all prerequisites specified are complied with.

Note: The units chosen to satisfy the Diploma of Civil Construction Design *must be additional* to the units achieved to satisfy the Certificate IV in Civil Construction Design.

Group A	
<i>Unit code</i>	<i>Unit title</i>
BSBCUS501A	Manage quality customer service
BSBINM501A	Manage an information or knowledge management system
BSBMGT608B	Manage innovation and continuous improvement
BSBPMG512A	Manage project time

BSBPMG513A	Manage project quality
BSBPMG517A	Manage project risk
BSBPMG518A	Manage project procurement
BSBWOR501B	Manage personal work priorities and professional development
BSBWOR502B	Ensure team effectiveness
Group B	
<i>Unit code</i>	<i>Unit title</i>
MEM09011B	Apply basic engineering design concepts
MEM30001A	Use computer aided drafting systems to produce basic engineering drawings
MEM30002A	Produce basic engineering graphics
MEM30003A	Produce engineering drawings
MEM30004A	Use CAD to create and display 3D models
Group C	
<i>Unit code</i>	<i>Unit title</i>
RIICWD501D	Prepare detailed design of foundations
RIICWD502D	Prepare detailed design of lighting
RIICWD504D	Prepare detailed design of environmental controls
RIICWD505D	Prepare detailed design of landscaping
RIICWD506D	Prepare detailed design of canals
RIICWD507D	Prepare detailed geotechnical design
RIICWD508D	Prepare detailed design of rural roads
RIICWD509D	Prepare detailed design of urban roads
RIICWD510D	Prepare detailed design of busways
RIICWD511D	Prepare detailed design of sub-divisions
RIICWD512D	Prepare detailed design of motorways and interchanges
RIICWD513D	Prepare detailed design of rail civil infrastructure
RIICWD514D	Prepare detailed design of dams
RIICWD515D	Prepare detailed design of airfield civil works
RIICWD516D	Prepare detailed design of bicycle ways
RIICWD517D	Prepare detailed design of industrial hardstands
RIICWD518D	Prepare detailed design of open car parks

RIICWD519D	Prepare detailed design of inter modal facilities civil works
RIICWD520D	Prepare detailed design of rigid pavements
RIICWD521D	Prepare detailed design of flexible pavements
RIICWD522D	Prepare stabilised material mix design
RIICWD523D	Prepare asphalt mix design
RIICWD524D	Prepare design of spray seal surfacing
RIICWD525D	Select pavement surfacing
RIICWD526D	Prepare detailed traffic analysis
RIICWD527D	Prepare detailed design of traffic signals
RIICWD528D	Prepare detailed design of traffic management systems
RIICWD529D	Prepare detailed design of underground services
RIICWD530D	Prepare detailed design of surface drainage
RIICWD531D	Prepare detailed design of subsurface drainage
RIICWD532D	Prepare detailed design of tunnels
RIICWD533D	Prepare detailed design of civil concrete structures
RIICWD534D	Prepare detailed design of civil steel structures
RIICWD535D	Prepare detailed design of civil timber structures
RIICWD536D	Prepare detailed design of civil masonry, crib and gabion structures
RIICWD537D	Prepare detailed design of marine structures civil works
Group D	
<i>Unit code</i>	<i>Unit title</i>
MSL925001A	Analyse data and report results <ul style="list-style-type: none"> Prerequisite unit: MSL924001A Process and interpret data
MSL975007A	Supervise earthworks inspection, sampling and testing operations <ul style="list-style-type: none"> Prerequisite unit: MSL954001A Obtain representative samples in accordance with sampling plan Prerequisite unit: MSL973009A Conduct field-based acceptance tests for construction materials
MSL975016A	Perform complex tests to measure engineering properties of materials

CPPSIS5032A	Capture new spatial data
CPPSIS5035A	Obtain and validate existing spatial data
CPPSIS5036A	Integrate spatial datasets
RIICBS401D	Apply the principles for the asphalt paving and compaction
RIICBS402D	Apply the principles for the application of bituminous sprayed treatment
RIICBS403D	Apply the principles for the application of polymer modified binder
RIICBS404D	Apply the principles for the selection and use of bituminous emulsion
RIICBS405D	Apply the principles for the application of slurry surfacing
RIICBS406D	Apply the principles of pavement profiling using a profiler
RIICBS407D	Apply the principles for the manufacture and delivery of hot mix asphalt
RIICBS408D	Apply the principles for the manufacture of cold mix
RIICBS409D	Apply the principles for the manufacture of polymer modified binders
RIICBS410D	Apply the principles for the manufacture of bituminous emulsion
RIICBS411D	Apply the principles for the manufacture of slurry surfacing
RIICPL401D	Apply the principles for the installation of underground service using open excavation
RIICRC401D	Apply the principles of flexible pavement construction
RIICRC402D	Apply the principles of rigid pavement construction
RIICRC403D	Apply the principles of the stabilisation of materials
RIICRC404D	Inspect and report on pavement condition
RIICSG401D	Apply the principles of civil concrete structures construction
RIICSG402D	Apply the principles of civil steel structures construction
RIICSG403D	Apply the principles of civil timber structures construction
RIICSG404D	Apply the principles of civil masonry, crib and gabion structure construction

RIICTC401D	Apply the principles of tunnel construction
RIICTT401D	Apply the principles for the installation of underground services using trenchless technology
RIICTT402D	Apply the principles for the repair and rehabilitation of underground services using trenchless technology
RIIMEX403D	Apply the principles of canal construction
RIIMPO402D	Apply the principles of earthworks construction

Qualification Mapping Information

No equivalent qualification

Links

SkillsDMC RII Companion Volumes - <http://www.skillsdmc.com.au/>