



Australian Government

RIICWD532E Prepare detailed design of tunnels

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to prepare detailed design of tunnels in civil construction, including evaluating design options, preparing and finalising designs and advising on design implementation.

It applies to those working in management or technical specialist roles. They generally apply a broad range technical and managerial skills and are responsible for the delivery of outputs that meet site requirements.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Civil construction

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for detailed tunnel design	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply documentation required for detailed tunnel design and confirm work activity is compliant 1.3 Prepare design plan according to resourcing and design requirements
2. Carry out detailed tunnel design	2.1 Obtain, interpret and analyse required data and identify tunnel design options according to job requirements 2.2 Interpret and analyse tunnel design options and recommend design option according to job requirements 2.3 Develop and complete detailed tunnel design according to job requirements

ELEMENT	PERFORMANCE CRITERIA
	2.4 Prepare cost estimate for implementing tunnel design 2.5 Participate in review of tunnel design with required stakeholders 2.6 Complete required documentation for tunnel design according to workplace requirements 2.7 Communicate and coordinate with personnel involved in design process according to workplace requirements and within scope of own role 2.8 Gain design approval from required authorities
3. Finalise tunnel design processes	3.1 Confirm design records are filed according to workplace requirements 3.2 Complete design cost and reporting requirements and deliver to required stakeholders 3.3 Participate in performance review of design process according to workplace requirements 3.4 Review client feedback and contribute to design verification according to workplace requirements 3.5 Close out systems according to workplace requirements
4. Support and review tunnel design implementation	4.1 Provide clarification and advice to personnel implementing design as required to meet job requirements 4.2 Contribute to design validation process as required to meet job requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Numeracy	Calculates resourcing requirements and performs mathematical calculations
Oral communication	- Presents information and provides assistance using sector-specific vocabulary - Uses listening and questioning to clarify and confirm understanding
Reading	Identifies and interprets information from workplace procedures, documentation, legislation and regulations
Writing	Prepares and completes workplace reports using sector-specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIICWD532D Prepare detailed design of tunnels.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>