



Australian Government

Department of Education, Employment and Workplace Relations

RIICTB310A Construct specialised timber deck systems

Release: 1

RIICTB310A Construct specialised timber deck systems

Modification History

Not applicable.

Unit Descriptor

This unit covers the construction of specialised timber deck systems in the civil construction industry. It includes planning and preparing, constructing the bridge deck, installing the bridge deck, and cleaning up. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Application of the Unit

This unit is appropriate for those working in an operational role at worksites within:

- Civil construction

Licensing/Regulatory Information

Refer to Unit Descriptor.

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 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. Plan and prepare	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Obtain and confirm safety requirements from the site safety plan and organisational policies and procedures, and apply to the allotted task 1.3. Identify, obtain and implement signage requirements from the project traffic management plan 1.4. Select plant, tools and equipment to carry out tasks consistent with the requirements of the job, check for serviceability and rectify or report any faults 1.5. Identify materials appropriate to the work application, and ensure they are safely handled and located ready for use 1.6. Identify environmental protection requirements from the project environmental management plan
2. Construct bridge deck	2.1. Construct timber bridge deck in accordance with the production plans 2.2. Select deck materials in accordance with specifications 2.3. Pre-drill connection points 2.4. Fix deck temporary with nails 2.5. Connect stressing cables to the bridge deck in accordance with specifications 2.6. Stress and rest bridge deck for the specified timeframe
3. Install bridge deck	3.1. Re-stress bridge deck prior to removal to location 3.2. Trim bridge deck prior to securing in location 3.3. Install bridge deck at location 3.4. Bolt bridge deck to the cross girders 3.5. Re-stress bridge deck 3.6. Pack stressing cable location holes with grease 3.7. Fit protection angles, kerbs and handrails 3.8. Apply waterproofing to the deck and

	fittings
4. Clean up	4.1. Clear work area and dispose of or recycle materials in accordance with state or territory legislation 4.2. Clean, check, maintain and store machinery, tools and equipment

Required Skills and Knowledge

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

Required skills

Specific skills are required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following, as required to construct specialised timber deck systems:

- apply legislative, organisation and site requirements and procedures for construction of specialised timber deck systems
- organise work activities
- select and use relevant tools and equipment safely
- identify and report on hazards related to the worksite and work activity
- communicate effectively to receive and clarify work instructions

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following, as required to construct specialised timber deck systems:

- site and equipment safety requirements
- boat and water safety
- sheet piling
- Environmental Protection Act
- dewatering
- caulking
- dial before you dig
- bridge foundations
- bridge heritage
- equipment types, characteristics, technical capabilities and limitations
- processes for the calculation of material requirements
- operational, maintenance and basic diagnostic procedures
- site isolation and traffic control responsibilities and authorities
- materials safety data sheets and materials handling methods
- quality assurance systems and standards
- JSAs/safe work method statements

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 worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: • knowledge of the requirements, procedures and instructions for constructing specialised timber deck systems • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of construction of specialised timber deck systems • working with others to undertake and complete the construction of specialised timber deck systems that meets all of the required outcomes • consistent timely completion of construction of specialised timber deck systems that safely, effectively and efficiently meets the required outcomes • construction and installation of at least one span of a specialised timber deck system, constructed of stressed laminated timber
Context of and specific resources for assessment	• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances.

	• The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • Where applicable, physical resources should include equipment modified for people with disabilities. Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: • working with others to undertake and complete the construction of specialised timber deck systems
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

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.

Relevant compliance documentation may include:

- legislative, organisational and site requirements and procedures
- manufacturer's guidelines and specifications
- Australian standards
- Employment and workplace relations legislation
- Equal Employment Opportunity and Disability Discrimination legislation

Safety requirements may include:

- OHS requirements in accordance with state or territory legislation and regulations, organisational safety policies and procedures, and project safety plan, including protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, use of First Aid equipment, hazard control and hazardous materials and substances
- safe parking practices including ensuring access ways are clear, equipment/machinery is away from overhangs and refuelling sites, safe distance are kept from excavations, and areas secured from unauthorised access or movement
- safe operating procedures including recognising and preventing hazards associated with uneven/unstable terrain, trees, pits, poles, trip hazards, dirt mounds, overhead service lines, bridges, surrounding buildings, obstructions, structures, facilities, dangerous materials, recently filled trenches, other machines, personnel, traffic control, working in proximity to others, worksite visitors and the public
- recognising hazards and risks including uneven/unstable terrain, trees, fires, overhead and underground services, bridges, buildings, excavations, traffic, embankments, cuttings, structures and hazardous materials
- emergency procedures related to equipment

	operation including emergency shutdown and stopping, extinguishing equipment fires, organisational First Aid requirements and evacuation
Site locations may include:	any ground conditions in urban and rural areas
Signage may include:	- highway traffic signs - site safety signage - temporary signage for the benefit of motorists and pedestrians - traffic conditions signage
Traffic conditions may include:	- congested urban environments - low traffic rural areas - off-road un-trafficked areas - buildings - parking sites - pedestrian areas
Tools and equipment may include:	- generators/compressors - rattle guns - routers - drills - power saws - grease guns - impact wrenches - shifting spanners - chisels - slings - chains - shackles - cranes - stressing jacks - chainsaws
Materials may include:	- block washers - bolts - grease - bridge deck timbers - angle iron - stressing cable - rubberised sealer - sealants - waterproofing agents
Environmental protection	waste management

requirements may include:	• stormwater protection • noise • dust • vibration • safe use of preservatives • waterway protection • clean-up management
Timber bridge deck may include:	• timber bridge deck systems may be built off-site (may be near to the bridge) or in-situ and may include removal of the old deck • timber bridge decks are to include stress laminated timber bridge decks and may include timber concrete composite module decks, concrete overlay decks, fibre reinforced polymer decks and proprietary system decks
Stressing cables are to include:	• steel strands
Install may include:	• lifting in position with a crane and crane operator or rolling into position • installation conducted in conjunction with a dogman
Kerbs may include:	• the use of a rubberised sealer, fitted beneath the kerbing
Waterproofing may include:	• a bitumen membrane • metal seal • rubber • caps on end of stressing points

Unit Sector(s)

Timber Bridge Construction and Maintenance

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.