



Australian Government

Department of Education, Employment and Workplace Relations

RIICRC312 Setup and maintain concrete paver stringlines

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of setting-up and maintaining concrete paver stringlines in the civil construction industry. It includes planning and preparing, inspecting equipment and layout, placing stringlines and pins, installation and removal of access gates and the storage and maintenance of stringlines. 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

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

1. Plan and prepare for operations	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 environmental protection requirements from the project environmental management plan, and confirm and apply to the allotted task
2. Inspect equipment and layout	2.1 Conduct visual inspection of stringlines to ensure compliance with workplace specifications 2.2 Conduct inspection of stringline flags and pins and ensure compliance with worksite plans 2.3 Inspect hand or car winch and other pulling devices for safe and accurate operation 2.4 Conduct visual inspection of ground conditions for conformance to work requirements 2.5 Load and unload stringline pins onto vehicle within workplace specifications 2.6 Set up barricades and exclusion zones around work area/PTE
3. Conduct placement of stringline and pins	3.1 Drive in stringline pins and placement of pins within workplace specifications 3.2 Tension stringlines within workplace specifications 3.3 Use tension measuring devices to establish accurate tensions on stringlines 3.4 Set up anchor pins within workplace specifications 3.5 Communicate with work teams using workplace hand or radio communication procedures 3.6 Tie off stringline to anchor pins 3.7 Release stringline from anchor pins 3.8 Set out from survey pins heights/level and undertake visual verification of alignment

	3.9 Reset stringline to specification after it breaks
4. Install and remove access gates	4.1 Release stringline from the flags and fix on ground to allow vehicles to cross 4.2 Install and remove protective devices for crossing vehicles where required 4.3 Verify stringline vertical and horizontal upon resetting via measurement and visual inspection
5. Store and maintain pins and stringline	5.1 Check and maintain clamps, nuts and drive pins 5.2 Clean, check, maintain and store stringline to protect it from damage

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Required Skills and Knowledge

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 conduct concrete road paver operations:

- coordinating with other team members
- following instructions
- reading drawings and specifications
- reporting faults and hazards
- knowing work responsibilities and team member's responsibilities

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 conduct concrete road paver operations:

- levelling techniques
- characteristics of clear and appropriate hand signals
- services identification

- plans/drawings
- type of stringline and tension capabilities
- techniques on driving in stringline pins/placement of pins within workplace specifications
- techniques on tensioning stringline
- using a tension metre and different types of tension metres
- reporting of faults and hazard identification
- workplace equipment safety
- working around other workgroups
- pre-start SWMS and measurements and calculations
- read survey pins

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Evidence Guide

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 conducting concrete paver stringlines • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of concrete paver stringlines • working with others to undertake and complete the concrete paver stringlines operations in a way that meets all of the required outcomes • consistent timely completion of concrete paver stringline operations that safely, effectively and efficiently meets the required outcomes • conduct concrete paver stringlines operations by: • install and rectify on a minimum of 2 occasions, 2 access points • install pins to correct height and horizontal adjustment for a minimum distance of 500 metres • install step-up flags • tension string lines to specifications • conduct measurement checks • conduct visual inspections and checks • place at least one crossover • demonstrate the removal and storage of a string line.
Context of and specific resources for	• This unit must be assessed in the context of the work environment. Where personal safety or

assessment	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 Civil Construction. 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 setting up, monitoring and maintaining concrete paver stringlines
Guidance information for assessment	• Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

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Range Statement

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 operating procedures including recognising and preventing hazards associated with high voltage power lines, uneven/unstable terrain, trees, overhead service lines, bridges, surrounding buildings, obstructions, structures, facilities, dangerous materials, recently filled trenches, other machines, personnel, traffic control, working at heights, working in proximity to others, worksite visitors and the public • 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 • 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 may include:	• formed/prepared roads • pads • highways

	• freeways • airport runways • tunnels • rail corridors • housing estates • car parks • container yards • hard stands • footpaths and bikeways • traffic
Task may include:	• access and egress vehicle areas • installing pins, stringlines, tension wire lines • levelling stringlines
Traffic may include:	• congested urban environments • low traffic rural areas • off-road un-trafficked areas • parking sites • pedestrian areas
Plants, tools and equipment may include:	• shovels • hammers • PPE • tensioning devices • measuring tapes • depth gauges • standard tool kits • string lines • pins/stakes • survey equipment • communication equipment
Environmental protection requirements may include:	• organisational/project environmental management plan • waste management • water quality protection • noise • vibration • dust and clean-up management

Unit Sector(s)

Road and Pavements Construction and Maintenance (General)

Custom Content Section

Not applicable.