



Australian Government

RIICTT401D Apply the principles for the installation of underground services using trenchless technology

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIICTT401A Apply the principles for the installation of underground services using trenchless technology
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to apply the principles for the installation of underground services using trenchless technology in Civil Construction.

This unit is appropriate for those working in supervisory or technical specialist roles.

No licensing, legislation or certification requirements apply to this unit at the time of publication.

Unit Sector

Civil construction

Elements and Performance Criteria

1. Plan and prepare for the installation of underground services using trenchless technology	1.1 Access, interpret and apply documentation for the installation of underground services using trenchless technology and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Access, interpret and clarify the specific and relevant task information and requirements 1.6 Ensure a job plan is available which makes best use of the
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	available resources
2. Ensure appropriate initiation of tasks	2.1 Confirm that the necessary resources are available 2.2 Ensure clear and timely instructions are communicated to team members and others involved 2.3 Identify and allocate tasks
3. Oversee the execution of tasks	3.1 Monitor asphalt paving and compaction task performance 3.2 Initiate adjustments to work practice or the job plan 3.3 Ensure plant, equipment and tools maintenance is carried out and recorded
4. Report on the execution of tasks	4.1 Complete and submit written reports 4.2 Recommend changes to improve the safety, efficiency and effectiveness of the execution of tasks

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIICTT401A Apply the principles for the installation of underground services using trenchless technology

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for RIICTT401D Apply the principles for the installation of underground services using trenchless technology

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies applicable documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient supervision of installing underground services using trenchless technology including:
 - accessing or developing the job plan and making it available to team members
 - monitoring asphalt paving and compaction task performance
 - ensuring maintenance is carried out and recorded
- works effectively with others to supervise the installation of underground service using trenchless technology that meets all the required outcomes including:
 - providing clear and timely written and verbal instructions
 - maintaining written and verbal reporting requirements and procedures
 - preparing for and conducting briefings, toolbox and site meetings
 - organising work activities to meet all task requirements
- demonstrates completion of the principles for the installation of underground services using trenchless technology that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - ensuring completion of the installation of underground services operations
 - monitoring and adjusting work programs where required to achieve outcomes

- recommending improvements for safety and efficiency
- applying operational techniques, including a minimum of one (1) of the following methods:
 - impact moling
 - ramming
 - augering
 - fluid assisted directional boring
 - micro tunnelling
 - pipe jacking

Knowledge Evidence

for the installation of underground services using trenchless technology through:

- manufacturer's requirements and procedures
- project site soil and geological data
- soil and rock types
- meteorological data
- drainage issues
- material properties and test results
- project site geotechnical data
- project site hydrological data
- project engineering survey information
- project plans and drawings
- job reports
- supervisory and leadership techniques
- performance monitoring techniques
- set up and use of levelling devices techniques
- construction offsets
- workplace relationships
- individuals and the team
- quantities for the execution of tasks, including:
 - volumes
 - grades
 - percentages
 - areas
- resource consumption figures, including required supply rates trenchless technology underground service installation plant and equipment capabilities and application
- relationships between various areas of civil works
- engineering survey principles
- mentoring techniques
- estimating principles
- civil works construction sequencing techniques

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant	

	regulation.
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*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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