

Title	Demonstrate knowledge of reticulated services and their location, in the water industry		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to: describe reticulated services; and describe field techniques for locating services using detection equipment, and reading and scaling plans.
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Classification	Water Industry > Water Reticulation
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 6479, <i>Locate and identify services for infrastructure works.</i>

Explanatory notes

- 1 Legislation and references relevant to this unit standard include:
Health and Safety at Work Act 2015, and subsequent amendments;
National Code of Practice for Utilities' Access to the Transport Corridors (Wellington: NZ Utilities Advisory Group) available from <http://www.nzuag.org.nz/national-code/>;
Guide for Safety with Underground Services (Wellington: Electricity Engineers Association of NZ Inc., 2002) available from <http://www.business.govt.nz/worksafe/>;
Excavation Safety – Good Practice Guidelines 2016, available from <http://www.worksafe.govt.nz/worksafe/information-guidance/all-guidance-items/excavation-safety-gpg>.
- 2 Definition
Water reticulation – in this context refers to all pipe systems, pumping systems, and components that contribute to the distribution of water, and collection and disposal of wastewater and stormwater.

Outcomes and evidence requirements

Outcome 1

Describe reticulated services.

Evidence requirements

1.1 Water supply systems are described in terms of their component parts, and manufacturer’s maintenance and installation requirements.

Range includes but is not limited to – raw water supply mains, trunk mains, pumping mains, high pressure mains, reticulation mains, rider mains, service connections, valves, hydrants, covers, water meters, backflow prevention valves.

1.2 Wastewater foul sewerage systems are described in terms of their component parts and maintenance and installation requirements.

Range includes but is not limited to – gravity sewers, trunk mains, pumping mains, reticulation mains, service connections, lampholes, access chambers, covers.

1.3 Stormwater systems are described in terms of their component parts and any relevant maintenance and installation requirements.

Range includes but is not limited to – streams/rivers/lakes/sea, ditches, trunk mains, pumping mains, reticulation mains, access chambers, service connections, sumps, intakes, screens, covers, kerbs and channels.

Outcome 2

Describe field techniques for locating services using detection equipment, and reading scale drawings.

Evidence requirements

2.1 Line of surface covers and trench alignment indicators are described in terms of their use in locating underground services.

2.2 Setting out the alignment of underground services in the field is described with reference to measurements scaled from a recorded plan.

2.3 Detection equipment is described in terms of its use in locating underground services.

Range location equipment for – pipes, cables.

2.4 Detection equipment is described in terms of its limitations.

Planned review date	31 December 2021
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 May 2002	31 December 2018
Review	2	19 September 2008	31 December 2018
Review	3	16 March 2017	N/A

Consent and Moderation Requirements (CMR) reference	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Infrastructure Industry Training Organisation qualifications@connexis.org.nz if you wish to suggest changes to the content of this unit standard.