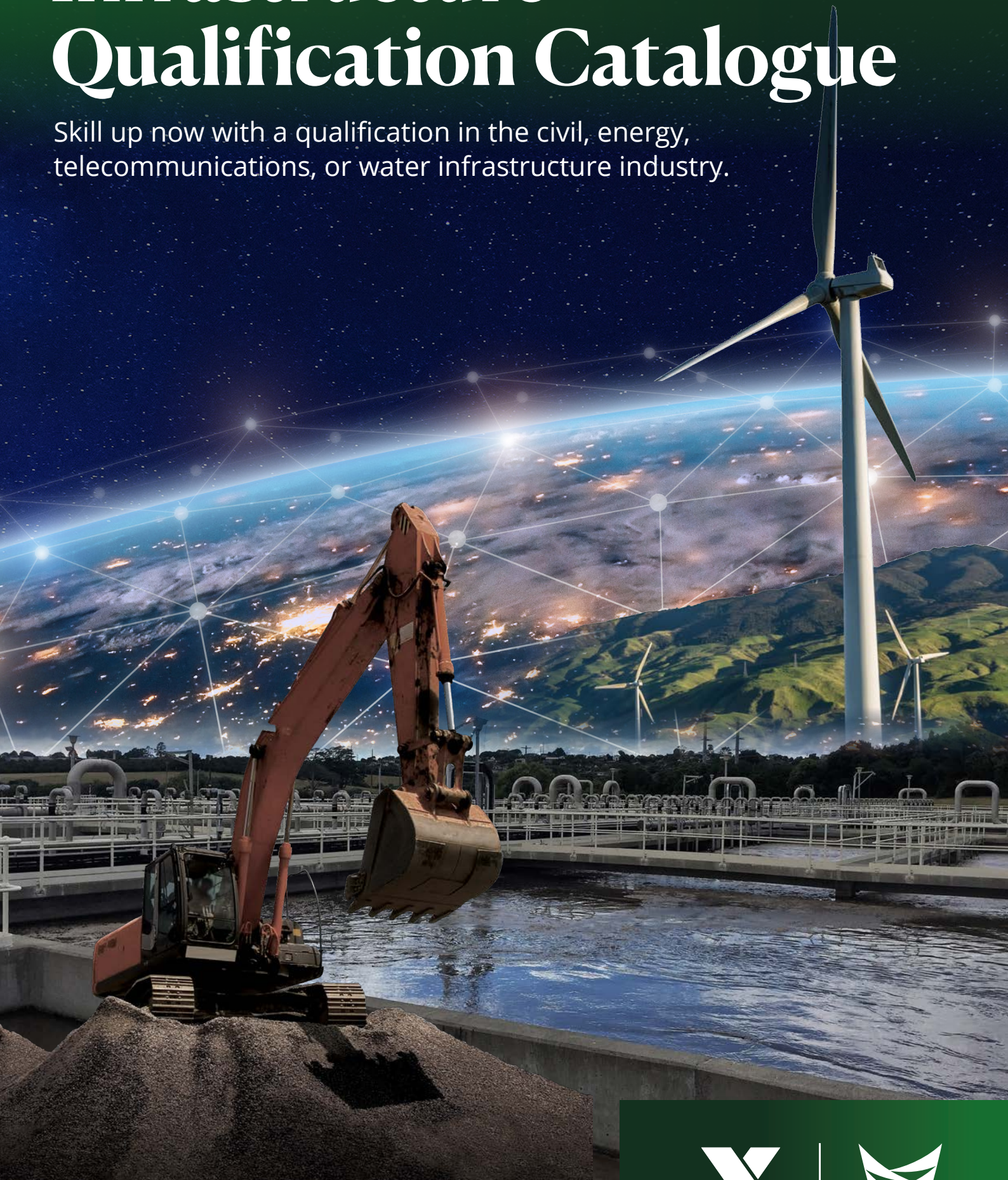


# Infrastructure Qualification Catalogue

Skill up now with a qualification in the civil, energy, telecommunications, or water infrastructure industry.





# Connexis

is now part of  
Te Pūkenga



Te Pūkenga

[tepukenga.ac.nz](https://tepukenga.ac.nz)

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**Disclaimer** The information contained in this Brochure is correct at the time of production (June 2023). Connexis | Te Pūkenga reserves the right to cancel or postpone any of the programmes, and shall not be liable for any claim other than the proportion of programme fees that the cancelled portion bears. Some programmes may be dependent upon formal approval from NZQA (New Zealand Qualifications Authority), TEC (Tertiary Education Commission) funding allocation, and the number of enrolments. As part of the NZQA targeted review of all Level 1-6 New Zealand qualifications, there may still be changes to some programmes within the year. Fees, programmes and entry requirements, are subject to change. Please check the dedicated qualification brochures at [connexis.org.nz](https://connexis.org.nz) for further information before applying to enrol.

# Gateway




Available through  
eLearning



## Kickstart infrastructure careers.

Gateway is a great opportunity to introduce high-school students in years 11-13 to the Civil, Energy, or Telecommunications industry. Students gain practical work experience and training with local infrastructure companies, while getting a recognised NZQA Micro-credential (MC) that gives them credits towards NCEA and a qualification.

## Our Micro-credentials:

| Civil<br> | Energy<br> | Telecommunications<br> |
|--|---|---|
| Introduction to Infrastructure Works (Level 2)   | Power Up - Electricity Supply (Level 2)   | Connect Me - Telecommunications (Level 3)   |
| Infrastructure Worksites (Level 3)   |   |   |

## How does it work?

| Company   | Connexis   | Schools   |
|---|--|---|
| <ul style="list-style-type: none"> <li>• Works with the student, family, and school to determine the best timing for the student to be on-site and how regularly</li> <li>• Support the student with their training requirements</li> </ul> <p>If you're an Employer or Training Manager and would like more information visit<br/><b><a href="https://connexis.org.nz/employers-info/#gateway">connexis.org.nz/employers-info/#gateway</a></b></p> | <ul style="list-style-type: none"> <li>• Processes enrolment and payment</li> <li>• Assigns assessor</li> <li>• Provides an NZQA recognised Micro-credential certificate to the student upon completion</li> <li>• Provides guidance and support throughout the journey to gaining a Gateway MC</li> </ul> | <ul style="list-style-type: none"> <li>• Enrol the student into their desired industry Micro-credential</li> <li>• Fund the training programme</li> <li>• Support the student through training and assessment requirements</li> </ul> <p>If you're a Gateway Coordinator, Teacher or Student and would like more information visit<br/><b><a href="https://connexis.org.nz/schools/#gateway">connexis.org.nz/schools/#gateway</a></b></p> |



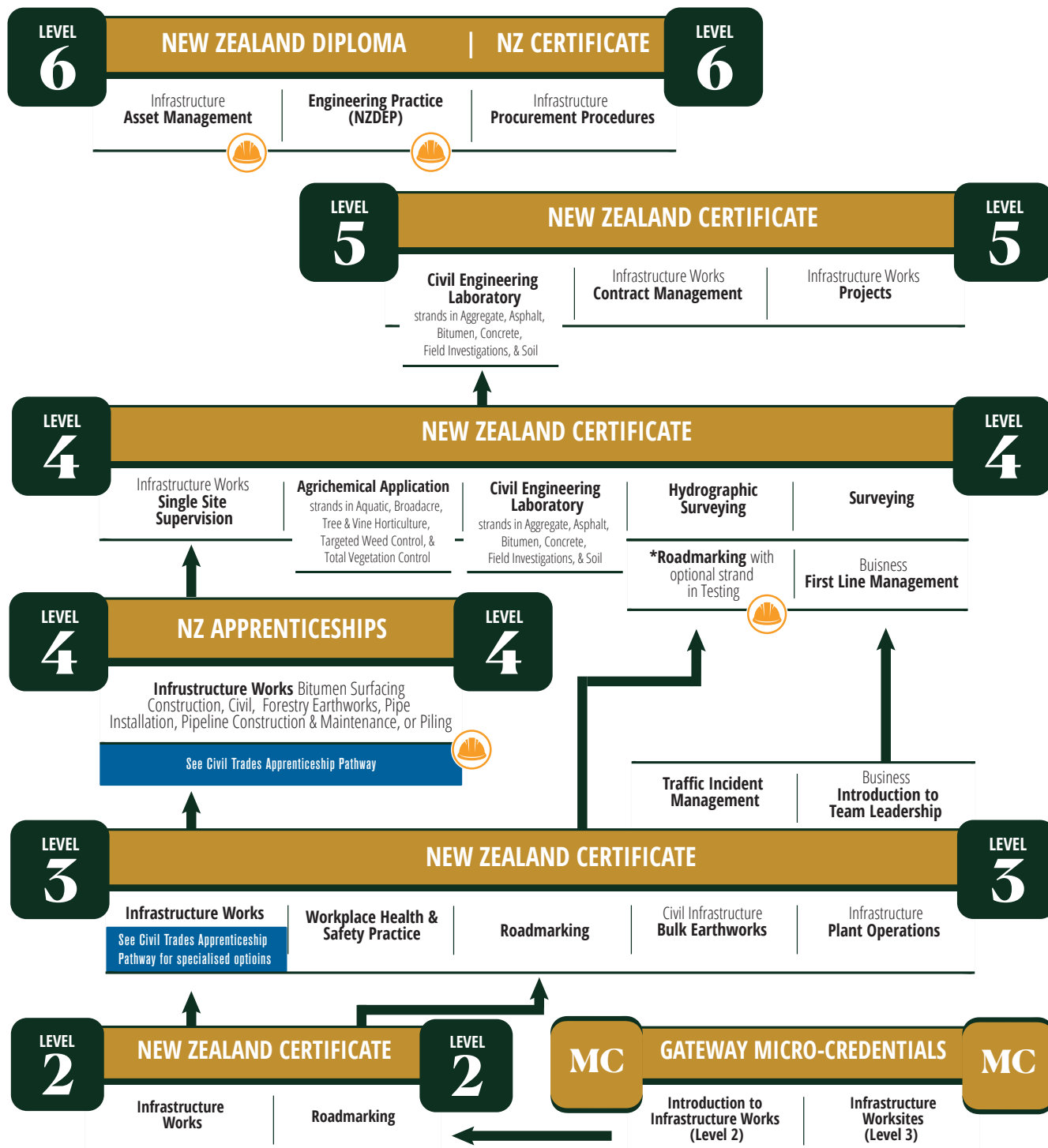
# Civil Career

## PROGRESSION PATHWAY

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govt.nz



VISIT THE FEES FREE WEBSITE TO  
CHECK YOUR ELIGIBILITY



\*This programme is recognised as an NZ Apprenticeship when the optional strand is completed

Valid as of July 2023

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**CONNEXIS**

**Te Pūkenga**

PWC01



# Civil Apprenticeships

Our civil apprenticeships are great for those starting their career in the industry. They are also available to recognise the skills and knowledge of more experienced people for those wanting to skill-up, or who are looking for a career change. A civil apprenticeship can also lead towards Civil Trade Certification (see pg. 9).

**We have a large selection of infrastructure apprenticeships available now that are recognised on the NZQA framework.**

## Bitumen Surfacing Construction (Level 4)



NZ Apprenticeship in Infrastructure Works (Bitumen Surfacing Construction)



Duration: 19 months



Credits: 120



NZQA: 3775



### Skills Covered:

- Assessing and preparing a site for bitumen surfacing construction.
- Implementing quality work processes on a bitumen surfacing construction worksite.
- Safely operating bitumen surfacing construction equipment and machinery.
- Assessing a worksite for health and safety.
- Supporting and mentoring a team on-site.

## Civil (Level 4)



NZ Apprenticeship in Infrastructure Works (Civil) with strands in Earthworks, Road Construction, and Road Maintenance



Duration: 18 months



Credits: 137



NZQA: 2725-2



### Skills Covered:

- Working safely on an infrastructure worksite.
- Reading site plans and carrying out work to specifications.
- Operating machinery and organising materials needed for civil site works.
- Communicating well within a crew.



## Forestry Earthworks (Level 4)



NZ Apprenticeship in Infrastructure (Forestry Earthworks)



Duration: 16 months



Credits: 120



NZQA: 3782



### Skills Covered:

- Reading and making plans for forestry earthworks.
- How to work within environmental, sustainable and safety standards.
- Working in a team and with other forestry users.
- Meeting worksite requirements using flexible work practises.

## Piling (Level 4)



NZ Apprenticeship in Infrastructure (Piling)



Duration: 24 months



Credits: 150



NZQA: 3966



### Skills Covered:

- Installing piles to job specifications.
- Implementing work plans and drawings.
- Applying health and safety requirements.
- Monitoring site conditions and communicating with stakeholders on-site.

# Civil Apprenticeships

## Pipe Installation (Level 4)



NZ Apprenticeship in Infrastructure Works (Pipe Installation)



Duration: 25 months



Credits: 125



NZQA: 4441



### Skills Covered:

- Meeting health, safety, environment, and quality assurance requirements when installing pipes.
- Applying knowledge of pipes, fittings, and structures to complete pipe installations to job specifications.
- Installing pipes underground using appropriate trenched installations methodology and technology.

## Pipeline Construction & Maintenance (Level 4)



NZ Apprenticeship in Infrastructure Works (Pipeline Construction & Maintenance) with strands in Drinking-Water, Wastewater and Stormwater, and Trenchless Technologies



Duration: 25 months



Credits: 160



NZQA: 3858



### Skills Covered:

- Following and making plans to construct and maintain pipelines.
- Coordinating materials and operating tools and equipment needed to construct pipelines.
- Meeting health and safety requirements while ensuring the safety of learner and crew.
- Communicating well with team while on-site

The Drinking-Water, or Stormwater and Wastewater strand, also covers maintaining reticulation assets (depending on chosen strand), including planned and reactive works.

The Trenchless Technologies strand also covers installing or rehabilitating infrastructure assets using appropriate trenchless installation methodology and technology.

## Roadmarking with Testing strand (Level 4)



NZ Apprenticeship in Roadmarking with strand in Testing



Duration: 19 months



Credits: 120



NZQA: 3236-2



### Skills Covered:

- Applying health, safety, and environmental management procedures to meet compliance requirements.
- Planning, coordinating and carrying out roadmarking work tasks to meet contract specifications.
- A skilled operator will be able to carry out both remark and new work using an A-type or B-type applicator.
- Supervising a roadmarking team to complete daily work activities on a roadmarking site, to meet contract specifications.

Graduates of the Testing strand will also be able to certify roadmarking applicators to ensure compliance with industry standards.



# Civil Trades Career

## PROGRESSION PATHWAY

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VISIT THE FEES FREE WEBSITE TO  
CHECK YOUR ELIGIBILITY

### HIGHER LEVEL QUALIFICATIONS

See Civil Career Progression Pathway

## NEW ZEALAND CIVIL TRADES CERTIFICATION

Road Construction  
& Maintenance

Road Surfacing

Pipeline Construction  
& Maintenance

Civil Trades Certification is offered by Civil Contractors New Zealand.  
Head to [civilcontractors.co.nz](http://civilcontractors.co.nz) for eligibility criteria and the application process

LEVEL  
4

## NEW ZEALAND APPRENTICESHIP IN INFRASTRUCTURE WORKS

WITH OPTIONS TO SPECIALISE IN

LEVEL  
4

Bitumen Surfacing  
Construction



Civil  
strands in Earthworks,  
Road Construction,  
& Road Maintenance



Forestry Earthworks



Pipeline Construction  
& Maintenance

strands in Drinking-Water,  
Wastewater & Stormwater,  
& Trenchless Technologies



Piling &  
Deep Foundation



Roadmarking with  
strand in Testing



Pipe Installation



LEVEL  
3

## NEW ZEALAND CERTIFICATE IN INFRASTRUCTURE WORKS

WITH OPTIONS TO SPECIALISE IN

LEVEL  
3

Bitumen Surfacing  
Construction

Civil

Forestry Earthworks

Pipeline Construction  
& Maintenance

Piling &  
Deep Foundation

LEVEL  
2

## NEW ZEALAND CERTIFICATE

LEVEL  
2

Infrastructure Works



Valid as of July 2023

\*This programme is recognised as an NZ Apprenticeship when the optional strand is completed

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PWCT01

**CONNEXIS**

**Te Pūkenga**



# Civil Trade Certification (CTC)

The Civil Trades Certification programme, offered by Civil Contractors New Zealand (CCNZ), is a nationally recognised accreditation programme for civil industry workers that blends a recognised trade qualification with certified hours of practical experience, and leads to registration as a Certified Tradesperson. With benefits for employers and employees alike, it's the pathway of choice for the Civil Infrastructure workforce of the future.

## How can I get Civil Trade Certified?

1. A civil infrastructure level 4 qualification
2. 8000 hours of practical experience
3. Be endorsed for Civil Trade Certification

Head to [civilcontractors.co.nz](http://civilcontractors.co.nz) for more information.

## Level 4 qualifications eligible for Civil Trades Certification:

New Zealand Certificate (NZC) in Infrastructure Works:

- Bitumen Surfacing Construction
- Civil
- Forestry Earthworks
- Pipeline Construction and Maintenance
- Piling
- Pipe Installation
- Roadmarking with strand in Testing



QUALIFIED PEOPLE. QUALITY INFRASTRUCTURE

# Advanced Portfolio Assessment (APA)

Advanced Portfolio Assessment (APA), previously known as Recognition of Current Competence (RCC) is an offering for those within the workforce who already have at least four years prior experience at the level of the qualification they wish to achieve. We have a selection of qualifications available to complete via APA, and the time to complete is six to nine months.

So how does it work? Learners will complete a portfolio of evidence of their existing skills to advance their progress towards gaining their qualification. The assessment is conducted using historical evidence (within previous 24 months) of a learner's knowledge and experience within a workplace environment. This may consist of worksheets, employer references, photos and video evidence.

To find out more, and check your eligibility for APA, chat to your local Customer Service Account Manager (CSAM) (see map on pg. 31).



# Civil Qualifications

We offer a wide range of civil training programmes from entry-level to management level.

## Infrastructure Works (Level 2)

◆ NZ Certificate in Infrastructure Works

🕒 Duration: 7 months

✓ Credits: 41

🔍 NZQA: 2522-2



### Skills Covered:

- Applying key elements of the health, safety, and environmental requirements needed to work safely and responsibly on an infrastructure worksite.
- Following instructions and organisational procedures to use core infrastructure tools such as using a plate compactor, jack hammer, chainsaw or compressor.
- Maintaining hand tools.

## Roadmarking (Level 2)

◆ NZ Certificate in Roadmarking with optional strands in Piloting, and Raised Pavement Markers

🕒 Duration: 7 months

✓ Credits: 44-55

🔍 NZQA: 3234-2

### Skills Covered:

- Standard roadmarking processes.
- Working safely and responsibly with others while on-site.

The Piloting strand covers using pilot vehicles.

The Raised Pavement Markers strand covers installing and removing raised pavement markers.



## Bulk Earthworks (Level 3)

◆ NZ Certificate in Civil Infrastructure (Bulk Earthworks)

🕒 Duration: 14 months

✓ Credits: 92

🔍 NZQA: 4439



### Skills Covered:

- Following processes and procedures, and complying with environmental protocols to deliver quality outcomes.
- Completing work to job specifications effectively and efficiently.
- Applying health and safety procedures.

## Infrastructure Works (Level 3)

◆ NZ Certificate in Infrastructure Works

🕒 Duration: 9 months

✓ Credits: 60

🔍 NZQA: 4440



### Skills Covered:

- Following processes and procedures, and complying with environmental protocols while delivering quality outcomes.
- Completing work to job specifications effectively and efficiently.
- Applying health and safety procedures.

# Civil Qualifications



## Plant Operations (Level 3)

◆ NZ Certificate in Infrastructure (Plant Operations)

🕒 Duration: 14 months

✓ Credits: 83

🔍 NZQA: 4436



### Skills Covered:

- Following work processes and procedures for plant operations to comply with environmental and quality outcomes.
- Operating plant to complete infrastructure work operations to job specifications.
- Applying health and safety procedures during plant operations on infrastructure worksites.

## Roadmarking (Level 3)

◆ NZ Certificate in Roadmarking

🕒 Duration: 14 months

✓ Credits: 93

🔍 NZQA: 3235-2

### Skills Covered:

- Coordinate tasks and activities on a roadmarking site to meet safety, quality, and environmental requirements.
- Safely operate an applicator to complete remark work on a roadmarking site.
- Apply knowledge of roadmarking materials and processes to meet contract specifications.

## Traffic Incident Management (Level 3)

◆ NZ Certificate in Traffic Incident Management

🕒 Duration: 9 months

✓ Credits: 60

🔍 NZQA: 4263



### Skills Covered:

- Assessing risks to ensure the safety of first responders and other road users during a traffic incident.
- Responding, monitoring and adjusting traffic incident response to reduce incident duration and restore normal traffic flow as soon as is safely possible.
- Completing documentation and post incident procedures to re-open a traffic incident site.

## Agrichemical Application (Level 4)

◆ NZ Certificate in Agrichemical Application (Level 4) with strands in Aquatic, Broadacre, Tree and Vine Horticultural, Targeted Weed Control, and Total Vegetation Control

🕒 Duration: 11 months

✓ Credits: 65-70

🔍 NZQA: 3984



### Skills Covered:

- What is needed to work confidently in agrichemical application.
- Best practice in transporting agrichemical concentrates by road, and developing an emergency procedure guide.
- Health and safety requirements and risk assessment.
- General knowledge of agrichemicals and the environmental aspects of agrichemical use.





# Civil Qualifications



## Civil Engineering Laboratory (Level 4)



NZ Certificate in Civil Engineering Laboratory with strands in Aggregate, Asphalt, Bitumen, Concrete, Field Investigations, and Soil



Duration: 13-14 months



Credits: 77-83



NZQA: 2692-2

### Skills Covered:

- Operating, maintaining and calibrating equipment in a civil engineering laboratory.
- Planning, preparing and conducting a range of specialised activities.
- Applying quality standards, material specifications and mathematical methods to sampling and testing.
- Accurately sampling, and testing the material of chosen strand.

## Hydrographic Surveying (Level 4)



NZ Certificate in Hydrographic Surveying



Duration: 10 months



Credits: 65



NZQA: 2958-2

### Skills Covered:

- Understanding and applying tidal and depth measurement theory to work.
- Using positioning and hydrographic surveying principles to complete surveys.
- Applying practical surveying, communication and mathematical skills for surveying under supervision.
- Applying health, safety, and environmental practices and complying with legislative requirements when carrying out work.

## Roadmarking (Level 4)



NZ Certificate in Roadmarking



Duration: 16 months



Credits: 100



NZQA: 3236-2



### Skills Covered:

- Applying health, safety, and environmental management procedures to meet compliance requirements.
- Planning, coordinating and carrying out roadmarking work tasks to meet contract specifications.
- A skilled operator will be able to carry out both remark and new work using an A-type or B-type applicator.
- Supervising a roadmarking team to complete daily work activities on a roadmarking site, to meet contract specifications.

## Single Site Supervision (Level 4)



NZ Certificate in Infrastructure Works (Single Site Supervision)



Duration: 17 months



Credits: 110



NZQA: 2617-2



### Skills Covered:

- Supervising implementation of health and safety, and environmental procedures for single site works.
- Leading and monitoring a team.
- Meeting site and job contract requirements.
- Planning and tracking resources, equipment and machinery needed on-site.
- Implementing industry best practise procedures on a single site.

# Civil Qualifications



## Surveying (Level 4)

◆ NZ Certificate in Surveying

🕒 Duration: 13 months

✓ Credits: 78

🔍 NZQA: 2957-2

### Skills Covered:

- Applying knowledge of land surveying fundamentals to surveying operations.
- Applying safe work practices when operating in a surveying environment.
- Setting up, checking calibration, and maintaining surveying equipment.
- Undertaking survey measurement tasks and checks.
- Applying effective communication when undertaking surveying operations.

## Projects (Level 5)

◆ NZ Certificate in Infrastructure Works (Projects)

🕒 Duration: 16 months

✓ Credits: 100-104

🔍 NZQA: 2619-2

### Skills Covered:

- Ensuring infrastructure works projects meet requirements for quality, health, safety and environmental standards
- Leading infrastructure works projects to ensure they are delivered to contract specifications.

## Civil Engineering Laboratory (Level 5)

◆ NZ Certificate in Civil Engineering Laboratory with strands in Aggregate, Asphalt, Bitumen, Concrete, Field Investigations, and Soil

🕒 Duration: 11-13 months

✓ Credits: 79-91

🔍 NZQA: 2693-2

### Skills Covered:

- Leading a team to achieve projects in a civil engineering laboratory.
- Managing the health, safety, environment and quality of Civil Engineering laboratory activities.
- Determining, evaluating, and reporting on precision and bias in proficiency data.
- Quantifying and validating the uncertainty of measurements in test results.
- Contributing to budget management.
- Evaluating and troubleshooting tests for a range of different materials depending on the optional strand chosen.



# Civil Qualifications



## Civil Engineering Practice (Level 6)

◆ NZ Diploma in Engineering Practice (Civil)

🕒 Duration: 30 months

✓ Credits: 120

🔍 NZQA: 1714-2

### Skills Covered:

- Defining, investigating and analysing well-defined engineering problems in accordance with good practice for civil engineering.
- Designing and/or developing solutions to well-defined engineering problems by applying accepted procedures and methodologies.
- Identifying risks and applying risk management techniques to well-defined civil engineering problems.

## Programme+ | Pipeline Construction & Maintenance (PCM)

🔍 Complete additional unit standards on top of your existing PCM qualification, or complete new compulsory unit standards that weren't available when you completed a previous equivalent national certificate.

You can select as many unit standards to achieve as you would like.

### Unit Standard selections:

- Ranging from Level 3 to 4.
- Level 3 Unit Standards up to 9 credits each.
- Level 4 Unit Standards up to 20 credits each.

## SCP | Plant and Equipment (Level 3)

🕒 Duration: 12 months

✓ Credits: 20-70



An SCP is a Supplementary Credit Programme that is designed to provide post-qualification skill development and has a minimum of 20 credits and a maximum of 70 credits. It allows trainees who have already completed a nationally recognised qualification to undertake additional unit standards to upgrade or widen their existing qualifications without being required to undergo a full qualification.

### Skills Covered:

This SCP offers a selection of machinery and additional unit standards for your team to get skilled up in to compliment their existing skills in the infrastructure industry:

- Motor grader for earthworks
- Bulldozer on worksite
- Telehandler on worksite
- Wheeled loader on worksite





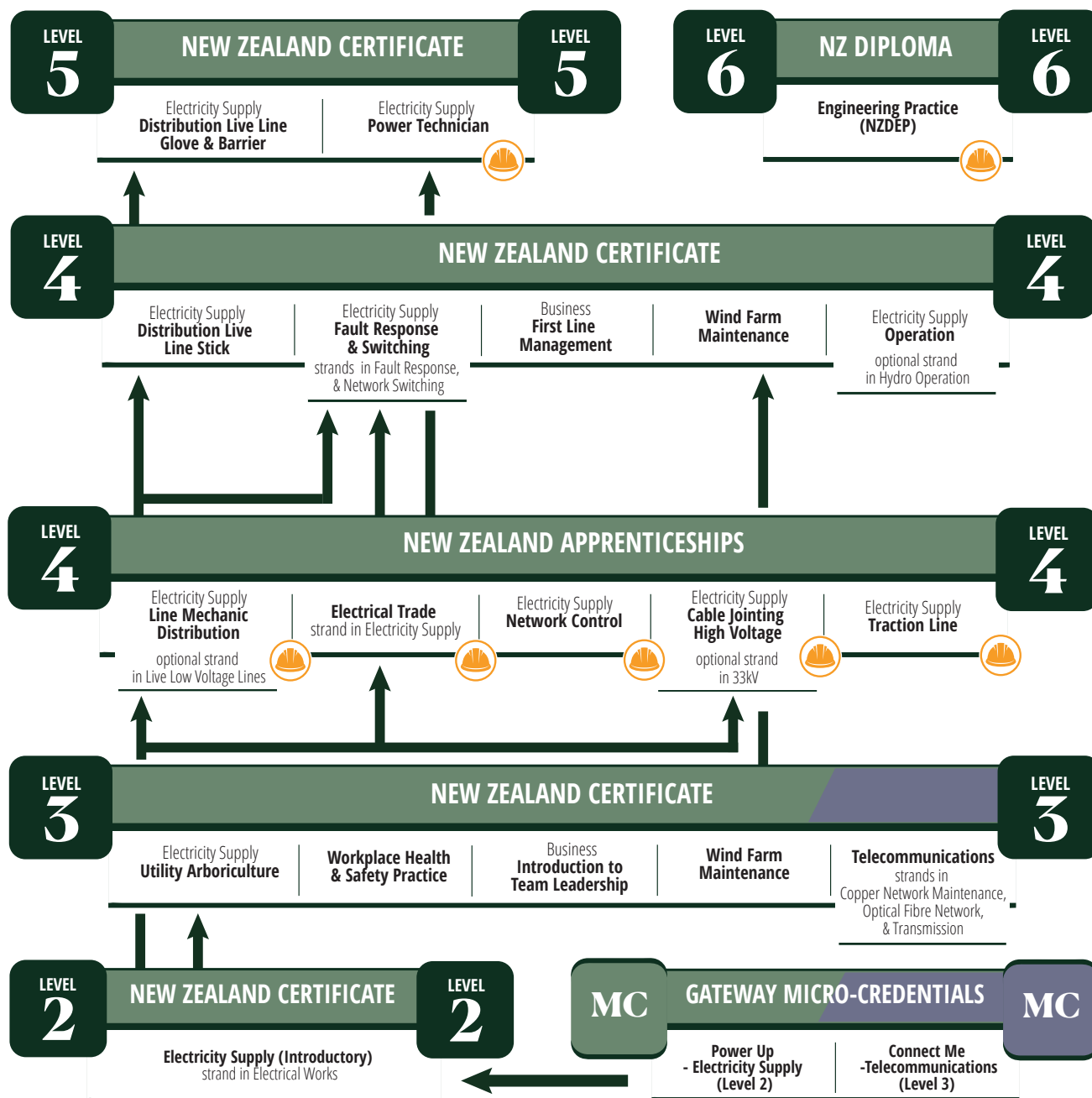
# Energy & Telco Career

## PROGRESSION PATHWAY

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VISIT THE FEES FREE WEBSITE TO  
CHECK YOUR ELIGIBILITY



Valid as of July 2023

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CONNEXIS

Te Pūkenga

# Energy Apprenticeships



Our energy apprenticeships are great for those starting their career in the industry. They are also available to recognise the skills and knowledge of more experienced people for those wanting to skill-up, or who are looking for a career change.



## Cable Jointing (Level 4)

◆ NZ Apprenticeship in Electricity Supply (Cable Jointing High Voltage) with an optional strand in 33kV

🕒 Duration: 25-30 months

✓ Credits: 157-192

🔍 NZQA: 2227-3



### Skills Covered:

- Applying knowledge of electrical theory to the construction and preparation of cables.
- Learning best practice to ensure the duties of a cable jointer are done safely and without disrupting electricity supply.
- Undertaking testing and commissioning procedures on power cables up to 22kV.
- Applying codes, legislation and industry standards and procedures to the jointing and termination of live power cables up to 22kV.

Graduates of the optional strand will be able to apply industry standards and procedures when performing the duties of a cable jointer undertaking work on power cables up to 33kV.

## Electrical Trade (Level 4)

◆ NZ Apprenticeship in Electrical Trade with strand in Electricity Supply

🕒 Duration: 42 months

✓ Credits: 250

🔍 NZQA: 4204

### Skills Covered:

- Applying knowledge of electrical theory, systems, equipment, machines, and electrical protection in an electrical environment.
- Complying with electrical and relevant nonelectrical legislation governing the work of electricians.
- Communicating with stakeholders on electrical matters.
- Installing, commissioning, and maintaining electrical services associated with distribution networks, power stations, and substations.
- Carrying out fault diagnosis and testing of electrical services associated with distribution networks, power stations, and substations
- Carrying out installation & Maintenance of electrical equipment.



# Energy Apprenticeships



## Line Mechanic (Level 4)



NZ Apprenticeship in Electricity Supply (Line Mechanic Distribution) with an optional strand in Live Low Voltage Lines



Duration: 27 months



Credits: 169-179



NZQA: 2197-2



### Skills Covered:

- Working in the electricity supply industry as a Line Mechanic in the distribution sector.
- Installing, maintaining and replacing equipment at an intermediate level.
- Communicating effectively within your team.
- Learning how to apply knowledge of electrical theory, and industry standards and procedures.

Graduates of the optional strand will also be able to install and replace hardware associated with live low voltage lines.

## Network Control (Level 4)



NZ Apprenticeship in Electricity Supply (Network Control)



Duration: 23 months



Credits: 146



NZQA: 3721-2



### Skills Covered:

- Operating equipment to isolate, connect, control and monitor the electricity grid and distribution system.
- Ensuring asset owners' specifications are met during network plant operations.
- Monitoring and responding to unforeseen, abnormal fault events.
- Meeting network company and customer performance standards.
- Planning network shutdowns.
- Operating SCADA and Load Control systems.
- Communicating with Transpower and Customers.

## Traction Line (Level 4)



NZ Apprenticeship in Electricity Supply (Traction Line)



Duration: 21 months



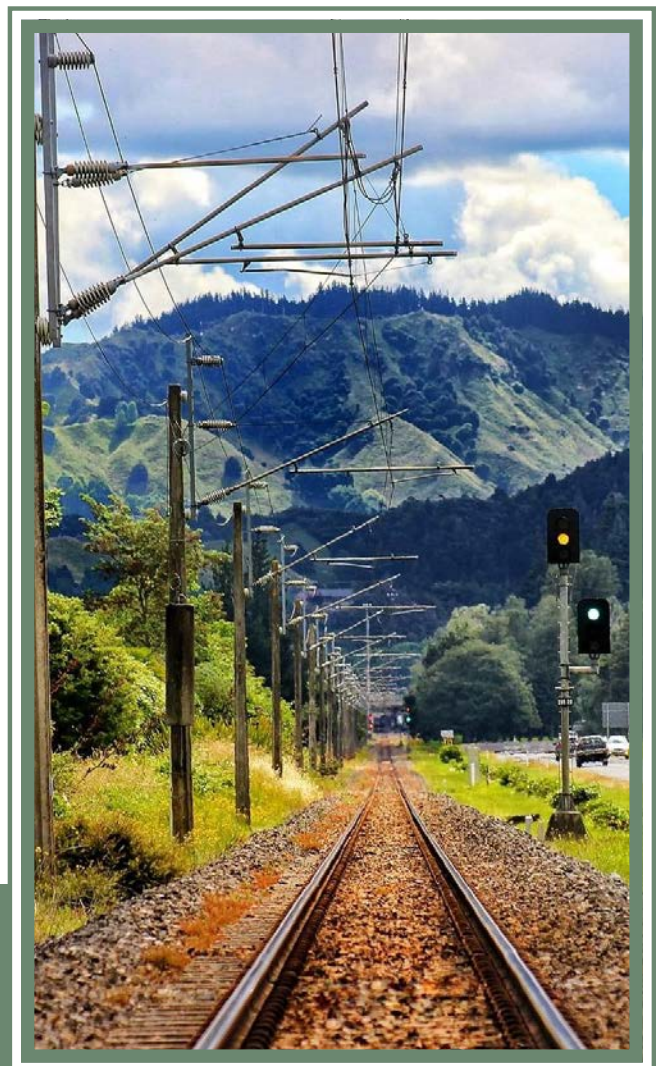
Credits: 131



NZQA: 3988

### Skills Covered:

- Integrating health and safety procedures into workplace practices when carrying out work on traction line networks.
- Applying knowledge of codes of practice, industry standards and operating procedures, and complying with asset-owner requirements when installing, maintaining or repairing traction line networks.





# Energy Qualifications

We offer a wide range of energy training programmes from entry-level to management level.

## Electricity Supply Introductory (Level 2)

◆ NZ Certificate in Electricity Supply (Introductory) with a strand in Electrical Works

🕒 Duration: 7 months

✓ Credits: 40

🔍 NZQA: 2136-3



### Skills Covered:

- Working safely and keeping surrounding colleagues safe on an electricity supply worksite.
- Understanding how the Electricity Act, regulations and Industry rules and guides govern best practice.
- Working under direct supervision, in a team, to competently and safely complete tasks.

The Electrical Works strand covers applying knowledge of the principles of electricity supply, legislation, and industry standards to work.

## Utility Arboriculture (Level 3)

◆ NZ Certificate in Electricity Supply (Utility Arboriculture)

🕒 Duration: 7 months

✓ Credits: 42

🔍 NZQA: 4243

### Skills Covered:

- Working safely and to regulatory and legislative requirements when maintaining vegetation around electricity supply power lines and cables.
- Using insulating tools and plant equipment to ensure safety when necessary.



## Wind Farm Maintenance (Level 3)

◆ NZ Certificate in Wind Farm Maintenance

🕒 Duration: 9 months

✓ Credits: 60

🔍 NZQA: 4261



### Skills Covered:

- Working safely and effectively in a wind farm environment in accordance with workplace policies, procedures and relevant regulations.
- Operating and maintaining electrical, mechanical and hydraulic systems used in wind turbines to comply with manufacturer's and asset owner's specifications.

## Fault Response and Switching (Level 4)

◆ NZ Certificate in Electricity Supply (Fault Response and Switching) with strands in Fault Response, and Network Switching

🕒 Duration: 12-18 months

✓ Credits: 83-109

🔍 NZQA: 3586-2



### Skills Covered:

- Interpreting and applying knowledge of electrical codes of practice, and industry standards, when carrying out fault response or switching operations on electricity supply networks.

Graduates of the Fault Response strand will also be able to apply knowledge of fault finding, and carry out restoration of supply on distribution networks.

Graduates of the Network Switching strand will also be able to apply knowledge of complex network switching to work on distribution networks.

# Energy Qualifications



## Distribution Live Line Stick (Level 4)

◆ NZ Certificate in Electricity Supply (Distribution Live line Stick)

🕒 Duration: 10 months

✓ Credits: 66

🔍 NZQA: 4281

### Skills Covered:

- Make or break high voltage connections up to 33kV using live line hot stick procedures.
- Inspect, test, and clean live line tools and equipment.
- Demonstrate knowledge of live line theory and procedures.
- Remove and install line hardware and equipment on structures using live line stick up to 66kV.
- Remove and install electricity network pole structures using live line stick up to 66kV.

## Wind Farm Maintenance (Level 4)

◆ NZ Certificate in Wind Farm Maintenance

🕒 Duration: 12 months

✓ Credits: 80

🔍 NZQA: 3793-2



### Skills Covered:

- Monitoring the workplace and responding to issues as required to maintain a safe and effective workplace in a wind farm environment.
- Diagnosing and repairing faults in electrical, mechanical and hydraulic systems used in wind turbines to comply with manufacturer's and asset owner's specifications.

## Operation (Level 4)

◆ NZ Certificate in Electricity Supply (Operation) with an optional strand in Hydro Operation

🕒 Duration: 13-16 months

✓ Credits: 86-106

🔍 NZQA: 3687



### Skills Covered:

- Applying knowledge of the electricity generation sector in New Zealand and electricity supply core theory while working as an electricity generation plant control room operator.
- Operating equipment to isolate and connect electricity systems in compliance with industry standards and asset owner's specifications.
- Managing electricity supply system generation equipment as a control room operator.
- Ensuring that health and safety requirements are met while carrying out plant control room operations in the electricity supply industry.

Graduates of the Hydro Operation strand will also be able to use prime movers in hydro-electric generation plants, and manage water resources as a hydro-electric control room operator.



# Telecommunications & Energy Qualifications

## Distribution Live Line Glove and Barrier (Level 5)



NZ Certificate in Electricity Supply (Distribution Live Line Glove and Barrier)



Duration: 10 months



Credits: 60



NZQA: 4282

### Skills Covered:

- Making and breaking high voltage connections up to 33kV using live line glove and barrier procedures.
- Replacing and installing hardware on structures using live line glove and barrier procedures up to 33kV.
- Removing and installing pole structures using live line glove and barrier procedures up to 33kV.
- Applying knowledge of electrical codes of practice, electricity supply industry standards and operating procedures when carrying out work on live lines up to 33kV.
- Replacing pole structures on live lines to meet electricity supply industry standards using glove and barrier procedures.

## Power Technician (Level 5)



NZ Certificate in Electricity Supply (Power Technician)



Duration: 24 months



Credits: 135



NZQA: 3535-2

### Skills Covered:

- Applying power engineering, protection theory and power system principles.
- Using theory, codes, legislation, and industry procedures for wiring, testing and commissioning of Energy Industry assets.
- Ensuring health and safety requirements are met while completing work.

## Electrical Engineering Practice (Level 6)



NZ Diploma in Engineering Practice (Electrical)



Duration: 21 months



Credits: 120



NZQA: 1714-2

### Skills Covered:

- Applying detailed engineering knowledge and best practice to specialist field.
- Managing engineering activities.
- Responsibility for making decisions on engineering activities.

## Telecommunication (Level 3)



NZ Certificate in Telecommunications with strands in Copper Network Maintenance, Optical Fibre Network, and Transmission



Duration: 14 months



Credits: 93



NZQA: 3767-2



### Skills Covered:

- Co-ordinating and scoping telecommunication sites while managing stakeholder and client expectations and relationships.
- Applying safe work practices and meeting industry standards when working on telecommunications networks.

Graduates of the Copper Network Maintenance strand will be able to install, locate, test and service copper networks and apply knowledge during transmission and repair.

Graduates of the Optical Fibre Network strand will also be able to install, locate, test and service fibre access networks and apply knowledge during building, provisioning and repair of access networks.

Graduates of the Transmission strand will also be able to apply optical Ethernet, wireless technology, radio theory and practices for installation and repair



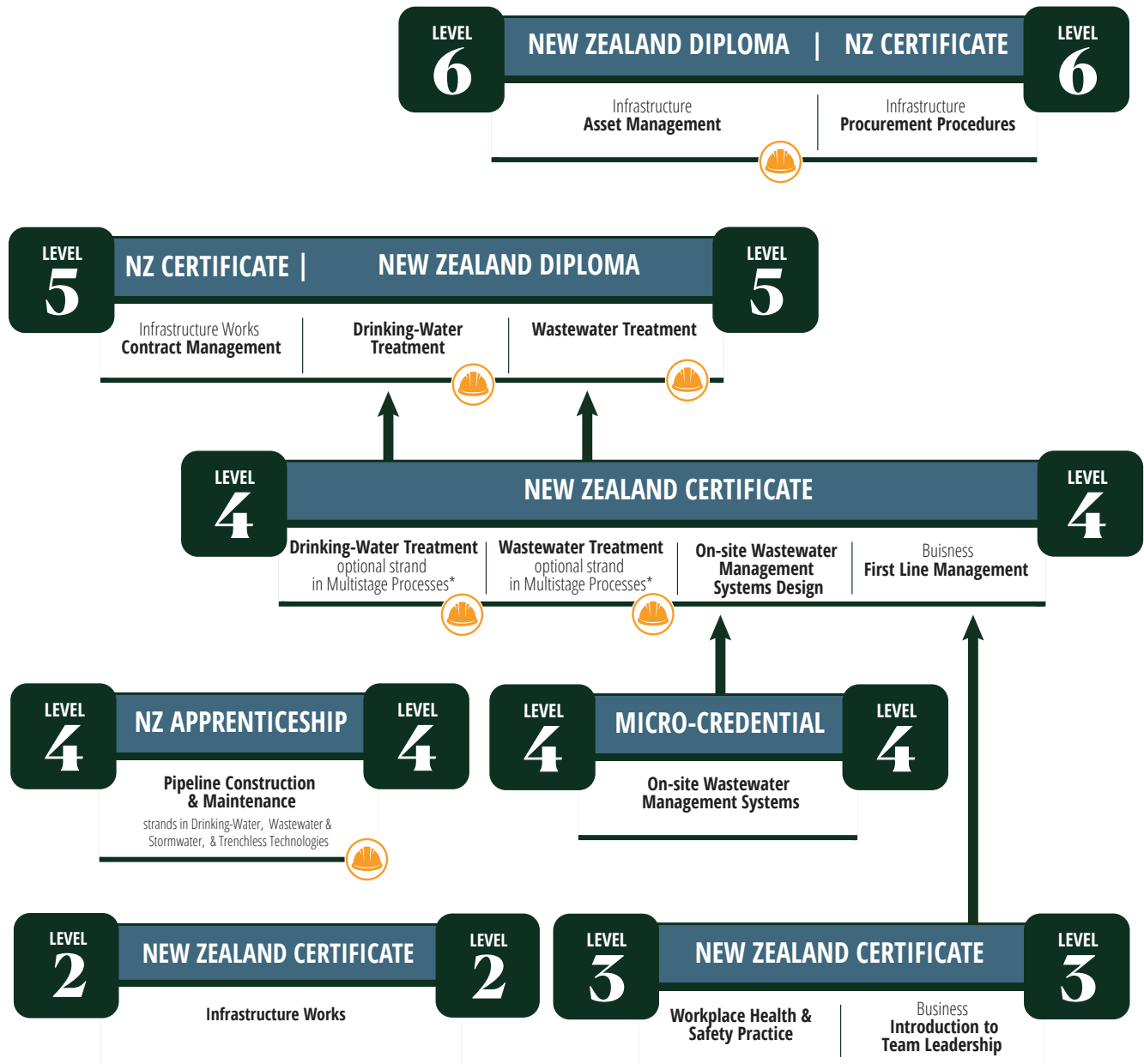
# Water Career

## PROGRESSION PATHWAY

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\*This programme is recognised as an NZ Apprenticeship when the optional strand is completed

Valid as of July 2023

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**CONNEXIS**

**Te Pūkenga**

PWW01

# Water Apprenticeships



Our water apprenticeships are great for those looking to become a skilled water tradesperson, or to get their existing skills recognised.



## Drinking-Water Treatment with Multistage Processes strand (Level 4)

◆ NZ Apprenticeship in Drinking-Water Treatment with strand in Multistage Processes

🕒 Duration: 22 months

✓ Credits: 120

🔍 NZQA: 4138



### Skills Covered:

- Protecting public health and the environment.
- Implementing, monitoring and communicating health and safety requirements.
- Operating a drinking-water treatment plant to meet organisational and regulatory requirements.
- Monitoring drinking-water treatment plant operation and interpreting compliance and operational data.
- Sampling, testing and reporting drinking-water procedures for drinking-water treatment.

The Multistage Processes strand covers:

- Operating a drinking-water treatment plant with a combination of multistage processes to meet organisational and regulatory requirements.

## Wastewater Treatment with Multistage Processes strand (Level 4)

◆ NZ Apprenticeship in Wastewater Treatment with strand in Multistage Processes

🕒 Duration: 22 months

✓ Credits: 120

🔍 NZQA: 4142



### Skills Covered:

- Protecting public health and the environment.
- Implementing, monitoring and communicating health and safety requirements.
- Operating a wastewater treatment plant to meet organisational and regulatory requirements.
- Monitoring wastewater treatment plant operation and interpreting compliance and operational data.
- Sampling, testing and reporting wastewater procedures for wastewater treatment.

The Multistage Processes strand covers:

- Operating a wastewater treatment plant with a combination of multistage processes to meet organisational and regulatory requirements.



# Water Qualifications

We offer a wide range of energy training programmes from entry-level to management level.

## Drinking-Water Treatment (Level 4)

◆ NZ Certificate in Drinking-Water Treatment

🕒 Duration: 12 months

✓ Credits: 70

🔍 NZQA: 4138



### Skills Covered:

- Protecting public health and the environment.
- Implementing, monitoring and communicating health and safety requirements.
- Operating a drinking-water treatment plant to meet organisational and regulatory requirements.
- Monitoring drinking-water treatment plant operation and interpreting compliance and operational data.
- Sampling, testing and reporting drinking-water procedures for drinking-water treatment.

## Wastewater Treatment (Level 4)

◆ NZ Certificate in Wastewater Treatment

🕒 Duration: 12 months

✓ Credits: 70

🔍 NZQA: 4142



### Skills Covered:

- Protecting public health and the environment.
- Implementing, monitoring and communicating health and safety requirements.
- Operating a wastewater treatment plant to meet organisational and regulatory requirements.
- Monitoring wastewater treatment plant operation and interpreting compliance and operational data.
- Sampling, testing and reporting wastewater procedures for wastewater treatment.



## On-site Wastewater System Design (Level 4)

◆ NZ Certificate in On-site Wastewater Management System Design

🕒 Duration: 12 months

✓ Credits: 75

🔍 NZQA: 4216

### Skills Covered:

- Communicate with stakeholders to develop a brief for the design of an on-site wastewater management system.
- Evaluate site and soil characteristics.
- Prepare risk management plans for a specific site.
- Apply knowledge of regulatory requirements and domestic wastewater treatment processes to the selection and design of an on-site wastewater management system.
- Communicate requirements for operation, monitoring and maintenance to a range of stakeholders.
- Review designs for, and inspect, on-site wastewater management systems.



# Water Qualifications



## Drinking-Water Treatment (Level 5)

◆ NZ Diploma in Drinking-Water Treatment

🕒 Duration: 22 months

✓ Credits: 120

🔍 NZQA: 4139



### Skills Covered:

- Managing and optimising drinking-water treatment plant operations to ensure compliance with regulatory requirements.
- Implementing, monitoring and communicating health and safety requirements for a drinkingwater treatment plant.

## Wastewater Treatment (Level 5)

◆ NZ Diploma in Wastewater Treatment

🕒 Duration: 22 months

✓ Credits: 120

🔍 NZQA: 4143



### Skills Covered:

- Managing and optimising wastewater treatment plant operations to ensure compliance with regulatory requirements.
- Implementing, monitoring and communicating health and safety requirements for a wastewater treatment plant.

## Micro-credential | On-site Wastewater Management Systems (Level 4)

◆ Micro-credential in On-site Wastewater Management Systems

🕒 Duration: 4 months

✓ Credits: 26

🔍 NZQA: 4399

### Skills Covered:

- This Micro-credential (MC) teaches you how to understand on-site wastewater management systems including:
  - Treatment processes
  - Land application systems and the factors affecting their selection; and
  - Requirements for operation, monitoring, and maintenance of an on-site wastewater management system
- You will also learn how to review a design and an inspect an on-site wastewater management system.



# General Qualifications

We offer a wide range of cross-sector training programmes that can be applied to a number of infrastructure roles.

## Health and Safety Practice (Level 3)

|   |  |
|---|--|
| ◆ | NZ Certificate in Workplace Health and Safety Practice |
| 🕒 | Duration: 7 months                                     |
| ☑ | Credits: 40  |
| 🔍 | NZQA: 3533   |

### Skills Covered:

- Applying knowledge of legal requirements and health and safety practices to the workplace.
- Communicating workplace health and safety requirements.
- Completing health and safety risk assessments.
- Understanding the importance of good health and safety practices.
- Applying the Health and Safety at Work Act 2015, Codes of Practice, and infrastructure industry best practice to embed a healthier, safer workplace.



## Team Leadership (Level 3)

|   |  |
|---|--|
| ◆ | NZ Certificate in Business (Introduction to Team Leadership) |
| 🕒 | Duration: 8 months   |
| ☑ | Credits: 48  |
| 🔍 | NZQA: 2453   |

### Skills Covered:

- Managing workflows in an operational context to achieve team objectives.
- Assessing actual and/or potential issue(s) and responding appropriately.
- Motivating a team to achieve the team's projects.
- Applying interpersonal skills to develop effective relationships with team members and stakeholders.
- Promoting an inclusive environment to value diversity for positive performance for the entity.
- Applying leadership styles effectively in different

## First Line Management (Level 4)

|   |  |
|---|--|
| ◆ | NZ Certificate in Business (First Line Management) |
| 🕒 | Duration: 10 months                                |
| ☑ | Credits: 60  |
| 🔍 | NZQA: 2456-2                                       |

### Skills Covered:

- Use effective team performance principles to lead a team.
- Develop objectives for a team.
- Communicate effectively with stakeholders.
- Work cooperatively within a team and contribute to the achievement of objectives.
- Apply effective problem-solving and decisionmaking for business purposes.
- Behave professionally and ethically and in a socially and culturally responsible manner to contribute to the performance of the team.

# General Qualifications



## Contract Management (Level 5)

◆ NZ Certificate in Infrastructure Works (Contract Management)

🕒 Duration: 7 months

✓ Credits: 46

🔍 NZQA: 2618-2

### Skills Covered:

- Applying the requirements from the contract, tendering, and estimating processes to implement infrastructure works contracts.
- Managing infrastructure works contractual requirements for the duration of a contract.

## Procurement Procedures (Level 6)

◆ NZ Certificate in Infrastructure Procurement Procedures

🕒 Duration: 14 months

✓ Credits: 80

🔍 NZQA: 3179-2



### Skills Covered:

- Creating a procurement plan
- Preparing RFx documents
- Managing procurement processes
- Evaluating tenders
- Applying legal and ethical standards to tendering processes
- All learners need to complete the requirements in accordance with the Government.
- Procurement rules.

## Asset Management (Level 6)

◆ NZ Diploma in Infrastructure Asset Management

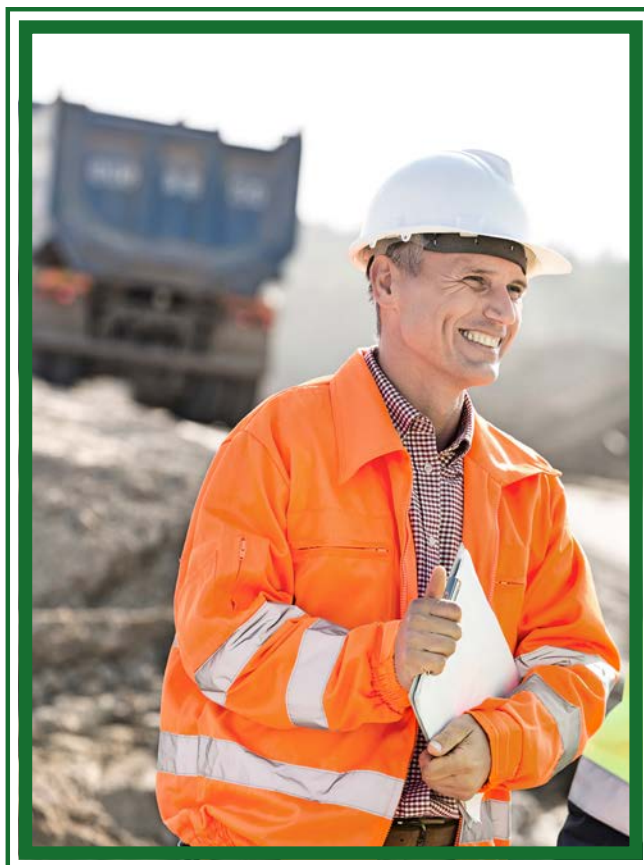
🕒 Duration: 30 months

✓ Credits: 140

🔍 NZQA: 3180

### Skills Covered:

- Applying the essential components of good asset management practice in the infrastructure sector.
- Contributing to the preparation, implementation and review of infrastructure asset management planning for an organisation.
- Developing an infrastructure risk management plan for an organisation.
- Developing the asset lifecycle management plan for an organisation.
- Completing an optimisation process to enhance outcomes for an infrastructure project in an organisation.





# Connexis | Te Pūkenga Coverage

Connexis | Te Pūkenga has coverage across New Zealand with local Customer Service Account Managers to support you.



📞 | 0800 486 626  
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