

INFRASTRUCTURE MAG



CIVIL

ENERGY

TELCO

WATER



***FUTURE-PROOF
+ YOUR CAREER***

MASSIVE PROJECTS • GIANT TOYS • BIG MONEY

CONNEXIS
INFRASTRUCTURE TRAINING

INFRASTRUCTURE X MAG

CONNEXIS
INFRASTRUCTURE TRAINING

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Connexis is a business division of Te Pūkenga - New Zealand Institute of Skills & Technology, and leading provider of vocational training for New Zealand's infrastructure workforce in the civil, energy, telecommunications, and water industries.

Data and statistics are from 2023/2024 financial year and sourced from:

- Infometrics, Infrastructure Pipeline Profile, and Infrastructure Sector Profile
- Think New - New Zealand Education, Tuition fees and cost of living
- Sweet Analytics, Income outcomes of tertiary pathways.

MAY 2025



CIVIL ENERGY TELCO WATER

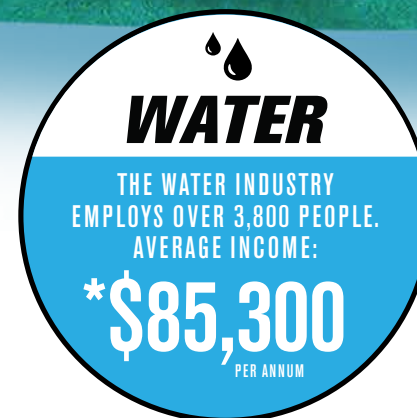
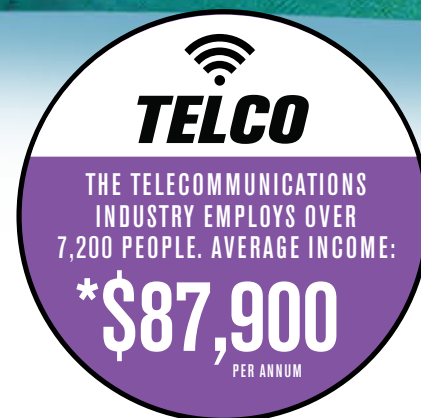
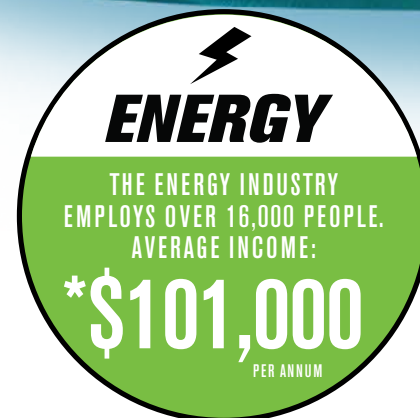
**TRAINING NEW ZEALAND'S
GREATEST ASSETS**

CIVIL ENERGY TELCO WATER

INFRASTRUCTURE

IS EVERYWHERE

The roads you drive on, the power you use, the water you drink and the telecommunications network. Infrastructure keeps the country running and Connexis provides the training programmes to the people who run the infrastructure.



CONNEXIS

WE NEED SKILLED PEOPLE - LIKE YOU

All New Zealand's infrastructure sectors need skilled people to join the workforce who can plan, maintain and upgrade the infrastructure - and build more as the nation grows. Not only are infrastructure jobs in high demand, they can be well-paid, rewarding, fun and provide varied career paths for everyone.

* Source: Infometrics - Infrastructure Pipeline Profile and Infrastructure Sector Profile

JOIN AN INDUSTRY WHERE YOUR ROLE WILL ALWAYS BE NEEDED...

FUTURE- PROOF

**\$129 BILLION
INVESTMENT IN NZ
INFRASTRUCTURE OVER
THE NEXT 7 YEARS**

INFRASTRUCTURE IS VITAL IN KEEPING NEW ZEALAND UP AND RUNNING

New Zealand will invest \$129 billion in infrastructure over the next seven years, that means there's a lot of work to be done and a lot of job openings.

Due to the booming population, existing infrastructure requires maintenance and replacement. We also need to build new infrastructure to keep up with demand. Naturally roads, pipes, lines and connections will be due for an upgrade as they become worn, or outdated, so there will always be work in the pipeline. Over half of the \$129 billion infrastructure spend is tagged into land transport which includes roads, bridges and tunnels.

WHAT ARE YOU WAITING FOR?

Infrastructure builds the future that keeps New Zealand operating and successful. It is a booming industry with plenty of career opportunities.

Jobs in infrastructure are rewarding and you can make a real impact in your community – whether it be by getting a town access to fresh, clean water, building a new main state highway, or making sure the lights turn on at homes, businesses, schools and hospitals.

GET PAID AS YOU QUALIFY

Connexis offers on-job apprenticeship and training programmes within the infrastructure industry. By signing up with us, you'll be able to earn money as you complete your apprenticeship or training programme, working and learning as you go.

With climate change and rising ocean levels, our communities are going to be faced with some tough challenges and infrastructure will play a huge role in problem-solving and keeping the country functioning.

INFRASTRUCTURE CAREERS

REWARDING CAREER PATH

There are many ways you can work your way up the ladder in infrastructure. Start in 'hands on' roles and progress to a team leader or even start up your own business.

DO YOU FIT THE BILL?

A good attitude, keenness to learn and being a team player are key. No formal qualification is required as long as you are willing to learn and to 'give it your all' in what can be a challenging, but extremely rewarding environment.



GET AHEAD

WITH ON-THE-JOB TRAINING

Research has found that those who go straight into an apprenticeship after college will have earned on average \$185,000 more than BA, BCom or BSc graduates by the time they turn 28, pretty cool right? Industry training will give you a head start in saving money to buy that new car you always wanted, invest in a house of your own, and allow you to learn life skills to work on your own DIY projects. You also get the chance to make a difference in your local community, get involved in some massive projects, and play with some awesome toys.

ABOUT INDUSTRY TRAINING

Industry or on-job, training involves you studying, while being employed in the workforce. While studying for an industry qualification you will be expected to dedicate time each week to your study. You will receive workbooks with assessments related to the work you are doing. Some training programmes may require you to attend short training courses away from your work, or you might have the option to complete courses online. There are key deadlines and support along the way to ensure you are making progress. However, a lot of the assessment work is flexible and can be done in your own time to suit your lifestyle.

**BUILD A LONG-TERM CAREER
WORKING TOWARD SUPERVISOR
OR MANAGER ROLES...YOU
COULD EVEN START YOUR
OWN BUSINESS!**

BIG MONEY \$185K

EARN \$185,000 MORE BY THE AGE OF 28

WHAT MAKES A GOOD APPRENTICE?

- Good at communicating
- Responsible and reliable
- Keen to get stuck into the job
- Works well in a team

SOME JOBS MAY ALSO REQUIRE:

- A current NZ Driver Licence
- Confidence using tools and machinery
- Comfort working at heights or in a confined space
- Physical fitness

WHY INDUSTRY TRAINING WORKS:

- 2 years Fees Free
- 2-3 years to complete your study
- You will have a job and your training will allow you to progress to new roles
- You can get a NZ certificate, apprenticeship or diploma
- You will gain practical experience

**EARN
WHILE
YOU
LEARN**

CIVIL INDUSTRY

63,000

EMPLOYEES CONSTRUCT AND MAINTAIN
OVER 100,000 KM OF NZ ROADS

23.2%

MACHINERY
OPERATORS AND
DRIVERS
MAKE UP 23.2%
OF CIVIL WORKERS

\$7 BILLION

FORECAST SPEND ON ROADING
ALONE EACH YEAR FOR
THE NEXT 7 YEARS

BUILDING THE NATION

Whether you want to operate machinery, work on massive scale projects, or have a job where no two days are the same, the Civil industry has a role to suit you.

Civil infrastructure enables us to keep moving with our everyday lives. Think big – Transmission Gully, Waterview Tunnel and Auckland Harbour Bridge. These projects are only possible because of our awesome civil industry!

One of the best parts about the job is no two days are the same. You are working in an everchanging landscape with up to date technology, and nowadays the technology is pretty cool.

There is a wide range of roles available and different pathways you can take to progress your career. Roles range from entry level such as an apprenticeship or field worker position to surveyors, civil engineers or site supervisors. You can also work your way

up to management level roles. In New Zealand, there are a large number of smaller, owner operated civil companies, so if being your own boss and operating a company appeals to you then this could also be an option for you!

Find out more about an epic career in civil infrastructure at www.epicwork.nz

JIMMY

ROBERTSON

BUILDING A ROAD TO SUCCESS

Jimmy started with Waikanae-based, earthmoving business Goodman Contractors "as a rookie" with no prior infrastructure work experience. By the time he was 29 he was working as a site supervisor - while still finding time to work on excavators.

WHAT DID YOU LIKE MOST ABOUT YOUR APPRENTICESHIP?

The great thing about an apprenticeship is that it starts with using the shovel and takes you the whole way through to a lifelong profession.

WHAT KIND OF WORK DO YOU DO?

It varies a lot. Depending on the day, it could be on an excavator, a bulldozer, or one of several other highly specialised machines.

WHAT BIG PROJECTS HAVE YOU WORKED ON?

I worked on the \$330 million Mackays to Peka Peka Expressway on the Kapiti Coast.

WHAT IS ONE THING YOU NEED TO WORK IN THE CIVIL INDUSTRY?

A great, can-do attitude.

On site, we are all learning every day. I'd recommend an apprenticeship to anyone wanting to get into the industry as well as those already in the industry.

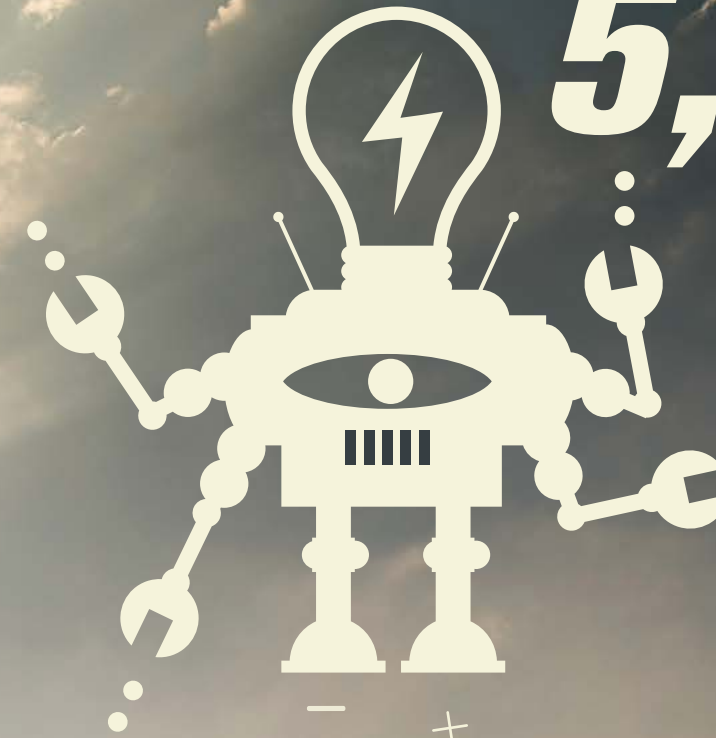


CIVIL CAREER OPPORTUNITIES

POSITION	ROLE	QUALIFICATION	LEVEL
Infrastructure Asset Manager Tender Evaluator Procurement Specialist Civil Engineering Technician Survey Technician	MANAGER SPECIALIST TECHNICIAN	NZ DIPLOMA NZ CERTIFICATE	6
Contract Manager Multi-Site Supervisor Senior Lab Technician Foreman Project Manager	MANAGER TECHNICAL SPECIALIST	NZ CERTIFICATE	5
Leading Hand Foreman Site Supervisor Agrichemical Applicator Survey Assistant Senior Roadmarker	SENIOR OPERATOR SUPERVISOR SENIOR TECHNICIAN	NZ CERTIFICATE	4
Roadmarker Civil Laboratory Technician Earthmoving Machine Operator Pipe Installation Technician Water Reticulation Technician Civil Plant Operator Roading Construction Worker Asphalt Plant Operator	OPERATOR TECHNICIAN ASSISTANT	NZ CERTIFICATE	3
Field Worker Traffic Controller	ENTRY LEVEL	NCEA 2/3 YEAR 12	2

ENERGY

INDUSTRY



5,200⁺
JOB OPENINGS BY 2029

19.8%
OF EMPLOYEES
WORK AS
ELECTRICAL ENGINEERS

\$98
MILLION
FORECASTED INCREASE IN
ELECTRICITY TRANSMISSION SPEND ALONE

IN 2023 THE ENERGY INDUSTRY FILLED
16,000
JOBS

The Energy industry powers our lives. Every time you flick on the light switch, or charge your phone you are able to do it because of our electricity supply network.

If you enjoy working at height, in confined spaces, or being concise and accurate, a career in the Energy sector may be for you. Like energy itself, the sector is constantly moving and keeping up to date with new technology and industry advances. Because the

industry is undergoing such rapid advances, you are constantly learning new things.

There are a wide range of roles available to you. These range from line mechanics and cable jointers, to network designers, engineers, health and safety, and management roles. There are numerous opportunities available to you to progress your career once you have your foot in the door.

Like any career in infrastructure, no two days will be the same and it could even take you around the world.

**POWER UP YOUR CAREER
WITH A ROLE IN THE
ENERGY INDUSTRY**

HOLLY

Earning while she learned and getting qualified proved both professionally and personally rewarding for Christchurch-based electrical engineer Holly Murphy, when it came to training.

HOW DID YOU GET INTO THE INDUSTRY?

I saw an advert in the paper in 2010. The Electricity Supply Industry Training Organisation (ESITO) (now Connexis) was running an initiative to bring more women into the Energy industry. I applied for an apprenticeship and got it.

WHAT DID YOUR FIRST ROLE INVOLVE?

I got to climb high-voltage pylons and get ferried by helicopter to remote and hard-to-access parts of the national power grid.

WHAT QUALIFICATIONS DID YOU STUDY?

I have gained dual qualifications in electricity transmission and line distribution and was the first female trainee in New Zealand to do this. I am currently studying towards a Diploma in Electrical Engineering with Orion on scholarship.

WHERE HAS YOUR JOB TAKEN YOU?

I was initially based in Auckland for my three-year apprenticeship but then my work took me all over the North Island. During my apprenticeship I also spent more than six months on a fly-in fly-out project in Kiribati where we built 28km of towers and installed 300 power lines.

MURPHY SWITCHED ON

WHAT DID YOU LIKE ABOUT LEARNING ON-THE-JOB?

Being able to earn while you learn is great. Energy industry companies pay their apprentices well and having steady employment while I did my apprenticeships with Connexis has been a real help with planning my future.

WHAT ARE SOME OF THE BENEFITS YOU HAVE EXPERIENCED FROM ON-THE-JOB TRAINING?

I was able to buy my first home in Auckland when I was 21. I've also celebrated Christmas with my partner in New York and Las Vegas.

WHAT ARE YOUR FUTURE CAREER PLANS?

I am looking to step into contract management roles, and in the future I like the idea of helping plan and design the growth of New Zealand's energy grid.

One of the best things about the energy industry is that it is smaller than lots of people think and it is very close-knit. You can go to Connexis' Annual Connection event where you will find yourself surrounded by industry workers who have become friends. Many thanks to Connexis for guiding and supporting me towards a career I really love.



INFRASTRUCTURE X MAG			
ENERGY CAREER OPPORTUNITIES			
POSITION	ROLE	QUALIFICATION	LEVEL
Infrastructure Asset Manager Tender Evaluator Procurement Specialist Electrical Engineering Technician	MANAGER SPECIALIST TECHNICIAN	NZ DIPLOMA NZ CERTIFICATE	6
Contract Manager Power Technician	MANAGER TECHNICAL SPECIALIST	NZ CERTIFICATE	5
Electrician Electrical Engineer Line Mechanic Traction Line Mechanic Cable Joiner Faultman Field Switcher Mechanical Fitter Network Operator Thermal/Hydro Operator	SENIOR OPERATOR SUPERVISOR SENIOR TECHNICIAN	NZ CERTIFICATE	4
Network Operator Thermal/Hydro Operator Utility Arborist	OPERATOR TECHNICIAN ASSISTANT	NZ CERTIFICATE	3
Meter Reader	ENTRY LEVEL	NCEA 2/3 YEAR 12	2

NEW ZEALAND'S TELECOMMUNICATIONS INDUSTRY



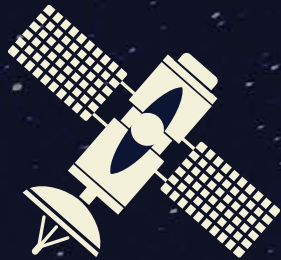
Scrolling through TikTok, gaming online, streaming or uploading YouTube videos are all only possible thanks to our telecommunications (or telco) network.

In today's world, we just expect the internet to work and to have all the information we need at our fingertips or the click of a mouse. The Telco industry keeps us connected via mobile devices and wifi, using cutting edge technology that is constantly evolving.

New Zealand's Telco industry is always changing and improving while connecting more Kiwis with each other

and the world. It impacts the country's living standards and our economic capacity.

With a job in the Telco industry, you will be a part of all that. You'll start as a technician, designing and maintaining our fibre networks. It's a job that offers great variety, and you'll have skills that can take you all over the world.



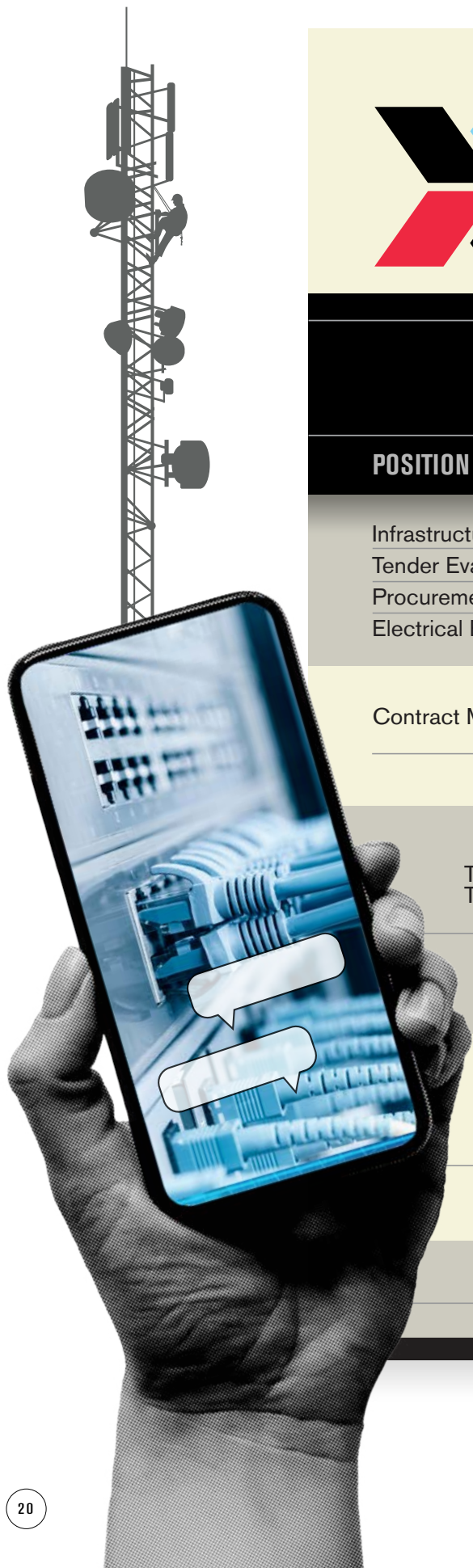
TELCO FILLED
7,300
JOBS IN 2023

38%

OF TELCO INDUSTRY WORK AS
TELECOMMUNICATIONS TECHNICIANS

2,000+
JOB OPENINGS BY 2029

GET CONNECTED
CHECK OUT A CAREER IN THE TELCO INDUSTRY TODAY!



INFRASTRUCTURE
X MAG

**TELECOMMUNICATIONS
CAREER OPPORTUNITIES**

POSITION	ROLE	QUALIFICATION	LEVEL
Infrastructure Asset Manager Tender Evaluator Procurement Specialist Electrical Engineering Technician	MANAGER SPECIALIST TECHNICIAN	NZ DIPLOMA NZ CERTIFICATE	6
Contract Manager	MANAGER TECHNICAL SPECIALIST	NZ CERTIFICATE	5
Telecommunications Technician	SENIOR OPERATOR SUPERVISOR SENIOR TECHNICIAN	NZ CERTIFICATE	4
Telecommunications Technician	OPERATOR TECHNICIAN ASSISTANT	NZ CERTIFICATE	3
Field Worker	ENTRY LEVEL	NCEA 2/3 YEAR 12	2

**DEGREE VS
APPRENTICESHIP**

AFTER 3 YEARS

UNIVERSITY STUDENT

END OF STUDY

STUDENT LOAN
BACHELOR DEGREE 3 YEARS
-\$60,000*

*NZ MINISTRY OF SOCIAL DEVELOPMENT

APPRENTICE

EARLY CAREER

APPRENTICE
EARNINGS 3 YEARS
\$156,000**

**BASED ON AVERAGE \$25 PER HR / 40 HR WEEK

Apprentices earn significantly more in the early stages of their careers. They can purchase a home earlier and for the majority of their careers have a higher net financial position than holders of a bachelors degree and above.

+STATS FROM INFOMETRICS

CONNEXIS
INFRASTRUCTURE TRAINING

WATER INDUSTRY



- **WATER SUPPLY**
- **WASTEWATER NETWORKS**
- **STORMWATER NETWORKS**

Having clean, fresh water is something that is often taken for granted in New Zealand but is only possible due to our Water industry crews.

The Water industry is dynamic and technologically advanced with great opportunities. If you're after a hands-on career which will give you plenty of variety, lots of new challenges and the ability to work indoors and outdoors then take a closer look at the Water industry. The Water industry can be split into three

key areas: Water Supply, Wastewater Networks and Stormwater Networks.

This industry is so sweet to get into that people don't want to leave, making it a career that will set you up for life. Whether you want to maintain water pipes and systems, supervise sites, manage projects or a water treatment plant, there are plenty of pathways to choose from.

**WATER
SUPPLY**

**WASTE
WATER**

**STORM
WATER**

**ESTIMATED SECTOR
INVESTMENT INCREASE OF**

**\$330
MILLION**



**3,800 JOBS
INDUSTRY
WIDE**



**AVERAGE PERSON
USES 227L OF
WATER PER DAY**

<div> <div>INFRASTRUCTURE</div> <div>  </div> </div>			
WATER CAREER OPPORTUNITIES			
POSITION	ROLE	QUALIFICATION	LEVEL
<div>Infrastructure Asset Manager</div> <div>Tender Evaluator</div> <div>Procurement Specialist</div> <div>Civil Engineering Technician</div>	<div>MANAGER</div> <div>SPECIALIST TECHNICIAN</div>	<div>NZ DIPLOMA</div> <div>NZ CERTIFICATE</div>	6
<div>Contract Manager</div> <div>Water/Wastewater Treatment Plant Manager</div> <div>Drinking Water Assessor (Ministry of Health)</div>	<div>MANAGER</div> <div>TECHNICAL SPECIALIST</div>	<div>NZ CERTIFICATE</div>	5
<div>Water/Wastewater Treatment Technician</div> <div>Water/Wastewater Treatment Plant Operator</div>	<div>SENIOR OPERATOR</div> <div>SUPERVISOR</div> <div>SENIOR TECHNICIAN</div>	<div>NZ CERTIFICATE</div>	4
<div>Assistant Water/Wastewater Treatment Technician</div> <div>Assistant Water/Wastewater Treatment Plant Operator</div>	<div>OPERATOR</div> <div>TECHNICIAN</div> <div>ASSISTANT</div>	<div>NZ CERTIFICATE</div>	3
Field Worker	ENTRY LEVEL	NCEA 2/3 YEAR 12	2

DYLAN

SAMSON

TAKING A LEAP OF FAITH

into a career as a pipe layer at 19-years-old has certainly paid off for Dylan Samson.

By the age of 23 Dylan was a water reticulation technician in charge of his own crew for Allens United Drainage and Earthworks in Hamilton and loved every minute of it.

WHAT DREW YOU TO A CAREER IN THE WATER INDUSTRY

Initially after high school I started training to be a PE teacher. I wasn't really enjoying what I was doing, and I saw an ad for an apprenticeship online and just decided to give it a go. I didn't even know what the job involved. What appealed to me was the ability to earn while I learnt.

WHAT DO YOU LIKE THE MOST ABOUT YOUR JOB?

You have to be willing to work hard. But there's heaps of variety and when you've finished a job, it's really satisfying.

WHAT QUALIFICATIONS HAVE YOU COMPLETED?

I completed the National Certificate in Water Reticulation (Level 3) and will look to do the New Zealand Certificate in Pipeline Construction and Maintenance (Level 4), which will lead me towards Civil Trades Certification.

WHAT DO YOU LIKE THE BEST ABOUT LEARNING ON THE JOB?

I think that opportunity to earn while you're on the job and training is a really big benefit. I know lots of other people who are full-time students and they're always stressed and struggling with money. With a trade, you're earning something straight away and there are lots of chances to move up the ladder.

WHAT ABOUT YOUR CAREER PROGRESSION?

It wasn't so long ago that I came in and just had to do what the bosses told me. Now I am the guy telling other people what to do. That's quite a good feeling. It has taken some hard work and commitment but it is extremely satisfying to have it pay off.

WHAT HAS EARNING WHILE YOU LEARN MEANT TO YOU?

This job has also helped me support my family and being able to do that comfortably means a lot. At 23 I own my own home.

'I just want to keep training and learning and doing what I'm doing. I love it.'

CIVIL ENERGY TELCO WATER



KICKSTART

YOUR CAREER IN INFRASTRUCTURE

SKILL-UP

Our Gateway Programmes are a great opportunity if you are at high school in Years 11-13.

Enrol in one of our Gateway programmes and get hands-on experience with a local infrastructure company while completing our micro-credentials and earning credits towards NCEA Level 2 and 3.

Micro-credentials are short training courses that have a combination of theory and practical unit standards that you can complete through a workbook or online.

Talk to your careers department or learn more at connexis.org.nz/schools/



MC

DIG IT

LEVEL 2, 23 CREDITS

Introduction to Infrastructure Works

An introduction to the civil industry. Get confident using hand tools, excavate manually, understand the different materials used in civil infrastructure and learn safety standards on-site.

MC

BREAKING GROUND

LEVEL 3, 22 CREDITS

Infrastructure Worksites

Build on the *Dig It* course by learning to locate features from plans, describe commonly used infrastructure materials and understand the impact of erosion and sediment control on worksites.

MC

POWER UP

LEVEL 2, 19 CREDITS

Introduction to the Electricity Supply Industry

An introduction to the Electricity Supply Industry (ESI). Learn about major ESI sectors, energy plants and equipment, electricity systems used and how to keep safe on-site.

MC

SWITCHED ON

LEVEL 2, 21 CREDITS

Working Safely in the Electricity Supply Industry

Build on the *Power Up* course by learning safety measures and codes. Learn how to disconnect, isolate and measure an energised circuit, and understand the hazardous nature of electricity.

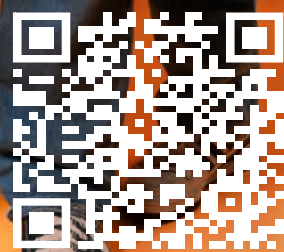
INFRASTRUCTURE TRAINING

GIRLS WITH **HI-VIS**®

CONNEXIS

CIVIL
ENERGY
TELCO
WATER

INDUSTRY
EXPERIENCE
DAY



FIND OUT MORE AT [CONNEXIS.ORG.NZ/GIRLS-WITH-HI-VIS/](https://connexis.org.nz/girls-with-hi-vis/)

GWHV

MAKING INFRASTRUCTURE CAREERS MORE VISIBLE TO YOUNG WOMEN

Girls with Hi-Vis® (GWHV) helps more young women experience the benefits of a career in infrastructure. Developed in partnership with industry GWHV aims to increase the number of female employees in infrastructure, which is only 18% of the total workforce, and fill the current skills gap.

GWHV is an *Ultimit - Women in Infrastructure* initiative that runs nationwide throughout June. Every year it's getting bigger. At the many GWHV events, young women in Years 11-13 visit top infrastructure companies and assets for the day like wind farms, hydro power stations, water treatment plants and major roading projects.

They learn about the job opportunities available, experience fun hands-on activities, and hear from inspirational women who are working in the industry - and loving it!

***'It's kind of a
lifestyle, rather
than just a job.'***

Madison Harvey, Line Mechanic for Electra





KICKSTART

your future with New Zealand's leading infrastructure training provider...

Connexis helps thousands of people learn the skills they need to get the infrastructure jobs they want in the Civil, Energy, Telecommunications or Water industries. We provide support at every stage of your training with our work-based learning programmes so you can up-skill while you're working and getting paid.

Our apprenticeship and training programmes range from Level 2 (entry level) to Level 6 (management) including diplomas. Our programmes are developed working closely with employers in the industry, so you know they will be useful and relevant for your job and career.

Benefits of working in the infrastructure industry as a trainee or apprentice and doing on-the-job training with us:

- **NO STUDENT LOAN**
- **EARN WHILE LEARNING**
- **HIGH SALARIES FOR SKILLED WORKERS**
- **MANY CAREER PATHWAYS TO CHOOSE**
- **WORK IN AMAZING PLACES**
- **A HANDS-ON, VARIED CAREER**



ANNUAL CONNECTION

ELECTRICITY SUPPLY INDUSTRY EVENT

Annual Connection

is a unique three-day competition held in different parts of New Zealand annually. Bringing together Line Mechanics and Cable Jointers who compete to be the best of the best in New Zealand. An invaluable opportunity to spotlight the industry, underscore the importance of electricity safety, and encourage young talents to explore careers in the electricity supply sector.

LEARN MORE AT
ANNUALCONNECTION.CO.NZ





CONNEXIS

INFRASTRUCTURE TRAINING

Connexis is a Business Division of Te Pūkenga – New Zealand Institute of Skills and Technology

Enrol Now

CALL US: 0800 486 626

askus@connexis.org.nz

connexis.org.nz

