

# A CAREER WITH GRIT!

## **YOUR INTRODUCTION TO CAREERS IN CIVIL INFRASTRUCTURE**

### ***HELP BUILD NEW ZEALAND***

Create technical structures and work on some of the largest infrastructure projects in New Zealand.

**EARN AS YOU LEARN**

**CONEXIS**  
qualify for success

# ARE YOU...

- Wanting to work in an industry that keeps New Zealand communities connected?
- Keen to become highly skilled in your chosen field?
- A doer – keen to get the job done?
- Someone who likes building structures?
- Active and physically fit?
- The sort of person who enjoys working outdoors?
- Wanting to be part of a team?
- Able to follow direction to work safely around others?
- Wanting to earn as you learn?
- Looking to start your career in a growing industry?

## THE CIVIL INFRASTRUCTURE INDUSTRY EMPLOYS AROUND 50,000 PEOPLE WITH A WIDE VARIETY OF CAREER OPTIONS AVAILABLE

*Whether you want to operate machinery, enjoy problem solving, are good at maths and calculations – or keen to learn, there is a career to suit you!*

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- **Surveying**
  - **Engineering**
  - **Civil Laboratory Testing**
  - **Bulk Earthmoving**
  - **Road Construction & Pavement Surfacing**
  - **Utilities and Pipe Installations**
  - **Water/Wastewater Treatment**
  - **Rural Contracting & Agrichemical Application**



# NZ CIVIL INFRASTRUCTURE INDUSTRY

## CONEXIS





## SURVEYING

Are you good with numbers, have a straight eye and attention to detail? Surveyors are involved in a wide range of work including land surveys, mapping, site investigations, resource management, assessing environmental impacts and analysing survey data. You'll get the best of both worlds, working in the office and out onsite.

### CAREERS

- SURVEY TECHNICIAN
- SURVEYOR (WITH DIPLOMA)

## ENGINEERING

James A. Michener famously said, "Scientists dream about doing great things. Engineers do them." Civil engineers bring ideas to life by creating scale plans and drawings of structures such as roads and bridges. If you are interested in using computer aided design (CAD) software then this could be the ideal career for you.

### CAREERS

- CIVIL ENGINEERING TECHNICIAN
- CIVIL ENGINEER (WITH DEGREE)

## CIVIL LABORATORY TESTING

If it's been built by an engineer it will have been checked and controlled by a civil engineering laboratory technician! Civil testing laboratories provide a vital service in the design and quality control of projects. You'll use a variety of equipment to test materials such as asphalt, bituminous and concrete to make sure they are safe and fit for purpose. You'll work in the lab and out in the field. This is a great career choice if you're interested in science.

### CAREERS

- CIVIL LABORATORY TECHNICIAN
- SENIOR TECHNICIAN/LABORATORY SUPERVISOR

## BULK EARTHMOVING

When you're making new roads the first thing you'll need to do is shift a serious amount of dirt! Think Transmission Gully in Wellington or the Waterview Connection in Auckland. Earthmoving machine operators are highly skilled, in demand and get to work with some serious horsepower.

### CAREERS

- EARTHMOVING MACHINE OPERATOR
- FOREMAN/LEADING HAND
- SITE SUPERVISOR



## UTILITIES & PIPE INSTALLATIONS

Pipes are used to supply power, gas, water and telecommunications to New Zealanders. This requires qualified tradespeople to install and maintain our pipe systems throughout the country. As a pipe installation or water reticulation technician you'll be responsible for locating services, excavating, installing/repairing pipes and structures, and reinstating the site – often in live traffic. Choose a career as Horizontal Directional Drilling operator and you'll be working as part of a team using sophisticated trenchless technology.

### CAREERS

- PIPE INSTALLATION TECHNICIAN
- WATER RETICULATION TECHNICIAN
- FOREMAN/LEADING HAND
- SITE SUPERVISOR
- PROJECT MANAGER
- HORIZONTAL DIRECTIONAL DRILLING OPERATOR (DRILLER OR TRACKER)

## ROAD CONSTRUCTION & PAVEMENT SURFACING

With over 100,000 kilometres of existing roads to be maintained and new ones being built all the time, there are a lot of opportunities in this sector. You could be using machinery such as excavators and diggers, or laying surfacing materials like asphalt and bituminous. You might be making road surfacing materials, or even painting the lines on the road. Whatever career you choose, you'll have the satisfaction of looking at a stretch of road and thinking "I helped build that."

### CAREERS

- CIVIL PLANT OPERATOR
- ROADING/PAVEMENT CONSTRUCTION WORKER
- ASPHALT/BITUMINOUS PRODUCTION OPERATOR
- ROADMARKER
- FOREMAN/LEADING HAND
- SITE SUPERVISOR
- PROJECT MANAGER



## WATER/WASTEWATER TREATMENT

New Zealand's crystal clear water is a precious resource that holds the key to our clean, green image, future economic success and the health of our nation. Water is a dynamic and technologically advanced industry with great opportunities. If you're looking for a hands-on career which will give you plenty of variety, lots of new challenges and the ability to work indoors and outdoors then you've come to the right place!

### CAREERS

- SMALL WATER SYSTEMS OPERATOR
- ASSISTANT WATER/WASTEWATER TREATMENT PLANT OPERATOR
- SITE SUPERVISOR
- PROJECT MANAGER
- WATER/WASTEWATER TREATMENT PLANT MANAGER
- DRINKING WATER ASSESSOR (MINISTRY OF HEALTH)
- WATER/WASTEWATER TREATMENT PLANT TECHNICIAN





## RURAL CONTRACTING & AGRICHEMICAL

Agriculture is New Zealand's largest export sector, and our products are known internationally for their quality, freshness, and consistency. Choose a career as a rural contractor or agrichemical applicator and you'll be helping to ensure our agricultural products stay world leaders.

### CAREERS

- RURAL CONTRACTOR
- AGRICHEMICAL APPLICATOR



## HOW DO I GET INTO THE CIVIL INFRASTRUCTURE INDUSTRY?

### STILL AT SCHOOL?

#### Qualifications and useful subjects

Requirements vary, but most employers are looking for people who have completed Year 12 (NCEA Level 2) or equivalent. You'll need a good understanding of written and oral English and mathematics. Science is also useful but not essential.

#### Drivers Licence

Having a full, clean Drivers Licence is a big advantage – make sure you get yours!

### GET YOURSELF OUT THERE

The best way to get into the industry is to go direct to employers in your area. For tips on putting together a great CV visit the Careers NZ website: [www.careers.govt.nz](http://www.careers.govt.nz)

MANY INDUSTRY  
ASSOCIATIONS  
LIST LOCAL  
COMPANIES  
AND/OR JOB  
VACANCIES ON  
THEIR WEBSITES

Civil Contractors NZ - [www.nzcontractors.co.nz](http://www.nzcontractors.co.nz)  
Water NZ - [www.waternz.org.nz](http://www.waternz.org.nz)  
Rural Contractors NZ - [www.ruralcontractors.org.nz](http://www.ruralcontractors.org.nz)  
New Zealand Roadmarkers Federation Inc. - [www.nzrf.co.nz](http://www.nzrf.co.nz)  
New Zealand Institute of Surveyors - [www.surveyors.org.nz](http://www.surveyors.org.nz)  
Institution of Professional Engineers NZ (IPENZ) - [www.ipenz.org.nz](http://www.ipenz.org.nz)  
Civil Engineering Testing Association of NZ - [www.cetanz.org.nz](http://www.cetanz.org.nz)

LOOK OUT FOR JOB VACANCIES IN YOUR LOCAL NEWSPAPER AND ON [SEEK.CO.NZ](http://SEEK.CO.NZ)



## GATEWAY PROGRAMME

The Gateway programme can help you get started – gaining work experience with a local employer while completing relevant unit standards towards your career.

**Sign up for more information on Gateway through our website [www.connexis.org.nz](http://www.connexis.org.nz)**

## CIVIL TRADE CERTIFICATION

This is a nationally recognised programme that acknowledges the specialist skills of people who build New Zealand's infrastructure. Civil Trade Certification combines a recognised trade qualification with certified hours of experience, leading onto registration as a Certified Tradesperson. This programme has been developed in partnership with Civil Contractors New Zealand.

CURRENTLY THERE ARE FIVE AREAS OF SPECIALISATION AVAILABLE:

- **Civil Works**
- **Utilities Maintenance**
- **Pipe Installations**
- **Bituminous Manufacturing**
- **Bituminous Surfacing**

### APPRENTICESHIPS

An apprenticeship is a great way to kick start your career. It usually takes 2-3 years to complete the apprenticeship and obtain a Civil Infrastructure Trades Qualification. During this time you will gain 6,000 hours of industry experience. Once you have your Civil Infrastructure Trades Qualification, you will then need to complete another 2,000 hours of experience at a high level of skill to obtain your total 8,000 hours. You can then apply for your Trade Certificate.

### SECTOR QUALIFICATIONS

If you do not want to commit to a full apprenticeship programme you can get qualified by undertaking separate unit standards. You can start at a Level 2 and undertake higher levels as you progress your career.





WANT TO TAKE THE NEXT STEP?  
TALK TO US TODAY

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CONNEXIS - INFRASTRUCTURE INDUSTRY TRAINING ORGANISATION  
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