

Civil Engineer: Alternative Careers

A guide for newcomers to British Columbia



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1. Civil Engineer: Alternative Careers

You may find that your international training and experience as a civil engineer are not immediately accepted in B.C. The analytical and math skills you have already acquired, along with your problem-solving and communication skills, can be used in alternative careers.

You may wish to get certified as either an Applied Science Technologist (AScT) or Certified Technician (CTech). You can also consider alternative careers in construction.

Alternative Careers

Civil Engineering Technologist / Technician (NOC 2231)

You assist civil engineers in the design and construction of buildings and other structures. You may work in structural engineering, municipal engineering, construction design and supervision, highways and transportation engineering, water resources engineering, geotechnical engineering, environmental protection or technical sales.

Requirements:

Two to three year diploma program for technologists or one to two year program for technicians, PLUS two years of related work experience

Certification:

- See: Applied Science Technologists & Technicians of British Columbia (ASTTBC) Internationally Trained Professionals
<https://asttbc.org/registration/itp/aboutitp/>
- Provisional Membership for Internationally Trained Professionals:
www.asttbc.org/registration/itp/
- Registration Requirements:
www.asttbc.org/registration/technologists/how_to_apply.php
- Free online self-assessment of your academic qualifications and working experience provided by Technology Registrations Canada (TRC)
<https://www.technologyregistrationscanada.ca/content/application-about>

Skills:

- aptitude for science, math and computers
- ability to draw conclusions from data and communicate technical information clearly
- precise and detailed work habits
- practical, hands-on approach
- good interpersonal and problem solving skills
- skills in organization and teamwork

Wages: median hourly wage \$28

Sources: <https://www.workbc.ca/Job-Seekers/Career-Profiles/2231> ; www.asttbc.org

Cost Estimator / Construction Estimator (NOC 2234)

You calculate construction project costs, and how long they will take to complete. You review building drawings and specifications, visit construction sites, and research current material prices.

Requirements:

- Although a diploma in civil or construction engineering is usually required, some positions may accept construction experience
- Certification with the *Canadian Construction Association* (<http://www.goldsealcertification.com>) or the *Quantity Surveyors of British Columbia* (<http://www.ciqs-bc.org>) may be preferred by employers.

Skills:

- strong math, organization, analytical, writing and communication skills
- computer skills with estimating software and document management programs
- interest in planning, decision making, problem solving, working with people, and the financial aspect of construction

Wages: median hourly wage \$35

Source: <https://www.workbc.ca/Job-Seekers/Career-Profiles/2234>

Home & Property Inspector (NOC 2264)

You inspect buildings to identify and report on structural defects, and provide detailed reports on the condition of the property/house being inspected.

Requirements:

- You must be licensed through **Consumer Protection BC** <https://www.consumerprotectionbc.ca/home-inspector-portal>
- Additional information:
Home Inspectors Association BC <http://hiabc.ca/>

Skills:

- strong math, organization and analytical ability
- writing and communication skills
- computer skills
- decision making, problem solving, working with people in different trades and professions with many property interests

Wages: median hourly wage \$36

Source: <https://www.workbc.ca/Job-Seekers/Career-Profiles/2264>

Construction Inspector (NOC 2264)

You inspect buildings, bridges, highways and construction sites to ensure that specifications, building codes and safety regulations are observed

Requirements:

- post secondary education in construction, civil engineering or architectural technology is usually required
- several years of experience as a qualified tradesperson in a construction trade such as plumbing, carpentry or electrical may also qualify you to work as a construction inspector

Skills:

- knowledge of construction techniques, building codes and standards
- well organized and analytical
- ability to communicate information clearly and precisely
- good mathematical skills.

Wages: median hourly wage \$36

Source: <https://www.workbc.ca/Job-Seekers/Career-Profiles/2264>

2. Employment Outlook

Civil Engineering Technologists & Technicians

While most civil technology jobs are found in mid- to large-size cities, jobs in rural areas are available in government departments, transportation, and with consulting firms. Opportunities will be available in both the private sector and government.

Job Openings Outlook in BC (NOC 2231)



Source: www.workbc.ca/careers

Construction Estimators:

The Construction industry is tied to the economy. When the economy is booming, typically construction activity follows and vice versa.

Job Openings Outlook in BC (NOC 2234)



Source: www.workbc.ca/careers

Construction and Home Inspectors:

Employment demand for construction inspectors is largely driven by the construction industry. Building inspection services for prospective home buyers is a growing source of employment.

Job Openings Outlook in BC (NOC 2264)

1.3% Expected annual demand growth rate (2015-2025)	1,080 Job openings (2015-2025)
Occupation Outlook for B.C.:	
% of job openings from replacement	71%
% of job openings from expansion	29%

Source: www.workbc.ca/careers

3. Retraining

You may want to consider upgrading your skills to increase your employment options in this field. The following courses may improve your current skill set:

Engineers Canada has extensive information for internationally trained engineers at **Roadmap to Engineering in Canada** <http://newcomers.engineerscanada.ca/>

Engineering in BC - Langara

Introduction to Engineering in BC at Langara College: Courses are designed to prepare internationally trained engineers with industry specific skills to gain employment in an engineering environment.

<http://www.langara.bc.ca/continuing-studies/programs-and-courses/programs/introduction-to-engineering-in-bc/index.html>

Introduction to Construction Inspection

Public Works Association of B.C. (PWABC) comprehensive construction inspection three day workshop <http://www.pwabc.ca/events/education-programs/>

Home Inspection Certificate Programs - Douglas College

Part-time program; ten courses available, three days per course, offered on weekends. Completion of all courses and exams can lead to certification through Canadian Association of Home and Property Inspectors (BC) .

www.douglas.bc.ca/

House Inspection - BCIT

Part-time certificate program. Completion of all courses can lead to certification as Certified House Inspector (CHI) through Applied Science Technologists and Technicians of BC (ASTTBC) www.bcit.ca/study/programs/5610nobcit

4. Searching for Jobs

Construction Job Centre

www.constructionjobcentre.ca/

MyJobSite.ca

www.myjobsite.ca/

T-Net British Columbia: BC Technology Job Search

www.bctechnology.com/

TechJobs.ca

www.techjobs.ca/

Greater Vancouver Home Builders' Association, Job Bank

www.gvhba.org/careers

Indeed.ca

www.indeed.ca

Neuvoo

<http://neuvoo.ca/en>

Skilled Workers.com

www.skilledworkers.com/

5. Volunteering in the Field

Volunteering can help you to explore a new career and learn more about engineering and technical work in B.C. You will meet new people and build a network of contacts that may lead to information on job openings and an inside connection at a potential employer.

Go Volunteer

<http://govolunteer.ca/>

Volunteer BC

www.volunteerbc.bc.ca/

Society of Internationally Trained Engineers of BC Volunteering

<http://www.sitebc.ca/index.php/jobs-volunteering/volunteering>

Engineers & Geoscientists British Columbia Volunteer Opportunities

<https://www.egbc.ca/Member-Programs/Volunteer>

6. Helpful Resources

Applied Science Technologists & Technicians of BC (ASTTBC)

www.asttbc.org/

Applied Science Technologists & Technicians of British Columbia – Property Inspectors (ASTTBC-PI)

www.asttbcp.org/

British Columbia Construction Association

www.bccassn.com/

Home Inspectors Association B.C.

<http://hiabc.ca/>

Vancouver Regional Construction Association

www.vrca.bc.ca/

Fastest Growing Industries: Construction

Go to <http://skilledimmigrants.vpl.ca>

[Search: Fastest growing industries construction]

Click on 'Job Search Resources' at <http://skilledimmigrants.vpl.ca> for help on:

- resumes & cover letters
- getting Canadian work experience
- networking for employment
- online social networks
- Canadian workplace culture

Questions? Please ask the Information Staff in the Central Library, Vancouver Public Library or telephone 604-331-3603.

Please note that the information in this guide is also available online through the Skilled Immigrant InfoCentre website at <http://skilledimmigrants.vpl.ca/>.