PLUMBER

**PLUMBER PROGRAM
HARMONIZED
IMPLEMENTED APRIL 2019**

ita
YOUR TICKET.

TABLE OF CONTENTS

YOUR TRADES TRAINING

It's an exciting time to be in the skilled trades industry! BC is growing and so is the demand for skilled tradespeople in the province. Almost one million jobs are expected to be created by 2025 in BC, many of them being in the construction industry.

With the increasing number of retirees in the trades community, there is a need for more driven individuals like you to pursue careers in trades. From the building you're sitting in right now to the cars you drove to get there, there are a number of tradespeople that were involved in the design, creation, and maintenance of them.

Congratulations on starting your journey to certification. You are on your way to becoming a key contributor to BC's trade industry and your community.

ABOUT INDUSTRY TRAINING AUTHORITY:

The Industry Training Authority (ITA) leads and coordinates British Columbia's skilled trades system. ITA works with employers, employees, industry, labour, training providers, and government to issue credentials, manage apprenticeships, set program standards, and increase opportunities in the trades.

APPRENTICE RESPONSIBILITIES

Work-Based Hours (WBT) – Reporting your work-based training hours is essential to completing your Apprenticeship. It is your responsibility to confirm with your Sponsor/Employer that your hours have been reported to ITA and applied to your Apprenticeship record.

If your previous Employer has not submitted work based hours for you, the WBT form allows your current Sponsor/Employer to sign off those hours.

You can find a copy of the **work-based training form** here:
www. itabc.ca/sites/default/files/docs/apply/forms/CS005.4-Work-Based-Training-Report.pdf

Sponsor/Employer – If you have changed your employer, it is important to update your Apprenticeship records with this information. Sponsors have the responsibility to sign off work hours and Recommendation for Certification for completion.
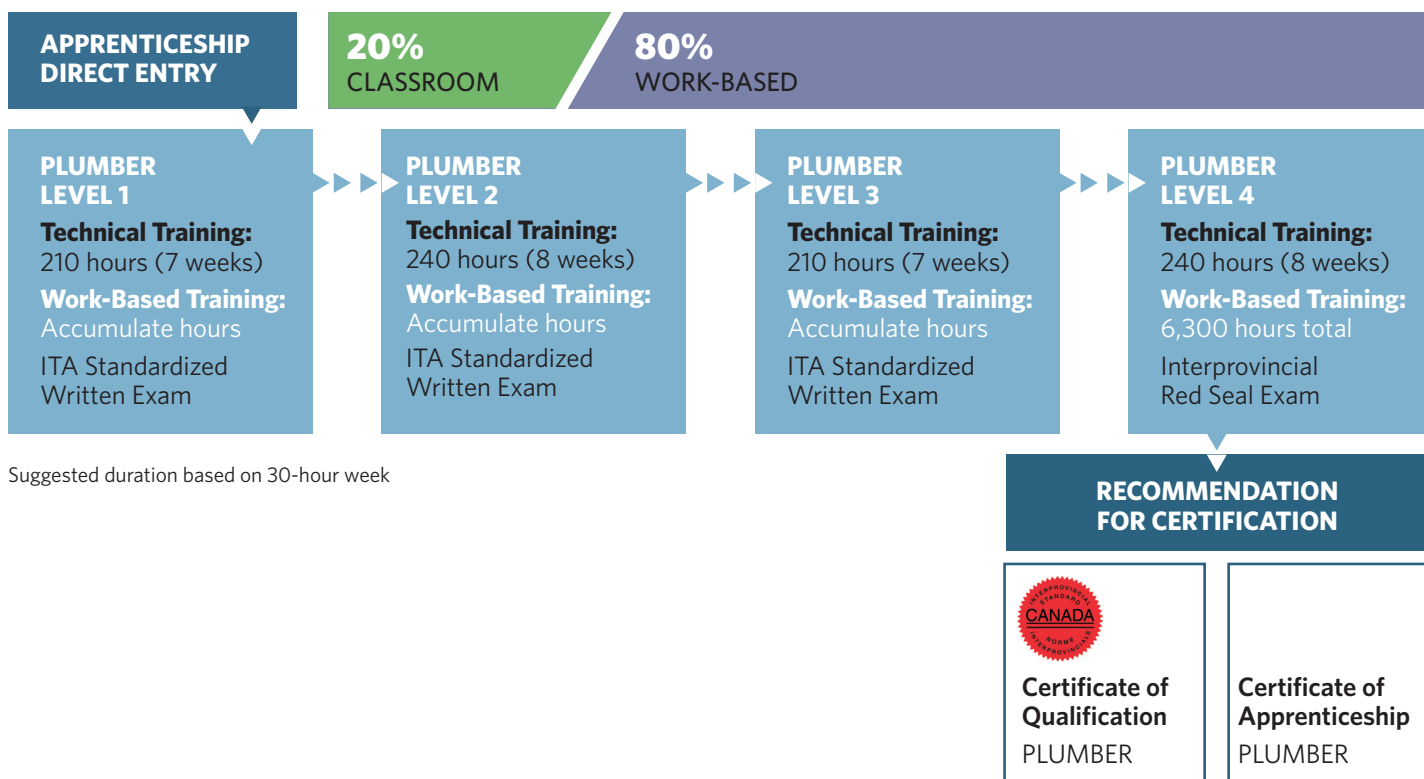
Contact Information – It is your responsibility to ensure your contact information is up to date (address, phone, name changes, etc.) This can be done by logging into Direct Access or phoning Customer Service.

Direct Access – By logging into Direct Access you can view your Apprenticeship records (transcripts, exam marks, etc). www.itabc.ca/apply-apprenticeship/direct-access

Technical Training Registration – Speak with your employer about when will be a good time for you to go back to school for your next level of technical training. Once you and your employer have agreed on a time, it is your responsibility to register for technical training. A list of Designated Training Providers can be found here, www.tradestrainingbc.ca.

It is recommended to have the conversation with your employer and register for technical training ahead of time, as classrooms have limited space.

APPRENTICESHIP PATHWAY –
MAPPING YOUR WAY TO CERTIFICATION

APPRENTICESHIP DIRECT ENTRY	20% CLASSROOM	80% WORK-BASED

PLUMBER LEVEL 1	PLUMBER LEVEL 2	PLUMBER LEVEL 3	PLUMBER LEVEL 4
Technical Training: 210 hours (7 weeks)	**Technical Training:** 240 hours (8 weeks)	**Technical Training:** 210 hours (7 weeks)	**Technical Training:** 240 hours (8 weeks)
Work-Based Training: Accumulate hours	**Work-Based Training:** Accumulate hours	**Work-Based Training:** Accumulate hours	**Work-Based Training:** 6,300 hours total
ITA Standardized Written Exam	ITA Standardized Written Exam	ITA Standardized Written Exam	Interprovincial Red Seal Exam

Suggested duration based on 30-hour week

RECOMMENDATION FOR CERTIFICATION

CANADA

Certificate of Qualification
PLUMBER

Certificate of Apprenticeship
PLUMBER

GAINING COMPETENCIES

Below are skills and knowledge you will gain from technical and hands on training.

Program competencies can change. Check Program Outline, link below, for accuracy.

www.itabc.ca/sites/default/files/docs/Plumber-Program-Jan-2019-Harmonized.pdf

✓ PLUMBER LEVEL ONE

Perform Safety Related Functions
- Maintains Safe Work Environment
- Use Personal Protective Equipment (PPE) and Safety Equipment
- Perform Lock-Out and Tag-Out Procedures
- Practice Fire Prevention

Use Tools and Equipment
- Use Common Tools and Equipment
- Use Access Equipment
- Use Rigging, Hoisting, Lifting and Positioning Equipment
- Rig Loads for Cranes
- Use Soldering and Brazing Equipment
- Use Oxy-Fuel Cutting Equipment
- Use Welding Equipment

Perform Routine Trade Activities
- Use Mathematics and Science
- Interpret Drawings and Specifications
- Use Codes, Regulations and Standards

Prepare Piping and Components
- Prepare Pipe
- Join Tube, Tubing and Pipe
- Install Pipe
- Install Valves
- Install Fittings
- Penetrate Structures

Use Communication Techniques
- Use Communication Techniques

Apply Electrical Concepts
- Use the Principles of Electricity

✓ PLUMBER LEVEL TWO

Use Tools and Equipment
- Use Technical Instruments and Testers

Perform Routine Trade Activities
- Use Mathematics and Science
- Interpret Drawings and Specifications
- Use Codes, Regulations and Standards
- Perform Piping System Layout

Install Plumbing Fixtures and Appliances
- Install Fixtures
- Install Appliances

Install Drainage, Waste and Vent (DWV) Systems
- Install Sanitary Drainage Systems
- Install Storm Drainage Systems
- Test Sanitary and Storm Drainage Systems

Install Hydronic Systems
- Interpret Heating and Cooling Systems
- Install Piping and Components for Hydronic Systems
- Install Hydronic Heating and Cooling Generating Systems
- Install Hydronic Transfer Units

Plan Gas-Fired Appliance System Installations
- Select Gas-Fired Appliances

✓ PLUMBER LEVEL THREE

Perform Routine Trade Activities
- Interpret Drawings and Specifications
- Use Codes, Regulations and Standards

Install Sewers and Sewage Treatment Systems
- Install Piping for Sewers
- Install Manholes and Catch Basins

Install Water Services and Distribution Systems
- Install Water Services
- Install Potable Water Distribution Systems

Install Cross Connection Control Devices and Assemblies
- Install and Test Cross Connection Control Devices and Assemblies
- Service Cross Connection Control Devices and Assemblies

Install Hydronic Systems
- Install Piping and Components for Hydronic Systems
- Install Hydronic System Controls

Install Specialized Systems
- Install Piping for Specialized Systems
- Install Equipment and Components for Specialized Systems
- Test Specialized Systems
- Service Specialized Systems
- Commission Specialized Systems

Apply Electrical Concepts
- Use Electrical Wiring Diagrams and Schematics
- Apply Wiring Practices

Plan Gas-Fired Appliance System Installations
- Size Piping and Tubing Systems
- Select Flame Safeguards
- Select Burners

Install Gas-Fired Systems
- Install Piping and Tubing Systems

✓ PLUMBER LEVEL FOUR

Perform Routine Trade Activities
- Interpret Drawings and Specifications

Install Plumbing Fixtures and Appliances
- Commission Fixtures and Appliances
- Service Fixtures and Appliances

Use Communication Techniques
- Use Mentoring Techniques

Install Sewers and Sewage Treatment Systems
- Test Manholes, Catch Basins and Piping for Sewers
- Service Manholes, Catch Basins and Piping for Sewers
- Install Sewage Treatment System Components
- Test Sewage Treatment Systems and Components
- Service Sewage Treatment Systems and Components

Install Drainage, Waste and Vent (DWV) Systems
- Service Sanitary and Storm Drainage Systems

Install Water Services and Distribution Systems
- Test Water Service and Distribution Systems
- Service Water Service and Distribution Systems
- Commission Water Service and Distribution Systems

Install Pressure Systems
- Install Piping for Pressure Systems
- Install Equipment for Pressure Systems
- Test Pressure Systems
- Service Pressure Systems
- Commission Pressure Systems

Install Hydronic Systems
- Test Hydronic Systems, Components and Controls
- Service Hydronic Systems, Components and Controls
- Commission Hydronic Systems, Components and Controls

Install Water Treatment Equipment
- Install Water Treatment Equipment
- Test and Commission Water Treatment Equipment
- Service Water Treatment Equipment

Install Specialized Systems
- Install Piping for Specialized Systems
- Install Equipment and Components for Specialized Systems
- Test Specialized Systems
- Service Specialized Systems
- Commission Specialized Systems

Apply Electrical Concepts
- Apply Single Phase Motor Theory
- Apply Three Phase Motor Theory
- Interpret the Canadian Electrical Code (CEC)

Plan Gas-Fired Appliance System Installations
- Select Regulators, Valves and Valve Train Components
- Plan a Project

Install Gas-Fired Systems
- Install Regulators, Valves and Valve Trains
- Install Air Supply Systems
- Commission Fuel/Air Delivery Systems

STANDARDIZED LEVEL EXAMS (SLE)

Standardized Level Exams (SLEs) are usually written on the last day of in-school training and will count for 20% of your overall mark.

Below is a list for general areas of competencies covered in SLEs for each level.

The list of competencies covered in the SLEs can change.
Check the **Exam Weighting Charts** for accuracy at:

www.itabc.ca/program/plumber

LEVEL 1	LEVEL 2	LEVEL 3
A. Perform Safety Related Functions	B. Use Tools and Equipment	C. Perform Routine Trade Activities
B. Use Tools and Equipment	C. Perform Routine Trade Activities	G. Install Sewers and Sewage Treatment Systems
C. Perform Routine Trade Activities	E. Install Plumbing Fixtures and Appliances	I. Install Water Services and Distribution Systems
D. Prepare Piping and Components	H. Install Drainage, Waste and Vent (DWV) Systems	J. Install Cross Connection Control Devices and Assemblies
F. Use Communication Techniques	L. Install Hydronic Systems	L. Install Hydronic Systems
O. Apply Electrical Concepts	P. Plan Gas-Fired Appliance System Installations	N. Install Specialized Systems
		O. Apply Electrical Concepts
		P. Plan Gas-Fired Appliance System Installations
		Q. Install Gas-Fired Systems

REMINDERS

- You must bring a piece of Government PHOTO identification. The ID must be VALID and CURRENT. Expired IDs and IDs with no expiry date will not be accepted.

- Your Training Provider will inform you of the time and location of the exam. Arrive early.

RED SEAL INTER-PROVINCIAL EXAM (IP)

The Red Seal Inter-Provincial Exam covers a whole range of competencies from all your levels of technical training.

The table below is a general breakdown of areas of competencies covered in the Red Seal IP exam.

The areas of competencies covered in the Red Seal IP exam can change. Check **IP Table** for a detailed exam breakdown: www.itabc.ca/sites/default/files/program-information/plumber-ip-table-2016.pdf for accuracy.

TASK A | Performs Common Occupational Skills	Task 1	Performs Safety-Related Functions
	Task 2	Uses and Maintains Tools and Equipment
	Task 3	Organizes Work
	Task 4	Performs Routine Trade Activities
	Task 5	Uses Communication and Mentoring Techniques
TASK B | Prepares and Assembles Pipe	Task 6	Prepares Pipe
	Task 7	Joins Tube, Tubing and Pipe
TASK C | Installs, Tests and Services Sewers, Sewage Treatment Systems and Drainage, Waste and Vent (DWV) Systems	Task 8	Installs, Tests and Services Sewers
	Task 9	Installs, Tests and Services Sewage Treatment Systems
	Task 10	Installs, Tests and Services Interior Drainage, Waste and Vent (DWV) Systems
TASK D | Installs, Tests and Services Water Service and Distribution	Task 11	Installs, Tests and Services Water Services
	Task 12	Installs, Tests and Services Potable Water Distribution Systems
	Task 13	Installs, Tests and Services Pressure Systems
TASK E | Installs, Tests and Services Fixtures, Appliances, and Water Treatment Systems	Task 14	Installs, Tests and Services Plumbing Fixtures and Appliances
	Task 15	Installs, Tests and Services Water Treatment Equipment
TASK F | Installs, Tests and Services Low Pressure Steam and Hydronic Heating and Cooling Systems	Task 16	Installs, Tests and Services Low Pressure Steam Systems
	Task 17	Installs, Tests and Services Hydronic Heating and Cooling Piping Systems
	Task 18	Installs, Tests and Services Hydronic Heating and Cooling Generating Systems
	Task 19	Installs, Tests and Services Hydronic System Controls and Transfer Units
TASK G | Installs, Tests and Services Fire Protection Systems (Not Common Core)	Task 20	Installs, Test and Services Flow-Through Fire Protection Systems (Not Common Core)
	Task 21	Installs, Test and Services Standpipe Systems (Not Common Core)
TASK H | Installs, Tests and Services Specialized Plumbing Systems	Task 22	Installs, Test and Services Specialized Systems
	Task 23	Installs, Test and Services Process Piping Systems

Note: Based on the Plumber Red Seal Occupational Standard (RSOS).
A copy of the Plumber RSOS is available at www.red-seal.ca

FINAL PIECE FOR YOUR RED SEAL INTER-PROVINCIAL CERTIFICATION

Once you pass your red seal exam these are the next steps:

1. Ensure your work-based training hours have been submitted and reached achieved status.
Check your status in Direct Access.

2. The Recommendation for Certification (RFC) will be automatically emailed to your Sponsor/Employer.
Once received, both the Sponsor and Journeyperson will sign the form and submit to ITA for processing.

3. ITA will verify and process the RFC, the Certificates will then be printed for mailing.
   - Certificates are mailed to your Sponsor.
   - If your Sponsor had indicated on the RFC form to send Certificates to the Apprentice,
they will be mailed to the address noted on your Apprenticeship record in Direct Access.

---

ita
YOUR TICKET.

ITA Customer Service
800 8100 Granville Avenue,
Richmond, BC V6Y 3T6
Tel 778-328-8700
Toll Free: 1-866-660-6011
Fax 778-328-8701
customerservice@itabc.ca

RECOMMENDATION FOR CERTIFICATION FORM

This form is to recommend for certification an apprentice who has completed the requirements of a program.
Please complete section A and return the completed signed form to us at customerservice@itabc.ca. Missing
information may delay the process.

Sponsor Information:

Organization: ABC123 Electrical LTD.	Org ID: 123456
	Primary Contact: Pat Jones
Address: 4321 ABEC Street Vancouver, V3B2G2	Email Address: patjones@abcemail.com

Apprentice Information:

Full Legal Name: Jessie Lee	ITA ID# 654321
Program: Residential Electrician	Email Address: leejessie@123email.com

Section A: Recommendation for Certification By Sponsor (and Certified Journeyperson or individual with Supervision and Sign-off Authority)

RELEASE OF CERTIFICATES sent to the sponsor directly unless indicated otherwise. Apprentice check address in DA.
☐ Send to Sponsor   ☐ Send to Apprentice

SPONSOR	JOURNEYPERSON
I/We hereby confirm that the trainee/apprentice named above is working at the skill and competency level of a certified journeyperson and recommend certification.	**Print Full Name of the Certified Journeyperson or individual with Supervision and Sign-Off Authority** who has supervised this apprentice and is recommending him/her certification **(may be same as Sponsor, or a different individual)**
Bob Smith	Jason Jones
(Signed) Name	Name
	signature
Jan 1, 2016	Signature
Date Signed	Jan 1, 2016
Please note: The Certified Journeyperson or the individual with Supervision and Sign-off Authority (who supervised this apprentice) must always sign this form. The Certified Journeyperson or the individual with Supervisor and Sign-off Authority must provide all the details requested in the box to the right and must be certified at the same level or higher than the apprentice or in another approved trade that is recognized by ITA as having similar competencies.	Date Signed
	Residential Electrician
	Trade Name Province Issued
	Certificate Number (below):
CERTIFICATION NOT RECOMMENDED BY SPONSOR: I/We hereby confirm that the apprentice named above is NOT recommended for certification at this time. Please fill out an **RFC Form B** to complete this recommendation.	12345AB01
signature	☐ Certificate of Qualification ☐ ITA Sign-off Authority ☐ Interprovincial (Red Seal)
Sponsor Signature Date	**If the Journeyperson's credential was awarded outside of BC attach a copy of the certificate or wallet card.**

Page | 1   **www.itabc.ca**
Connect with us

BRITISH COLUMBIA

FREQUENTLY ASKED QUESTIONS

HOW DOES MY SPONSOR/EMPLOYER SUBMIT HOURS?

The sponsor/employer will submit Work Based Training Hours via Direct Access, email, mail, or fax.

WHAT IF I WORKED FOR A SPONSOR/EMPLOYER AND THEY DID NOT SUBMIT MY HOURS?

You can talk to your current sponsor to see if they are willing to submit the hours for the work you did previously on a work based training report.

DOES MY SPONSOR/EMPLOYER HAVE TO LET ME GO TO SCHOOL?

You need to discuss your plans for school with your sponsor/employer to see if they are able to release you to go to school. Let them know of upcoming training locations and dates.

HOW DO I KNOW WHAT MY GRADES ARE FOR SCHOOL?

The Trades Training school will submit your marks to ITA. You and your sponsor/employer will receive a notice by email.

WHERE DO I GET MY PROGRESSION LETTER?

Upon completion of your technical training and required work-based hours for Level 1 and 2, ITA will send you the Progression Letter by email. Required number of work place hours by level can be found at

www.itabc.ca/grants-tax-credits/grants

You will need this Progression Letter to apply for your Apprenticeship Incentive Grant.

www.servicecanada.gc.ca/eng/goc/apprenticeship/incentivegrant/program.shtml

WHEN I FINISH ALL MY TRAINING AND REQUIRED HOURS, AM I CERTIFIED?

No, first ITA will email the Employer Recommendation for Certification document to your sponsor after you have passed the Red Seal Inter-Provincial Exam. This must be signed by a certified tradesperson (your trade) and returned to ITA. ITA will send your Certificate of Apprenticeship, Certificate of Completion and Interprovincial Red Seal Endorsement certificates to your sponsor/employer.

ARE THERE ANY GRANTS FOR FINISHING MY CERTIFICATION?

Yes. You can apply for the Apprenticeship Completion Grant once you receive your Red Seal Inter-Provincial Endorsement Certificate. You will need a copy of your certificates to apply.

www.servicecanada.gc.ca/eng/goc/apprenticeship/completiongrant/application.shtml

ARE THERE ANY INCENTIVES FOR MY EMPLOYER?

Employers can apply for Tax Credits as their apprentice progresses through the trade. The tax information letter can be found on Direct Access.

FINANCIAL SUPPORT FOR APPRENTICES

As a registered apprentice, you can apply for financial support. You're also eligible to apply for Employment Insurance. Federal and provincial financial support information can be found in the two links below:

www.itabc.ca/grants-tax-credits/grants

www.esdc.gc.ca/en/reports/apprentices/support_brochure.page

Apprentice Supports*	Direct Entry Apprenticeship Hired and registered by Sponsor without prior Foundation/ apprentice training	Foundation Training (a.k.a: pre-apprentice)	Apprentice Technical Training (Levels 1, 2, 3, 4)
Skills Training Funding Tuition* See Notes A+C		✓	
Indigenous Skills Training Funding Tuition* (eligible Indigenous applicants) ISETS agencies See Notes A+C		✓	✓
Student Aid/Loans* Only Foundation Training over 12 weeks long BC ACCESS Grant (only for training in high demand trades) Bursaries and Scholarships		✓	
Canada Apprentice Loan			✓
Wage Subsidy (new hires)* WorkBC / ISETS agencies	✓		
Other Resources* STEP See Note D	✓		
EI and AOP: Apprentice Financial Benefits for Apprentice Training * (Apprentice Supports Online Portal) WorkBC and Service Canada (for EI-eligible clients) [2]			✓
Training Tax Credits Non-Red Seal and Red Seal* Credit amount varies, please refer to CRA			✓
Incentive and Completion Grants, Red Seal Trades* Service Canada		✓	✓
ITA Website Resources* (www.itabc.ca) Direct Access Online Apprenticeship Reporting Trade Profile	✓	✓	✓

*Support is dependent on eligibility and varies by trade, level of training, and whether or not it is a Red Seal or Non-Red Seal trade.

Note A: WorkBC and Indigenous resources: ISETS agencies, Victoria Foundation, Bands, bursaries, scholarships, STEP
Note B: Bursaries may be available through individual training institutions
Note C: Youth Work in Trades and Youth Train in Trades coordinated through School Districts
Note D: Skilled Trades Employment Program (STEP) is available in several communities to assist Canadians in entering trade careers.

NOTES

CONNECT WITH US!

www.itabc.ca

@ **CONTACT EMAIL OR CALL**

778.328.8700 or call TOLL FREE in BC: 1.866.660.6011

customerservice@itabc.ca

Our customer experience representatives are accessible, from 8:00 a.m. to 4:30 p.m. PT, Monday to Friday, and can provide you with quick and easy access to information regarding all of ITA's services. Call or email us today for information on training and apprenticeship, including registration, examinations and certification, or to answer any other questions you may have.

CONNECT LOCALLY

Looking for someone to help you in your community? ITA has regional Apprenticeship Advisors across the province to support local skilled trades apprentices and employers. Find the Apprenticeship Advisor closest to you—all you need is your postal code.

Do you want to learn more about how ITA works with industry? Feel free to contact any of our Industry Relations Team to better understand each industry's needs in BC and to learn more about how they are working to ensure we have the right skilled workers where they are needed.

VISIT CUSTOMER CENTRE

ITA's Customer Support Centre

8th Floor – 8100 Granville Avenue, Richmond, BC V6Y 3T6

We are happy to serve you in-person at our Richmond Customer Support Centre, and through our regional Apprenticeship Advisors, who are available to serve you in communities across the province.

SUBSCRIBE TO TRADES TALK

Keep up to date on ITA in action as well as other trades and industry news by subscribing to our quarterly newsletter, Trades Talk.

---

f Industry Training Authority   @ita_bc   @ita_bc   You Tube ITA BC

BRITISH COLUMBIA | ita

2020 Edition