

# FRASER VALLEY ENERGY STEP CODE SUPER SERIES

Expand your understanding and enhance your knowledge of the BC Energy Step Code with foundational, essential, and emerging topics explored in this comprehensive workshop series. Hands-on workshops will blend theory, demonstration and interactive activities to boost your skills.

CPD credits available for each session.

## WORKSHOPS

Conveniently offered in locations throughout the Fraser Valley and one session on-campus at BCIT's High Performance Building Lab.

All workshops run from 8 am - 12 noon.  
Breakfast served at 7:30 am.

May 7	Abbotsford	Energy Step Code & Compliance Best Practices
May 14	Abbotsford	Low-TEDI Building Envelopes
May 22	Chilliwack	Airtightness
June 4	Burnaby (BCIT campus)	Essentials of Heat Pumps
<i>Free bus transportation to BCIT is provided.</i>		
June 17	Mission	Adopting an Integrated Design Process

## WHO SHOULD ATTEND

Suitable for builders, architects, designers, building inspectors, energy advisors, contractors, trades, real estate agents, and those interested in high performance building systems, processes and best practices.

## INFORMATION

[abbotsford.ca/buildingworkshop](http://abbotsford.ca/buildingworkshop)

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# FRASER VALLEY ENERGY STEP CODE SUPER SERIES

## WORKSHOP 1

### ENERGY STEP CODE & COMPLIANCE BEST PRACTICES

#### WORKSHOP 1: ENERGY STEP CODE & COMPLIANCE BEST PRACTICES

MAY 7, 2024

8:00 AM - 12 NOON | BREAKFAST: 7:30 AM

LEGACY BANQUET HALL (ABBOTSFORD EXHIBITION PARK)  
3270 TRETHERWEY ST, ABBOTSFORD

In this session, you will review the updated Energy Step Code requirements and hear about the Zero Carbon Step Code. Through case studies and discussion, this session will provide an opportunity to compare and contrast the metrics and design strategies to achieve the metrics including their impact on cost and construction. This session will review best practices for compliance, documentation requirements, and collaboration with AHJ from permitting through construction.

#### Participants in this session will learn to:

- Explain the fundamentals of BC Energy Step Code and Zero Carbon Step Code metrics and compliance
- Identify strategies to achieve metrics and their relative impact on cost and construction
- List best practices from project conception to owner hand-over to ensure compliance with requirements
- Explain how to find project team that can support compliance for each project



#### BCIT Instructor: Alex Hebert with industry experts

This 3 hour and 45 minute workshop (excluding breaks) is delivered in a combination of lecture and workshop activities, case studies, expert panel.



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# FRASER VALLEY ENERGY STEP CODE SUPER SERIES

## WORKSHOP 2

### LOW-TEDI BUILDING ENVELOPES

#### WORKSHOP 2: LOW-TEDI BUILDING ENVELOPES

MAY 14, 2024

8:00 AM - 12 NOON | BREAKFAST: 7:30 AM

LEGACY BANQUET HALL (ABBOTSFORD EXHIBITION PARK)  
3270 TRETHERWEY ST, ABBOTSFORD

In this session, you will review the key building science and construction of low-TEDI building enclosures (airtight, thermally efficient assemblies with high performance windows and doors). The session will focus on comparing solutions to achieve the BC Energy Step Code performance metrics (TEDI and ACH) applying knowledge of assembly durability, fire resilient and low-carbon material selection, building science, and constructability.

#### Participants in this session will learn to:

- Explain the fundamentals of low-TEDI (thermally efficient) building enclosures
- Compare the materials (optimal performance, constructability, and lower embodied carbon) and construction approaches for low-TEDI assemblies (roofs, walls, below-grade) and components (windows & doors)
- Explain building science considerations in various low-TEDI assemblies
- Explain how to find or train trades to implement project low-TEDI details (high performance windows, low thermal bridge details, insulation)



#### BCIT Instructors: James Bourget and Geoff Kirkpatrick

This 3 hour and 45 minute workshop (excluding breaks) is delivered in a combination of lecture and workshop activities using assembly mockups for demonstration and comparison.



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# FRASER VALLEY ENERGY STEP CODE SUPER SERIES

WORKSHOP 3

AIRTIGHTNESS

## WORKSHOP 3: AIRTIGHTNESS

MAY 22, 2024

8:00 AM - 12 NOON | BREAKFAST: 7:30 AM

CHILLIWACK CITY HALL  
8550 YOUNG STREET, CHILLIWACK

In this session, you will learn how to achieve your project's building airtightness metric with confidence starting with pre-construction design reviews and air barrier system planning. Through workshop activities and practice demonstrations and construction mockups, you will be introduced to air barrier approaches and details and develop an outline for your own airtightness project plan including design detailing, trades coordination, scheduling/sequencing of work, and quality control.

### Participants in this session will learn to:

- Explain the fundamentals of airtightness and testing
- Compare the materials and construction approaches for different air barrier strategies
- List best practices from pre-construction to construction to final testing to ensure airtightness metric is achieved
- Explain how to find or train trades to support project airtightness



### BCIT Instructors: Graham Beatty and Emma Conway

This 3 hour and 45 minute workshop (excluding breaks) is delivered in a combination of lecture and workshop demonstrations.



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## WORKSHOP 4

### ESSENTIALS OF HEAT PUMPS

#### WORKSHOP 4: ESSENTIALS OF HEAT PUMPS

JUNE 4, 2024

8:00 AM - 12 NOON

BCIT, BURNABY CAMPUS

3700 WILLINGTON AVE, BURNABY

In this session, you will get an overview of heat pump technology for heating, cooling and domestic hot water. Instructors will discuss the best practices from design through and installation to ensure that systems perform as expected and occupants see improved performance and comfort. You will learn what's needed to do a proper installation of heat pumps in residential buildings, from single-family homes to quadplexes. This seminar has been designed for builders, designers, and other industry parties that work in residential construction. BCIT's newly expanded lab boasts 7 dedicated stations, covering a wide range of heat pump systems, from ductless to ducted and single-zone to multi-zone. We even have a dual fuel heat pump system to explore.

#### Participants in this session will learn to:

- Explain the fundamentals of heating, cooling, and heating domestic hot water a net zero home with heat pumps
- Compare the differences of various types of heat pump systems
- List best practices and documentation/submittals to ensure a quality design
- Identify visible features of a quality installation



- Explain how to find qualified contractors for design and installation

#### BCIT Instructors: **Graham Beatty and Eddie Calder**

This 3 hour and 45 minute workshop (excluding breaks) is delivered in a combination of lecture and workshop demonstrations in the BCIT Residential Heat Pump Lab.

*Free bus transportation to BCIT is provided.*



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# FRASER VALLEY ENERGY STEP CODE SUPER SERIES

## WORKSHOP 5

### ADOPTING AN INTEGRATED DESIGN PROCESS

#### WORKSHOP 5: ADOPTING AN INTEGRATED DESIGN PROCESS

JUNE 17, 2024

8:00 AM - 12 NOON | BREAKFAST: 7:30 AM

CLARK THEATRE

33700 PRENTIS AVE, MISSION

In this session, you will get an overview of what “integrated design process” means, the value proposition, and how adopting an integrated design approach might change your usual process and activities as a builder. Through discussion and workshop activities participants will get a practical exposure to IDP activities and apply knowledge to shape design and make key decisions that achieve the best possible outcomes and value for the design and construction team and the homeowner. Session instructors have adopted IDP into their Part 9 design and construction projects and will share lessons learned and tips to help builders use IDP to reduce risk and maximize value.

#### Participants in this session will learn to:

- Explain the fundamental characteristics and value of an integrated design approach
- Explain design or construction expertise needed to support IDP
- List best practices and key activities for IDP
- Explain how early design and pre-construction collaboration, information, and decisions can impact project value and reduce risk



**BCIT Instructor:** Emma Conway

**Facilitator:** Alex Hebert

This 3 hour and 45 minute workshop (excluding breaks) is delivered in a combination of lecture and workshop activities.



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