

CITY OF NEW WESTMINSTER:

Spring 2022 Virtual Builder & Designer Breakfast

Prepared by:

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Prepared for:

Builder & Designer Breakfast

May 26th, 2022

AGENDA

1. Welcome
2. Carbon Impact of Part 9 Buildings
 - Special Guest – Einar Halbig, E3 Eco Group
3. ZEBx's Capacity Building Initiatives and Resources
 - Presentation by Roberto Pecora, ZEBx
4. ESNW Updates
 - Recent Case Studies
 - Green Building Training Opportunities
 - CleanBC Better Homes New Construction Program
5. Close



TODAY'S KEYNOTE SPEAKER

Einar Halbig

- Managing Partner at E3 Eco Group & Energy Advisor since 2002
- Einar has been an instructor of Building Science training and Energy Advisor training since 2010 with over 25 years of education and experience in residential construction.
- E3 Eco Group is a building consulting firm providing sustainability solutions for Step Code, sustainability programs, and carbon reduction.



Energy Save New West Updates

RECENT CASE STUDIES



490 Furness Street (Childcare Facility)

Project Summary:

- Energy Step Code – Level 2
- Energy Performance – Overall 45% Better than Code (61% if lighting/electronics/appliances excluded)
- EnerGuide Rating - 54 GJs
- Rated GHG Emissions – 0.7 tonnes/year
- Air Tightness – 0.9 ACH @ 50 Pa

Key Features:

- Effective R-Values – R19 (main walls) & R37 (ceilings)
- Windows – ENERGY STAR® low-e windows (USI 1.5)
- Heating & Cooling – Electric furnace with integrated heat pump (HSPF 8.2 & SEER 14)
- Ventilation – HRV @ 63% & 59% SRE

RECENT CASE STUDIES



307 Seventh Street (Single-Family Detached)

Project Summary:

- **Energy Step Code** – Level 5
- **Energy Performance** – Overall 47% Better than Code (71% if lighting/electronics/appliances excluded)
- **EnerGuide Rating** - 48 GJ
- **Rated GHG Emissions** – 0.2 tonnes/year
- **Air Tightness** – 0.62 ACH @ 50 Pa

Key Features:

- **Effective R-Values** – R40 (main walls) & R28-30 (ceilings)
- **Windows** – Triple pane (USI 1.0 & USI 0.79)
- **Heating & Cooling** – Electric furnace with integrated heat pump (HSPF 9.04 & SEER 19)
- **Ventilation** – HRV @ 69% SRE
- **Notes** – Third project to achieve Energy Step Code Level 5

RECENT CASE STUDIES

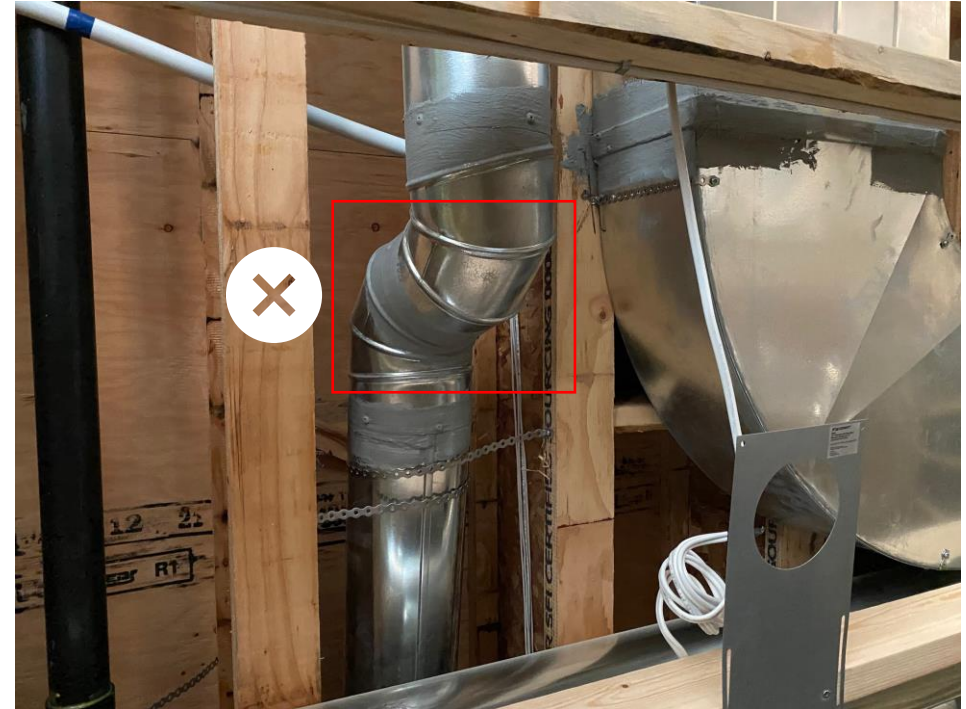
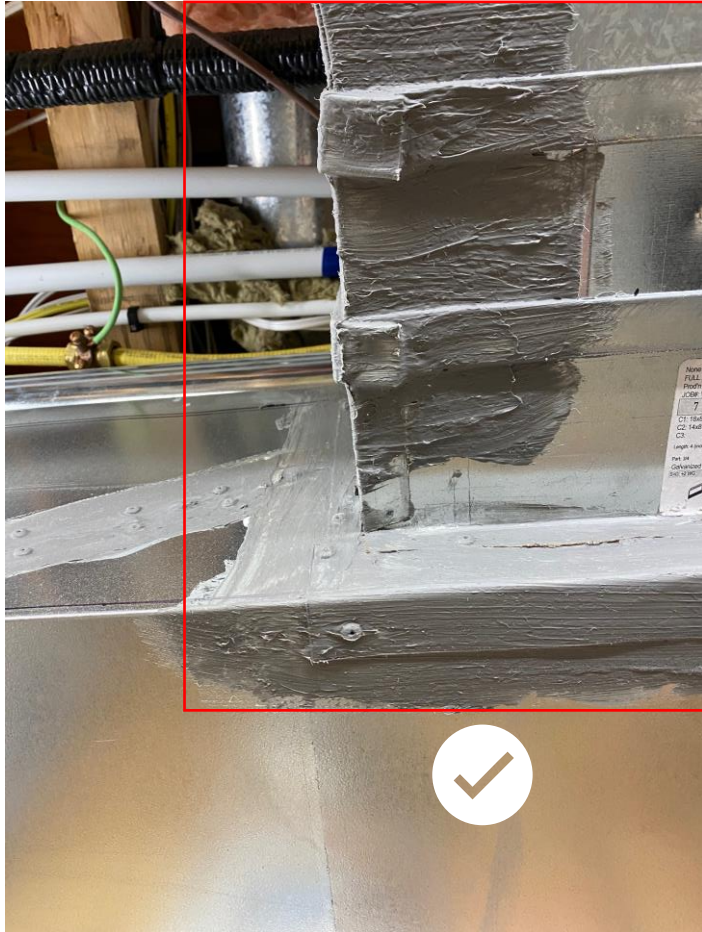


1815 Edinburgh Street (Single-Family Detached)

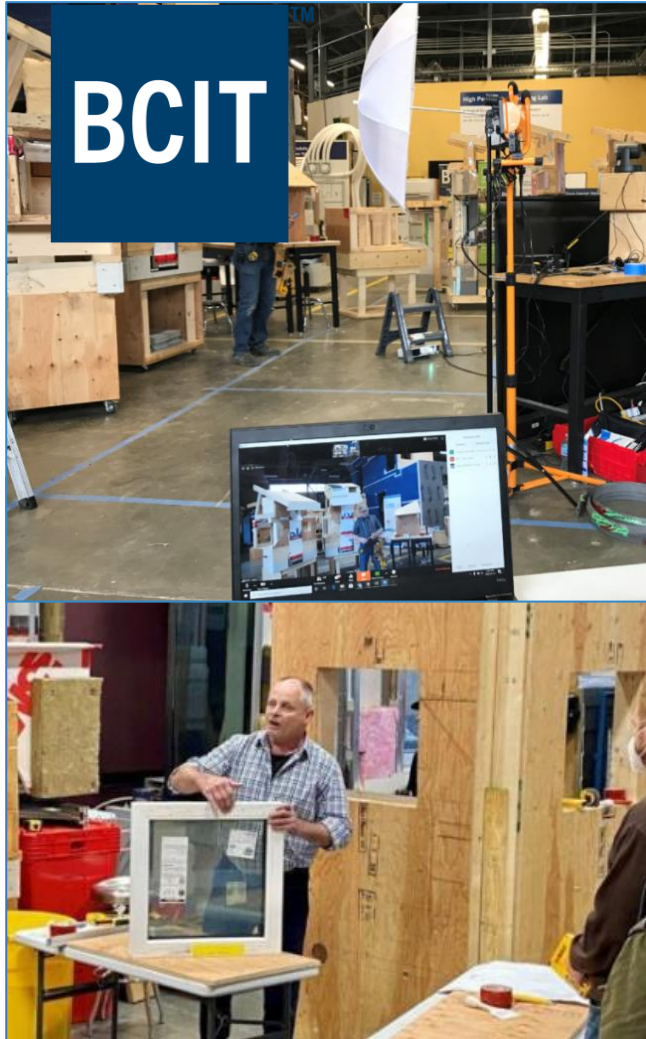
Mid-Stage Project Update:

- Energy Step Code - Level 5
- Participating in Coordinated / HVAC Design pilot
- City intervention at Design Stage to address deficiencies in load calculation and HVAC design
- Mid-stage construction achieved targeted 1.0 ACH
- Issues with duct sealing identified for remediation

RECENT CASE STUDIES



GREEN BUILDING TRAINING OPPORTUNITIES



Subsidies for BCIT High Performance Building Courses (50% of the cost up to \$550 per course):

- XZEB 1001 Fundamentals of Zero Energy/Emissions and Passive House Buildings
- XZEB 1120 Airtightness and Low-TEDI Enclosures
- XZEB 1140 Introduction to Residential Mechanical Systems
- XZEB 1150 Introduction to Solar Photovoltaic & Electrical Systems
- And more!

How to Apply:

- Step 1: Contact BCIT to confirm eligibility and reduced tuition fees. You will need to submit a) permit number for a current or past construction project in CNW or b) current business license in the CNW.
- Step 2: Registration can be completed online or by contacting BCIT.

Contact Mary McWilliam @ BCIT for more information - mmcwilliam3@bcit.ca

CLEANBC'S NEW CONSTRUCTION PROGRAM

Now Accepting Registrations!

CleanBC Better Homes New Construction Program
Reopened:

- Up to \$15,000 available in rebate including \$1,000 for Energy Advisor Support
- 2 Pathways:
 - ✓ Energy Step Code Pathway – Up to \$14,000
 - ✓ Heat Pump Pathway – Up to \$4,000
- Eligible for Single-family, Laneway, Duplex/Triplex, and Row/town homes.
- Visit [CleanBC Better Homes website](#) for more information.



Source: CHBA/ CleanBC Better Homes

FALL 2022 BUILDER & DESIGNER BREAKFAST EVENT

In the next event, we will discuss:

- Topic: Embodied Carbon
- When: September – October 2022



Image source: Boston Society of Architects

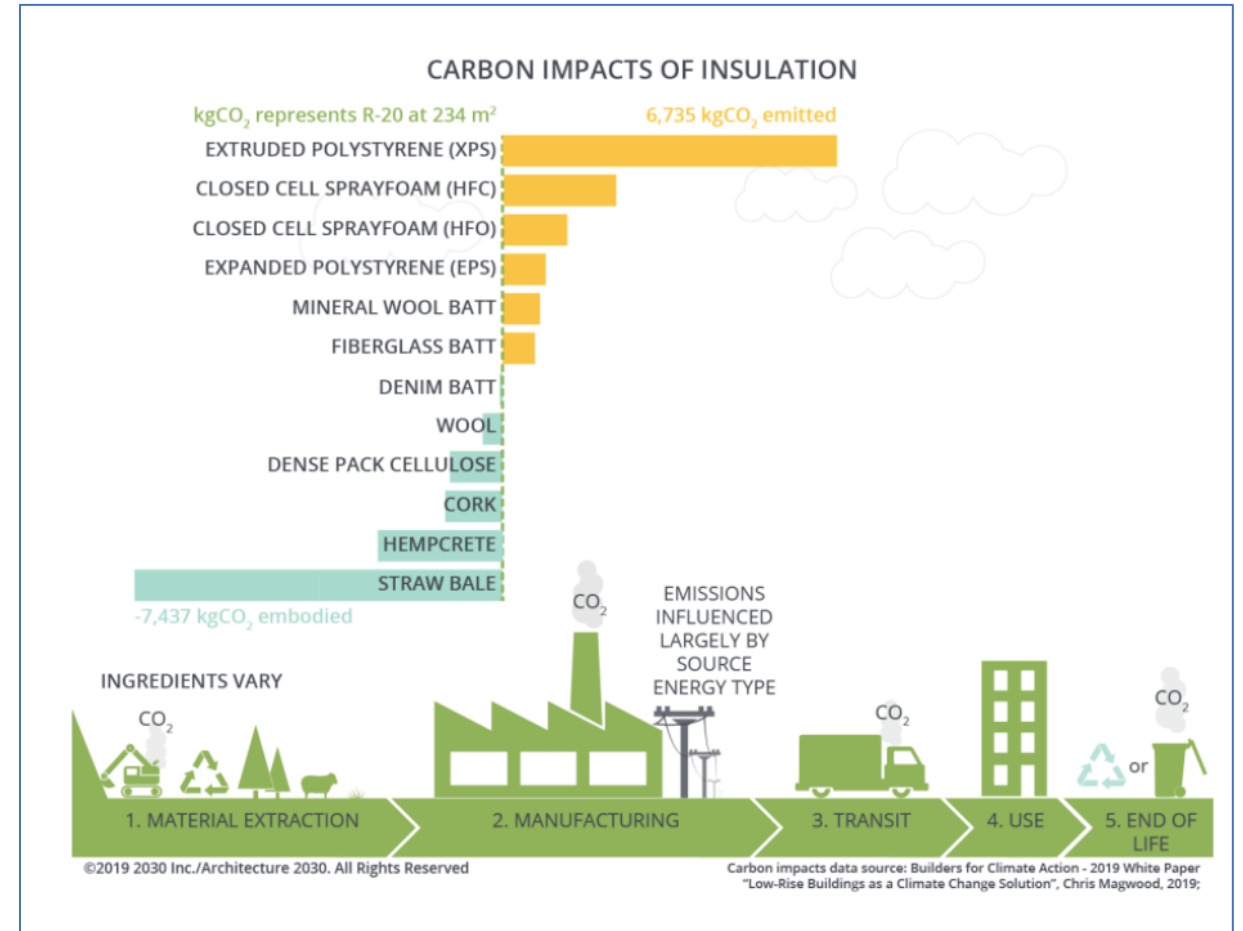


Image source: Architecture 2030

THANK YOU

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