



# CITY OF NEW WESTMINSTER:

## Fall 2024 Virtual Builder & Designer Breakfast

*Prepared by:*

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Laura Sampliner, Karin Johnson, and Sarah Maleska, City of New Westminster

*Prepared for:*

Builder & Designer Breakfast

**December 12<sup>th</sup>, 2024**

# Land Acknowledgement

*We recognise and respect that New Westminster is on the unceded and unsurrendered land of the Halkomelem speaking peoples. We acknowledge that colonialism has made invisible their histories and connections to the land. As a City, we are learning and building relationships with the people whose lands we are on.*



# HOUSEKEEPING



**This webinar is being recorded.**



**Please identify yourself by name, and profession.  
e.g. Sue/Project Manager**



**Please remain muted unless you need to speak.**



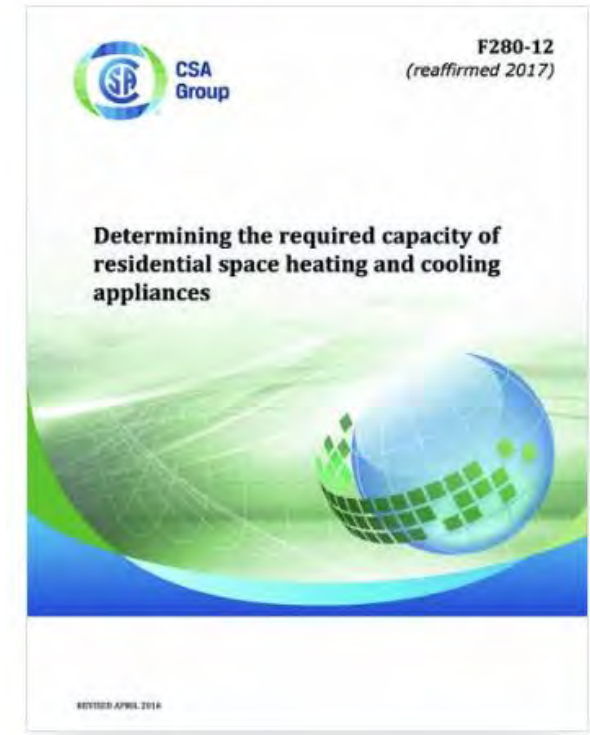
**Q & A time will follow presentation.**



**During the presentation, use the chat box to ask questions.**

# AGENDA

1. Welcome
2. City Updates: New Team Member & Policy Updates
3. Keynote Presentation on:  
“Right-Sizing HVAC Equipment & CSA F280 for Part 9 Buildings”
  - Special Guest – Todd Backus, TECA
4. Questions & Answers
5. Energy Save New West: Program Updates & Discussion
6. Close



# City Updates: New Team Member & Policy

# Climate Action Division Work Plan Highlights

- Clearly define what a **low-carbon energy system** is
- **Support internal capacity building** on updated BCBC energy and emission codes
- **Support the builder and developer community** with Step Code compliance
- Establish **Non-Residential EV Ready** requirements for new construction
- Participate in and encourage community building owners to join **Building Benchmark BC (BBBC)**



# City of New Westminster – Team Update



## **Karin Johnson, Senior Climate Action Planner**

- Joined the City of New Westminster on November 4



## **Sarah Maleska, Community Energy and Emissions Specialist**

- Joined the City in May 2024



## **Laura Sampliner, Manager of Climate Action**

- Joined the City in May 2024

# REMINDER: Energy and Zero Carbon Step Code

Building Type	May 1, 2023	Effective Jan 1, 2024	Effective Jan 1, 2025	Effective Jan 1, 2027
<b>Part 9 Residential</b>				
Single or Two Family Dwellings	Step 3	Step 5 EL-1 Measure or Step 3 EL-4 Zero Carbon Ready	Step 5 EL-2 Moderate Carbon or Step 4 EL-4 Zero Carbon Ready	Step 5 EL-4 Zero Carbon Ready
Laneway and Carriage Dwellings				
Townhomes and Apartment Buildings up to three stories				
<b>Part 3 Multi-Family Residential</b>				
Group C Residential Occupancies 6 stories or less and combustible construction	Step 1	Previous req'ts Step 3 Measure	Step 4 EL-1 Measure or Step 3 EL-4 Zero Carbon Ready	In 2 years Step 4 Carbon Ready
Group C Residential Occupancies over 6 stories or non-construction				
Hotels/Motels				
<b>Part 3 Commercial</b>				
Group D Offices (Business and Personal Services)	Step 2	Step 2 EL-1 Measure	Step 3 EL-1 Measure or Step 2 EL-4 Zero Carbon Ready	Step 3 EL-4 Zero Carbon Ready
Other Group D and Group E (Mercantile) Occupancies				

**Building Permit applications received on or after January 1, 2025 must comply with these requirements**



# NEW: EV Ready for NON-RESIDENTIAL Buildings – Jan 1, 2025

## Non-Residential Building EV Ready Requirements

Building use	Proposed EV Ready requirement
<b>New, non-residential buildings (except hotels)</b>	50% of required off-street parking spaces to be EV Ready
	All required accessible parking to be EV Ready (included within prescribed 50%).
	All parking for car share vehicles shall be EV Ready (additional to prescribed 50%)
<b>Hotels</b>	100% of required off-street parking spaces to be EV Ready

40% shared charging  
10% dedicated

Note: proposed requirements do not include installation of EVSE (i.e. EV charger)

“EV Ready” parking features an adjacent electrical outlet (e.g., either an electrical junction box or a receptacle) at which Electric Vehicle Supply Equipment can be installed in the future

# REMINDER: EV Ready for RESIDENTIAL Buildings

As of April 1, 2019, new buildings with at least one dwelling unit must provide an Energized Level 2 outlet or higher for all residential off-street parking spaces and car share vehicle spaces.

Note: new secondary suites do not require the addition of an energized Level 2 outlet.

Note: visitor parking stalls are excluded from this requirement, although the City encourages EV charging infrastructure to be considered.



# FYI/NEW: Upcoming project on implementation of EV Ready requirements in RESIDENTIAL buildings

## The Project:

This project will check in on how EV Ready requirements are working for residents now that EV Ready requirements have been in place for residential buildings for ~5 years.

We will survey and interview residents, strata councils, property managers, **builders**, and building officials to learn about their experiences with EV Ready buildings.

Project partners: Metro Vancouver, UBC, Nanaimo,  
Saanich, BC Hydro

Project timeline: Nov 2024 to June 2025

Building Types: **ALL buildings**



You may hear from us in  
Jan/Feb asking for your input

# Keynote Presentation by Todd Backus

# TODAY'S KEYNOTE SPEAKER

## Todd Backus

Manager & Programs Development, TECA

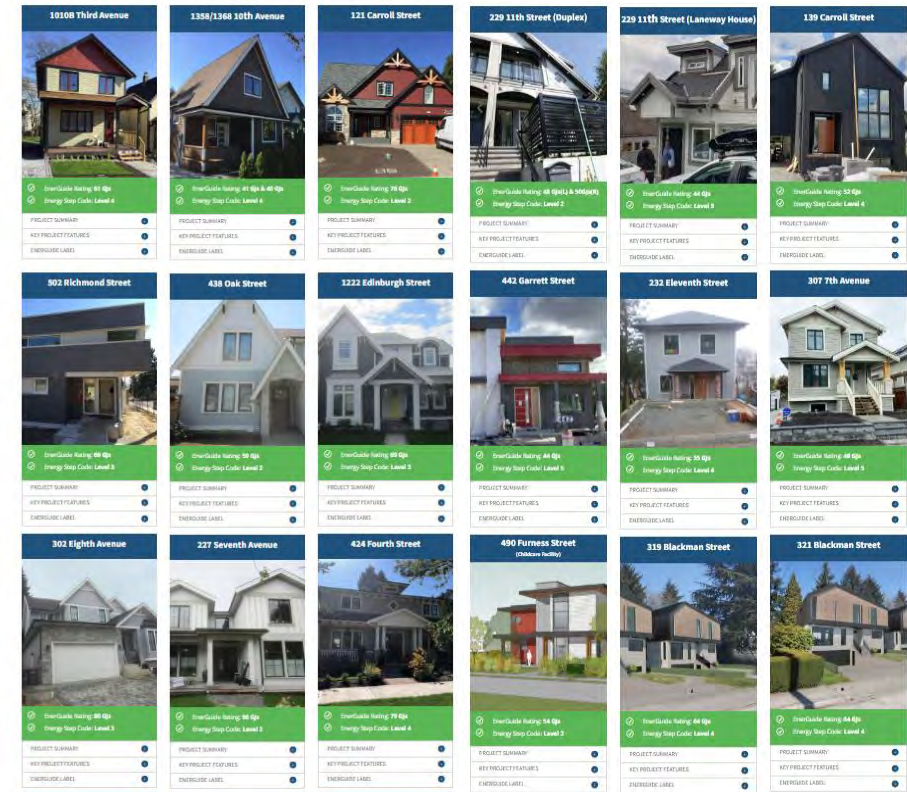
- Worked in the HVAC industry since 2003.
- Completed red-seal ticket as a sheet metal worker in 2009.
- Joined TECA as the Manager of Programs Development in 2023.
- Worked as a mechanical consultant for Rocky Point Engineering designing HVAC, plumbing, & fire suppression systems.
- Owner/operator of Backus Mechanical, specializing in forced air system installation & design for custom homes.
- Qualifications: A degree in Mechanical Engineering & a certification in Professional Engineering.



# Energy Save New West Updates

# PROGRAM RESULTS TO DATE

- A total of 78 participants in New Homes program with 56 projects completed to date.
- 21% Better energy performance achieved in new homes built in New West compared to code-built homes with an average GHG reduction of 1.61 tonnes/year and 61% better airtightness (avg. 2.13 ACH @50 Pa) versus industry average.
- In 2024, we had our most recent new home project at 902 Burnaby Street achieve Energy Step Code Level 5 designation.



# RECENT CASE STUDIES



## 902 Burnaby Street

### Project Summary

- Energy Step Code: Level 5
- Energy Performance: Overall 46% Better than Typical New House
- EnerGuide Rating: 60 GJs
- Rated GHG Emissions: 1.0 tonnes/year (EL2 equiv.)
- Air Tightness: 1 ACH @ 50 Pa

### Key Features

- Effective R-Values: RSI 6.73 – 7.47 (main walls) & RSI 6.45 (roof/ceilings)
- Windows: USI 0.89 – 1.14
- Heating & Cooling: Cold climate heat pump (HSPF 11 & SEER 18)
- Ventilation: HRV @ 80% SRE
- DHW Heating: On-demand natural gas water system



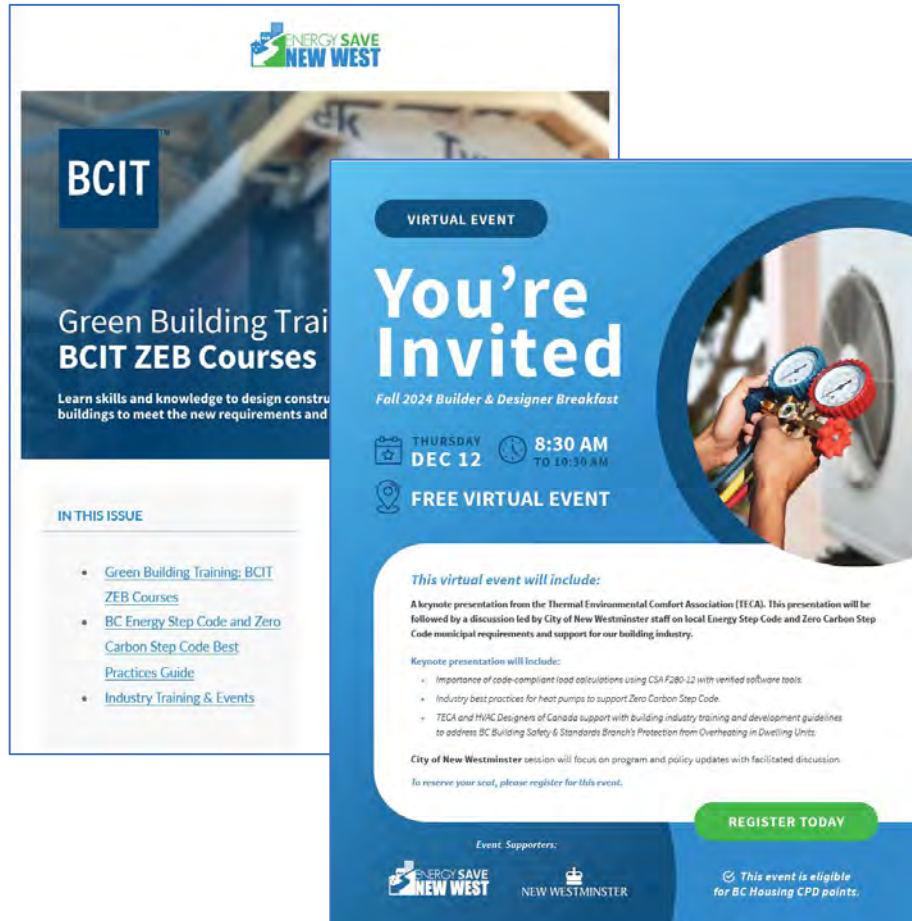
# PROGRAM PLAN FOR 2025

## What's New

- **Embodied Carbon Analysis Pilot:** Free support for builders and designers focused on reducing embodied carbon emissions
- **Technical Bulletin Updates:** Energy Step Code & Zero Carbon Step Code

## Continuing Programs

- Subsidies for Pre- and Post-Construction Energy Evaluations, and Mid-Stage Blower Door Testing
- Spring & Fall Builder & Designer Breakfast Events
- Green Building Training Support
- Monthly e-Newsletters
- Website Enhancements
  - New Homes Case Studies
  - Energy Step Code Page Updates



**Questions/comments/thoughts?**

# THANK YOU

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