



**SPRING**  
**TRAINING** **2026**

Advanced Building Science



# SPRING TRAINING

2026

Advanced Building Science

**Welcome To  
Spring Training  
2026 !**

# SPRING TRAINING 2026

Advanced Building Science

## Our Kind Sponsors





**BAWATING** BUILDING  
SCIENCE

Trevor Trainor MaSc Founder | President



# Spring Camp History

12+ Years

It's always been about conversation

- Debate
- Question
- Challenge

1<sup>st</sup> timers?

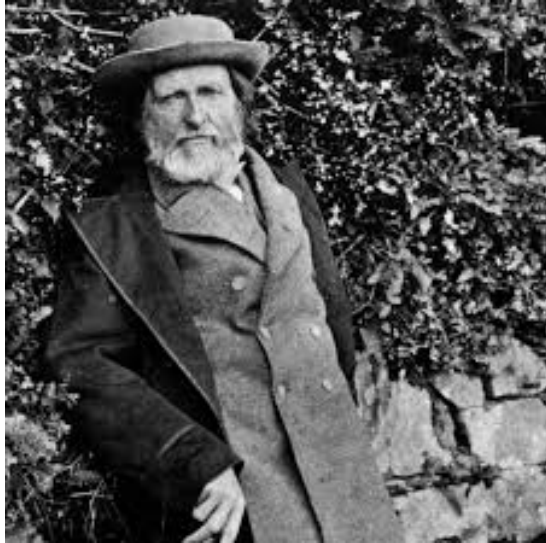
Part Timers?

Lifers?



Tex McLeod

# The Spring Camp Mission ...Hasn't it Always Been the Same?



*“When we build let us think that we build forever. Let it not be for present delight nor present use alone. Let it be such work as our descendants will thank us for...”*

John Ruskin (1819 to 1901)

# Housekeeping

- Exits, Breaks and Host Info.
- Challenge Yourself.
- Be Thoughtful and Kind
- BKC Team Members: Ask Us. We are Here To Help

## SUNDAY, APRIL 19

7:00-10:00 PM **Meet & Greet Hospitality + Registration**

## MONDAY, APRIL 20

7:00-8:00 AM **Breakfast** - Restaurant 85 (for those staying at Hockley)

8:00-8:30 AM **Welcome** - Gord, Andy, Mark, Rachel

9:15-10:15 AM **Applying Building Science to Get it Right Now and Forever (Part 1)**  
Dr. John Straube returns to building science camp with a special take on the science that identifies costly defects before they happen – now and in the future. This leading forensic building scientist, will present the most prevalent and costly defects and how they relate to creating resilient structures that weather gracefully.

10:15-10:30 AM **Break**

10:30 AM-12:15 PM **Applying Building Science to Get it Right Now and Forever (Part 2)**  
Dr. John Straube – Continued

12:15-1:15 PM **Lunch**

1:15-2:30 PM **We Talk About Thermal Comfort – Now Let's Apply It to Our Homes**  
Robert B., Alexis M., and Tracy A. apply ASHRAE 55 Thermal Comfort analysis to an actual home in various Canadian Climate Zones. You will be participating in groups to apply engineering principles and tools to a REAL HOUSE in your climate ZONE! Where to start. How to do it. What tools to use

2:30-3:15 PM **Low Load Homes (Efficient or Small) Challenges and Solutions**  
Gord and guests will tackle practical HVAC solutions to the challenges of traditional forced air systems in homes with ever lower heating and cooling loads. There are alternative solutions. Let's look at what the future designs might look like.

3:15-3:30PM **Break**

3:30-4:30 PM **Resilience, Carbon & Retrofits**  
Carbon reduction, climate resilience, and high-performance retrofits are rapidly reshaping the residential sector. Join Sonja W., Dan S., Lynne S., and Aidan B. for updates from three key initiatives: the Resilient Homes Task Force, the Emissions and Resilience Working Group, and the Towards Net Zero Renovations project. Discover the latest developments and what they mean for the future of housing in Canada.

4:30-5:00 PM **Canadian Wood Council Guide**  
Mass timber buildings are transforming the way we build – but with new materials come new challenges. This session will explore how moisture risks develop in mass timber construction and how to take a proactive approach to moisture management. You will get practical insights into effective protection strategies for safe and timely moisture management plans.

5:00 PM **Wrap-Up** - Gord, Andy, Mark, Rachel

6:30 PM **Supper**

7:30-9:00 PM **Open Mic: Building Science Unplugged**



## TUESDAY, APRIL 21

7:00-8:00 AM **Breakfast** - Restaurant 85 (for those staying at Hockley)

8:00-8:15 AM **Welcome Back** - Gord, Andy, Mark, Rachel

8:15-9:45 AM **How Robots Might Build Your Next Home**  
What can Canada's construction industry learn from a leading global lab in architecture & robotics? Dr. Loveridge will highlight innovative research at ETH, where robotics & digital fabrication are reshaping how buildings are designed & built. Tyler B. will share Canadian insights already transforming construction & what the next wave of innovation could mean for the industry.

9:45-10:00 AM **Break**

10:00-11:00 AM **Electrification and Grid Loads: We're Making Progress!**  
Finally getting the electrification/grid thing figured out. New research, electrification codes and technology that brings the complexity and cost of grid-ready homes down (and how to apply it with your contractors, community designers and utility partners) with Miyoko O. and Wil B.

11:05-11:15 AM **The Future from Our Friends & Housing Program Developers in Ottawa**  
As building codes & environmental priorities shift, so do high performance housing programs. Tracey K. will provide insight into the federal plan for housing performance programs, industry outreach & collaboration opportunities.

11:20-11:45 AM **Embodied Carbon & the Homebuilding Industry: Are We Still Moving Ahead?**  
The 2030 National Building Code plans to release the parameters around embodied carbon in homes for the first time. How do we prepare? What advocacy & technology are needed? Brought to you by Chris M. & Alexis M.

11:45 AM-12:15 PM **Panel: A Thought-Provoking NAIMA Study Stirs Up a Good Debate!**  
Does a "Carbon Debt Approach" make sense? Let's have the experts offer their thoughts BEFORE we formulate the 2030 NBC/NECB Embodied Carbon metrics with Gary S., Chris M., Mark R., Natasha J. and Alexis M.

12:15-1:30 PM **Lunch**

1:30-2:30 PM **Hygrothermal Geek-Out: Moving Past the Dew Point Discussion**  
Dew point analysis has been used to assess condensation risk in wood-framed walls, but it overlooks important factors. Trevor T. will explore the nuances of moisture performance in greater detail illustrating these concepts using hygrothermal modeling & monitoring of wall and roof systems in cold climates.

2:30-2:45 PM **Break**

2:45-3:15 PM **A presentation of stunning luxury homes and the building science challenges they present.**  
We're fortunate to have local architects show us what they've been working on. You'll recognize & appreciate the challenges and help explore solutions.

3:15-4:00 PM **Phase Change Materials Are Now in Canadian Homes!**  
Energy & thermal storage technologies are ready to be applied NOW, enhancing grid load leveling, heat pump operation, hot water service & much more. Learn the basics in preparation for applying this new tech with Michael R.

4:00-4:15 PM **Wrap-Up** - Gord, Andy, Mark, Rachel

# Hands-On **New Technology** Engagement Tables



THE HOME THAT SCIENCE BUILT

# Hands-On **New Technology** Engagement Tables

 <p>SPRING TRAINING 2026 Advanced Building Science</p>	Conversation with Feedback 1 Point Value	Discovery Project Set-Up 3 Point Value
 <p>BLUEWATER ENERGY</p>		
 <p>BTRboard™ Better Board...Better Built!</p>		
 <p>Eden Energy Equipment</p>		
 <p>JW</p>		
 <p>OWENS CORNING</p>		
 <p>PARTEL</p>		



THE HOME THAT SCIENCE BUILT

# Hands-On **New** Technology Engagement Tables

## 2 STEP ENGAGEMENT

1. Learn About & **Give your feedback** to the Technology Teams
2. Sign up for **Discovery Projects/Homes**
3. **Win Prizes !**



HOT MIC - OPEN MIC NIGHT - Presentations on a 10-minute Timer

# 6 Hot Topics Tonight !

## (Desert Time )

# Let's Get Started !



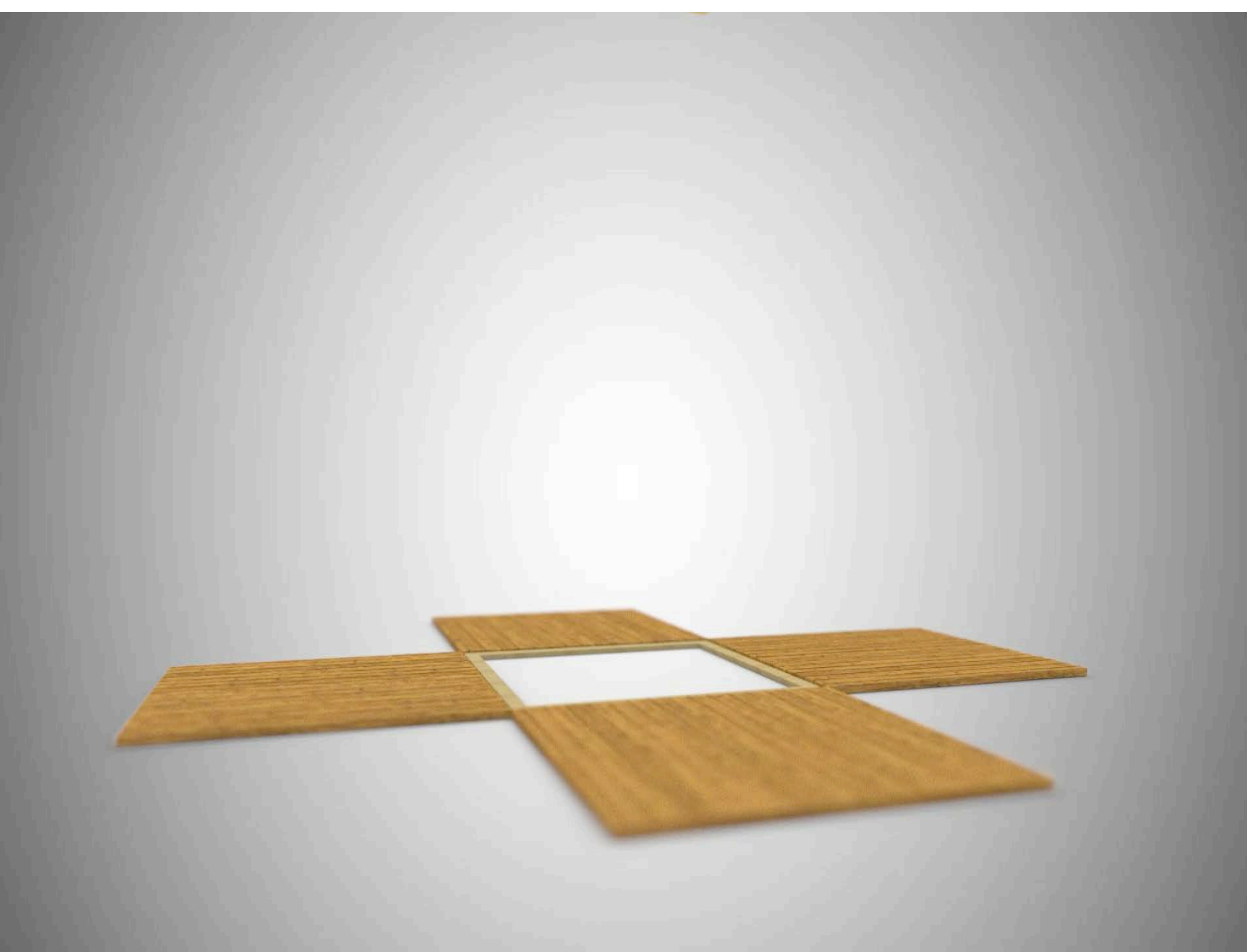
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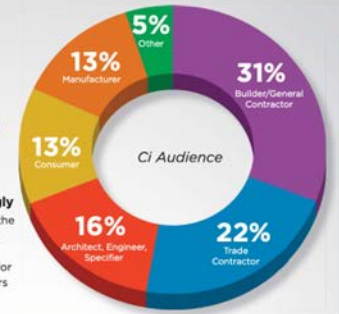
## HOT MIC - OPEN MIC NIGHT - Presentations on a 10-minute Timer

- 1. Evolving Standards, Research, and BEAM Tool Solutions for Residential Construction:** Jacob Deva Racusin, Builders For Climate Action Lead Embodied Carbon Researcher and BEAM Trainer

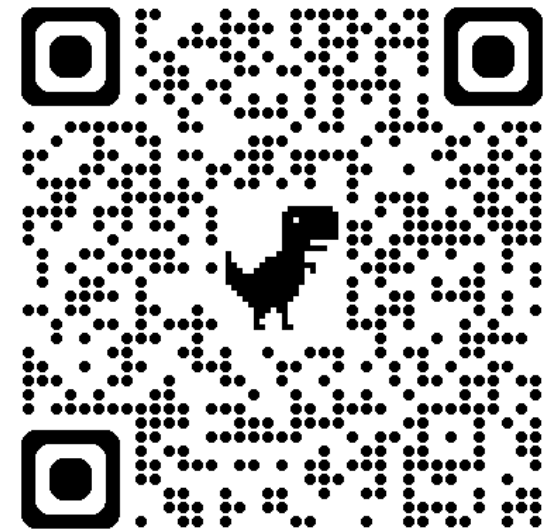


## More than 80,000 building professionals use the Ci app

Our 80,000+ followers are overwhelmingly building professionals. We are the #1 app in the building industry with 42% of our users engaging between 3-30 minutes per session. The Ci app provides education and building science lessons for the construction industry. Contractors and builders need a quick and easy way to access information about your building products WHILE on the Go.



Information on the app is segmented by construction sequence. When users select a category, your relevant products are front and center. Your product info is combined with Ci's own best practices content.



THANK YOU TO OUR MEAL SPONSOR!



# THANK YOU TO OUR MEAL SPONSOR!



**CANADIAN WOOD COUNCIL  
CONSEIL CANADIEN DU BOIS**

**THANK YOU TO OUR COFFEE SPONSOR!**



**BLUE HOUSE**  
**ENERGY**

# Spring Camp Takeaways

- Accessory Dwelling Units
- Small Load Ventilation HRVs/ERVs
- National Housing Archetypes – Doing it right! And Affordably!
- Outreach to the Design Community.
- Include teams from across Canada. First Nations, too!
- Highlight High-End Net Zero Homes.
- Insurance Companies – Build Back Better.
- Mortgage Lenders
- Electrical Code Updates
- Moisture Guide for Mass Timber
- Alternative Options for Concrete in Basements?

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John Ruskin (1819 to 1901)

**Thank You!**

**From The BKC Team**

# Rainwater Deflection : First Principles & Stuff we find in books.

Kinetic Energy of a falling rain drop:  
1<sup>st</sup> line of defense = The overhang!

Overhangs and peaked roofs can reduce rain deposition by 50% by shadowing and redirecting airflow

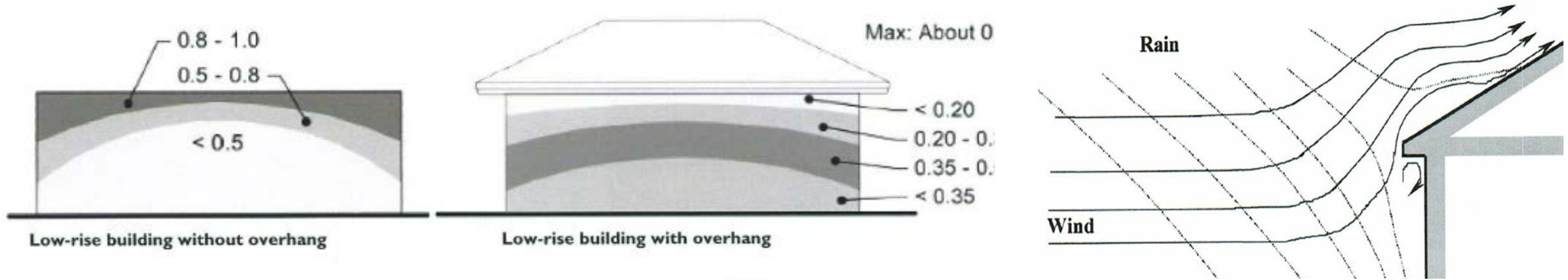
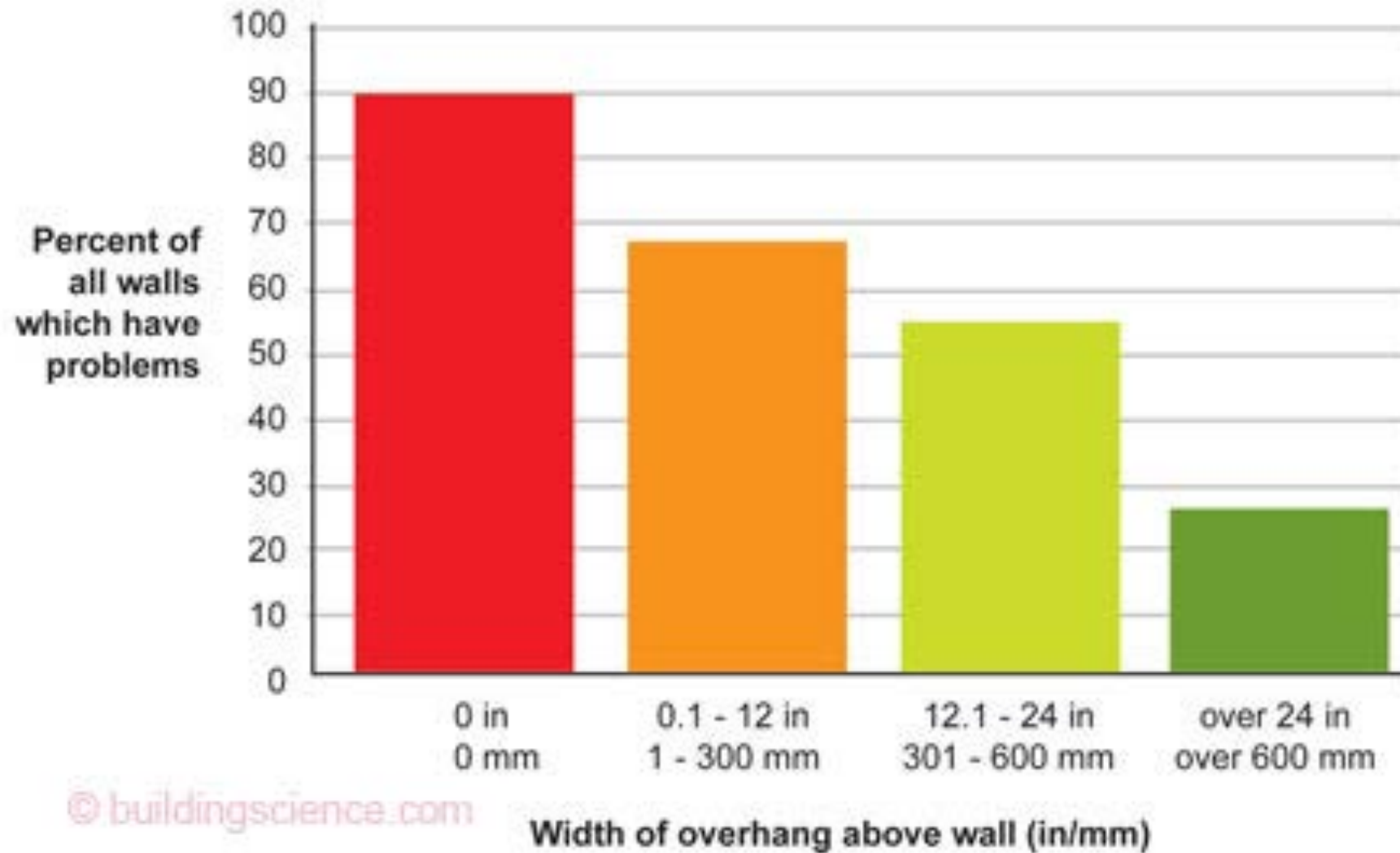


Figure A3-3 Typical rain wetting pattern on low-rise buildings (Straube and Burnett 2005).

The shape of roof and overhang has a critical impact

# BC Leaky Condo Crisis Did We Learn Anything?

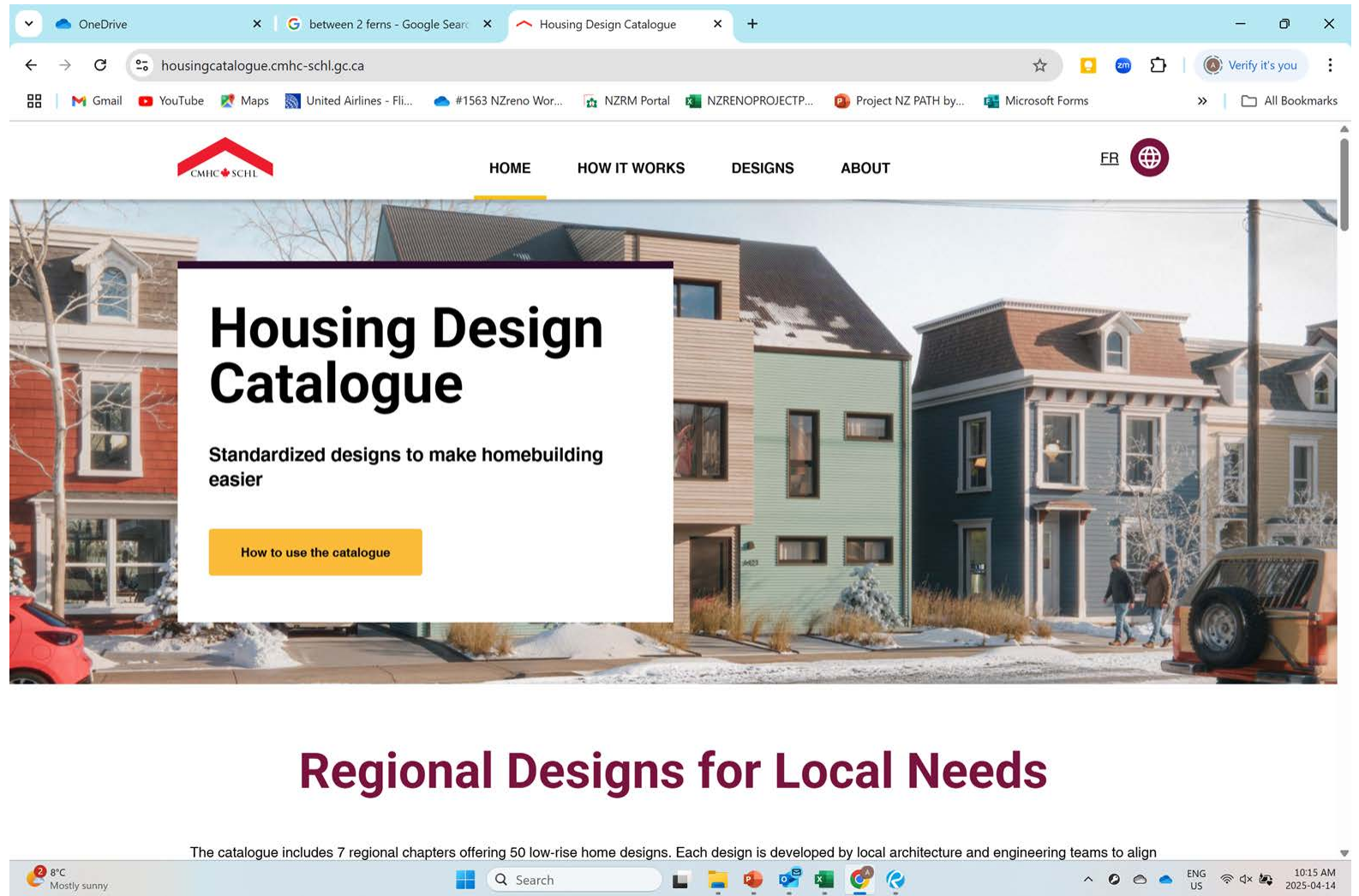


# Why do we keep “re-discovering” Building Science ?

CMHC Canadian Mortgage Housing Corporation

National Affordable Build-Ready Housing Plans

Released 2025



## Regional Designs for Local Needs

# The New, National Archetype Designs Are Here .... Customized For All Homeowners

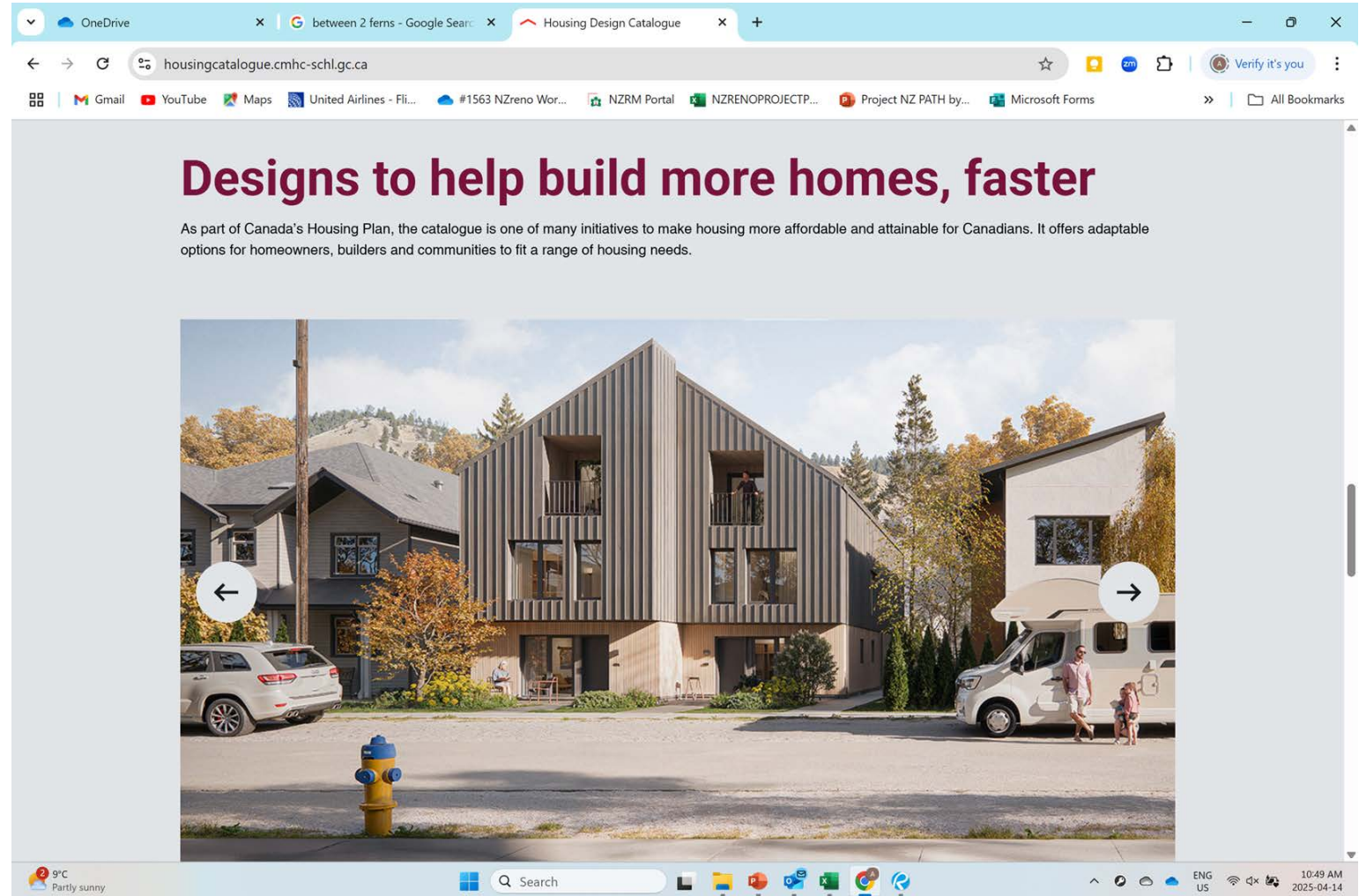
CMHC Canadian  
Mortgage Housing  
Corporation

**National Affordable  
Build-Ready Housing  
Plans**

Released 2025

**Deflection ?**

**Overhangs ?**



# Designs For All Regions & Climates Of Canada ? !



CMHC Canadian Mortgage  
Housing Corporation

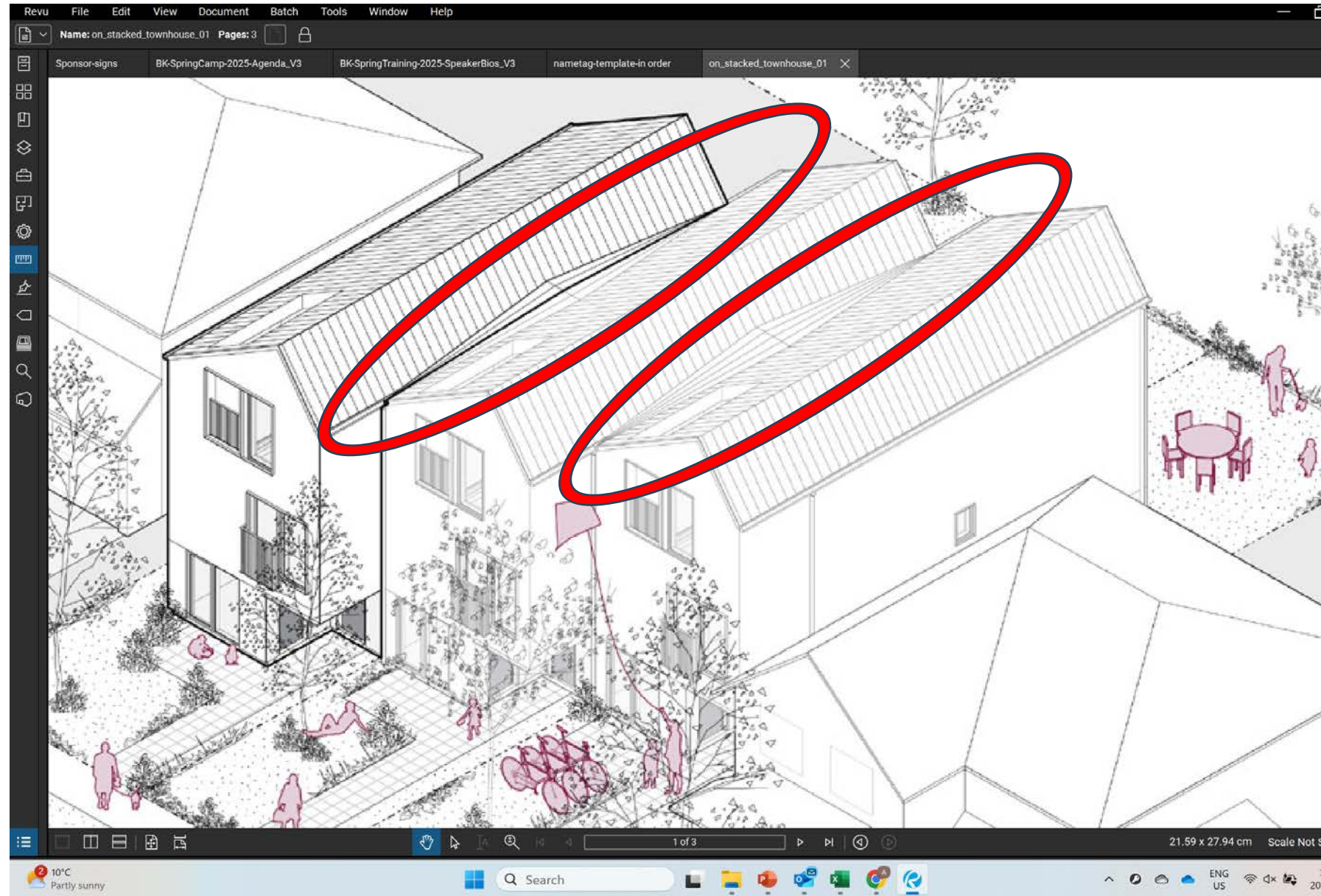
National Affordable Build-Ready  
Housing Plans

Released 2025

**Drainage ?**

**Limit CONCENTRATING  
water drainage in  
complex areas?**

Need we say more?.....



# Thermal Comfort Principles and Practical Applications for Residential Buildings | LinkedIn

