# BUILDING CODE SESSION

Hosted by Ken Kunka June 24, 2021



Welcome and Overview Spatial Separations Member Questions Pot Lights ► Flashing Tape Feedback and Future Sessions AGENDA



These sessions are intended to:

- generate dialogue amongst members
- be a source of advice, feedback and options
- support members in their work
- provide professional development focus on your questions and feedback

## PURPOSE



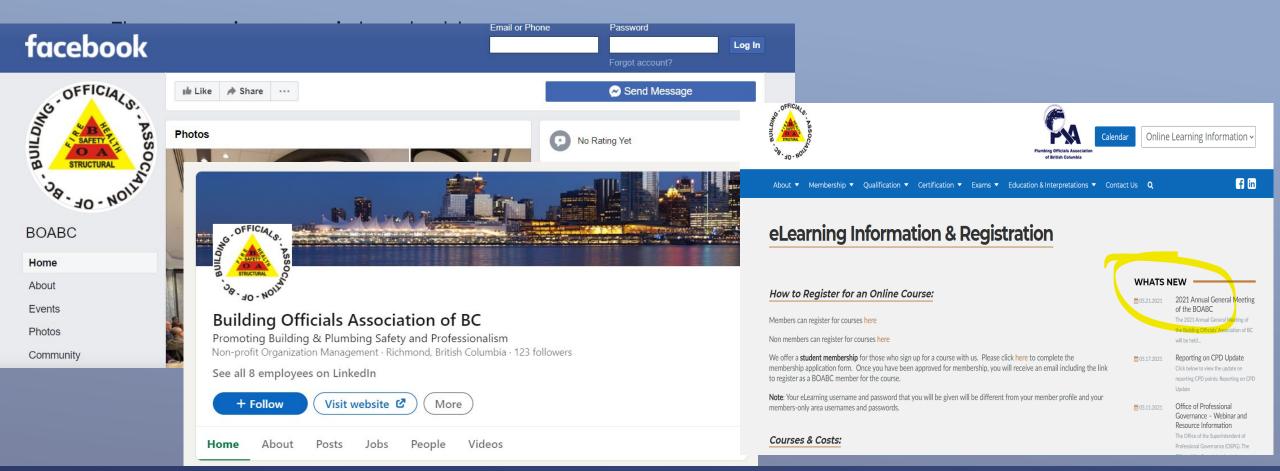
These sessions are not:

- the only means for dialogue amongst members
- formal education and training
- exam review

|  |                          |            |   |                           | Logged in as kunkak Logou   |
|--|--------------------------|------------|---|---------------------------|---|
| 07 OFFIC/4/ 4.<br>50 - NOTA  |                          |            | Plumbing Officials Association<br>of British Columbia | dar Online                | Learning Information  |
| About 👻 Membership 👻 Qualification 👻 Cert                              | tification 🔻 Exams       | s 🔻 Educ   | cation & Interpretations 🔻 Cont                       | act Us 🛛 <b>Q</b>         | <b>F</b> (  |
| Members Discussion   |                          |            |   |                           |   |
| Members Discussion   |                          |            |   |                           |   |
| Welcome to BOABC > Forums > Members Discussion                         |                          |            | Subscribe   | WHATS I                   | NEW   |
| This forum has 78 topics, 231 replies, and was last updated 7 hours, 3 | 9 minutes ago by 🔲 Kenle | ey Barros. |   | 105.21.2021               | 2021 Annual General Meetin of the BOABC   |
| Viewing 15 topics - 1 through 15 (of 78 total)                         |                          |            | $1  2  3  4  5  6  \rightarrow$                       |                           | The 2021 Annual General Meeting of<br>the Building Officials' Association of Bo<br>will be held       |
| Торіс  | Voices                   | Posts      | Last Post   | <pre>min 05.17.2021</pre> | Reporting on CPD Update   |
|  | 3                        | 3          |   |                           | Click below to view the update on   |
| Rebar<br>Started by: Devon Bacon                                       | 5                        | 5          | 7 hours, 39 minutes ago Kenley Barros                 |                           | reporting CPD points: Reporting on CP   |
|  | 3                        | 4          |   | ₿ 05.11.2021              | reporting CPD points: Reporting on CP   |
| Started by: Devon Bacon Residential Decommissioning Policy             |                          |            | Kenley Barros<br>3 days, 9 hours ago                  | ₿ 05.11.2021              | reporting CPD points: Reporting on CP<br>Update<br>Office of Professional<br>Governance – Webinar and |

### **SUPPORT**

- Member Forum
- Zone Meeting
- BOABC Website
- Peer Advisory Group (Zone)
- Mentorship & Contract List

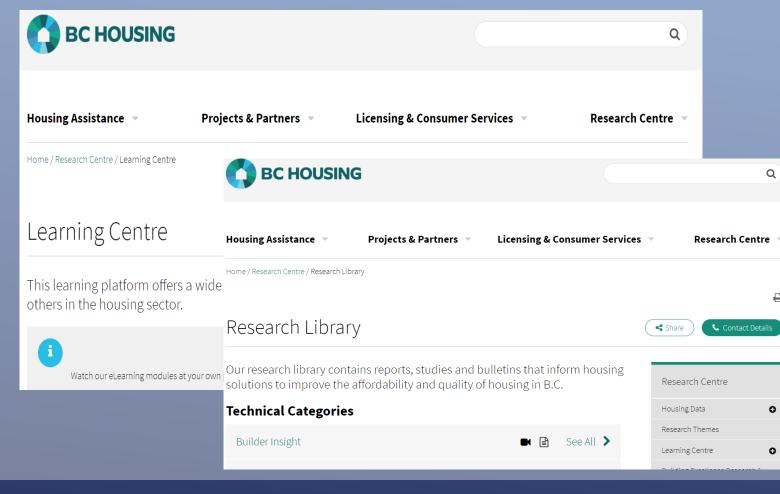


### **STAYING CONNECTED**

- Facebook
- LinkedIn
- What's New
- Newsletter (July)
- Contact Us

| All people 12+  | can <b>g<u>et a vaccine appointment</u>   <u>BC's Restart is a 4-step plan</u> to get u</b>   | us back to normal  | ×<br>≡<br>Menu  |  |  |
|---|---|--|---|--|--|
| Home > Earming, natural resou   | rces and industry > Construction Industry > Building Codes & Standards > BC Codes   | Contact Infc   |   | can <b>g<u>et a vaccine appointment</u>   <u>BC's Restart is a 4-step plan</u> to get i</b>  | us back to normal  |
| BC Codes<br>BC Codes 2018<br>Errata & Revisions   | Provincial codes guide building construction and renovation in British<br>Columbia  | Print copies of th<br>can be purchasec<br>Printer.                         |   | <pre>cces and industry &gt; Construction Industry &gt; Building Codes &amp; Standards &gt; Building Code Appeal Board</pre>  | BCAB Decisions   |
| Technical Bulletins<br>Code Interpretations<br>Code Questions<br>Letters of Assurance                           | <ul> <li>BC Building Code</li> <li>BC Plumbing Code</li> <li>BC Fire Code</li> <li>Learn about the <u>BC Codes 2018</u></li> </ul>  | Phone Office:<br><u>1-800-663-6105</u><br>Email:<br><u>bccodes@gov.bc.</u> | <ul> <li>BC Codes</li> <li>Accessibility</li> <li>Energy Efficiency</li> <li>Existing Buildings</li> <li><u>Building Code Appeal Board</u></li> </ul> | Due to the COVID-19 pandemic, meeting formats have changed and typical timelines do not apply.  Under the <u>Building Act</u> (Part 4, sections 19 to 21), the Building Code Appeal Board hears appeals of decisions of a local authority on whether a matter                                    | Look up appeal board decisions<br>using an online database.<br><u>Search all decisions</u><br><u>Read most recent decisons</u> |
| <ul> <li>Public Review</li> <li>Accessibility</li> <li>Energy Efficiency</li> <li>Existing Buildings</li> </ul> | <b>Free online codes</b><br>Online versions of the <u>BC Codes 2018 are available free</u> . Printed copies can also be found at many <u>B.C. public libraries</u> or <u>purchased from</u> | Website:<br>http://www.bccor<br>ml   | BCAB Decisions<br>Search All Decisions<br>• Other Construction<br>Regulations<br>Safety Standards   | conforms to a building regulation. It operates independently for interfer a matter<br>government in its decision-making capacity.<br>Board members include subject-matter experts from outside government.<br>A member of the Building and Safety Standards Branch serves as board<br>secretary. | Where to Submit an<br>Appeal<br>Email<br>Building.Safety@gov.bc.ca   |
| <ul> <li>Building Code Appeal Board</li> <li>Other Construction<br/>Regulations</li> </ul>                      | Queen's Printer.  | Help Using 1<br>Look up revisions<br>technical bulletin                    | <ul> <li>Resources &amp; Contact<br/>Information</li> </ul>   | Meetings are typically held once a month (on the third Thursday). During<br>each meeting, the board reviews appeal application packages to reach a<br>decision. About 15 to 20 appeals are reviewed annually.  | Mail<br>Building and Safety Standards<br>PO Box 9844 Stn Prov Govt<br>Victoria, BC V8W 9T2                                     |
| Safety Standards<br>• Resources & Contact<br>Information  | The BC Building Code is a provincial regulation on how new construction,<br>building alterations, repairs and demolitions are done. This code sets  | forms and other to help when usir  |   | How to Apply<br>The appeal must involve a disagreement between an authority having<br>jurisdiction (a building official) and an owner or his/her agent (a designer,  | Courier<br>Building and Safety Standar<br>614 Humboldt Street - 4th  |
| BUILD   | DING STANDARDS R  | EFER   |   |  |  |

- Technical Bulletins
- Code Interpretations Code Appeals
- Guides & External Resources
- Contact us



### **BC HOUSING REFERENCE MATERIAL**

- On-Demand Webinars
- Guides and Bulletins
- Research Library







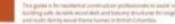
Considerations for Detailing the Closure Penetration and Gypsum Fire Separation Wall Interface

#### ILLUSTRATED GUIDE

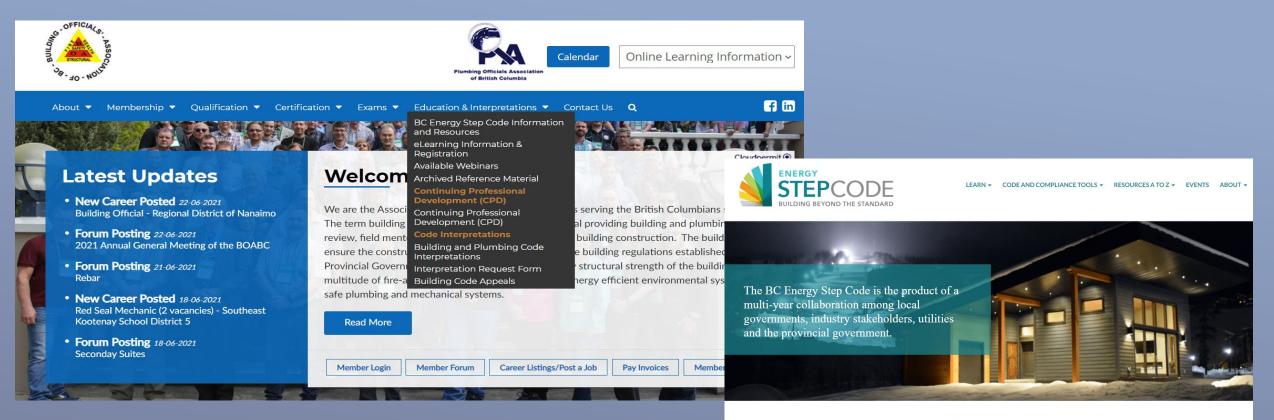
For Building Safe and Durable Wood Decks and Balconies











#### How the BC Energy Step Code works

The Province of British Columbia first introduced energy efficiency as a BC Building Code objective in 2008.

### **BOABC REFERENCE MATERIAL**

- Step Code
- E-Learning
- Archived Reference Material
- Building & Plumbing Interpretations



### **CONSTRUCTION & CODE RELATED PODCASTS**



The Builders Have Spoken: The Cost of High-Performance Construction

BC Hydro Jun 25, 2021 | 12pm - 1pm PDT
 Power smart Free Webinar | zebx.org



## SABNJAS SUSTAINABLE ARCHITECTURE & BUILDING MAGAZINE

### CANDIAN CONSTRUCTION & CODE RELATED RESOURCES -PLEASE FORWARD ANY OTHER SUGGESTIONS

CONSTRUCTION

BUSINESS

L THE TROWEL

CANAD

ARCHITEC



FENESTRATION ASSOCIATION OF BC THE ASSOCIATION FOR MODERN GLASS, GLAZING, WINDOWS & DOORS

**BuildingExceller** 

Outdoor Living

June 2021



ROOFING CONTRACTORS ASSOCIATION OF BRITISH COLUMBIA



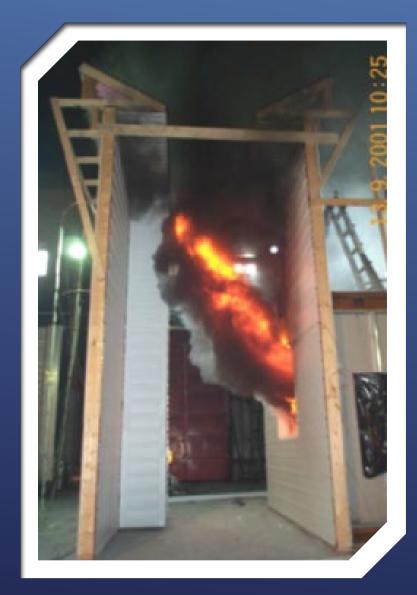
# **SPATIAL SEPARATIONS**

### Wall assemblies



### SPATIAL SEPARATIONS

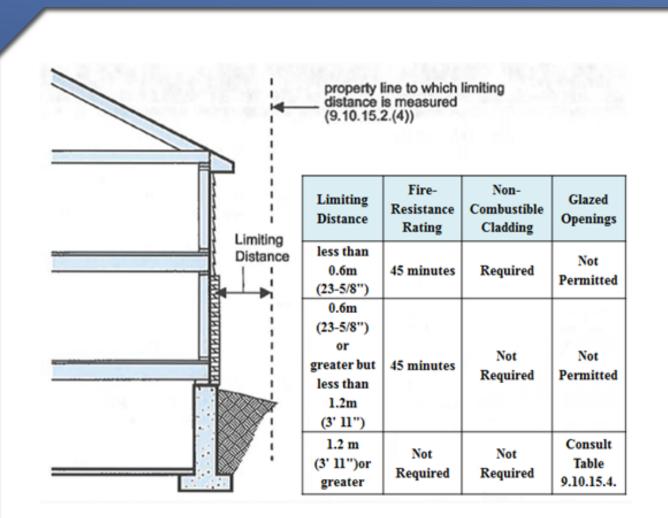
The BC Building Code spatial separation requirements intend to reduce the likelihood of fire spread between buildings. An important principle of fire protection is that one person's property should not be allowed to damage the property of another.



### 9.10.14.4. Openings in Exposing Building Face

The closer the building face is to the lot line, the more restrictive the code requirements as flames can extend a metre or so beyond the face of the building and might threaten adjacent properties.

## **SPATIAL SEPARATIONS**



### **SPATIAL SEPARATIONS**

9.10.15.5. Construction of Exposing Building Face of Houses

> The Code places limits on construction of the exposing building face where the limiting distance is less than 1.2 m. In all cases, the assembly must have a minimum fire resistance rating of 45 min.

There are three limiting distance ratios controlling fire resistance ratings: 1)Less than 0.6m 2)0.6m to less than 1.2m 3)Greater than 1.2m

| Table A-9.10.3.1.B<br>Fire and Sound Resistance of Floors, Ceilings and Roofs<br>Forming part of Appendix Note A-9.10.3.1. |                    |   |                               |  |   |  |  |
|--|--------------------|---|-------------------------------|--|---|--|--|
| Type of<br>Assembly  | Assembly<br>Number | Description   | Fire-<br>Resistance<br>Rating | Typical Sound<br>Transmission<br>Class <sup>(4)(5)<sup>(8)(8)</sup></sup><br>(STC) | Typical Impa<br>Insulation Cla<br>(4)(8) <sup>(10)</sup><br>(IIC) |  |  |
| Exterior<br>Wood Studs     Single Row  |                    | <ul> <li>38 mm x 89 mm studs spaced 400 mm or<br/>600 mm o.c.</li> <li>89 mm thick absorptive material<sup>(6)</sup></li> <li>1 or 2 layers of gypsum board on inside</li> <li>exterior sheathing and siding</li> </ul> | -100                          |  | GC0011A   |  |  |
| <ul> <li>Loadbearin<br/>and Non-<br/>Loadbearing</li> </ul>  | EW1a               | EW1 with<br>• 15.9 mm Type X gypsum board <sup>(5)®</sup>   | 1 h                           | 1 h  | n/a   |  |  |
|  | EW1b               | EW1 with<br>• 12.7 mm Type X gypsum board <sup>(5)(9)</sup>   | 45 min                        | 45 min   | n/a   |  |  |
|  | EW1c               | EW1 with<br>• 2 layers of 12.7 mm regular gypsum board <sup>(3</sup><br>(9)   | 45 min                        | 45 min   | n/a   |  |  |

### 9.10.3.3. Fire Exposure

2) Exterior walls shall be rated for exposure to fire from inside the building, except that such walls need not comply with the temperature rise limitations required by the standard tests referred to in Article 9.10.3.1. if such walls have a limiting distance of not less than 1.2 m, and due allowance is made for the effects of heat radiation in accordance with the requirements in Part 3.

### SPATIAL SEPARATIONS



2010 NATIONAL MODEL CONSTRUCTION CODES

#### **Spatial Separations**



Philip Rizcallah, P.Eng NRC Canadian Codes Centre February 2011

Council Canada

National Research Conseil national de recherches Canada



### **Continued Learning**

#### **Presentation - Spatial Separations**

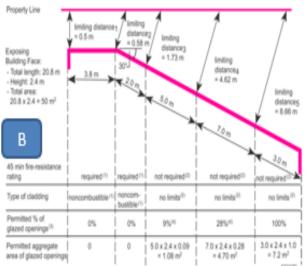
Philip Rizcallah P. Eng NRC Canadian Codes Centre

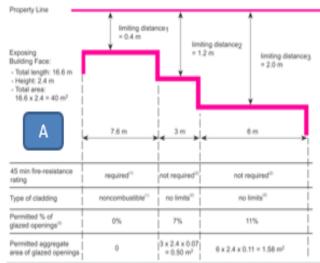
https://www.nrccnrc.gc.ca/eng/solutions/advisory /codes\_centre/presentations/2010 /separations.html

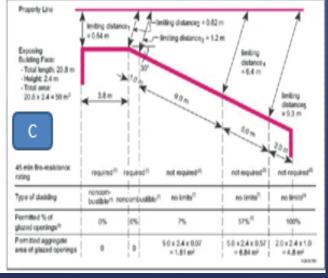
### **SPATIAL SEPARATIONS**

#### Limiting Distance – 9.10.15.4(2) Offset and Skewed walls - A-9.10.15.4.(2)

In Appendix A, Figures A-9.10.15.4.(2)-A to A-9.10.15.4.(2)-C show how Sentences 9.10.15.4.(1) and (2) could be applied to exposing building faces that are stepped back from or not parallel to the property line. [A-9.10.15.4.(2)]







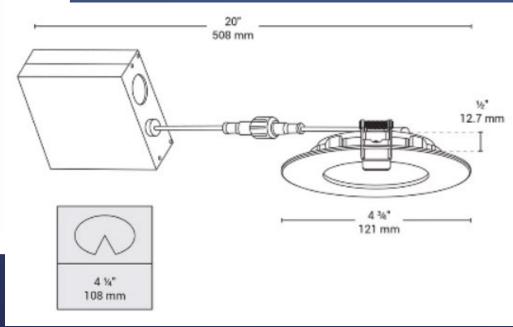
## Next Session

## Offset and Skewed Walls

## SPATIAL SEPARATIONS



## LOW-PROFILE POT LIGHTS TO BOOT OR NOT TO BOOT



### LOW-PROFILE POT LIGHTS – DISCUSSION AIR TIGHT UNITS CANNOT BE CONFIRMED

AIR/V.B. TO BE MAINTAINED (BOOTS)

SOLID BACKING REQUIREMENTS

SOME JURISDICTIONS HAVE RESEARCHED AND HAVE POLICY. (PLEASE FORWARD TO BOABC)

IS THIS A FAILURE POINT AT TIME OF STEP CODE BLOWER TESTS? District of North Vancouver Planning, Parmits and Properties Division Tal: 604-606-980 Fax: 604-684-983 email: building@dnv.org web: www.dhv.org

### Bulletin

trict of North Vancouver Permits and Licences

#### Vapor Barrier and Air Barrier Requirements for Electrical and HVAC Components and Plumbing System Penetrations

Purpose of this bulletin is to clarify the code requirements for vapour barrier and air barrier systems where they are penetrated by other building components.

"This information is provided for convenience only and is not in substitution of applicable District Bylaws or Provincial or Federal Codes or laws. You must satisfy yournell that any existing or proposed construction or other works complex with all Bylaws. Codes or other laws."

#### Background

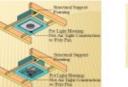
2012 BC Building Code has been in force since December 20, 2012. Subsequently a Ministerial Order M11 on December 19, 2014 implemented the new energy requirements. Amongst many other requirements, the current Building Code requires that new homes, or substantially renovated homes to be air and vapour fight.

#### Air Barrier and Vapour Barrier Requirement

Subsection 9.25.3 and 9.25.4 imposes the requirement of air bar systems between heated and unheated spaces in houses. In m homes, the conventional method of complying with both air barri achieved by a single membrane such as 6ML polyethytene she sheet must have air leakage characteristics less than 0.20L/sm permanence less than 60ng/(Pa-s-m<sup>2</sup>).

Article 9.36.2.10 requires that where an air barrier or vapour bar or joined, it must be appropriately lapped, sealed with compatible caulking), and structurally supported.

Therefore, the BML polyathyline must be continuous behind all as pot lights, electrical boxes or panel, or HVAC component sud the BML poly is penetrated or joined by poly pans, it must be str joints and sealed with accustical cautiong. The smaller penetration plumbing pipes up to 1 inch in OD may be cautiked and taped. Illustrated Examples



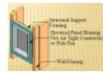














#### Flashings



Installing the flashings after the air barrier is complete, using membrane strips, tapes, or sealant to create the necessary transitions for the water-resistive barrier, is preferred rather than including the flashing as part of the air barrier.

### FLASHING TAPE

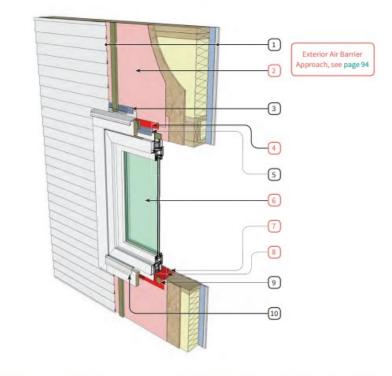
CODE DOES NOT REFLECT NEW PRODUCTS BEING USED FOR STEP CODE BUILDING ENVELOPES

#### BUILDING STANDARDS GUIDANCE REQUESTED

FURTHER CONSULTATION REQUIRED WITH

PLEASE FORWARD POLICY OR BULLETINS

#### Detail 01 Flange Window in Stud-Insulated Wall



Window assembly sealed to air barrier with backer (18)

Self-adhered impermeable sill membrane (AB)

Backer rod and sealant, see page 104 [AB]

rod and sealant, see page 104

9. Intermittent vertical furring or shims

10. Sill flashing over window trim

- 1. Stud-insulated wall assembly, see page 56
- 2. Vapour-permeable sheathing membrane (AB)
- 3. Head flashing with sheathing tape over top edge
- Sheathing tape at all laps in sheathing membrane (AB)
  - Sheathing tape over window head and jamb flange



5



Feedback? info@boabc.org ► Future topics? ► Engage ► Zone Meetings ► Zone Directors Member Forum NEXT SESSION IS JULY 29, 2021 - FORUM DISCUSSION, SPATIAL - OFFSET & SKEWED WALLS, GRADE CLEARANCES