

WEBINAR SERIES

# Public Reviews for the 2025 National Construction Codes

Canadian  
Home Builders'  
Association



*Webinar #1: Proposed code changes - overview*



**November 17 @ 12:00 - 1:00 PM ET**

*Webinar #2: Introducing proposed code changes for renovation*



**November 24 @ 12:00 - 1:00 PM ET**

*Webinar #3: Deep dive into Part 9 energy efficiency and GHG requirements*



**November 30 @ 12:00 - 1:30 PM ET**



**RESERVE YOUR SEAT!**







# Introducing the Renovation Code

Frank Lohmann, November 24<sup>th</sup>

Canadian  
Home Builders'  
Association







# INTRODUCING THE RENOVATION CODE

1. Where we are in the code process
2. Quick Recap of Scope and Principles
3. 2023 Fall Public Review – Detailed Review
4. 2024 Winter Public Review – Overview
5. How to Submit Comments for Public Review



# 1. WHERE WE ARE IN THE CODE PROCESS



Codes Timelines	Committee Deadline	Public Review Opens	Public Review Closes
Fall 2023	June 12, 2023	October 23, 2023	<b>December 18, 2023</b>
Winter 2024	October 2, 2023	February 20, 2024	<b>April 29, 2024</b>
Fall 2024 (Ref'd Docs)	June 17, 2024	October 21, 2024	<b>December 16, 2024</b>
Code Publication	Planned for <b>December 2025</b>		
P/T Code Adoptions	Planned for <b>18 months after</b> publication		



# 2. SCOPE & PRINCIPLES



## WHY?

- Consistency across Canada
- Renovation market is equal or bigger than new construction
- More effective to address renovation

## WHEN?

- EE requirements may apply to renovation based on project scope
- **Code does not mandate renovations**

## WHAT?

- Energy efficiency first
- Not all building types
- Not all “alteration” types

## WHERE?

- New Parts in National Building Code, Energy Code, Plumbing Code

## HOW?

- 8 Principles



## 2. SCOPE & PRINCIPLES



[NRC - CCBFC  
Report 2016](#)



### **Principle 1:**

Close the performance gap between the current code and the existing building stock.

### **Principle 2:**

Maintain or increase the life safety and overall building performance level.

(An alteration cannot make the building worse)

### **Principle 3:**

Avoid negative unintended consequences and unrealistic expectations.

### **Principle 4:**

Ensure that the building is not left in an unsafe state during alteration

...



## 2. SCOPE & PRINCIPLES



[NRC - CCBFC  
Report 2016](#)



...

### **Principle 5:**

Regulatory measures should be reasonable, practical and effective

### **Principle 6:**

Require flexibility and encourage alterations to existing buildings rather than place an undue burden on the public

### **Principle 7:**

Require flexibility and preserve officially recognized heritage elements

### **Principle 8:**

Complement voluntary programs and other policy tools (e.g. tax credits)

# ALTERATION TO EXISTING BUILDINGS



## 2023 Fall Public Review – General Requirements – Detailed Review

- Division A – Application of Part 10 and Exemptions (PCF [1812](#))
- Division A – Definitions (PCF [1813](#))
- Division B – New Part 10 – Scope, Application and Principles (PCF [1824](#))
  - May apply where the extent of the renovation affects one of the **technical areas**
- National fire Code – Protection of Adjacent Buildings (PCF [1797](#))

## 2024 Winter Public Review – Technical Provisions – Overview

- NBC 9.36
  - Service Water Heating Systems (PCF 1825)
  - HVAC Systems Requirements (PCF 1826)
  - Airtightness Requirements (PCF 1827)
  - Fenestration, Doors and Skylights (PCF 1828)
  - Above-grade Opaque Walls (PCF 1829)
  - Below Grade Building Assemblies (PCF 1850)
- NBC 9.25
  - Consider air barrier below ground when improving airtightness (PCF 2032) (i.e. radon ingress)
- NBC 9.32
  - Consider ventilation when removing old naturally-vented heating appliances (PCF 2033)





# 2023 FALL PUBLIC REVIEW

## DETAILED REVIEW



### Application of Part 10 (PCF [1812](#))

- This change is in Division A
- It states:
  - NBC Part 10 applies to the alteration of existing buildings or parts of existing buildings
  - Exempt:
    - farm buildings
    - tents
    - air-supported structures
    - relocatable buildings\* (not used/defined in the NBC/NECB)
    - construction camps
    - open-air storage garages,
    - garages or carports
    - heritage buildings or parts of a building formally recognized as having heritage value.

...buildings to which Part 9 could apply...

### Explanatory Note !

...application of Part 10 **does not preclude** the application of other Parts ...

... the **requirements of all Parts** of this Code continue to apply to the alteration of existing buildings...

Canadian Board for Harmonized Construction Codes

**Proposed Change 1812** Submit a comment 1812

Code Reference(s): NBC20 Div.A 1.3.3. (first printing)

Subject: Alteration of Existing Buildings

Title: Application of NBC Part 10 to the Alteration of Existing Buildings

Description: This proposed change states the application of proposed NBC Part 10 to the alteration of existing buildings.

Related Proposed Change(s): PCF 1813, PCF 1824, PCF 1839

This change could potentially affect the following topic areas:

<input checked="" type="checkbox"/> Division A	<input type="checkbox"/> Division B
<input type="checkbox"/> Division C	<input checked="" type="checkbox"/> Design and Construction
<input type="checkbox"/> Building operations	<input checked="" type="checkbox"/> Housing
<input checked="" type="checkbox"/> Small Buildings	<input checked="" type="checkbox"/> Large Buildings
<input type="checkbox"/> Fire Protection	<input type="checkbox"/> Occupant safety
<input type="checkbox"/> Accessibility	
<input type="checkbox"/> Building Envelope	
<input type="checkbox"/> Heating, Ventilation, and Air Conditioning	



## Application of Part 10 (PCF [1812](#))

- This change is in Division A
- It states:
  - NBC Part 10 applies to the alteration of existing buildings or parts of existing buildings
  - Exempt:
    - farm buildings
    - tents
    - air-supported structures
    - relocatable buildings\* (not used/defined in the NBC/NECB)

### Explanatory Note !

...application of Part 10 **does not preclude** the application of other Parts ...

... the **requirements of all Parts** of this Code continue to apply to the alteration of existing buildings...

### 1.1.1.1. **Application of this Code**

**1)** Except as provided in Sentence (3), this Code applies to the design, construction and *occupancy* of all new *buildings*, and the *alteration*, reconstruction, demolition, removal, relocation and *occupancy* of all existing *buildings*. (See Note A-1.1.1.1.(1).)

...build  
which  
could



### More Application – Inside the New Part 10 ([PCF 1824](#))

- Section 10.1 General
  - Scope
    - energy performance of existing buildings subject to alteration
  - Application
    - all existing buildings – with some exemptions (previous slide / Division A / PCF 1812)
  - “Compliance” (really ... still “Application”)
    - alteration of [all] buildings shall comply with **NECB Part 11**, except
      - alteration of existing buildings shall comply with **Section 10.9** for (same as 9.36)
        - residential buildings
        - very small business and personal services, mercantile or low-hazard industrial occupancies with combined floor area < 300 m<sup>2</sup> (excluding residents’ parking
        - mix of the residential and non-residential occupancies
      - when determining the application, **existing buildings and their alterations** shall be considered together





### More Application – Inside the New Part 10 ([PCF 1824](#))

- Section 10.1 General
  - Definitions
    - words in italics are defined in Article 1.4.1.2. Div A (Standard wording for every Part)
  - Performance
    - An alteration to an existing building shall not adversely affect any aspect of building performance. !
  - Extensions
    - existing building portion shall comply with new renovation requirements in Part 10
    - extended (new) building portion shall comply with all other Parts (as if new) !



### More Application – Inside the New Part 10 ([PCF 1824](#))

- [Section 10.9.2 Energy Efficiency](#)

- Definitions

- 1) The definitions provided in **Article 9.36.1.2.** shall apply to this Subsection.

- Replacement Work

- 1) Where a component is being replaced,

- the energy performance level of that component shall not be decreased,

- unless it can be shown that the building's overall energy performance level

- will not be decreased as a result of the replacement.



## Defined Terms ([PCF 1813](#))

**Existing building** means a building that was constructed more than five years before the effective date of this Code.

**Heritage building** means an existing building that is formally recognized by a federal, provincial, territorial or municipal authority for its heritage value.

(See Note A-1.4.1.2.(1).)

### Explanatory Note

... explains what heritage means ...

... links to:

[Standards and Guidelines for the Conservation of Historic Places in Canada](#)

Canadian Board for Harmonized Construction Codes

**Proposed Change 1813** Submit a comment

Code Reference(s): NBC20 Div.A 1.4.1.2. (first printing)  
NECB20 Div.A 1.4.1.2. (first printing)

Subject: Defined Terms  
Title: "Existing Building" and "Heritage Building"  
Description: This proposed change introduces the defined terms "existing building" and "heritage building" in the NBC and the NECB.  
PCF 1812, PCF 1824, PCF 1839

Related Proposed Change(s):

This change could potentially affect the following topic areas:

<input checked="" type="checkbox"/> Division A	<input type="checkbox"/> Division B
<input type="checkbox"/> Division C	<input type="checkbox"/> Design and Construction
<input checked="" type="checkbox"/> Building operations	<input checked="" type="checkbox"/> Housing
<input type="checkbox"/> Small Buildings	<input type="checkbox"/> Large Buildings
<input type="checkbox"/> Fire Protection	<input type="checkbox"/> Occupant safety in use
<input type="checkbox"/> Accessibility	<input type="checkbox"/> Structural Requirements
<input type="checkbox"/> Building Envelope	<input type="checkbox"/> Energy Efficiency
<input type="checkbox"/> Heating, Ventilating and Air Conditioning	<input type="checkbox"/> Plumbing
	<input type="checkbox"/> Construction and Demolition Sites

**Problem**

Existing definition:





## Don't forget: NBC Part 8 also applies to alteration !

### 8.1.1.1. Scope

- 1) The scope of this Part shall be as described in Subsection 1.3.3. of Division A.
- ➔ 2) This Part applies to fire safety and the protection of the public during the construction, alteration or demolition of every *building*, including any incompleted or abandoned *building*.
- 3) Fire safety at construction and demolition sites shall conform to Section 5.6. of Division B of the NFC.

### 8.1.2.1. Application

- ➔ 1) Where a *building* is undergoing construction, alteration or demolition, measures shall be taken at the *building* site in conformance with this Code. (See Note A-8.1)

8.2. Protection of the Public	
8.2.1. Fencing and Barricades .....	8-1
8.2.2. Excavation .....	8-2
8.2.3. Use of Streets or Public Property ...	8-3
8.2.4. Direction of Vehicular Traffic .....	8-3
8.2.5. Waste Material .....	8-4



### National Fire Code – Protection of Adjacent Buildings ([PCF 1797](#))

**5.6.1.2.** Measures shall be taken to ~~mitigate~~ reduce the risk of fire spread to adjacent buildings ... from buildings ... undergoing construction, alteration or demolition.

#### Note A-5.6.1.2.(1)

As part of fire safety planning, various ~~M~~methods, procedures and materials, if deemed necessary following a risk assessment, can be used to ~~mitigate~~ reduce the risk of fire spread from a construction or demolition site to adjacent buildings and facilities. ~~that are deemed necessary following a risk assessment~~ These measures can ~~range from active to~~ include the presence of trained supervisory staff on site and the monitoring and control of fire hazards. They can also include active or passive ~~systems~~ solutions such as spatial separation, erecting a temporary fire barrier (e.g. fire tarpaulin), using construction methods and materials (e.g. gypsum sheathing), or installing water curtains, ~~using construction methods and materials that include gypsum sheathing, or erecting a temporary fire barrier such as a fire tarpaulin.~~ Materials that may become part of the finished building must conform to the NBC.

#### ✓ SUPPORT

- softer language
- measures may not be required if there is no risk to adjacent property
- deleted “gypsum sheathing”

# ALTERATION TO EXISTING BUILDINGS



## 2023 Fall Public Review – General Requirements – Detailed Review

- Division A – Application of Part 10 and Exemptions (PCF [1812](#))
- Division A – Definitions (PCF [1813](#))
- Division B – New Part 10 – Scope, Application and Principles (PCF [1824](#))
  - May apply where the extent of the renovation affects one of the **technical areas**
- National fire Code – Protection of Adjacent Buildings (PCF [1797](#))

## 2024 Winter Public Review – Technical Provisions – Overview

- NBC 9.36
  - Service Water Heating Systems (PCF 1825)
  - HVAC Systems Requirements (PCF 1826)
  - Airtightness Requirements (PCF 1827)
  - Fenestration, Doors and Skylights (PCF 1828)
  - Above-grade Opaque Walls (PCF 1829)
  - Below Grade Building Assemblies (PCF 1850)
- NBC 9.25
  - Consider air barrier below ground when improving airtightness (PCF 2032) (i.e. radon ingress)
- NBC 9.32
  - Consider ventilation when removing old naturally-vented heating appliances (PCF 2033)





# 2024 WINTER PUBLIC REVIEW

(FEB 20-APR 29)



## Service Water Heating Systems (PCF 1825)

- Maintenance and repair exempt
- General Rule – Alterations:
  - Minimum Equipment Efficiency (\$)
  - NBC Table 9.36.4.2.  
= what is available on the market  
= what Federal Energy Efficiency Regs require
- Insulate** hot water pipes that are newly installed and/or where they are accessible (\$)
- Where applicable, storage tanks shall have **automatic temperature controls**
- Extensions / Additions:
  - Tiered energy and GHG requirements may apply !*

9.36.4.2. Division B

Table 9.36.4.2.  
Service Water Heating Equipment Performance Requirements  
Forming Part of Sentences 9.36.4.2.(1) and (2)

Type of Equipment	Input <sup>(1)</sup>	Performance Testing Standard	Performance Requirement <sup>(2)</sup>
<b>Storage-Type Service Water Heaters</b>			
Electric	$\leq 12 \text{ kW}$ ( $V_i > 50 \text{ L}$ but $\leq 270 \text{ L}$ )	CAN/CSA-C191	SL $\leq 35 + (0.20 V_i)$ (top inlet)
			SL $\leq 40 + (0.20 V_i)$ (bottom inlet)
	$\leq 12 \text{ kW}$ ( $V_i > 270 \text{ L}$ but $\leq 454 \text{ L}$ )		SL $\leq (0.472 V_i) - 38.5$ (top inlet)
	$> 12 \text{ kW}$	ANSI Z21.10.3/CSA 4.3 or DOE 10 CFR, Part 431, Subpart G, Appendix B	SL $\leq (0.472 V_i) - 33.5$ (bottom inlet)
Heat pump water heaters	$\leq 24 \text{ A}$ and $\leq 250 \text{ V}$	CAN/CSA-C745	EF $\geq 2.1$
Gas-fired <sup>(3)</sup>	$\leq 22 \text{ kW}$ and first-hour rating $< 68 \text{ L}$	CAN/CSA-P3	UEF $\geq 0.3456 - (0.00053 V_i)^{(4)}$
	$\leq 22 \text{ kW}$ and first-hour rating $\geq 68 \text{ L}$ but $< 193 \text{ L}$		UEF $\geq 0.5982 - (0.00050 V_i)^{(4)}$
	$\leq 22 \text{ kW}$ and first-hour rating $\geq 193 \text{ L}$ but $< 284 \text{ L}$		UEF $\geq 0.6483 - (0.00045 V_i)^{(4)}$
	$\leq 22 \text{ kW}$ and first-hour rating $\geq 284 \text{ L}$		UEF $\geq 0.6920 - (0.00034 V_i)^{(4)}$
	$> 22 \text{ kW}$ but $\leq 30.5 \text{ kW}$ and $V_i \leq 454 \text{ L}$		UEF $\geq 0.8107 - (0.00021 V_i)^{(4)}$
	$> 22 \text{ kW}$	DOE 10 CFR, Part 431, Subpart G, Appendix A	$E_i \geq 90\%$ and SL $\leq 0.84 [(1.25 Q) + (16.57 \sqrt{V_i})]$
Oil-fired	$\leq 30.5 \text{ kW}$ and first-hour rating $< 68 \text{ L}$	CAN/CSA-B211 for EF or CAN/CSA-P3 for UEF	EF $\geq 0.68 - (0.0005 V_i)$ or UEF $\geq 0.2509 - (0.00032 V_i)$
	$\leq 30.5 \text{ kW}$ and first-hour rating $\geq 68 \text{ L}$ but $< 193 \text{ L}$		EF $\geq 0.68 - (0.0005 V_i)$ or UEF $\geq 0.5390 - (0.00042 V_i)$
	$\leq 30.5 \text{ kW}$ and first-hour rating $\geq 193 \text{ L}$ but $< 284 \text{ L}$		EF $\geq 0.68 - (0.0005 V_i)$ or UEF $\geq 0.6078 - (0.00042 V_i)$
	$\leq 30.5 \text{ kW}$ and first-hour rating $\geq 284 \text{ L}$		EF $\geq 0.68 - (0.0005 V_i)$ or UEF $\geq 0.6815 - (0.00037 V_i)$
	$> 30.5 \text{ kW}$ but $\leq 40.99 \text{ kW}$ and $V_i \leq 454 \text{ L}$		UEF $\geq 0.6740 - (0.00035 V_i)$
	$> 40.99 \text{ kW}$	DOE 10 CFR, Part 431, Subpart G, Appendix A	$E_i \geq 80\%$ and SL $\leq (1.25 Q) + (16.57 \sqrt{V_i})$
<b>Tankless Service Water Heaters</b>			
Gas-fired	$< 58.56 \text{ kW}$ , $V_i \leq 7.6 \text{ L}$ and max. flow rate $< 6.4 \text{ L/min}$	CAN/CSA-P3	UEF $\geq 0.86$
	$< 58.56 \text{ kW}$ , $V_i \leq 7.6 \text{ L}$ and max. flow rate $\geq 6.4 \text{ L/min}$		UEF $\geq 0.87$
	$\geq 58.56 \text{ kW}$ , $V_i \leq 37.85 \text{ L}$ and input rate to $V_i$ ratio $\geq 300 \text{ W/L}$	DOE 10 CFR, Part 431, Subpart G, Appendix C	$E_i \geq 94\%$
Oil-fired	$\leq 61.5 \text{ kW}^{(5)}$	DOE 10 CFR, Part 430, Subpart B, Appendix E	EF $\geq 0.59 - (0.0005 V_i)$
	Other	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	$E_i \geq 80\%$
Electric	—	—	<sup>(6)</sup>
Combined space- and water-heating systems (combos)	$\leq 67.9 \text{ kW}$ if boiler-based $\leq 73.2 \text{ kW}$ if based on service water heater	CAN/CSA-P9	TPF = 0.80

Copyright © NRC 1941 - 2022 World Rights Reserved © CNRC 1941-2022 Droits réservés pour tous pays

# 2024 WINTER PUBLIC REVIEW

(FEB 20-APR 29)



## Heating Ventilating and Air-Conditioning Systems (PCF 1828)

- Exempt (\$)
  - Maintenance and repair
  - Replacement with similar part or component
- General Rule: Minimum Equipment Efficiency (\$)
  - Equipment Efficiency in NBC Table 9.36.3.10.  
= what is available on the market  
= what Federal Energy Efficiency Regs already require
- For Additions (like new construction):
  - Seal newly installed ducts/plenums (\$)
  - *Tiered energy and GHG requirements may apply!*
- For Alterations and Extensions – new spaces (previously unconditioned):
  - Size and install according to Sections 9.32. (ventilation) and 9.33 (Heating, A/C) (\$)
  - **Exempt, if** existing HVAC is demonstrated to be sufficient (e.g. CSA F280, modeling)

Type of Equipment	Heating or Cooling Capacity, kW	Performance Testing Standard	Minimum Performance <sup>(1)</sup>
<b>Air-Cooled Unitary Air Conditioners and Heat Pumps – Electrically Operated</b>			
Split system	< 19	CSA C656	SEER = 14.5 EER = 11.5 HSPF V = 7.1
Single-package system	< 19	CSA C656	SEER = 14 EER = 11 HSPF V = 7.0
Heat pumps, split and single-package	≥ 19	See Tables 5.2.12.1-A to -P of Division B of the NECB	
Air conditioners, all electrical phases, split and single-package	≥ 19	See Tables 5.2.12.1-A to -P of Division B of the NECB	
<b>Single-Package Vertical Air Conditioners (SPVAC) and Heat Pumps (SPVHP)</b>			
SPVAC and SPVHP in cooling mode	< 19	CAN/CSA-C746	EER = 11
SPVAC and SPVHP in heating mode	< 19		COP <sub>h</sub> ≥ 3.3
SPVAC and SPVHP	≥ 19	See Tables 5.2.12.1-A to -P of Division B of the NECB	
<b>Water-Cooled Unitary Air Conditioners and Heat Pumps – Electrically Operated</b>			
Ground-source and water-source heat pumps	≤ 40	CAN/CSA-C13256-1	COP <sub>h</sub> ≥ 4.75, COP <sub>c</sub> ≥ 3.6
open loop			COP <sub>h</sub> ≥ 3.89, COP <sub>c</sub> ≥ 3.1
closed loop			
Water-to-water heat pumps	≤ 40	CAN/CSA-C13256-2	COP <sub>h</sub> ≥ 5.60, COP <sub>c</sub> ≥ 3.4
open loop			COP <sub>h</sub> ≥ 4.21, COP <sub>c</sub> ≥ 2.8
closed loop			
Internal water-loop heat pumps	< 5	CAN/CSA-C13256-1	COP <sub>h</sub> ≥ 3.28, COP <sub>c</sub> ≥ 4.2
	≥ 5 and ≤ 40		COP <sub>h</sub> ≥ 3.52, COP <sub>c</sub> ≥ 4.2
Water-cooled air conditioners – all types	< 19	ANSI/AHRI 210/240	COP = 3.54, ICOP = 3.60
	≥ 19	See Tables 5.2.12.1-A to -P of Division B of the NECB	

# 2024 WINTER PUBLIC REVIEW

(FEB 20-APR 29)



## Fenestration, doors and skylights (PCF 1826)

- Exempt:
  - Maintenance and repair
- General Rule – Alterations:
  - Whole window/door
    - Comply with Article 9.36.2.7.
    - U values/ ER ratings (\$)
  - Where **only glazing** is being replaced:
    - the higher of
      - selection from Table 9.36.2.7-C or (\$)
      - existing glazing U value (\$)
    - detailed explanatory note
- Wall/window interface shall be airtight (\$)
- Extensions / Additions
  - *Tiered requirements may apply for extensions / additions !*

Table 9.36.2.7-C  
Compliance Options for Site-built Windows and Glazed Portion of Doors  
Forming Part of Sentence 9.36.2.7.(3)

Component	Description of Component	Compliance Options							
		Climate Zones 4 and 5 ≤ 3999 HDD			Climate Zones 6 and 7A 4000 to 5999 HDD			Climate Zones 7B and 8 ≥ 6000 HDD	
		1	2	3	1	2	3	1	2
Frame	non-metallic	✓	✓	—	✓	✓	—	✓	✓
	thermally broken metallic	—	—	✓	—	—	✓	—	—
Glazing	double	—	✓	—	—	—	—	—	—
	triple	✓	—	✓	✓	✓	✓	✓	✓
	argon-filled	—	✓	—	✓	—	✓	—	✓
Low-e coating	none	✓	—	—	—	—	—	—	—
	number of panes with ≤ 0.10	—	≥ 1	—	—	—	—	≥ 2	—
	number of panes with ≤ 0.20	—	—	2	≥ 1	2	≥ 2	—	≥ 2
Spacer	size, mm	12.7	—	12.7	≥ 12.7	12.7	≥ 12.7	≥ 12.7	≥ 12.7
	non-metallic	—	✓	—	—	—	—	—	—



## Airtightness Requirements (PCF 1827)

- General Rule
  - 1) Where the alteration impacts the continuity of the air barrier system or where no continuous air barrier system exists within the extent of the alteration
    - a) discontinuous areas of the air barrier system shall be constructed in conformance with Sentence 9.36.2.9.(1) (\$) or
    - b) the air barrier system shall be tested and achieve an airtightness level of at least [2.5 ACH] (\$)
- No Exceptions !
- Reminder: Extensions/Additions are 'like new construction'
- Detailed Appendix Note
  - air barrier materials can also fulfill other building envelope functions
  - airtightness can negatively affect other building systems (ventilation, heating, cooling)
  - what can happen airtightness is significantly or partially improved (indoor air quality)
  - Reference to CHBA Renovators' Manual





# 2024 WINTER PUBLIC REVIEW

(FEB 20-APR 29)

Canadian  
Home Builders'  
Association



## R-values of walls, attics, floors over unheated space, cathedral ceilings (PCF 1829) and below grade assemblies (PCF 1850)

- Maintenance and repair exempt
- General Rules
  - Safety/Health: where additional insulation is installed – follow all Part 9 reqs for insulation!
    - Detailed Explanatory Note
  - Energy Efficiency: Goal is to increase R values wherever possible
    - Assess according to 9.36.2.2 . (estimate R value)
    - Conform to Table 9.36.2.6 for above grade or Table 9.36.2.8. for below grade assemblies
- Exceptions
  - "Where the effective thermal resistance cannot be improved to meet the requirements due to construction limitations, structural constraints, loss of space functionality, or other requirements of Part 9, the respective thermal resistance shall be improved **to the extent possible**."
  - Detailed explanatory notes that 'to the extent possible' may mean 'not at all'.

Thank you!  
WG Reno Code!

Reference to CHBA Renovators Manual in Appendix (house-as-a-system guidance)





## R-values of walls, attics, floors over unheated space, cathedral ceilings (PCF 1829) and below grade assemblies (PCF 1850)

- Appendix Note on *“extent possible”*!
  - provide flexibility where required thermal resistance will not be feasible or where it is prevented by
    - existing mechanical and electrical elements not intended to be changed in the alteration,
    - existing walls or columns and beams obstructing the installation of insulation,
    - stairwells located against the existing exterior wall (and adding insulation might make the stairwell non-compliant with Part 9 requirements or might require significant effort and cost to reconstruct or relocate the staircase),
    - existing doors framed close to the existing wall are not changed as part of the alteration,
    - very small rooms in old homes, where adding 4 inches of insulation on the inside of walls would make the room unusable (e.g., as a washroom or powder room or even as a bedroom) without substantially reconstructing walls, structural supports or rerouting building services.
  - intent is to
    - encourage increasing thermal resistance as much as possible within these limitations.
    - recognize instances where installation of insulation may not be possible
    - manage risk of undesirable consequences, such as condensation, especially with partial insulation



## Separate, non-energy proposals (PCF 2032 , 2033)

- Section 9.32. requiring balanced ventilation
  - When taking out and shutting down old heating systems with cold air return
  - When airtightness is significantly improved
  - **Make sure remaining ventilation system is not negatively affected**
- Section 9.25. requiring a review of air barrier system below ground
  - When airtightness is significantly improved
  - **To consider radon ingress**
- Recognizes House-as-a-system Concept

# How to Enter Public Review Comments

Canadian Home Builders' Association  
Suite 500, 141 Laurier Ave W, ON K1P 5J3  
[chba@chba.ca](mailto:chba@chba.ca) | [chba.ca](http://chba.ca) | 613-230-3060



[Home](#) > [Public review of proposed changes to the 2020 National Model Codes](#)

## Public review of proposed changes to the 2020 National Model Codes

This national public review runs from **October 23 to December 18, 2023**.

The Canadian Board for Harmonized Construction Codes (CBHCC) invites code users, the Codes community, and the public to participate in the fall 2023 public review of proposed changes to the 2020 editions of the National Model Codes. The proposed changes included in this public review address the following topics in the National Building Code of Canada, the National Fire Code of Canada, the National Energy Code of Canada for Buildings, and the National Plumbing Code of Canada:

- alterations to existing buildings
- greenhouse gas emissions
- radon
- airtightness
- accessibility – illumination levels and projection of protruding building elements
- building envelope – thermal bridging and insulation
- building fire safety
- climatic loads
- combustible construction – fire protection and safety
- encapsulated mass timber construction
- HVAC equipment efficiency
- large farm buildings
- hazardous materials and activities
- plumbing materials and equipment
- fire protection
- use and egress
- penetrations
- prescriptive trade-off path
- vegetated roof assemblies
- windows, doors and skylights
- environmental separation standards
- lighting
- fenestration – thermal characteristics



See the [summary of key proposed changes](#) below for more details.

The purpose of this public review is to:

- provide code users, the Codes community, and the public with a detailed look at proposed technical changes, and
- seek comment on each proposed technical change as to whether it should be approved, altered or withdrawn.

The public review will close at **11:59 pm PST on December 18, 2023**, after which comments will no longer be accepted.

The result of the public review process is a collection of comments on proposed code changes. The comments are sorted and



# CHBA PROCESS FOR PUBLIC REVIEW COMMENTS



**CHBA communicates** Public Review to its members



CHBA National staff reviews the proposed changes and **drafts comments**



CHBA holds **webinar series** for members and gathers broad feedback



**! TRC/CRC-Mgmt Committees and the CHBA Working Group on the Reno Code**  
• reviews draft comments and gathers provincial HBA feedback

National **staff revises and submits final comments**  
(Local/Provincial HBAs or individual members may want to submit reinforcing comments)

**CHBA's aim is to ensure alignment with all three levels of the Association before submitting comments.**

# PUBLIC REVIEW COMMENTS



## Well-written comments can make a big difference!

- Describe how the proposed change applies to your situation
- Describe what works, what doesn't
- Explain why you can't support the change
- **Propose your own modifications**, suggest alternative approaches
- Justify your proposed modifications/alternatives
- Support them with evidence, or cost, if possible
- Be concise and precise
- If your comment gets long
  - stick to one comment/idea per paragraph
  - number your comments/ideas/issues, and/or
  - use headings



Go to CBHCC's  
Public Review Site

# Questions?

[alex.bols@chba.ca](mailto:alex.bols@chba.ca)

[jack.mantyla@chba.ca](mailto:jack.mantyla@chba.ca)

[frank.lohmann@chba.ca](mailto:frank.lohmann@chba.ca)

[kathleen.maynard@chba.ca](mailto:kathleen.maynard@chba.ca)

Canadian Home Builders' Association  
Suite 500, 141 Laurier Ave W, ON K1P 5J3  
[chba@chba.ca](mailto:chba@chba.ca) | [chba.ca](http://chba.ca) | 613-230-3060

