

Driving Housing Sector Productivity

Digital Codes and Permitting

Presentation to BOABC



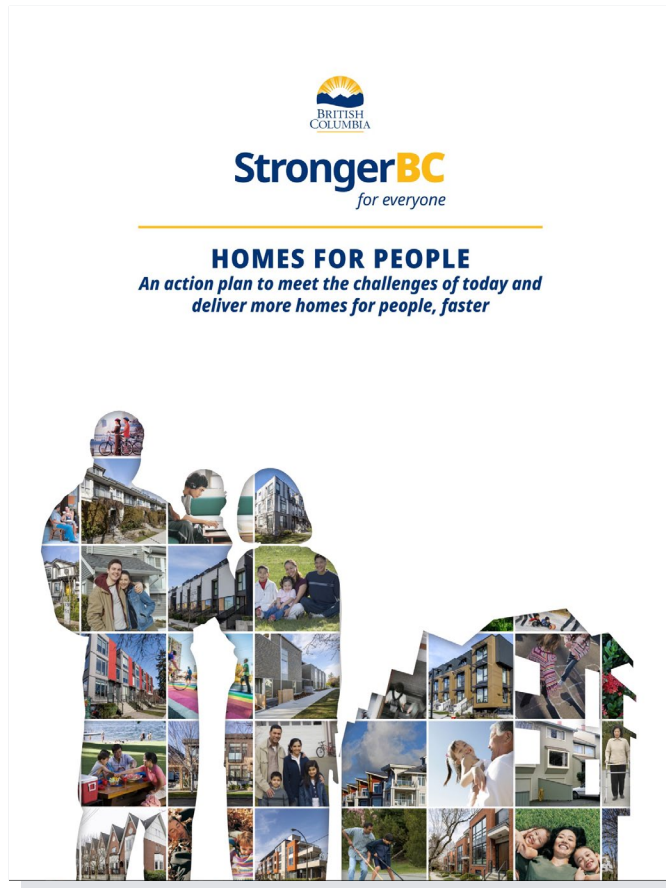
Ministry of
Housing and
Municipal Affairs

Building, Governance and
Innovation Division

May 25, 2026

Homes for People

Become a North American leader in digital permitting and construction



Mandate Letter

Work across ministries to expedite permits required for new housing construction



July 17, 2025

Honourable Christine Boyle
Minister of Housing and
Municipal Affairs
Parliament Buildings
Victoria, BC V8V 1X4

Dear Minister Boyle:

Congratulations on your appointment as Minister of Housing and Municipal Affairs at a critical time for our province. Serving as a member of the executive council is a privilege and responsibility which I am confident you will fulfill with integrity and a commitment to the people of our province.

British Columbians have trusted us with a mandate to deliver for them in ways that make a tangible difference in their daily lives. They expect us to listen and learn from people of different perspectives – and work together to make things better for everyone.

Specifically, we will tackle the challenges people worry about at the kitchen table:

- **Grow the economy by creating good jobs across British Columbia.** We will collaborate with businesses, workers, and communities to attract investments in both new and traditional sectors as well as emerging sectors of the economy. This approach will bring certainty for business, security for workers, and generate the wealth needed to support the essential services British Columbians rely on.
- **Reduce costs for families,** including by helping people access homes they can afford through support for first-time homebuyers, increasing the supply of rental housing stock, and stronger measures to crack down on housing speculation.

.../2

Office of the
Premier

Web Site:
www.gov.bc.ca


Mailing Address:
PO Box 9041 Stn Prov Govt
Victoria BC V8W 9E1

Location:
Parliament Buildings
Victoria

Challenge for the housing and construction sector

“To fully offset a deterioration in affordability, **new home completions would need to increase 25 per cent above their historical average level** and sustain this record-high pace of construction for five years.”

<https://www.bcrea.bc.ca/wp-content/uploads/2023-03-28-market-intelligence.pdf>

 constructconnect.com

CMHC study finds housing construction productivity falling as crisis deepens

At a time when Canada is in dire need of a massive increase in housing starts, a new study has revealed the sector responsible for...

4 weeks ago



 CTV News

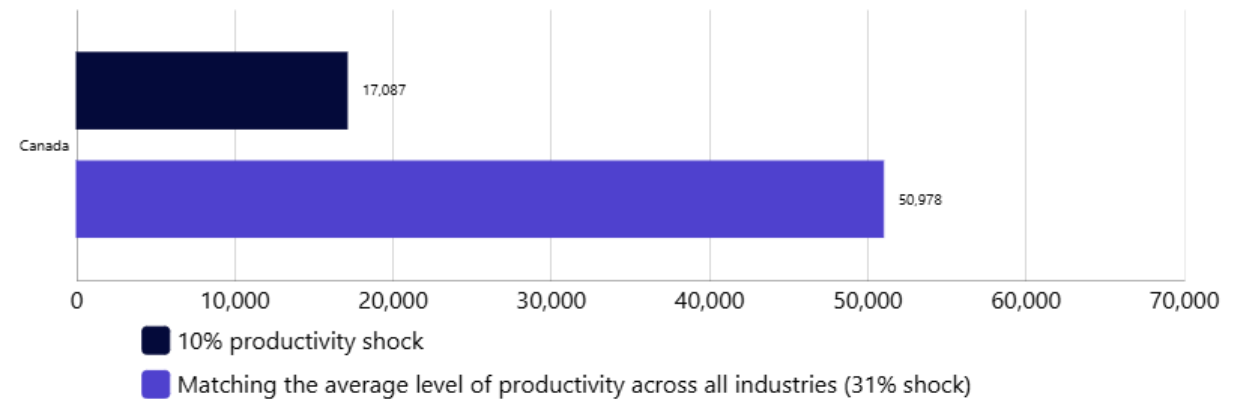
Canada's lagging construction industry linked to housing affordability issues: StatCan

A new study from Statistics Canada linked a lagging construction industry and small businesses to housing affordability issues across the...

Mar 1, 2026



Figure 24: Canada – Impacts of Improving Productivity in Construction: Average Annual Additional Housing Starts (Beyond Business-as-Usual) from 2025 to 2035 (Units)



Source: CMHC calculations.

<https://www.cmhc-schl.gc.ca/professionals/housing-markets-data-and-research/housing-research/research-reports/accelerate-supply/canadas-housing-supply-shortages-a-new-framework?ap=a1-p7>

Look West

Driving economic growth through construction innovation



Construction Action Plan's strategic objectives:

1. **Boost productivity through factory-based construction** using low-carbon wood systems, such as mass timber and prefabricated panels, enabling faster, cleaner, and more efficient building.
2. **Simplify processes by reducing regulatory and permitting friction**, and aligning procurement, financing, and insurance systems with industrialized approaches to accelerate project delivery.
3. Leverage provincial advantages by strengthening supply chains, **expanding digital tools**, and tapping into regional knowledge of manufacturers, workforce, and market demand.

Prime Minister Carney launches Build Canada Homes to supercharge homebuilding across the country

September 14, 2025
Ottawa, Ontario



Our Company



Building Reports

A New Blueprint: How Modern Methods of Construction can help solve Canada's housing crisis



Catalyze the housing industry

Help generate demand for innovative and sustainable building methods like factory-built and prefabricated construction—helping manufacturers scale up, strengthen supply chains, and create sustainable jobs

[Learn more](#)

PR1 – Simplify, improve and harmonize the approval process: The approval process for construction projects, encompassing building code compliance, zoning and land use approvals, product certification, and municipal permitting, varies across jurisdictions, creating delays and inconsistencies. While these challenges apply to all development projects, they are particularly

 KPMG

Canada's construction industry gets serious about investing in technology

Nine in 10 construction leaders say digital tools are needed to boost productivity to build more, faster, finds new KPMG in Canada report.

Jun 18, 2025



Building on creativity and confidence

Powered by a regulatory ecosystem that enables seamless access to digital tools, information and partnerships that make housing happen



Better Services

Providing access to user-friendly tools and solutions that simplify and accelerate housing development



Better Data

Building smarter, faster and more creatively with better access to data



Building Productivity

Building more housing by making modern methods of construction mainstream



Streamlined Approvals

Standard Guides

Standard Permit Forms

End-to-end Permitting Service (Building Permit Hub)

Connection to other Regulators, Crown Corps, Utilities



Rules & Tools

JSON BCBC

Interactive BCBC

Digitized LG Rules & Bylaws

In-house Compliance Tools

MARKETPLACE OF TOOLS

Standard Housing Designs

3rd Party Tools



Better Data

Interconnected data systems & Data Warehouse

Report Builder

Digital Twin

Public Data Layers



Building Productivity

BC Housing's DASH

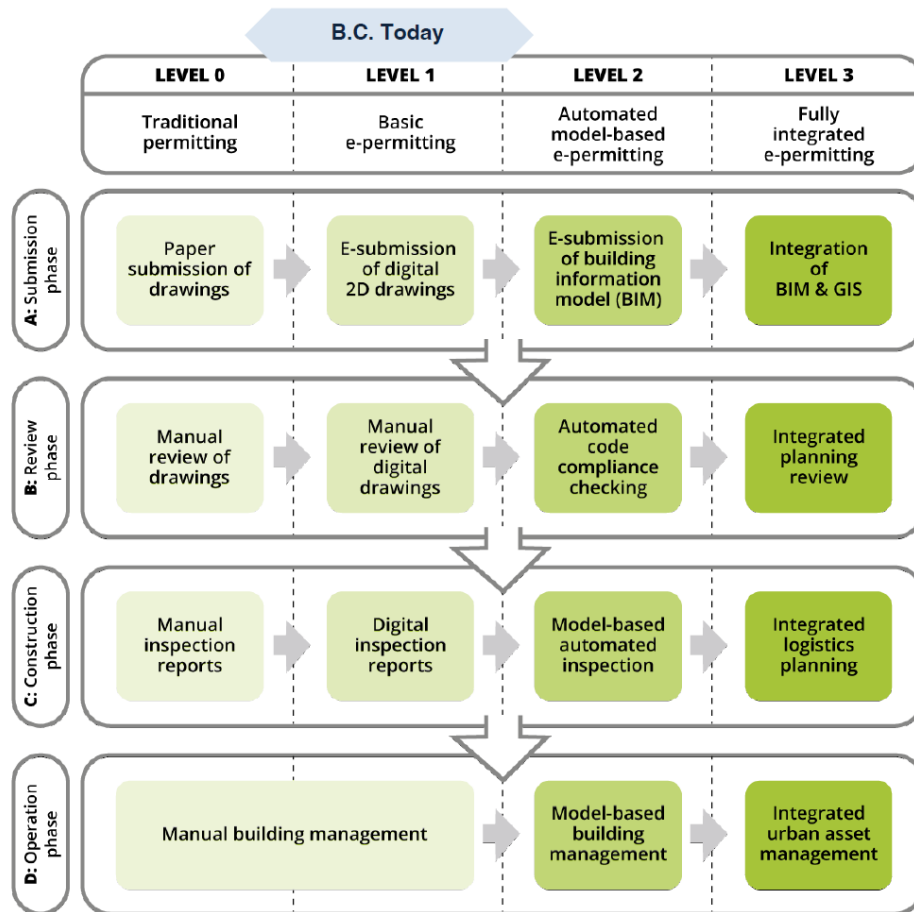
AI Development Insights Tools

Integration between manufacturers and developers

Streamlined Approvals

Digital permitting foundations

A secure, scalable, end-to-end digital permitting system that enables all communities to process permits online and provides a foundation for further digitization, automation and innovation



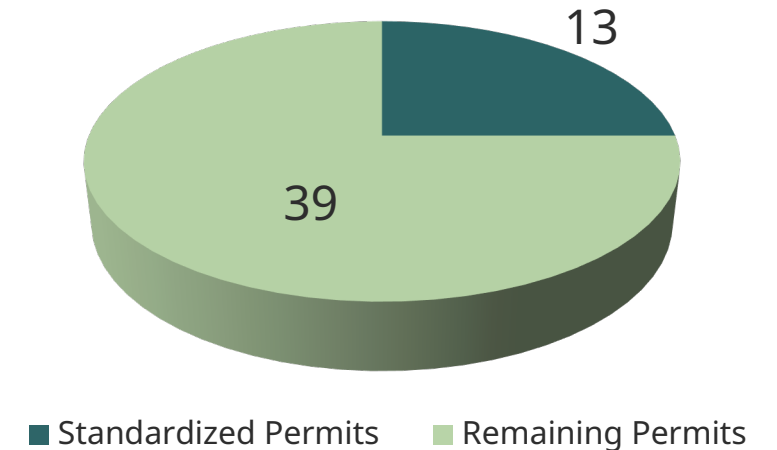
1. City of North Vancouver
2. Cowichan Valley Regional District
3. Tl'azt'en First Nation
4. District of Saanich
5. City of Langley
6. Bowen Island Municipality
7. Township of Ladysmith
8. Resort Municipality of Sun Peaks Mountain
9. City of Kamloops
10. District of Summerland
11. Sunshine Coast Regional District

Standardization

Permit Standardization

- Consistent sequencing and shared components (e.g., contact and land title information, expedited / emergency approval)
- Standardized permit application forms
 - Buildings and structures
 - Trades
 - Site preparation
 - Development permits and variances

Permits Standardized



Short-term roadmap - permits

New permits

Accessory buildings and structures (non-residential):

- Retaining wall
- Detached garage or carport
- Swimming pool

June 2026

Accessory buildings and structures (non-residential)

- Solar panels
- Sheds

Site prep & access:

- Driveway and road access

Sept 2026

Site prep & access:

- Tree-cutting and removal
- Excavation
- Site preparation and infrastructure-related alterations

Dec 2026

and beyond

Part 3 construction:

- New construction — Part 3 BC Building Code
- Mixed-use residential/commercial

Modular construction:

- Building relocation
- New construction — Part 9 BC Building Code (adapt)

Part 9 drawing requirements

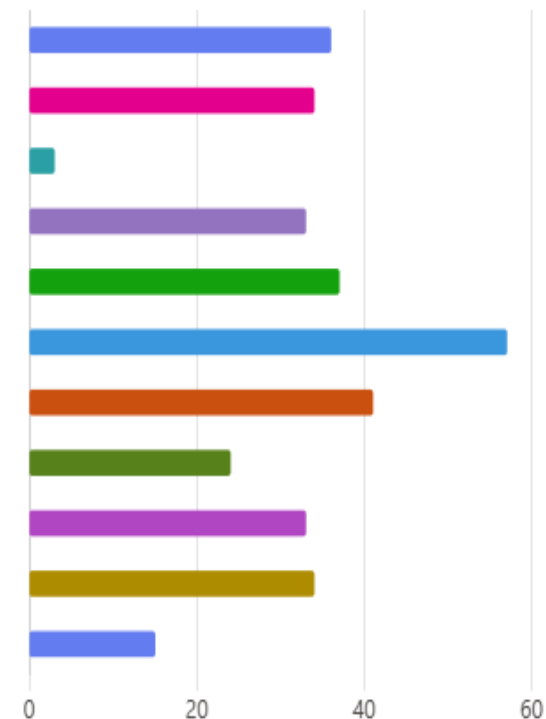
- Inconsistency of local government requirements for permit drawings
- Lack of design acumen and regulatory knowledge of Part 9 residential projects

When working in multiple jurisdictions to what extent have differences in permit drawing requirements negatively impacted (delayed) your project?

- No impact: 22%
- Minor impact: 47%
- Major impact: 25%
- Other: 5%

9. For multi-unit buildings, what drawings are frequently deficient in information?

• Site plans – zoning information	36
• Site plans – servicing Infrastructure	34
• Foundation plans	3
• Floor plans – structure, lateral design	33
• Floor plans – egress	37
• Floor plans – fire separations, firestopping	57
• Elevations – building heights, spatial calculations	41
• Roof plans – materials, venting, fire separations, lateral anchorage	24
• Cross Sections – building assemblies, frost protection	33
• Details and Notes	34
• None/Other	15



Building permit drawing guide

Best practice guide for drawing requirements with a focus on Part 9 small-scale multi-unit housing, including:

- What is a permit drawing
- Integrated design process
- Construction options - modular
- Standardized drawing formats
- Notes and code verifications
- Cross-referencing of information
- Local requirements for SSMUH projects
 - Site plans



Building Permit Drawing Guide

Part 9 : Small Scale Multi-Unit Housing Projects

Digital Tools

Objectives

Equitable access to pre-check tools

Any local government, builder, designer throughout the province have free access to key BC Building Code pre-check tools

Design with confidence

Instant feedback to identify non-compliance design features before permit submission

Faster approvals

Streamline permit reviews by reducing back-and-forth, freeing building department time for higher priority reviews



Long Term Vision of Tools Marketplace

A growing ecosystem of digital tools that simplify design, support compliance, and speed up approvals

THREE WAYS TOOLS REACH PERMIT WORKFLOWS



PLATFORM MODEL

Province as Platform Provider

Self-service API access enabling organizations, communities, and software vendors to connect their systems through the Hub. Province as a Platform enabler bringing innovative solutions from industry and government together.

EXAMPLE INTEGRATION CATEGORIES

Permit Management Syst...

Municipal Portals

Property Data Services

Developer API Access



MINISTRY-CREATED

1st Party Tools

Trusted compliance validation tools accessible to all project teams regardless of budget and location.

EXAMPLE TOOLS

Energy Step Code

Zero Carbon Step Code

Lateral Loads ↗

Spatial Separation ↗



SERVICE PARTNERS

3rd Party Tools

Tools available through the Hub from external providers. Project teams can discover options that connect with their permit workflow.

EXAMPLE TOOL CATEGORIES

LTSA Parcel Data

BC Assessment

Code Compliance ↗

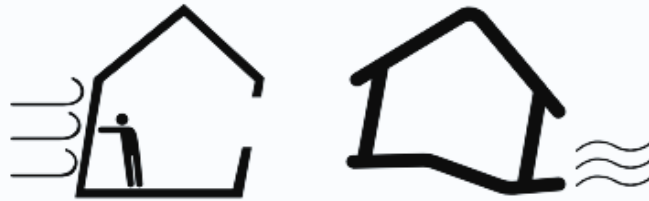
Plan Review ↗

Provincial BCBC tools

Step Codes



Part 9 - Lateral Loads



Part 9 Fire Resistance and Sound Transmission Ratings



Part 9 - Overheating



Part 9 - Spatial Separation



Plumbing - NPC



Step Code tools

Look up

- Look up Part 9 and Part 3 Step Code levels for any community
 - Includes step-up and step-down pathways
- Local governments can configure directly through Building Permit Hub

Compliance forms

- Part 9 and Part 3 pre-construction forms
- As-built forms in development this summer
- Use for permit applications in any community

Group A

Division 2: Assembly occupancies

Schools other than colleges		▼
Libraries		▼
Colleges		▼
Recreation centres		▲
ENERGY STEP CODE REQUIRED	and	ZERO CARBON STEP REQUIRED
2		N/A

Group B

Division 2: Treatment occupancies

Hospitals	▼
Care centres	▼

BC Building Code Performance Compliance Path: (optional)

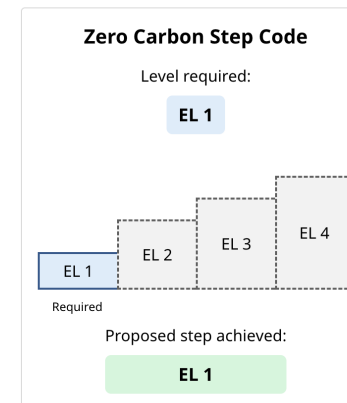
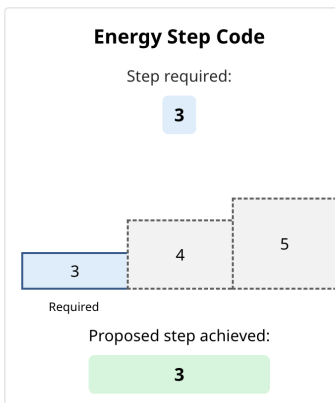
9.36.5 BC Energy Step Code

Step Requirements

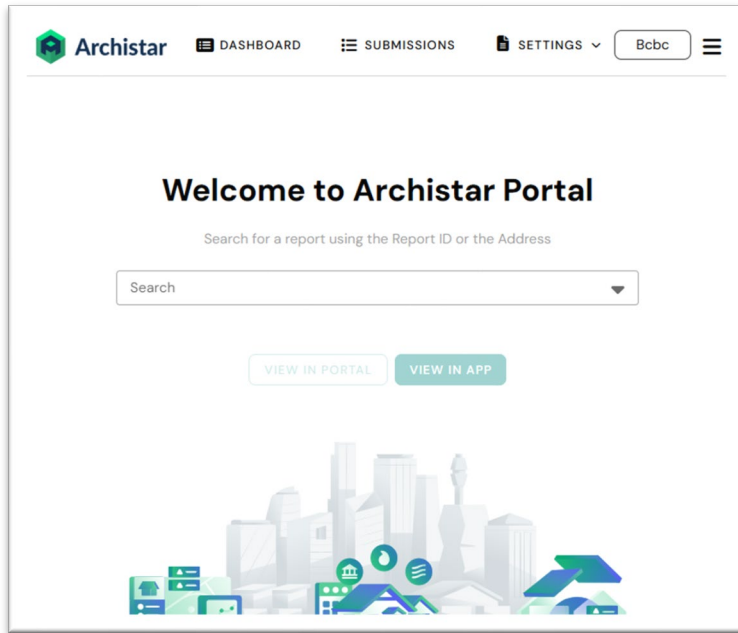
Please select the energy and zero carbon step combination you are trying to achieve:

Energy step code required		Zero carbon step required
<input type="radio"/> 5	and	EL 1 - Measure Only
<input type="radio"/> 3	and	EL 2 - Moderate
<input checked="" type="radio"/> 3	and	EL 1 - Measure Only

Please reference the [step code tool page](#) for more details and helpful information.



Piloting integration with 3rd party tools



British Columbia Building Code UAT

322 E Keith Rd, North Vancouver BCBC_2024_ESS_uat-54E25C9917 COMPLETE

← Back to sections

Showing relevant sections

9.15.3 Footings

9.15.3.4 Basic Footing Widths and Areas

Table 9.15.3.4 - Minimum Footing Width for Strip Footings

Failed

Not all strip footings satisfy minimum required width as per Table 9.15.3.4. 9.15.3.4 Sentence (2) have been considered and applied the appropriate formula for footing spanning more than 4.9m. 9.15.3.4 and 9.15.3.6 adjustments do not apply.

#	Position	Span (mm)	Req'd (mm)	Width (mm)	Result
1	Int / 3F	26522	2706	1716	Fail
2	Ext / 3F	26522	2436	2838	Pass
3	Ext / 3F	26522	2436	1716	Fail

9.15.3.8 Footing Thickness

9.15.3.8.1a - Footing thickness shall be not less than the greater of (a) 100 mm, or

Passed

All Footing thicknesses are greater than or equal to 100mm at a minimum of 761mm.

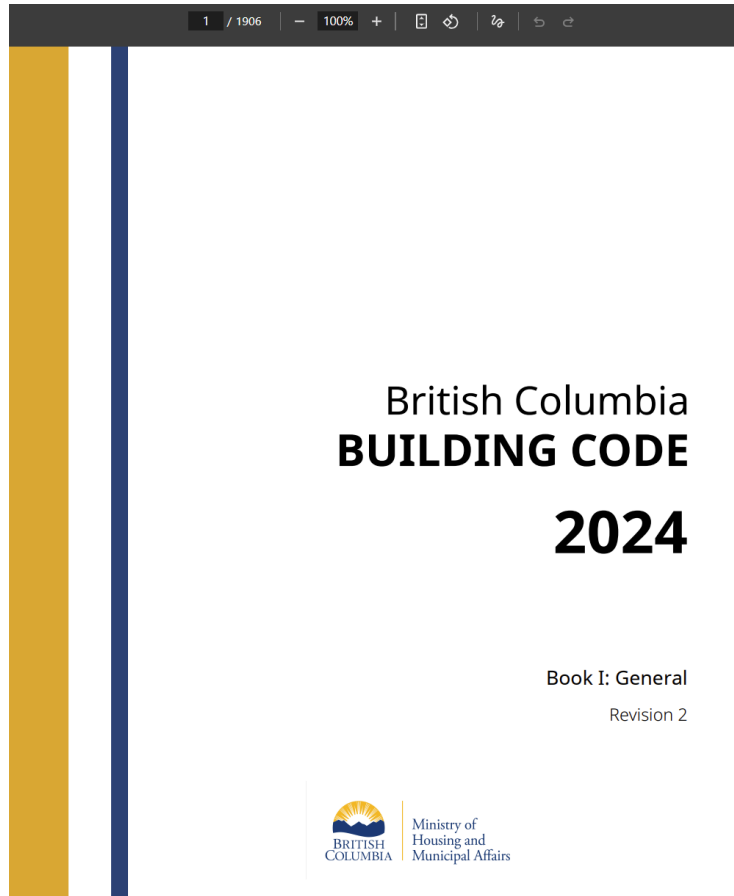
Architectural drawing showing building section A-A with various construction details and annotations. A legend in the bottom right corner identifies 'Strip Footing' (blue) and 'Footing Width' (red). A 'Building Section 1' thumbnail is visible at the bottom right of the drawing area.

Digital Rules

New BCBC expectations and usages

- Construction processes are hindered by basic code production – technology and construction sectors are stepping in to provide solutions
- One (1) licensing agreement to authorize commercial use of BCBC content and six (6) seeking license agreements
 - AI inspection tool, code compliance tools, guided calculation workflows, user-friendly code publication
- Several local governments have expressed interest in accessing a machine-readable BCBC

Need for modern BCBC publishing



- New tools are essential to delivering on the promise of modern methods of construction
- Industry-led conversions have significant risk for errors that undermine trust and cause confusion
- Continual increase in new digital tools to help people build
- Priority to maintain credibility and trust in the provincial regulation

Objectives

Ease of access

Easier for a broad range of code users to navigate, understand and apply code requirements

Single source of truth

Maintains certainty by providing code users with a **single, consistent and reliable reference point**, increasing confidence that users know which code requirements apply to their projects

Foundation for innovation

Offers a current and authoritative machine-readable BCBC that powers new digital tools that help people build

New publication formats

Machine-Readable BCBC

Sample JSON Structure

```
{
  "document_type": "bc_building_code",
  "version": "2020",
  "canonical_version": "1.0",
  "generated_timestamp": "2025-12-31T13:13:05.8015478-08:00",
  "metadata": {
    "title": "National Building Code of Canada 2020",
    "subtitle": "Volume 1",
    "authority": "Issued by the Canadian Commission on Building and Fire Codes National Research Council of Canada",
    "publication_date": "2022",
    "nrc_number": "56435E",
    "isbn": "978-0-660-37913-5",
    "volumes": [
      {
        "volume": "1",
        "title": "National Building Code of Canada 2020",
```

Interactive (Human-Readable) BCBC

The screenshot displays the BC Building Code website. At the top, there is a header with the British Columbia logo and the text "BC Building Code". Below the header is a breadcrumb trail: "Home / Division A - Compliance, ... / Part 2 - Objectives / 2.1. Application". The main content area is titled "BC Building Code" and includes the text "2024 Consolidated code version including all active revisions and errata". There are two dropdown menus: "version" set to "BC Building Code 2024" and "Effective Date" set to "June 16, 2025 (Latest)". A search bar is present with the text "Search table of contents...". A table of contents is visible, listing "Part 1 - Compliance", "Part 2 - Objectives", and "2.1. Application" (which is highlighted). On the right side, the content structure is shown: "Part 2 - Objectives", "Section 2.1. Application", "2.1.1. Application", "2.1.1.1. Application", and "2.1.1.2. Application of Objectives (See Note A-2.2.1.1.(1) Objectives.)". Below this, there are numbered list items: "1) This Part applies to all buildings covered in..." and "1) Except as provided in Sentences (2) to Sent...", with a sub-item "a) to all buildings covered in this Code...".

Digitization of rules

- Machine-readable BC Building Code (JSON)
 - Base file completed and correcting content, formatting errors
 - Future availability of machine-readable BCBC via API
- Expanding to help local government policy and bylaw digitization (e.g., OCPs, zoning bylaws)



A GUIDE FOR LOCAL GOVERNMENTS

Converting Bylaws and Other Rules
Into Machine-Readable Formats

Version 1.0 • March 2026

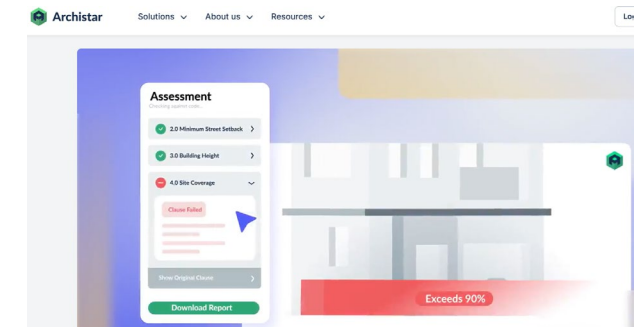
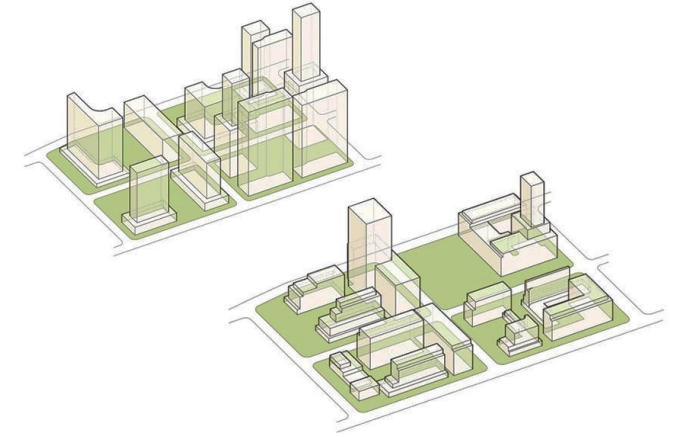
Ministry of Housing and Municipal Affairs |



Interested in bylaw digitization?
Contact nicole.vukosavljevic@gov.bc.ca

From complexity to clarity and confidence

- ? What BCBC requirements apply to my project?
- ? How much encapsulation do I need on my mass timber building?
- ? What are the limits on height, density, setbacks, lot coverage?
- ? Are there any covenants in place?
- ? What building configurations are possible on this site?



Interactive BCBC features

Phase 1 (Jan-Mar 2026)

- Full-text search, filters, and a clear navigation structure
- Glossary of defined terms, in-line definitions and BCBC cross-references
- Consolidated revisions and errata by effective date
- Quick access buttons to commonly accessed parts of the code
- Desktop, mobile and tablet friendly versions

Phase 2 (Apr-Oct 2026)

- Improving usability of the site
- Exploring potential features to incorporate, e.g.
 - In-line and tagged objectives and functional statements
 - Clear identification of NBC and BCBC code content changes at the word level

Search Results

Found 5 results for "adfreezing"

adfreezing ✕ 🔍

VOL 1 - DIVISION A - PART 1

Article

1.4.1.2. Defined Terms

Vol 1 - Division A - Part 1 / Section 1.4. / Subsection 1.4.1. / Article 1.4.1.2.

The words and terms in *italics* in this Code shall have the following meanings:

[View Section >](#)

VOL 1 - DIVISION B - PART 4

Article

4.2.4.4. Depth of Foundations

Vol 1 - Division B - Part 4 / Section 4.2. / Subsection 4.2.4. / Article 4.2.4.4.

Except as permitted in Sentence (2), the bearing surface of a foundation shall be below the level of potential damage, including damage resulting from frost action . and the foundation shall be...

VOL 1 - DIVISION B - PART 4

4 Note 4.2.4.4.(1). Depth of Foundation

Vol 1 - Division B - Part 4 / Section 4.0. / Subsection 4.0.

When adfreezing has occurred and subsequent



Search



In Testing — This site is under active development. Content and features may change.

Home / ... / 1.2. Comp... /

1.2.2. Materials, ...



[Download](#) Division A - 1.2.2 Materials, Appliances, Systems and Equipment PDF

Part 1 - Compliance

1.2.2. Materials, Appliances, Systems and Equipment

1.2.2.1. Characteristics of Materials, Appliances, Systems and Equipment

- 1) All materials, *appliances*, systems and equipment installed to meet the requirements of this Code shall possess the necessary characteristics to perform

Part 9 - Housing and Small Buildings

Guard

means a protective barrier around openings in floors or at the open sides of stairs, landings, balconies, mezzanines, galleries, raised walkways or other locations to prevent accidental falls from one level to another. Such a barrier may or may not have openings through it.

Handrails and Guards

handrails and *guards*.

9.8.1.2. Stairs, Ramps, Landings, Handrails and Guards in Garages

- 1) Where stairs, *ramps*, landings, handrails or *guards* are installed in garages that serve a single *dwelling unit* or a house with a *secondary suite* including their common spaces, the garage shall be considered to be part of the *dwelling unit* and the requirements for stairs, *ramps*, landings, handrails and *guards* within *dwelling units* shall apply.

3.2.1.1. Exceptions in Determining Building Height

Note A-3.2.1.1.(3)(a) Mezzanine Area ✕

A-3.2.1.1.(3)(a) Mezzanine Area

The permitted area of the mezzanine for the purposes of determining the allowable percentage is to be based on the open area of the floor of the space in which the mezzanine is located. The Code does not restrict the enclosing of space below the mezzanine but the enclosed area must be deducted from the area of the overall space before applying the percentage allowance.

Close

Go to Section

Size a) the aggregate area of *mezzanines* that are not superimposed does not

Version

BC Building Code 2024

Effective Date

June 16, 2025 (Latest) ▼

June 16, 2025 (Latest)

March 10, 2025

August 27, 2024

May 24, 2024

April 5, 2024

March 8, 2024



Ministry of Housing and Municipal Affairs

Thank you!