



COUNCIL REPORT

Report Date: December 11, 2024
Contact: Saul Schwebs
Contact No.: 604.873.7040
RTS No.: 16245
VanRIMS No.: 08-2000-25
Meeting Date: December 11, 2024
[Submit comments to Council](#)

TO: Standing Committee on City Finance and Services
FROM: Chief Building Official
SUBJECT: Building By-law Harmonization Opportunities

Recommendations

THAT Council direct the Chief Building Official to report back to Council in Q1 of 2025, with a proposal for a new Vancouver Building By-law (2025) to take effect on May 01, 2025, that:

- i. Repeals Building By-law #12511 and its amendments;
- ii. Adopts the 2024 British Columbia Building Code, as amended from time to time, as a base document; and
- iii. Adopts local amendments generally in accordance with **Appendix A**, harmonized with the BC Building Code, and consistent with the existing building policy, with further enhancements and refinements supportive of City priorities and objectives in the area of fire & life safety, security, accessibility, resilience, and energy & water efficiency.

Purpose and Executive Summary

This report responds to Council direction to Staff to seek opportunities for greater harmonization with the BC Building Code, and the recent adoption of a new Provincial Building Code as a regulation under the Building Act by the Province of British Columbia that took effect on March 08, 2024.

Staff are recommending:

- (a) The adoption of the 2024 BC Building Code as the base document will provide assurance, and a commitment to the construction industry, that there is consistency and a common understanding of building regulations across the province.
- (b) The adoption of limited local variation, generally identified in **Appendix A**, supporting

City objectives and administrative needs, reflective of City of Vancouver's leadership in key areas of interest, supporting the construction safe, healthy, green, resilient, accessible, and affordable buildings.

Limiting the Building By-law to provincially created regulations, removes a highly effective tool that has been used by Council to influence construction to achieve certain policy objectives through local variation from the provincial Building Code. As the provincial Building Code is primarily concerned with broader provincial concerns, this erodes Council's ability to rapidly implement solutions addressing local concerns and priorities.

Furthermore, local variations have allowed Council to introduce additional options for designers and constructors to achieve building code compliance, or eliminated construction requirements which may not have substantial benefits in the Vancouver context. This has in many cases, simplified construction or made it cheaper, in addition to providing safer and higher quality homes.

The full adoption of the BC Building Code without variation would also have financial and economic impacts to the City. The elimination of key fire safety and life safety enhancements established through local variation, would remove features that have provided business owners, and residents of the City of Vancouver with an efficient and cost-effective Fire department and favourable fire insurance ratings.

Given this context, the full adoption of the BC Building Code without local variation does not effectively support the broader context of many of the City strategic priorities¹, nor will this appreciably facilitate the faster delivery of housing in the local context, and diminishes Vancouver's reputation as a leader in progressive building policy.

Council Authority/Previous Decisions

The Building By-law is enacted under the authority provided by the Vancouver Charter, of which:

- Part IX. provides Council with the authority to regulate the construction of buildings, including structures of every kind, excavations, and everything so attached to a structure as to constitute it real property.
- Section 306. provides the specific authority for Council to make building regulations in the form of By-laws, of which per Clause 306.(1)(w) specifically allows Council to adopt, by reference in whole or in part and with any change Council considers appropriate, any code relating to fire safety or energy conservation or affecting the construction, alteration, or demolition of buildings.

Past Council direction since 1973, has been to adopt the latest edition of BC Building Code (1982) (or National Building Code (1973)), with limited amendment as the Vancouver Building By-law to address concerns and issues in the interest of the City.

In October 2023, Council directed staff to “*explore the steps and measures to harmonize and to explore the steps and measures to harmonize and otherwise align the Vancouver Building [...], for a more rapid delivery of for a more rapid delivery of housing in the City of Vancouver*”.

¹ <https://vancouver.ca/files/cov/strategic-priorities-2023-2026.pdf>

Further, staff were directed to proceed with “*specific caution [in] those areas of policy where the City has demonstrated leadership in sustainable and accessible building practices to maintain a careful balance between best practices and leadership on the climate file.*”

On October 31 2023, Council released the [Vibrant Vancouver: City Council’s Strategic Priorities for 2023 to 2026](#), containing nine strategic objectives, almost all of which may be influenced by the Building By-law, including “2. **Housing** - *We work with senior governments and other partners to address the local housing crisis, with the goal of ensuring that appropriate housing options are available for everyone in Vancouver*”, to which the VBBL is directly relevant.

On [May 29, 2024](#), Council approved in principle, the recommendation for harmonization of the adaptability requirements of the new BC Building Code by “*general adoption, with such amendments as necessary to consider the timely delivery of housing and advance the goals of equity and inclusion*”. Council also directed staff to defer the implementation of such requirements until at least May 28, 2026 ([RTS16359](#)).

City Manager’s Comments

The City Manager concurs with the foregoing recommendations.

Context and Background

General adoption of the latest edition of BC Building Code with limited amendment as the Vancouver Building By-law is consistent with past Council direction since 1973 with respect to the adoption of the National Model Codes of Canada. This is also supportive of the National Construction Codes Harmonization Agreement² signed under the auspices of the Canada Free Trade Agreement³.

This model of adoption with changes is consistent for provinces across the country (see **Appendix B**), and provides two key outcomes:

- It provides the construction industry with a general assurance that there is consistency and a common understanding of building regulations across the province, supporting the easy transfer of materials, techniques, and skilled labour across the country.
- It reflects local priorities and concerns. In Vancouver’s case, it allows the City to demonstrate leadership in key areas of interest, and support the construction safe, healthy, green, resilient, accessible, and affordable buildings.

The new 2024 Provincial Building Code is an incremental improvement over the previous building code and took effect on March 08, 2024. Based on considerable industry feedback related to regulatory changes related to earthquake design and adaptability, there was concern that these new requirements which could significantly affect the design and affordability of housing, and the provincial government opted to provide to exclude these provision from the implementation until March 10, 2025. This was then subsequently extended for in-stream projects (meaning those in review for rezoning or development permit) until March 8, 2027.

² <https://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/bc-codes/national-model-codes>

³ <https://www.canada.ca/en/national-research-council/news/2022/11/new-governance-model-for-harmonized-construction-code-development.html>

Discussion

The general rationale supporting **Recommendation A** is as follows:

- The adoption of the 2024 BC Building Code as the base document will provide assurance, and a commitment to the construction industry, that there is consistency and a common understanding of building regulations across the province.
- The adoption of limited local variation following existing building policy, as generally identified in **Appendix A**, supports City objectives and administrative needs, and is reflective of City of Vancouver's leadership in key areas of interest, supporting the construction safe, healthy, green, resilient, accessible, and affordable buildings.

Limiting the Building By-law to provincially created regulations, removes a highly effective tool that has been used by Council to influence construction to achieve certain policy objectives through local variation from the provincial Building Code. As the provincial Building Code is primarily concerned with broader provincial concerns, this erodes Council's ability to rapidly implement solutions addressing local concerns and priorities.

In considering the potential for greater harmonization with BC Building Code, the impact of a full adoption of Provincial regulations have been evaluated. The principal advantage derived from this action, is that technical requirements will be fully consistent with those of the BCBC. This will reduce variation for the building industry and could facilitate the free flow of trades and materials between Vancouver in the rest of the province.

However, it should be considered that:

- Since 1973, Vancouver has adopted the vast majority of the BC Building Code (or National Model Construction Codes) without substantial change, which means that the benefit derived from aligning the remaining technical requirements (meaning without local variations) is limited;
- The Provincial Building Code provides only limited administrative guidance, relying on local Authorities Having Jurisdiction to implement their own regulations and administrative provisions in order to administer their own permitting system;
- Items of local concern or interest, may not be aligned with, or represented in the BC Building Code;
- Interpretation of the Building Code may be subject to Provincial appeals processes, and to extra-municipal or 3rd party interpretation, without consideration of local concerns and interests and along provincial timelines; and
- The full alignment with Provincial requirements does not necessarily imply that construction will be faster or less costly.

Recent changes in the new 2024 BC Building Code provides example of where Provincial Code changes in the areas of seismic and adaptability requirements, could potentially be more onerous, and have generated considerable concern that these may significantly increase construction costs, or reduce the number of dwelling units on a project. On the other hand, several new Provincial requirements now adopt regulations that resemble Vancouver's own local variations.

Further to this, several other significant implications that might arise from full adoption of the provincial Building Code have been identified (additional detail is provided in **Appendix C**).

- Additional ongoing resourcing commitments will likely be required to support ongoing training of permit issuing staff and decision makers to align with the BC Building Act requirements and public expectation.
- No implementation of City policies through the Building By-law.
- Building Code changes will occur based on Provincial interest and timelines.
- Potential increased and ongoing firefighting resource costs and insurance costs for the City and for property owners, due to the removal of specific fire and life safety improvements.

New 2025 Building By-law

Recommendation A, proposes that the 2025 Building By-law continue with the adoption of the most recent version of the BC Building Code. Variations will be harmonized with Provincial regulation, with the view of maintaining regulatory improvements that support the delivery of safe, livable, and more affordable housing.

The adopted Building Code will provide the following:

Adaptability - The latest provincial building code, includes the substantive change that requires dwelling units in apartment and condominium type buildings to be fully adaptable, and wall reinforcement for future conversion to be provided for most other forms of housing. Staff have proposed general adoption in accordance with previous direction by Council and have harmonized existing adaptability requirements for other forms of housing. Transition provisions are recommended that will delay implementation of the new requirements until 2027.

Earthquake Design - The BC Building Code has introduced changes to seismic design requirements that affect all buildings. These changes are largely applicable to areas of active faults outside of the lower mainland and are therefore not generally expected to meaningfully impact the design or delivery of housing within the City.

Mass Timber - The provincial mass timber requirements have already been adopted into the 2019 Building By-law and will be carried forwards. Staff will continue work to explore opportunities for further improvement that will achieve greater harmonization.

Single Egress Stair - The province has recently introduced amendments for optional provisions to permit residential buildings of up to six storey to be served by a single egress stair. Due to the complexity of this topic, recommendation pertaining to these will be addressed in a forthcoming report.

Local Variations

Building By-law provisions have been reviewed for harmonization with the most recent model Building Codes. Staff are proposing revisions to existing building policy in favour of greater harmonization with the Provincial Building By-law, including the proposed deletion of several existing Vancouver variations in order to improve consistency with provincial regulation, and a number of simplifications to reduce variation and speed review. This will benefit designers and developers by reducing project cost and complexity. Further to this, a limited number of regulatory improvements have been added to address Council priorities to required rainwater retention, support temporary uses, facilitate multiplex projects, and further enable compliance pathways for Natural Gas.

Fire and Life Safety - Several improvements and modernization of existing regulations are proposed that will provide additional design options for designers. This will facilitate achieving code compliance, and better support new multiplex housing options. Regulations regarding sprinklers have also been modified to better harmonize the application of sprinkler design standards with the provincial Building Code and align with industry expectation for the application of these standards. It is expected that this will reduce the cost of sprinkler systems in many buildings and make compliance more straight forwards.

Accessibility and Adaptability – The proposed requirements for accessibility and adaptability build on prior City achievements and are now more closely harmonized with provincial regulation. General accessibility aligns fully with provincial requirements, and prior Enhanced Accessibility Requirements first added in 2001 have now been included as part of the general accessibility requirements and adaptability requirements, making it implementation more straight forwards. This reduces regulation and could provide minor benefit to plan review.

Energy Efficiency, Emissions Reduction, and Embodied Carbon – The proposed new building by-law generally includes simplification and housekeeping changes to remain harmonized with the Energy Step Code outcomes. This maintains the current direction that industry expects. The significant revision is the introduction of general guidance for the standardization of building Commissioning. This will help building owners confirm that their building are operating a peak efficiency, supporting owner objectives to reduce expenses and greenhouse gas emissions.

Existing Buildings – Requirements for existing buildings have been proposed to reorganize the provisions to better clarify how code compliance is achieved. In addition, technical revision is proposed to introduce to eliminate structural and non-structural upgrades for low value rehabilitation type projects, and for more extensive projects where upgrading is still required, to keep the scope work within the tenant space.

A more detailed summary of the proposed changes are provided in **Appendix A**.

Implications

As with all regulatory changes governing construction, there may be broad implications for building owners and construction throughout the city. This may vary significantly with each project, however, staff expect that the magnitude of these changes will align with those Provincial Building Code, on account of the significant harmonization with this construction code and relatively minor variations proposed by unique to Vancouver requirements. Unique to Vancouver technical requirements proposed in the 2025 Building By-law are therefore considered highly unlikely to delay housing delivery timelines, and in some cases may have the benefit of reducing project costs by permitting easier or cheaper alternative to comply with Code requirements.

Financial Implications

There are no direct financial implications for the City associated with this report's recommendations, these proposals are regulatory improvements that do not require actions or resourcing beyond what is already required under the current Building By-law.

Legal Implications

The new Building By-law is a continuation of existing Council policy and is not expected to expose the City to any further risk. The Building By-law contains an extensive section devoted solely to administrative and procedural requirements, which clearly identify the City’s role and obligations.

* * * * *

APPENDIX A Summary of Proposed Substantive Changes

The proposal for a new 2025 edition of the Building By-law responds to the recent adoption of a new Building Code as a regulation under the *Building Act* [SBC 2015] by the Province of British Columbia that took effect on March 08, 2024. Recommendation A of this report proposes the new Vancouver Building By-law to be based substantially upon an adoption of the 2024 British Columbia Building Code (BCBC) as a base document with local variations to support city priorities and objectives.

The proposed 2025 Building By-law has considered Council direction and concerns, and Staff have focused on harmonizing with the Provincial Building Code to facilitate industry adoption, maintaining the general consistency of prior building policy, and enhance industry ability to the delivery of safe, livable, and more affordable housing.

In general, the proposed technical changes are limited and generally non-contentious, as they expand designer options, improve harmonization, or eliminate existing regulation, for the purpose of facilitating compliance or reducing cost, which could lead to minor benefit in helping to speed housing review.

The below table provides a high level summary of the current degree of variation from the BC Building Code.

Table 1.: Summary of High Level Alignment with the BCBC

BCBC – Subject Area	2019 VBBL Current State	2025 VBBL Change Proposal
Legend:	<div style="display: flex; flex-direction: column; gap: 10px;"> <div style="display: flex; align-items: center;"> <div style="border: 1px solid black; width: 20px; height: 10px; margin-right: 5px;"></div> - Substantially Harmonized </div> <div style="display: flex; align-items: center;"> <div style="background-color: #ADD8E6; width: 20px; height: 10px; margin-right: 5px;"></div> - Harmonized with additional technical options </div> <div style="display: flex; align-items: center;"> <div style="background-color: #90EE90; width: 20px; height: 10px; margin-right: 5px;"></div> - Harmonized with Technical Variations </div> <div style="display: flex; align-items: center;"> <div style="background-color: #9370DB; width: 20px; height: 10px; margin-right: 5px;"></div> - Harmonized with Administrative Variations </div> <div style="display: flex; align-items: center;"> <div style="background-color: #FFDAB9; width: 20px; height: 10px; margin-right: 5px;"></div> - Vancouver Policy Variations </div> </div>	<p>Bold Text – Improved BCBC Harmonization</p> <p>Normal Text - No change/ Clarification</p> <p style="color: red;">Red Text - New allowance</p>
Division A		

Scope of Application	Substantively Aligned Enhanced professional oversight requirements	No change
Objective and Functional Statements	Substantively Aligned Additional physical security objectives	No change
Division B		
Daycare for Children	Substantively Aligned	Fully align with BCBC
Exit Exposure	Substantively Aligned Additional options for sprinkler protection	Proposed: Delete exit exposure for certain sprinkler protected 1 & 2 family dwellings
Fire Protection	Aligned with BCBC All buildings to be sprinklered	Simplifications to applicable sprinkler standard to reduce cost and complexity.
Spatial Separation	Substantively Aligned Additional options to address denser construction	No change
Climbability of Guards	Substantively Aligned Local variation to address climbability	Fully align with BCBC
Security Provisions	Assault Security Provisions Door and Window Security provisions	Revised provision to reduce cost and other impacts to building design
Washrooms	Substantively Aligned Gender Neutral Washrooms Additional options for reduced washroom requirements	Revised gender neutral washroom requirements to align with Industry
Accessibility	Aligned with BCBC with Enhanced Accessibility requirements	Deleted enhance accessibility requirements
Adaptability	Mandatory adaptability for residential buildings.	Adopt new BCBC provisions for adaptability in apartment/condos Retained existing adaptability provisions for lower density residential buildings.
Structural Systems (Part 4)	Substantially Aligned	No change
Environmental Separation (Part 5)	Substantially Aligned Enhance Envelope Review for framed construction	No change

Mechanical Systems (Part 6)	Substantially Aligned Commercial Kitchen Ventilation requirements	No Change
Plumbing Systems (Part 7)	Substantially Aligned Expanded allowance for Non-potable water usage.	No Change
Construction Safety (Part 8)	Substantively Aligned Local variation to align with CoV Regulations such as the Standards of Maintenance and Noise By-laws	No Change
Housing and Small Buildings (Part 9)	Substantively Aligned Spatial Separation improvements to assist with higher density sites	Proposed: Simplified Provisions for Extended Fire Department Access
Energy Efficiency and GHG Emissions (Part 10)	Aligned with BC Step Code Targets Greenhouse Gas Emissions Limits Embodied Carbon Requirements	Added provisions to standardize system commissioning
Existing Buildings (Part 11)	Upgrade Triggers Mechanism, and Additional Alternative Compliance Methods for retention of existing construction Alternative Compliance Methods for Conversions of Existing Buildings	Proposed: Waiver for Seismic and Non-seismic upgrades where project value is below \$250k. Proposed: Limit to Seismic and Non-seismic upgrades for renovation projects, to reduce scope creep.
Marinas and Float homes (Part 12)	Aligned with BC Float Home guidelines and Transport Canada requirements	No change
Temporary Buildings and Uses (Part 13)	Limited permissions for temporary buildings and uses	Proposed: Expanded options to address temporary buildings and temporary occupancy
Division C		
Administrative Provisions	Aligned with BCBC (Unique provision to address CoV Permit Processes)	Proposed: Expanded allowance for temporary mercantile use and occupancy

Fire and Life Safety

Several improvements and modernization of existing provisions are proposed to add additional options for designers. This will provide greater opportunities for designer to a achieve code compliance, and better support new multiplex housing options.

Changes include the elimination for exit exposure protection on single family homes and duplex housing, where the building is sprinklered and a second means of escape is present. Staff have also provided relaxation from consideration for spatial separation for small residential garages

and carports serving more than one dwelling unit on a lot. It is expected that this can remove significant challenges to constructing multiplex housing on smaller lots.

Regulations regarding sprinklers have also been modified to better harmonize the application of sprinkler design standards with the provincial Building Code and align with industry expectation for the application of these standards. This is expected to reduce the cost of sprinkler systems in certain buildings and make compliance more straightforward.

Structural Safety and Earthquake Design

The seismic hazard information in the 2024 BC Building Code was updated to incorporate current knowledge on seismicity reduce the risk that buildings would expose a building and its occupants to an unacceptable potential for damage, loss or use, injury or death due to structural failure or lack of structural serviceability.

These changes are not generally expected to make earthquake design more onerous in the City Vancouver. The increase in seismic hazard is largely applicable to areas of active faults near Victoria, and other areas in BC affected by new earthquake data and models of ground motion⁴. Staff are therefore recommending the continued harmonization with the Provincial requirements, and this will support consistency of design through out the province and improve performance where soil conditions are unfavourable.

Accessibility and Adaptable Design

Revisions to the 2024 BC Building Code requires condominium and apartment buildings to be provided with 100 percent adaptable dwelling units and first floor units of smaller apartment buildings. These changes are intended to support greater independence and help increase new housing inventory to benefit all people, not only those living with permanent or temporary disabilities, but also those who wish to age in place, and parents with young children.

This is a significant shift for the Provincial code, but it still does not address lower density forms of housing. Vancouver had previously adopted mandatory adaptable design requirements for all new dwelling units under the 2014 Building By-law, which has positioned Vancouver well to accommodate the provincial adaptable dwelling unit requirements. Feedback from persons with disability committee and other stakeholders have advised that it is extremely important that the City does not take a step backwards with respect to accessibility and adaptability. Staff have therefore recommended that Council not only adopt that the new 2024 BC Building Code accessibility and adaptability, but also to retain the existing adaptability provisions of the 2019 Building By-law pertaining to lower density forms of housing, which are not addressed by the Provincial regulation.

Further to this, staff have also recommended deletion of the existing Enhance Accessibility provisions, in favour of harmonization with the Provincial accessibility provisions. Provincial accessibility requirements have expanded over time, such that staff believe this is adequately address through the current provincial regulations and the new adaptability requirements. This will improve design consistency, reduce complexity, and help to reduce review timelines.

Energy Efficiency, Emissions Reduction, and Embodied Carbon

The Provincial “step code” approach to energy efficiency accommodates the various needs and

⁴ Building Standards and Safety Branch, Information Bulletin No. B24-02-R, September 19, 2024
https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/bulletins/2024-code/b24-02-r_seismic_design_delay_period_final.pdf

capacities of municipalities across the province by introducing a voluntary opt-in model with a series of performance tiers that municipalities can choose to adopt. This Provincial approach was developed with Vancouver's assistance who subsequently adopted the performance targets into the Vancouver Building By-law. As a single municipality, the direct adoption of the applicable step code targets is an appropriate simplification that harmonizes with Provincial requirements – as it is expected that each municipality would adopt specific tiers of performance by municipal regulation.

The proposed 2025 Building By-law includes simplification and housekeeping changes to remain harmonized with the Energy Step Code outcomes. This maintains the direction that industry currently expects. A significant revision proposed in the 2025 Building By-law is the introduction of technical guidance for the standardization of building Commissioning. This will help building owners confirm that their building is operating at peak efficiency, by providing a baseline for comparison, and support owner objectives to reduce expenses and greenhouse gas emissions.

Mass Timber Implementation

The BC Building Code has expanded mass timber construction opportunities for taller buildings, up to 18 storeys high, and many more types of buildings such as restaurants, shops, care facilities, warehouses⁵. This has largely been adopted into the 2019 Vancouver Building By-law, as part of a prior report to Council, and these provisions will be carried forwards to the new edition. Further review in consultation with the fire department is expected to occur as part of future work to seek improvement to achieve greater harmonization with provincial regulations.

Single Egress Stairs

The province has recently introduced optional provisions for the design of residential buildings of up to six storey with only a single egress stair. Due to the complexity of this topic, this will be addressed in a forthcoming report.

Mechanical and Plumbing Systems

Mechanical and Plumbing system requirements have been harmonized with Provincial requirements for many years, and no substantive changes in current requirements are proposed.

The 2025 Building By-law proposes to adopt the National Plumbing Code as Book II of the Building By-law, in the same manner as the 2024 BC Building Code without substantive change to existing Building By-law requirements being carried forwards. these requirements are addressed through the plumbing trades permits and are not expected to impact building permit times.

Existing provisions that expand non-potable water safety will be retained, which provide greater protection for building occupants where water reuse options are desired. As non-potable water use is voluntary, this is not expected to impose a burden on property owners.

⁵ Office of Mass Timber Implementation, Information flyer, Advancing Mass Timber in BC Codes, April 8, 2024 https://www2.gov.bc.ca/assets/gov/business/construction-industry/advancing_mass_timber_in_bc_codes_web.pdf

Recently adopted provision for rain water detention for larger buildings recently introduced into the Building By-law are proposed to be retained, which will continue to significant reductions in permit times, and reducing some of the infrastructure demand of further development in the City.

Existing Buildings

The 2025 VBBL is proposed to include a reorganization of the Existing Building requirements to clarify that there exist multiple paths to achieve compliance. This reorganization is intended to improve understanding and reduce frustration for less frequent users of the Building By-law.

In addition, two significant changes are included to:

- Reduce the scope of structural and non-structural upgrades within tenant rehabilitation type projects, and
- Place a lower boundary on the value of work being carried out in renovation type projects before structural or non-structural upgrades are required.

These change proposals will reduce scope creep into the areas outside the suite, and simply eliminate structural and non-structural upgrades entirely where the value of the work is low and scope of upgrades is excessive as proportion of the anticipated project cost. These changes align with what staff have heard from the Building Owners and Managers Association (BOMA) and who stressed the importance that upgrade for tenant work be limited to the tenant space.

Given the scale and complexity of the existing building regulations, it is recommended that broader changes to the existing building provisions be developed through a separate project, where greater consultation with industry can be carried out.

Administrative Changes

The 2025 Building by-law is proposed to include limited changes to streamline administrative policy and reduce administrative risk and improve cost recovery. These provision will also introduce transition provisions to defer the implementation of adaptability requirements until 2027 for in-stream projects (i.e. where an application has been accepted for rezoning or development permit).

Temporary Buildings and Temporary Uses

Neither the BC Building Code nor National Building Code address temporary buildings, nor do they address the concept of temporary uses of a building otherwise designed for other purposes.

Based on observed challenges with the current code structure, there appears to be a need to more directly address temporary uses, which are often problematic when:

- A building permit is sought to either maintain an existing occupancy put to a use for which it is not designed, or
- To permit a change in major occupancy without leading to expensive upgrades, which given the intended temporary use have little return on the invested amount.

It is therefore proposed that rather than continuing to find work arounds for existing code requirements or requiring continual attention from senior staff to provide relaxations, it would be better to create a framework into the Building By-law that can directly address temporary building and uses. Conceptually, this would reduce delays and confusion around how to apply

the Building By-law to such structures and uses, and allow front line staff to make a determination and issue more permits without senior staff intervention.

The present proposal seeks to relocate existing temporary building and use provisions, but frame them in a new context under a new Part 13, which includes the new concept of a temporary use within an existing but possibly different major occupancy, a concept that does not currently exist under the Canadian Model Code framework.

The proposal also includes the creation of one new temporary use, which is for temporary retail space, which has multiple purposes:

- (a) To provide means to address demonstration and show suites in new construction for the purposes of presales,
- (b) To provide for use of under-utilized spaces for retail use on a time limited basis, and
- (c) To provide for occasional time limited use to provide a legitimate space for retail use for social benefit.

This proposal is expected reduce time and cost impacts on ACCS and 3rd party groups who may wish to integrate temporary uses into an existing building. This could also be applied to other temporary retail arrangements such as show suites for housing projects.

Lastly, the establishment of Part 13, will also provide the opportunity to administratively separate Unique to Vancouver content from the BCBC, so that future efforts to digitize the BCBC and NBCC will require a minimum of cross-referencing when provincial code occur.

Administrative Provisions - Division C

The proposed administrative provision of the Building By-law are unique to the City's building process and are substantially the same as those of the 2019 Building By-law (#12511) and include minor change to accommodate current city administrative practice, and without substantive change in direction or intent.

APPENDIX B

Background Information

For the last half century, Vancouver has adopted a variation of the National Building Code of Canada (NBCC) to form the base document for the City's Building By-law since 1973. The first adoption of the British Columbia Building Code in this capacity was in 1982. This model of Code adoption is consistent by general agreement between the Federal, Provincial, and Territorial Governments, who have agreed to use the National Building Code as a common framework for building regulation across the Country. This has since been reaffirmed through a recent harmonization agreement - National Construction Codes Harmonization Agreement⁶ signed under the auspices of the Canada Free Trade Agreement⁷.

Consequently, the Province of British Columbia has amended the 2015 NBCC, developed by the National Research Council of Canada, by inserting Provincial variations to form the 2018 British Columbia Building Code.

In parallel, the Chief Building Official is recommending that unique-to-Vancouver variations to the 2018 British Columbia Building Code be adopted to form the 2019 Vancouver Building By-law.

As stated in the previous section of this report, the Vancouver Charter empowers Council to adopt by-laws to regulate the construction of buildings. The Building By-law is the primary instrument by which this authority is exercised, and it regulates the technical requirements pertaining to the design and construction of buildings, but also the administrative provisions for permitting, inspection, and enforcement of these requirements.

Vancouver Council's ability to adopt its own Building By-law is unique in the Province and also unusual in the rest of Canada. It is an important authority which allows Council the opportunity to be responsive to local issues impacting on building safety, operation and construction much more effectively and quickly than other municipalities. This authority supports the City's ability to achieve key strategic goals through the Building By-law including the following:

- providing excellent and administratively effective services,
- demonstrating leadership in green buildings,
- supporting a sustainable, affordable, livable and inclusive city, and
- supporting a safe and secure city.

Using this authority, the City of Vancouver has become a leader in implementing progressive building regulations for mandatory sprinkler systems, energy efficiency compliance and enforcement processes, rain screen cladding, enhanced accessibility, and upgrades to existing buildings. This has led to subsequent adoption both provincially and nationally.

Existing Buildings under the BC Building Code (and National Building Code)

BCBC objectives are based on the National Building Code requirements (NBC) and are broadly concerned with the idea of compliance with current requirements. This approach leaves the establishment of specific upgrade requirements applicable to an existing building undefined, to

⁶ <https://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/bc-codes/national-model-codes>

⁷ <https://www.canada.ca/en/national-research-council/news/2022/11/new-governance-model-for-harmonized-construction-code-development.html>

be established by the local authority having jurisdiction.

This approach is outlined in the User's Guide to Part 3 of the National Building Code of Canada (last published with the 1995 edition), from which we have included an excerpt conceptualizing of the general upgrade objectives expected under the NBCC:

*“In the design and construction of a new building, all requirements of the [current code] must be complied with, either directly or by the incorporation of other measures that provide an equivalent performance level. In the case of an existing building, the degree of compliance with the [current code] will vary markedly, depending on the age of the building and the editions of the NBC or other local legislation that were applied at the time of construction or during subsequent alterations. **Where substantial changes have been made in applicable building codes over the life of the building, it will be extremely difficult, and in some cases impossible, to meet current building code requirements. In these situations, compensatory measures should be applied, if necessary, to ensure that an appropriate level of safety is achieved.***

In the case of life safety, the performance intended by the [current code] should be achieved as closely as possible. In the case of property protection, judgment will have to be exercised through economic studies to determine the cost benefits that can be achieved through changes to the building. Where the basic structural frame would have to be replaced or bearing walls and shafts relocated in order to improve egress widths, it would normally be uneconomical to make these changes. It may be necessary to limit occupant loads or use other compensatory safety features in lieu of structural changes.”*

(*emphasis added, references to the 1995 NBCC recontextualized as the current code of the day to reduce confusion)

Vancouver Building By-law Application to Existing Buildings:

The VBBL provides a unique Part 11 in Division B, which codifies the upgrade requirements applicable to existing buildings. This approach differs from the Provincial approach, in that it tries to establish an acceptable level of upgrade based on the intended scope of work which is deterministic and repeatable, and does not require a subjective determination by City staff. Despite its mechanical differences, this is fundamentally aligned with Provincial objectives for existing construction, with the benefit that user of the code can predetermine what the expected upgrades should be, and the results are consistent.

Upgrade Objectives of Part 11 of the VBBL (identified in Sentence 11.2.1.1.(1)):

- a) all unsafe conditions shall be corrected to an acceptable level,
- b) all new materials and construction work shall comply with this By-law,
- c) the building shall be upgraded to an acceptable level of
 - i) fire, life and health safety,
 - ii) structural safety,
 - iii) non-structural safety,
 - iv) accessibility for persons with disabilities, and
 - v) water efficiency,
- d) any significant extension of the design life of an existing building beyond its original design life shall require upgrading to an acceptable level,
- e) an alteration to an individual suite within an existing building will not trigger upgrades within any other suites except where the alteration creates non-conformity with the By-law within such other suites, and
- f) the level of life safety and building performance shall not be decreased below the existing level.

The acceptable level upgrade is established by a documented upgrade mechanism, which allows the use to follow a set of flowcharts based on the intended scope of work and increase in hazard level.

Once the hazard level has been determined, the occupant may then either:

1. Apply a set of acceptable solutions that are deemed to comply with the acceptable level of upgrade,
2. They may propose an alternative set of upgrades supported by the design consultants which City staff could then evaluate for acceptance, or
3. They may on a basis of hardship, request that senior staff or the CBO interceded to accept a different more appropriate level of upgrade.

APPENDIX C

BC Building Code Harmonization Assessment

In response to Council's direction, the impact of greater harmonization has been evaluated.

The full adoption of BC Building Code could potentially improve consistency in Building Code application between municipalities and reduce policy development need, but is likely to do so at the expense of greatly diminished Council influence or authority over the City's Building Policies, including those that facilitate the timely delivery of housing.

The process of general adoption of the BC Building Code as the base document, represents a substantive inherent level of harmonization of building regulations, as the majority of technical requirements in the Building By-law have been directly adopted without change from the parent Codes.

Interpretation and Non-specificity in Regulation

Building Codes in Canada are documents that frequently require interpretation based on the unique circumstance of each project. Presently, building staff are empowered to make decision of interpretation with respect to the Building By-law, guided by management and city policy.

A full adoption of the BC Building Code would require staff to be retrained specifically to the Provincial Building Code and its common interpretation in order to achieve full consistency with the remainder of the province. This could decrease resource availability and lengthen permit timelines in the short term.

Additionally, the application and interpretation of the Building Code would need to fully align with provincial standards and norms even where contrary to policies that would otherwise facilitate the delivery of housing or be detrimental to other City objectives.

A full harmonization with BC Building Code could lead to the public expectation that the City be bound to extra jurisdictional guidance and practice documents, and third-party interpretations with respect to the Building Code. This is conceptually helpful with respect to general consistency with the rest of the province, excepting that such interpretation is not necessarily uniformly agreed to and represents no different an experience than that which already exists.

Building Code appeals by applicants would be heard by the Provincial Building Code Appeal Board, and in order to provide the same standard of acceptance provincially, would be binding upon the City thereby limiting staff ability to consider local context or benefit.

Certainty would only exist when appeal decision is rendered by the Provincial Building Code Appeals Board, as these have regulatory force with respect to the BC Building Code. Because these must be applied broadly through out the province, decision will necessarily be made with out consideration of local priorities, and therefore simply reduce City autonomy and Council influence with respect to building policy. Likewise, such decisions would only occur according to the timelines set by the Province. Therefore, this may work against the desired goal of accelerating construction for housing and other building forms.

Reduced Responsiveness to Local Concerns and Interests

The Provincial code is less specific, being only reflective of the broader provincial priorities and context. This would lead to a loss of City capacity to address local or developing issues. This is analogous to the broader challenges faced by Provinces when they adopt the National Model codes.

For example, the VBBL includes provisions to address the temporary use or occupancy of buildings, whereas the BCBC provides no explicit allowance for temporary uses of a building. Similarly, the BCBC does not provide explicit requirements on how to address upgrades to existing building, as these are expected to be resolved by the local AHJ on a case-by-case basis⁸.

A partial list of significant VBBL relaxations is provided below.

Issue or Concern	Contains Provisions	
	BCBC	VBBL
Administrative Requirements	General provision only, Local AHJ expected to provide their own requirements	Specific to Vancouver processes
Occupant load Determination	Determined by table	Expanded table
Determination of Grade on sloped sites	Single Grade applied site wide	Allowance to consider grades separate for discreet structures on sloped sites
Exit Protection	Glass block or Wired Glass	Glass block, Wired Glass, fire rated glazing systems, sprinkler protection
High Building Requirements	Requires special features for high buildings, including emergency power, firefighter's elevators, and building pressurization	Provide optional alternative high building measures for low rise buildings, that do not trigger high cost items like emergency power, firefighter elevators, etc.
Construction Safety	General provisions only	Specific to Vancouver processes
Energy Efficiency	Multiple Performance Steps, Local AHJ may adopt any variation of steps. Modelling required.	Specific to Vancouver, provides both prescriptive and modelled pathways
Existing Building upgrades	Required, but not specified in most cases	Specific repeatable and predictable method, and prescriptive deemed to comply solutions
Temporary Use and Occupancy	Only tents.	Specific Provisions for Arts and Culture, Daycares, Mercantile, and other uses

⁸ User's Guide: NBC: Fire Protection, Occupant Safety and Accessibility (Part 3), "Commentary B - Application of Part 3 of the NBC to Existing Buildings", Chapter 1.

Non-potable water	Generally not permitted	Provide with specific allowances to serve low hazard uses.
-------------------	-------------------------	--

Harmonization would also reduce guidance with respect to administrative provisions with respect to Vancouver permit processes. The BCBC provides only general requirements, and so Vancouver (like other municipalities) would still be required to implement a Building By-law, if only to provide the regulatory framework necessary to implement a permit process.

Firefighting Implications and Costs

A full harmonization would lead to substantive new ongoing costs to address fire and life safety in the City. BCBC does not require sprinklers for all buildings, and over time this could result in significant ongoing and compounding costs due to greater fire service resourcing needs and increasing insurance costs across the city to address a growing population of unsprinklered buildings.

Sprinkler are recognized as having significantly reduced the rate of increase for fire department resourcing, and this was outlined in a report to Council in 1995 noting that, "...as the city grows in population, so does its accompanying [...] property development. With this growth there is a need for ever larger and greater fire suppression capabilities to simply maintain the present levels of fire protection. The only way this may be avoided is through a more proactive approach to fire safety by providing an automatic suppression capability for all buildings."⁹

Sprinkler performance also supports an impressive municipal fire insurance rating that is better than most similar sized cities without fire sprinkler ordinances. This is outlined in a communication from Fire Underwriters Survey to the Fire Chief in 2019¹⁰ confirming Vancouver having achieved a Class 1 Public Fire Protection rating (out of 10) and Grade 1 (out of 5) Dwelling Protection Grade representing the best possible insurance ratings, which are referenced by insurance companies to assess risk and determine insurance rates for their subscribers throughout the City.

Building Design Implications and Costs

The Provincial Building Code recognizes the substantive fire and life safety benefit offered by sprinkler, and provides numerous exemptions and relaxation on fire and life safety related code requirements. This has the effect of increases building design options to achieve code compliance while also reducing plan review times and intensity, as permit issuing staff do not need to review for safety features that are exempt for unsprinklered buildings. A fully harmonization with BC Building Code would assuredly lead to unsprinklered buildings, thereby indirectly increasing review times for residential housing and other buildings.

Staffing Implications

Further to this, full harmonization of the Building By-law is likely to lead to the public expectation that all building permit issuing and decision-making staff be subject to be registration as Building

⁹ *Amendment to the Building By-law to Allow Simplification by Requiring Mandatory Sprinkler Systems for New Buildings*, Building and Development, June 16, 1990

¹⁰ *Fire Underwriters Survey – City of Vancouver Fire Insurance Grade Classification Results*, October 22nd, 2019.

Officials with the Building Officials Association of BC (BOABC), as is generally expected of other municipalities that are enforcing the BC Building Code. This could have considerable ongoing resourcing implications throughout the City, should staff need to undertake retraining, examination, and registration with BOABC. Which may also have short-term impacts on building permit timelines.