



REFERRAL REPORT

Report Date: May 28, 2021
Contact: Marco D'Agostini
Contact No.: 604.871.7172
RTS No.: 14461
VanRIMS No.: 08-2000-20
Meeting Date: June 8, 2021

TO: Vancouver City Council

FROM: General Manager of Planning, Urban Design and Sustainability

SUBJECT: Regulation Redesign – Simplifying Height Regulations and Miscellaneous Amendments

RECOMMENDATION

A. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Zoning and Development By-law, generally as presented in Appendix A, to:

- (i) add new definitions for building height and decorative roof to Section 2 and amend the definition for base surface;
- (ii) update height regulations in section 10.18; and
- (iii) subject to approval of A(ii), in sections 4.17.8 of the RS-6 and RS-7 District Schedules, correct a reference to section 10.18;

and that the application be referred to a Public Hearing;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amending By-law, generally in accordance with Appendix A, for consideration at Public Hearing.

B. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Zoning and Development By-law for various housekeeping amendments, generally as presented in Appendix A, to:

- (i) add infill dwellings to section 10.23A;
- (ii) in section 4.19.2 of the RM-8, RM-8A, RM-8N and RM-8AN Districts Schedule, replace 'a second principal building' with 'more than one principal building' to enable the intended form of development described in the intent statement of the schedule and the guidelines;

- (iii) correct a reference in section 6.4;
- (iv) add I-1A, I-1B and I-1C districts to the list of zoning districts in section 9.1;
- (v) update reference to districts in section 10.27;
- (vi) correct a reference in Schedule C;
- (vii) delete section 4.2.2 in the RM-7, RM-7 and RM-7AN Districts Schedules;
- (viii) remove a duplicate word in section 4.14.1(i) in the C-2 District Schedule;
- (ix) reorder accessory uses in the FM-1 and RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Districts Schedules to align with other district schedules;
- (x) update references to entries, porches, verandahs and covered porches in various District Schedules that were inadvertently missed in amending by-law 12731;
- (xi) update residential uses and remove date restrictions for neighbourhood grocery stores that were inadvertently missed in amending by-law 12893 in RS-1B, RS-3, RS-3A, RM-4 and RM-4N, , and RT-11 and RT-11N Districts Schedules; and
- (xii) insert 'building containing dwelling units in conjunction with child day care facility, provided that all residential floor area is developed as social housing' into the list of uses that are subject to the rental housing replacement and site area requirements in the RM-3A and RM-4 and RM-4N district(s) schedule and the frontage requirements in the RM-4 and RM-4N districts schedule, as these regulations were intended to apply;

and that the application be referred to a Public Hearing;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amending by-law, generally in accordance with Appendix A, for consideration at Public Hearing;

- C. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Downtown-Eastside/Oppenheimer District Official Development Plan, generally as presented in Appendix B, to re-insert "general office" as an exception to the retail continuity requirement as it was inadvertently omitted;

and that the application be referred to a Public Hearing;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amending By-law, generally in accordance with Appendix B, for consideration at Public Hearing;

- D. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Sign By-law, generally as presented in Appendix C, to:
 - (i) amend Part 7 – Sign Districts, to correct an omission by adding the I-1C District Schedule to the list of sign districts;
 - (ii) amend Part 9 – Commercial, Mixed Use and Industrial Sign District, to correct omissions by including missing district schedules and to correct typographical errors;

and that the application be referred to a Public Hearing;

FURTHER THAT the Director of Legal Services be instructed to prepare the necessary amending by-law, generally in accordance with Appendix C, for consideration at Public Hearing.

- E. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Zoning and Development Fee By-law, generally as presented in Appendix D, to correct references, and that the application be referred to a Public Hearing.
- F. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Noise Control By-law, generally as set out in Appendix E, to add missing district schedules, and that the application be referred to a Public Hearing.
- G. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Subdivision By-law, generally as set out in Appendix F, to add missing district schedules and to remove repealed district schedules, and that the application be referred to a Public Hearing.
- H. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the License By-law, generally as set out in Appendix G, to correct an incorrect reference in section 26.4, and that the application be referred to a Public Hearing.
- I. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the Parking By-law, generally as set out in Appendix H, to insert correct by-law and CD-1 numbers, and that the application be referred to a Public Hearing.
- J. THAT the General Manager of Planning, Urban Design and Sustainability be instructed to make application to amend the following land use documents, generally as presented in Appendix I:
 - (i) subject to approval of recommendation B(ii), *RM-8 and RM-8N Guidelines* to align with the regulations for number of buildings on a site in the RM-8, RM-8A, RM-8N and RM-8AN Districts Schedule;
 - (ii) subject to approval of recommendation B(ii), the *RM-8A and RM-8AN Guidelines* to align with the regulations for the number of buildings on a site in the regulations in the RM-8, RM-8A, RM-8N and RM-8AN Districts Schedule;
 - (iii) the *Guidelines for the Administration of Variances for Zero Emission Buildings in the RS, RT and RA Districts*, to clarify submission materials for net zero energy applications, to add a reference to a mechanical room exclusion previously approved by Council, and to correct grammatical errors;
 - (iv) the *Guidelines for the Administration of Variance in Larger Zero Emission Buildings* to clarify submission materials for net zero energy applications,

- to add a reference to a mechanical room exclusion previously approved by Council, and to correct grammatical errors;
- (v) the *Artist Studio Guidelines* to remove an outdated explanatory note and correct grammatical errors and numbering;
 - (vi) the *Rezoning Policy for Sustainable Large Developments* to correct a reference to an administrative bulletin;
 - (vii) the *West End Georgia/Albemi Guidelines*, to rename the guidelines *RM-6 West End Georgia/Albemi Guidelines*; and
 - (viii) the *Charles/Adanac RS-1 Rezoning Policy* to repeal it, as it has been superseded by updated land use policy;

and that the application be referred to a Public Hearing.

REPORT SUMMARY

The proposed amendments are recommended as part of work on the Regulation Redesign project to update and simplify the City's land use regulations and related land use documents, and make them more user-friendly. In combination with permit processing improvements these amendments will help to simplify, clarify and streamline permit review and are in keeping with recent Council direction to reduce the complexity of regulations to assist with clearing the permit backlog.

The report recommends amendments to the Zoning and Development By-law to simplify height regulations by:

- introducing definitions for height and decorative roof and updating the definition for base surface; and
- amending section 10.18 Height to update regulations including providing more flexibility for access to rooftop amenity spaces.

The report also recommends miscellaneous amendments to the Zoning and Development By-law, Downtown-Eastside/Oppenheimer District Official Development Plan, Sign By-law, Zoning and Development Fee By-law, Noise Control By-law, Subdivision By-law, License By-law, and Parking By-law, and various land use policy documents. The proposed amendments will achieve the intent of the by-laws and correct inadvertent errors, update references, and improve the administration of the regulations and policies.

A red-line version of the proposed amendments for the height regulations is included as Appendix K and for the various land use documents as Appendix I. The proposed miscellaneous amendments are described in section 3 below.

The proposed height amendments have been reviewed and supported to proceed by the Policy Implementation Advisory Committee (PIAC) and the Development Application and Permitting Modernization Task Force.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

On March 31, 2021 Council directed the City Manager to strike an Internal Development Application and Permitting Modernization Task Force to consolidate and integrate all work

related to Council motions and internal work regarding modernizing the city's development application and permitting and licensing processes, produce and share relevant data, provide Council with recommendations as to how to best modernize development application and permitting processes, provide recommendations on related user fee adjustments and provide bi-monthly updates to Council.

On March 31, 2021 Council affirmed its unequivocal support to prioritize the work currently underway in Development, Permitting and Licensing by initiating a moratorium on any new member motions put on notice that would otherwise result in new work for the staff involved in issuing development and building permits and business licenses until the end of 2021.

On June 25, 2020 Council approved amendments to the Zoning and Development By-law to consolidate and update regulations in Sections 3, 4, and 5 of the by-law, introduce a new definition for unnecessary hardship, introduce definitions for porches, decks and balconies and update the consistency of related regulations and make various housekeeping amendments.

On June 11, 2019 Council approved amendments to the Zoning and Development By-law to simplify and update regulations, including reformatting Sections 2, 10 and 11 of the by-law and replacing gendered terminology with gender neutral language and repealed several outdated land use documents.

On July 17, 2018 Council approved amendments to the Zoning and Development By-law to simplify and update regulations including updating intent statements in RS districts, eliminating the 2-person occupancy limit for Residential Unit Associated with an Artist Studio, providing more flexibility for work-only Artist Studios to display and sell art produced in the studio, and updating references to Director of Planning and Development Permit Board Authority to clarify authority and provide more consistency and also repealed several outdated land use documents.

On May 17, 1956 Council enacted Zoning and Development By-law No. 3575.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The City Manager recommends approval of the foregoing.

REPORT

Background/Context

Regulation Redesign is a priority project (Goal 2B – Build and Protect the Vancouver Economy) in the City’s 2020 Corporate Plan and integral to efforts to support and enhance the Vancouver economy by improving the regulatory environment so as to improve permit processing. The key objectives of the project are to:

- simplify and clarify land use regulations to make them easier to understand and implement;
- modernize regulations and language and improve the format of land use documents to make them more user-friendly;
- improve the consistency of land use regulations and policies;
- improve communication about land use tools; and
- establish a robust and enduring land use framework.

This work is aligned with other projects to improve processes, including the Development Process Redesign and service improvements being coordinated by the Development, Buildings and Licensing Department.

Regulation Redesign is meeting these objectives by focussing on three streams of work:

1. Modernize and redesign the Zoning and Development By-law (the By-law):

This work will update by-law structure and format to make it easier to find and understand regulations by:

- including more tables and diagrams in the district schedules;
- introducing definitions for land use terms such as triplex, townhouse and apartment to enable more specific regulations for multiple dwelling uses;
- reorganizing and consolidating the administrative sections; and
- improving the accessibility of the by-law for screen reader users.

Work-to-date has included reformatting Sections 2, 3, 4, 5, 10 and 11. Several virtual public focus groups were held in the summer and fall of 2020 to guide the development of a prototype for a reformatted district schedule. Based on that input, draft reformatted RM (multiple dwelling) district schedules are being introduced this summer, through the Shape Your City platform, for public feedback.

A fully reformatted, screen reader-ready by-law will be presented to Council in Q3 2022. In order to facilitate this it will be necessary to coordinate with other projects proposing regulatory amendments to implement a ‘black-out period’ in which no additional zoning regulations are amended in order to deliver a fully up-to-date reformatted by-law. Any subsequent regulatory amendments will need to comply with the new format.

2. Simplify land use regulations:

The second grouping of work is to simplify and clarify zoning regulations and bring more consistency across regulations. The proposed height amendments are part of this work and are incremental changes toward more simplified zoning regulations and more streamlined permit processing. Previous work has included introducing definitions for porches, decks and balconies and improving the consistency of related regulations, clarifying authorities and

consolidating administrative regulations. Additional regulatory amendments will be reported to Council in Q3 2022 with the reformatted by-law.

Work is also underway to update and improve Engineering tools and procedures, including those for regulating the use of streets associated with construction (e.g. street occupancy, lane use fees). Amendments will be brought forward in a separate report in Q3, 2021.

3. Endurance and legacy of the land use framework:

Creating an enduring land use framework is essential to ensuring that improvements to land use regulations, policies and procedures are sustained. This work has included creating the Zoning and Land Use Document Library, which houses the Zoning & Development By-law, and other land use regulation and policy documents, creating a comprehensive inventory of land use documents, developing new templates for land use documents to ensure consistency and establishing clear procedures for creating, storing, amending, and monitoring land use documents.

Public Engagement

Due to public health orders restricting in-person gatherings during the COVID-19 pandemic, public engagement in 2020 and 2021 was conducted online via WebEx and through the Shape Your City platform.

In the fall of 2020, focus groups were held via WebEx with 46 members of the building, design and development industry and representatives from the Architectural Institute of British Columbia (AIBC), Homebuilders Vancouver (HAVAN), Urban Development Institute (UDI), and other municipalities. The intent of the focus groups was to review and provide feedback on prototypes for a reformatted district schedule and new multiple dwelling terms, as part of work to modernize the Zoning and Development By-law. The proposed district schedule prototype and draft dwelling use terms were well received. There was significant support for the inclusion of tables and interpretive graphics to make it easier to find and understand the regulations.

From March 1st to March 31st, proposed amendments to simplify height regulations were shared through a virtual open house using the Shape Your City (SYC) platform. Opportunities for feedback were available through an online comment form. The SYC page received 521 visitors and 26 responses to the comment form. There was general support for the proposed amendments and suggestions for additional changes to simplify and clarify the regulations. These comments informed refinements to further simplify the proposed definitions and amendments to height regulations. An engagement summary is attached in Appendix J.

On March 9, 2021, a virtual information session was held via WebEx with 39 Mandarin and Cantonese speaking members of the small-scale development industry. Staff presented updates on the by-law reformat work and on proposed amendments to simplify height regulations. Participants were invited to learn more about the proposed height amendments on Shape Your City and to complete the online comment form. Additionally, a project update newsletter highlighting engagement on proposed height amendments was translated into Punjabi and Traditional and Simplified Chinese. The translated newsletter was distributed via stakeholder mailing lists.

Strategic Analysis

1. Proposed Amendments to the Zoning and Development By-law to Simplify Height Regulations

Based on feedback from a workshop on simplifying height and floor area regulations held in June 2019 with members of the development, design and building industries, amendments to simplify and clarify height regulations are proposed. These amendments are aligned with Council direction to reduce the complexity of regulations in order to decrease the length of permit processing and have been reviewed by Development, Building and Licensing staff for their permit processing impacts. The amendments include new definitions for building height and decorative roof, updating the definition for base surface and updating section 10.18 which regulates variances to height regulations for specific roof-top features (see Appendix A). A redline version of these amendments is attached as Appendix K.

a) Introduce New Definition for Building Height:

Building height is currently not defined in the by-law, although sections 10.18.1 and 10.18.2 describe how it is measured. The proposed definition would include the information currently located in sections 10.18.1 and 10.18.2:

Building Height:

The vertical distance between the highest point or points of a building and the point on the base surface, as determined by interpolation, that is directly beneath the highest point or points of a building, unless otherwise specified in a district schedule.

A new bulletin will provide an explanation of technical terms, diagrams, and calculation methods to clarify how building height is measured for common and unique site circumstances. This bulletin will describe the administrative practices related to determining the height of buildings and would be used by applicants and staff to ensure consistent information is provided.

b) Amend Base Surface Definition:

Amendments to the definition for base surface are proposed to clarify the grades that may be used in measuring height and to align with the new building height definition, by removing wording from the current base surface definition that refers to the calculation of height, as it will be included in the new height definition.

The proposed amended definition is:

Base surface:

~~That~~ *The* hypothetical surface determined by joining the official established building grades at all corners of the site, ~~provided however except that where~~ *if* official established building grades cannot be obtained through application to the City Engineer, *or if the Director of Planning determines that the official established building grades are incompatible with grades on adjoining sites, existing grades shall* ~~may be used to determine the base surface. For the purpose of measuring height of a building at any point, the elevation at that point on the base surface shall be determined by interpolating from the official established building grades or, where official established building grades cannot be obtained, from existing grades.~~ (italicized text indicates new language added to definition)

c) Introduce New Definition for Decorative Roof:

A new definition is also proposed to clarify what is considered a decorative roof, which is currently regulated by section 10.18.5. The proposed new definition:

Decorative roof:

An architecturally designed roof element that enhances the overall appearance of the building and screens and integrates mechanical equipment without adding to the floor area otherwise permitted.

d) Update Section 10.18 Height - Building

Section 10.18 currently regulates building height, base surface, variations to height regulations for certain roof-top features and decorative roofs.

Proposed amendments to section 10.18 would:

- (i) remove the current sections 10.18.1 to 10.18.3 which explain how building height and base surface are calculated (this information will be contained in the height and base surface definitions in Section 2);
- (ii) update section 10.18.4 (now proposed as the new section 10.18.1), which regulates variations to building height for various roof-top features. The provisions in this section are administered through the discretion of the Director of Planning, who must consider the effects of any of these features on siting, massing, views, overlook, shadowing and noise. The updates include modernizing wording and updating terms and providing more flexibility in height increases to accommodate various features by:
 - removing the current limitation for building height increases that restrict any additional height to 1/3 of the building width. The requirement that the height increase does not exceed 10% of roof area would still apply so as to align with Vancouver Building By-law interpretation of what is considered a storey;
 - modernizing wording on architectural appurtenances and removing the 1.1 m height restriction on appurtenances;
 - allowing rooftop access structures (stairs and elevators) and common rooftop amenity structures that are not built as part of a green roof to be excluded from the building height if the structures are less than 3.6 m in height. This will better enable access to roof decks and amenity spaces on townhouses and apartments, where required outdoor amenity space is provided, via a structure that meets Vancouver Building By-law requirements for safety and access; and
 - excluding any screening material that reduces visual impacts from building height calculations.
- (iii) update decorative roof regulations in section 10.18.5 to align with the new definition.

e) Consequential Amendments to References in the RS-6 and RS-7 District Schedules

Subject to approval of amendments to section 10.18, a reference to Section 10 in section 4.17.8 of the RS-6 and RS-7 District Schedules should be revised to 10.18.1(a), 10.18.1(c) and 10.18.1(d) to reflect the new section numbering.

2. Proposed Miscellaneous Amendments

This report also recommends various miscellaneous amendments to the Zoning and Development By-law, Downtown-Eastside Oppenheimer District Official Development Plan, Sign By-law, Zoning and Development Fee By-law, Noise Control By-law, Subdivision By-law, License By-law and various land use documents. The proposed amendments achieve the intent of the by-laws and documents and correct inadvertent errors, update references and improve administration (see Appendix A).

a) Amendments to the Zoning and Development By-law:

(i) Amend Sections 10.23A.1 and 10.23A.4 to include infill dwellings

The height and yard variations in section 10.23A.1 and the 16% exclusion from gross floor area in section 10.23A.4 were intended to apply generally to one-family dwellings that meet the Passive House standard or another equivalent zero emission building standard. Part of the original intent of section 10.23A was to include infill development where applicable, however, it was inadvertently omitted. As shown in Appendix A, it is proposed that these sections be amended as follows to include infill:

10.23A.1 For a one-family dwelling, a one-family dwelling with secondary suite, *an infill one-family dwelling*, a two-family dwelling, ~~or~~ a two-family dwelling with secondary suite, *or an infill two-family dwelling* in an RA, RS or RT district, the Director of Planning may vary the following regulations to accommodate building features designed to reduce energy consumption in a Passive House, if the Director of Planning first considers the intent of the relevant district schedule and all applicable Council policies and guidelines: (italicized text indicates new language added)

10.23A.4 In an RA, RS or RT district, except where the floor area exceeds 465 m², computation of floor area in a Passive House shall exclude 16% of the floor area in a one-family dwelling, ~~or~~ a one-family dwelling with secondary suite, *or an infill one-family dwelling*, and 18% of the floor area in a two-family dwelling, ~~or~~ a two-family dwelling with secondary suite, *or an infill two-family dwelling*, unless exclusions are sought under section 10.11, 10.23A.1(f), 10.23A.3, or section 4.7 of an applicable district schedule for bay windows. This section 10.23A.4 shall not apply to applications made after December 31, 2025. (italicized text indicates new language added)

(ii) Amend Section 4.19.2 of the RM-8, RM-8A, RM-8N and RM-8AN Districts Schedule

Section 4.19.2 regulates the number of buildings permitted on a site. The intent of the schedule is to allow more than one multiple dwelling building on a site to enable a courtyard townhouse configuration and/or to reduce the massing along a street (or lane) on large sites by allowing multiple townhouse buildings at the street (or lane) rather than one long building. On larger sites a courtyard townhouse development could include multiple buildings at the street and lane. The current regulations permit only a second principal building on a site, which is not in keeping with what is intended in the district schedule or in the *RM-8 and RM-8N Guidelines* and *RM-8A and RM-8AN Guidelines*. To address this, it is proposed that section 4.19.2 be amended, as shown in Appendix A, to allow the Director of Planning to permit more than one principal building in conjunction with a multiple dwelling or freehold rowhouse:

- 4.19.2 Notwithstanding section 10.5 of this by-law, the Director of Planning may permit ~~a second~~ *more than one* principal building in conjunction with a multiple dwelling or freehold rowhouse building on a site, if:
- (a) the site has a minimum site area of 445 m²; and
 - (b) the Director of Planning first considers the intent of this schedule and all applicable Council policies and guidelines.
- (italicized text indicates new language added)

(iii) Housekeeping amendments

This report proposes various housekeeping amendments that are needed for clarity, consistency and to correct inadvertent errors, as described in Appendix A. The table below summarizes the proposed amendments.

Section	Proposed Amendment
6.4	Replace 'Section 5' with 'Section 4' to correct the reference.
9.1	To the list of zoning districts found in the Zoning and Development By-law, add "I-1A", "I-1B", and "I-1C" districts
10.27	Amend the title to 'Site, Corner – in an RA, RS, RT, C-1 or as required in other districts' and amend 10.27.1 to "Development in an RA, RS, RT, C-1 or as required in other districts' as various other district schedules include reference to this section.
Schedule C	To correct a reference replace 'section 11.3' with 'section 10.20'
4.2.2 in the RM-7, RM-7N and RM-7AN Districts Schedule	Delete section 4.2.2, which indicates that the Director of Planning can reduce minimum frontage requirements for various dwelling uses that do not have minimum frontage requirements.
4.14.1(i) in the C-2 District Schedule	Remove a duplicate "from"
3.2 in the FM-1 District Schedule	Remove duplicate reference to Accessory Uses in section 3.2AG and update section 3.2.A to "Accessory Uses customarily ancillary to any of the uses listed in this section."
3.2, 4.2.3 and 4.17.3 in the RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Districts Schedule	Move "Accessory Uses customarily ancillary to any of the uses listed in this section" from 3.2AG to 3.2.A to be consistent with other district schedules. Delete the reference to section 4.2.1 in section 4.2.3, as section 4.2.3 concerns discretion on

Section	Proposed Amendment
	<p>maximum site frontage and section 4.2.1 pertains to minimum frontage.</p> <p>Add “Plaza” to the list of applicable amenities in section 4.7.13 to be consistent with other district schedules.</p>
<p>4.7.3 in the RT-4, RT-4A, RT-4N and RT-4AN, RT-7, RT-8, RT-9, RT-10 and RT-10N and RM-1 and RM-1N District Schedules</p> <p>4.7.9 in the RM-10 and RM-10N, and RM-11 and RM-11N District Schedules</p> <p>4.7.11 in the RM-12N District Schedule</p> <p>4.7.15 in the RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN District Schedules</p>	<p>Replace “covered verandas or porches” with “entries, porches, verandahs and covered porches above the first storey” to reflect wording that was inadvertently missed in amending by-law 12731 enacted in July 2020.</p>
<p>3.2.DW in the RS-1B, RS-3 and RS-3A District or Districts Schedules</p>	<p>Reorder alphabetically and add “Dwelling Units in conjunction with a Neighbourhood Grocery Store” as a conditional use that was inadvertently missed in amending by-law 12893 in February 2021.</p>
<p>3.2.DW in the RM-3, RM-3A, RM-4 and RM-4N, and RT-11 and RT-11N District or Districts Schedules</p>	<p>Remove the date restrictions and update residential uses associated with Neighbourhood Grocery Stores that was inadvertently missed in amending by-law 12893 in February 2021.</p>
<p>4.1.1, 4.1.2, and 4.1.3 in the RM-3A and RM-4 and RM-4N District(s) Schedule and 4.2.1 in the RM-4 and RM-4N Districts Schedule</p>	<p>Insert ‘building containing three or more dwelling units in conjunction with child day care facility, provided that all residential floor area is developed as social housing’ into the list of uses subject to the rental replacement, site area and frontage regulations as these regulations were intended to apply to this use and were omitted in error.</p>

b) Amend Sections 4.4A and 6.4A of the Downtown-Eastside/Oppenheimer District Official Development Plan:

On February 9, 2021, amendments to the Downtown-Eastside/Oppenheimer District Official Development Plan were enacted. The amendments clarified and expanded the opportunity for exceptions to the retail continuity policies 4.4 and 6.2 on Hastings Street, Main Street and Powell Street. The intent of the revisions were to allow for more flexibility to accommodate important community-serving uses, while maintaining the objective of retail continuity to ensure active, pedestrian-oriented street frontages. When drafting the amending by-law, the existing “general office” use was inadvertently omitted. This amendment proposes to re-insert “general office” in keeping with the intent of the original changes, as described in Appendix B.

c) Amend Sign By-law

The proposed changes, as shown in Appendix C, correct the inadvertent omission of the I-1C District Schedule in Part 7 – Sign Districts and Part 9 - Commercial, Mixed Use and Industrial Sign District of the Sign By-law. This consequential amendment was unintentionally missed when the new I-1C District Schedule was enacted in February 2021. Some typographical corrections are also proposed in Part 9.

Section	Proposed Amendment
7.1 Sign Districts	Add “I-1C,” after “I-1B,” within the Commercial, Mixed Use and Industrial Sign District (Part 9) row to regulate I-1C the same as I-1, I-1A and I-1B.
9.15 Free-Standing Signs (Table 9.1)	Replace “I1-A, I1-B” with “I-1A, I-1B, I-1C” to correct the mislabeled districts and add I-1C to regulate it the same as I-1A and I-1B.
9.15 Free-Standing Signs (Table 9.2)	Add I-1C after I-1B to regulate I-1C the same as I-1, I-1A and I-1B.
9.20 Projecting Sign – Maximum Sign Area (Table 9.3)	Add I-1C after I-1B to regulate I-1C the same as I-1, I-1A and I-1B.

d) Zoning and Development Fee By-law

Amendments are proposed to correct references in sections 1(a), 1A(a), 2(a), 3(a), 4 (a), 5(a) of Schedule 1 of Appendix A of the Zoning and Development Fee By-law (see Appendix D).

e) Amend Noise Control By-law

The proposed amendment (see Appendix E) corrects the inadvertent omission of the I-1A, I-1B, and I-1C District Schedules in Schedule A, Activity Zone of the Noise Control By-law. These consequential amendments were unintentionally missed when the new district schedules were enacted in May 2017 and February 2021, and maintains the same regulations for these sites as under their former I-1 zoning designation.

f) Amend Subdivision By-law

As described in Appendix F, updates are proposed to Tables 1 and 2 of Schedule A of the Subdivision By-law, which lists the standards for minimum parcel size and configuration for all zoning districts, to add zoning districts that were unintentionally missed when the new district schedules were enacted and to remove zoning districts that no longer exist. The following districts are to be added: I-1A, I-1B, I-1C, I-4, RM-5D, RM-9A, RM-9AN, C-5A, and M-1B. The RS-4, RT-5A and RT-5AN districts are to be removed from Table 1.

g) License By-law

An amendment is proposed to correct a reference in section 26.4(4) of the License By-law (see Appendix G).

h) Parking By-law

Amendments are proposed to Schedule C (CD-1 Districts Parking Requirements) of the Parking By-law to insert correct by-law and CD-1 numbers for 5190-5226 Cambie Street (see Appendix H).

i) Amendments to Land Use Documents

The following amendments are proposed to various policy and guideline documents, as shown in Appendix I:

(i) RM-8 and RM-8N Guidelines

The proposed changes to the *RM-8 and RM-8N Guidelines* are to amend table 1 'Development Scenarios', row (J) and section 4.19 (a) to change the minimum site area requirement from 703 m² (7,560 sq.ft.) to 445 m² (4,790 sq.ft.) for more than one multiple dwelling building in the form of courtyard rowhouses, to align with the regulations in the district schedule.

(ii) RM-8A and RM-8AN Guidelines

The proposed changes to the *RM-8A and RM-8AN Guidelines* are to amend section 4.19(b) to replace 'a second principal building in combination with a multiple dwelling' with 'more than one principal building in combination with a multiple dwelling or freehold rowhouse' to align with the regulations in the district schedule.

(iii) Guidelines for the Administration of Variances for Zero Emission Buildings in RS, RT and RA Districts and Guidelines for the Administration of Variance in Larger Zero Emission Buildings

The proposed amendments add a recently approved mechanical room exclusion to the list of green building regulations, and clarify the submission requirements for net zero energy applications. The proposed changes also include correction of grammatical errors and reordering sections to improve clarity.

(iv) Rezoning Policy for Sustainable Large Developments

The proposed amendment replaces the term "Sustainable Large Developments Admin Bulletin" with "Groundwater Management Administrative Bulletin" in Section E.3.4.

(v) Artist Studio Guidelines

The proposed changes to the *Artist Studio Guidelines* include striking the Explanatory Note and correcting section numbering. The Explanatory Note describes limits to the floor space ratio, strata titling and zoning restrictions that no longer align with current regulations.

(vi) West End Georgia/Alberni Guidelines

The proposed amendment renames the guidelines to *RM-6 West End Georgia/Alberni Guidelines* to include the name of the applicable zoning district for easier reference.

(vii) Charles/Adanac Rezoning Policy (1100 Block Boundary Road)

It is recommended that The *Charles/Adanac RS-1 Rezoning Policy* document, adopted in 1986, be repealed. The policy recommends that no further assembly and rezoning action be taken by the City. The policy is no longer relevant to the identified area as the parcels indicated in the policy have been redeveloped since the adoption of the policy, and none of the identified parcels are currently owned by the City. The rezoning policies in the *Hastings-Sunrise Community Vision* continue to apply to the affected area.

Implications/Related Issues/Risk

Financial

The proposed amendments will clarify regulations and review processes and will not result in any financial impact to the City.

CONCLUSION

This report recommends amendments to the Zoning and Development By-law to simplify height regulations. These proposed changes respond to issues and ideas to simplify land use regulations identified by the development industry and staff and will result in regulations that are easier to understand and help to streamline permit review. The report also recommends minor regulatory amendments that will, if approved, correct errors and improve clarity, update regulations, and provide more certainty for both staff and applicants. These minor amendments ensure continuous improvements and modernization of the City's by-laws.

* * * * *

**A By-law to amend
Zoning and Development By-law No. 3575
Regarding Amendments to the Discretionary Height Regulations and other Miscellaneous
Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. This By-law amends the indicated provisions of the Zoning and Development By-law.

2. In Section 2, Council:

(a) adds the following new definitions in alphabetical order:

(i) “Building Height The vertical distance between the highest point or points of a building and the point on the base surface, as determined by interpolation, that is directly beneath the highest point or points of a building, unless otherwise specified in a district schedule.”, and

(ii) “Decorative Roof An architecturally designed roof element that enhances the overall appearance of the building and screens and integrates mechanical equipment without adding to the floor area otherwise permitted.”; and

(b) strikes out the definition of “Base Surface” and substitutes the following:

“Base Surface The hypothetical surface determined by joining the official established building grades at all corners of the site, except that if official established building grades cannot be obtained through application to the City Engineer, or if the Director of Planning determines that the official established building grades are incompatible with grades on adjoining sites, existing grades may be used to determine the base surface.”.

3. In section 6.4, Council strikes out “section 5” and substitutes “section 4”.

4. In section 9.1, in the column labelled “Industrial”, Council adds “I-1A”, “I-1B”, and “I-1C” after “I-1”, in alphabetical order.

5. In section 10, Council:

(a) strikes out section 10.18 and substitutes the following:

“10.18 Height - Building

10.18.1 The Director of Planning may permit the following items to exceed the maximum building height otherwise permitted in this By-law provided that, except for the items set out in subsection (d), they do not in total cover more than 10% of the roof area on which they are located as viewed from directly above:

- (a) architectural features, provided no additional floor area is created;
- (b) mechanical equipment, including elevator machine rooms and any screening materials that the Director of Planning considers appropriate to reduce visual impacts;
- (c) chimneys;
- (d) roof mounted energy technologies, and access and infrastructure required to maintain green roofs or urban agriculture;
- (e) venting skylights and opening clerestory windows designed to reduce energy consumption or improve natural light and ventilation;
- (f) roof-top access structures to private or common outdoor amenity space that do not exceed a height of 3.6 m;
- (g) common roof-top amenity structures, contiguous with common outdoor amenity spaces, that do not exceed a height of 3.6 m;
- (h) any required guards, provided that the Director of Planning considers the guard materials to be appropriate to reduce visual impacts; and
- (i) items similar to any of the above.

10.18.2 The Development Permit Board may, for any building higher than 30.5 m, permit a decorative roof to exceed the maximum building height otherwise permitted in this By-law, provided that:

- (a) the Development Permit Board is satisfied that the roof enhances the overall appearance of the building and appropriately integrates mechanical appurtenances;
 - (b) the roof does not add to the floor area otherwise permitted;
- and
- (c) the Development Permit Board first considers all applicable policies and guidelines adopted by Council.”;

(b) in section 10.23A.1, strikes out “For a one-family dwelling, a one-family dwelling with secondary suite, a two-family dwelling, or a two-family dwelling with secondary suite in an RA, RS or RT district” and substitutes “For a one-family dwelling, a one-family dwelling with secondary suite, an infill one-family dwelling, a two-family dwelling, a two-family dwelling with secondary suite, or an infill two-family dwelling in an RA, RS or RT district”;

(c) in section 10.23A.4, strikes out “computation of floor area in a Passive House shall exclude 16% of the floor area in a one-family dwelling or a one-family dwelling with secondary suite, and 18% of the floor area in a two-family dwelling or two-family dwelling with secondary suite” and substitutes “computation of floor area in a Passive House shall exclude 16% of the floor area in a one-family dwelling, a one-family dwelling with

secondary suite, or an infill one-family dwelling, and 18% of the floor area in a two-family dwelling, a two-family dwelling with secondary suite, or an infill two-family dwelling”;

(d) in section 10.27, strikes out the title “Site, Corner – in an RA, RS, RT or C-1 District” and substitutes “Site, Corner – in Certain Districts”; and

(e) in section 10.27.1, strikes out “Development in an RA, RS, RT, or C-1 district” and substitutes “Development in an RA, RS, RT, C-1 district, or as required in other districts”.

6. In section 4.17.8 of the RS-6 District Schedule, Council strikes out “section 10.18.5, clauses (a), (c) and (d)” and substitutes “sections 10.18.1(a), 10.18.1(c) and 10.18.1(d)”.

7. In section 4.17.8 of the RS-7 District Schedule, Council strikes out “section 10.18.5 (a), (c) and (d)” and substitutes “sections 10.18.1(a), 10.18.1(c) and 10.18.1(d)”.

8. In the RM-7, RM-7N and RM-7AN Districts Schedule, Council strikes out section 4.2.2.

9. In the C-2 District Schedule, Council strikes out section 4.14.1(i) and substitutes:

“(i) Nanaimo Street, from William Street to Graveley Street 15.1 m; or”.

10. In the RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Districts Schedule, Council:

(a) in section 3.2.AG, strikes out “• Accessory Uses customarily ancillary to any of the uses listed in this section.”;

(b) in section 3.2.A, adds “• Accessory Uses customarily ancillary to any of the uses listed in this section.” to the end of the section;

(c) in section 4.2.3, strikes out “sections 4.2.1 and 4.2.2” substitutes “section 4.2.2”;

(d) in section 4.7.13, renumbers subsections 4.7.13(e) through 4.7.13(i) as subsections 4.7.13(f) through 4.7.13(j) respectively; and

(e) adds a new subsection 4.7.13(e) as follows:

“(e) Plaza;”.

11. In the FM-1 District Schedule, Council:

(a) in section 3.2.AG, strikes out “• Accessory Uses customarily ancillary to any of the uses listed in this section.”; and

(b) in section 3.2.A, strikes out “• Accessory Uses to any of the uses listed in this Schedule.” and substitutes “• Accessory Uses customarily ancillary to any of the uses listed in this section.”.

12. In section 3.2.DW of the RS-1B District Schedule and the RS-3 and RS-3A Districts Schedule, Council:

(a) reorders the list of dwelling uses in alphabetical order; and

(b) adds, in the correct alphabetical order, “• Dwelling Units in conjunction with a Neighbourhood Grocery Store.”.

13. In section 3.2.DW of the RM-3 District Schedule, the RM-3A District Schedule, and the RM-4 and RM-4N Districts Schedule, Council strikes out “● Dwelling Units in conjunction with a neighbourhood grocery store existing as of July 29, 1980.” and substitutes “● Dwelling Units in conjunction with a Neighbourhood Grocery Store.”.

14. In section 3.2.DW of the RT-11 and RT-11N Districts Schedule, Council strikes out “● Dwelling Units, up to a maximum of two, in conjunction with a Neighbourhood Grocery Store existing as of July 29, 1980.” and substitutes “● Dwelling Units in conjunction with a Neighbourhood Grocery Store.”.

15. In section 4.7.3 of the RT-4, RT-4A, RT-4N and RT-4AN Districts Schedule, the RT-7 District Schedule, the RT-8 District Schedule, the RT-9 District Schedule, the RT-10 and RT-10N Districts Schedule, and the RM-1 and RM-1N Districts Schedule, Council strikes out “covered verandas or porches” and substitutes “entries, porches and verandahs and covered porches above the first storey”.

16. In section 4.7.9 of the RM-10 and RM-10N Districts Schedule and the RM-11 and RM-11N Districts Schedule, Council strikes out “covered verandas or porches” and substitutes “entries, porches and verandahs and covered porches above the first storey”.

17. In section 4.7.11 of the RM-12N District Schedule, Council strikes out “covered verandas or porches” and substitutes “entries, porches and verandahs and covered porches above the first storey”.

18. In section 4.7.15 of the RM-9, RM-9A, RM-9N, RM-9AN and RM-9BN Districts Schedule, Council strikes out “covered verandas or porches” and substitutes “entries, porches and verandahs and covered porches above the first storey”.

19. In section 4.19.2 of the RM-8, RM-8A, RM-8N and RM-8AN Districts Schedule, Council strikes out “a second” and substitutes “more than one”.

20. In the RM-3A District Schedule and the RM-4 and RM-4N Districts Schedules, Council:

- (a) in section 3.3.1, adds “buildings containing three or more dwelling units in conjunction with child day care facility, provided that all residential floor area is developed as social housing,” after “Unless its development does not require the demolition or change of use or occupancy of one or more rental housing units, registered owners of”;
- (b) in section 4.1.1, strikes out “multiple dwelling or rooming house” and substitutes “building containing dwelling units in conjunction with child day care facility, provided that all residential floor area is developed as social housing, multiple dwelling, or rooming house”;
- (c) in section 4.1.2:
 - (i) renumbers subsections (a) through (c) as subsections (b) through (d), and
 - (ii) adds a new subsection (a) as follows:

“(a) a building containing dwelling units in conjunction with child day care facility, provided that all residential floor area is developed as social housing, with a minimum lot area of 500 m²;” and

(d) in section 4.1.3:

(i) renumbers subsections (a) through (c) as subsections (b) through (d), and
(ii) adds a new subsection (a) as follows:

“(a) a building containing dwelling units in conjunction with child day care facility, provided that all residential floor area is developed as social housing;”.

21. In section 4.2.1 of the RM-4 and RM-4N Districts Schedule, Council strikes out “The maximum frontage for a site for a multiple dwelling” and substitutes “The maximum site frontage for a building containing dwelling units in conjunction with child day care facility, provided that all residential floor area is developed as social housing, or a multiple dwelling”.

In Schedule C (Streets Requiring Landscaped Setbacks), Council strikes out “section 11.3” and substitutes “section 10.20”

**A By-law to amend Downtown Eastside/Oppenheimer
Official Development Plan By-law No. 5532
Regarding Housekeeping Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. This By-law amends the indicated provisions of Schedule A of By-law No. 5532.
2. Council amends sections 4.4A and 6.4A by inserting “, including general office,” after “recreational or local economic development needs of the local community”.

**A By-law to amend Sign By-law No.11879
Regarding Housekeeping Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. This By-law amends the indicated provisions of Sign By-law No. 11879.
2. In section 7.1, Council amends Table 1 by adding "I-1C," after "I-1B," to the Corresponding Zoning Districts and Areas in Column 2 for the Commercial, Mixed Use and Industrial Sign District (Part 9) Sign District as identified in Column 1.
3. In section 9.15, Council:
 - (a) in Table 9.1, in the second row of the column labelled "Zoning District", strikes out "I1-A, I1-B," and substitutes "I-1A, I-1B, I-1C,"; and
 - (b) in Table 9.2, in the second row of the column labelled "Zoning District", adds "I-1C," after "I-1B,".
4. In section 9.20, Council amends Table 9.3 by adding "I-1C," after "I-1B," in the second row of the column labelled "Zoning District".

**A By-law to amend
Zoning and Development Fee By-law No. 5585
Regarding Housekeeping Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. This By-law amends the indicated provisions of Zoning and Development Fee By-law No. 5585.
2. In sections 1(a), 1A(a), 2(a), 3(a), 4(a), and 5(a) of Schedule 1 of Appendix A, Council strikes out "Section 3.2.7" and substitutes "section 5.2.5".

**A By-law to amend
Noise Control By-law No. 6555
Regarding Housekeeping Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

3. This By-law amends the indicated provisions of Noise Control By-law No. 6555.
4. Council amends Schedule A (Activity Zone) by adding the following new row:

“I-1A I-1B I-1C”

after the second row:

“MC-2 M-2 I-1”.

**A By-law to amend Subdivision By-law
Regarding Housekeeping Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. Council amends the indicated provisions of Subdivision By-law No. 5208.
2. In Schedule A (Standards for Minimum Parcel Size and Configuration), Council:
 - (a) In Table 1, adds the following in correct alphabetical and numerical order:

(i)	“I-1A I-1B I-1C	Industrial Industrial Industrial	40’ 40’ 120’	[12.192 m] [12.192 m] [36.576 m]	4800 sq.ft. 4800 sq.ft. 14400 sq.ft.	[445.935 m ²] [445.935 m ²] [1337.804 m ² ”],
(ii)	“I-4	Industrial	40’	[12.192 m]	4800 sq.ft.	[445.935 m ²]”,
(iii)	“RM-5D	Multiple Dwelling	40’	[12.192 m]	4800 sq.ft.	[445.935 m ²]”,
(iv)	“RM-9A	Multiple Dwelling	40’	[12.192 m]	4800 sq.ft.	[445.935 m ²]
	RM-9AN	Multiple Dwelling	40’	[12.192 m]	4800 sq.ft.	[445.935 m ²]”,
(v)	“C-5A and	Commercial	40’	[12.192 m]	4800 sq.ft.	[445.935 m ²]”,
(vi)	“M-1B	Industrial	40’	[12.192 m]	4800 sq.ft.	[445.935 m ²]”;

(b) in Table 1, deletes the entire entries for RS-4, RT-5A and RT-5AN; and

(c) in Table 2, adds the following in correct alphabetical and numerical order:

(i)	“I-1A I-1B	Industrial Industrial	25’ 25’	[7.620 m] [7.620 m]	3000 sq.ft. 3000 sq.ft.	[278.709 m ²] [278.709 m ²]”,
(ii)	“I-4	Industrial	25’	[7.620 m]	3000 sq.ft.	[278.709 m ²]”,
(iii)	“RM-5D	Multiple Dwelling	30’	[9.144 m]	3000 sq.f.t	[278.709 m ²]”,
(iv)	“RM-9A	Multiple Dwelling	30’	[9.144 m]	3000 sq.f.t	[278.709 m ²]
	RM-9AN	Multiple Dwelling	30’	[9.144 m]	3000 sq.f.t	[278.709 m ²]
(v)	“C-5A and	Commercial	25’	[7.620 m]	3000 sq.ft.	[278.709 m ²]”,
(vi)	“M-1B	Industrial	25’	[7.620 m]	3000 sq.ft.	[278.709 m ²]”.

A By-law to amend License By-law No. 4450
Regarding Housekeeping Amendment

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. This By-law amends the indicated provisions of License By-law No. 4450.
2. In subsection 26.4(4), Council strikes out “section 11.30.1” and substitutes “section 11.37.1”.

**A By-law to amend Parking By-law No. 6059
Regarding Housekeeping Amendments**

Note: A By-law will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

1. This By-law amends the indicated provisions of the Parking By-law.
2. In Schedule C (CD-1 Districts Parking Requirements), in the entry for 5190-5226 Cambie Street, Council:
 - (a) strikes “()” in the column labelled “**By-law No.**” and substitutes “12836”; and
 - (b) strikes “()” in the column labelled “**CD-1 No.**” and substitutes “(755)”.

Amendments to Land Use Documents

Note: Amendments to Council-adopted guidelines will be prepared generally in accordance with the provisions listed below.

Document	Proposed Amendments
RM-8 and RM-8N Guidelines	<ul style="list-style-type: none"> Table 1: Development Scenarios, column 1, row (J): Site area minimum 7,567 sq. ft. (703 m²) 4,790 sq.ft. (445 m²) and lot width minimum 62 ft. (18.9 m) Section 4.19 (a): For rowhouse and courtyard rowhouse developments on sites over 703 m² (7,560 sq. ft.) 445 m² (4,790 sq.ft.)
RM-8A and RM-8A Guidelines	<ul style="list-style-type: none"> Section 4.19(b) On sites over 445 m² (4,790 sq. ft.), a second principal building more than one principal building in combination with a multiple dwelling or freehold rowhouse can be considered.
Artist Studio Guidelines	<ul style="list-style-type: none"> p.1: EXPLANATORY NOTE Artist studio developments exceeding 1.0 FSR are generally not favoured in the IC-1 and IC-2, I and M districts where artist studios are limited to 1.0 FSR. In the IC 1, IC 2, I and M zones, strata titling of artist studios is not permitted. In the I and M zones, only artist studio class B is permitted. Renumber section 3.4 to 3.3 Renumber section 4.9 to 4.1 Renumber section 5 to 6 Renumber section 6.1 to 5.1 Renumber section 6.2 to 5.2
Guidelines for the Administration of Variances for Zero Emission Buildings in RS, RT and RA Districts	<ul style="list-style-type: none"> See below
and Guidelines for the Administration of Variance in Larger Zero Emission Buildings	<ul style="list-style-type: none"> See below
Rezoning Policy for Sustainable Large Developments	<ul style="list-style-type: none"> Section E.3.4: To achieve this on-site retention target the rainwater management system shall manage rainfall in accordance with the green infrastructure tiered approach outlined in the Sustainable Large

Document	Proposed Amendments
	Developments Admin Bulletin <i>Groundwater Management Administrative Bulletin</i>
West End Georgia/Alberni Guidelines	<ul style="list-style-type: none">Rename: <i>RM-6 West End Georgia/Alberni Guidelines</i>
Charles/Adanac Rezoning Policy (1100 Block Boundary Road)	<ul style="list-style-type: none">Repeal

Guidelines

Guidelines for the Administration of Variances for Zero Emission Buildings in RS, RT and RA Districts

Approved by Council January 16, 2018

Last amended ~~May 12, 2020~~ XX, 2021

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Guidelines

1 Zero Emissions Standards

In this guide, acceptable zero emission standards include Passive House, the CHBA Net Zero Home Labelling Program with electric equipment, ILFI Zero Energy, and PHI EnerPHit. Projects must achieve the standard using on-site, installed equipment. Consideration may be given to equivalent rating systems. Applicants should confirm the suitability of other standards with staff before making an application.

2 Regulation Variances

Achieving a low-energy, high-efficiency home through high quality thermal envelope design and better insulation will result in thicker wall and roof insulation than a typical building, which may affect floor area and height.

Applicants in RS, RT or RA districts may apply for variances to floor area, height, yard, and building depth regulations ~~provided that~~ if they demonstrate that they will achieve Passive House Certification or certification in another accepted zero emission standard. These variances may be granted at the discretion of the Director of Planning upon consideration of all applicable guidelines and policies. Please see section 10.23A of the Zoning and Development By-law for the requirements of these variances.

Because these conditional variances may allow extra height or floor space, the design of the project should consider impacts on neighbouring properties such as privacy, daylight, or shadowing in the application.

Other regulations that control building size, such site coverage or side yards, may still apply.

2.1 Floor Area - Fixed Exclusion

Section 10.23A.4 of the Zoning and Development By-law includes a floor area exclusion for zero emissions buildings in the RS, RT and RA districts that is 16% of the gross (or built) floor area in a one-family dwelling, or 18% in a two-family dwelling. This fixed exclusion replaces previous multiple and more complex exclusions for insulation, mechanical equipment and skylights. Built area that is excluded from overall FSR may be located where it fits within the overall envelope. Where there is more than one FSR limit, such as above-grade FSR in RS-5, calculate and locate each exclusion separately. The amount of gross floor area that can be built under this clause may be estimated with the following formula:

$$\text{Net Area} / (1 - \text{Exclusion Percentage}) = \text{Gross Area}$$

For example, a single-family house that is permitted to have a net floor area of 3,600 sq. ft. by the FSR limit in zoning would use the figures:

$$3,600 \text{ sq. ft.} / (1 - 0.16) = 4,286 \text{ sq. ft.}$$

Applications under section 10.23A.4 cannot use any other floor area exclusions in sections 10.11 or 10.23A, or bay window exclusions.

Background and Policy Context

Removing barriers to zero emissions building is part of the City's emerging policy context. The Zero Emissions Building Plan, Vancouver's Renewable City Strategy, and the Climate Emergency Response all prioritize removing regulatory barriers to the development of zero emission buildings.

Application and Intent

These guidelines explain the administration of variances to Zoning and Development By-law regulations and related processes for residential projects designed to zero emission standards. The guidelines apply to dwelling uses in the RS, RT and RA district schedules, except laneway houses. For other zones and uses, see the "Guidelines for the Administration of Variances for Zero Emission Buildings in Larger Projects".

Applicants must show how the building envelope and mechanical system have been designed to achieve the relevant standard before seeking related variances, and follow the process and requirements in this document.

These guidelines are to be used in conjunction with the relevant district schedule of the Zoning and Development By-law, as well as other applicable guidelines and bulletins. In particular, please consult section 10.23A: Passive House in the Zoning and Development By-law. Because this guideline document primarily addresses zoning considerations, applicants are encouraged to obtain early advice on meeting the requirements of Vancouver's Building By-law from a Registered Professional.

Definitions Glossary

The following definitions apply in these guidelines:

- **Canadian Home Builders' Association (CHBA) Qualified Net Zero Builder:** A builder who has met the requirements of the qualification as outlined in the CHBA Net Zero Administrative Requirements which include: being a CHBA builder member, being a registered EnerGuide builder with NRCan, having successfully completed the CHBA NZ Builder Training, and having completed one Net Zero or Net Zero Ready labelled home.
- **CHBA Qualified Net Zero Energy Advisor (NZEA):** A professional who has met the requirements of the qualification as outlined in the CHBA Net Zero Administrative Requirements and registered with the CHBA. The NZEA is eligible to perform home energy evaluations for homes pursuing the CHBA's Net Zero Home Label using energy modeling methods in accordance with EnerGuide Rating System (ERS) Technical Procedures.
- **CHBA Qualified Net Zero Service Organization (NZSO):** An organization that has met the requirements of the qualification as outlined in the CHBA Net Zero Administrative Requirements and registered with the CHBA. The NZSO performs the administrative process for NZEA's and builders pursuing the qualification of homes under the program.
- **Certified Passive House Consultant (CPHC) or Certified Passive House Designer (CPHD):** A CPHC is a person certified by the Passive House Institute as a Passive House Consultant. A CPHD is a person with professional and educational experience in architecture or building who is certified by the Passive House Institute as a Passive House Designer. The CPHD or CPHC is responsible for designing the building to meet the PH standard. The terms are used interchangeably in this guide.

- **Energy Advisor (EA):** An EA is a licensed professional who conducts home energy evaluations. An EA can evaluate a home, and provide the modeling and testing required for the final certification of a home under EnerGuide. They are trained to use NRCAN's energy simulation software, HOT2000, and to perform blower door air leakage testing.
- **Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV):** An HRV is a mechanical device that exchanges stale indoor air with fresh outdoor air while recovering heat at the same time using a heat exchanger. An ERV performs the same function and also provides humidification or dehumidification.
- **Passive House (PH):** In these guidelines, a Passive House building is one that meets the definition in the Vancouver Zoning and Development By-law. For a general description, see section 3 of this document.
- **Passive House Building Certifier (Certifier):** In these guidelines, a Passive House Building Certifier is one that meets the definition in the Vancouver Zoning and Development By-law. A general description is a person accredited by the Passive House Institute in Darmstadt, Germany for the purpose of certifying buildings as being designed in accordance with its Passive House standards.
- **Passive House Planning Package (PHPP):** PHPP is software used to determine whether a building meets Passive House standards. The package, available through the Passive House Institute, assists with house design and window planning to test how different designs will affect energy use.
- **Qualified Green Building Consultant:** A professional with knowledge and practical experience in high-performance building design who ideally has worked on Zero Energy projects in the past. Training and experience in high-performing building design, energy modeling, efficient building systems, renewable energy assemblies, or comparable is likely necessary for ensuring Zero Energy targets are achieved.
- **Variance:** For readability, this guideline refers to the different allowances for zero emissions buildings in the Zoning and Development By-law that require the approval of the Director of Planning as variances.

Guidelines

1 Zero Emissions Standards

In this guide, acceptable zero emission standards include Passive House, the CHBA Net Zero Home Labelling Program with electric equipment, ILFI Zero Energy, and PHI EnerPHit. Projects must achieve the standard using on-site, installed equipment. Consideration may be given to equivalent rating systems. Applicants should confirm the suitability of other standards with staff before making an application.

2 Regulation Variances

Achieving a low-energy, high-efficiency home through high quality thermal envelope design and better insulation will result in thicker wall and roof insulation than a typical building, which may affect floor area and height.

Applicants in RS, RT or RA districts may apply for variances to floor area, height, yard, and building depth regulations ~~provided that~~ if they demonstrate that they will achieve Passive House Certification or certification in another accepted zero emission standard. These variances may be granted at the discretion of the Director of Planning upon consideration of all applicable guidelines and policies. Please see section 10.23A of the Zoning and Development By-law for the requirements of these variances.

Because these conditional variances may allow extra height or floor space, the design of the project should consider impacts on neighbouring properties such as privacy, daylight, or shadowing in the application.

Other regulations that control building size, such site coverage or side yards, may still apply.

2.1 Floor Area - Fixed Exclusion

Section 10.23A.4 of the Zoning and Development By-law includes a floor area exclusion for zero emissions buildings in the RS, RT and RA districts that is 16% of the gross (or built) floor area in a one-family dwelling, or 18% in a two-family dwelling. This fixed exclusion replaces previous multiple and more complex exclusions for insulation, mechanical equipment and skylights. Built area that is excluded from overall FSR may be located where it fits within the overall envelope. Where there is more than one FSR limit, such as above-grade FSR in RS-5, calculate and locate each exclusion separately. The amount of gross floor area that can be built under this clause may be estimated with the following formula:

$$\text{Net Area} / (1 - \text{Exclusion Percentage}) = \text{Gross Area}$$

For example, a single-family house that is permitted to have a net floor area of 3,600 sq. ft. by the FSR limit in zoning would use the figures:

$$3,600 \text{ sq. ft.} / (1 - 0.16) = 4,286 \text{ sq. ft.}$$

Applications under section 10.23A.4 cannot use any other floor area exclusions in sections 10.11 or 10.23A, or bay window exclusions.

2.2 Floor Area – Calculated Exclusions

Section 10.11 of the Zoning and Development By-law allows for the exclusion of floor area for insulation using two different calculations. For applications to exclude increased insulation under clause 10.11.2 in a conventional building, a Building Envelope Professional must be retained to calculate and verify the exclusion. In an application designed to the Passive House standard that provides a PHPP energy model, the Certified Passive House Designer or Certified Passive House Consultant may verify the exclusion instead. For more details on this exclusion, see the separate bulletin *Floor Area Exclusions for Improved Building Performance*.

Applications under section 10.11 cannot use the floor area exclusions in section 10.23A.4.

Section 10.23A.3 permits a floor area exclusion for the area occupied by heat recovery ventilators and connected shafts to a maximum exclusion of 2% of floor area being provided. The exclusion recognizes the larger space that may be required for high efficiency units or for additional units within a Passive House project. An HRV that is a Passive House “Certified Component” should be specified. The exclusion does not apply to mechanical equipment that uses the same floor area as a conventional system.

2.3 Height, Yards and Building Depth

Applicants building a zero emissions project may apply for a height variance via section 10.23A.1. This variance allows the Director of Planning to conditionally vary height regulations, including secondary envelopes, in RS, RT, and RA districts for Certified Passive House projects by a maximum of 1 m.

Applicants building a zero emissions project may also apply for front and rear yard setback variances via section 10.23A.1. Front yards that are expressed as a dimension can be varied by a maximum of 0.5 m. Rear yards that are expressed as a dimension can be varied by a maximum of 1.25 m.

Applicants building a zero emissions project may also apply for a variance to increase permitted building depth. Building depth, and front or rear yards that are expressed as a percentage, may be varied by a maximum of 5%.

2.4 Other Variances

Regulations that allow two-family dwellings in certain R districts include external design regulations that could constrain green building solutions. These regulations can be varied for zero emissions buildings. In RS-1 and other district schedules, the clause that allows a variance of design regulations may be found at the end of section 4.17.

Regulations in certain R districts that require interior spaces greater than 3.7 m in height to be counted into FSR twice may be varied using section 10.23A.1 (f).

The following table 1 provides a reference for zoning variances that are available for green building features. For example, the dimensions of window wells and below-grade entrances to basements can also be varied if they are designed to increase solar gain under clause 10.23A.1 (h).

Before making an application, please read the current and relevant regulation in the Zoning and Development By-law, and the related administration bulletins, along with other guidelines or policies. These documents can be found on the City of Vancouver Zoning and Land Use Document Library web page. For example, more information on shading devices located in yards can be found in the “Shading Devices and Yard Projections” bulletin.

Table 1: Summary of Conditional Variance Related to Zoning and Development By-law

Conditional Variance for Green Building Features	Zoning and Development By-law Section
Building depth	10.23A.1 (e)
Building height	10.23A.1 (a)
External design regulations	10.23A.1 (g)
Green roof access and infrastructure - height	10.18.5 (d)
HRVs and connected shafts	10.23A.3
Insulation	10.11.1 and 10.11.2
Mechanical rooms with zero emission equipment	10.15A
Rear yard depth	10.23A.1 (d) or (e)
Roof-mounted energy equipment - height	10.18.5 (d)
Shading devices, eaves, and overhangs - yards	10.32.1 (f)
Venting skylights and clerestory window - internal height	10.23A.1 (f)
Venting skylights and clerestory window - external height	10.18.5 (e)
Window wells and basement entry dimensions	10.23A.1 (h)

3 Submission Requirements

This section describes the submission requirements at each project phase. These requirements are in **addition** to those of the development and building permit process for a conventional building.

For zero emission projects pursuing building standards other than PHI's Passive House, such as the ILFI's Zero Energy Certification or the CHBA's Net Zero Home Labelling Program, applicants are expected to provide a comparable level of material. For example, where a PHPP model is required for PHI sites, applications using an alternate standard should submit an energy or carbon balance, and an energy modelling report. For projects pursuing ILFI's Zero Energy Certification, twelve months of energy performance data is required. For questions about submittals for alternate standards, please contact green.buildings@vancouver.ca.

Please see definitions of terms ~~in section 6 on page 4~~ of these guidelines, and note the different roles and responsibilities. For Passive House projects, ~~a of the Certified Passive House Consultant or Designer (CPHC or CPHD), the Energy Advisor (EA), and the Passive House Building Certifier (Certifier). Where a CPHC who is referred to in this guide, a CPHC who is also an EA can serve both roles. The either a CPHC or and CPHD may serve and CPHC roles are equivalent in this guide.~~

~~A CPHC who is also an EA can serve in both roles.~~

3.1 Scheduling a Pre-Application Appointment

When requesting an appointment, applicants should note that the application will be for a house that meets a zero emission standard, and that the project team will be requesting related relaxations.

Development Building (DB) Permit Application to Housing Review Branch: Before requesting an appointment, applicants should consult this document and all typical application documents (such as the "Intake Checklist"). After reviewing the material, applicants should contact the Supervisor of the Housing Review Branch to request an appointment.

3.2 Pre-Application Meeting

At an enquiry or pre-submittal meeting, applicants must provide:

- A design strategy that identifies the zoning variances sought, describes the primary design elements intended to achieve the standard, and shows the elements on conceptual drawings.
- A letter from a consultant who is qualified to administer the proposed zero emission standard, confirming they have been engaged to advise on the project.

Passive House applications: Provide a letter from the CPHC confirming that they have been engaged to do energy modelling and advise on the project. A member of the project team may serve in this role ~~provided that~~ if they are a CPHC.

Net Zero applications: Provide a letter from the CHBA of British Columbia to confirm that the project has been enrolled to obtain a Net Zero label, and a letter from an NZEA a Qualified Net Zero Service Organization confirming that they have been engaged to advise on the project.

Zero Energy applications: Provide confirmation of registration with ILFI's Zero Energy Certification, and a letter from a Qualified Green Building Consultant confirming they have been engaged to advise on the project.

Proposals should show how potential ~~impacts on effects on~~ neighbouring houses such as privacy, massing, and shadowing have been considered in the design. City staff may provide feedback at the pre-application meeting to inform the application.

3.3 Following the Pre-Application Meeting

Prepare a preliminary energy model or other material as specified in the chosen zero emission standard, and revise the design as necessary to meet or exceed the standard.

Passive House applications: Applicants are advised to model the project using the current version of the Passive House Planning Package (PHPP) software, and to revise the design as necessary to meet or exceed the Passive House requirements.

If specific challenges to meeting Passive House targets are identified, these must be resolved before applying for a Development Permit.

Development Building (DB) Permit Application to Housing Review Branch: The applicant must engage an EA. The EA must review the proposed assemblies, submit a detailed copy of the City of Vancouver's "Pre-Permit Checklist", and otherwise comply with pre-permit requirements for one- and two-family housing.

In addition to the PHPP file, applicants must provide the Housing Review Branch with a letter from a Certifier stating that the project design and specifications have been reviewed and, in the opinion of the Certifier, the project is capable of achieving Passive House certification if built to the design and specifications noted in the Certifier's letter.

Once the design, assemblies and components have been identified, and all of the above satisfied, applicants may submit their Development Building (DB) permit application to the Housing Review Branch.

Net Zero applications: Applicants should have the project modelled by an ~~NZEA-CHBA Qualified Net Zero Energy Advisor~~ to ~~confirm it can~~ achieve a 0 (zero) GJ rating using modelling methods and calculation in conformance with the EnerGuide Rating System v15, using HOT2000.

3.4 ~~Developmenting~~ Permit Application

Applicants must submit:

- An updated design strategy that:
 - identifies the proposed zero emission standard,
 - specifies the related zoning relaxations being sought,
 - provides a rationale for the relaxation, and
 - identifies the design elements proposed to meet the zero emission standard on the application drawings

Zero Energy applications: Applicants should provide proof of an established energy target and a narrative as to how this target will be achieved, including strategies around energy efficiency, electrification of building systems, and on-site renewable energy generation, from a Qualified Green Building Consultant.

Net Zero applications: Applicants must provide a ~~P-file-Homeowner Information Sheet prepared by a CHBA Qualified Net Zero Energy Advisor~~ the NZEA showing a 0 (zero) GJ rating using modelling methods and calculation in conformance with the EnerGuide Rating System v15, using HOT2000. The design must meet all requirements as outlined in the most current version of the CHBA Net Zero Home Labelling Program Technical Requirements, ~~and~~ show that the design is fully Net Zero and ~~using-uses~~ all electric ~~fuel~~ ~~sources~~ ~~equipment~~. ~~The applicant must submit signed letter from the NZEA that confirms the project is enrolled in the CHBA Net Zero program.~~

Passive House applications: Applicants are not required to prepare a HOT2000 model or to submit a "P-file" number. Instead, the CPHC must submit:

- a compliant pre-construction PHPP model (electronic copy of the Excel file),
- a printout of the completed "verification" page with relevant notes, signed by a CPHC, and
- a memo providing modelling input values for the PHPP.

If applying for the exclusion of floor area occupied by heat recovery ventilators and connected shafts under section 10.23.A3, additional material is required:

- a signed letter from a CPHC that recommends the proposed mechanical system and notes the dimensions required,
 - dimensioned drawings in the application set showing the additional floor area required for the Passive House system as compared to a conventional system, and
 - a summary table of the proposed exclusion for each building level.
- Identification of the design elements proposed to meet the zero emission standard on the application drawings.
 - A signed letter of commitment from the owner to complete the steps set out in the selected zero emissions standard, including registration, certification, or labeling.

Passive House applications: Provide a letter of commitment to certify the building through the Passive House Institute.

3.5 Mid-Construction

Before drywall has been installed, the consultant must conduct a site visit in accordance with requirements for all one- and two-family permit applications. In addition to typical mid-construction checks such as a blower door test, the consultant must verify that all assemblies, materials, and components are installed as required to meet the zero emission standard.

Zero Energy applications: Provide a letter from a Qualified Green Building Consultant that contains:

- a statement that the construction of the house and that the installed assemblies and components match those specified in the consultant's narrative; and
- a statement that there are no known barriers to the project achieving Zero Energy certification.

Passive House applications: The EA will verify that all assemblies, insulation materials, and components (including windows, doors and ventilation equipment) are installed as per the specifications provided in the Certifier's letter. The EA will conduct a mid-construction blower door test to the EN 13829 protocol, with modifications as prescribed by the Passive House Institute, in lieu of the HOT2000 protocol. The EA will provide the applicant with documentation verifying the construction details and the EN 13829 blower door test results as attachments to the typical "Pre-Drywall Checklist", and this must be submitted to the City.

In addition to the typical EA review, the applicant must also ~~at the time~~ provide the City with a letter from the retained CPHC that contains:

- a statement that the CPHC attended and inspected the construction of the house and that the installed assemblies and the doors and windows match those specified in the Certifier's letter;
- confirming there is no kitchen or dryer vent, unless modelled in the PHPP provided;
- bathroom and kitchen exhaust roughed in to the mechanical room;
- the results of the EA's mid-construction blower door test at 0.6 ACH; and
- a statement that there are no known barriers to the project achieving Passive House certification.

Net Zero Applications: The ~~NZEA Energy Advisor~~ will provide a preliminary report with a predicted EnerGuide Rating based on the results of the mid-construction fan test to the City for review.

3.6 Prior to Final Inspection

In addition to typical requirements such as conducting a review and final door blower test, the EA should provide the applicant with a report on the mechanical and other construction details required to achieve the zero emission standard. The applicant must submit a copy of the report to the City.

Passive House applications:

- The EA must conduct a review and final door blower test. This test must be conducted to the EN 13829 protocol, with modifications as prescribed by the Passive House Institute (e.g. both pressurization and depressurization).
- The EA will provide the applicant with documentation of mechanical and other construction details, as well as a report on the results of the EN 13829/PHI blower door test, which must be submitted to the City.
- In addition to the EA review, applicants must provide the City with a letter from a Certifier stating that the final PHPP and relevant documentation have been received and are being reviewed for final certification. The Certifier's letter must include a suggested date by which the City may expect to be notified of final certification to the Passive House Institute standard.

Once the project is certified by the Passive House Institute, a copy of the certificate must be provided to the City of Vancouver

3.7 Building Certification

The project must complete the requirements of the zero emission standard, and provide a copy of the confirmation to the City of Vancouver.

Passive House applications: The project must meet the Passive House standard and achieve Certification to support the relaxations noted. The Certifier will review the project documentation, including the PHPP model, building envelope drawings, mechanical systems and other information. Once the project is certified by the Passive House Institute, a copy of the certificate must be provided to the City of Vancouver.

Net Zero applications: Once the project is labelled under the CHBA Net Zero Labelling Program, a copy of the Net Zero Label must be provided to the City of Vancouver.

Zero Energy applications: The project must meet the Zero Energy requirements and achieve Certification to support the relaxations noted. The ILFI Auditor will review the project documentation, including energy demand and production over 12 consecutive months, lack of combustion within the project, project drawings, site photographs, and other documentation. Once the project is certified by ILFI, a copy of the certification must be provided to the City of Vancouver.

6-Glossary

Building Envelope

~~A building's envelope is the structure separating the interior space from the environment.~~

Energy Advisor (EA)

~~An EA is a licensed professional who conducts home energy evaluations. An EA can evaluate a home, and provide the modeling and testing required for the final certification of a home under EnerGuide. They are trained to use NRCAN's energy simulation software, HOT2000, and to perform blower door air leakage testing.~~

Certified Passive House Consultant (CPHC) or Certified Passive House Designer (CPHD)

A CPHC is a person certified by the Passive House Institute as a Passive House Consultant. A CPHD is a person with professional and educational experience in architecture or building who is certified by the Passive House Institute as a Passive House Designer. The CPHD or CPHC is responsible for designing the building to meet the PH standard. The terms are used interchangeably in this guide.

CHBA Qualified Net Zero Builder

A builder who has met the requirements of the qualification as outlined in the CHBA Net Zero Administrative Requirements which include: being a CHBA builder member, being a registered EnerGuide builder with NRCan, having successfully completed the CHBA NZ Builder Training, and having completed one Net Zero or Net Zero Ready labelled home.

CHBA Qualified Net Zero Energy Advisor (NZEA)

A professional who has met the requirements of the qualification as outlined in the CHBA Net Zero Administrative Requirements and registered with the CHBA. The NZEA is eligible to perform home energy evaluations for homes pursuing the CHBA's Net Zero Home Label using energy modeling methods in accordance with EnerGuide Rating System (ERS) Technical Procedures.

CHBA Qualified Net Zero Service Organization (NZSO)

An organization that has met the requirements of the qualification as outlined in the CHBA Net Zero Administrative Requirements and registered with the CHBA. The NZSO performs the administrative process for NZEA's and builders pursuing the qualification of homes under the program.

Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV)

An HRV is a mechanical device that exchanges stale indoor air with fresh outdoor air while recovering heat at the same time using a heat exchanger. An ERV performs the same function and also provides humidification or dehumidification.

Passive House (PH)

In these guidelines, a Passive House building is one that meets the definition in the Vancouver Zoning and Development By-law. For a general description, see section 3 of this document.

Passive House Building Certifier (Certifier)

In these guidelines, a Passive House Building Certifier is one that meets the definition in the Vancouver Zoning and Development By-law. A general description is a person accredited by the Passive House Institute in Darmstadt, Germany for the purpose of certifying buildings as being designed in accordance with its Passive House standards.

Guidelines

Guidelines for the Administration of Variance in Larger Zero Emission Buildings

Approved by Council January 16, 2018

Last amended ~~May 12, 2020~~ XX, 2021

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Background and Policy Context

The Zero Emissions Building Plan, Vancouver's Renewable City Strategy, and the Climate Emergency Response all prioritize removing regulatory barriers to the development of zero emission buildings.

Application and Intent

These guidelines explain the regulations and application process for developments that are seeking variances or conditional approvals within the Zoning and Development By-law for zero emission buildings. These guidelines apply to all uses and zones, except certain dwelling uses in the RS, RT and RA district schedules. For those projects, please see the "Guidelines for the Administration of Variances for Zero Emission Buildings in RS, RT, and RA Districts". For rezoning applications, see the "Green Buildings Policy for Rezoning - Process and Requirements" bulletin.

Applicants must follow the process and requirements in this document before seeking related variances, and demonstrate how the building envelope and mechanical system have been designed to achieve the relevant standard.

These guidelines are to be used in conjunction with the relevant district schedule as well as other applicable guidelines and bulletins. In particular, please consult the Zoning and Development By-law, section 10.23A: Passive House. Because this guideline document primarily addresses zoning considerations, applicants are encouraged to obtain early advice on meeting the requirements of Vancouver's Building By-law from a Registered Professional.

Definitions Glossary

The following definitions apply in these guidelines:

- **Building Envelope:** A building's envelope is the structure separating the interior space from the environment.
- **Canadian Home Builders' Association (CHBA) Qualified Net Zero Energy Advisor (NZEA):** A professional who has met the requirements of the qualification as outlined in the CHBA Net Zero Administrative Requirements and registered with the CHBA. The NZEA is eligible to perform home energy evaluations for homes pursuing the CHBA's Net Zero Home Label using energy modeling methods in accordance with EnerGuide Rating System (ERS) Technical Procedures.
- **Certified Passive House Designer (CPHD):** A CPHD is a person with significant professional and educational experience in architecture or building that has been certified by the Passive House Institute as an accredited Certified Passive House Designer. The CPHD or CPHC helps design a building to meet the PH standard.
- **Certified Passive House Consultant (CPHC):** A CPHC is a person certified by the Passive House Institute as an accredited Passive House Consultant.
- **Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV):** An HRV is a mechanical device that exchanges stale indoor air with fresh outdoor air while recovering heat at the same time using a heat exchanger. An ERV performs the same function and also provides humidification or dehumidification.
- **Passive House (PH):** In these guidelines, a Passive House building is one that meets the definition in the Vancouver Zoning and Development By-law. For a general description, see section 3 of this document.
- **Passive House Building Certifier (Building Certifier):** In these guidelines, a Passive House Building Certifier is one that meets the definition in the Vancouver Zoning and Development By-law. A general description is a person accredited by the Passive House Institute in Darmstadt, Germany for the purpose of certifying buildings as being designed in accordance with its Passive House standards.
- **Passive House Planning Package (PHPP):** PHPP is software used to determine whether a building meets Passive House standards. The package, available through the Passive House Institute, assists with house design and window planning to test how different designs will affect energy use.
- **Registered Professional:** In these guidelines, a Registered Professional is one that meets the definition in Vancouver's Building By-Law. A general description is a person who is registered or licensed to practice as an architect under the Architects Act, or a person who is registered or licensed to practice as a professional engineer under the Engineers and Geoscientists Act.
- **Variance or Relaxation:** For readability, this guideline refers to the different allowances for zero emissions buildings in the Zoning and Development By-law that require the approval of the Director of Planning as variances.

Guidelines

1 Zero Emissions Standards

In this guide, acceptable zero emission standards include Passive House, the CHBA Net Zero Home Labelling Program with electric equipment, ILFI Zero Energy, and PHI EnerPHit. Projects must achieve the standard using on-site, installed equipment. Consideration may be given to equivalent rating systems. Applicants should confirm the suitability of other standards with City staff before making an application.

Passive House is a well-established ultra-low energy building performance standard and certification process. There are more than 65,000 Passive House buildings built in a wide range of climates and typologies. Using a high performance enclosure allows heating and air conditioning costs to be reduced without sacrificing thermal comfort. Certifying a building to the Passive House standard is a rigorous quality assurance process that confirms that the building has been designed to achieve high levels of occupant comfort with very low energy consumption. For a full description of the criteria for certification and for the most up to date information, please consult a Certified Passive House Designer.

2 Regulation Variances

Achieving a low-energy, high-efficiency building through high quality thermal envelope design and better insulation often results in thicker wall and roof insulation than a typical building, which may affect floor area and height.

Applicants may apply for variances to floor area, height, yard, and building depth regulations, ~~if provided that~~ they demonstrate that they will achieve Passive House certification or another accepted standard. These relaxations may be granted at the discretion of the Director of Planning upon consideration of all applicable guidelines and policies. Please see section 10.23A of the Zoning and Development By-law for detailed information on these variances.

Because these conditional variances may allow extra height or floor space, the design of the project should consider impacts on neighbouring properties such as privacy, daylight, or shadowing in the application.

Some regulations that control building size, such setbacks or height, may not be varied by the Director of Planning and will still apply.

2.1 Floor Area - Calculated Exclusions

Section 10.11 of the Zoning By-law permits a floor area exclusion to accommodate the additional thickness of walls for thermal insulation by excluding some of the floor area used for insulation. The exclusion is intended to mitigate the reduction of usable floor area. For detailed information on this exclusion and its submission requirements, please see the bulletin titled: "Floor Area Exclusions for Improved Building Performance: Thermal Insulation and Rain Screen".

As well, section 10.23A.3 permits a floor area exclusion for the area occupied by heat recovery ventilators and connected shafts to a maximum exclusion of 2% of the provided floor area. The exclusion recognizes the larger space that may be required for high efficiency units or for additional units within a Passive House project. An HRV that is a Passive House "Certified Component" should be specified. The exclusion does not apply to mechanical equipment that uses the same floor area as a conventional system.

2.2 Relaxation of Height

The extra insulation required in zero emissions building means thicker assemblies, not only at the walls, but also at ceilings and floors. When the building design includes overhangs, step-backs, or other envelope protrusions, it becomes necessary to insulate not only the uppermost ceiling and lowermost floor, but also each panel of ceiling and floor created by these corrugations in the building envelope. These assemblies are usually thicker than conventional assemblies, leading to extra building height.

Applicants may apply for a relaxation of height to a maximum of 1.25m via section 10.23A.2. The Director of Planning may also consider minor intrusions into angled height envelopes, bearing in mind the intent of the regulations to preserve light and privacy.

2.3 Simplified Process for Solar Shading Devices

The use of solar shading devices can be a key way for buildings to avoid unwanted solar heat gain. In particular, multi-unit residential buildings that are highly insulated should be tested for overheating to ensure thermal comfort. Carefully designed shading may allow buildings to pass this test without requiring the use of mechanical air conditioning.

Solar shading devices are expected to be located and designed to provide a significant decrease in solar heat gain, and they are included in the normal development permit review of applicable policies and guidelines.

Solar shading devices are currently permitted to project into a required yard within a private property site, and there is no requirement for solar shading devices projecting into side yards to be demountable. For more information regarding shades located in yards, please consult the "Shading Devices and Yard Projections" bulletin.

Applicants should use thermal breaks for best building practice. A thermal break is an element of low thermal conductivity placed in an assembly to reduce or prevent the flow of thermal energy between conductive materials.

Vancouver's Building By-law has also been amended to provide clarity on how solar shading devices can meet building code requirements, in Division C, Part 1, Section 1.8.9

Simplified Process for Solar Shading Device Encroachments over City Property: In some cases, the optimal dimensions of a solar shade extend beyond the private property site. Solar shading devices proposed over City streets previously required a registered encroachment agreement. Revisions to the process to further support the use of effective shading devices in building designs now allow staff to issue a "Permit to Use City Property" instead of securing an encroachment agreement.

- If solar shading devices are to be considered, staff will require notation on drawings from the Registered Professional of record that the design complies with appropriate requirements of the Building By-law.
- Staff will review designs to ensure solar shading devices have appropriate clearances and are demountable. Applicants must supply (through a separate application to Engineering Services) and receive approval within the DP process by submitting the following:
 - Completed "Permit to Use City Property" application form.
 - Supporting documents, including drawings of the proposed solar shading devices that clearly show dimensions of the shades, property lines, clearances, adjacent curb alignment and street poles, as well as method of demountability.

Generally, solar shading device encroachments into City streets can be accepted under a Permit to Use City Property if they are in compliance with the Building By-law. In some instances, at the discretion of the General Manager of Engineering Services, a registered Easement and Indemnity Agreement prepared in accordance with the Encroachment By-law will be required.

Applicants are advised that building encroachments onto City street may inhibit subdivision by strata plan due to Section 244(1) (f) of the Strata Property Act. The City of Vancouver may not support the provision of easements for any parts of the building on a City street.

2.4 Horizontal Angle of Daylight Requirements

For most Passive House applications, there should be no significant change in applicants' ability to meet the horizontal angle of daylight regulations. In cases where the basic angle cannot be met due to a Passive House design, such as very narrow windows in a thick wall that is located close to an obstruction, applicants may seek Director of Planning approval to reduce the angle of daylight requirement using the available relaxation clause. Daylight regulations are typically found in section 4.10.4 of district schedules.

2.5 Other Variances

The following table provides a general reference for conditional zoning variances that are available for larger zero emissions projects and related green building features. For example, height limits may be varied for solar photovoltaic panels using section 10.18.5 (d).

Before making an application, read the current and relevant regulation in the Zoning and Development By-law, and related Administration Bulletins along with other guidelines or policies. These documents can be found on the City of Vancouver Zoning and Land Use Document Library web page. For example, information on floor area increases and floor plate limits in multi-family buildings can be found in the "Zero Emissions Building Catalyst Policy" and the related guideline.

Table 1: Summary of Conditional Variance Related to Zoning and Development By-law

Conditional Variance for Green Building Features	Zoning and Development By-law Section
Building depth or yard	10.23A.2
Building height	10.23A.2
Green roof access and infrastructure - height	10.18.5 (d)
HRVs and connected shafts	10.23A.3
Insulation	10.11.1 and 10.11.2
<u>Mechanical rooms with zero emission equipment</u>	<u>10.15A</u>
Roof-mounted energy equipment - height	10.18.5 (d)
Shading devices, eaves, and overhangs - yards	10.32.1 (f)
Venting skylights and clerestory window - height	10.18.5 (e)

3.1 Scheduling a Pre-Application Appointment

When requesting an appointment, applicants should note that the application will be for a house that meets a zero emission standard, and that the project team will be requesting related relaxations.

Development Building (DB) Permit Application to Housing Review Branch: Before requesting an appointment, applicants should consult this document and all typical application documents (such as the "Intake Checklist"). After reviewing the material, applicants should contact the Supervisor of the Housing Review Branch to request an appointment.

3.2 Pre-Application Meeting

At an enquiry or pre-submittal meeting, applicants must provide:

- A design strategy that identifies the zoning variances sought, describes the primary design elements intended to achieve the standard, and shows the elements on conceptual drawings.
- A letter from a consultant who is qualified to administer the proposed zero emission standard, confirming they have been engaged to advise on the project.

Passive House applications: Provide a letter from the CPHC confirming that they have been engaged to do energy modelling and advise on the project. A member of the project team may serve in this role ~~provided that~~ if they are a CPHC.

Net Zero applications: Provide a letter from the CHBA of British Columbia to confirm that the project has been enrolled to obtain a Net Zero label, and a letter from an NZEA a Qualified Net Zero Service Organization confirming that they have been engaged to advise on the project.

Zero Energy applications: Provide confirmation of registration with ILFI's Zero Energy Certification, and a letter from a Qualified Green Building Consultant confirming they have been engaged to advise on the project.

Proposals should show how potential ~~impacts on effects on~~ neighbouring houses such as privacy, massing, and shadowing have been considered in the design. City staff may provide feedback at the pre-application meeting to inform the application.

3.3 Following the Pre-Application Meeting

Prepare a preliminary energy model or other material as specified in the chosen zero emission standard, and revise the design as necessary to meet or exceed the standard.

Passive House applications: Applicants are advised to model the project using the current version of the Passive House Planning Package (PHPP) software, and to revise the design as necessary to meet or exceed the Passive House requirements.

If specific challenges to meeting Passive House targets are identified, these must be resolved before applying for a Development Permit.

Development Building (DB) Permit Application to Housing Review Branch: The applicant must engage an EA. The EA must review the proposed assemblies, submit a detailed copy of the City of Vancouver's "Pre-Permit Checklist", and otherwise comply with pre-permit requirements for one- and two-family housing.

In addition to the PHPP file, applicants must provide the Housing Review Branch with a letter from a Certifier stating that the project design and specifications have been reviewed and, in the opinion of the Certifier, the project is capable of achieving Passive House certification if built to the design and specifications noted in the Certifier's letter.

3 Submission Requirements

This section describes the submission requirements at each project phase for larger zero emissions projects seeking relaxations. These requirements are **in addition** to those of the development and building permit process for a conventional building. Applications that follow a rezoning should also see the recommended conditions of approval for sustainability.

For projects pursuing building standards other than PHI's Passive House, such as the ILFI's Zero Energy Certification or the CHBA's Net Zero Home Labelling Program, applicants are expected to provide a comparable level of submission material. For example, where a PHPP model is requested, an alternate standard may submit an energy or carbon balance and an energy modelling report. For questions about submittals for alternate standards, please contact green.buildings@vancouver.ca.

~~Please see definitions of terms on page 4 of these guidelines, and note the different roles and responsibilities. For Passive House projects, a CPHC who is also an EA can serve both roles. The CPHD and CPHC roles are equivalent in this guide.~~

~~Please see definitions of terms in section 6 of these guidelines, and note the different roles and responsibilities of the Certified Passive House Consultant or Designer (CPHC or CPHD), the Energy Advisor (EA), and the Passive House Building Certifier (Certifier). Where a CPHC is referred to in this guide, either a CPHC or CPHD may serve. A CPHC who is also an EA can serve in both roles.~~

3.1 Scheduling an Enquiry Appointment

When requesting a meeting through the Planner Appointment Request system or with a Project Facilitator, the applicant should:

- first consult this document and other applicable policies and guidelines
- note that the application will be for a project that meets an identified zero emission standard, and that the project team will be requesting related relaxations
- request assignment of a Development Planner or Project Facilitator with zero emission building experience

3.2 Enquiry Meeting

Enquiries must include:

- A design strategy that identifies the zoning relaxations sought and any alternative solutions that are anticipated under the Building By-law, and describes the primary design elements intended to achieve the standard, and shows the elements on conceptual drawings.
- A letter from a consultant who is qualified to administer the proposed zero emission standard, confirming they have been engaged to advise on the project.

Passive House applications: Provide a letter from the CPHC confirming that they have been engaged to do energy modelling and advise on the project. A member of the project team may serve in this role ~~if provided that~~ they are a CPHC.

Net Zero applications: Provide a letter from the CHBA of British Columbia to confirm that the project has been enrolled to obtain a Net Zero label, and a letter from an NZEAA-Qualified Net Zero Service Organization confirming that they have been engaged to advise on the project.

Zero Energy applications: Provide confirmation of registration with ILFI's Zero Energy Certification, and a letter from a Qualified Green Building Consultant confirming they have been engaged to advise on the project.

City staff may provide feedback at the pre-application meeting to inform the application. Applicants should consider potential impacts on neighbouring houses such as privacy, massing, and shadowing in their designs.

3.3 Following the Pre-application Meeting

- Prepare a preliminary energy model or other material as specified in the chosen zero emission standard, and revise the design as necessary to meet or exceed the standard.

Passive House applications: Applicants are advised to model the project using the current version of the Passive House Planning Package (PHPP) software, and to revise the design as necessary to meet or exceed the Passive House requirements.

If specific challenges to meeting Passive House targets are identified, these must be resolved before applying for a Development Permit.

Net Zero applications: Applicants should have the project modelled by a ~~NZEA/CHBA Qualified Net Zero Energy Advisor~~ to confirm it can achieve a 0 (zero) GJ rating using modelling methods and calculation in conformance with the EnerGuide Rating System v15, using HOT2000.

3.4 Development Permit Application

Applicants must submit:

- An updated design strategy that:
 - identifies the proposed zero emission standard,
 - specifies the related zoning relaxations being sought,
 - provides a rationale for the relaxation, and
 - identifies the design elements proposed to meet the zero emission standard on the application drawings

Zero Energy applications: Applicants should provide proof of an established energy target and a narrative as to how this target will be achieved, including strategies around energy efficiency, electrification of building systems, and on-site renewable energy generation, from a Qualified Green Building Consultant.

Net Zero applications: Applicants must provide a ~~P file~~ Homeowner Information Sheet prepared by ~~the NZEA a CHBA Qualified Net Zero Energy Advisor~~ showing a 0 (zero) GJ rating using modelling methods and calculation in conformance with the EnerGuide Rating System v15, using HOT2000. The design must meet all requirements as outlined in the most current version of the CHBA Net Zero Home Labelling Program Technical Requirements, ~~and~~ show that the design is fully Net Zero and ~~using~~ uses all electric ~~fuel sources~~ equipment. ~~Also, the~~ The applicant must submit a signed letter from NZEA that confirms the project is enrolled in the CHBA Net Zero program.

Passive House applications: The CPHC must submit:

- a compliant pre construction PHPP model (electronic copy of the Excel file),
- a printout of the completed "verification" page with relevant notes, signed by a CPHC, and
- a memo providing modelling input values for the PHPP.

If applying for the exclusion of floor area occupied by heat recovery ventilators and connected shafts under section 10.23.A3, additional material is required:

- a signed letter from a CPHC, or a letter provided by an Mechanical Engineer and then approved by the CPHC, that recommends the proposed mechanical system and notes the dimensions required,
 - dimensioned drawings in the application set showing the additional floor area required for the Passive House system as compared to a conventional system, and
 - a summary table of the proposed exclusion for each building level.
- A letter of commitment by the owner to complete the steps set out in the selected zero emissions standard, including registration, certification, or labeling.

Passive House applications: Provide a letter of commitment to certify the building through Passive House International.

- Documents and materials that indicate any known Alternative Solutions that will be sought to meet Building By-law requirements. Note that the Alternative Solution process is a separate application and process.
- If solar shades that encroach over City property have been approved as part of the design, submit to Engineering Services a "Permit to Use City Property" application form with supporting documents (drawings of the proposed solar shading devices that clearly show dimensions of the shades, property lines, clearances, adjacent curb alignment and street poles, as well as method of demountability).

3.5 Building Permit Application

Applicants must submit:

- Updated material to verify that the proposed design is on track to meet the proposed zero emission standard at the building permit stage. If there are known issues to meeting the standard, these must be resolved before applying for a building permit.

Passive House applications: Provide the following items:

- The project's compliant PHPP model together with a Passive House Design Summary report that details critical assemblies, components, and strategies.
- A letter from a Passive House Building Certifier noting specifications (assemblies, building components), and stating that the project design and specifications have been reviewed and, in the opinion of the Passive House Building Certifier, the project is capable of achieving Passive House certification.
- A written Passive House Verification Plan, with completed fronting checklist (found on the last page of this document). The Plan will be used to verify construction assemblies, components, insulation, air barrier, air tightness performance etc., and is designed to be a similar step to the energy checklists (ASHRAE, NECB) provided by Registered Professionals at this point in the permit process for projects not pursuing Passive House. The Verification Plan and checklist will be prepared by the project team and

verified by the Passive House Building Certifier (as part of his/her design stage review) on behalf of the project team. This plan must include, *at a minimum*:

- The name and credentials of the Passive House Building Certifier who will document and verify construction to plan.
 - The number of planned site visits and at what intervals.
 - ▷ A written plan for monitoring and grading insulation installation in all assemblies - including inspections of insulation layers below-grade and insulation installation within assemblies - to verify that all assemblies, insulation materials, and components (including windows, doors and ventilation equipment) are installed as per the specifications provided in the Passive House Building Certifier's letter.
 - ▷ A written plan for monitoring and verifying continuous air barrier in all assemblies and components.
 - ▷ A written plan for verifying all key components and assemblies specified in the Passive House Building Certifier's letter.
 - ▷ A written plan for air tightness testing, including who will conduct mid construction and final blower door tests to the protocol prescribed by the Passive House Institute.
 - Written plan for ventilation commissioning, including who will conduct.
 - Written plan for occupant training, including who will conduct.
- If there are known challenges to meeting Passive House criteria, these must be resolved before applying for a Building Permit.
 - If any element of the Verification Plan should become non-compliant, this must be immediately brought to the attention of the City of Vancouver by the Passive House Building Certifier who holds the responsibility for the Verification Plan.

Net Zero Applications: The ~~Energy Advisor~~NZEA will provide a preliminary report with a predicted EnerGuide Rating based on the results of the mid-construction fan test to the City for review.

- Information and documentation regarding any requested Alternative Solutions

3.6 Prior to Final Inspection

Applicants must submit:

- Updated material to verify that the building is on track to meet the proposed zero emission standard before applying for final inspection.
Zero Energy applications: Provide a letter from a Qualified Green Building Consultant that contains:
 - a statement that the construction of the house and that the installed assemblies and components match those specified in the consultant's narrative; and
 - a statement that there are no known barriers to the project achieving Zero Energy certification.

Passive House applications: Buildings may be certified by any of the Passive House Institute Accredited Building Certifiers operating worldwide. In addition to the documents already required at final inspection, applicants must provide the City with:

- A signed letter from a Passive House Building Certifier confirming that work implemented was as prescribed in the Passive House Verification Plan and that they are not aware of any reason the project will fail to certify.
- A letter from the Passive House Building Certifier stating that the final PHPP and relevant documentation have been received and are being reviewed for final certification. The Passive House Building Certifier's letter must include a suggested date by which the City may expect to be notified of final certification to the Passive House Institute standard.

3.7 Building Certification

Completion of the zero emission standard is required to support variances or conditional approval. The owner must follow the process in the chosen standard, which may conclude with issuance of a labeling or certification, and provide this confirmation to the City of Vancouver.

Passive House applications: The Passive House Building Certifier will review the project documentation, including the PHPP model, building envelope drawings, mechanical systems and other information. Once the project is certified by the Passive House Institute, a copy of the certificate must be provided to the City of Vancouver.

Net Zero applications: Once the project is labelled under the CHBA Net Zero Labelling Program, a copy of the Net Zero Label must be provided to the City of Vancouver.

Zero Energy applications: The project must meet the Zero Energy requirements and achieve Certification to support the relaxations noted. The ILFI Auditor will review the project documentation, including energy demand and production over 12 consecutive months, lack of combustion within the project, project drawings, site photographs, and other documentation. Once the project is certified by ILFI, a copy of the certification must be provided to the City of Vancouver.

6 Glossary

Building Envelope

~~A building's envelope is the structure separating the interior space from the environment.~~

Certified Passive House Designer (CPHD)

~~A CPHD is a person with significant professional and educational experience in architecture or building that has been certified by the Passive House Institute as an accredited Certified Passive House Designer. The CPHD or CPHC helps design a building to meet the PH standard.~~

Certified Passive House Consultant (CPHC)

~~A CPHC is a person certified by the Passive House Institute as an accredited Passive House Consultant.~~

Heat Recovery Ventilator (HRV) or Energy Recovery Ventilator (ERV)

An HRV is a mechanical device that exchanges stale indoor air with fresh outdoor air while recovering heat at the same time using a heat exchanger. An ERV performs the same function and also provides humidification or dehumidification.

Passive House (PH)

In these guidelines, a Passive House building is one that meets the definition in the Vancouver Zoning and Development By-law. For a general description, see section 3 of this document.

Passive House Building Certifier (Building Certifier)

In these guidelines, a Passive House Building Certifier is one that meets the definition in the Vancouver Zoning and Development By-law. A general description is a person accredited by the Passive House Institute in Darmstadt, Germany for the purpose of certifying buildings as being designed in accordance with its Passive House standards.

Passive House Planning Package (PHPP)

PHPP is software used to determine whether a building meets Passive House standards. The package, available through the Passive House Institute, assists with house design and window planning to test how different designs will affect energy use.

Registered Professional

In these guidelines, a Registered Professional is one that meets the definition in Vancouver's Building By Law. A general description is a person a person who is registered or licensed to practice as an architect under the Architects Act, or a person who is registered or licensed to practice as a professional engineer under the Engineers and Geoscientists Act.

Variance or Relaxation

For readability, this guideline refers to the different allowances for zero emissions buildings in the Zoning and Development By-law that require the approval of the Director of Planning as variances.



Checklist - Passive House Verification Plan for
Building Permit Application
(December 2017)

Project Address:	Date:
Company:	Phone Number:
Name of Passive House Institute Accredited Building Certifier:	Email:
<p>The following items are enclosed as part of the Verification Plan:</p> <ul style="list-style-type: none"> <input type="checkbox"/> A letter from a Passive House Building Certifier approving this Verification Plan <input type="checkbox"/> A document stating the number of planned site visits and at what intervals <input type="checkbox"/> A written plan for monitoring and grading insulation installation in all assemblies - including inspections of insulation layers below-grade and insulation installation within assemblies - to verify that all assemblies, insulation materials, and components (including windows, doors and ventilation equipment) are installed as per the specifications provided in Passive House Building Certifier letter <input type="checkbox"/> A written plan for monitoring and verifying continuous air barrier in all assemblies and components <input type="checkbox"/> A written plan for verifying all key components and assemblies specified in the Passive House Building Certifier's letter <input type="checkbox"/> A written plan for air tightness testing, including who will conduct mid-construction and final blower door tests to the protocol prescribed by the Passive House Institute <input type="checkbox"/> A written plan for ventilation commissioning, including who will conduct <input type="checkbox"/> A written plan for occupant training, including who will conduct 	
<p>If, at any point, any element of the Verification Plan should become non-compliant, this must be immediately brought to the attention of the City of Vancouver by the Passive House Building Certifier, who is responsible for the Verification Plan.</p>	
Passive House Building Certifier Signature:	Date:

Engagement Summary Report

Regulation Redesign

Amendments to Simplify Height Regulations

May 2021



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1.0 EXECUTIVE SUMMARY

Regulation Redesign is a priority project in the City's 2020 Corporate Plan (Goal 2B – Build and Protect the Vancouver Economy) to support the Vancouver economy by improving the regulatory framework. It is a project to simplify Vancouver's land use regulations, policies, and online tools in order to improve and streamline permit processing.

One of the outcomes of Regulation Redesign will be a reformatted Zoning and Development By-law (By-law) that is user-friendly, more accessible and easier to use. This work includes simplifying and clarifying By-law regulations and improving their consistency. Amendments to update and consolidate regulations will be brought forward in a report to Council in spring 2021 and in the new By-law in summer 2022.

Building on comments and ideas identified at a workshop in June 2019 with the development and building industry, other businesses and non-profit organizations, and in subsequent focus groups with the Regulation Redesign External Advisory Group and staff on floor area and building height regulations, the team explored options to clarify and make height regulations easier to understand.

These options were presented for broader community feedback in March 2021 and the feedback received is summarized in this report.

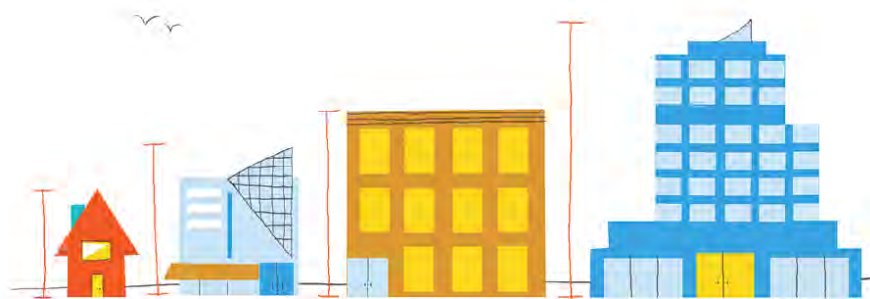
Methodology

Due to public health orders restricting in-person gatherings during the COVID-19 pandemic, public engagement was conducted online. From March 1st to March 31st, proposed amendments to simplify height regulations were shared through a virtual open house using the Shape Your City (SYC) platform. Opportunities for feedback were available through an online comment form. Overall, the SYC page received 521 visitors and 26 responses to the comment form.

What We Heard

Participants responded to four open ended questions on proposed new definitions for “building height” and “decorative roof”, a revised definition for “base surface” and proposed amendments in Section 10.18 Height of Building to modernize language and update terms. Proposed amendments also included new provisions to provide more flexibility for various rooftop features. Overall, the proposed changes were generally well received.

Some of the comments received noted the challenges of calculating height on sloping sites, the complexity of interpolation (method used to determine base surface) and the use of technical terms in the definitions. It was also noted that providing diagrams would assist with understanding the regulations. Other feedback called for either more or less flexibility for rooftop features. These comments have been used to further refine the proposed definitions and regulations.



2.0 ABOUT REGULATION REDESIGN

Regulation Redesign is a priority project in the City's 2020 Corporate Plan (Goal 2B - Build and Protect the Vancouver Economy) to support the Vancouver economy by improving the regulatory framework. It is a project to simplify Vancouver's land use regulations, policies, and online tools in order to improve and streamline permit processing.

2.1 Project Context

The current Zoning and Development By-law was adopted by City Council in 1956. It has been amended extensively but a comprehensive review has never been undertaken. To implement the City's goals and priorities, the By-law has grown exponentially more complex over the years. Some of the more than 8,000 amendments to the original 1956 By-law have introduced new terminology or regulations that have resulted in inconsistencies with other parts of the By-law or with other City By-laws.

The growing complexity of the City's land use regulations, policies and guidelines has made it difficult to find and understand information, which results in a complicated permit review process and longer review times.



1956



2019

2.2 Objectives of Regulation Redesign

The key objectives of the project are to:

- Simplify and clarify land use regulations to make them easier to understand and implement
- Modernize regulations and language, and to improve the format of land use documents to make them more user-friendly
- Improve the consistency of land use regulations and policies
- Improve communication about land use tools
- Establish a robust and enduring land use framework

This work is aligned with other projects to improve review processes, including the Development Process Redesign project, and service improvements being coordinated by the Development, Buildings and Licensing Department. Regulation Redesign will work on simplifying and clarifying regulations and improving their consistency. The project will not focus on substantive zoning or policy amendments, however will work closely with staff teams leading that work to ensure co-ordination.



2.3 Project Progress to Date

Spring 2018 to Winter 2019

Project Launch

This phase focused on engagement with the development and building industry, businesses and non-profit organizations, the general public, and staff to understand the issues, gather ideas and develop options to simplify and clarify the City's land use regulations and policies.

Key outcomes of this phase included:

- Reviewing regulatory framework and best practices
- Holding public engagement events such as listening sessions, kiosks at the Development and Building Services Centre, stakeholder roundtables, and pop-up events in the community to seek feedback to identify issues with land use regulations and policies and ideas to address them
- Reporting to Council with first round of regulatory amendments to clarify approval authorities, update regulations, and repeal outdated land use documents

Photo: Project Launch Stakeholder Roundtable, November 2018



Winter 2019 to Spring 2020
Develop Options and Directions

Key issues and ideas identified in the launch phase informed the development of strategic options and directions for prioritizing the work to simplify and modernize land use regulations and framework. This included the creation of three key streams of work for 2020 - 2022: modernizing the by-law structure and format, simplifying regulations, and clarifying the land use framework (see Figure 1: Project Timeline 2020 - 2022). Stakeholder engagement in this stage provided input on the development and testing of options.

Work completed in this phase included:

- Updating Sections 2, 10, 11 of the Zoning and Development By-law into a new modernized user-friendly format
- Simplifying regulations, removing gendered terms, and repealing outdated land use documents
- Clarifying land use framework through the creation of an online zoning and land use document library, new document naming conventions, and a new user guide for the By-law

Figure 1: Project timeline 2020 - 2022



Spring 2020 to Fall 2022

Further Develop and Implement Solutions

The final phase of the project focuses on completing the final deliverables for each of the three work streams including a newly formatted, up-to-date Zoning and Development By-law that is more user-friendly and easier to understand.

Simplify, clarify, harmonize regulations work stream

This report focuses on the 'simplify, clarify, harmonize regulations' work stream, specifically on public engagement with users of the Zoning and Development By-law for feedback on proposed regulatory amendments to simplify height regulations.

Building on what we heard, staff are exploring options to update and consolidate regulations for consistency across all zoning districts. The proposed amendments to simplify height regulations are part of this work and are incremental changes toward simpler zoning regulations that are easier to apply.

Simpler, clearer regulations will provide more certainty, improve decision-making and accelerate permit review.

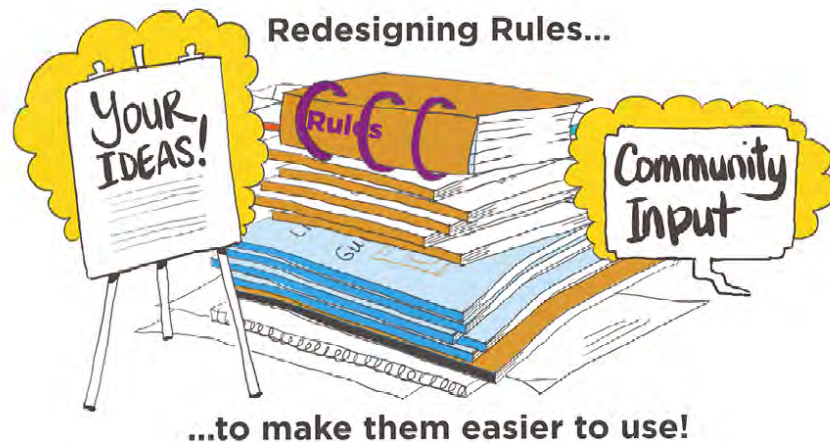
3.0 ENGAGEMENT PROCESS

3.1 What We Did

Building on comments and ideas identified at a workshop in June 2019 with the development and building industry, businesses and non-profit organizations, and in subsequent focus groups with the Regulation Redesign External Advisory Group and staff on floor area and building height regulations, the team explored options to clarify and make height regulations easier to understand.

This resulted in the following proposed amendments to simplify and clarify height regulations:

- Create new definitions for “height” and “decorative roof”
- Update the definition for “base surface”
- Update section 10.18 using more modern language and providing more flexibility for roof deck access and rooftop features, and clarifying decorative roof regulations



The proposed amendments were presented for broad community feedback in March 2021 through the Shape Your City online platform, as well as making use of the following notification and engagement methods.

Notification

Industry stakeholders and the public were notified about public engagement opportunities using multiple notification methods. All notification included a link to the project website (vancouver.ca/RegRedesign) and the email address (RegRedesign@vancouver.ca).



To notify industry stakeholders and the public of the proposed height amendments, two notification emails were sent to the Regulation Redesign mailing list to provide and share information with their networks about opportunities to participate in the engagement. (282 members).



The invitation to participate was also posted on the Homebuilders Association of Vancouver's (HAVAN) Government Relations Update newsfeed, as well as the Architectural Institute of British Columbia (AIBC) and Urban Development Institute's (UDI) online newsletters.



Information about the engagement period, including ways to participate and engagement materials were posted to the project website, vancouver.ca/RegRedesign and shapeyourcity.ca.

Shape Your City Virtual Open House and Comment Form

The project team consulted with the general public and industry stakeholders from March 1 to March 31, 2021 through an online Shape Your City webpage and comment form.

The Shape Your City webpage included the following information and background material:

- narrated video presentation (with captions);
- redline version of proposed amendments for height regulations;
- summary of the June 2019 stakeholder workshop on ideas to simplify calculating floor area and building height; and
- backgrounder on calculating building height.

Participants were invited to share their feedback on the proposed amendments through the Shape Your City online comment form and by sending comments to the project email inbox regredesign@vancouver.ca. The Shape Your City page received 521 unique visitors, 26 responses to the comment form and 1 email response. A summary of comment form responses can be found in Appendix B.

Information Session

On March 9, 2021 we hosted a virtual information session to 39 Mandarin and Cantonese speaking small-scale development builders and designers. With Mandarin and Cantonese interpretation, we presented project updates and invited participants to learn more about the proposed height amendments on the Shape Your City webpage and complete the online comment form. Material was translated into Chinese.

Newsletter

A project update newsletter highlighting engagement on proposed height amendments was translated into Punjabi and Traditional and Simplified Chinese. The translated newsletters were distributed via community and industry stakeholder allies' mailing lists and made available on the Shape Your City webpage at shapeyourcity.ca.

3.2 What We Heard

This section provides a summary of the input we received through the comment form and email submissions. Verbatim responses are recorded in Appendix B, as well as a summary of demographic questions.

Question 1. What are your thoughts about the proposed new definition for height? Are there any specific considerations that you would suggest?

There was general support for the proposed new height definition, with some respondents citing it is a succinct definition that seems clear and reasonable and others suggesting further amendments to simplify wording and to simplify the method for calculating height. Others recommended providing examples in the definition and to include illustrations to explain how height is calculated for unique sites. Respondents also suggested providing more clarification on the use of interpolation for determining the location on the base surface from which height is measured and specifying what the highest point of a building is (e.g. top of parapet, roof, mechanical equipment).

Question 2. What are your thoughts about the proposed changes to the definition of base surface?

There was general support for the updated definition for base surface. Some respondents indicated the new definition is clearer and appreciated the use of illustrations, diagrams and tables to help explain the term. Others suggested wording changes to further simplify the definition and clarify terms. Again, there was interest in clarifying interpolation and types of grades referred to in the definition and how unique site circumstances are addressed.

Question 3. What are your thoughts about the proposed new definition for decorative roof?

There was general support for the proposed new definition for decorative roof, with some mentioning it is a very good idea to define decorative roof. Others provided suggestions to clarify the definition to either broaden or limit opportunities for decorative roofs. For example, allow decorative roofs on lower buildings or for roof-top features other than just coverings for mechanical appurtenances, or limit decorative roofs to a proportion of the building or not allow at all.

Question 4. What are your comments on the proposed amendments to update Section 10.18 height regulations (to modernize language and update terms, to provide more flexibility for rooftop amenity access and to clarify decorative roof regulations)?

More than half of the 18 responses received indicated support for the proposed changes, citing “the amendments are clearer than before, it gives more specific examples”. Suggestions for further amendments included removing the 10% of roof area restriction, further simplifying the technical terms used in the regulations, and not requiring approval for height variations by the Director of Planning or Development Permit Board.

Question 5. Other comments on what we’re working on to improve clarity and consistency of height regulations

Comments included the need to provide more clarity on how height is calculated for unique site circumstances and more flexibility to encourage more green rooftop designs and to improve rooftop aesthetics. One respondent suggested strengthening shadowing regulations to limit shadowing in public places, especially playgrounds, plazas and restaurant patios as a direct response to the Covid-19 pandemic, which has highlighted the importance of public spaces. Respondents appreciated the addition of illustrations and diagrams, citing graphics and tables help provide more clarity and understanding as they interpret complex regulations.

4.0 NEXT STEPS

This report provides a summary of the input received from the virtual Shape Your City open house and online comment forms over the period of March 1st to March 31st, 2021. The purpose of the virtual open house was to gather feedback from industry stakeholders and the public who use the Zoning and Development By-law on proposed changes to simplify and clarify height regulations. Verbatim results of comment form responses are available in Appendix B.

Staff will review and adjust the proposed amendments to height regulations based on what we heard. In June 2021, staff will bring forward proposed amendments on height regulations for Council's consideration as part of a report referral to public hearing.

The Council report will be available on Shape Your City and on the project webpage at vancouver.ca/RegRedesign. Please visit the project webpage for opportunities to engage and stay up-to-date on the project.

Appendix A Comment Form

Comment form

Speak another language? Use the Google Translate feature at the top right of this page, or call 3-1-1 to request an interpreter.

Watch the [video](#) to learn more about the proposed amendments to simplify and update height regulations. Share your thoughts by completing the comment form or ask a question on the "Ask a question" tab. Your input will help to create clearer and more effective regulations. **Comment form closes March 31, 2021.**

Resources for more information on the proposed amendments and details on previous public consultation on this topic:

- [Presentation slides: Proposed amendments for height regulations](#)
- [Redline version of proposed amendments for height regulations](#)
- [Summary of workshop on calculating floor area and building height \(June 2019\)](#)
- [Backgrounder on calculating building height](#)

All fields marked with an asterisk (*) are required.

Proposed Amendments to Simplify Height Regulations

Regulation Redesign is working on simplifying and clarifying land use regulations to make them easier to understand and implement.

We're proposing new definitions in Section 2 for "height" and "decorative roof", and to update the definition for "base surface". We're also proposing amendments to Section 10.18 to modernize language and update terms, to provide more flexibility for rooftop amenity spaces and access, and to clarify decorative roof regulations.

1. **Height** is currently not defined in the Zoning and Development By-law. We're proposing the following definition:

"The height of a building must, unless otherwise specified in a district schedule to this by-law, be measured as the vertical distance that the building extends above the base surface. The elevation at that point on the base surface directly beneath the highest point (or points) of the building are determined by interpolation. Height requirements in district schedules may also include limitations on the permitted number of storeys and/or building envelope."

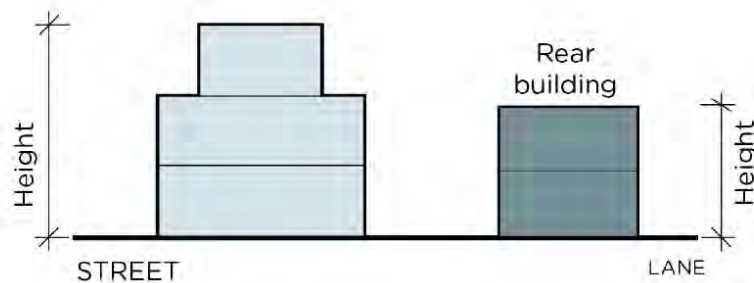


Illustration of height measurement

What are your thoughts about the proposed new definition for **height**? Are there any specific considerations that you would suggest?

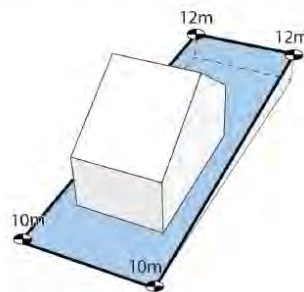
Please add your comment here...

2. **Base surface** is currently defined in the Zoning and Development By-law as:

"That hypothetical surface determined by joining the official established building grades at all corners of the site, provided however that where official established building grades cannot be obtained through application to the City Engineer, existing grades shall be used. For the purpose of measuring the height of a building at any point, the elevation at that point on the base surface shall be determined by interpolating from the official established building grades or, where official established building grades cannot be obtained, from existing grades."

We're proposing to the following definition for **base surface**:

"The hypothetical surface determined by joining the official established building grades at all corners of the site, provided that where official building grades cannot be obtained through application to the City Engineer, or where the official established building grades are found to be incompatible with grades on adjacent sites, existing grades may be used to determine the base surface."



Base surface

Illustration of base surface

What are your thoughts about the proposed changes to the definition of **base surface**?

Please add your comment here...

3. **Decorative roof** is currently not defined in the Zoning and Development By-law. We're proposing the following definition:

"An architecturally designed roof element applied to the top of buildings higher than 30.5m that enhances the overall appearance of the building and screens and integrates mechanical appurtenances in an aesthetically appropriate manner, without adding to the floor area otherwise permitted."



Photo of decorative roof by Merrick Architecture

What are your thoughts about the proposed new definition for **decorative roof**?

Please add your comment here...

4. Section 10.18 Height of Building

We're proposing amendments to Section 10.18 to modernize language and update terms, to provide more flexibility for rooftop amenity access, and to clarify decorative roof regulations

Summary of proposed amendments

- Height increases (currently section 10.18.4):
 - remove 1/3 of building width limit (max. 10% of roof area to apply)
 - update language on architectural appurtenances and remove 1.1m height limit
 - add the following features to the list of items that may exceed permitted height:
 - roof-top access structures to a private or shared outdoor amenity space that do not exceed 3.6m in height
 - common roof-top amenity structures contiguous with common outdoor amenity space that do not exceed 3.6 m in height
 - screening material the Director of Planning considers appropriate to reduce visual impacts

Proposed amendments: (see also redline version, p 1-2)

10.18.1 The Director of Planning may permit a greater height than otherwise permitted for the following items if, except for the items set out in subsection (h), they do not in total, cover more than 10% of the roof area on which they are located, as viewed from directly above:

- (a) architectural appurtenances provided no additional floor area is created;
- (b) roof-top access structures to private or shared outdoor amenity space that do not exceed a height of 3.6m.
- (c) common roof-top amenity structures contiguous with common outdoor amenity spaces that do not exceed a height of 3.6m;
- (d) mechanical appurtenances including elevator machine rooms and any screening materials the Director of Planning considers appropriate to reduce visual impacts;

- (e) any required guards, provided the Director of Planning considers the guard materials to be appropriate to reduce visual impacts;
- (f) chimneys;
- (g) venting skylights and opening clerestory windows designed to reduce energy consumption or improve natural light and ventilation;
- (h) access and infrastructure required to maintain green roofs or urban agriculture, or roof mounted energy technologies including solar panels and wind turbines; and
- (i) items similar to any of the above, provided that the Director of Planning first considers the effect on siting, massing, views, overlook, shadowing, and noise.

10.18.2 The Development Permit Board may, for any building higher than 30.5 m, permit a decorative roof provided that:

- (a) the Development Permit Board is satisfied that the roof enhances the overall appearance of the building and appropriately integrates mechanical appurtenances;
- (b) the roof does not add to the floor area otherwise permitted; and
- (c) the Development Permit Board first considers all applicable policies and guidelines adopted by Council.

What are your comments on the proposed amendments to update Section 10.18 height regulations?

Please add your comment here...

5. Do you have any other comments about what we're working on to improve clarity and consistency of height regulations?

Please add your comment here...

6. How familiar would you say you are with the Zoning and Development By-law? *

- Very familiar
- Somewhat familiar
- Not very familiar
- Not familiar at all

7. Do you live in the City of Vancouver? *

- Yes
- No

8. Do you conduct business in the City of Vancouver? *

- Yes
- No

9. Are you... (check all that apply) *

- An architect or design professional
- A developer
- A homeowner
- A renter
- A business operator or operator
- A non-profit organization owning or operating a space
- A part of the development industry not listed above
- Other (please specify)

10. Which of the following describes your business' primary activity *

- Arts, entertainment and recreation
- Large scale construction
- Small scale construction
- Food services and drinking places
- Information and cultural products (software publishing, film production etc.)

- Manufacturing
- Real estate, rental and leasing
- Religious, social and community organizations
- Retail
- Other (please specify)

11. How did you hear about this survey (check all that apply)

- City of Vancouver website (vancouver.ca)
- Postcard/letter in the mail
- Email distribution list
- Newspaper article
- Poster
- Word of mouth (friends/ family/ through work)
- Shape Your City (shapeyourcity.ca)
- Other website (please specify)
- Newspaper advertisement
- Social media (Facebook, Twitter, Instagram)
- Other (please specify)

Appendix B

Comment form verbatim response and summary

Question 1. What are your thoughts about the proposed new definition for height? Are there any specific considerations that you would suggest?

I believe the province should revoke Vancouver's municipal land use power to regulate heights below 8 storeys. The new definition is fine, but irrelevant.
Definitely in favour of clear height definitions. But feel that the most important aspect is that the first storey should be at grade on at least one plane for true accessibility. Below grade basements create barriers to accessibility. The max height should be raised slightly to reflect a shift away from forcing below grade basements to raising the first floor to help with accessibility.
Interpolation is one of the reasons determining height is so difficult. I have received hand-written notes from COV PC's (who are trying to be helpful) having to explain interpolation. You need to provide a basic, understandable formula for determining the max. height. The definition is 'ok' but you now need to define: base surface, interpolation
It sounds clear. Are there any exceptions/ special cases? Maybe some examples?
I agree with the idea in general but we also need to keep the roof of y'all buildings green in order to avoid tall concrete jungle like feeling we get in areas like Coal Harbour.
Its fine, IMO consulting about this kind of stuff is silly, all you're going to get is NIMBYs who don't want change, everyone else won't care
Great!
Seems clear
I think this is a succinct definition of building height.
seems reasonable
This is too confusing. Please simplify.
I oppose this because it's too vague. What does this mean exactly? Why don't you make it easier for the average person to understand? How does this affect residents? Vision Vancouver has already ruined neighbourhoods. You can't walk a metre without seeing construction in the West End or anywhere in Vancouver. You don't have a proper public consultation procedure right now.
base surface should be more clearly defined
height, grade, base surface definitions in VBBL 2019 and zoning should be consistent

Question 1 continued

How is the base surface measured? How are steep sites considered vs flat ones? Is the height measured on existing or finished grades? Do the existing grades function well for drainage in the first place? Are the heights measured from the property line, or from some virtual surface? There are currently far too many ways of calculating grade, and this needs to be better established.

You need to clarify/specify what part of the building height is measured to: i.e. top of parapet, top of mechanical equipment screen, top of architectural armature, top of slab, top of mechanical equipment itself, top of spire. Occasionally rezoning height is written in the body of the report as to top of slab. For towers, it would be helpful to incentivize tops of buildings that look resolved and integrated as opposed to the dog house mechanical penthouses that appear as add-ons because they're excluded from height if they conform to certain dimensions.

I would prefer calculating from the highest point on the base surface. It is not clear what is being interpolated over in the definition. This seems to be a definition for someone who already knows what base surface means, as that is presumably what is interpolated? I think this is supposed to mean "the height of a building is measured from the highest point or points on a building to the base surface directly below that/(those) point(s)," but it does not come out and say that so I'm not sure.

Please consider removing the use of an "interpolated point directly beneath the highest point". Interpolation makes the process unnecessarily cumbersome for the sake of a few exceptional cases. Please consider a far simpler method as mentioned in your backgrounder PDF table that simply uses the average of the 4 finished building corner elevations.

Its unfair to use the old trope of interpolating existing grades as this makes sloped sites shorter than flat sites. Just pick the high point please or give an FSR based zoning envelope rather than making the entire building massing dependent on a single artificially dependent moment. Ie if there is a developed, zero side yard lot line on a sloped site it means an artificial halfway point will determine the overall height at the street? Or maybe height should be just based on visual massing from the street side property line or something - after all its the feeling of a building with relation to the street that is important not the math.

Sentences should flow more smoothly to facilitate quick reading. Instead of breaking up a key sentence to describe the definition of height, identify at outset that the heights of buildings must agree with requirements specified in district schedule.

Deal with sloping sites in the diagrams. This is particularly important on severely sloping sites.

Specify in more detail what the height definition would be if the property and building on it is on a sloped ground. (ie. Hills, Off a side of the Mountain, Above a Cliff, etc)

It's not clear what the definition of "vertical distance" is. Suggest that you combine the two sentences. "... be measured as the vertical distance between a point on the base surface directly beneath the highest point of the building"

Question 2. What are your thoughts about the proposed changes to the definition of base surface?

Fine - and please make the building grade process from the City engineers faster! Thanks.
I believe the province should revoke Vancouver's municipal land use power to regulate heights below 8 storeys. The new definition is fine, but irrelevant.
This definition works, but the height of the building should be taken from the lowest point of the base surface.
Good to have an image for illustration.
Sounds okay. A diagram with 4 different corner elevations would be more helpful.
Clear and a lot more defined, however it needs to be simplified better in terms of wording. Can something stated be said with more simpler words for the majority to understand? (I.e. A Drafting Student in a High School setting)
Fine with this definition
Fine
Clear.
Very clear.
Seems clear
again, seems reasonable
Again I oppose this.
What about a convex or concave site? There are plenty of sites on an escarpment for which averaging of 4 corners does not well depict what happens in the middle? Who determines this 'incompatibility'? Is it something that requires judgement and so presents uncertainty as part of a design process?
-the regulation should limit the decorative roof to a proportion of the height of the building to the base of the proposed decorative roof
Illustration is reasonably clear, but what do you mean by 'joining'? Explain the difference between 'official established' and 'existing grades'. It might help to have a definition that is NOT by-law language in addition to your by-law. You need an interpretive writer or technical writer on the team
Given that it is acceptable that a Base Surface may be inclined, does that mean that the building will also be allowed to have a roof that is also inclined, and parallel to the Base Surface, as no point on the rooftop would be further from the Base Surface than the highest point would be from the Base Surface?
the illustration shows elevations at 12 m at the north side of the property and 10 m at the south. Often times the north side will have different elevations as would the south side. For example 12m and 11.8 m on the corners at the north and 10 and 9.8 m on the south. The base surface is a warped plane. Then under the definition of height it's not clear how to interpolate.

Question 2 continued

Create sentences that are shorter, contain only one fact or piece of information. This speeds up reading and helps understanding.
Interpolation means official surveyed measure of height.
Generally 4 points don't make a plane. You should define which interpolated grade you calculate first. side to side then front to back?
For single family and similar projects, please reconsider and just use the average of the 4 finished building corner elevations. It's a much simpler approach.

Question 3. What are your thoughts about the proposed new definition for decorative roof?

Sure - how does this relate to roof top trellis' for roof patios? Does this mean we can conceal mech equipment with what is effectively additional visual height but can't provide shade for roof patios?
I do not believe Vancouver should attempt to regulate decorative roofs at all. If people want to add them, that's fine. If they don't that's also fine. The new definition is fine, but irrelevant.
Definition is good, but image is a commercial tower. Are residential homes allowed to have a decorative roof over and above the allowable height? You might consider it because allowing new builds to have a roof deck is creating a plethora of unsightly rooflines! I'm not against roof decks, but the code should allow for elegant solutions
I'm fine with the existence of a decorative roof above the normal height restrictions as long as it doesn't violate view cone height limits.
I'm fine with the definition of a decorative roof, but why is mechanical equipment called "mechanical appurtenances"? The word choice of "appurtenances" doesn't seem consist with a goal of simplifying and making the language clearer.
As long as the decorative roof does not adversely affect surrounding properties
This is a very good idea.
Good, have it not be included in height limits!
Good improvement!
Seems clear
Is the decorative roof in addition to the height restriction?
Is the intent "higher than 30.5 m above the base surface" or "higher than 30.5 m above the roof"?
-the regulation should limit the decorative roof to a proportion of the height of the building to the base of the proposed decorative roof
Shouldn't just be limited to "mechanical appurtenances" needs to be more open to interpretation.

Question 3 continued

Exposed for abuse. How high can it go? There's no language connecting the definition to building height.

"Decorative" is a misleading word. Example: a screen that extends upward from the perimeter of a curtain wall office tower to conceal mechanical will appear to have a clean finish to the top compared to the doghouse concept, but it would not really be decorative. It's not adding decoration; it merely helps to resolve the top of the building.

I don't think it should matter whether any decorative element is "architecturally designed".

I think any decorations should be green, i.e. trees or solar panels.

Plenty of buildings have decorative roofs are shorter than 30.5m, why should only the tallest buildings in the city have such flexibility to go significantly higher than the envelope might otherwise require, but nothing shorter can do so even modestly? If one building can 'break' its envelope, so should all be able to do so, if reason required.

This definition would be more clear if written in the following way.

An architecturally designed roof element higher than 30.5 m applied to the top of the building that enhances the overall appearance of the building and screens and integrates mechanical systems without adding to the habitable floor area otherwise permitted.

Question 4. What are your comments on the proposed amendments to update Section 10.18 height regulations (to modernize language and update terms, to provide more flexibility for rooftop amenity access and to clarify decorative roof regulations)?

Yep thanks - and please include exit stairs in this exclusion as public roof amenities need 2 exits and it can be hard to convince developers that this FSR hit is worth it - especially with smaller sites. Trellis question confirmed, thanks!

Improving the ability to permit access to roof areas for amenity is good. There needs to be an associated floor space relaxation for circulation space to reach it, at least for common access. (ie stairs and elevators)

I am an energy efficiency engineer and welcome the exclusion of mechanical, service and energy efficiency elements from the building height. It encourages the selection of the proper equipment or element based on performance and not based on having to meet a height restriction.

Question 4 continued

I'm supportive of these proposed amendments, but why make these exemptions dependent on approval by the Director of Planning or the Development Permit Board? While I don't doubt either bodies' professional judgement, it does introduce a degree of unpredictability to the permitting process. For these specific amendments why not update the zoning so that all of these examples are by default permitted UNLESS the Director of Planning or the Development Permit Board, respectively, object, and with specific and transparent justification based on City of Vancouver priorities or directives? This would make the permitting process much more streamlined and predictable, would it not?

Sure

Agree with this

the amendments are clearer than before, it gives more specific examples

I like it.

Just change it! People really don't need to be consulted on this.

All great adjustments!

all seems reasonable

I oppose these changes until a proper public consultation happens. As a resident of the West End we were literally and figuratively bull dozed by Vision Vancouver and I don't see how a proper consultation can happen with the pandemic.

I am unsure why there is a limit of 10%. Could it be 9% or 11%? I am pleased that subsection h) is excluded from this

I'm not clear on the following, "...except for the items set out in subsection (h), they do not in total, cover more than 10% of the roof area on which they are located, as viewed from directly above:" Does the 10% apply to the area of a roof deck? If so, on an average lot measuring 33'x122' this would be approx. 100 SF?? The 10% is confusing

So much complexity.

This continues to incentivize 10% of roof area doghouses.

At 10% of the roof area, this would incentivize limiting rooftop amenity amenity spaces to only 650 sq. ft on a typical tower with a floorplate of 6,500 sq. ft.

You need to let go of this 10% thing. You'll just end up with the same unattractive doghouse roofs we've been doing for 20 years.

There's decorative roof, there's architectural appurtenances and also now "any screening materials." How are these different? Why so confusing? Simplify.

I think generally the hight of the building should not be increased from previous parameters. However, the buildings should provide shared rooftop and shared space facility. It is strange that only a select few are allowed to ever enjoy the rooftop of the building they spend years and sometimes even decades in.

Question 4 continued

-houses in my neighbourhood are being built box-like to a full three storeys and seem imposing when gabled houses are the predominant form; adding 3.6 m to a three storey house is too much; limit it to the height of a railing and require most of the railing be transparent
It would be a lot better if these allowances did not depend on the director of planning nor the DPB's opinion.
No comment

Question 5. Other comments on what we're working on to improve clarity and consistency of height regulations

This is all insanity, desperately trying to manage a self-imposed scarcity of FSR region wide.
Agree with adding clarity and allowing more height to fit more variety of building shapes into so there won't be the same boring box on every street, such as "Vancouver Specials" or townhouse / condo equivalents.
Allow homes to go higher (or lower into the ground) if they are to be stratas, i.e., character retention projects. If you happen to live in a residential neighbourhood of Vancouver, you're watching 6-8 (+/-) rises go up around you, so it seems only right to allow homes to increase in height...within reason. At least allow homes to increase to the height of some of the original large homes, many of which provide rental opportunities.
add images and/or tables where possible
Once you have base surface (perhaps a tilted plane), will height be calculated based on the same tilted plane set at the maximum height? This step is always confusing so a graphic will be helpful
Provide more illustrative diagrams to help provide more clarity and understanding.
Garden Sheds? Included in the green roof infrastructure? Daycare storage spaces? Often these are exterior spaces on roofs. Cell phone towers - these are pretty ugly although maybe these sit in the mech infrastructure exclusion.
Keep the greenery and sustainability a focus rather than mere business. In the coming days of climate change and climate crises mental health and sustainability are key risks to our race. We need to prepare better, cleaner, and greener. Long live Vancouver, the city we all love. Dr. Gulnaz Anjum

Question 5 continued

From the presentation, it seems that the emerging direction for redefining height and base surface is leaning toward the VBBL Method as it is easier to calculate. However, while it may reduce interpolation and complex calculations, it also has the tendency to eliminate nuance. These calculations do not only define overall height, but also provide the basis for defining the number of stories, and other grade-related thresholds that have Code implications unrelated to height. The VBBL Method, and likely any simplified method is more likely to count basements and partial storeys as full storeys, which could have unintended consequences.

This issue is particularly pressing when it comes to Vancouver's Character and Heritage houses. These wood-framed, residential buildings are often 2 1/2 stories with a basement. They are also often located on slopes which allow the basement to be accessed at grade on one or more sides. Under the simplified VBBL method of calculating height, these Part 9 buildings would be designated as 4 stories, and therefore automatically be defined as Part 3 buildings under VBBL 3.2.2, which are required to be of non-combustible construction. This could potentially affect a large majority of Vancouver's Character housing stock with devastating consequences. Even a minor renovation could become untenably expensive because existing houses would get re-designated as Part 3 buildings, triggering more extensive structural and code requirements, and requiring exceptions for existing combustible construction.

In addition to inhibiting character house retention, this issue could also make it much more difficult to create new housing stock at a similar scale and density. So-called Missing Middle developments could also suffer as it would be more difficult to include grade-accessible garden suites, or mass-reducing partial upper stories, in 3-storey structures comparable to character houses. Without clear and careful height regulation, these much needed ground-oriented residential developments would also be designated as Part 3 buildings, making them more expensive and subject to more onerous permitting processes.

While I fully support the simplification and clarification of height regulations, I sincerely hope that staff is following through on the implications of these changes to all tangentially related topics in the zoning AND building code bylaws.

Question 5 continued

It seems you're clinging to the technical structure of the past and merely modifying existing definitions, but not sure this is providing much more clarity or simplification. and probably not going to improve the aesthetics of rooftops. So then what's the point of changing it? There were good, simple and clear ideas generated in the group discussions.

You need to rethink the mechanical penthouse/ elevator overrun problem. Doghouse town. Think incentives. You may want to incentivize attractive, well-resolved rooftops.

First principles. Answer this question first: What is the purpose of limiting height? To limit impacts from bulk or shadow? Or to maintain access to light and sky? To limit density? Or to achieve certain skyline aspirations? Be specific. Then follow that established logic. Why would a rooftop amenity space excluded from height somehow cause less impact than any other use or object occupying the same 3D space? Or how does an ugly poorly resolved rooftop mechanical penthouse get a free ride on height merely because it conforms to a certain area footprint?

Height is height: no matter if it's elevator overrun, parapet, air handling unit, amenity space, rooftop trees, screens, guards, armature, trellis, movable canopy, window washing crane, FSR space, sculpture - whatever is up there, it's all height. It all contributes to the perception of the vertical dimension of a building. Why attempt to differentiate, and thereby add preference for some objects for consideration of additional height over others just by virtue of their use or size?

Limit/ eliminate exceptions and exclusions or it'll just be a different version of the same old game. Simplify. Clarify.

This is really unnecessary to be consulted on. It seems the only reason this is even being run because a small handful of the population throws a fit when they aren't consulted. I think consulting on this administrative stuff is actually quite hurtful to the overall process because it distracts from other consultations and discourages people from consulting on other topics because this is quite boring and dense; not something the average person should be concerned with. If people think all consultation is like this they're unlikely to engage again.

Again have a public consultation process! Still waiting for one! Please wait until after the pandemic.

Question 5 continued

-shadowing regulations should be regularized noticing that parks, school playgrounds and plazas are very important public spaces. Children are now at school all day and the playgrounds can be heavily used three or four times a day. I'd suggest 10 am - 3 pm for areas where children are playing or community gardens are located. Key public plazas should have shadowing limited 10 - 4 pm and areas where there are restaurant patios should not be shadowed later in the afternoon. Council policy can guide the consideration of relaxations. But shadowing of children's playgrounds and school yards should be the highest priority for sunshine between the equinoxes.

Make the sentences as short as possible even if they seem excessively simple. People are used to reading captions, headlines and brand logos, increasingly lazy about reading more complicated language and detailed guidance.

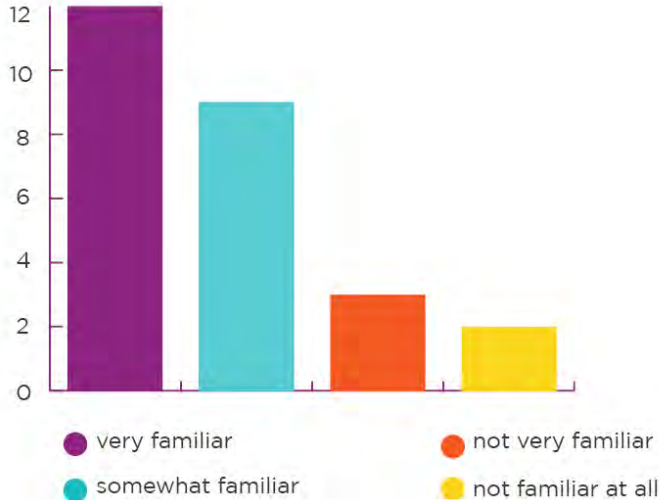
I think I've made my comments in the relevant sections but to reiterate, the word choice of "appurtenances" seems verbose if clarity is the aim, and if consistency is the aim of the proposed amendments, why shouldn't the examples that can be permitted to exceed the building height all be allowed by default, UNLESS the Director of Planning or the Development Permit Board specifically object, with clear and transparent reasons based on the City of Vancouver's directives or priorities?

The regulations need to better address sloping sites. This can be challenging. When the lane is high the loading dock clearance typically sets the height of the main floor which dictates the height of the building. When the lane is low the parkade can become a storey which can have a significant effect on floor area and available massing options. The accessibility requirements in the VBBL are also challenging on sloping sites. Can language be added to specifically give the director authority for all these cases?

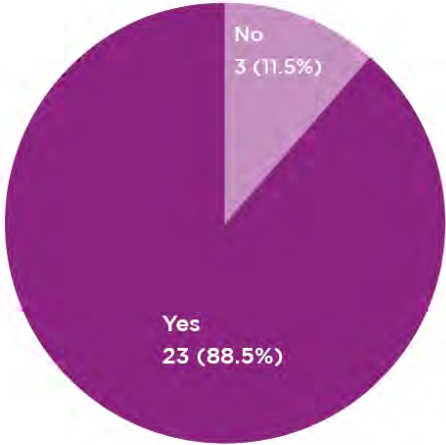
One issue that I encounter frequently on sloped sites with parkade entrance at the high side. Some of the parking floors immediately above the high side will be counted as FSR as they are above the sloping base surface. I would suggest that these should not be counted towards FSR.

Thank you so much for doing this! Let's keep clarifying and simplifying!

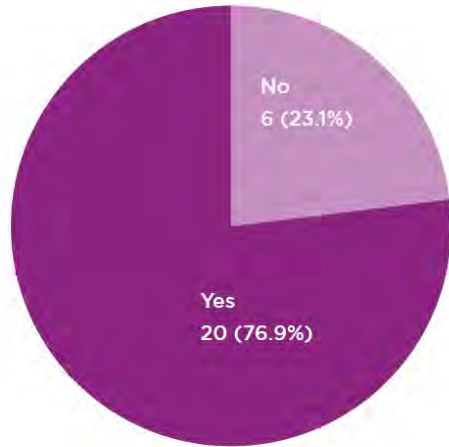
Question 6. How familiar would you say you are with the Zoning and Development By-law?



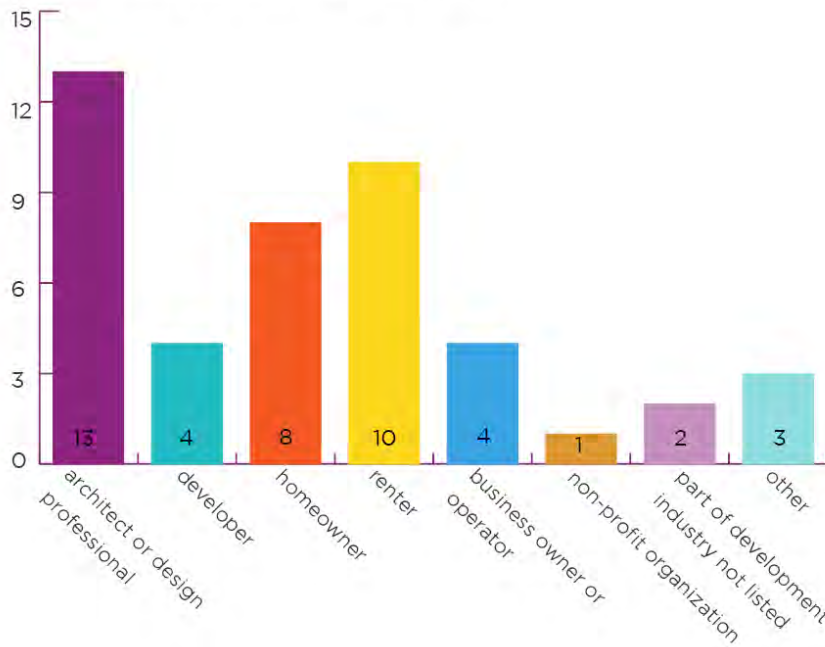
Question 7. Do you live in Vancouver?



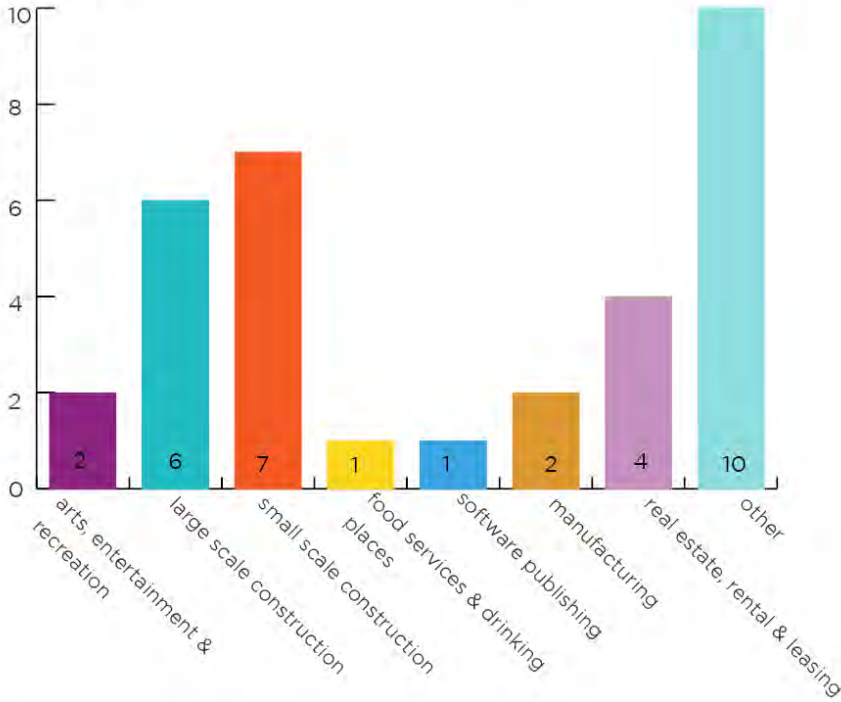
Question 8. Do you conduct business in the City of Vancouver?



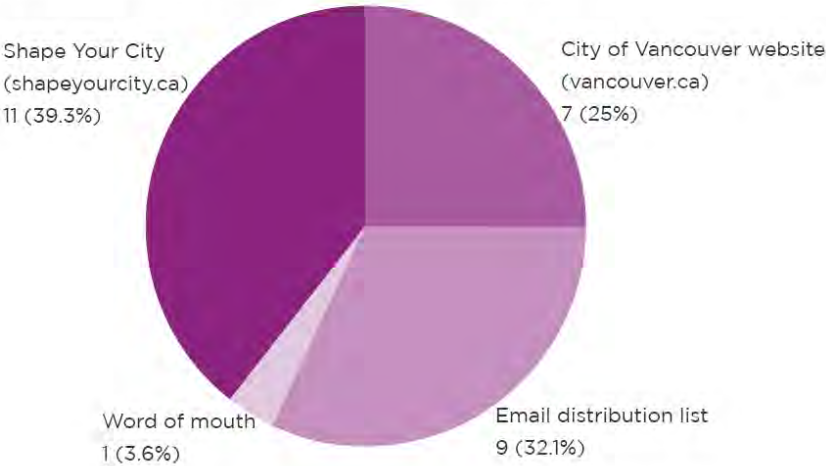
Question 9. Are you... (check all that apply)



Question 10. Which of the following describes your business' primary activity



Question 11. How did you hear about this survey?



Appendix C

Redline Version of Proposed Height Amendments

1) Amendments to Section 2 – Definitions:

Add new definition for height:

The height of a building must, unless otherwise specified in a district schedule to this by-law, be measured as the vertical distance that the building extends above the base surface. The elevation at that point on the base surface directly beneath the highest point (or points) of the building are determined by interpolation. Height requirements in district schedules may also include limitations on the permitted number of storeys and/or building envelope.

Amend definition for base surface:

That hypothetical surface determined by joining the official established building grades at all corners of the site, provided however that where official established building grades cannot be obtained through application to the City Engineer, or where the official established building grades are found to be incompatible with grades on adjacent sites, existing grades shall may be used to determine the base surface. For the purpose of measuring height of a building at any point, the elevation at that point on the base surface shall be determined by interpolating from the official established building grades or, where official established building grades cannot be obtained, from existing grades.

Add new definition for decorative roof:

An architecturally designed roof element applied to the top of buildings higher than 30.5 m that enhances the overall appearance of the building and screens and integrates mechanical appurtenances in an aesthetically appropriate manner, without adding to the floor area otherwise permitted

2) Amendments to Section 10.18 Height of Building and Relaxation:

~~10.18.1 The height of a building shall, unless otherwise specified in a district schedule to this By-law, be measured as the vertical distance that the building extends above the base surface.~~

~~10.18.2 Where the existing grade of a site is higher than the base surface and the Director of Planning is satisfied that the existing grade is compatible with the existing grade of the adjoining sites or the general topography of the area, height of building may be measured from a surface determined by joining the existing grade at all points around the perimeter of the proposed building. The Director of Planning may, if the Director of Planning deems necessary, require the applicant to furnish a plan of survey in accordance with section 4.1.2 of this By-law.~~

~~10.18.3 Where the existing grade of a site is lower than the base surface, building height may be measured from the base surface provided the Director of Planning is satisfied that the proposed finished grade is compatible with the existing grade of the adjoining sites or the general topography of the area. The Director of Planning may, if the Director of Planning deems necessary, require the applicant to furnish a plan of survey in accordance with section 4.1.2 of this By-law.~~

(the above sections are replaced by the new height and base surface definitions)

- 10.18.4.1 The Director of Planning may, ~~at the Director of Planning's discretion,~~ permit a greater height than otherwise permitted for the following items if, except for the items set out in subsection (h) ~~(d)~~, they do not, in total, ~~exceed one third of the width of the building or buildings as measured on any elevation drawings and do not, in total,~~ cover more than 10% of the roof area on which they are located as viewed from directly above:
- (a) architectural appurtenances ~~such as towers, turrets, and cupolas,~~ provided:
 - (i) no additional floor area is created; ~~and~~
 - (ii) ~~no protrusion extends more than 1.1 m above the height limitation;~~
 - (b) **roof-top access structures to private or shared outdoor amenity space that do not exceed a height of 3.6 m;**
 - (c) **common roof-top amenity structures contiguous with common outdoor amenity space that do not exceed a height of 3.6 m;**
 - (d) mechanical appurtenances ~~such as~~ **including** elevator machine rooms **and any screening materials the Director of Planning considers appropriate to reduce visual impacts;**
 - (e) **any required guards, provided the Director of Planning considers the guard materials to be appropriate to reduce visual impacts;**
 - (f) chimneys;
 - (g) venting skylights and opening clerestory windows designed to reduce energy consumption or improve natural light and ventilation;
 - (h) access and infrastructure required to maintain green roofs or urban agriculture, or roof mounted energy technologies including solar panels and wind turbines; **and** , provided that the Director of Planning considers:
 - (i) ~~their siting and sizing in relation to views, overlook, shadowing, and noise impacts,~~
and
 - (ii) ~~all applicable policies and guidelines adopted by Council;~~
 - (i) ~~venting skylights and opening clerestory windows designed to reduce energy consumption or improve natural light and ventilation; and (moved to (g) above)~~
 - (i) items similar to any of the above.

provided that the Director of Planning first considers the effect on siting, massing, views, overlook, shadowing, and noise.

- 10.18.5.2 The Development Permit Board may, for any building higher than 30.5 m, permit a decorative roof, ~~which may include items referred to in section 10.18.4, to exceed the maximum height otherwise specified in this By-law,~~ provided that:
- (a) the Development Permit Board is satisfied that the roof enhances the overall appearance of the building and appropriately integrates mechanical appurtenances;
 - (b) the roof does not add to the floor area otherwise permitted; and the Development Permit Board first considers all applicable policies and guidelines adopted by Council.

Appendix D Presentation Slides

Regulation Redesign
Simplifying Rules for City Building

Regulation Redesign
Proposed Regulatory Amendments:
Height

Planning, Urban Design & Sustainability
March 2021

Agenda

1. What is Regulation Redesign?
2. Proposed amendments to simplify height regulations
 - Definitions
 - Section 10.18 regulations

Regulation Redesign
Simplifying Rules for City Building

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About Regulation Redesign

- Regulation Redesign is a priority project in 2020 Corporate Plan, specifically Goal 2B – Build and Protect the Vancouver Economy
- Key objectives of the project are to:
 - simplify and clarify land use regulations to make them easier to understand and implement
 - modernize regulations and language and improve the format of land use documents to make them more user-friendly
 - improve the consistency of land use regulations and policies
 - improve communication about land use tools
 - establish a robust and enduring land use framework

Regulation Redesign
Simplifying Rules for City Building

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Current situation

Adopted in 1956, the Zoning and Development By-law has been amended thousands of times (8000+), but it has not been comprehensively reviewed.

1956 2019

Regulation Redesign
Simplifying Rules for City Building

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What we've heard

I CAN'T FIND THE INFORMATION I NEED

EVEN WHEN I FIND WHAT I'M LOOKING FOR, I CAN'T UNDERSTAND IT

INFORMATION CONFLICTS WITHIN BY-LAWS AND ACROSS REGULATIONS / POLICIES

Policy

THE RULES ARE BEING INCONSISTENTLY INTERPRETED AND APPLIED

Regulation Redesign
Simplifying Rules for City Building

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Project timeline

2018/19	2020	2021	2022
• explore issues and ideas	Modernize By-law structure and format		• Review zoning By-law as Local Policy Permit
• develop options for By-law format			
• regulatory amendments	Simplify, clarify, harmonize regulations		
	Endurance and legacy of land use framework		
	Council 01	Council 02	Council 03

Regulation Redesign
Simplifying Rules for City Building

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Agenda

1. What is Regulation Redesign?
2. Proposed amendments to simplify height regulations
 - Definitions
 - Section 10.18 regulations

Regulation Redesign
Simplifying Rules for City Building

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Simplify height regulations

1. Create new definitions:
 - height
 - decorative roof
2. Update base surface definition
3. Update section 10.18 height regulations
 - modernize language
 - provide more flexibility for roof access and roof top amenity features
 - clarify decorative roof regulations



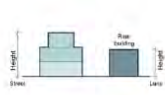
Regulation Redesign
Simplifying Rules for City Building

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Simplify height regulations: 1. New definitions

Create new definition for height to clarify:

- height is measured as the vertical distance building extends above base surface
- interpolation is the method used to determine the point on the base surface from which height is measured
- regulations in district schedules may limit the number of storeys or building envelope




Regulation Redesign
Simplifying Rules for City Building

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Simplify height regulations: 2. Updated definition

Amend definition for base surface to:

- clarify that existing grades may be used to determine base surface if:
 - official established building grades cannot be obtained or
 - where they are incompatible with grades on adjacent sites
- remove wording about height calculation that is in new height definition



Regulation Redesign
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Simplify height regulations: 1. New definitions

Create new definition for decorative roof:

- an architecturally designed roof element on buildings over 30.5 m high
- enhances the overall appearance of the building
- screens and integrates mechanical appurtenances
- doesn't add to floor area



Regulation Redesign
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Simplify height regulations: 3. Updated regulations

Update Section 10.18 - Height of Building:

- remove sections 10.18.1 to 10.18.3 (which explain how height and base surface are calculated)
- replace with new height definition and updated base surface definition




Regulation Redesign
Simplifying Rules for City Building

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Simplify height regulations: 3. Updated regulations

Update height increases (currently section 10.18.4):

- remove 1/3 of building width limit (max. 10% of roof area to apply)
- update language on architectural appurtenances and remove 11 m height limit
- add the following features to the list of items that may exceed permitted height:
 - roof-top access structures to a private or shared outdoor amenity space that do not exceed 3.6 m in height
 - common roof-top amenity structures contiguous with common outdoor amenity space that do not exceed 3.6 m in height
 - screening material the Director of Planning considers appropriate to reduce visual impacts



Regulation Redesign
Simplifying Rules for City Building

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Thank you

Questions?

What's next?

- Shape Your City Engagement in March
- Report to Council late spring 2021

Learn more:
vancouver.ca/RegRedesign
RegRedesign@vancouver.ca



Regulation Redesign
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REDLINE – Proposed Height Amendments

1) Amendments to Section 2 – Definitions:

a) Add new definition for building height:

The vertical distance between the highest point or points of a building and the point on the base surface, as determined by interpolation, that is directly beneath the highest point or points of a building, unless otherwise specified in a district schedule.

b) Amend definition for base surface:

~~That~~ **The** hypothetical surface determined by joining the official established building grades at all corners of the site, ~~provided however~~ **except** that ~~where~~ **if** official established building grades cannot be obtained through application to the City Engineer, **or if the Director of Planning determines that the official established building grades are incompatible with grades on adjoining sites, existing grades shall** may be used to determine the base surface. ~~For the purpose of measuring height of a building at any point, the elevation at that point on the base surface shall be determined by interpolating from the official established building grades or, where official established building grades cannot be obtained, from existing grades.~~

c) Add new definition for decorative roof:

An architecturally designed roof element that enhances the overall appearance of the building and screens and integrates mechanical equipment without adding to the floor area otherwise permitted.

2) Amendments to Section 10.18 Height - Building:

Section 10.18 Height – **Building** of Building and Relaxation

~~10.18.1~~ The height of a building shall, unless otherwise specified in a district schedule to this By-law, be measured as the vertical distance that the building extends above the base surface.

~~10.18.2~~ Where the existing grade of a site is higher than the base surface and the Director of Planning is satisfied that the existing grade is compatible with the existing grade of the adjoining sites or the general topography of the area, height of building may be measured from a surface determined by joining the existing grade at all points around the perimeter of the proposed building. The Director of Planning may, if the Director of Planning deems necessary, require the applicant to furnish a plan of survey in accordance with section 4.1.2 of this By-law.

~~10.18.3~~ Where the existing grade of a site is lower than the base surface, building height may be measured from the base surface provided the Director of Planning is satisfied that the proposed finished grade is compatible with the existing grade of the adjoining sites or the general topography of the area. The Director of Planning

may, if the Director of Planning deems necessary, require the applicant to furnish a plan of survey in accordance with section 4.1.2 of this By-law.

(the above sections are replaced by the new height and base surface definitions)

10.18.1 The Director of Planning may, ~~at the Director of Planning's discretion,~~ permit a ~~greater height than otherwise permitted for the following items~~ **to exceed the maximum building height otherwise permitted in this By-law** provided that, except for the items set out in subsection (d), they do not, in total, ~~exceed one third of the width of the building or buildings as measured on any elevation drawings and do not, in total,~~ cover more than 10% of the roof area on which they are located as viewed from directly above:

- (a) architectural ~~appurtenances~~ **features** such as towers, turrets, and cupolas, provided:
 - (i) no additional floor area is created. ~~and~~
 - (ii) ~~no protrusion extends more than 1.1 m above the height limitation;~~
- (b) mechanical ~~appurtenances~~ **equipment**, such as **including** elevatormachine rooms **and any screening materials, that the Director of Planning considers appropriate to reduce visual impacts;**
- (c) chimneys;
- (d) roof mounted energy technologies, and access and infrastructure required to maintain green roofs or urban agriculture; ~~including solar panels and wind turbines, provided that the Director of Planning considers:~~
 - (i) ~~their siting and sizing in relation to views, overlook, shadowing, and noise impacts, and~~
 - (ii) ~~all applicable policies and guidelines adopted by Council;~~
- (e) venting skylights and opening clerestory windows designed to reduce energy consumption or improve natural light and ventilation;
- (f) **roof-top access structures to private or common outdoor amenity space that do not exceed a height of 3.6 m;**
- (g) **common roof-top amenity structures contiguous with common outdoor amenity spaces that do not exceed a height of 3.6 m;**
- (h) **any required guards, provided that the Director of Planning considers the guard materials to be appropriate to reduce visual impacts; and**
- (f) items similar to any of the above.

10.18.2 The Development Permit Board may, for any building higher than 30.5 m, permit a decorative roof, ~~which may include items referred to in section 10.18.4,~~ to exceed the maximum height otherwise specified in this By-law, provided that:

- (c) the Development Permit Board is satisfied that the roof enhances the overall appearance of the building and appropriately integrates mechanical appurtenances;

- (d) the roof does not add to the floor area otherwise permitted; and
- (d) the Development Permit Board first considers all applicable policies and guidelines adopted by Council.

Section 4.17.8 of the RS-6 and RS-7 District Schedules:

The items described in section 10.18.5¹ (a), (c) and (d) of this By-law shall not be considered in the determination of building height for the purpose of section 4.17.7 of this Schedule

