

Section 2.2. Administration

2.2.1. Administration

2.2.1.1. Conformance with Administrative Requirements

- 1) This By-law is made pursuant to Section 306 of the Vancouver Charter.

2.2.1.2. Structural Design

- 1) Except as required in Sentence (2), for a design carried out in accordance with Part 4 of Division B, the designer shall be a *registered professional* skilled in the work concerned. (See Note A-2.2.1.2.(1).)
- 2) For the design of a Part 3 Division B *building*, carried out in accordance with Part 4 of Division B, the designer shall be a *registered professional* designated by the Association of Professional Engineers and Geoscientists of British Columbia as a *Designated Structural Engineer (Struct. Eng.)* and shall
 - a) assume overall responsibility for the design work and *field reviews* of the primary structural components of a *building* that falls within the scope of Article 1.3.3.2. of Division A of Division A,
 - b) apply his or her professional (P.Eng.) seal and Struct. Eng. stamp, sign and date the plans and supporting documents prepared by, or under the supervision of the *Designated Structural Engineer*, and
 - c) apply his or her professional (P.Eng.) seal and Struct. Eng. stamp and sign and date the Letters of Assurance described in Subsection 2.2.7.

2.2.2. Information Required for Proposed Work

2.2.2.1. General Information Required

- 1) Sufficient information shall be provided to show that the proposed work will conform to this By-law and whether or not it may affect adjacent property.
- 2) Plans shall be drawn to scale and shall indicate
 - a) the nature and extent of the work or proposed *occupancy* in sufficient detail to establish that, when completed, the work and the proposed *occupancy* will conform to this By-law,
 - b) the applicable edition of the By-law,
 - c) whether the *building* is designed under Part 3 or Part 9,
 - d) the *major occupancy* classifications of the *building*,
 - e) the *building area* and *building height*,
 - f) the number of *streets* the *building* faces,
 - g) the *accessible* entrances, work areas and washrooms,
 - h) the *accessible* facilities particular to the *occupancies*, and
 - i) Deleted.
- 3) When proposed work is changed during construction, information on the changes shall comply with the requirements of this Section for proposed work.

2.2.2.2. Site Plans

- 1) Site plans shall be referenced to an up-to-date survey and, when required to prove compliance with this By-law, a copy of the survey shall be provided.
- 2) Site plans shall show
 - a) by dimensions from property lines, the location of the proposed *building*,
 - b) the similarly dimensioned location of every adjacent existing *building* on the property,
 - c) existing and finished ground levels to an established datum at or adjacent to the site,
 - d) the access routes for firefighting, and
 - e) the *accessible* paths of travel to the *building* from
 - i) the sidewalk, roadway or *street*, and

- ii) if provided, exterior parking stalls for *persons with disabilities* and exterior passenger-loading zones, and
- f) the exterior entrances and key plan for each storey indicating the location and number of suites.

2.2.2.3. Information Required on Building Plans for Addressing Purposes

- 1) Architectural floor plans provided for addressing purposes shall
 - a) measure 280 mm by 430 mm,
 - b) identify the location and designated *street* number of the principal entrance of a *building* and the location and designated *suite* number of all interior and exterior *suite* entrances.

2.2.3. Fire Protection, Mechanical and Plumbing Components

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2.2.3.1. Information Required for Fire Protection Components

- 1) Information shall be submitted to show the major components of fire protection including
 - a) the division of the *building* by *firewalls*,
 - b) the *building area*,
 - c) the degree of *fire separation* of *storeys*, shafts and special rooms or areas, including the location and rating of *closures* in *fire separations*,
 - d) the source of information for *fire-resistance ratings* of elements of construction (to be indicated on large-scale sections),
 - e) the source of information for *encapsulation ratings* of mass timber elements of construction (to be indicated on large-scale sections),
 - f) the location of *exits*, and
 - g) fire detection, suppression and alarm systems.

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2.2.3.2. Plans of Sprinkler Systems

- 1) Before a sprinkler system is installed or altered, plans showing full details of the proposed sprinkler system and essential details of the *building* in which it is to be installed shall be drawn to an indicated scale.

2.2.3.3. Information Required on Plumbing Drawings and Related Documents

- 1) If the *Chief Building Official* requires an application for a permit in respect of *plumbing systems*, plumbing drawings and related documents submitted with the application shall show
 - a) the location and *size* of every *building drain* and of every *trap* and *cleanout* fitting that is on a *building drain*,
 - b) the *size* and location of every *soil-or-waste pipe*, *trap* and *vent pipe*, and
 - c) a layout of the *potable water distribution system*, including pipe *sizes* and valves.

2.2.3.4. Information Required on Mechanical Drawings and Related Documents

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- 1) If the *Chief Building Official* requires an application for a *permit* in respect of a *mechanical system*, mechanical drawings and related documents submitted with the application shall show
 - a) the location and *size* of all mechanical *appliances*,
 - b) the *size* of all major pipes and components,
 - c) the *heat loss calculation*, and
 - d) the full *mechanical system* being installed, drawn to an indicated scale.

2.2.4. Structural and Foundation Drawings and Calculations

2.2.4.1. Application

- 1) This Subsection applies only to *buildings* covered in Part 4 of Division B. (See Article 1.3.3.2. of Division A.)

2.2.4.2. Professional Seal and Signature of Designer

1) Structural drawings and related documents submitted with the application to build shall be dated and shall bear the authorized professional seal and signature of the *designer* as defined in Sentence 2.2.1.2.(1).

2.2.4.3. Information Required on Structural Drawings

1) Structural drawings and related documents submitted with the application to build shall indicate, in addition to those items specified in Article 2.2.4.6. and in Part 4 of Division B applicable to the specific material,

- the name and address of the person responsible for the structural design,
- the date of issue of the By-law and standards to which the design conforms,
- the dimensions, location and size of all structural members in sufficient detail to enable the design to be checked,
- sufficient detail to enable the *dead loads* to be determined, and
- all effects and loads, other than *dead loads*, used for the design of the structural members and exterior cladding.

2.2.4.4. Drawings of Parts or Components

1) Structural drawings of parts or components including *guards* designed by a person other than the *designer* of the *building* shall be dated and shall bear the authorized professional seal and signature of the *designer* of such parts or components.

2.2.4.5. Design Calculations and Analysis

1) The calculations and analysis made in the design of the structural members, including parts and components, of a *building* shall be available for inspection upon request.

2.2.4.6. Information Required on Foundation Drawings

1) *Foundation* drawings submitted with the application to build or excavate shall be provided to indicate

- the type and condition of the *soil* or *rock*, as well as the *groundwater* conditions, as determined by the *subsurface investigation*,
- the factored bearing pressures on the *soil* or *rock*, the factored loads when applicable and the design loads applied to *foundation units*, and
- the earth pressures and other loads applied to the supporting structures of supported *excavations*.

2) When required, evidence that justifies the information on the drawings shall be submitted with the application to excavate or build.

2.2.4.7. Altered Conditions

1) Where conditions as described under Sentences 4.2.2.4.(1) and (2) of Division B are encountered, or where *foundation units* or their locations are altered, this information shall be recorded on appropriate drawings or new “as constructed” drawings.

2.2.5. Drawings and Specifications for Environmental Separators and Other Assemblies Exposed to the Exterior**2.2.5.1. Application**

1) This Subsection applies to building materials, components and assemblies to which Part 5 of Division B applies. (See Article 1.3.3.2. of Division A.)

2.2.5.2. Information Required on Drawings and Specifications

1) Information shown on drawings and in specifications shall be clear and legible, and shall contain sufficient details to demonstrate conformance with this By-law. (See Note A-2.2.6.2.(1).)

2.2.6. Heating, Ventilating and Air-conditioning Drawings and Specifications

2.2.6.1. Application

- 1) This Subsection applies only to *buildings* covered in Part 6 of Division B. (See Article 1.3.3.2. of Division A.)

2.2.6.2. Information Required on Drawings

- 1) The information shown on architectural drawings and on drawings for heating, ventilating and air-conditioning systems shall be clear and legible and shall contain all necessary details to demonstrate conformance with this By-law. (See Note A-2.2.6.2.(1).)

2.2.7. Professional Design and Review

(See Note A-2.2.7.)

2.2.7.1. Application

- 1) The requirements of this Subsection apply to
 - a) *buildings* within the scope of Part 3 of Division B,
 - b) *buildings* within the scope of Part 9 of Division B that are designed with common egress systems for the occupants and require the use of *firewalls* according to Article 1.3.3.4. of Division A, and
 - c) the following, in respect of *buildings* within the scope of Part 9 of Division B other than *buildings* described in Clause (b),
 - i) structural components that are not within the scope of Part 9 of Division B
(See Note A-2.2.7.1.(1)(c)(i).),
 - ii) geotechnical conditions at *building* sites that are not within the scope of Part 9 of Division B,
 - iii) sprinkler systems designed to NFPA 13, “Installation of Sprinkler Systems”, NFPA 13R, “Installation of Sprinkler Systems in Low-Rise Residential Occupancies”, or NFPA 13D, “Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes”, and
 - iv) standpipe and hose systems designed to NFPA 14, “Installation of Standpipe and Hose Systems”,
 - d) a *building* that is designed according to Article 1.3.3.5. of Division A,
 - e) a *building* that is within the scope of Part 5 of Division B,
 - f) *additions* which are subject to Part 11 of Division B, and
 - g) a change of *major occupancy* which is subject to Part 11 of Division B.

2.2.7.2. Responsibilities

- 1) Before the construction of or the *alteration* to a *building*, the owner shall
 - a) retain a *coordinating registered professional* to coordinate all design work and *field reviews* of the *registered professionals of record* required for the project in order to ascertain that (See Note A-2.2.7.2.(1)(a).)
 - i) the design will substantially comply with the Building By-law and other applicable *City By-laws*, and
 - ii) the construction of the project will substantially comply with the Building By-law and other applicable enactments respecting safety, not including the construction safety aspects, and
 - b) if a *building* permit is required, deliver to the *Chief Building Official* letters in the forms set out in Schedules A and B, and (See the end of Division C and Note A-2.2.7.2.(1)(a) and (b).)
 - c) provide reasonable and timely written notice of any work or excavation that would directly or indirectly affect private property adjacent to the excavation site, to the *owner* of the affected property, and deliver a copy of the notice to the *Chief Building Official*. (See Note A-2.2.7.2.(1)(c).)
- 2) If an occupancy permit or final inspection from an *Chief Building Official* is required and before an owner occupies or receives permission to occupy the *building*, the owner or *coordinating registered professional* shall deliver to that authority letters in the forms set out in Schedules C-A and C-B (See the end of Division C and Note A-2.2.7.2.(2).)

2.2.7.3. Registered Professional Responsibilities

(See Note A-2.2.7.3.)

1) A *registered professional of record* who signs a letter, the form of which is set out in a Schedule to this Subsection, and an owner who signs or has an agent sign a letter the form of which is set out in a Schedule to this Subsection, shall comply with this Subsection, Part 1, and the provisions of the letter that apply to the person signing.

2) A *registered professional of record* or *coordinating registered professional* who is responsible for a *field review* shall keep a record of the *field review* and of any corrective action taken as a result of the *field review* and shall submit monthly summary reports to the *Chief Building Official*.

3) A *registered professional of record* who is retained to undertake design work and *field reviews* and who is required to provide letters pursuant to Clause 2.2.7.2.(1)(b) shall

- a) place his or her professional seal or stamp on the plans submitted by him or her in support of the application for a *building* permit, after ascertaining that they substantially comply with the *Building By-law* and other applicable enactments respecting safety,
- b) provide to the *Chief Building Official* a letter in the form of Schedule C-B (See the end of Division C) after ascertaining that the components of the project for which the *registered professional of record* is responsible are constructed so as to substantially comply, in all material respects, with
 - i) the plans and supporting documents prepared by the *registered professional of record*, and
 - ii) the requirements of the *Building By-law* and other applicable enactments respecting safety, not including construction safety aspects.

2.2.7.4. Termination

1) An owner must not terminate the appointment of a *coordinating registered professional* or *registered professional of record* unless

- a) the owner immediately replaces the *coordinating registered professional* or *registered professional of record*, or
- b) the owner has complied with Clause (1)(b) and Sentence (2) of Article 2.2.7.2. by delivering letters in the forms set out in Schedule A, B, C-A and C-B, as applicable, to the *Chief Building Official*.

2) In respect of a project to which this Subsection applies,

- a) if the *coordinating registered professional* ceases to be retained at any time before the completion of the project, both the owner and the *coordinating registered professional* shall notify the *Chief Building Official* and
- b) if a *registered professional of record* ceases to be retained at any time before the completion of the project, both the *coordinating registered professional* and the *registered professional of record* shall notify the *Chief Building Official*.

3) Notification under Sentences (1) and (2) shall be made,

- a) if possible, before the *coordinating registered professional* or *registered professional of record*, as the case may be, ceases to be retained, or
- b) if advance notice is not possible, as soon as possible.

2.2.7.5. Reserved

2.2.8. Deleted

2.2.9. Buildings on Designated Flood Plains

2.2.9.1. Exemptions from Flood Construction Level Requirements

1) *Flood construction level requirements* do not apply to:

- a) *alteration* of an *existing building*, not including reconstruction as defined in this By-law. (See A-11.2.1.2. of Div C),
- b) *alteration* of an *existing building* to increase the *building area* by less than 25 per cent of the total *building area* existing as of July 29, 1999, if
 - i) the number of *dwelling units* is not increased,
 - ii) there is no further encroachment into setbacks required by this By-law, and

- iii) there is no further reduction in the *flood construction level*,
- c) enclosed parking areas, including bicycle and residential storage areas, in a multiple dwelling, if there is
 - i) an unobstructed non-mechanized means of pedestrian ingress and egress to the areas, above the *flood construction level*, and
 - ii) a sign posted at all entry points warning of the risk of flood damage,
- d) *buildings* and portions of *buildings* used as a carport or garage,
- e) non-residential accessory *buildings*, and
- f) loading facilities used for water oriented industry.

2.2.9.2. Design Considerations on Designated Flood Plains

1) For *buildings* constructed on *designated flood plains*, the *building* designer shall comply with by-law requirements regarding *construction* materials and service equipment installations below *flood construction level* requirements, to the satisfaction of the *Chief Building Official*. (See Article 1.5.2.11. of Division C.)

2.2.9.3. Construction Considerations on Designated Flood Plains

1) For *buildings* constructed on *designated flood plains*, *construction* of the *buildings* to *flood construction level* requirements shall be achieved, to the satisfaction of the *Chief Building Official*, by

- a) the structural elevation of the floor system of the *building*
- b) the use of adequately compacted fill, or
- c) a combination of structural elevation and compacted fill.

2) No person shall install furnaces, electrical switchgear, electrical panels, fire protection systems or other fixed *building* services susceptible to flood damage, below the *flood construction level*, unless such services are protected from flood damage and accessible for servicing during a flood, to the satisfaction of the *Chief Building Official*.

3) No person shall store hazardous or toxic substances below the *flood construction level*.

4) All piping, wiring and conduit penetrations shall be water stopped and sealed to prevent water seepage into the *building*.

2.2.9.4. Setback Requirements on Designated Flood Plains

1) Subject to the provisions of this By-law, no *building*, structural support or fill shall be constructed or located within

- a) 30 m of the *natural boundary* of the Fraser River,
- b) 15 m of the *natural boundary* of Burrard Inlet, English Bay or False Creek,
- c) 5 m of the *natural boundary* of Still Creek,
- d) 7.5 m of any structure erected for flood protection or seepage control, or
- e) in the case of a *building*, structural support, or fill located on a bluff in a *designated flood plain*, where the toe of the bluff is subject to erosion or is closer than 15 m from the *natural boundary*, a setback measuring 3.0 times the height of the bluff as measured from the toe to the crest of the bluff.

2.2.9.5. Increase of Flood Construction Level and Setback Requirements on Designated Flood Plains

1) The *Chief Building Official*, in consultation with the *City Engineer*, may increase the *flood construction level* requirements or the setback requirements in this By-law if, in the opinion of the *Chief Building Official*, a higher *flood construction level* or a greater setback is necessary as the result of a site-specific geological or hydrological feature.

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2.2.9.6. Relaxation of Flood Construction Level and Setback Requirements on Designated Flood Plains

1) The *Chief Building Official*, in consultation with the *City Engineer*, may relax the *flood construction level* requirements in this By-law in accordance with Article 1.5.2.11., if

- a) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, that, due to existing site characteristics and the location of existing infrastructure, it is impractical to meet the *flood construction level*

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requirements,

- b) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, the proposed *construction* methods are designed to mitigate flood damage, and
- c) the *owner* provides a report, to the satisfaction of the *Chief Building Official*, stamped by a professional engineer, certifying that the habitable space in the *building* will be safe during a flood if a lower *flood construction level* is applied.

2) The *Chief Building Official*, **in consultation with the *City Engineer***, may relax the setback requirements in this By-law in accordance with Article 1.5.2.11., if

- a) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, that, due to existing site characteristics and the location of existing infrastructure, it is impractical to meet the setback requirements,
- b) if considered necessary by the *Chief Building Official*, the *owner* agrees to construct erosion protection works to mitigate flood damage and erosion, and
- c) the *owner* provides a report, to the satisfaction of the *Chief Building Official*, stamped by a professional engineer, certifying that the habitable space in the *building* will be safe during a flood if a reduced setback requirement is applied.

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