

BY-LAW NO. 9905

A By-law to amend Building By-law No. 9419
regarding five and six storey wood frame residential buildings

THE COUNCIL OF THE CITY OF VANCOUVER, in public meeting, enacts as follows:

1. This By-law amends the indicated provisions of the Building By-law.
2. In the fourth column of Table 1.3.1.2. of Part 1 of Division B, opposite:
 - (a) “ASTM” in the first column, and “D2898-94” in the second column, and after “3.1.5.21.(1)”; and
 - (b) “ULC” in the first column, and “CAN/ULC-S134” in the second column, and after “3.1.5.5.(1)”;
Council adds “3.2.2.45.(3)”.
3. Council repeals Sentence 3.1.8.12.(1) of Part 3 of Division B, and substitutes:

“1) A hold-open device is permitted on a door in a required *fire separation*, other than an *exit* stair door in a *building* more than 3 *storeys* in *building height*, and on a door for a vestibule required by Article 3.3.5.7., provided the device is designed to release the door in conformance with Sentences (2), (3), and (4).”
4. In Article 3.1.11.2., Council:
 - (a) to the heading, at the end, adds “**and Vertical Concealed Spaces**”;
 - (b) to the end of the first paragraph of Sentence (1), after “assembly”, adds “and any vertical concealed spaces in or attached to 5 or 6 *storey* wood-frame buildings”; and
 - (c) to each of clauses (a), (b), and (c) of Sentence 2, after “wall space”, adds “or vertical concealed space”.
5. From the heading for Article 3.2.2.45. of Part 3 of Division B, Council strikes out “4”, and substitutes “6”.

6. From Sentence 3.2.2.45.(1) of Part 3 of Division B, Council repeals clauses (b) and (c), and substitutes:

- “b) it is not more than 6 *storeys* in *building height*,
- c) it has a maximum height of less than 18 m measured between *grade* and the uppermost floor level of the top *storey*, and
- d) it has a *building area* not more than
 - i) 7 200 m² if 1 *storey* in *building height*,
 - ii) 3 600 m² if 2 *storeys* in *building height*,
 - iii) 2 400 m² if 3 *storeys* in *building height*,
 - iv) 1 800 m² if 4 *storeys* in *building height*,
 - v) 1 440 m² if 5 *storeys* in *building height*,
 - vi) 1 200 m² if 6 *storeys* in *building height*.”

7. Council repeals Sentences 3.2.2.45.(3) and (4) of Part 3 of Division B, and substitutes:

“3) Except as required in Sentence (4), a *building* referred to in Subclause 3.2.2.45.(1)(d)(v) or (vi) shall

- a) have an exterior wall cladding which
 - i) is noncombustible,
 - ii) has the exterior wall assembly constructed such that the interior surfaces of the wall assembly are protected by a thermal barrier conforming to Sentence 3.1.5.12.(3), and the wall assembly satisfies the criteria of Sentences 3.1.5.5.(2) and 3.1.5.5.(3) when subjected to testing in conformance with CAN/ULC-S134, “Fire Test of Exterior Wall Assemblies”, or
 - iii) *is fire-retardant treated wood* tested for fire exposure after the cladding has been subjected to an accelerated weather test as specified in ASTM D 2898 “Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing.

4) Sub-clauses 3.2.2.45(3)(a)(ii) and (iii) are not permitted where an *exposing building face* is required by Article 3.2.3.7, to have *noncombustible* cladding.

5) In a *building* that contains *dwelling units* that have more than one *storey*, subject to the requirements of Sentence 3.3.4.2.(3), the floor assemblies, including floors over *basements*, which are entirely contained within these *dwelling units*, shall have a *fire-resistance rating* not less than 1 h but need not be constructed as *fire separations*.

6) In a *building* in which there is no *dwelling unit* above another *dwelling unit*, the *fire-resistance rating* for floor assemblies entirely within the *dwelling unit* is waived.”

8. After Sentence 3.4.1.2.(2) of Part 3 of Division B, Council adds:

“3) Contiguous exit stairways (scissor stairs) are not permissible in a 5 or 6 *storey* wood frame *building*. (See Appendix A)”

9. In Table 3.9.1.1. of Part 3 of Division B, Council:

(a) in Article 3.1.11.2. to the heading, at the end, adds “**and Vertical Concealed Spaces**”;

(b) in Article 3.4.1.2., at the end, adds:

(3)	[F10, F12, F05, F06-OS3.7] [F12, F06-OP1. 2] [F12, F06-OS1.5, OS1.2]
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(c) in the heading “3.2.2.45. Group C, up to 4 Storeys, Sprinklered”:

(i) from the heading, strikes out “4”, and substitutes “6”; and

(ii) at the end, adds:

(3)	(a)	[F02-OS1.2, OP1.2]
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10. After Sentence 4.1.8.10.(3) of Part 4 of Division B, Council adds:

“4) In cases where $I_E F_a S_a (0.2)$ is equal to or greater than 0.35, for *buildings* constructed with 5 or 6 *storeys* of continuous *combustible construction* as permitted by Article 3.2.2.45. and having any fundamental lateral period, T_a , walls forming part of the SFRS within the continuous *combustible construction* shall not have irregularities of Type 4 or 5 as described in Table 4.1.8.6.”

11. After Sentence 4.1.8.11.(10) of Part 4 of Division B, Council adds:

“11) Where the fundamental lateral period, T_a , is determined by Clause 4.1.8.11.(3)(d) for *buildings* constructed with 5 or 6 *storeys* of continuous *combustible construction* as permitted by Article 3.2.2.45. and having an SFRS of nailed shear walls with wood-based panels, the lateral earthquake force, V , as determined in Sentence (2) shall be multiplied by 1.2.”

12. To Sentence 4.1.8.12.(6) of Part 4 of Division B, after “Sentence (7)”, Council adds “or (10)”.

13. After Sentence 4.1.8.12.(9) of Part 4 of Division B, Council adds:

“10) The base shear, V_d , shall be taken as 100% of the lateral earthquake design force, V , as determined by Article 4.1.8.11. for *buildings*

- a) constructed with 5 or 6 *storeys* of continuous *combustible construction* as permitted by Article 3.2.2.45.,
- b) having an SFRS of nailed shear walls with wood-based panels, and
- c) having a fundamental lateral period, T_a , as determined by Clause 4.1.8.11.(3)(d).”

14. Council strikes out the title to Subsection 4.3.1., and substitutes:

“4.3.1 Wood (See Appendix A)”.

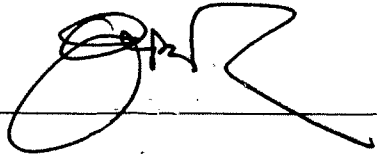
15. In Table 4.5.1.1. of Part 4 of Division B, under the heading “4.1.8.10. Additional System Restrictions”, at the end, Council adds:

(4)	[F20-OS2, OP2.4] [F22-OS2.4, OP2.4]
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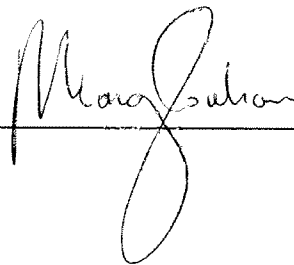
16. A decision by a court that any part of this By-law is illegal, void, or unenforceable severs that part from this By-law, and is not to affect the balance of this By-law.

17. This By-law is to come into force and take effect on the date of its enactment.

ENACTED by Council this 21st day of July, 2009



_____ Mayor



_____ City Clerk