

PROVINCE OF BRITISH COLUMBIA

REGULATION OF THE MINISTER OF ENERGY, MINES AND NATURAL GAS
AND MINISTER RESPONSIBLE FOR HOUSING AND DEPUTY PREMIER

Local Government Act

Ministerial Order No. M 111

I, Rich Coleman, Minister of Energy, Mines and Natural Gas and Minister Responsible for Housing and Deputy Premier, order that

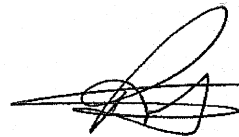
- (a) effective December 19, 2014, the British Columbia Building Code Regulation, B.C. Reg. 264/2012, is amended as set out in the attached Schedules 1 and 2, and
- (b) an applicant for a building permit as defined in section 3 of the British Columbia Building Code Regulation, B.C. Reg. 264/2012, is exempt from the amendments set out in Schedule 2 in respect of a building permit application submitted before December 19, 2014, if
 - (i) the building permit applied for is issued and work commences and continues to completion without interruption, other than work stoppages considered reasonable in the building industry, and
 - (ii) all work is carried out in conformity with the British Columbia Building Code Regulation, B.C. Reg. 264/2012, except the amendments set out in Schedule 2.

DEPOSITED

April 12, 2013

B.C. REG. 173/2013

APR 11 2013



Date

Minister of Energy, Mines and Natural Gas
and Minister Responsible for Housing and
Deputy Premier

(This part is for administrative purposes only and is not part of the Order.)

Authority under which Order is made:

Act and section: Local Government Act, R.S.B.C. 1996, c. 323, s. 692 (1)

Other: _____

April 2, 2013

SCHEDULE 1

- 1 *Book I (General) of the British Columbia Building Code established by the British Columbia Building Code Regulation, B.C. Reg. 264/2012, is amended as set out in this schedule.*

Division 1 – Changes to Division A

- 2 *Sentence 1.4.1.2.(1) of Division A is amended in the definition of “secondary suite” by striking out “See Appendix A-9.36.1.1. of Division B” and substituting “See A-9.37.1.1. in Appendix A of Division B.”*

- 3 *Sentence 1.4.2.1.(1) is amended by adding the following abbreviations:*

HDD	heating degree-day(s)
HVAC	heating, ventilation and air-conditioning
K	degree(s) Kelvin
R	thermal resistance value (imperial unit)
RSI	thermal resistance value (metric unit)
U-value	overall thermal transmittance .

- 4 *Article 1.5.1.1. is amended*

(a) *in Sentence (1) by striking out “The” and substituting “Except as provided in Sentence (2), the”, and*

(b) *by adding the following Sentence:*

2) Where a provision of the Code references the British Columbia Fire Code, the NECB or Book II (Plumbing Systems) of this Code, the applicable objectives and functional statements shall be those found in the referenced document.

- 5 *Sentence 3.2.1.1.(1) is amended by adding the following functional statements:*

- F90 To limit the amount of uncontrolled air leakage through the building envelope.
- F91 To limit the amount of uncontrolled air leakage through system components.
- F92 To limit the amount of uncontrolled thermal transfer through the building envelope.
- F93 To limit the amount of uncontrolled thermal transfer through system components.
- F95 To limit the unnecessary demand or consumption of energy for heating and cooling.
- F96 To limit the unnecessary demand or consumption of energy for service water heating.

F98 To limit the inefficiency of equipment.

F99 To limit the inefficiency of systems.

F100 To limit the unnecessary rejection of reusable waste energy.

Division 2 – Changes to Appendix A of Division A

- 6 *Appendix Note A-2.2.1.1.(1) of Appendix A of Division A is amended by striking out “the three principal British Columbia Code Documents—the British Columbia Fire Code and Book I (General) and Book II (Plumbing Systems) of the British Columbia Building Code—” and substituting “the four principal National Code Documents—the National Building Code, the National Fire Code, the National Plumbing Code, and the National Energy Code for Buildings—”.*
- 7 *Appendix Note A-3.2.1.1.(1) is amended by striking out “the three principal British Columbia Code Documents—the British Columbia Fire Code and Book I (General) and Book II (Plumbing Systems) of the British Columbia Building Code—” and substituting “the four principal National Code Documents—the National Building Code, the National Fire Code, the National Plumbing Code and the National Energy Code for Buildings—”.*

Division 3 – Changes to Division B

- 8 *Sentence 1.1.2.1.(1) of Division B is amended by striking out “9.37.” and substituting “9.38.”*
- 9 *Table 1.3.1.2. is amended*
(a) by adding the following items:

AHAM	ANSI/AHAM RAC-1-1982	Room Air Conditioners	Table 9.36.3.10.
AHRI	ANSI/AHRI 210/240-2008	Performance Rating of Unitary Air-Conditioning and Air-Source Heat Pump Equipment	Table 9.36.3.10.
AHRI	ANSI/AHRI 1060-2005	Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation	9.36.3.8.(4)
AHRI	BTS-2000	Efficiency of Commercial Space Heating Boilers	Table 9.36.3.10.
ANSI/CSA	ANSI Z21.10.3-2004/CSA 4.3-04	Gas Water Heaters – Volume III, Storage Water Heaters With Input Ratings Above 75,000 Btu Per Hour, Circulating and Instantaneous	Table 9.36.4.2.
ANSI/CSA	ANSI Z21.56-2006/CSA 4.7-2006	Gas-Fired Pool Heaters	Table 9.36.4.2.
ANSI/CSA	ANSI Z83.8-2006/CSA 2.6-2006	Gas Unit Heaters, Gas Packaged Heaters, Gas Utility Heaters and Gas-Fired Duct Furnaces	Table 9.36.3.10.
ASHRAE	ANSI/ASHRAE 103-2007	Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers	Table 9.36.3.10.
ASHRAE	ANSI/ASHRAE 140-2007	Evaluation of Building Energy Analysis Computer Programs	9.36.5.4.(8)

(b) by adding the following items:

ASTM	C 177-10	Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus	9.36.2.2.(1)
ASTM	C 518-10	Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus	9.36.2.2.(1)
ASTM	C 1363-05	Thermal Performance of Building Materials and Envelope Assemblies by Means of a Hot Box Apparatus	9.36.2.2.(4)
ASTM	E 2357-11	Determining Air Leakage of Air Barrier Assemblies	9.36.2.9.(1)
ASTM	F 1667-05	Driven Fasteners: Nails, Spikes, and Staples	9.23.3.1.(1) 9.26.2.2.(1) 9.29.5.6.(1)

(c) by repealing the following item:

CCBFC	NRCC 54435-11	National Energy Code of Canada for Buildings	10.2.1.1.(1)
-------	---------------	--	--------------

and substituting the following:

CCBFC	NRCC 54435-11	National Energy Code of Canada for Buildings	10.2.1.1.(1) 9.36.1.3.(1) 9.36.1.3.(4) 9.36.3.1.(2) 9.36.4.1.(2)
-------	---------------	--	--

(d) by adding the following item:

CGSB	CAN/CGSB-149.10-M86	Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method	9.36.5.10.(11)
------	---------------------	--	----------------

(e) by repealing the following item:

CSA	AAMA/WDMA/CSA 101/I.S.2/A440-08	NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights	5.10.2.2.(1) 5.10.2.2.(3) Table 9.7.3.3. 9.7.4.1.(1) 9.7.4.2.(1) 9.7.4.3.(2) 9.7.5.1.(1) 9.7.5.3.(1)
-----	---------------------------------	---	---

and substituting the following:

CSA	AAMA/WDMA/CSA 101/I.S.2/A440-08	NAFS – North American Fenestration Standard/Specification for Windows, Doors, and Skylights	5.10.2.2.(1) 5.10.2.2.(3) 9.7.4.1.(1) 9.7.4.2.(1) 9.7.4.3.(2) 9.7.5.1.(1) 9.7.5.3.(1) 9.36.2.9.(3)
-----	---------------------------------	---	---

(f) by adding the following items:

CSA	A440.2-09/A440.3-09	Fenestration Energy Performance/User Guide to CSA A440.2-09, Fenestration Energy Performance	9.36.2.2.(3)
CSA	B140.12-03	Oil-Burning Equipment: Service Water Heaters for Domestic Hot Water, Space Heating, and Swimming Pools	Table 9.36.4.2.
CSA	CAN/CSA-B211-00	Energy Efficiency of Oil-Fired Storage Tank Water Heaters	Table 9.36.4.2.
CSA	B212-00	Energy Utilization Efficiencies of Oil-Fired Furnaces and Boilers	9.36.3.10.
CSA	B415.1-10	Solid-Fuel-Burning Heating Appliances	Table 9.36.3.10.
CSA	CAN/CSA-C191-04	Electric Storage Tank Water Heaters for Domestic Hot Water Service	Table 9.36.4.2.
CSA	CAN/CSA-C368.1-M90	Room Air Conditioners	9.36.3.10.

(g) by repealing the following item:

CSA	CAN/CSA-C439-00	Rating the Performance of Heat/Energy-Recovery Ventilators	9.32.3.10.(4) 9.32.3.10.(5)
-----	-----------------	--	--------------------------------

and substituting the following:

CSA	CAN/CSA-C439-00	Rating the Performance of Heat/Energy-Recovery Ventilators	9.32.3.10.(4) 9.32.3.10.(5) 9.36.3.8.(4) 9.36.3.9.(3)
-----	-----------------	--	--

(h) by adding the following items:

CSA	CAN/CSA-C656-05	Split-System and Single-Package Central Air Conditioners and Heat Pumps	Table 9.36.3.10.
CSA	CAN/CSA-C745-03	Energy Efficiency of Electric Storage Tank Water Heaters and Heat Pump Water Heaters	Table 9.36.4.2.
CSA	CAN/CSA-C746-06	Rating Large and Single Packaged Vertical Air Conditioners and Heat Pumps	Table 9.36.3.10.
CSA	C748-94	Direct-Expansion (DX) Ground-Source Heat Pumps	Table 9.36.3.10.
CSA	CAN/CSA-C749-07	Performance of Dehumidifiers	Table 9.36.3.10.
CSA	CAN/CSA-C828-06	Thermostats Used with Individual Room Electric Space Heating Devices	9.36.3.6.(3)
CSA	CAN/CSA-C13256-1-01	Water-Source Heat Pumps - Testing and Rating for Performance - Part 1: Water-to-Air and Brine-to-Air Heat Pumps (Adopted ISO 13256-1:1998, with Canadian Deviations)	Table 9.36.3.10.
CSA	CAN/CSA-C13256-2-01	Water-Source Heat Pumps - Testing and Rating for Performance - Part 2: Water-to-Water and Brine-to-Water Heat Pumps (Adopted ISO 13256-2:1998, with Canadian Deviations)	Table 9.36.3.10.
CSA	CAN/CSA-P.2-07	Measuring the Annual Fuel Utilization Efficiency of Residential Gas-Fired Furnaces and Boilers	Table 9.36.3.10.
CSA	CAN/CSA-P.3-04	Measuring Energy Consumption and Determining Efficiencies of Gas-Fired Storage Water Heaters	Table 9.36.4.2.
CSA	P.6-09	Measuring Thermal Efficiency of Gas-Fired Pool Heaters	Table 9.36.4.2.
CSA	CAN/CSA-P.7-10	Measuring Energy Loss of Gas-Fired Instantaneous Water Heaters	Table 9.36.4.2.
CSA	CAN/CSA-P.8-09	Thermal Efficiencies of Industrial and Commercial Gas-Fired Package Furnaces	Table 9.36.3.10.
CSA	CAN/CSA-P.9-11	Performance of Combined Space and Water Heating Systems (Combos)	Table 9.36.3.10. 9.36.3.10.(3) Table 9.36.4.2. Table 9.36.5.15.C.

CSA	P.10-07	Performance of Integrated Mechanical Systems for Residential Heating and Ventilation	9.36.3.9.(2) Table 9.36.3.10. Table 9.36.4.2. Table 9.36.5.15.C.
CSA	CAN/CSA-P.11-07	Measuring Efficiency and Energy Consumption of Gas-Fired Unit Heaters	Table 9.36.3.10.
CTI	201(04)	Certification of Water-Cooling Tower Thermal Performance	Table 9.36.3.10.
DOE	10 CFR, Part 430-2011	Energy, Energy Conservation Program for Consumer Products	Table 9.36.4.2.
DOE	10 CFR, Part 431-2011	Energy, Energy Efficiency Program for Certain Commercial and Industrial Equipment	Table 9.36.4.2.
EPA	40 CFR, Part 60-2008	Protection of Environment, Standards of Performance for New Stationary Sources	Table 9.36.3.10.
ICC	400-2007	Design and Construction of Log Structures	9.36.2.2.(5)
NFRC	100-2010	Determining Fenestration Product U-factors	9.36.2.2.(3)
NFRC	200-2010	Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence	9.36.2.2.(3)
UL	731-1995	Oil-Fired Unit Heaters	Table 9.36.3.10.

(i) by repealing the following item:

ULC	CAN/ULC-S531-02	Smoke-Alarms	9.10.19.1.(1) 9.36.2.19.(1)
-----	-----------------	--------------	--------------------------------

and substituting the following:

ULC	CAN/ULC-S531-02	Smoke-Alarms	3.2.4.21.(1) 9.10.19.1.(1) 9.37.2.19.(1)
-----	-----------------	--------------	--

(j) by adding the following items:

ULC	CAN/ULC-S710.1-05	Thermal Insulation – Bead-Applied One Component Polyurethane Air Sealant Foam, Part 1: Material Specification	9.36.2.10.(6)
ULC	CAN/ULC-S711.1-05	Thermal Insulation – Bead-Applied Two Component Polyurethane Air Sealant Foam, Part 1: Material Specification	9.36.2.10.(6)

(k) by repealing the following item:

ULC	CAN/ULC-S741-08	Air Barrier Materials – Specification	5.4.1.2.(1)
-----	-----------------	---------------------------------------	-------------

and substituting the following:

ULC	CAN/ULC-S741-08	Air Barrier Materials – Specification	5.4.1.2.(1) 9.36.2.10.(1)
-----	-----------------	---------------------------------------	------------------------------

, and

(l) by adding the following items:

ULC	CAN/ULC-S742-11	Air Barrier Assemblies – Specification	9.36.2.9.(1)
US Congress		National Appliance Energy Conservation Act of 1987	Table 9.36.4.2. Table 9.36.5.16.

10 Sentence 1.3.2.1.(1) is amended

(a) by adding the following abbreviations:

AHAM Association of Home Appliance Manufacturers (111 19th Street, NW, Suite 402, Washington, D.C. 20036 U.S.A.; www.aham.org)
 AHRI Air-Conditioning, Heating and Refrigeration Institute (2111 Wilson Boulevard, Suite 500, Arlington, Virginia 22201 U.S.A.; www.ahrinet.org)
 CTI Cooling Technology Institute (P.O. Box 73383, Houston, Texas 77273-3383 U.S.A.; www.cti.org)
 DOE Department of Energy (1000 Independence Avenue, SW, Washington, D.C. 20585 U.S.A.; <http://energy.gov>)
 ICC International Code Council (500 New Jersey Avenue, NW, 6th Floor, Washington, D.C. 20001 U.S.A.; www.iccsafe.org)
 NECB National Energy Code of Canada for Buildings 2011 (see CCBFC)
 NFRC National Fenestration Rating Council (6305 Ivy Lane, Suite 140, Greenbelt, Maryland 20770 U.S.A.; www.nfrc.org), and

(b) by repealing the abbreviation for “TPIC” and substituting the following:

TPIC Truss Plate Institute of Canada (c/o MiTek Canada Inc., 100 Industrial Road, Bradford, Ontario L3Z 3G7; www.tpic.ca).

11 Article 9.7.2.2. is repealed and the following substituted:

9.7.2.2. Other Requirements for Windows, Doors and Skylights

- 1) Minimum sizes of doorways and doors within an *accessible* path of travel shall conform to Section 9.5.
- 2) The protection of window and door openings to protect persons from falling through them shall conform to Article 9.8.8.1.
- 3) Properties of windows and doors within *exits* shall conform to Section 9.9.
- 4) Windows and doors installed to provide the required *means of egress* from bedrooms shall conform to Subsection 9.9.10.
- 5) The location and protection of windows, doors and skylights in order to control the spread of fire shall conform to Subsection 9.10.12.
- 6) Doors between *dwelling units* and attached garages shall conform to Article 9.10.13.15.
- 7) The surface *flame-spread rating* for doors and skylights shall conform to Article 9.10.17.1.

8) Windows and doors installed to provide the required access to a *building* for firefighting purposes shall conform to Subsection 9.10.20.

9) Windows and skylights installed to provide required non-heating season ventilation shall conform to Article 9.32.2.2.

12 Sections 9.36. and 9.37. are repealed and the following substituted:

Section 9.37. Secondary Suites

9.37.1. General

9.37.1.1. Application

1) This Section applies to construction of a *secondary suite* and *alterations* to an existing *building* to accommodate a *secondary suite*. (See Appendix A.)

9.37.1.2. Construction Requirements

1) Construction of a *secondary suite* and *alterations* to an existing *building* to accommodate a *secondary suite* shall conform to the requirements in this Part except as provided in this Section. (See Appendix A.)

9.37.2. Specific Requirements

9.37.2.1. Heights of Rooms or Spaces

1) The minimum height of rooms or spaces in a *secondary suite* over the required minimum area as indicated in Table 9.5.3.1. shall be not less than 2.0 m.

2) It shall be possible to travel from the required area of one room to the required areas of all other rooms within a *secondary suite* without reduction of the room height as required in Sentence (1).

9.37.2.2. Solid Blocking

1) Solid blocking may be omitted for doors described in Sentence 9.7.5.2.(9) where the interior wall finish adjacent the door is in place prior to the construction of a *secondary suite*.

9.37.2.3. Exit Stairs

1) *Exit* stairs within or serving a *building* that contains a *secondary suite* shall have a minimum width, measured between wall faces or guards, of not less than 860 mm. (See Appendix A.)

9.37.2.4. Dimensions of Landings

1) Landings for exterior stairs serving both *suites* in a *building* containing a *secondary suite* need not exceed 900 mm in length.

9.37.2.5. Handrails and Guards

1) Handrails and *guards* shall conform to the requirements of Subsections 9.8.7. and 9.8.8. as if serving only one *dwelling unit*.

9.37.2.6. Means of Egress

1) The width of every *public corridor* and *exit* corridor that serves a *building* that contains a *secondary suite* shall be not less than 860 mm. (See Appendix A.)

9.37.2.7. Fire Separations for Exits

1) Except as permitted by Sentence (2), every *exit* other than an *exit* doorway shall be separated from adjacent *floor areas* by a *fire separation*

- a) having a *fire-resistance rating* of 45 min, or
- b) having a *fire-resistance rating* of not less than 30 min where the *dwelling units* are equipped with *smoke alarms* as referenced in Article 9.37.2.19.

2) A *fire-resistance rating* is not required for a *fire separation* that separates an *exit* from adjacent *floor areas* where the *building* is *sprinklered*.

9.37.2.8. Openings Near Unenclosed Exit Stairs and Ramps

1) Where an unenclosed exterior *exit* stair or ramp provides the only *means of egress* from a *dwelling unit* in a *building* that contains a *secondary suite* and the stair is exposed to the hazards of fire from *unprotected openings* in the exterior wall of another *fire compartment*, the openings shall be protected in conformance with Articles 9.10.13.5. to 9.10.13.7. (See Appendix A.)

9.37.2.9. Doors in a Means of Egress

1) Every *exit* door or door that opens into or is located within a *public corridor* or other facility that provides *access to exit* from a *suite* shall

- a) be not less than 1980 mm high,
- b) have a clear opening width of not less than 800 mm, and
- c) be permitted to swing inward.

9.37.2.10. Travel Limit to Exits or Egress Doors

1) In a *building* that contains a *secondary suite*, the travel limit from a floor level in a *dwelling unit* to an *exit* or egress door may exceed 1 *storey* provided the floor level within the *dwelling unit* is served by an operable window conforming to Article 9.9.10.1.

9.37.2.11. Shared Egress Facilities

1) Except as provided in Article 9.9.7.3., where an egress door from a *dwelling unit* opens onto a *public corridor* or exterior passageway, it shall be possible from the location where the egress door opens onto the *public corridor* or exterior passageway to go in opposite directions to 2 separate *exits* unless

the *dwelling unit* is served by a second and separate *means of egress* or an opening window conforming to Article 9.9.10.1.

2) Each *dwelling unit* shall be provided with a second and separate *means of egress* or an opening window conforming to Article 9.9.10.1. where the egress door from either *dwelling unit* opens onto

- a) an *exit* stairway that serves both *suites*,
- b) a *public corridor* serving both *suites* and served by a single *exit* stairway,
- c) an exterior passageway serving both *suites* and served by a single *exit* stairway, or
- d) a balcony serving both *suites* and served by a single *exit* stairway.

9.37.2.12. Exit Signs

1) *Exit* signs are not required within a *building* that contains a *secondary suite*.

9.37.2.13. Structural Fire Resistance

1) Table 9.10.8.1., Fire-Resistance Ratings for Structural Members and Assemblies, does not apply to a *building* that contains a *secondary suite*.

9.37.2.14. Combustible Drain, Waste and Vent Piping

(See Appendix A.)

1) *Combustible* drain, waste and vent piping is permitted to be located within or penetrate a *fire separation* required to have a *fire-resistance rating* provided

- a) except for the permitted penetration in Clause (b), the *combustible* piping is located within an assembly protected by a membrane of a minimum 12.7 mm gypsum board,
- b) the permitted penetration through the gypsum board membrane is limited in size to the diameter of the penetrating pipe, and
- c) the *combustible* piping does not penetrate the gypsum board protection membrane on the underside of a horizontal *fire separation*.

2) *Combustible* drain, waste and vent piping enclosed in an assembly or protected as described in Sentence (1) is permitted on both sides of a *fire separation*.

9.37.2.15. Separation of Residential Suites

1) *Dwelling units* in a *building* that contains a *secondary suite* shall be separated from each other by

- a) a *fire separation* conforming to Article 9.10.9.14.,
- b) a *fire separation* having a *fire-resistance rating* of not less than 30 min where the *dwelling units* are equipped with *smoke alarms* conforming to Article 9.37.2.19., or

- c) a *fire separation* having no required *fire-resistance rating* where the *building* is *sprinklered*.

(See Appendix A and A-9.37.2.17 of Appendix A.)

9.37.2.16. Separation of Public Corridors

1) A *public corridor* serving a *building* that contains a *secondary suite* shall be separated from the *suites* by

- a) a *fire separation* conforming to Article 9.10.9.15.,
- b) a *fire separation* having a *fire-resistance rating* of not less than 30 min where the *dwelling units* are equipped with *smoke alarms* conforming to Article 9.37.2.19., or
- c) a *fire separation* having no required *fire-resistance rating* where the *building* is *sprinklered*.

(See Appendix A.)

9.37.2.17. Air Ducts and Fire Dampers

(See Appendix A.)

1) Where a heating or ventilation duct system serves more than one *suite*, the system shall be designed and installed to prevent the circulation of smoke upon a signal from a duct-type *smoke detector*.

2) Ducts penetrating *fire separations* need not be equipped with *fire dampers* in conformance with Article 3.1.8.9. provided they are *noncombustible* with all openings in the duct system serving only one *fire compartment*.

9.37.2.18. Exposing Building Face of Houses

1) Except as required by Article 9.10.15.3., in *buildings* that contain a *secondary suite*, the requirements of Article 9.10.14.5. do not apply provided

- a) the *exposing building face* has a *fire-resistance rating* of not less than 45 min where the *limiting distance* is less than 1.2 m, and
- b) the *exposing building face* is clad with *noncombustible* material where the *limiting distance* is less than 0.6 m.

2) Window openings in the *exposing building face* referred to in Sentence (1) shall

- a) not be permitted where the *limiting distance* is less than 1.2 m, and
- b) be limited in conformance with the requirements for *unprotected openings* in Article 9.10.14.4. where the *limiting distance* is 1.2 m or greater.

9.37.2.19. Smoke Alarms

(See Appendix A.)

1) Except as permitted by Sentence (3), an additional *smoke alarm* of photo-electric type conforming to CAN/ULC-S531, "Standard for Smoke Alarms," shall be installed in each *suite*.

2) *Smoke alarms* required in Sentence (1) shall be wired so that the activation of the additional alarm in one *suite* will cause the additional alarm in the other *suite* to sound.

3) An additional interconnected *smoke alarm* is not required to be installed in each *suite* provided

- a) the *fire separations* required in Articles 9.37.2.16. and 9.37.2.17. have a *fire-resistance rating* of 45 min or greater, or
- b) the *building* is *sprinklered*.

9.37.2.20. Sound Control

1) The assemblies separating the residential *suites* need not comply with the sound control requirements of Subsection 9.11.2. (See Appendix A.)

9.37.2.21. Attic Space Access

1) An attic space access hatchway not less than 0.32 m² in an area with no dimension less than 545 mm may serve both *suites* in a *building* that contains a *secondary suite*.

9.37.2.22. Garages and Carports

1) Section 9.35 is applicable to garages and carports serving a *building* that contains a *secondary suite*.

Section 9.38. Objectives and Functional Statements

9.38.1. Objectives and Functional Statements

9.38.1.1. Attributions to Acceptable Solutions

1) For the purpose of compliance with this Code as required in Clause 1.2.1.1.(1)(b) of Division A, the objectives and functional statements attributed to the acceptable solutions in this Part shall be the objectives and functional statements listed in Table 9.38.1.1. (See A-1.1.2.1.(1) in Appendix A.)

Table 9.38.1.1.

Table 9.38.1.1. is located in Volume 1, Attribution Tables.

Division 4 – Changes to Appendix A of Division B

13 Table A-1.3.1.2.(1) of Appendix A of Division B is amended by repealing the following item:

BC	S.B.C. 1998, c. 43	Strata Property Act	A-9.36.1.1.
----	--------------------	---------------------	-------------

and substituting the following:

BC	S.B.C. 1998, c. 43	Strata Property Act	A-9.37.1.1.
----	--------------------	---------------------	-------------

14 Appendix Notes A-9.36.1.1., A-9.36.1.2., A-9.36.2.3.(1), A-9.36.2.6., A-9.36.2.8., A-9.36.2.14., A-9.36.2.15. and 16., A-9.36.2.17., A-9.36.2.19. and A-9.36.2.20. are repealed and the following substituted:

A-9.37.1.1. Application. It is intended that Section 9.37. apply to the construction of a secondary suite, whether as an addition to an existing building or as part of the construction of a new building. This Section may also be used as a standard for assessing an existing additional dwelling unit located in a single family dwelling building (house), but is not intended to be applied as a retroactive code to these existing units.

It is intended that the definition reflects that a secondary suite is an additional dwelling unit of limited size located within a house. Many of the changes in Section 9.37. are premised on the condition of the limited size of the secondary suite, which may directly or indirectly relate to issues such as occupant load, travel distance and egress dimensions.

In order for an additional dwelling unit to be considered a secondary suite, the following criteria must apply:

- There is only one secondary suite permitted in the building.
- It must be located in a building containing only residential occupancy.
- The secondary suite is located in or is part of a building containing only one other dwelling unit.
- The area of the secondary suite cannot exceed 90 m² of finished living area. (This does not include the areas used for common storage, common laundry facilities or common areas used for egress.)
- The area of the secondary suite cannot exceed 40% of the total living floor space (area) of the building it is located in. (The living floor area of the building does not include attached storage garages.)
- The secondary suite cannot be subdivided from the building it is part of under the Strata Property Act. This means that both dwelling units are registered under the same title.

A-9.37.1.2. Construction Requirements. The requirements of Part 9 of the British Columbia Building Code apply to the construction of a secondary suite and the alterations to a building to incorporate a secondary suite, except those specifically referenced in Subsection 9.37.2.

A secondary suite may be constructed in a building that has been in existence for many years and that may not comply with current Code requirements. As it may not be feasible to comply with the current Code, discretion should be used provided it does not substantially reduce the level of safety intended by the Code.

For example, existing stairs may not comply with current rise or run requirements; winders may not have the 150 mm tread at the narrow end; guards may be a few millimeters lower than now required.

In some cases, existing sidelights or windows may not comply with the Code's safety or security requirements. Acceptable safety requirements can be achieved by applying decals, rails or safety films.

Insulation requirements may not comply with the current Code; window and door glazing may not be insulated or installed in thermally broken frames.

Fire stops are required to be installed in new additions and in exposed existing locations, but it is not intended either that existing finishes be removed to check for the presence of fire stops or that new fire stops be installed.

Doors required to have a 20 min fire-protection rating, or to be 45 mm solid core wood, may be mounted in existing door frames that are less than 38 mm in thickness if it would require substantial framing alterations to accommodate a 38 mm thick frame.

It is not the intent to retroactively apply the current Code to all existing features in order to permit the construction of a secondary suite in an existing building.

A-9.37.2.3.(1) Exit Stairs. Existing internal and external stairs that formerly served one dwelling unit may now serve both the existing dwelling unit and the new secondary suite. It is not the intent to apply all current Code exit stair requirements in order to permit the construction of a secondary suite in an existing building.

A-9.37.2.6. Means of Egress. The additional occupant load created by a secondary suite does not warrant increasing the width of a public corridor, common exit stair or landing used by both dwelling units. The stairs, corridors and landings formerly serving one dwelling unit are likely to be of adequate size to accommodate the occupant load of both suites.

A-9.37.2.8. Openings Near Unenclosed Exit Stairs and Ramps. Unprotected door or window openings in other fire compartments adjacent to exit stairs and ramps should be protected from the other suite to provide safe passage to a safe area. Normally such protection as required by Part 9 would extend both vertically and horizontally beyond the adjacent openings. This is considered excessive due to required fire safety measures and the relatively short travel distances in this type of building. The application of current Part 9 requirements would in many cases require the protection of all openings in entire faces of dwelling units, which could be very restrictive. Authorities should exercise judgment with regard to deciding which openings are close enough to the exit facility to pose a problem during the early stages of a fire and require appropriate opening protection. Those openings that directly pass the means of egress are required to be protected.

A-9.37.2.14. Combustible Drain, Waste and Vent Piping. Exposed combustible drain, waste and vent piping that penetrates a fire separation is required to be protected as described. This protection is not required for exposed fixture traps and arms serving fixtures within the suite provided they are not exposed from the underside of a horizontal fire separation. The intent is not to require removal of existing combustible piping which, as a result of the creation of a secondary suite, may now be on both sides of a rated fire separation. Rather, the intent is to protect this piping where it is exposed.

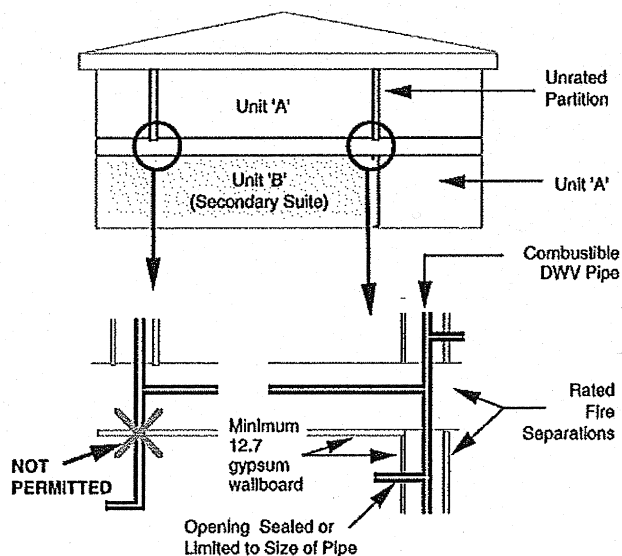


Figure A-9.37.2.14.
Combustible Drain, Waste and Vent Pipe

A-9.37.2.15. and 16. Separation of Residential Suites and Public Corridors. Two options are permitted for the separation of residential suites required by Article 9.10.9.14. and the separation of suites and public corridors required by Article 9.10.9.15.

One option is to separate the suites with a fire separation having a fire-resistance rating of 30 min and provide in each suite an additional smoke alarm interconnected with the smoke alarm in the other suite (described in Article 9.37.2.19.). A 30 min fire-resistance rating can be achieved with 12.7 mm Type X gypsum board on framing 400 mm o.c. for vertical assemblies, and 12.7 mm Type X or 15.9 mm gypsum board on frame floor/ceiling assemblies. This is often typical construction in modern single dwelling houses. This option will provide an equivalent level of life safety as the occupants of the building will be made aware of the hazard by an automatic detection system in the early stages, allowing them early evacuation.

The second option is to provide an automatic sprinkler system conforming to an NFPA standard throughout the building (i.e. both suites and common areas). With this provision, no fire-resistance rating is required, but the suites must still be separated by a fire separation. Automatic sprinkler systems are a recognized alternative to fire-resistance ratings as a sprinkler system should control the fire at its early stage, preventing its propagation.

A-9.37.2.17. Air Ducts and Fire Dampers. In order to prevent the migration of smoke from one suite to another during a fire, heating or ventilation systems incorporating ducts that serve both suites are permitted only if there is a mechanism to prevent smoke being circulated from one unit to the other. It is preferable for the secondary suite to have its own heating system independent of the rest of the building.

A-9.37.2.19. Smoke Alarms. This Article requires an interconnected photoelectric smoke alarm in each suite where fire separations having a fire-resistance rating of 30 min are used. The purpose of these interconnected alarms is to provide early warning to both suites in the event of a fire in one suite. Photoelectric type alarms are required as they are less prone to nuisance false alarms such as can occur during cooking, but careful consideration is still required as to their location.

It is important to note that these alarms are additional to the requirements of Subsection 9.10.19. and that each suite is still required to be provided with alarms in conformance with Subsection 9.10.19.

The additional smoke alarm should not be interconnected to the other smoke alarm(s) located within the same suite.

This additional smoke alarm system is not required when the fire-resistance ratings required in Articles 9.10.9.14. and 9.10.9.15. are not reduced, or when the building is sprinklered.

A-9.37.2.20. Sound Control. Meeting the Code's level of sound transmission for secondary suites may be difficult and expensive, particularly in an existing building. As there is single ownership of both dwelling units, this requirement is not mandatory, but designers are encouraged to take the subject into consideration where feasible.

Division 5 – Changes to Attribution Tables to Division B

15 *Table 9.37.1.1. in the Attribution Tables to Division B is renumbered as Table 9.38.1.1. and amended*

(a) in the heading by striking out "Forming Part of Sentence 9.37.1.1.(1)" and substituting "Forming Part of Sentence 9.38.1.1.(1)",

(b) by repealing the following rows:

9.36. Secondary Suites	
9.36.2.1.	[F30-OS3.1] [F10-OS3.7]
9.36.2.2.	[F20-OS4.1]
9.36.2.3.	[F30-OS3.1] [F10-OS3.7]
9.36.2.4.	[F30-OS3.1] [F10-OS3.7]
9.36.2.5.	[F30-OS3.1] [F10-OS3.7]
9.36.2.6.	[F30-OS3.1] [F10-OS3.7]
9.36.2.7	[F03-OP1.2] [F05-OS1.5] [F03-OS1.2]
9.36.2.8.	[F05-OS1.5]
9.36.2.9.	[F30-OS3.1] [F10-OS3.7]
9.36.2.10.	[F10-OS3.7]
9.36.2.11.	[F10-OS3.7]
9.36.2.12.	[F10-OS3.7]
9.36.2.14.	[F03-OP1.2] [F04-OP1.3] [F03-OS1.2] [F04-OS1.3]
9.36.2.15.	[F03-OP1.2] [F04-OP1.3] [F03-OS1.2] [F04-OS1.3]
9.36.2.16.	[F03-OP1.2]
9.36.2.17	[F03,F06-OP1.2] [F03,F06-OS1.5] [F03-OS1.2]
9.36.2.18.	[F03-OP1.2] [F03-OS1.2]
9.36.2.19.	[F02,F03-OP3.1]
9.36.2.20.	[F81,F11-OS1.5]
9.36.2.21.	[F56-OH3.1]
9.36.2.22.	[F82-OH1.1, OH1.2, OH1.3] [F82-OS2.3]

and substituting the following:

9.37. Secondary Suites	
9.37.2.1.	[F30-OS3.1] [F10-OS3.7]
9.37.2.2.	[F20-OS4.1]
9.37.2.3.	[F30-OS3.1] [F10-OS3.7]
9.37.2.4.	[F30-OS3.1] [F10-OS3.7]
9.37.2.5.	[F30-OS3.1] [F10-OS3.7]
9.37.2.6.	[F30-OS3.1] [F10-OS3.7]
9.37.2.7	[F03-OP1.2] [F05-OS1.5] [F03-OS1.2]
9.37.2.8.	[F05-OS1.5]
9.37.2.9.	[F30-OS3.1] [F10-OS3.7]
9.37.2.10.	[F10-OS3.7]
9.37.2.11.	[F10-OS3.7]
9.37.2.12.	[F10-OS3.7]
9.37.2.14.	[F03-OP1.2] [F04-OP1.3] [F03-OS1.2] [F04-OS1.3]
9.37.2.15.	[F03-OP1.2] [F04-OP1.3] [F03-OS1.2] [F04-OS1.3]
9.37.2.16.	[F03-OP1.2]
9.37.2.17	[F03,F06-OP1.2] [F03,F06-OS1.5] [F03-OS1.2]

9.37.2.18.	[F03-OP1.2] [F03-OS1.2]
9.37.2.19.	[F02,F03-OP3.1]
9.37.2.20.	[F81,F11-OS1.5]
9.37.2.21.	[F56-OH3.1]
9.37.2.22.	[F82-OH1.1, OH1.2, OH1.3] [F82-OS2.3]

, and

(c) *by striking out* “Notes to Table 9.37.1.1.” *and substituting* “Notes to Table 9.38.1.1.”

SCHEDULE 2

- 1 *Book I (General) of the British Columbia Building Code established by the British Columbia Building Code Regulation, B.C. Reg. 264/2012, is amended*

- (a) *as set out in Division 1,*
- (b) *by adopting, as Section 9.36. of Division B, Section 9.36. of Division B of the National Building Code of Canada 2010, as it was on February 18, 2013, with the changes set out in Division 2, and*
- (c) *by adopting, as Appendix Notes in Appendix A of Division B, Appendix Notes A-9.36.1.1.(1) to A-9.36.5.15.(8) of Appendix A of Division B of the National Building Code of Canada 2010, as it was on February 18, 2013, with the changes set out in Division 3.*

Division 1 – Changes to Division B

- 2 *Table 1.3.1.2. of Division B is amended by repealing the following item:*

ANSI/ ASHRAE/IESNA	90.1-10	Energy Standard for Buildings Except Low-Rise Residential Buildings	10.2.1.1.(1) Table 10.2.1.1.B
-----------------------	---------	---	----------------------------------

and substituting the following:

ANSI/ ASHRAE/IESNA	90.1-10	Energy Standard for Buildings Except Low-Rise Residential Buildings	10.2.1.1.(1)
-----------------------	---------	---	--------------

- 3 *Article 9.7.2.2. is amended by adding the following Sentence:*

10) Windows, doors and skylights shall conform to the energy efficiency requirements in Section 9.36.

- 4 *Article 9.25.1.1. is amended*

- (a) *in Subclause (2)(a)(i) by adding “and Section 9.36.” after “Subsection 9.25.2.”,*
- (b) *in Subclause (2)(a)(ii) by adding “and Section 9.36.” after “Subsection 9.25.3.”,*
and
- (c) *in Sentence (3) by striking out “Sections 9.32. and 9.33.” and substituting “Sections 9.32., 9.33. and 9.36.”*

- 5 *Article 9.31.1.1. is amended by adding the following Sentence:*

4) Systems used for service water heating shall conform to the energy efficiency requirements in Section 9.36.

- 6 *Article 9.32.1.1. is amended by adding the following Sentence:*

4) Systems used for ventilation shall conform to the energy efficiency requirements in Section 9.36.

7 Article 9.33.1.1. is amended by adding the following Sentence:

3) Systems used for heating and air-conditioning shall conform to the energy efficiency requirements in Section 9.36.

8 Article 10.2.1.1. is amended

(a) by repealing Sentence (1) and substituting the following:

- 1) All buildings shall be designed and constructed to conform to
 - a) ANSI/ASHRAE/IESNA 90.1, "Energy Standard for Buildings Except Low-Rise Residential Buildings," or
 - b) NRCC 54435, "National Energy Code of Canada for Buildings." , and

(b) by repealing Sentences (2) to (5).

9 Tables 10.2.1.1.A. and 10.2.1.1.B. are repealed.

Division 2 – Changes to Section 9.36.

10 For the purposes of section 1 (b) of this schedule, the changes set out in this Division are made to Division B the National Building Code of Canada 2010.

11 Article 9.36.2.3. is amended

(a) in Sentence (1) by striking out "ceiling or roof area" and substituting "roof-ceiling assembly area" and by striking out "ceiling and/or roof assemblies" and substituting "roof-ceiling assemblies", and

(b) in Clause (2)(c) by striking out "ceiling and/or roof assembly," and substituting "roof-ceiling assembly,".

12 Sentence 9.36.2.6.(1) is amended by striking out "heating-degree day" and substituting "heating degree-day".

13 Sentence 9.36.2.7.(1) is amended

(a) by striking out " , or an Energy Rating not less than," and

(b) by striking out "heating-degree day" and substituting "heating degree-day".

14 Sentence 9.36.2.7.(2) is amended by striking out "heating-degree day" and substituting "heating degree-day".

15 Table 9.36.2.7.A. is repealed and the following substituted:

Table 9.36.2.7.A.
Required Thermal Characteristics of Fenestration and Doors
Forming Part of Sentence 9.36.2.7.(1)

Components	Thermal Characteristics ⁽¹⁾	Heating Degree-Days of Building Location, ⁽²⁾ in Celsius Degree-Days					
		Zone 4 < 3000	Zone 5 3000 to 3999	Zone 6 4000 to 4999	Zone 7A 5000 to 5999	Zone 7B 6000 to 6999	Zone 8 ≥ 7000
Fenestration ⁽³⁾ and doors	Max. U-value, W/(m ² ·K)	1.80	1.80	1.60	1.60	1.40	1.40

Notes to Table 9.36.2.7.A.:

⁽¹⁾ See Appendix A.

⁽²⁾ See Article 1.1.3.1.

⁽³⁾ Except skylights (see Sentence (2)) and glass block assemblies (see Sentence (4)).

16 Sentence 9.36.2.8.(1) is amended by striking out “heating-degree day” and substituting “heating degree-day”.

17 Sentence 9.36.2.11.(5) is repealed and the following substituted:

5) The effective thermal resistance of windows shall be determined using the following equation: $RSI = 1/U$.

18 Sentence 9.36.3.11.(2) is amended by striking out “the NPC.” and substituting “Book II (Plumbing Systems) of this Code.”

19 Table 9.36.4.2. is repealed and the following substituted:

Table 9.36.4.2.
Service Water Heating Equipment Performance Standards
Forming Part of Sentences 9.36.4.2.(1) and (2)

Storage-Type Service Water Heaters			
Component	Input ⁽¹⁾	Standard	Performance Requirement ⁽²⁾
Electric	≤ 12 kW (50 L to 270 L capacity)	CAN/CSA-C191	SL ≤ 25 + 0.20V (top inlet)
			SL ≤ 40 + 0.20V (bottom inlet)
	≤ 12 kW (> 270 L to ≤ 454 L capacity)		SL ≤ (0.472V) – 38.5 (top inlet)
	> 12 kW (> 75 L capacity)	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	SL ≤ (0.472V) – 33.5 (bottom inlet)
Heat pump water heaters	≤ 24 A and ≤ 250 V	CAN/CSA-C745	EF ≥ 2.0
Gas-fired ⁽³⁾	< 22 kW	CAN/CSA-P.3	EF ≥ 0.67 – 0.0005V
	≥ 22 kW	ANSI Z21.10.3/CSA 4.3	E _t ≥ 80% and standby loss ≤ rated input ⁽⁴⁾ /(800 + 16.57·√V)
Oil-fired	≤ 30.5 kW	CAN/CSA-B211	EF ≥ 0.59 – 0.0005V
	> 30.5 kW	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	E _t ≥ 78% and standby loss ≤ rated input ⁽⁴⁾ /(800 + 16.57·√V)
Tankless Service Water Heaters			
Component	Input ⁽¹⁾	Standard	Performance Requirement ⁽²⁾
Gas-fired ⁽³⁾	≤ 73.2 kW	CAN/CSA-P.7	EF ≥ 0.8
	> 73.2 kW	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	E _t ≥ 80%
Oil-fired	≤ 61.5 kW ⁽⁵⁾	DOE 10 CFR, Part 430, Subpart B, Appendix E	EF ≥ 0.59 – 0.0019V _m
	Other	ANSI Z21.10.3/CSA 4.3 and DOE 10 CFR, Part 431, Subpart G	E _t ≥ 80%
Electric	—	—	⁽⁶⁾

Combined space- and water-heating systems (combos)	≤ 87.9 kW if boiler-based ≤ 73.2 kW if based on service water heater	CAN/CSA-P.9	TPF = 0.65
Integrated mechanical systems	—	CSA P.10	OTPF = 0.78
Pool Heaters			
Component	Input ⁽¹⁾	Standard	Performance Requirement ⁽²⁾
Gas-fired ⁽³⁾	< 117.2 kW	ANSI Z21.56/CSA 4.7 or CSA P.6	E _t ≥ 82%
Oil-fired	—	CSA B140.12	E _t ≥ 75%

Notes to Table 9.36.4.2.:

⁽¹⁾ 1 kW = 3.412 Btu/h

⁽²⁾ The symbols and abbreviations used in this column have the following meanings:

EF = energy factor, in %/h

E_t = thermal efficiency with 38.9°C water temperature difference

OTPF = overall thermal performance factor

S = standby loss, in %/h (percentage heat content of stored water per hour)

SL = standby loss, in W

TPF = thermal performance factor

V = storage volume, in L, as specified by the manufacturer

V_m = measured storage volume, in US gallons

⁽³⁾ Includes propane.

⁽⁴⁾ Rated input is measured in watts.

⁽⁵⁾ Consistent with the US Congress National Appliance Energy Conservation Act of 1987.

⁽⁶⁾ No standard addresses the performance efficiency of electric tankless service water heaters; however, their efficiency typically approaches 100%.

20 Sentence 9.36.4.3.(2) is amended by striking out “the NPC.” and substituting “Book II (Plumbing Systems) of this Code.”

21 Sentence 9.36.5.11.(6) is repealed and the following substituted:

6) [Reserved.]

Division 3 – Changes to Appendix Notes for Section 9.36.

22 For the purposes of section 1 (c) of this schedule, the changes set out in this Division are made to Appendix A of Division B of the National Building Code of Canada 2010.

23 Table A-9.36.1.3. is amended by striking out “NBC” in both places.

24 Appendix Note A-9.36.5.8.(5) is amended by striking out “the NPC” and substituting “Book II (Plumbing Systems) of this Code”.