

**2018 British Columbia Building Code  
Public Review of Proposed Changes**



**PROPOSED CHANGE:** Heritage Buildings

**CHANGE NUMBER:** 2018-BCBC-08-Heritage Buildings

**CODE REFERENCE:** 2012 British Columbia Building Code - Division A - Table A-1.1.1.2(1)

**DESCRIPTION OF THE PROPOSED AMENDMENT:**

It is proposed to update the table of alternate compliance methods for heritage buildings with references current to the next British Columbia Building Code (BCBC) and some editorial corrections. The table has been renamed to link to the correct code requirement for heritage buildings.

**PROBLEM/GENERAL BACKGROUND:**

The BCBC is based substantially on the model National Building Code (NBC). The NBC is updated about every five years and British Columbia adopts most of the NBC requirements into the next edition of the BCBC. However, the table of alternate compliance methods for heritage buildings is unique to British Columbia and differs from the NBC.

The code language shown below is the proposed final code language that will appear in the 2018 BCBC. Comments submitted should focus on the changes noted.

**2018 PROPOSED BRITISH COLUMBIA CODE LANGUAGE** (~~Deleted text~~ / Added text):

<b>Table A-1.1.1.21.(15)</b>		
<b>Alternate Compliance Methods for Heritage Buildings<sup>1</sup></b>		
<b>No.</b>	<b>Code Requirement in Division B</b>	<b>Alternate Compliance Method</b>
1	<b>Fire Separations</b> Sentence 3.1.3.1.(1), Table 3.1.3.1., Subsection 9.10.9.  2 h fire separation required between some major occupancies.	Except for F1 occupancies, 1 h fire separation is acceptable, provided the building is sprinklered.
2	<b>Fire Separations</b> Sentence 3.1.3.1.(1), Table 3.1.3.1., Subsection 9.10.9.  1 h fire separation required between some major occupancies.	30 min fire separation is acceptable if the building is sprinklered.
3	<b>Noncombustible Construction</b> Subsection 3.1.5. , Article 9.10.6.1.  All materials used in noncombustible construction must be noncombustible unless otherwise permitted.	1. Roofs may be of combustible construction provided the building is sprinklered. 2. Up to 10% gross floor area to a maximum of 10% of any one floor area may be of combustible construction provided the building is sprinklered.

4	<p><b>Fire-resistance Rating</b> Sentence 3.1.7.1.(1), Article 9.10.3.1.</p> <p>Where a material, assembly of materials or structural member is required to have a fire resistance rating it shall be tested in accordance with CAN/ULC-S101</p>	<p>A fire-resistance rating may also be used based on:</p> <ul style="list-style-type: none"> <li>(a) HUD No. 8 Guideline on Fire Ratings of Archaic Materials and Assemblies.,</li> <li>(b) Fire Endurance of Protected Steel Columns and Beams, DBR Technical Paper No. 194.,</li> <li>(c) Fire Endurance of Unit Masonry Walls, DBR Technical Paper No. 207.,</li> <li>(d) Fire Endurance of Light-Framed and Miscellaneous Assemblies, DBR Technical Paper No. 222.</li> </ul>
5	<p><b>Rating of Supporting Construction</b> Article 3.1.7.5., Article 9.10.8.3.</p> <p>Supporting assemblies to have fire resistance rating at least equivalent to that of the supported floor.</p>	<p>Heavy timber construction is permitted to have a fire resistance rating less than would be required by the Code provided the building:</p> <ul style="list-style-type: none"> <li>(a) is sprinklered, and</li> <li>(b) does not exceed 6 storeys in building height.</li> </ul>
6	<p><b>Continuity Of Fire Separations</b> Sentence 3.1.8.3.(1), Sentence 3.1.8.3.(2), Article 9.10.9.2.</p> <p>Fire separations are required to be continuous above the ceiling space.</p>	<p>Fire separations are not required to be continuous above a ceiling space where</p> <ul style="list-style-type: none"> <li>(a) the ceiling space is non-combustible construction,</li> <li>(b) both fire compartments are sprinklered, or</li> <li>(c) the ceiling has a minimum rating of 30 minutes.</li> </ul>
7	<p><b>Wired Glass</b> Sentence 3.1.8.5.(1), Sentence 3.1.8.14.(2), Article 9.10.13.1., Article 9.10.13.5.</p> <p>6 mm wired glass in steel frame required in fire separations.</p>	<p>For fixed transoms or sidelights, 6 mm wired glass fixed to a wood frame of at least 50 mm thickness with steel stops is permitted in a required fire separation.</p>
8	<p><b>Mezzanines</b> Sentence 3.2.1.1.(34) <del>to</del> and Sentence 3.2.1.1.(67), Article 9.10.4.1. of Division B</p> <p>Mezzanines enclosing more than 10% above the horizontal plane are considered as storey in building height.</p>	<p>Enclosed mezzanines may be up to 40% of the storey in which they occur and not be considered a storey in building height if the building is sprinklered.</p>
9	<p><b>Building Height</b> <b>Article 3.2.2.20. to Article 3.2.2.90.</b></p> <p><b>Noncombustible construction required for buildings over 3 storeys in building height.</b></p>	<p>Buildings may be of combustible construction up to 6 storeys provided:</p> <ul style="list-style-type: none"> <li>(a) the building is sprinklered,</li> <li>(b) the building contains Group C, D, E, F2 or F3 occupancies, and</li> <li>(c) floor assemblies not required to exceed 1 h fire separation requirements may be of heavy timber construction.</li> </ul>
10	<p><b>Spatial Separation</b> <b>Subsection 3.2.3., Subsection 9.10.14.</b></p> <p><b>The area of unprotected opening shall not exceed the limits in Tables 3.2.3.1.A to Table</b></p>	<p>The area of unprotected opening is not limited provided:</p> <ul style="list-style-type: none"> <li>(a) the limiting distance is a minimum 1 m,</li> <li>(b) the building has a supervised sprinkler system in conformance with Sentence 3.2.4.9.(3), and</li> </ul>

	<b>3.2.3.1.E</b>	(c) the sprinkler system is connected to the fire department in conformance with Sentence 3.2.4.7.(4).
11	<b>Construction of Exposing Building Face</b> <b>Article 3.2.3.7., Article 9.10.14.5.</b>  <b>The exposing building face is required to have a fire resistance rating and/or be of noncombustible construction.</b>	Exposing building face is not required to have a fire resistance rating if the building is sprinklered. Also, the exposing building face is not required to be of noncombustible construction if it is protected by an exterior sprinkler system conforming to NFPA 13.
12	<b>Roof Covering Rating</b> <b>Sentence 3.1.15.2.(1)</b>  <b>Class A, B or C roof covering in conformance with CAN/ULC-S107 required.</b>	For existing roofs not covered by a Class A, B or C roofing a manually operated deluge system in accordance with NFPA 13 is permitted.
13	<b>Smoke Alarms</b> <b>Sentence 3.2.4.20.(7), Sentence 9.10.19.4.(1)</b>  <b>Smoke alarms are required to be connected to an electric circuit.</b>	Smoke alarms may be battery operated in single family homes only.
14	<b>Interconnected Floor Space</b> <b>Subsection 3.2.8. of Division B, Sentence 9.10.1.3.(6)</b>	1. Open stairs in buildings of maximum 4 storeys in building height need not comply with Subsection 3.2.8., provided (a) the building contains a Group C or D occupancy, (b) the building is sprinklered with fast-response sprinklers, (c) corridors opening into the interconnected floor space are separated from the interconnected floor space by a fire separation with the rating required for the corridor, and (d) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system. 2. Open stairs in buildings of maximum 3 storeys in building height, or first 2 storeys and basement, need not comply with Subsection 3.2.8. of Division B, provided: (a) the building contains a Group C or D occupancy, (b) the building is sprinklered with fast response sprinklers, (c) smoke detectors are installed in the rooms opening into the interconnected floor space and the smoke detectors are connected to the fire alarm system, and (d) at least one means of egress is not through the interconnected floor space.
15	<b>Separation of Suites</b> <b>Article 3.3.1.1., Article 9.10.9.13., Article 9.10.9.14.</b>  <b>Suites are required to be separated from adjoining suites by 45 min or 1 h rated fire separations.</b>	Existing fire separations of 30 min, such as wood lath and plaster in good condition, are acceptable in sprinklered buildings not exceeding 6 storeys in building height.
16	<b>Corridor fire separation</b>	Existing corridors with 30 min fire resistance ratings, such as

	<p><b>Article 3.3.1.4., Article 9.10.9.15.</b></p> <p><b>Public corridors are required to be separated from the remainder of the building by a fire separation having a fire resistance rating of at least 45 min.</b></p>	<p>wood lath and plaster in good condition, are acceptable in residential occupancies provided the building:</p> <p>(a) does not exceed 6 storeys in building height, and</p> <p>(b) is fully sprinklered with fast response sprinklers.</p>
17	<p><b>Corridor Width</b></p> <p><b>Article 3.3.1.9., Subsection 3.4.3., Article 9.9.3.3.</b></p> <p><b>Public corridors and exit corridors are permitted to have a minimum width of 100 mm.</b></p>	<p>Public corridors and exit corridors are permitted with a minimum width of 800 mm provided:</p> <p>(a) the occupant load of the building is maximum 20 people, and</p> <p>(b) the building does not exceed 3 storeys in building height.</p>
18	<p><b>Door Swing</b></p> <p><b>Article 3.3.1.10., Article 3.4.6.12., Article 9.9.6.5.</b></p> <p><b>Doors required to swing in the direction of exit travel.</b></p>	<p>2nd egress door from a room is not required to swing in the direction of exit travel provided:</p> <p>(a) the building is sprinklered and the system is supervised in conformance with Sentence 3.2.4.9.(3), and</p> <p>(b) the occupant load of the building is maximum 100 people.</p>
19	<p><b>Stairs, Ramps, Handrails and Guards</b></p> <p><b>Article 3.3.1.14., Article 3.3.1.16., Article 3.3.1.18., Articles 3.4.6.5 to 3.4.6.79., Section 9.8.</b></p>	<p>Existing conditions that do not comply fully with the requirements are permitted if they are acceptable to the authority having jurisdiction.</p>
20	<p><b>Transparent Doors and Panels</b></p> <p><b>Article 3.3.1.19., Article 9.6.1.4.</b></p> <p><b>Glass in doors and sidelights are required to be protected by guards and to be safety glass required.</b></p>	<p>Existing glass or transparent panels that do not comply fully with the requirements are permitted if sufficiently discernible or guards are provided in hazardous situations.</p>
21	<p><b>Dead-end Corridors</b></p> <p><b>Sentence 3.3.1.9.(7), Article 9.9.7.3.</b></p> <p><b>Dead-end corridors are permitted to a maximum length of 6 m.</b></p>	<p>1. Dead-end corridors are permitted to a maximum length of 10 m in Group C occupancies provided:</p> <p>(a) the building is sprinklered with fast response sprinklers, and</p> <p>(b) smoke detectors are installed in the corridor system.</p> <p>2. Dead-end corridors are permitted to a maximum of 15 m in length in Group D, E, F2 and F3 occupancies provided:</p> <p>(a) the building is sprinklered with fast response sprinklers, and</p> <p>(b) smoke detectors are installed in the corridor system.</p>
22	<p><b>Exits</b></p> <p><b>Article 3.4.2.1., Article 9.9.8.2.</b></p> <p><b>Floor areas shall be served by not fewer than 2 exits except as permitted by Sentence 3.4.2.1.(2).</b></p>	<p>Floor areas may be served by a single exit within the limits of Sentence 3.4.2.1.(2) provided:</p> <p>(a) the building does not exceed 3 storeys in building height,</p> <p>(b) the building is sprinklered with fast response sprinklers, and</p> <p>(c) all floor areas are protected by a system of smoke detectors connected to a fire alarm system.</p>

23	<p><b>Reduction of Exit Width</b> Sentence 3.4.3.3.(2), Article 9.9.6.1.</p> <p>Swinging doors in their swing shall not reduce the effective width of exit stairs and landings to less than 750 mm.</p>	<p>Existing swinging doors in their swing are permitted to reduce the effective width of exit stairs and landings to a minimum of 550 mm provided:</p> <ul style="list-style-type: none"> <li>(a) they serve Group C or D occupancies,</li> <li>(b) the building does not exceed 4 storeys in building height, and</li> <li>(c) the building is sprinklered.</li> </ul>
24	<p><b>Fire Separation of Exits</b> Article 3.4.4.1., Subsection 9.9.4.</p> <p>Exits are required to be separated from the remainder of the floor area by a fire separation having a fire-resistance rating of not less than required by Subsection 3.2.2. , but not less than 45 min.</p>	<p>1. Buildings of 3 storeys or less may have exits that are separated by a fire separation that does not have a fire-resistance rating provided:</p> <ul style="list-style-type: none"> <li>(a) the building is sprinklered with fast response sprinklers, and</li> <li>(b) the sprinkler system is supervised in accordance with Sentence 3.2.4.9.(3).</li> </ul> <p>2. Buildings not exceeding 6 storeys in building height may have exits that are separated by a 45 min fire separation provided the building is sprinklered.</p>
25	<p><b>Exits Through Lobbies</b> Article 3.4.4.2., Article 9.9.8.5.</p> <p>Rooms adjacent to the lobby are required to be separated by a fire separation.</p>	<p>Rooms adjacent to the lobby are not required to be separated by a fire separation provided:</p> <ul style="list-style-type: none"> <li>(a) the floor area is sprinklered with fast response sprinklers, and</li> <li>(b) smoke detectors are installed in the adjacent rooms.</li> </ul>
26	<p><b>Rooms Opening into Exit</b> Sentence 3.4.4.4.(7), Article 9.9.5.9.</p> <p>Service rooms and ancillary rooms are not permitted to open directly into an exit.</p>	<p>Service rooms and ancillary rooms may open directly into an exit provided:</p> <ul style="list-style-type: none"> <li>(a) the room is sprinklered with fast response sprinklers, and</li> <li>(b) weatherstripping is installed on the door to prevent the passage of smoke.</li> </ul>
27	<p><b>Illumination of Exit Signs</b> Sentence 3.4.5.1.(3) <del>to</del> and 3.4.5.1.(4), Sentence 9.9.11.3.(23) <del>to</del> and 9.9.11.3.(64)</p> <p>Exit signs are required to be illuminated continuously while the building is occupied.</p>	<p>Where exit signage may compromise historic appearances, or authenticity of displays, exit signs may be installed to light only on an emergency condition, such as by the fire alarm system or due to power failure.</p>
28	<p><b>Clearance from Exit Doors</b> Sentence 3.4.6.11.(1), Article 9.9.6.6.</p> <p>Stair risers shall not be closer than 300 mm from an exit door.</p>	<p>Except as permitted in Sentences 3.4.6.11.(3) or 9.9.6.6.(2), existing exit doors shall not extend beyond the first riser.</p>
29	<p><b>Fire Escapes</b> Subsection 3.4.7. of Division B, Sentence 9.9.2.1.(2)</p> <p>Fire escapes are required to conform to Subsection 3.4.7.</p>	<p>Existing fire escapes that do not completely conform to Subsection 3.4.7. are acceptable provided:</p> <ul style="list-style-type: none"> <li>(a) the fire escapes are acceptable and</li> <li>(b) the building is sprinklered.</li> </ul>

30	<b>Fire Escape Construction</b> Article 3.4.7.2., Sentence 9.9.2.1.(2)	Existing combustible fire escapes are permitted if the building is permitted to be of combustible construction by Part 3, Part 9 or by <del>these Compliance Tables</del> <b>this Table</b> .
31	<b>Protection of Fire Escapes</b> Article 3.4.7.4., Sentence 9.9.2.1.(2)  Openings in the exterior wall adjacent to the fire escape are required to be protected by closures.	Existing openings in the exterior wall adjacent to the fire escape are not required to be protected by closures provided: (a) the building is sprinklered, and (b) a sprinkler head is located within 1.5 m of the opening required to be protected by Article 3.4.7.4.
32	<b>Vertical Service Space</b> Article 3.6.3.1. of Division B  Vertical service spaces are required to be separated from the adjacent floor area by a rated fire separation.	Existing vertical service spaces that do not completely conform to the rated fire separation requirements are acceptable provided the vertical service spaces are sprinklered.
33	<b>Height of Rooms</b> Subsection 3.7.1., Section 9.5.  The height of rooms is required to comply to minimum dimension requirements.	Existing rooms are not required to comply to the minimum dimension requirements of Subsection 3.7.1. or <b>Subsection 9.5.3.</b>
34	<b>Washroom Requirements</b> Subsection 3.7.2., Section 9.31.  Buildings are required to be provided with a minimum number of washroom fixtures.	Existing facilities are not required to completely comply to the requirements of Subsection 3.7.2. or Section 9.31. provided it is acceptable to the authority having jurisdiction.
35	<b>Access for Persons with Disabilities</b> Section 3.8. of Division B	Article 3.8.4.5. shall apply to existing buildings.
36	<b>Seismic Anchorage of Exterior Decoration</b> Subsection 4.1.8.	Existing exterior decorations are not required to fully comply to the anchorage requirements of Subsection 4.1.8. provided: (a) adequate means of protection is provided, or (b) there is no exposure to the public.
37	<b>Mechanical and Plumbing Systems</b> Part 6 and Part 7	Existing mechanical and plumbing systems in buildings are not required to fully comply to the requirements of Parts 6 or Part 7 provided: (a) it is not an unsafe condition and (b) it is acceptable to the authority having jurisdiction.

<sup>1</sup> References are to Division B

**RATIONALE FOR CHANGE:**

The table of alternate compliance methods for heritage buildings must be updated with the correct cross references each time a new version of the NBC is adopted as the base for the BCBC.

**JUSTIFICATION/EXPLANATION:**

The table is renamed and relocated to correlate to the code's reference in Division A to heritage buildings. Some clarifications and corrections have also been made within the table.

Row 19 of the table is amended to include references to stairs in Part 3 buildings, including exit stairs. Exemptions for stairs were originally included in the 1992 BCBC, if acceptable to the authority having jurisdiction. This exemption was not carried over in subsequent code updates. This amendment is considered to be an editorial correction.