BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing AIBC, EGBC and BOABC

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Interpretation Date:	March 20, 2018
Building Code Edition:	BC Building Code 2012
Subject:	Continuity of Vertical Fire Separation between Suites
Keywords:	Vertical fire separation, continuity, suites separation, concealed space
Building Code Reference(s):	3.1.8.1.(1), 3.1.8.3.(1), (2), and (4), 3.1.7.3.(1), 3.3.1.1., 3.1.9.1.(3).

Question:

- 1. For a 1 storey building containing multiple tenants, must a vertical fire separation having a fire resistance rating, between suites be continuous through to the underside of the roof deck?
- 2. Can this vertical fire separation terminate at a fire rated ceiling located at the underside of the roof trusses supporting the roof deck?

Interpretation:

1. Yes.

Clause 3.1.8.1.(1)(a) indicates that any wall or partition required to be a fire separation must be constructed as a continuous element (except for acceptable closures, shafts, and penetrations), and have the required fire resistance rating.

Sentence 3.1.8.3.(4) requires that the continuity of a fire separation must be maintained where it abuts a roof. This is done by filling all openings at the juncture of the assemblies with a material that will ensure the integrity of the fire separation at that location.

Sentence 3.1.8.3.(1) requires that except as permitted by Sentence 3.6.4.2.(2), a horizontal service space or other such concealed space above a required vertical fire separation must be continuous at such service space. Sentence 3.1.8.3.(2) further requires a smoke tight termination at the underside of the roof deck.

2. Yes.

The vertical fire separation is permitted to terminate at a fire rated ceiling located at the underside of the roof trusses, provided the construction between the concealed space and the space below is a fire separation equal to the vertical fire separation immediately below.

R. J. Light, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, EGBC and BOABC, which form the BC Building Code Interpretation Committee. The Building and Safety Standards Branch, Province of BC and the City of Vancouver participate in the committee's proceedings with respect to interpretations of the BC Building Code. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

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Sentence 3.1.8.3.(1) requires that a concealed space located above a vertical fire separation shall be divided at the line of the vertical fire separation by an equivalent fire separation within the concealed space. The exception to this is Sentence 3.6.4.2.(2), which indicates that the concealed space need not be divided vertically in this way provided the construction between the concealed space and the space below is a fire separation equal to the vertical fire separation. Sentence 3.1.7.3.(1) further indicates that floor, roof and ceiling assemblies are to be rated for exposure to fire on the underside.

Sentence 3.1.8.3.(2) further requires that the vertical fire separation required in Sentence 3.1.8.3.(1) terminate so that smoke tight joints are provided where it abuts on or intersects a floor, roof slab, or roof deck. Although not expressed, it is implicit that this also applies to the termination of the vertical fire separation at the underside of the horizontal fire separation required by the Sentence 3.6.4.2.(2) exception.

Note that Sentence 3.1.9.1.(3) requires an FT rated firestop system for any services penetrations of the horizontal fire separation thus permitted.

See also past Building Code interpretation 98-0009.

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