BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing AIBC, APEGBC, BOABC, POABC

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| Interpretation Date: | July 5, 2012 |
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| Building Code Edition: | BC Building Code 2006 |
| Subject: | Noncombustible exterior cladding for mid-rise combustible buildings |
| Keywords: | Noncombustible cladding, mid-rise combustible, wood trim, combustible soffits |
| Building Code Reference(s): | 3.2.2.45.(3)(a)(i) |
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Question:

For a 5 or 6 storey combustible building permitted under Article 3.2.2.45; Subclause 3.2.2.45.(3)(a)(i) requires the exterior cladding to be noncombustible.

- Is it the intent for the exterior building faces of a 5 or 6 storey combustible building to be entirely constructed of noncombustible cladding, combustible cladding tested to CAN/ULC S134, or construction using fire retardant treated wood?
- 2. If so, is wood trim such as around windows, reveals and other exterior wall locations, permitted?
- 3. Given that the exterior cladding is required to be noncombustible, combustible cladding tested to CAN/ULC S134, or construction using fire retardant treated wood; are combustible soffits permitted at roof eaves?

Interpretation:

1. Yes.

The intent of the exterior cladding requirements is to recognize that mid-rise combustible buildings have more risk of exterior vertical fire spread than 4 storey combustible buildings, yet recognizing that they are of less risk than for a high building. Hence the requirement for noncombustible cladding, cladding meeting the performance criteria of Article 3.1.5.5, or fire retardant treated wood. However clause 3.2.2.45.(3)(a) does not absolutely prohibit other components of combustible construction, in that it does not invoke the other clauses of Subsection 3.1.5, but only the requirement for non-combustible cladding. Combustible balconies, guards, fascias, soffits and posts are still permitted.

R. J. Light, Committee Chair

The views expressed are the consensus of the joint committee with members representing AIBC, APEGBC, BOABC, and POABC, which form the BC Building Code Interpretation Committee. 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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2. No.

Exterior combustible trim is normally considered part of the exterior cladding system and is not permitted. There may be situations where the extent of combustible trim is sufficiently limited or an integral part of combustible window or door frames so as not to pose a fire hazard. Other conditions may need evaluation such as under a project specific interpretation, engineering judgement or alternative solution submission. This is further supported by the APEGBC Technical and Practice Bulletin "Structural, Fire Protection and Building Envelope Professional Engineering Services for 5 and 6 Storey Wood Frame Residential Building Projects (Mid-Rise Buildings)" revised March 1, 2011.

The building code provisions relating to exterior cladding do not place an explicit limitation on the use of minor combustible components and/or decorative elements, such as wood trim. However the code objective is to reduce the probability and risks associated with upward fire spread via combustible cladding components. Where minor combustible components and/or decorative elements are proposed on the exterior of the building, a suitably qualified registered professional should review the design to ascertain that the objectives of the building code are being met. This may require conducting a technical analysis to demonstrate that combustible components do not contribute to excessive upward fire spread beyond that envisioned by the code objectives.

3. Yes

Combustible soffits are permitted to be used for mid-rise combustible buildings. This is further noted in the APEGBC Technical and Practice Bulletin "Structural, Fire Protection and Building Envelope Professional Engineering Services for 5 and 6 Storey Wood Frame Residential Building Projects (Mid-Rise Buildings)" revised March 1, 2011.

The building code does not place a limitation on the use of wood soffits, combustible roof overhangs and/or similar horizontal spaces located outside a mid-rise combustible building. NFPA 13 requires that attic spaces in such a building be sprinklered; therefore, fire spread via attic spaces is already addressed by fire protection provisions of the building code. The code also requires every room, closet and bathroom on the uppermost storey be sprinklered. Therefore, soffit protection is already addressed by the code.

It should be noted that Article 3.2.3.16 also contains protection requirements for combustible soffits.

R. J. Light, Committee Chair

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