


# BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing  
**AIBC, EGBC, BOABC**

**File No: 18-0125**

**INTERPRETATION**

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Interpretation Date:	July 20, 2021
Building Code Edition:	BC Building Code 2018
Subject:	Sound Transmission Rating of Door in a Fire Separation, Secondary Suites
Keywords:	Doors, Fire Separation, Sound Transmission Rating, Secondary suites
Building Code Reference(s):	9.10.9.3., 9.10.13.2., 9.11.1.1.(2)
<b>Question:</b>	<p>In a house with a secondary suite, is a 45mm thick solid core wood door installed in a fire separation in accordance with Article 9.10.9.3, considered compliant for sound transmission rating when the fire separation in which the door is contained, complies with Sentence 9.11.1.1.(2)?</p>
<b>Interpretation:</b>	<p>Yes.</p> <p>Clause 9.10.9.3.(2)(a) permits use of a 45mm solid core wood door in a fire separation of not more than 3/4h fire resistance rating.</p> <p>Sentence 9.11.1.1.(2), which also makes reference to Sentence 9.10.3.1.(2), requires that for a house containing a secondary suite, each dwelling unit must be separated from sound generating spaces by various options, as follows:</p> <ul style="list-style-type: none"><li>a) construction having<ul style="list-style-type: none"><li>i) joist spaces filled with sound-absorbing material of not less than 150 mm nominal thickness,</li><li>ii) stud spaces filled with sound-absorbing material,</li><li>iii) resilient channel on one side of the separation spaced 400 or 600 mm o.c., and</li><li>iv) not less than 12.7 mm thick gypsum board on ceilings and on both sides of walls, or</li></ul></li><li>b) construction providing an STC rating of not less than 43, or</li><li>c) a separating assembly and adjoining constructions, which together provide an ASTC rating of not less than 40.</li></ul> <p>If Option (a) is selected, the 45mm solid core wood doors are deemed acceptable for acoustical performance. The building code does not specifically address the acoustical rating for doors.</p> <p></p> <hr/> <p>Patrick Shek, P.Eng., CP, FEC, Committee Chair</p>
<p>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 <i>Authority Having Jurisdiction</i>. The views of the joint committee should not be construed as legal advice.</p>	
<p>2021-08-31</p>	

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The referenced note A-9.11.1.1.(2) indicates:

“Controlling sound transmission between dwelling units is important to the occupants’ health and well-being. Although this may be difficult to achieve in an existing building, it is nevertheless necessary that a minimum level of sound transmission protection be provided between the dwelling units in a house with a secondary suite. A somewhat reduced level of performance is acceptable in the case of secondary suites because the occupants of the house containing a secondary suite are only affected by the sound of one other unit and, in many cases, it is the owner of the house who will decide on the desired level of protection.....”



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Patrick Shek, P.Eng., CP, FEC, Committee Chair

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