



# County of Santa Barbara Planning and Development

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<b>SUBJECT:</b> Exterior Porch Ceilings	<b>DATE:</b> BC2012-002
<b>BULLETIN NO.</b> BC2012-002 Exterior Porch Ceilings	EFFECTIVE THE ABOVE DATE, ALL PREVIOUS POLICIES ON THIS SUBJECT ARE SUPERCEDED
<b>FROM: MASSOUD ABOLHODA, BUILDING OFFICIAL</b>	

### CODE REFERENCE (S):

- California Residential Code Section R327.7.6
- California Building Code Chapter 7A

### BACKGROUND:

The new code allows for use of heavy timber in lieu of one hour construction of exterior porch ceilings in Fire Hazard Severity Zone within SRA or Wildland Urban Interface Fire Areas. The purpose of this advisory is to provide guidance on application of this code section through typical details.

### GUIDELINE/ INTERPRETATION:

CRC R327.7.6 reads as follows:

**R327.7.6 Exterior porch ceilings.** *The exposed underside of exterior porch ceilings shall be protected by one of the following:*

1. *Noncombustible material*
2. *Ignition-resistant material*
3. *One layer of 5/8-inch Type X gypsum sheathing applied behind the exterior covering on the underside of the ceiling*
4. *The exterior portion of a 1-hour fire resistive exterior wall assembly applied to the underside of the ceiling assembly including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual*
5. *Porch ceiling assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3*

**Exception:** *Architectural trim boards.*

### Discussion:

Chapter 7A and Section R327.7.6 item 4, specifies that the exterior face of 1-hour fire-resistive wall can be used. This appears to be inconsistent with the rest of the code. Wall and floor/ceiling rated assemblies are

not interchangeable. Indeed, floor/ceiling testing protocol appears to be more stringent than wall testing as the heat is trapped under the ceiling. It is then reasonable to assume that a 1-hour floor/ceiling will meet this requirement.

Furthermore, under Chapter 7A and section R327.7.3, a “heavy timber exterior wall assembly” is listed an acceptable wall assembly for exterior walls in a fire hazard zone. The difficulty here is that there is no such thing as “heavy timber exterior walls” (see Chapter 6 of the California Building Code). Indeed, heavy timber is typically used with CMU and tilt-up exterior walls.

California Building Code section 602.4.7 states: Where a horizontal separation of 20 feet or more is provided, wood columns and arches conforming to heavy timber sizes shall be permitted to be used externally. Since the code allows heavy posts as exterior walls when there is a horizontal separation of 20 feet or more, then, in effect, for a heavy timber building the code does not require any external wall protection and an all around open wall with heavy timber connections, heavy beams and 2x splined or tongue and groove solid decking will meet the code. This is in effect a porch condition.

**Policy:**

Post and beams and 2x splined or tongue and groove decking meeting heavy timber construction requirements can be used to build porches in S.R.A. and W.U.I. zones. In other words, use of 4x framing members (beams, ceiling joists) combined with 2x splined or tongue and groove decking can be used to meet section R327.7.6 and Chapter 7A as long there is not concealed space above the ceiling of porch. This is similar to the open eave policy (BC-2011-001 Eaves), but extends it to use for exterior porch ceilings.