

## STATE BUILDING CODE INTERPRETATION NO. I-16-03

April 19, 2004

*Please note that the last paragraph of this interpretation has been revised a second time based on action taken by the Codes and Standards Committee on the 2004 Supplement to the 1999 State Building Code after testimony was received at the Public Hearing held February 6, 2004.*

The following is offered in response to your September 19, 2003 letter to me in which you seek an official interpretation of the provisions of the 1995 CABO One and Two Family Dwelling Code as it pertains to the bracing of exterior walls. Your specific concern is the requirement to solid block the horizontal joints of OSB panels for the first 48 inches at each corner and for a 48 inch dimension every 25 feet along the wall.

I agree with you that this provision of the code is among the most confusing to understand, but under the requirements of the referenced code it is, in fact, required. Let me explain the path to the requirement. Section 602.3 requires that exterior walls be constructed in accordance with Chapter 6 and Figures 602.3a and 602.3b. It goes on to require that components of exterior walls be fastened in accordance with Tables 602.3a through 602.3d. Figure 602.3b provides a reference to Section 602.9 for wall bracing. Section 602.9 allows, among several alternatives for wall bracing, wood structural panels installed in accordance with Table 602.3c. While it is true that footnote 1 to this table states that blocking of horizontal joints shall not be required, the footnote is to the reference as to how the siding is attached to the building and not to how the plywood is attached, so the footnote only applies to the siding's horizontal joints (as in vertical siding or panel siding). Also keep in mind that the purpose of Table 602.3b is to determine the allowable spacing of wood studs based on the type of sheathing and the method of siding attachment, it is not used to determine how to properly brace the wall.

Remember that we have to follow Table 602.3a or Table 602.3a(1) to determine how to fasten the wood structural panels to the studs. Footnote 4 to Table 602.3a requires all 4 x 8 or 4 x 9 wood structural panels to be applied vertically, so there will be no horizontal joints to deal with in the typical 8 foot or 9 foot ceiling height house. Table 602.3a(1) does not instruct the user as to how the panels are installed, vertically or horizontally. However, it does require that the edges of all wood structural panels be nailed from 3 inches to 6 inches on center depending on the thickness of the panel. The only way to achieve this nailing spacing on horizontally applied panels is to install solid blocking behind the joints.

Utilizing the information found in the referenced code sections, this office has determined that based on the combination of requirements of Tables 602.9 and 602.3a(1), when wood structural panels are installed horizontally, the 1995 CABO One and Two Family Dwelling Code requires that the horizontal joints for the first 48 inches at each corner and for a 48 inch dimension every 25 feet along the wall, be blocked solidly to allow for proper edge fastening.

That having been said, one should be aware that the 2003 International Residential Code contains, at Section R602.10.5, specific requirements for bracing in one- and two-family dwellings and townhouses that are continuously sheathed in wood structural panels. If you find those provisions beneficial to you, you may apply for a Building Code Modification to utilize them in place of the 1999 State Building Code requirements.