CQA - FAQ

FAQ10.005

SPECIAL INSPECTION FOR R-3 SHEAR WALL

Q Does a 4 in. and 12 in. nailing pattern for R-3 construction (dwellings, including lodging houses; and congregate residences and large family day-care homes) require Special Inspection for wind resistance as specified in CBC 1705.10.1 and seismic 1705.11.2?

Submitted by David Knell, wilsonknell@gmail.com

Response Submitted by Tim Hart, S.E.

A It depends on how the building was designed. Many R-3 buildings are designed using the California Residential Code rather than the California Building Code, in which case the provisions of Chapter 17 (including wood special inspections) would not apply. In addition, wood structures that are designed per the conventional light frame provisions in Section 2308 of the California Building Code (as some R-3 buildings are) are also exempt from special inspections. There is an additional exemption from seismic special inspections in CBC Section 1705.11 for one and two family detached dwellings with no more than 2 stories and no structural irregularities. R-3 buildings could be one of these as well. Note that there is not a similar exemption for the other special inspections required for wood construction, including those required for buildings in high wind areas in CBC Section 1705.10. Finally, there are the exemptions in CBC Sections 1705.10 and 1705.11 for buildings in low wind areas and buildings with Seismic Design Categories of A or B.

If the building is not exempt from special inspection per these provisions, then special inspection of the shear wall would be required. The exemption for nail spacing is for shear walls and diaphragms with nail spacing greater than 4 inches. The special inspection would include more than just the 4 inch nailing. It would also include the wall sheathing, the anchor bolts, the holdowns, the chords and collectors in the wall, and the connections to the floor and roof diaphragms.

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