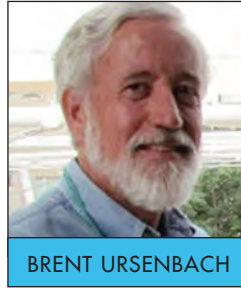


MECHANICAL CODE DISCUSSION

2015 International Residential Code: Cutting, Drilling & Notching



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The two photos below come from my collection, taken performing my duties as a building inspector. I understand it might require an additional trip out to the truck for a smaller drill bit, when running a stat wire, but it would have been quicker than pulling the thermostat wire, repairing, or replacing the studs, then re-running the wire through a smaller set of holes. Similarly, when running CSST, a correctly sized hole drilled in the floor joists, rather than the notches, would have been simpler than hiring an engineer to provide a repair method, then completing the repair.



excess of the limitations specified in this section.

R602.6 Drilling and notching of studs.

Drilling and notching of studs shall be in accordance with this section:

The code

sections follow with several pages of direction in diagrams and text. Summarizing the most common issues:

Sawn Lumber (dimensional lumber):

- Notches shall not exceed 1/6th of the depth of a joist
- Avoided notches in the bottom of a floor joist and never in the middle of a span
- Holes in joists shall not exceed 1/3rd the depth of the member and not be closer than 2" to the edge of the member

- Studs in bearing walls may be notched to a depth not exceeding 25% of its width.
- Studs in non-bearing walls may be notched to a depth not exceeding 40% of its width.

- A single stud may be drilled to 60% of its width, the hole not closer than 5/8" to edge of stud
- Studs in exterior or bearing walls may be drilled between 40% and 60% if the stud is doubled, for not more than 2 consecutive studs

- ★ Exception approved stud shoes may be used where over-bored or more than 2 consecutive studs are drilled.

2015 IRC- R502.8.2 Engineered wood products. *Cuts, notches and holes bored in trusses, structural composite lumber, structural glue-laminated members, cross-laminated timber members or I-joists are prohibited except where permitted by the manufacturer's recommendations.*

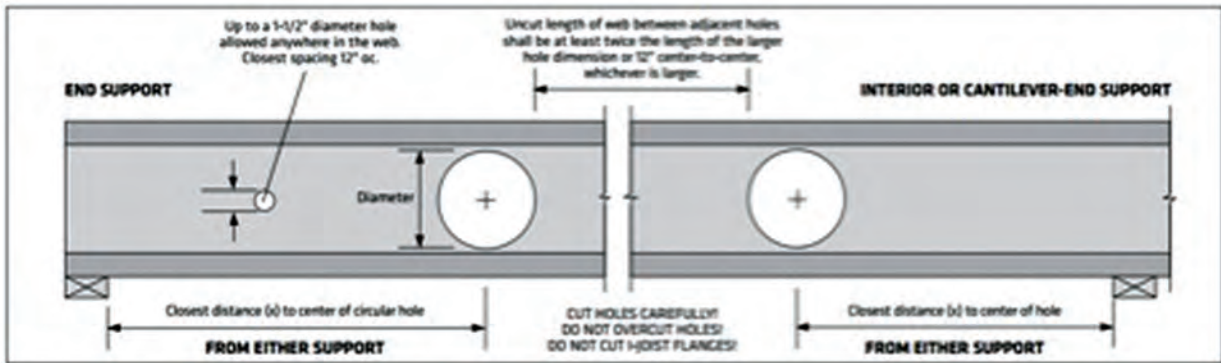
2015 IRC - R502.8 Cutting, drilling and notching. *Structural floor members shall not be cut, bored or notched in*





We are all familiar with I-joists and the ability to cut holes in the web; however, we must be sure to refer to the **manufacturer's tables** when locating and sizing holes. **Never cut the joist flange.** Please refer to current 2015

IRC for additional details. If you do not have a copy of the IRC, IMC, IFGC or IPC, sign up for one the upcoming Code Updates classes; March 15 in Ogden and March 29 in Springville. Details are included in this Pipeline Newsletter. Hope to see you at one of these classes!
— Brent ■



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