

# ROUTT COUNTY REGIONAL BUILDING DEPARTMENT

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## Policy Statement

From: Carl Dunham, Building Official

**RE: ONE-HOUR FIRE-RESISTIVE WOOD COLUMNS AND BEAMS**

Effective Date: January 6, 1997 (Reissued May 19, 2008)

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A designer may use any of the three following methods for protection of wood members to provide one-hour fire-resistive construction. In each case, protection of connectors will be required.

1. The Method for Design of One-hour Fire-resistive Exposed Wood Member (6-inch Nominal or Greater) - as published in Uniform Building Code Standard 7-7 Part VI

Conditions:

- Calculations as specified in the above standard must be submitted to Routt County Regional Building Department as part of the original submittal.
- Glulam beams shall be marked "Fire-rated One-hour"

2. A combination of The Method for Design of One-hour Fire-resistive Exposed Wood Member (6-inch Nominal or Greater) - as published in Uniform Building Code Standard 7-7 Part VI, and Methods for Calculating One-hour Fire-resistive Ratings of Wood-framed Walls, Floors, and Roofs. - as published in Uniform Building Code Standard 7-7 Part V

Conditions:

- Calculations as specified in Part VI for the most fire-restrictive beam or column (least number of minutes of fire resistivity) must be submitted to Routt County Regional Building Department as part of the original submittal.
- Only one detail may be used, per project, for all beams or columns based on the above calculations.
- Layer(s) of Type X gypsum wall board are added to raise the member to greater than 60 minutes. Thickness of the Type X gypsum wallboard layer(s) shall be determined from Table 7-7-W-A
- Wallboard shall be attached directly to the member; no air space behind.
- Glulam beams shall be marked "Fire-rated One-hour"
- Wallboard joints shall be staggered 12-inches minimum, and edges shall be staggered.
- Fasteners shall be minimum 8-inches on center.
- Surface layer shall be taped and nails spotted. Edges shall be taped or corner bead applied.

3. Methods for Calculating One-hour Fire-resistive Ratings of Wood-framed Walls, Floors, and Roofs. - as published in Uniform Building Code Standard 7-7 Part V

Conditions:

- Calculations for the method used shall be must be submitted to Routt County Regional Building Department as part of the original submittal.
- Layer(s) of Type X gypsum wallboard are added to raise the member to greater than 60 minutes. Thickness of the Type X gypsum wallboard layer(s) shall be determined from Table 7-7-W-A
- Wallboard shall be attached directly to the member; no air space behind.
- Wallboard joints shall be staggered 12-inches minimum, and edges shall be staggered.
- Fasteners shall be minimum 8-inches on center.
- Surface layer shall be taped and nails spotted. Edges shall be taped or corner bead applied.