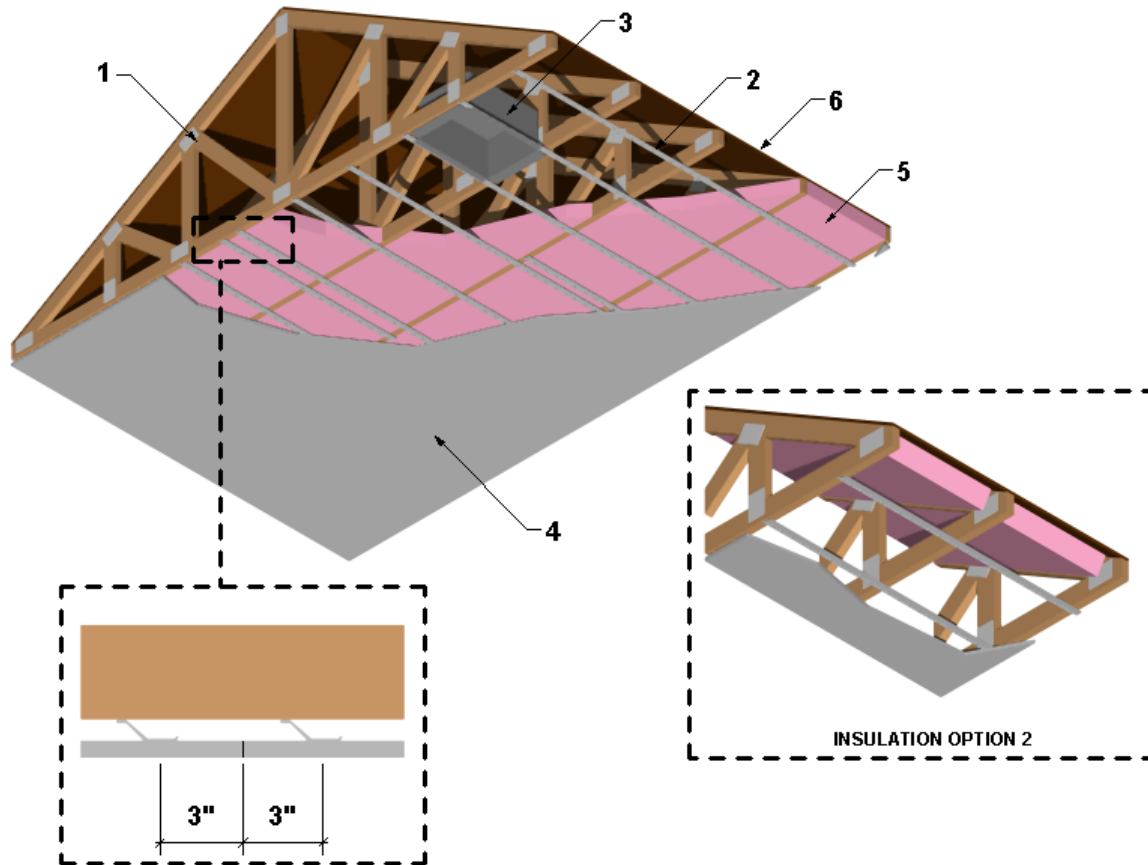


Design Number FRPS/FME 60-04
Roof / Ceiling Assembly
Fire Rated Product Specialties Corp
FN-Z-12-20-9-SEA Fire Rated Enclosure
ASTM E119 & CAN/ULC S101
Fire Resistance Rating – 1 hour
Superimposed Load – None



1. **WOOD TRUSS:** Install pitched or parallel chord wood trusses, spaced a maximum of 24 in. on center (oc), fabricated from nominal 2 in. by 4 in. lumber, with lumber oriented vertically or horizontally. Secure truss members together with minimum 0.0356 in. thick galvanized steel plates with 5/16 in. long teeth projecting from the plane of the plate. Truss must have minimum 5-1/4 in. depth where the truss intersects with exterior walls with a minimum roof slope of 3/12 and a minimum area in the plane of the truss of 21 sq.ft. Where the truss intersects with the interior face of the exterior walls, the minimum truss depth may be reduced to 3 in. if the batts and blankets (Item 3) are used as shown in

"Insulation Option 2" and are firmly packed against the intersection of the bottom chords and the plywood sheathing.

2. **RESILIENT CHANNELS:** Use one of the following options:

Option 1: Install 1/2 in. deep nominal 20 GA galvanized steel single leg (RC-1) or minimum 1/2 in. deep x 2-1/2 in. wide "hat shaped" (RC-2) channels spaced 16 in. oc and applied perpendicular to the wood truss (Item 1). Install 60 in. long piece of resilient channel at gypsum board (Item 4) end joints ensuring 3 in. offset from both mating edges. Secure furring channels to the

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bottom flange of each of the wood truss (Item 1) using minimum 1-1/4 in. long Type S or Type W screws ensuring two screws are installed in the bottom flange of each wood truss (Item 1). When required for length, overlap the channel a minimum 6 in. and secure using a 1-1/4 in. Type W screw.

Option 2: For use when insulation (Item 5) is installed between wood truss (Item 1): Install 1/2 in. deep nominal 25 GA galvanized steel single leg (RC-1) or minimum 1/2 in. deep x 2-1/2 in. wide "hat shaped" (RC-2) channels spaced 12 in. oc and applied perpendicular to the wood truss (Item 1). Install 60 in. long piece of resilient channel at gypsum board (Item 4) end joints ensuring 3 in. offset from both mating edges. Secure furring channels to the bottom flange of each of the wood truss (Item 1) using minimum 1-1/4 in. long Type S or Type W screws ensuring two screws are installed in the bottom flange of each wood truss (Item 1). When required for length, overlap the channel a minimum 6 in. and secure using a 1-1/4 in. Type W screw.

3. CERTIFIED COMPANY: Fire Rated Product Specialties Corporation

CERTIFIED PRODUCT: Recessed Light Cover

CERTIFIED MODEL: FN-Z-12-20-9-SEA, FN-Z-16-15-9-SEA and FN-Z-12-20-9-EXH Fire Rated Enclosures

RECESSED LIGHT COVER: Install 22 GA galvanized steel nominal 20 in. long x 12 in. wide x 9-1/2 in. deep enclosure with 2-1/2 in. wide flanges. Position the box inverted and recessed into the roof cavity. Secure the flanges of the box to the underside of the resilient channels (Item 2) with No. 6, 1-1/4 in. long bugle head screws spaced at pre-drilled locations on the flanges. The boxes may be installed in the roof with the following provisions:

- Maximum 2 fixtures within 36 sq.ft. area.

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- Minimum oc fixture spacing of 24 in. within same truss cavity.
- Minimum center-to-center fixture spacing of 34 in. for adjacent truss cavities.

4. GYPSUM BOARD: Install one layer of any of the following 5/8 in. thick gypsum boards:

- United States Gypsum Company SHEETROCK® Brand FIRECODE® C Core
- Pabco Gypsum FLAMECURB® Type C
- CertainTeed Gypsum, Inc. ProRoc® Type C Gypsum Panels

Install gypsum board perpendicular to resilient channels (Item 2). Attach gypsum board using 1 in. long, Type S drywall screws spaced 12 in. oc in the field and 8 in. oc on end of the board. After gypsum board is attached, apply vinyl or casein, dry or premixed joint compound to the exposed face of gypsum wallboard in two coats to all exposed fastener heads and gypsum wallboard joints. Embed a minimum 2 in. wide paper, plastic, or fiberglass tape in first layer of compound over joints in gypsum wallboard.

5. INSULATION: Install glass fiber insulation with a minimum density of 0.5 pound per cubic foot (pcf). Install insulation between bottom chord of wood trusses, draped over the resilient channels (Item 2 option 2). As an alternative, insulation may be installed between the wood trusses (Item 1) and secured to the underside of wood structural panels (Item 6) spaced nominal 12 in. oc, or use minimum 0.090 in. diameter galvanized steel insulation wire stays (Not Shown) spaced at a maximum of 12 in. oc perpendicular to the wood trusses (Item 1).

6. WOOD STRUCTURAL PANELS: Install minimum 15/32 in. thick grade C-D or sheathing wood structural panels to the

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wood trusses using a minimum 1/8 in. bead of adhesive with the following requirements along the top of all the joists and in the grooves: meets ASTM D 3498 Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems, meets American Plywood Association specifications AFG-01 and tested and

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approved for HUD-FHA application per specification UMB No. 60 and 6d ring shank nails spaced maximum 12 in. oc.

7. CEILING DAMPER (Optional-Not Shown): Install ceiling damper in accordance with the manufacturer's published installation restrictions.