

# WEB JOIST™

## Trusses

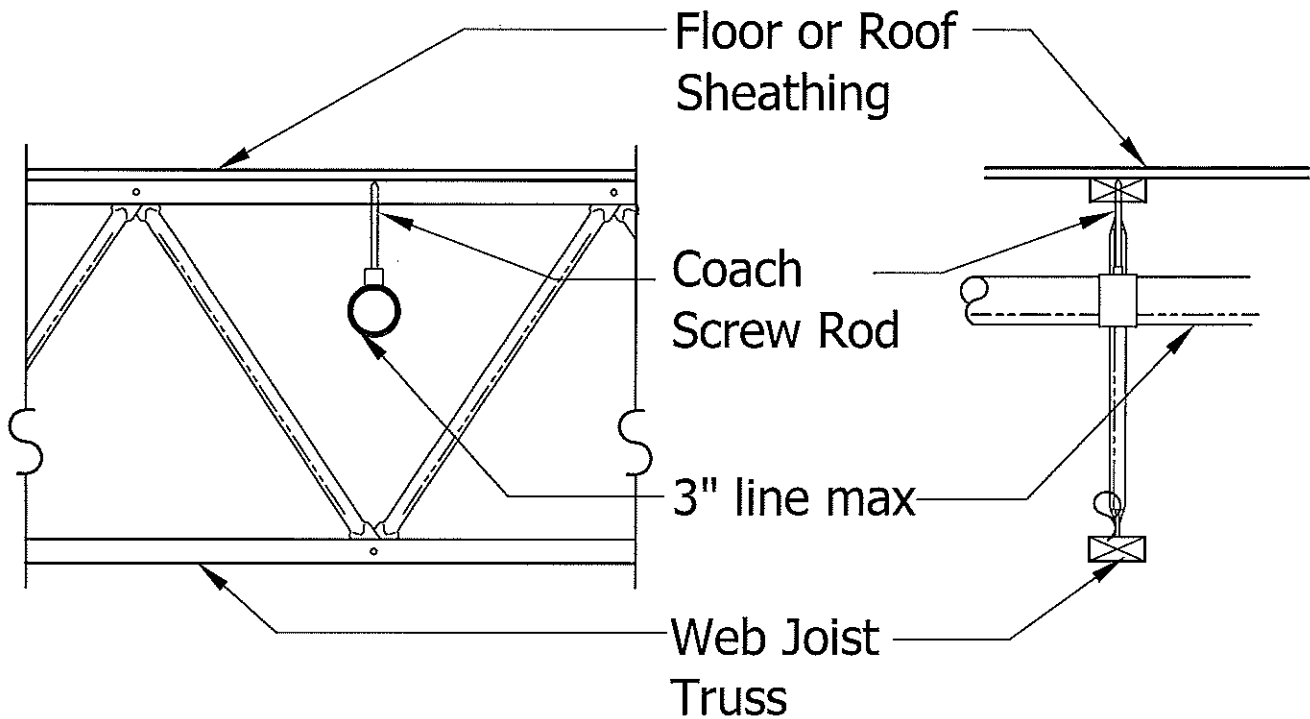
### Sprinkler Line Attachment Manual

#### General Information

1. The following suggested details may or may not meet local code requirements, therefore approval should be obtained from local code officials prior to usage.
2. The maximum load that may be carried by a detail is controlled by many factors, therefore each condition is evaluated on it's specific combination of factors.
3. Extra trusses may be required for some loading conditions.
4. Lag screws, wood screws, and nails may not be driven into the 1½" face of the chord.
5. Lead holes are required for all lag screws and wood screws.
6. A drilled hole is allowed in the wide face of the chord under the following conditions:
  - A) Located within ⅜" of chord centerline.
  - B) Maximum of ½" Dia.
  - C) Located a minimum of 6" from pin location.
  - D) Located a minimum of 2" from edge of finger joint.
7. It is suggested that 2½ to 3 PSF be added to the design dead load to allow for the liberal placement of sprinkler branch lines

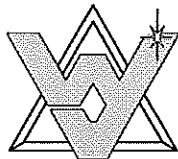
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118 Borovec Road  
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(888) 748-1173 Phone  
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# Coach Screw Rod



1. Use  $\frac{3}{8}$ " Rod w/  $1\frac{1}{2}$ " penetration.
2. Predrill  $\frac{1}{4}$ " lead hole.
3. Install rod within  $\frac{3}{8}$ " of chord centerline.
4. Do not install within 6" of pin connection.
5. May also be hung from bottom chord.

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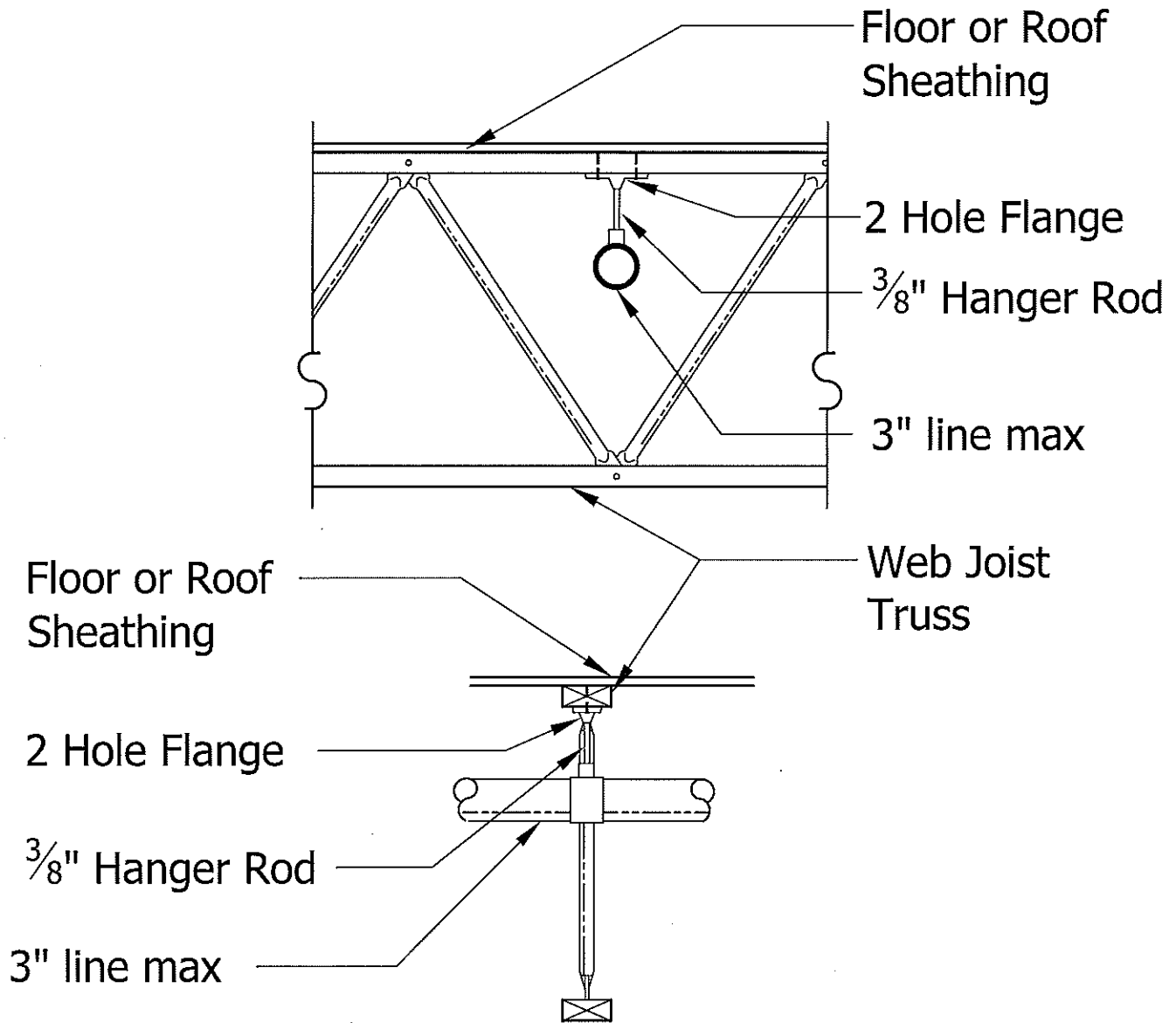
**Coach Screw Rod**

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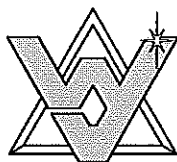
Sht. 1 of 17

# Flange Hanger



1. Use (2) #18 (0.294") screws w/ 1½" penetration.
2. Predrill 3/16" lead hole.
3. Do not install within 6" of pin connection.
4. May also be hung from bottom chord.

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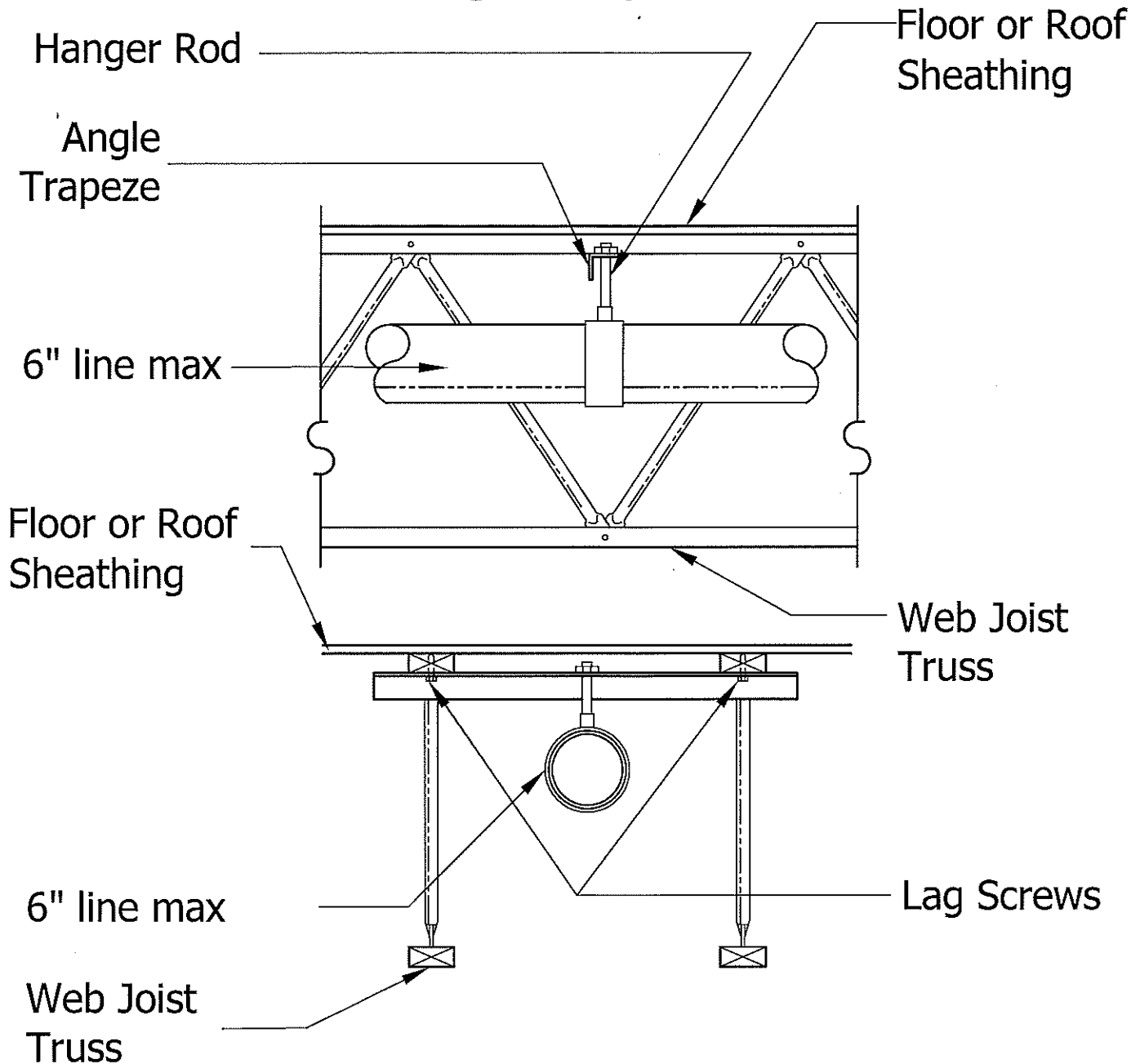
**Flange Hanger**

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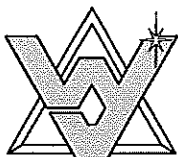
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# Angle Trapeze



1. Size Angle Trapeze per loading.
2. Attach w/  $\frac{3}{8}$ " lag screws w/  $1\frac{1}{2}$ " penetration.
3. Predrill  $\frac{1}{4}$ " lead hole.
4. Do not install within 6" of pin connection.

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 Trusses

Title:

**Angle Trapeze**

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# Pipe Trapeze

Floor or Roof Sheathing

Wood or Lag Screw

6" line max

Floor or Roof Sheathing

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6" line max

Pipe Trapeze

U-Bracket

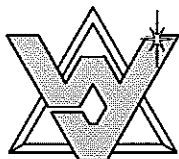
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Pipe Trapeze

U-Bracket

1. Use wood screws or lag screws as determined by load to attach U-Bracket.
2. Must have 1 1/2" penetration.
3. Predrill holes.
4. Do not install within 6" of pin connection.

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Trusses

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**Pipe Trapeze**

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# U-Bracket

Floor or Roof Sheathing

U-Bracket

Wood Screw

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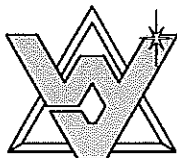
Floor or Roof Sheathing

U-Bracket

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1. Use (2) #18 (0.294") screws w/ 1½" penetration.
2. Pre-drill 3/16" lead hole.

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**U-Bracket**

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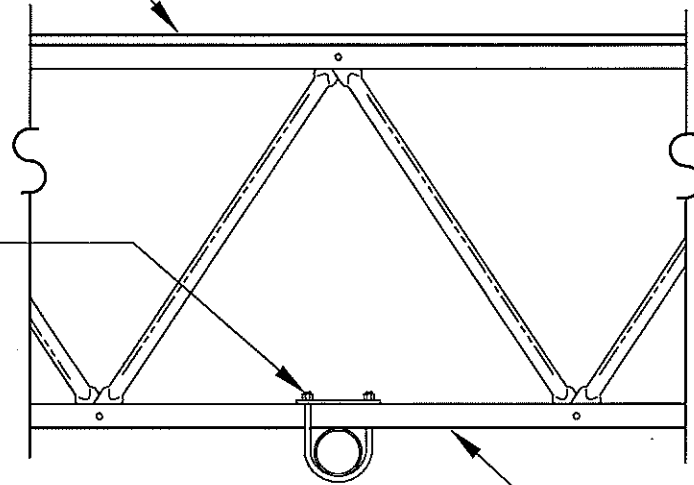
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# U-Bolt

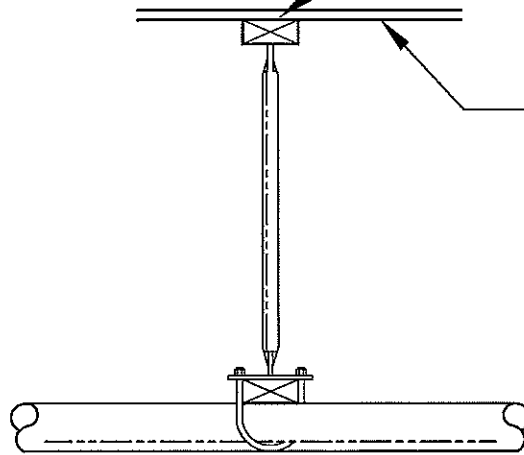
Floor or Roof Sheathing

U-Bolt



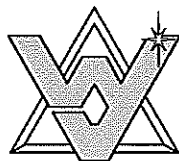
Web Joist Truss

Floor or Roof Sheathing



1. Use  $\frac{3}{8}$ " Threaded U-Bolt w/  $\frac{1}{4}$ " Steel Plate.
2. Can be located anywhere on bottom chord.

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**WEB JOIST™**  
Trusses

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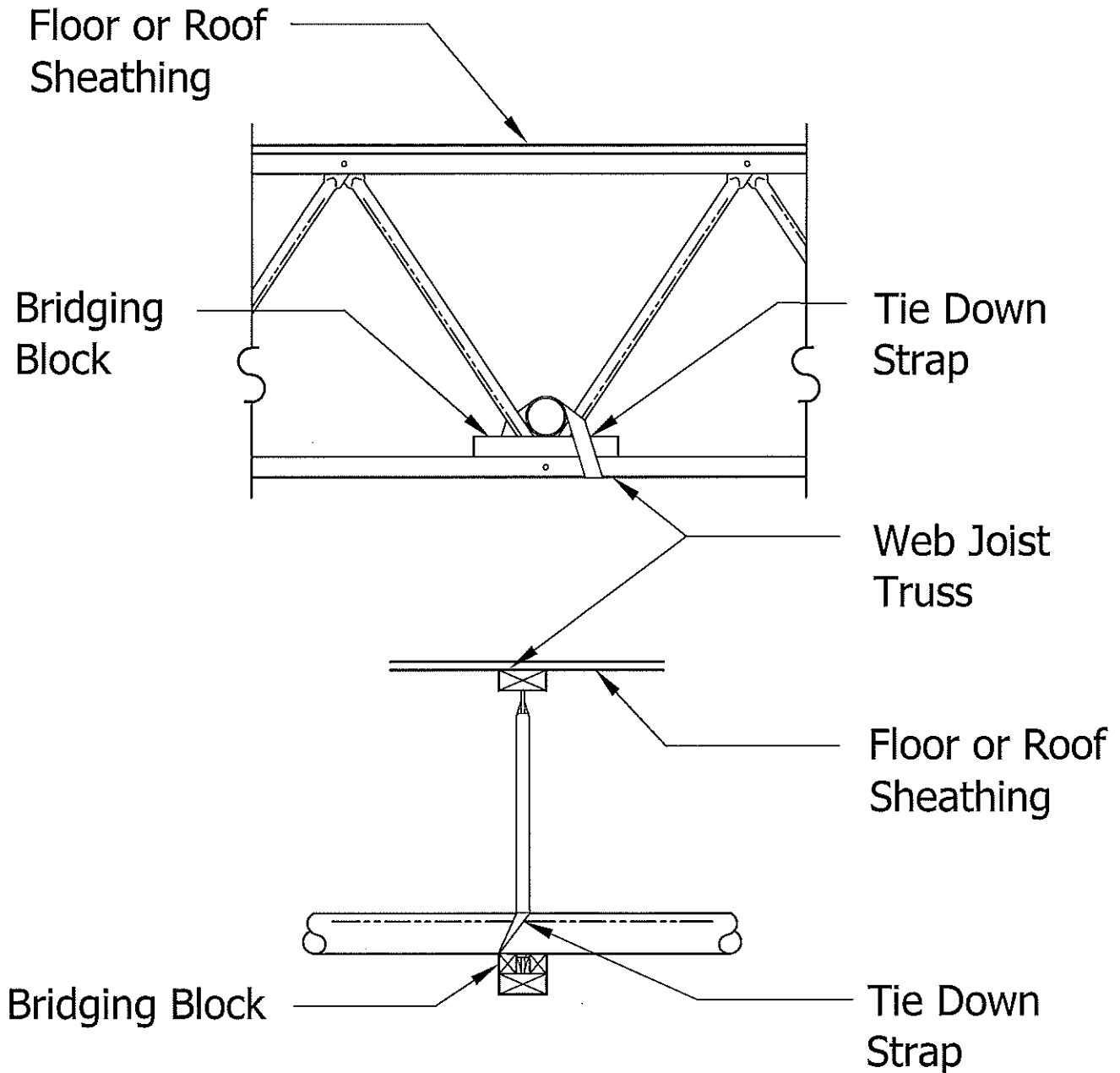
**U-Bolt**

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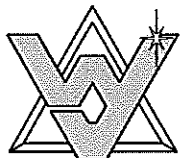
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# Tie Down



1. Use Plumbers Strap, Tin Strap, or Wire to attach line to a notched Bridging Block.
2. Do not nail into narrow face of chord.

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Title:

**Tie Down**

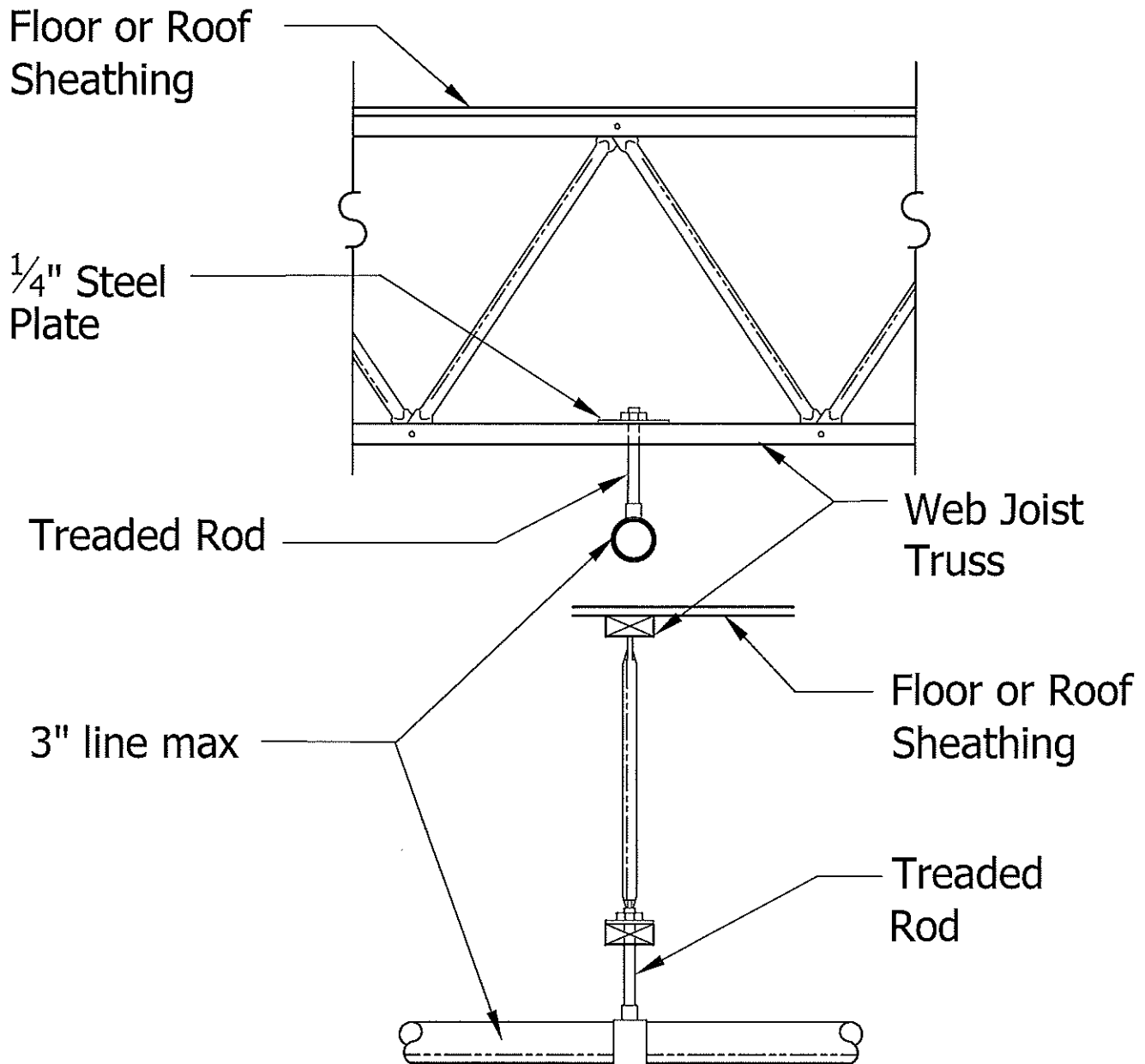
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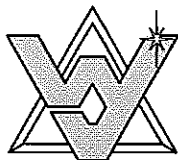


# Threaded Rod Hanger



1. Use  $\frac{3}{8}$ " Threaded Rod w/ large washer and nut.
2. Predrill  $\frac{3}{8}$ " hole in centerline of chord.
3. Do not install within 6" of pin connection.

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Trusses

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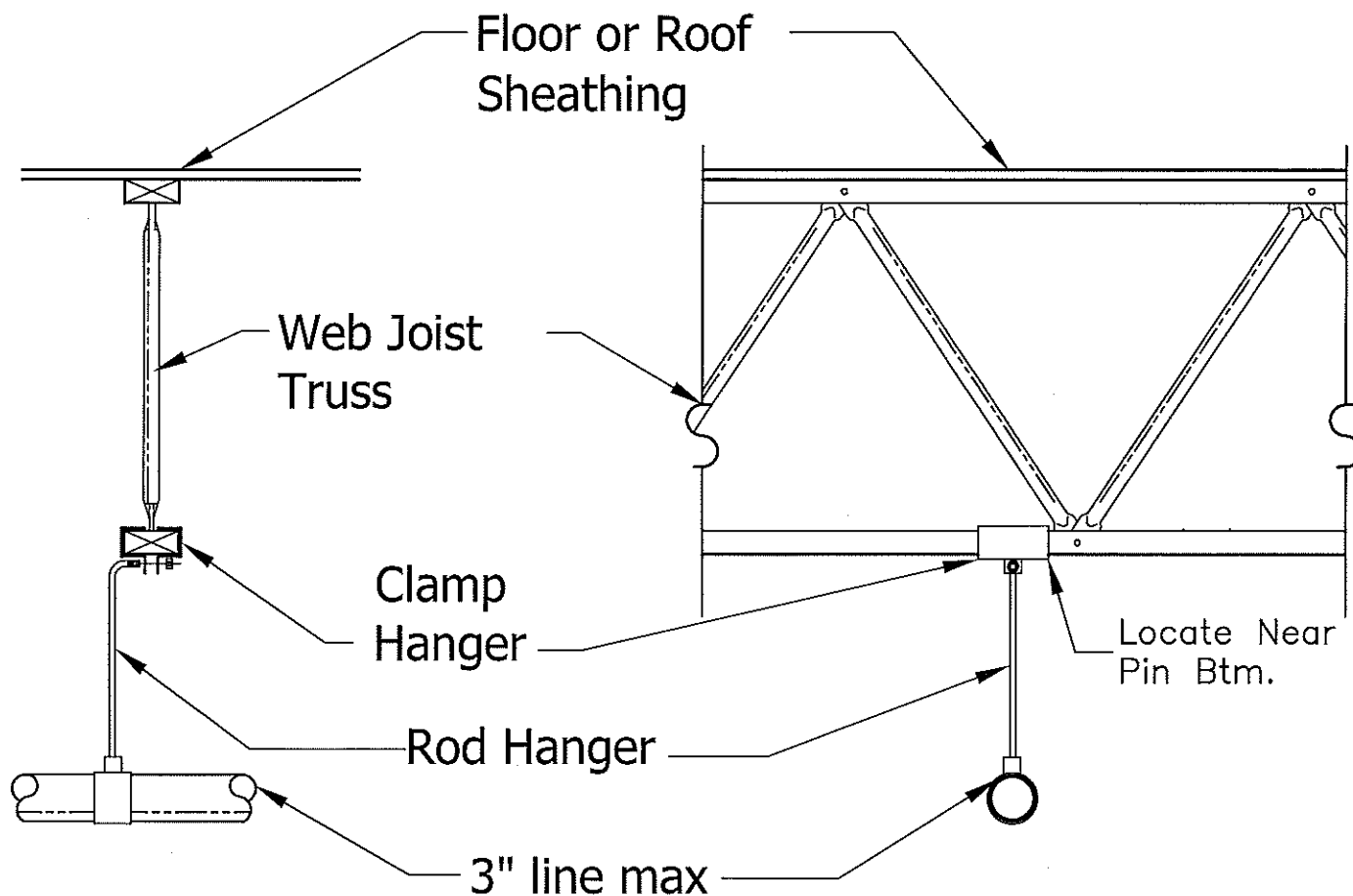
Threaded Rod Hanger

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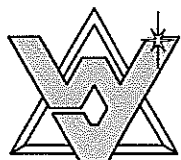
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# Clamp Hanger



1. Install per manufacturer's recommendations.
2. Do Not Exceed the manufacturer's rated capacity.

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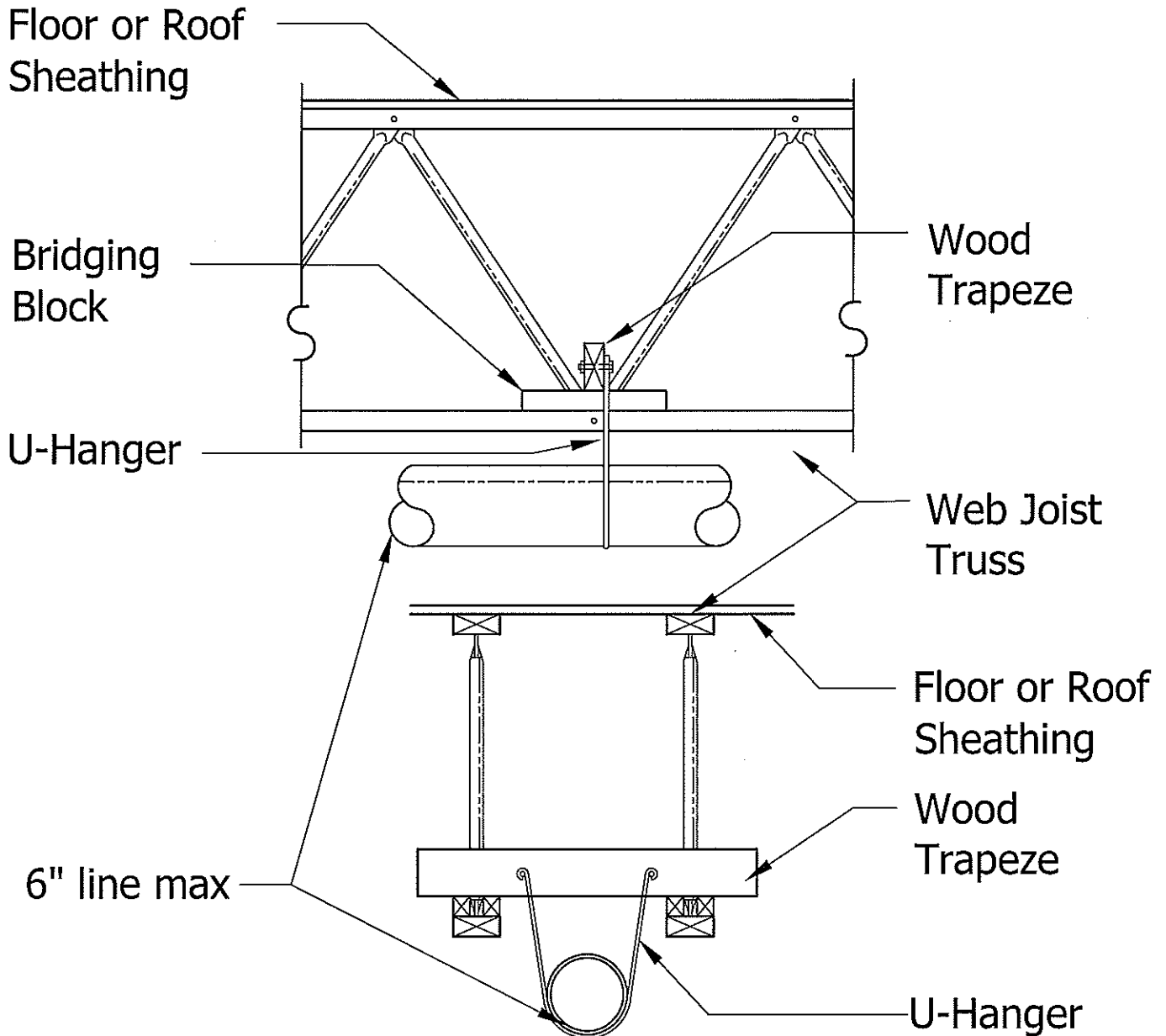
**Clamp Hanger**

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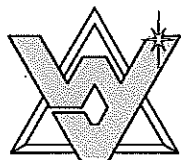
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# U-Hanger



1. Size Wood Trapeze per load.
2. Lag screw U-Hanger to Trapeze.
3. Trapeze supported by notched Bridging Blocks.
4. Can be hung off Load Sharing Bridging.

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 Trusses

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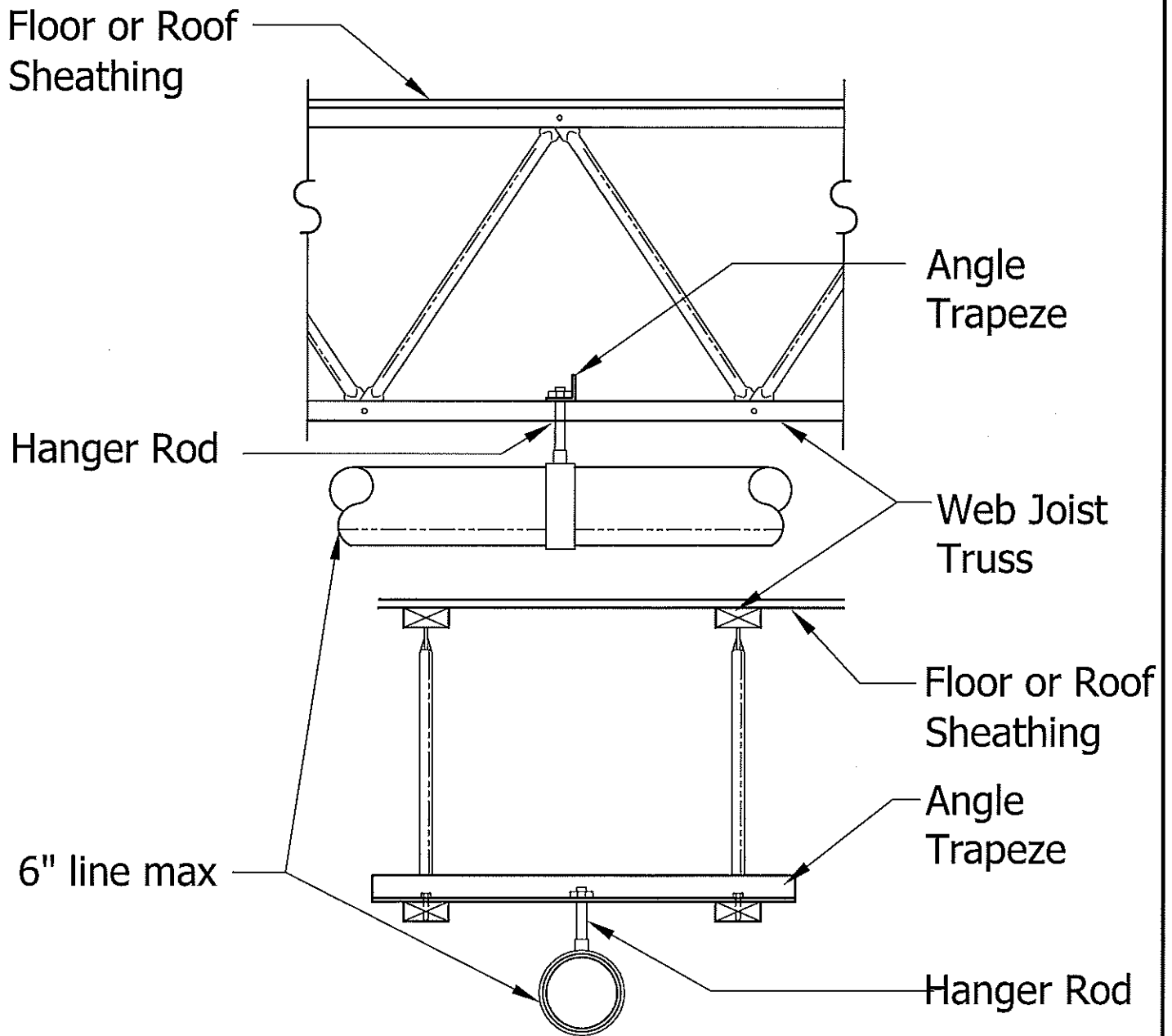
U-Hanger

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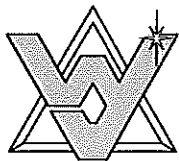
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# Angle Trapeze @ Bottom Chord



1. Size Angle Trapeze per loading.
2. Attach w/  $\frac{3}{8}$ " lag screws w/  $1\frac{1}{2}$ " penetration.
3. Predrill  $\frac{1}{4}$ " lead hole.
4. Do not install within 6" of pin connection.

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 Trusses

Title: Angle Trapeze  
 (Btm Chord)

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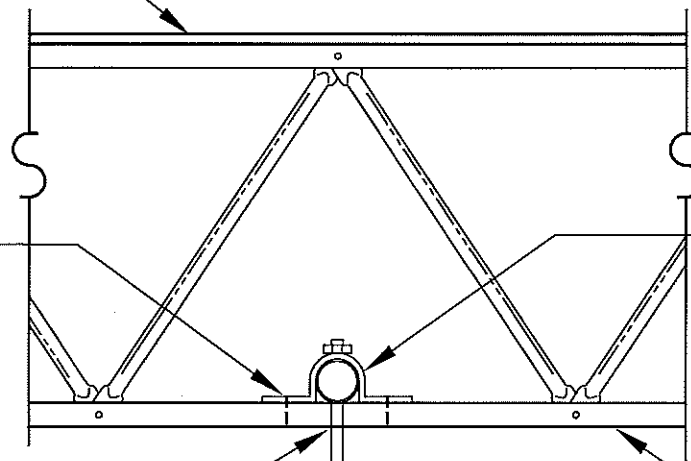
# Pipe Trapeze @ Bottom Chord

Floor or Roof Sheathing

Wood or Lag Screws

Hanger Rod

6" line max



U-Bracket

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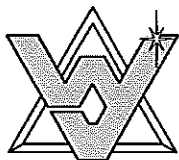
Floor or Roof Sheathing

Pipe Trapeze

Hanger Rod

1. Use wood screws or lag screws as determined by load to attach U-Bracket.
2. Must Have 1-1/2" penetration.
3. Predrill holes.
4. Do not install within 6" of pin connection.

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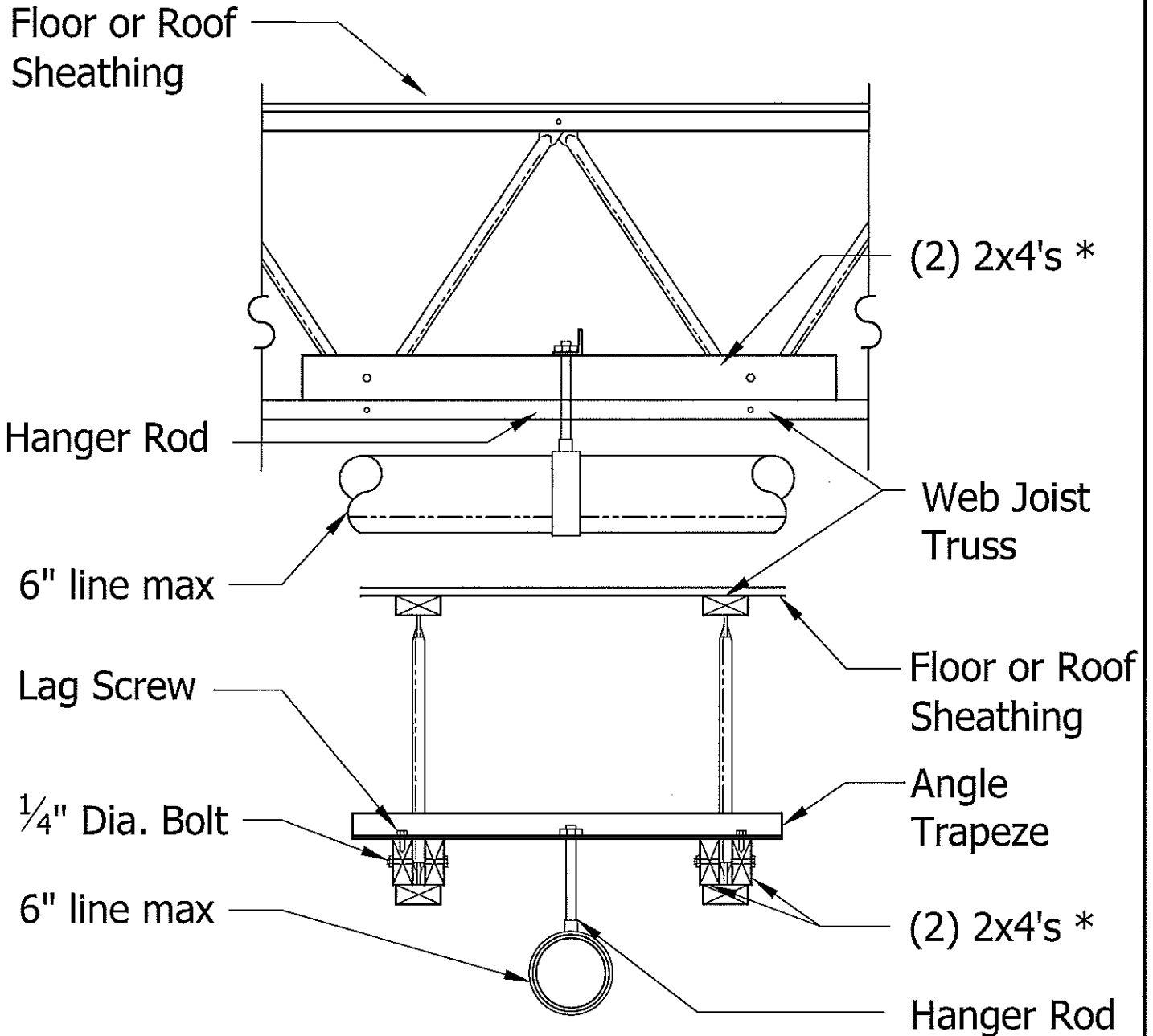


**WEB JOIST™**  
 Trusses

Title: Pipe Trapeze  
 (Btm. Chord)

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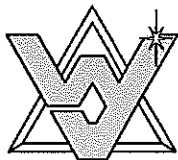
# Heavy Trapeze



1. Size Angle Trapeze per loading.
2. Bolt (2) 2x4's on bottom chord w/  $\frac{1}{4}$ " Dia. bolts at both locations. (snug tight)
3. Lag screw Trapeze to 2x4's.

\* See "Alternate Panel Detail"

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 Trusses

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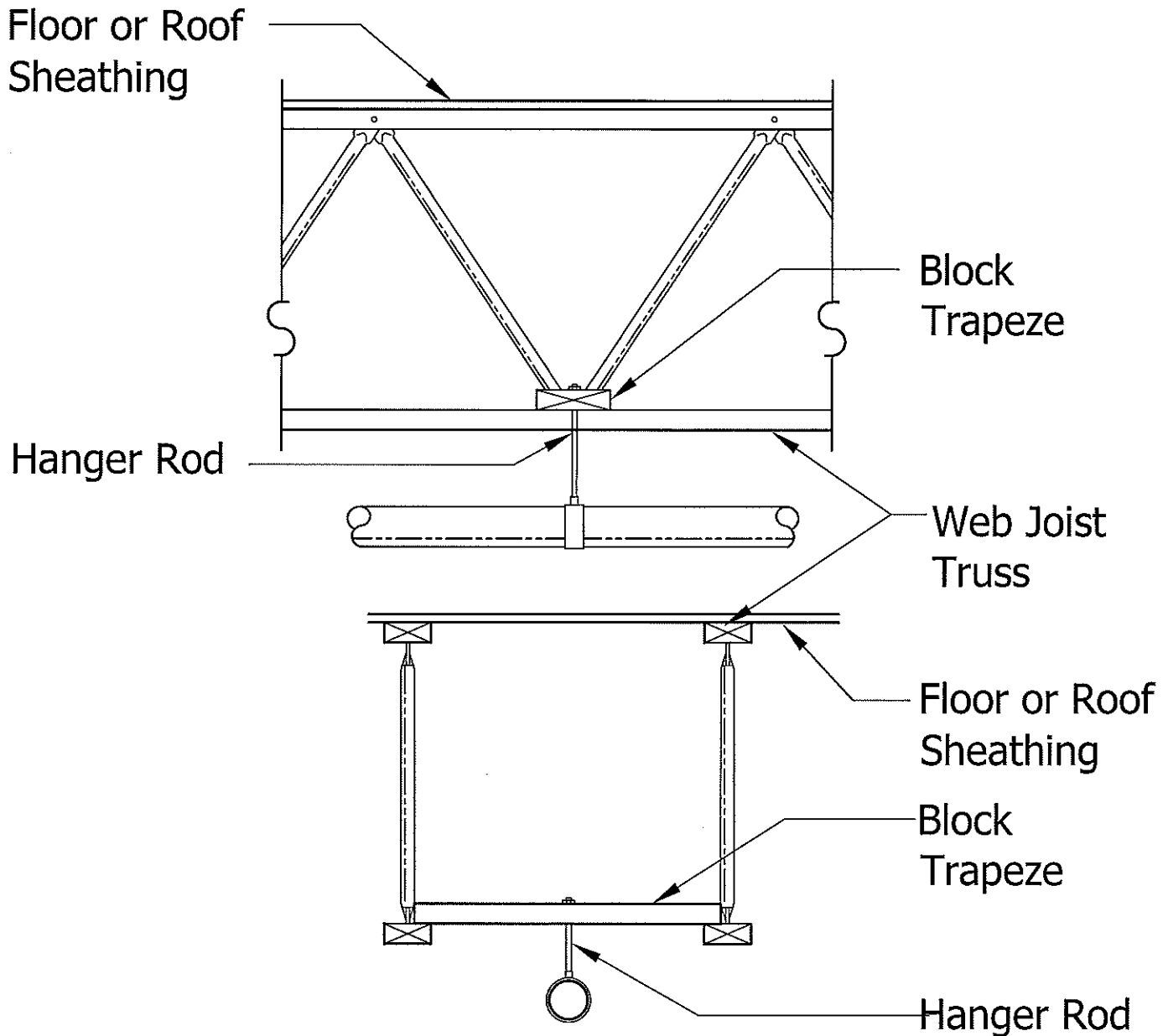
**Heavy Trapeze**

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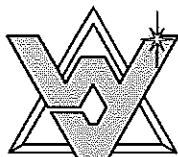
Sht. 13 of 17

# Block Trapeze



1. Size 2x\_ block per loading.
2. Toenail block to chord w/ (2) 8d nails.
3. Do not nail into pin connection.
4. Use  $\frac{3}{8}$ " threaded rod w/ large washer.

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 Trusses

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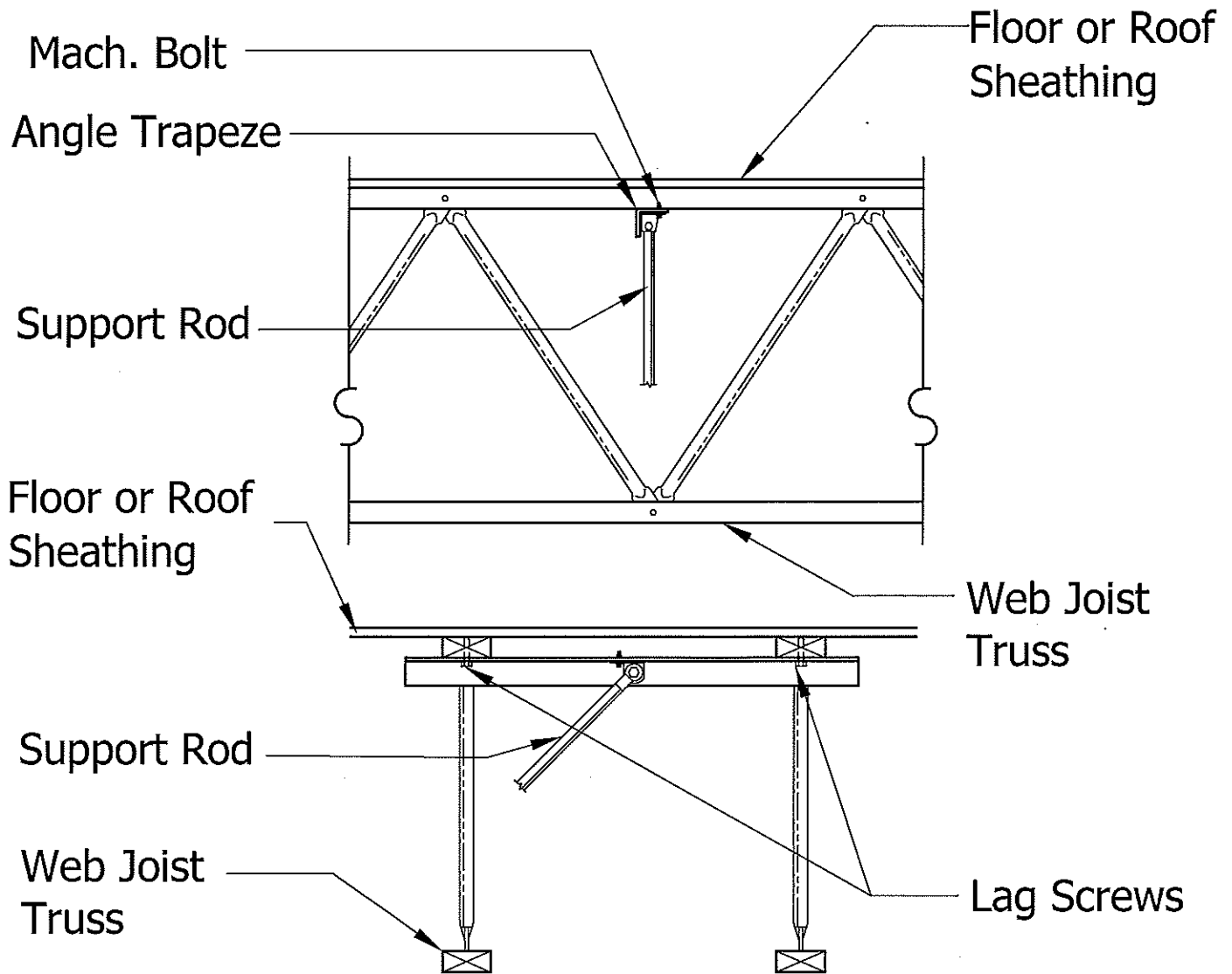
Block Trapeze

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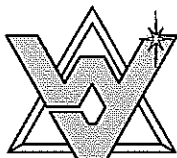
# Lateral Support



1. (2)  $\frac{1}{4}$ " x  $1\frac{1}{2}$ " lag screws (requires  $\frac{1}{8}$ " diameter pilot hole) centered on the underside of the top chord.
2. Size Steel Angle per load. Maximum length between trusses 48".
3. Machine Bolt centered between trusses.
4. Swivel sway brace fitting (equivalent to TOLCO Incorp. fig. 910).

Allowable Horizontal Seismic Forces (Lbs.)		
Angle To Verticle		
30°	45°	60°
190	240	240

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Title:

Lateral Support

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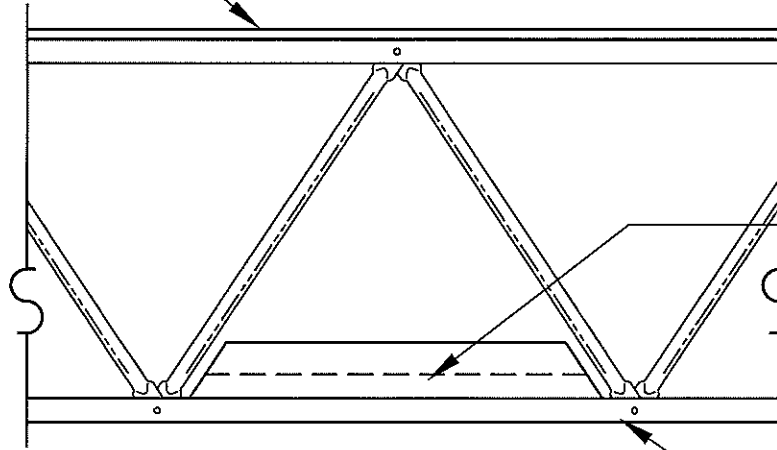
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# Alternate Panel Detail

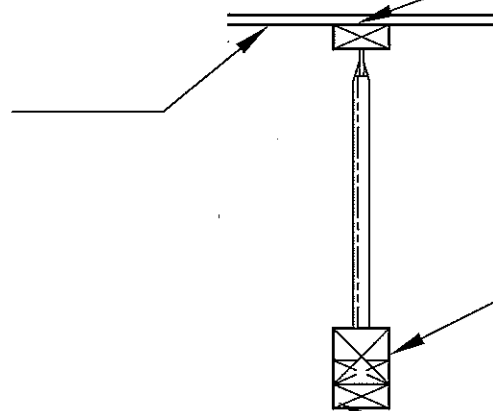
Floor or Roof Sheathing



Load Distribution Block

Web Joist Truss

Floor or Roof Sheathing

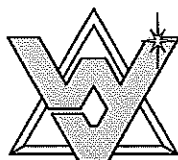


Load Distribution Block

Hanger Rod

1. Use if Bending controls allowable loads applied to panels.
2. Bevel cut 4x4 to fit on top of bottom chord.
3. 1-2x4 or 2-2x4's may be used depending on load.

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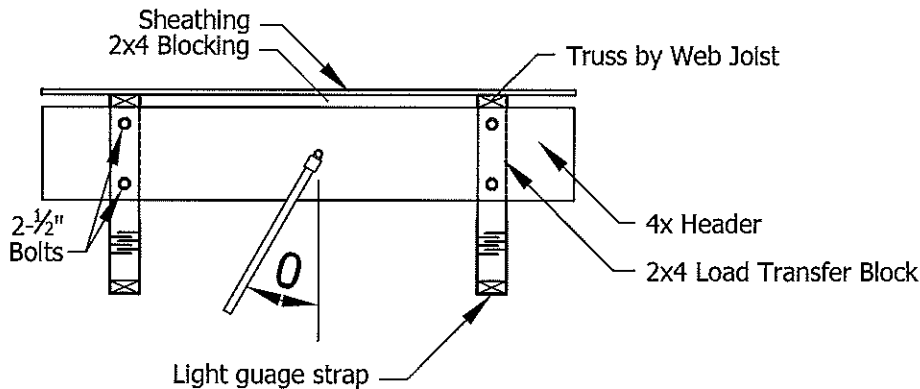
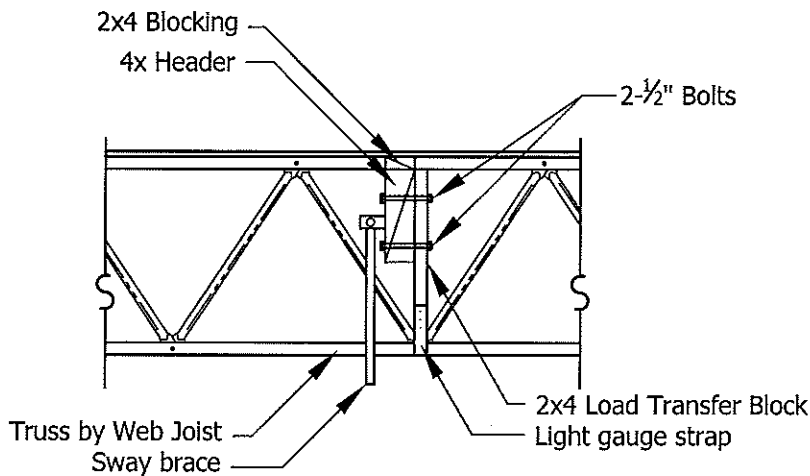
**WEB JOIST™**  
 Trusses

Title: **Alternate Panel  
 Detail**

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# Alternate Lateral Brace Detail



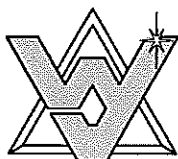
1. Vertical 2x4 block notched at the bottom to clear webs.
2. 2x4 Blocking. Glue top and bottom surfaces with 4-1/4" beads of approved elastomeric floor adhesive. Follow manufacturers recommendations. Glued surfaces must be clean and dust free.
3. 4x10 or 4x12 Douglas fir or southern pine Header. Support as shown with 2-1/2" diameter machine bolts at each end.
4. Light gauge strap (similar to Simpson LSTA24 strap). Install with 3-8d (2-1/2") common nails at the ends of the straps.
5. Make attachment per NFPA 13 at the center of the center of the 4x Header.

## ALLOWABLE HORIZONTAL SEISMIC FORCES (Lbs.)

ANGLE TO VERTICAL ( $\theta$ )		
30°	45°	60°
800	1400	1400

- \* The loads in the table are based on the controlling connection to the truss.
- \* The capacity of the braces fastener to the wood block may limit the capacity of the detail (See NFPA 13).
- \* The forces include a 1.33 duration factor adjustment.

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Title: **Alternate Lateral  
Brace Detail**

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