I-Joist Construction Details

Performance Rated I-Joists in Floor and Roof Framing

Engineered Wood Systems
APAEWS
This installation guide includes recommended construction details for Performance Rated I-Joists in floor and roof applications. In addition to floor and roof framing details, this guide includes recommendations for cantilevers and placement of web holes.

Good installation begins with specification of the correct joist for the application. Many Performance Rated I-Joists include in their trademarks allowable spans for uniformly loaded residential floor construction at various I-joist spacings. To determine which I-joist is needed, select the span and then choose the I-joist that meets the span, spacing, and loading criteria. For more information on selecting APA I-joists, and for design tables, refer to *APA Performance Rated I-joists, Form Z725*, available on APA’s web site at www.apawood.org.
Some framing requirements such as erection bracing and blocking panels have been omitted for clarity.

Holes may be cut in web for plumbing, wiring and duct work. See Table 3 and Figure 6.

NOTE: Never cut or notch flanges.

Glulam or Structural Composite Lumber (SCL) headers

Glulam or SCL headers

Some framing requirements such as erection bracing and blocking panels have been omitted for clarity.

Figures 3, 4 & 5a

Use hangers recognized in current ICC-ES reports

Glulam or SCL headers

Figures 3, 4 & 5a

FIGURE 1

TYPICAL PERFORMANCE RATED I-JOIST FLOOR FRAMING AND CONSTRUCTION

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.

<table>
<thead>
<tr>
<th>Blocking Panel or Rim Joist</th>
<th>Uniform Vertical Load Transfer Capacity* (plf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRI Joists</td>
<td>2000</td>
</tr>
</tbody>
</table>
*The uniform vertical load capacity is limited to a joist depth of 16 inches or less and is based on the normal (10-yr) load duration. It shall not be used in the design of a bending member, such as joist, header, or rafter. For concentrated vertical load transfer capacity, see 1d.

<table>
<thead>
<tr>
<th>Blocking Panel or Rim Joist</th>
<th>Uniform Vertical Load Transfer Capacity* (plf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/8&quot; APA Rim Board Plus</td>
<td>4850</td>
</tr>
<tr>
<td>1-1/8&quot; APA Rim Board</td>
<td>4400</td>
</tr>
<tr>
<td>1&quot; APA Rim Board</td>
<td>3300</td>
</tr>
</tbody>
</table>
*The uniform vertical load capacity is limited to a rim board depth of 16 inches or less and is based on the normal (10-yr) load duration. It shall not be used in the design of a bending member, such as joist, header, or rafter. For concentrated vertical load transfer capacity, see 1d.

One 8d common or box nail at top and bottom flange

To avoid splitting flange, start nails at least 1-1/2" from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.
1c

Attach rim joist to floor joist with one nail at top and bottom. Nail must provide 1 inch minimum penetration into floor joist. For 2-1/2" and 3-1/2" flange widths, toe nails may be used.

Minimum 1-3/4" bearing required

1d

Squash block

Provide lateral bracing per 1a, 1b, or 1c

<table>
<thead>
<tr>
<th>Pair of Squash Blocks</th>
<th>Vertical load transfer capacity per pair of squash blocks (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x lumber</td>
<td>4000 7000</td>
</tr>
<tr>
<td>1-1/8&quot; APA Rim Board, Rim Board Plus, or Rated Sturd-I-Floor 48 oc</td>
<td>3000 3500</td>
</tr>
<tr>
<td>1&quot; APA Rim Board or Rated Sturd-I-Floor 32 oc</td>
<td>2700 3500</td>
</tr>
</tbody>
</table>

1e

Transfer load from above to bearing below. Install squash blocks per 1d. Match bearing area of blocks below to post above.

1f

Use single I-joist for loads up to 2000 plf, double I-joists for loads up to 4000 plf (filler block not required). Attach I-joist to top plate using 8d nails at 6" o.c.

APA Rim Board may be used in lieu of I-joists. Backer is not required when APA Rim Board is used.

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
1g

Joist attachment per detail 1b

8d nails at 6" o.c. to top plate

PRI blocking panel per 1a

Load bearing wall above shall align vertically with the wall below. Other conditions, such as offset walls, are not covered by this detail.

Blocking required over all interior supports under load-bearing walls or when floor joists are not continuous over support

1h

Backer block (use if hanger load exceeds 250 lbs.)

Before installing a backer block to a double I-joist, drive 3 additional 10d nails through the webs and filler block where the backer block will fit. Clinch. Install backer tight to top flange. Use twelve 10d nails, clinched when possible. Maximum capacity for hanger for this detail = 1280 lbs.

BACKER BLOCKS (Blocks must be long enough to permit required nailing without splitting)

<table>
<thead>
<tr>
<th>Flange Width</th>
<th>Material Thickness Required*</th>
<th>Minimum Depth**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2&quot;</td>
<td>19/32&quot;</td>
<td>5-1/2&quot;</td>
</tr>
<tr>
<td>1-3/4&quot;</td>
<td>23/32&quot;</td>
<td>5-1/2&quot;</td>
</tr>
<tr>
<td>2-5/16&quot;</td>
<td>1&quot;</td>
<td>7-1/4&quot;</td>
</tr>
<tr>
<td>2-1/2&quot;</td>
<td>1&quot;</td>
<td>5-1/2&quot;</td>
</tr>
<tr>
<td>3-1/2&quot;</td>
<td>1-1/2&quot;</td>
<td>7-1/4&quot;</td>
</tr>
</tbody>
</table>

* Minimum grade for backer block material shall be Utility grade SPF (south) or better for solid sawn lumber and Rated Sheathing grade for wood structural panels.

** For face-mount hangers use net joist depth minus 3-1/4" for joists with 1-1/2" thick flanges. For 1-5/16" thick flanges use net depth minus 2-7/8".

1j

Glulam or multiple structural composite lumber (SCL) beams

For nailing schedules for multiple SCL beams, see the manufacturer’s recommendations

Top- or face-mounted hanger installed per manufacturer’s recommendations

Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
2x plate flush with inside face of wall or beam

Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

Top-mounted hanger installed per manufacturer’s recommendations

Multiple I-joist header with full depth filler block shown. Glulam and multiple SCL headers may also be used. Verify double I-joist capacity to support concentrated loads.

Backer block attach per 1h. Nail with twelve 10d nails, clinch when possible.

Install hanger per manufacturer’s recommendations

Filler block per Figure 1p

Maximum support capacity = 1280 lbs.

Do not bevel-cut joist beyond inside face of wall

Attach I-joist per 1b

Note: Blocking required at bearing for lateral support, not shown for clarity.

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
Notes:
1. Support back of I-joist web during nailing to prevent damage to web/flange connection.
2. Leave a 1/8-inch gap between top of filler block and bottom of top I-joist flange.
3. Filler block is required between joists for full length of span.
4. Nail joists together with two rows of 10d nails at 12 inches o.c. (clinched when possible) on each side of the double I-joist. Total of 4 nails per foot required. If nails can be clinched, only 2 nails per foot are required.

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
### TABLE 1

<table>
<thead>
<tr>
<th>PRI Flange Width</th>
<th>Web Stiffener Size Each Side of Web</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2&quot;</td>
<td>15/32&quot; x 2-5/16&quot; minimum width</td>
</tr>
<tr>
<td>1-3/4&quot;</td>
<td>19/32&quot; x 2-5/16&quot; minimum width</td>
</tr>
<tr>
<td>2-1/2&quot;</td>
<td>1&quot; x 2-5/16&quot; minimum width</td>
</tr>
<tr>
<td>2-1/2&quot;</td>
<td>1&quot; x 2-5/16&quot; minimum width</td>
</tr>
<tr>
<td>3-1/2&quot;</td>
<td>1-1/2&quot; x 2-5/16&quot; minimum width</td>
</tr>
</tbody>
</table>

### FIGURE 2

#### WEB STIFFENER INSTALLATION DETAILS

- **Flange width 1-3/4" or less**
  - 1/8"-1/4" Gap
  - Clinch
  - (4) 8d nails clinched

- **Flange width greater than 1-3/4"**
  - 1/8"-1/4" Gap

- **CONCENTRATED LOAD** (Load stiffener)
  - Tight Joint
  - No Gap
  - (4) 8d nails, 10d required for I-joists with 3-1/2" flange width (PRI-80s)

- **END BEARING** (Bearing stiffener)
  - Gap
  - Tight Joint
  - No Gap

See table above for web stiffener size requirements
3-1/2" min. bearing required

APA Rim Board, or wood structural panel

CAUTION:
Cantilevers formed this way must be carefully detailed to prevent moisture intrusion into the structure and potential decay of untreated I-joist extensions.

FIGURE 3
I-JOIST CANTILEVER DETAIL FOR BALCONIES

Attach I-joists to plate at all supports per Detail 1b

I-joist, or APA Rim Board

FIGURE 4
LUMBER CANTILEVER DETAIL FOR BALCONIES

Full depth backer block with 1/8" gap between block and top flange of I-joist. See Detail 1h. Nail with 2 rows of 10d nails @ 6" o.c. and clinch.

2 x 8 min. Nail to backer block and joist with 2 rows of 10d nails @ 6" o.c. and clinch. (Cantilever nails may be used to attach backer block if length of nail is sufficient to allow clinching.)

Lumber or wood structural panel closure

3-1/2" min. bearing required

I-joist, or APA Rim Board
FIGURE 5a
CANTILEVER DETAIL FOR VERTICAL BUILDING OFFSET

Method 1
SHEATHING REINFORCEMENT ONE SIDE

APA Rim Board or wood structural panel closure (23/32" minimum thickness), attach per Detail 1b

PRI blocking panel or APA Rim Board blocking, attach per Detail 1g

Attach I-joist to plate per Detail 1b

8d nails

Strength axis

3-1/2" min. bearing required

2'-0" minimum

2'-0" maximum

Note: APA RATED SHEATHING 48/24 (minimum thickness 23/32") required on sides of joist. Depth shall match the full height of the joist. Nail with 8d nails at 6" o.c., top and bottom flange. Install with face grain horizontal.

Attach I-joist to plate at all supports per Detail 1b

Alternate Method 2
DOUBLE I-JOIST

APA Rim Board or wood structural panel closure (23/32" minimum thickness), attach per Detail 1b

PRI blocking panel or APA Rim Board blocking, attach per Detail 1g

Block I-joists together with filler blocks for the full length of the reinforcement. For I-joist flange widths greater than 3 inches place an additional row of 10d nails along the centerline of the reinforcing panel from each side. Clinch when possible.

Face nail two rows 10d at 12" o.c. each side through one I-joist web and the filler block to other I-joist web. Offset nails from opposite face by 6". Clinch if possible (four nails per foot required, except two nails per foot required if clinched).

Attach I-joists to top plate at all supports per Detail 1b, 3-1/2" min. bearing required
TABLE 4
PRI CANTILEVER REINFORCEMENT METHODS ALLOWED

<table>
<thead>
<tr>
<th>Joist Depth (in.)</th>
<th>Roof Truss Span (ft)</th>
<th>TL = 35 psf LL not to exceed 20 psf</th>
<th>TL = 45 psf LL not to exceed 30 psf</th>
<th>TL = 55 psf LL not to exceed 40 psf</th>
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<tbody>
<tr>
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<td>Joist Spacing (in.)</td>
<td>Joist Spacing (in.)</td>
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<td>N</td>
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</tbody>
</table>

Notes
1. N = No reinforcement required.
2. = PRI reinforced with 23/32" wood structural panel on one side only.
3. X = Try a deeper joist or closer spacing.
4. Table applies to joists 12" to 24" o.c. Use 12" o.c. requirements for lesser spacings.
5. For conventional roof construction using a ridge beam, the Roof Truss Span column above is equivalent to the distance between the supporting wall and the ridge beam. When the roof is framed using a ridge board, the Roof Truss Span is equivalent to the distance between the supporting walls as if a truss is used.

See Table below for APA PRI reinforcement requirements at cantilever.

For hip roofs with the hip trusses running parallel to the cantilevered floor joists, the I-joist reinforcement requirements for a span of 26 ft. shall be permitted to be used.
WEB HOLE SPECIFICATIONS

One of the benefits of using I-joists in residential floor construction is that holes may be cut in the joist webs to accommodate electrical wiring, plumbing lines and other mechanical systems, therefore minimizing the depth of the floor system.

Rules for cutting holes in PRI Joists

1. The distance between the inside edge of the support and the centerline of any hole shall be in compliance with the requirements of Table 3.
2. I-joist top and bottom flanges must NEVER be cut, notched, or otherwise modified.
3. Whenever possible field-cut holes should be centered on the middle of the web.
4. The maximum size hole that can be cut into an I-joist web shall equal the clear distance between the flanges of the I-joist minus 1/4 inch. A minimum of 1/8 inch should always be maintained between the top or bottom of the hole and the adjacent I-joist flange.
5. The sides of square holes or longest sides of rectangular holes should not exceed three fourths of the diameter of the maximum round hole permitted at that location.
6. Where more than one hole is necessary, the distance between adjacent hole edges shall exceed twice the diameter of the largest round hole or twice the size of the largest square hole (or twice the length of the longest side of the longest rectangular hole) and each hole must be sized and located in compliance with the requirements of Table 3.
7. A knockout is not considered a hole, may be utilized anywhere it occurs and may be ignored for purposes of calculating minimum distances between holes.
8. One and one-half inch holes shall be permitted anywhere in a cantilevered section of a PRI Joist. Holes of greater size may be permitted subject to verification.
9. A 1-1/2” hole can be placed anywhere in the web provided that it meets the requirements of 6 above.
10. For joists with more than one span, use the longest span to determine hole location in either span.
11. All holes shall be cut in a workman-like manner in accordance with the restrictions listed above and as illustrated in Figure 6.
12. Limit 3 maximum size holes per span.
13. A group of round holes at approximately the same location shall be permitted if they meet the requirements for a single round hole circumscribed around them.
Knockouts are prescored holes often provided by I-joist manufacturers for the contractor’s convenience to install electrical or small plumbing lines. They are typically 1-3/8 to 1-3/4 inches in diameter, and are spaced 12 to 24 inches on center along the length of the I-joist. Where possible, it is preferable to use knockouts instead of field-cutting holes.

- Never drill, cut or notch the flange, or over-cut the web.
- Holes in webs should be cut with a sharp saw.
- For rectangular holes, avoid over cutting the corners, as this can cause unnecessary stress concentrations. Slightly rounding the corners is recommended. Starting the rectangular hole by drilling a 1" diameter hole in each of the 4 corners and then making the cuts between the holes is another good method to minimize damage to I-joist.
### TABLE 3

**HOLE SIZES AND LOCATIONS**

Minimum Distance from Face of All Joist Supports to Center of Hole – Single or Multi-Span, 10 psf dead load and 40 psf live load

<table>
<thead>
<tr>
<th>Joist Depth Designation</th>
<th>Span Adjustment Factor</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>6-1/4</th>
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<th>8-5/8</th>
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<th>10-3/4</th>
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<tbody>
<tr>
<td>PRI-20</td>
<td>13'-5&quot;</td>
<td>0'-6&quot;</td>
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<td>2'-0&quot;</td>
<td>3'-0&quot;</td>
<td>4'-0&quot;</td>
<td>5'-0&quot;</td>
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<td>3'-6&quot;</td>
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**Notes:**
1. Above tables may be used for joist spacing of 24 inches on center or less.
2. Hole location distance is measured from inside face of supports to center of hole.
3. Distances in this chart are based on uniformly loaded joists that meet the span requirements (see APA Form Z725, Tables 1 and 2).
4. For continuous joists with more than one span, use the longest span to determine hole location in either span.

**OPTIONAL:**

Table 3 is based on the joists being used at their maximum span. If the joists are placed at less than their full allowable span (see APA Form Z725, Tables 1 and 2), the maximum distance from the centerline of the hole to the face of any support (D) as given above may be reduced as follows:

$$D_{\text{reduced}} = \frac{L_{\text{actual}} \times D}{SAF}$$

Where:
- $D_{\text{reduced}}$ = Distance from the inside face of any support to center of hole, reduced for less-than-maximum span applications (ft).
- $L_{\text{actual}}$ = The actual measured span distance between the inside faces of supports (ft).
- $SAF$ = Span Adjustment Factor given in Table 3 (ft).
- $D$ = The minimum distance from the inside face of any support to center of hole from Table 3 above (ft).

If $L_{\text{actual}}$ is greater than 1, use 1 in the above calculation for $L_{\text{actual}}$.

When calculating hole locations by this optional method, the following minimum distances between the center of the hole and the inside face of the support apply:

<table>
<thead>
<tr>
<th>Hole Diameter in inches</th>
<th>23456</th>
<th>6.25</th>
<th>7</th>
<th>8</th>
<th>8.63</th>
<th>9</th>
<th>10</th>
<th>10.75</th>
<th>11</th>
<th>12</th>
<th>12.75</th>
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<tr>
<td>Minimum Distance in feet</td>
<td>0.5</td>
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<td>1.5</td>
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RIM BOARD HOLE SPECIFICATIONS

The maximum allowable hole size for an APA Rim Board shall be 2/3 of the Rim Board depth as shown below. The length of the Rim Board segment containing a hole shall be at least 8 times the hole size.

<table>
<thead>
<tr>
<th>Rim Board Depth (in.)</th>
<th>Maximum Allowable Hole Size (a)(b) (in.)</th>
<th>Minimum Length of Rim Board Segment (c) for the Maximum Allowable Hole Size (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-1/2</td>
<td>6-1/4</td>
<td>50</td>
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<tr>
<td>11-7/8</td>
<td>7-3/4</td>
<td>62</td>
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<tr>
<td>14</td>
<td>9-1/4</td>
<td>74</td>
</tr>
<tr>
<td>16</td>
<td>10-1/2</td>
<td>84</td>
</tr>
</tbody>
</table>

(a) These hole provisions do not apply to Rim Board installed over openings, such as doors or windows.
(b) The diameter of a round hole or the longer dimension of a rectangular hole.
(c) The length of Rim Board segment per wall line. For multiple holes, the minimum length of Rim Board segment shall be 8 times the sum of all hole sizes.

Application Notes

1. Do not cut holes in Rim Board installed over openings, such as doors or windows, where the Rim Board is not fully supported, except that holes of 1-1/2 inches or less in size are permitted provided they are positioned at the mid-depth and in the middle 1/3 of the span (see Note 5 for minimum hole spacing).

2. Field-cut holes should be vertically centered in the Rim Board and at least one hole diameter or 6 inches, whichever is less, clear distance away from the end of the wall line. Holes should never be placed such that they interfere with the attachment of the Rim Board to the ends of the floor joist, or any other code-required nailing.
3. While round holes are preferred, rectangular holes may be used providing the corners are not over-cut. Slightly rounding corners or pre-drilled corners with a 1-inch-diameter bit is recommended.

4. When concentrated loads are present on the Rim Board (loads not supported by any other vertical-load-carrying members such as squash blocks), holes should not be placed in the Rim Board within a distance equal to the depth of the Rim Board from the area of loading.

5. For multiple holes, the clear spacing between holes shall be at least two times the diameter of the larger hole, or twice the length of the longest side of the longest rectangular hole. This minimum hole spacing does not apply to holes of 1-1/2 inches or less in diameter, which can be placed anywhere in the Rim Board (see Note 1 for holes over opening) except that the clear distance to the adjacent hole shall be 3 inches minimum.

6. All holes shall be cut in a workman-like manner in accordance with the limitations listed above.
FIGURE 10
TYPICAL PERFORMANCE RATED I-JOIST ROOF FRAMING AND CONSTRUCTION

Blocking panels not shown for clarity
APA rated OSB sheathing or equal
Nail according to APA recommendations
Temporary construction bracing

Upper End, Bearing on Wall
8d nails at 6” o.c. – minimum 3 - 8d nails per blocking panel. (When used for lateral shear transfer, match nail type and sheathing edge nailing (“boundary nailing” for engineered diaphragm applications.) Use minimum 8d nails.

Bearing stiffener required when end reaction exceeds 1550 lbs.

Blocking panel, x-bridging, or 23/32” APA Rated Sheathing 48/24 as continuous closure. (Validate use of x-bridging with local building code.)
Minimum attachment: For slope ≤ 1/4:12, one 10d box nail, face nail at each side of bearing. For slope > 1/4:12 design joist attachment to beveled plate to transfer lateral thrust.
Attach beveled plate to framing with 1 - 16d at 16” o.c.
Beveled plate for slopes greater than 1/4:12. Code-recognized connectors may be substituted. For slopes greater than 4:12 connectors are required to resist lateral thrust.
Note: Additional connection may be required for wind uplift.

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
Adjustable Slope Hanger with a minimum unadjusted uplift capacity of 300 lbs.

For roof slopes between 1/4:12 and 12:12, provide a strap tie nailed at a minimum of 3” spacing or in accordance with the recommendation of the strap manufacturer.

Ridge beam (Glulam or LVL)

Note: Additional connection may be required for wind uplift.

Beveled bearing stiffener required each side

Ridge beam (Glulam or LVL)

Note: Additional connection may be required for wind uplift.

23/32” x 2’-0” wood structural panel (front and back sides) with 12 - 8d nails into each joist with nails clinched. When roof live load exceeds 40 psf, horizontal orientation of gusset strong axis is required. Gap 1/8” at top.

Attach beveled plate to framing with 1 - 16d at 16” o.c.

Note: Additional connection may be required for wind uplift.

Tie strap nailed at a minimum of 3” spacing or in accordance with manufacturer’s recommendations.

Beveled bearing plate

Strap nails: Leave 2-3/8” minimum end distance

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
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**I-Joist Construction Details**

**Performance Rated I-Joists in Floor and Roof Framing**

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**10f** Roof Opening

*Top Mounted Hangers*

Top mounted hanger per manufacturer’s recommendations

Filler blocking (attach per Figure 1p)

Backer block. If top-mounted hanger is fully supported by top flange, backer block only required on hanger side. If face nailing is required, then second backer block (filler block if multiple I-joists) is required. Nail with 10 - 10d nails for flanges up to 1-3/4" wide. Use 12 - 10d nails for flanges wider than 1-3/4".

Application limited to 4:12 slope or less

Bearing stiffeners required when hanger does NOT support I-joist top flange

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**10g** Roof Opening, Face-Mounted Hangers

Backer block on both sides of web (or backer block and filler block, if multiple I-joists), nail with 12 - 10d nails, clinch when possible

Header may be I-joist, LVL, glulam, or lumber

Bearing stiffeners required when hanger does not support I-joist top flange

Face-mount hanger per hanger manufacturer’s recommendations

---

**10h** Birdsmouth Cut & Bevel Cut Bearing Stiffener

Permitted on low end of I-joist only

Bearing stiffeners required each side of I-joist. Bevel-cut bearing stiffener to match roof slope.

4 - 8d nails (two each side) clinched when possible

Birdsmouth cut shall bear fully and not overhang the inside face of plate

1/8" gap at top

One 10d box nail, face nail at each side of bearing (face nail where flange is 7/8" to 1" thick)

Note: Additional connection may be required for wind uplift.

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**10i** Birdsmouth Cut with Overhang

(Permitted on low end of I-joist only)

Bearing stiffener required each side (attach per 10h)

Attach joist to top plate per 10h

Birdsmouth cut at bearing

Note: Additional connection may be required for wind uplift.

Note: Outside corner of blocking panel may be trimmed if it interferes with roof sheathing. In such cases, position blocking panel on top plate to minimize trimming and still allow required nailing into top plate.

1/8" gap at top

Blocking I-joist or panel or x-bridging. (Validate use of x-bridging with local building code.) See 10v for vent holes.

Bearing stiffeners

Attach blocking per 10a

2'-0" max

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All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
**I-Joist Construction Details**

**Performance Rated I-Joists in Floor and Roof Framing**

*Form No. EWS D710*

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### 10k: I-Joist Overhang for Fascia Support with Birdsmouth Cut

- Birdsmouth cut at bearing
- Attach joist to top plate per 10h
- X-bridging or blocking panel. Validate use of X-bridging with local building code.
- Web stiffener required each side
- 2x block for fascia support

### 10m: Blocking Panel at Beveled Plate

- Blocking Panel attach per 10a.
- See 10u for vent holes.
- Overhang
- Attach joist to beveled plate per 10a
- Beveled plate
- Note: Additional connection may be required for wind uplift.

### 10n: I-Joist with Bevel-Cut End

- Do not bevel-cut joist beyond inside face of wall
- Attach per 10a
- Note: Blocking or x-bridging required at bearing for lateral support, not shown for clarity.
- Note: Additional connection may be required for wind uplift.

### 10p: Outrigger

- Notch 2x outrigger around I-joist flange
- Blocking between outriggers
- End wall
- Maximum overhang same as rafter spacing (not to exceed 2'-0")
- Toe nail blocking to end wall for roof sheathing ≤ 5/8". Match nail type and spacing with roof sheathing edge nailing. ("Boundary nailing" for engineered diaphragm applications.) Use minimum 8d nails.
- Note: Additional connection may be required for wind uplift.

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All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
I-Joist Overhang with Beveled Plate

Attach per 10a

Note: Additional connection may be required for wind uplift.

2'-0" max

Lumber Overhang with Beveled Plate

8d nails at 6" o.c.

2x filler

2x4 min. beveled bearing block cut to fit

2 x 4 overhang attached to web of I-joist with 1 row of 8d nails at 8" o.c. clinched

Attach per 10a

Note: Additional connection may be required for wind uplift.

Note: Lumber overhang shall be 2 x 4 Spruce-Pine-Fir #2 or better, or stronger species.

I-Joist Overhang for Fascia Support with Birdsmouth Cut

Birdsmouth cut at bearing

Attach per 10h

Note: Additional connection may be required for wind uplift.

8d nails at 6" o.c. clinched

2x block for fascia support

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
I-Joist Construction Details • Performance Rated I-Joists in Floor and Roof Framing

**10t** I-Joist Overhang for Fascia Support with Beveled Plate

- Beveled web stiffeners required on both sides
- 2x4 block for fascia support (cut to fit)
- Attach per 10a

Note: Additional connection may be required for wind uplift.

**10u** Birdsmouth Cut

- Allowed at Low End of I-Joist Only
- Beveled web stiffeners required on both sides
- 2x4 block for soffit support
- 2'-0" maximum

Note: Corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material shall cover the ventilation holes per code.

**10v** Ventilation Holes

- APA Rim Board blocking
- I-joist blocking

Note: Corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material shall cover the ventilation holes per code.

All nails shown in the details above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in details. Individual components not shown to scale for clarity.
1a

<table>
<thead>
<tr>
<th>Blocking Panel or Rim Joist</th>
<th>Uniform Vertical Load Transfer Capacity* (plf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRI Joists</td>
<td>2000</td>
</tr>
</tbody>
</table>

*The uniform vertical load capacity is limited to a joist depth of 16 inches or less and is based on the normal (10-yr) load duration. It shall not be used in the design of a bending member, such as joist, header, or rafter. For concentrated vertical load transfer capacity, see 1d.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.

Attach I-joist to top plate per 1b

PRI blocking panel

8d nails @ 6” o.c. to top plate (when used for lateral shear transfer, nail to bearing plate with same nailing as required for decking)
1b

<table>
<thead>
<tr>
<th>Blocking Panel or Rim Joist</th>
<th>Uniform Vertical Load Transfer Capacity* (plf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/8&quot; APA Rim Board Plus</td>
<td>4850</td>
</tr>
<tr>
<td>1-1/8&quot; APA Rim Board</td>
<td>4400</td>
</tr>
<tr>
<td>1&quot; APA Rim Board</td>
<td>3300</td>
</tr>
</tbody>
</table>

*The uniform vertical load capacity is limited to a joist depth of 16 inches or less and is based on the normal (10-yr) load duration. It shall not be used in the design of a bending member, such as joist, header, or rafter. For concentrated vertical load transfer capacity, see 1d.

To avoid splitting flange, start nails at least 1-1/2" from end of I-joist. Nails may be driven at an angle to avoid splitting of bearing plate.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Minimum 1-3/4" bearing required

Attach rim joist to floor joist with one nail at top and bottom. Nail must provide 1 inch minimum penetration into floor joist. For 2-1/2" and 3-1/2" flange widths, toe nails may be used.

Attach rim joist to top plate per 1a

PRI rim joist per 1a

Attach I-joist per 1b

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Provide lateral bracing per 1a, 1b, or 1c.

<table>
<thead>
<tr>
<th>Pair of Squash Blocks</th>
<th>Vertical load transfer capacity per pair of squash blocks (lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x lumber</td>
<td>3-1/2&quot; wide: 4000, 5-1/2&quot; wide: 7000</td>
</tr>
<tr>
<td>1-1/8&quot; APA Rim Board, Rim Board Plus, or Rated Sturd-I-Floor 48 oc</td>
<td>3-1/2&quot; wide: 3000, 5-1/2&quot; wide: 3500</td>
</tr>
<tr>
<td>1&quot; APA Rim Board or Rated Sturd-I-Floor 32 oc</td>
<td>3-1/2&quot; wide: 2700, 5-1/2&quot; wide: 3500</td>
</tr>
</tbody>
</table>

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Transfer load from above to bearing below. Install squash blocks per 1d. Match bearing area of blocks below to post above.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Wall sheathing, as required

Use single I-joist for loads up to 2000 plf, double I-joists for loads up to 4000 plf (filler block not required). Attach I-joist to top plate using 8d nails at 6" o.c.

Provide backer for siding attachment unless nailable sheathing is used

APA Rim Board may be used in lieu of I-joists. Backer is not required when APA Rim Board is used.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Load bearing wall above shall align vertically with the wall below. Other conditions, such as offset walls, are not covered by this detail.

Blocking required over all interior supports under load-bearing walls or when floor joists are not continuous over support.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Backer block (use if hanger load exceeds 250 lbs.) Before installing a backer block to a double l-joist, drive 3 additional 10d nails through the webs and filler block where the backer block will fit. Clinch. Install backer tight to top flange. Use twelve 10d nails, clinched when possible. Maximum capacity for hanger for this detail = 1280 lbs.

BACKER BLOCKS (Blocks must be long enough to permit required nailing without splitting)

<table>
<thead>
<tr>
<th>Flange Width</th>
<th>Material Thickness Required*</th>
<th>Minimum Depth**</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2&quot;</td>
<td>19/32&quot;</td>
<td>5-1/2&quot;</td>
</tr>
<tr>
<td>1-3/4&quot;</td>
<td>23/32&quot;</td>
<td>5-1/2&quot;</td>
</tr>
<tr>
<td>2-5/16&quot;</td>
<td>1&quot;</td>
<td>7-1/4&quot;</td>
</tr>
<tr>
<td>2-1/2&quot;</td>
<td>1&quot;</td>
<td>5-1/2&quot;</td>
</tr>
<tr>
<td>3-1/2&quot;</td>
<td>1-1/2&quot;</td>
<td>7-1/4&quot;</td>
</tr>
</tbody>
</table>

* Minimum grade for backer block material shall be Utility grade SPF (south) or better for solid sawn lumber and Rated Sheathing grade for wood structural panels.

** For face-mount hangers use net joist depth minus 3-1/4" for joists with 1-1/2" thick flanges. For 1-5/16" thick flanges use net depth minus 2-7/8".

Filler block per Figure 1p

Double l-joist header

Top- or face-mounted hanger

Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

Backer block required (both sides for face-mounted hangers)

For hanger capacity see hanger manufacturer’s recommendations. Verify double l-joist capacity to support concentrated loads.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Glulam or multiple structural composite lumber (SCL) beams

For nailing schedules for multiple SCL beams, see the manufacturer’s recommendations

Top- or face-mounted hanger installed per manufacturer’s recommendations

Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
2x plate flush with inside face of wall or beam

Note: Unless hanger sides laterally support the top flange, bearing stiffeners shall be used.

Top-mounted hanger installed per manufacturer’s recommendations

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Multiple I-joist header with full depth filler block shown. Glulam and multiple SCL headers may also be used. Verify double I-joist capacity to support concentrated loads.

Backer block attach per 1h. Nail with twelve 10d nails, clinch when possible.

Install hanger per manufacturer’s recommendations

Filler block per Figure 1p

Maximum support capacity = 1280 lbs.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Do not bevel-cut joist beyond inside face of wall

Attach I-joist per 1b

Note: Blocking required at bearing for lateral support, not shown for clarity.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
FILLER BLOCK REQUIREMENTS FOR DOUBLE I-JOIST CONSTRUCTION

<table>
<thead>
<tr>
<th>Flange Width</th>
<th>Net Depth</th>
<th>Filler Block Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-1/2&quot;</td>
<td>9-1/2&quot;</td>
<td>1-1/8&quot; x 6&quot; high</td>
</tr>
<tr>
<td></td>
<td>11-7/8&quot;</td>
<td>1-1/8&quot; x 8&quot; high</td>
</tr>
<tr>
<td>1-3/4&quot;</td>
<td>9-1/2&quot;</td>
<td>1-3/8&quot; x 6&quot;</td>
</tr>
<tr>
<td></td>
<td>11-7/8&quot;</td>
<td>1-3/8&quot; x 8&quot;</td>
</tr>
<tr>
<td></td>
<td>14&quot;</td>
<td>1-3/8&quot; x 10&quot;</td>
</tr>
<tr>
<td></td>
<td>16&quot;</td>
<td>1-3/8&quot; x 12&quot;</td>
</tr>
<tr>
<td>2-5/16&quot;</td>
<td>11-7/8&quot;</td>
<td>2&quot; x 8&quot;</td>
</tr>
<tr>
<td></td>
<td>14&quot;</td>
<td>2&quot; x 10&quot;</td>
</tr>
<tr>
<td></td>
<td>16&quot;</td>
<td>2&quot; x 12&quot;</td>
</tr>
<tr>
<td>2-1/2&quot;</td>
<td>9-1/2&quot;</td>
<td>2-1/8&quot; x 6&quot;</td>
</tr>
<tr>
<td></td>
<td>11-7/8&quot;</td>
<td>2-1/8&quot; x 8&quot;</td>
</tr>
<tr>
<td></td>
<td>14&quot;</td>
<td>2-1/8&quot; x 10&quot;</td>
</tr>
<tr>
<td></td>
<td>16&quot;</td>
<td>2-1/8&quot; x 12&quot;</td>
</tr>
<tr>
<td>3-1/2&quot;</td>
<td>11-7/8&quot;</td>
<td>3&quot; x 8&quot;</td>
</tr>
<tr>
<td></td>
<td>14&quot;</td>
<td>3&quot; x 10&quot;</td>
</tr>
<tr>
<td></td>
<td>16&quot;</td>
<td>3&quot; x 12&quot;</td>
</tr>
</tbody>
</table>

Notes:
1. Support back of I-joist web during nailing to prevent damage to web/flange connection.
2. Leave a 1/8-inch gap between top of filler block and bottom of top I-joist flange.
3. Filler block is required between joists for full length of span.
4. Nail joists together with two rows of 10d nails at 12 inches o.c. (clinched when possible) on each side of the double I-joist. Total of 4 nails per foot required. If nails can be clinched, only 2 nails per foot are required.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Upper End, Bearing on Wall

Blocking panel, x-bridging, or 23/32" APA Rated Sheathing 48/24 as continuous closure. (Validate use of x-bridging with local building code.)

Minimum attachment:
For slope ≤ 1/4:12, one 10d box nail, face nail at each side of bearing. For slope > 1/4:12 design joist attachment to beveled plate to transfer lateral thrust.

8d nails at 6" o.c. – minimum 3 - 8d nails per blocking panel. (When used for lateral shear transfer, match nail type and sheathing edge nailing (“boundary nailing” for engineered diaphragm applications.) Use minimum 8d nails.

Bearing stiffener required when end reaction exceeds 1550 lbs.

Beveled plate for slopes greater than 1/4:12. Code-recognized connectors may be substituted. For slopes greater than 4:12 connectors are required to resist lateral thrust.

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
For roof slopes between 1/4:12 and 12:12, provide a strap tie nailed at a minimum of 3" spacing or in accordance with the recommendation of the strap manufacturer.

Ridge beam (Glulam or LVL)

Beveled bearing stiffener required each side

Adjustable Slope Hanger with a minimum unadjusted uplift capacity of 300 lbs.

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Beveled bearing stiffener required each side

Adjustable Slope Hanger with a minimum unadjusted uplift capacity of 300 lbs.

Ridge beam (Glulam or LVL)

For roof slopes between 1/4:12 and 12:12, provide a strap nailed at a minimum of 3" spacing on each side of roof slope or in accordance with the recommendation of the strap manufacturer.

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Blocking panel or x-bridging. Attach per 10a.

Support beam or wall

23/32" x 2'-0" wood structural panel (front and back sides) with 12 - 8d nails into each joist with nails clinched. When roof live load exceeds 40 psf, horizontal orientation of gusset strong axis is required. Gap 1/8" at top.

Attach beveled plate to framing with 1 - 16d at 16" o.c.

24"

Attach per 10a

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
I-Joist Connection with Tie Strap

Tie strap nailed at a minimum of 3" spacing or in accordance with manufacturer’s recommendations.

Strap nails: Leave 2-3/8" minimum end distance.

Additional blocking may be required for shear transfer.

Beveled bearing plate.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Roof Opening
Top Mounted Hangers

Top mounted hanger per manufacturer’s recommendations

Bearing stiffeners required when hanger does NOT support I-joist top flange

Filler blocking (attach per Figure 1p)

Backer block. If top-mounted hanger is fully supported by top flange, backer block only required on hanger side. If face nailing is required, then second backer block (filler block if multiple I-joist) is required. Nail with 10 - 10d nails for flanges up to 1-3/4" wide. Use 12 - 10d nails for flanges wider than 1-3/4".

Application limited to 4:12 slope or less

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Roof Opening, Face-Mounted Hangers

Backer block on both sides of web (or backer block and filler block, if multiple I-joists), nail with 12 - 10d nails, clinch when possible

Header may be I-joist, LVL, glulam, or lumber

Bearing stiffeners required when hanger does not support I-joist top flange

Filler blocking (attach per Figure 1p)

Face-mount hanger per hanger manufacturer’s recommendations

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Birdsmouth Cut & Bevel Cut Bearing Stiffener

Permitted on low end of I-joist only

Bearing stiffeners required each side of I-joist. Bevel-cut bearing stiffener to match roof slope.

1/8" gap at top

4 - 8d nails (two each side) clinched when possible

Birdsmouth cut shall bear fully and not overhang the inside face of plate

One 10d box nail, face nail at each side of bearing (face nail where flange is 7/8" to 1" thick)

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Birdsmouth Cut with Overhang (Permitted on low end of I-joist only)

1/8" gap at top

Bearing stiffener required each side (attach per 10h)

Attach joist to top plate per 10h

Birdsmouth cut at bearing

Blocking I-joist or panel or x-bridging. (Validate use of x-bridging with local building code.) See 10v for vent holes.

Bearing stiffeners

Attach blocking per 10a

2'-0" max

Note: Additional connection may be required for wind uplift.

Note: Outside corner of blocking panel may be trimmed if it interferes with roof sheathing. In such cases, position blocking panel on top plate to minimize trimming and still allow required nailing into top plate.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
I-Joist Overhang for Fascia Support with Birdsmouth Cut

X-bridging or blocking panel. Validate use of X-bridging with local building code.

Birdsmouth cut at bearing

Attach joist to top plate per 10h

Web stiffener required each side

2x block for fascia support

2'-0" max

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Blocking Panel at Beveled Plate

Blocking Panel attach per 10a.
See 10u for vent holes.

Attach I-joist to beveled plate per 10a

Attach I-joist per 10a

Beveled plate

Overhang

2'-0" max

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Do not bevel-cut joist beyond inside face of wall

Attach per 10a

Note: Blocking or x-bridging required at bearing for lateral support, not shown for clarity.

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Notch 2x outrigger around I-joist flange

Do not notch I-joist flange.

Maximum overhang same as rafter spacing (not to exceed 2'-0"

Toe nail blocking to end wall for roof sheathing ≤ 5/8". Match nail type and spacing with roof sheathing edge nailing. ("Boundary nailing" for engineered diaphragm applications.) Use minimum 8d nails.

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
I-Joist Overhang with Beveled Plate

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.

Blocking panels attached per 10a, or x-bridging. (Validate use of x-bridging with local building code.)

Attach per 10a

Note: Additional connection may be required for wind uplift.

2'-0" max
Lumber Overhang with Beveled Plate

8d nails at 6" o.c.

2x filler

2x4 min. beveled bearing block cut to fit

2' - 0" max

4' - 0" min

2 x 4 overhang attached to web of I-joist with 1 row of 8d nails at 8" o.c. clinched

Note: Additional connection may be required for wind uplift.

Note: Lumber overhang shall be 2 x 4 Spruce-Pine-Fir #2 or better, or stronger species.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
**10s** I-Joist Overhang for Fascia Support with Birdsmouth Cut

- **Birdsmouth cut at bearing**
- **Attach per 10h**
- **2x block for fascia support**
- **8d nails at 6” o.c. clinched**
- **Blocking panel, attach per 10j, or x-bridging. (Validate use of x-bridging with local building code.) See 10v for vent holes.**
- **Bearing stiffener required each side**

Note: Additional connection may be required for wind uplift.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
I-Joist Overhang for Fascia Support with Beveled Plate

Blocking panel, attach per 10a, or x-bridging. (Validate use of x-bridging with local building code.) See 10v for vent holes.

Note: Additional connection may be required for wind uplift.

2x block for fascia support (cut to fit)

Attach per 10a

Attach per 10s

Beveled plate, attach per 10a

2'-0” max

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Birdsmouth Cut
Allowed at Low End of I-Joist Only

Beveled web stiffeners required on both sides

2x4 block for soffit support

2'-0" maximum

Note: Corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material shall cover the ventilation holes per code.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
Allowable zone for ventilation holes (round holes preferred)

Note: Corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material shall cover the ventilation holes per code.

All nails shown in the detail above are assumed to be common nails unless otherwise noted. 10d box nails may be substituted for 8d common shown in detail. Individual components not shown to scale for clarity.
PERFORMANCE RATED I-JOISTS

CONSTRUCTION DETAILS FOR FLOOR AND ROOF FRAMING

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Web Address:
www.apawood.org

PRODUCT SUPPORT HELP DESK
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E-mail Address: help@apawood.org

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Revised August 2004