Notching and Cutting of PWT™ Rim, Starter Joists, and Blocking
US - Allowable Stress Design (ASD)

This Tech Note must be used in conjunction with the appropriate PWT Technical Guide.

Cutting Holes in Rim, Starter Joists, and Blocking: Vertical Loads Only.

Consult with a local building official or design professional in areas of high wind or seismic loads.

I-Joists supporting:

Uniform Loads

    1. Verify the uniform load capacity for the specific product.

    2. Holes cut in I-Joist Web

        a. Maximum diameter of a round hole or the longer dimension of a rectangular hole is equal to the depth of the I-Joist less 3". Be sure that when cutting the hole the flanges are not damaged in any way.

        b. Uncut length of web between adjacent holes shall be at least twice the largest dimension of the two holes or 12" center-to-center, whichever is greater.

        c. The entire web of a blocking panel can be removed provided there are un-cut blocking panels in the adjacent bays.

Concentrated Loads

    1. All concentrated loads over 250 lbs. must be transferred around the I-Joist. Squash blocks or other devices can be used to transfer the load.

Rim Board

Uniform or Concentrated Loads

    1. Verify the uniform or concentrated load capacity for the specific product.

    2. Maximum diameter of a round hole or the longer dimension of a rectangular hole is 2/3 the depth of the rim product.

    3. Minimum distance from the center of a concentrated load to edge of a round hole or rectangular hole is equal to the depth of the product.

    4. Uncut length of Rim Board between adjacent holes shall be at least twice the largest dimension of the two holes or 12" center-to-center, whichever is greater.

Notches in I-Joist Flanges

    1. Maximum notch is 3" wide and 2" tall. For larger notches, up to 12" wide, Squash Blocks must in installed on either side of the notch.

    2. Uncut length between adjacent notches and holes shall be at least twice the largest dimension of the two or 24", whichever is greater.

    3. Minimum distance between notches is 8'
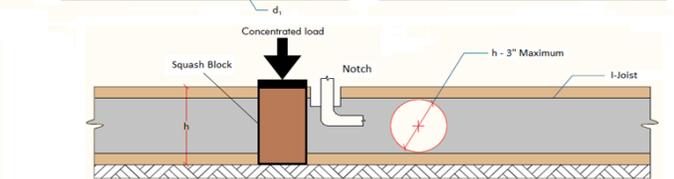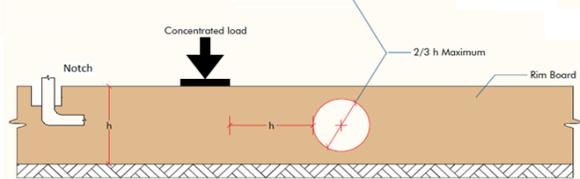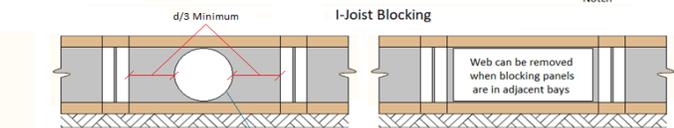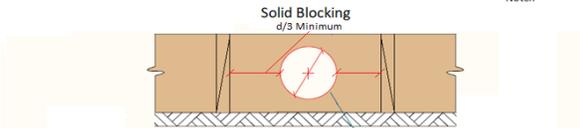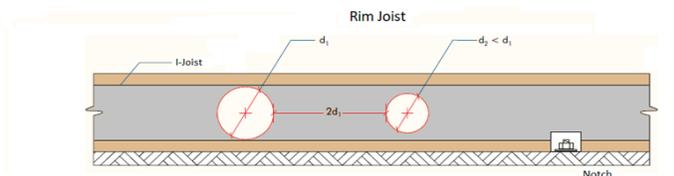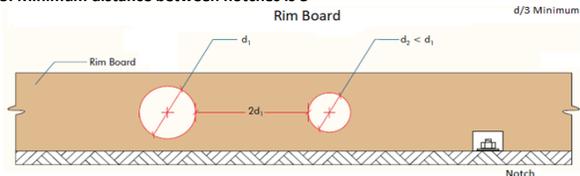
Blocking Panels: Minimum Length

Maximum round hole size in a blocking panel is the smaller of d = h - 3" or d = L / 3.

Where: d is the diameter of the hole

        h is the depth of the blocking panel

        L is the length of the blocking panel

If a hole larger than the maximum is required the two adjacent blocking panels must be solid, contain no holes.

Rim Board: Minimum Length

Depth	Max Hole Size	Min. Rim Length for Hole
9-1/2"	6-1/4"	4' 2"
11-7/8"	7-3/4"	5' 2"
14"	9-1/4"	6' 2"
16"	10-1/2"	7' 0"

• Max Hole Size is the diameter of a round hole or the longer dimension of a rectuangular hole.

• For multiple holes the minimum length rim board is eight times the sum of all the hole sizes.

PWI RIM & BLOCKING CAPACITY

Series	Depth	Uniform Load (plf)	Concentrated Load (lbs)
PWI-18S	9-1/2"	1900	250
	11-7/8"	1760	250
	14"	1600	250
PWI-20S	9-1/2"	1900	250
	11-7/8"	1760	250
	14"	1600	250
	16"	1500	250
PWI-32S	9-1/2"	2200	250
	11-7/8"	2200	250
	14"	1600	250
	16"	1500	250
PWI-36L	11-7/8"	1800	250
	14"	1800	250
	16"	1800	250
PWI-42S	9-1/2"	2200	250
	11-7/8"	2200	250
	14"	1600	250
	16"	1500	250
PWI-52S	11-7/8"	2400	250
	14"	2200	250
	16"	1900	250
PWI-56L	11-7/8"	2400	250
	14"	2200	250
	16"	1900	250
PWI-53L	9-1/2"	2000	250
	11-7/8"	2000	250
	14"	1100	250
	16"	1100	250

Notes:
1. Uniform Vertical Load Capacity shall not be adjusted for load duration.
2. Concentrated vertical loads require the addition of squash blocks. Do not use PWI rim or blocking to support concentrated vertical loads.
3. Lateral load capacity for all series above is 200 plf but may be limited by the connection details used.

OSB & PWLVL RIM & BLOCKING CAPACITY

Material	Grade	Thickness	Depth	Uniform Load (plf)	Concentrated Load (lbs)
OSB	APA-Rated Rim Board	1"	9-1/2"	4300	3500
			11-7/8"	4300	3500
			14"	3900	3500
			16"	3300	3500
		1-1/8"	9-1/2"	4850	3500
			11-7/8"	4850	3500
			14"	4850	3500
			16"	4850	3500
PWLVL Rim Board	1.6E LVL	1-1/4"	9-1/2"	4250	3760
			11-7/8"	4250	3760
			14"	3550	3550
			16"	2900	2900
		1-1/2"	9-1/2"	6480	4500
			11-7/8"	6480	4500
			14"	5600	4500
			16"	4800	4500

Notes:
1. The Vertical Load Capacity shall not be increased for short-term load duration.
2. The Vertical Load Capacity is based on the capacity of the rim board and may need to be reduced based on the bearing capacity of the supporting wall plate or the attached floor sheathing. Example: The allowable bearing stress for commodity floor sheathing is 360 psi so the bearing capacity of a 1-1/8" x 16" deep rim board would be limited to 4860 plf (360 psi x 1-1/8" x 12).
3. The Concentrated Vertical Load capacity is assumed to be applied through a minimum 4-1/2" bearing length (3-stud post).
4. The Lateral Load Capacity is based on a short-term load duration and shall not be increased.
5. The Lateral Load Capacity is based on the connections specified in the Installation details below.
6. Additional framing connectors fastened to the face of the rim board may be used to increase lateral capacity for wind and seismic design.

Cal. Prop 65 Warning:

⚠ WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood.