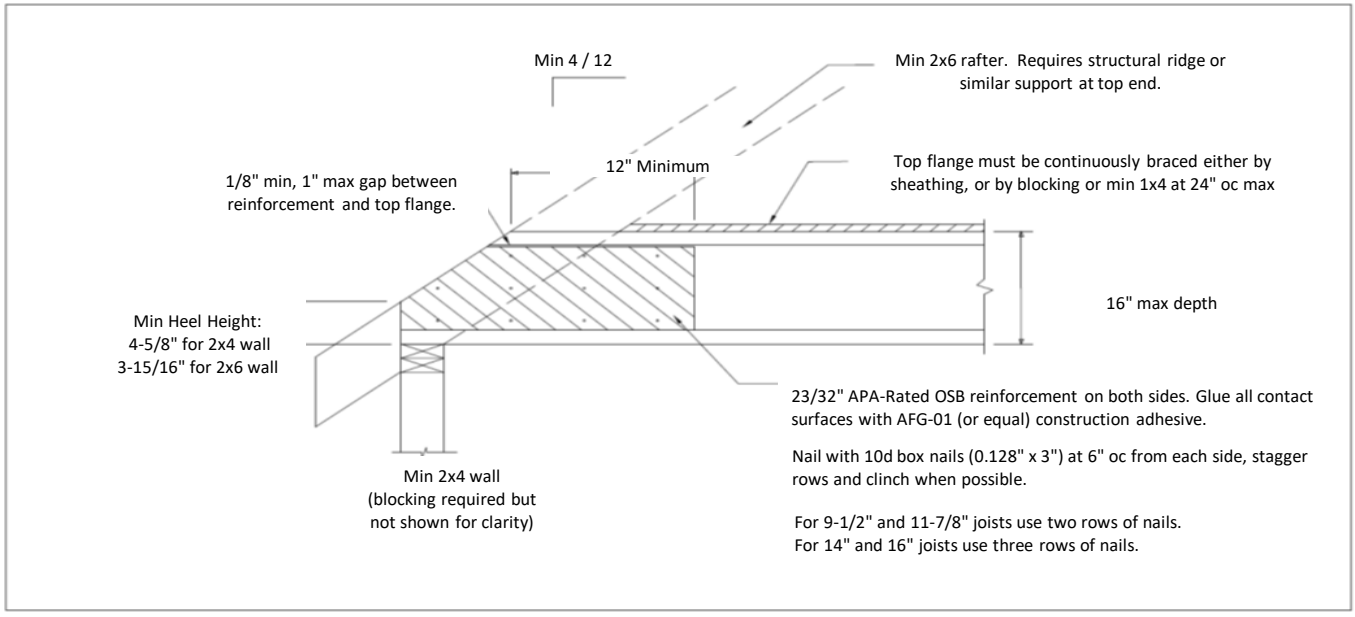
Bevel or Scarf Cuts PWI Residential I-Joists

April 2023
2023-101

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

U.S. (ASD) Bevel/Scarf Cut Detail and Maximum Reaction Table and Reinforcing Detail



Bevel/Scarf Cut I-Joist Reaction Capacity (lb)

Depth	Series	Roof Pitch (x:12)					Shear (lb)
		4	6	8	10	12	
9 1/2	PWI-18S	680	770	850	940	1,015	1,130
	PWI-20S	755	855	945	1,045	1,135	1,260
	PWI-32S	755	855	945	1,045	1,135	1,260
11 7/8	PWI-18S	800	910	1,000	1,110	1,200	1,335
	PWI-20S	890	1,010	1,115	1,235	1,335	1,485
	PWI-32S	890	1,010	1,115	1,235	1,335	1,485
	PWI-36L	890	1,010	1,115	1,235	1,335	1,615
	PWI-42S	975	1,105	1,220	1,350	1,465	1,625
	PWI-56L	975	1,105	1,220	1,350	1,465	2,055
14	PWI-20S	1,010	1,140	1,260	1,395	1,510	1,680
	PWI-32S	1,010	1,140	1,260	1,395	1,510	1,680
	PWI-36L	1,010	1,140	1,260	1,395	1,510	1,830
	PWI-42S	1,125	1,275	1,405	1,555	1,690	1,875
	PWI-56L	1,125	1,275	1,405	1,555	1,690	2,330
16	PWI-20S	1,120	1,270	1,405	1,550	1,685	1,870
	PWI-32S	1,120	1,270	1,405	1,550	1,685	1,870
	PWI-36L	1,120	1,270	1,405	1,550	1,685	2,020
	PWI-42S	1,270	1,440	1,585	1,755	1,905	2,115
	PWI-56L	1,120	1,270	1,405	1,550	1,685	2,585

Note:

The tabulated reaction capacity may be increased for a heel height greater than the minimum required.
Interpolation between the tabulated capacity and full joist shear is permitted (see example).
Reinforcement is still required as shown above.

Example:

A 16” PWI-42S with a 9” heel height and a 6:12 bevel cut on a 2x4 wall.
Tabulated Reaction Capacity with minimum heel height = 1440 lb
Full Joist Shear = 2115 lb
Minimum Required Heel Height = 4.625"
Reaction Capacity w/ 9” heel height = 2115 lb - (2115 lb - 1440 lb) * (16” - 9”) / (16” - 4.625”) = 1700 lb

Our literature is updated frequently, so please visit www.pacificwoodtech.com for the most current version of our specifications.

Table date: April, 2023
Valid until: April, 2024

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.