

MULTIPLE MEMBER CONNECTIONS FOR SIDE-LOADED BEAMS: 3100F_b – 2.0E

Verify adequacy of beam in uniform load tables prior to using values listed below.

3100F_b - 2.0E 1¾" WEST FRASER™ LVL

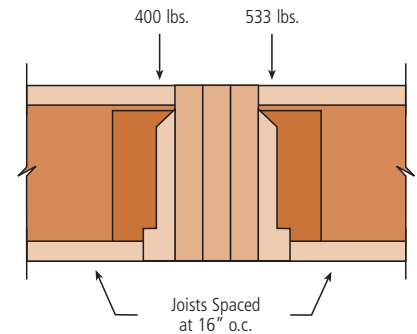
Maximum Uniform Load (PLF) Applied to Either Outside Member			2-PLY LVL	3-PLY LVL	4-PLY LVL*
16d (3½") Common Wire Nails	12" o.c.	2 Rows	507	381	Not Applicable
		3 Rows	761	571	
	6" o.c.	2 Rows	1015	761	Not Applicable
		3 Rows	1522	1142	
	4" o.c.	2 Rows	1522	1142	Not Applicable
		3 Rows	2283	1712	
½" A307 Through Bolts	24" o.c.	2 Rows	410	308	273
	12" o.c.	2 Rows	820	615	547
	6" o.c.	2 Rows	1640	1230	1093

* 4-ply beams should only be side-loaded when loads are applied to both sides of the member.

- Nails to be located a minimum of 2" from the top and bottom of the member with a minimum spacing of 2" between rows. Start all nails a minimum of 2½" in from ends.
- Bolts are to be material conforming to ANSI/ASME Standard B18.2.1-1981. Bolt holes are to be the same diameter as the bolt, and located 2" from the top and bottom of the member. Washers should be used under head and nut. Start all bolts a minimum of 2½" in from ends.
- Verify adequacy of beam in uniform load tables (pages 7-9).
- Values listed are for 100% stress level. Increase 15% for snow loaded roof conditions or 25% for non-snow roof conditions, where code allows.

EXAMPLE

First, convert joist reactions to plf load on each side of the beam by taking the joist reactions (lbs.) divided by the joist spacing (ft.). $400 \text{ lbs}/(16/12) = 300 \text{ plf}$ and $533 \text{ lbs}/(16/12) = 400 \text{ plf}$. Check allowable load tables to verify that 3 pieces can carry the total load of 700 plf. The maximum load applied to either outside member is 400 plf. For a 3-piece 1¾" multiple assembly, use 3 rows of 16d (3½") common wire nails at 12" o.c. (good for 571 plf). Alternate: 2 rows of ½" bolts at 12" o.c.



CONNECTION OF MULTIPLE PIECES FOR TOP-LOADED BEAMS

2.0E (1¾" wide pieces)

- Minimum of 2 rows of 16d (3½") nails at 12" o.c. for 5½" through 11⅞" beams
- Minimum of 3 rows of 16d (3½") nails at 12" o.c. for 14", 16", 18" and 24" beams

