



BlueLinX Engineered Products

AFL Product Guide Addendum - Floor Joist Spans

This is a supplement to the onCENTER AFL Product Guide (item OCAFLPG) dated November 2015 to include 7/4" depths.

Residential Living Areas - 40 PSF Live Load (L/360)

Depth	AFL Grade	10 psf Dead Load				20 psf Dead Load			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
7¼"	1.6E	13'-09"	12'-06"	11'-09"	10'-11"	13'-09"	12'-06"	11'-06"	9'-03"
	1.7E	14'-02"	12'-10"	12'-01"	11'-03"	14'-02"	12'-10"	12'-01"	11'-03"
	1.9E	14'-08"	13'-04"	12'-07"	11'-08"	14'-08"	13'-04"	12'-07"	11'-08"
	2.1E	15'-00"	13'-08"	12'-10"	11'-11"	15'-00"	13'-08"	12'-10"	11'-11"
9¼"	1.6E	17'-06"	15'-11"	15'-00"	13'-10"	17'-06"	15'-05"	14'-01"	11'-10"
	1.7E	18'-00"	16'-04"	15'-05"	14'-04"	18'-00"	16'-04"	15'-05"	14'-04"
	1.9E	18'-09"	17'-00"	16'-00"	14'-10"	18'-09"	17'-00"	16'-00"	14'-10"
	2.1E	19'-02"	17'-05"	16'-05"	15'-03"	19'-02"	17'-05"	16'-05"	15'-03"
9½"	1.6E	18'-00"	16'-04"	15'-05"	14'-01"	18'-00"	15'-09"	14'-05"	12'-01"
	1.7E	18'-06"	16'-10"	15'-10"	14'-08"	18'-06"	16'-10"	15'-10"	14'-08"
	1.9E	19'-03"	17'-06"	16'-05"	15'-03"	19'-03"	17'-06"	16'-05"	15'-03"
	2.1E	19'-08"	17'-11"	16'-10"	15'-08"	19'-08"	17'-11"	16'-10"	15'-08"
11¼"	1.6E	21'-04"	19'-04"	18'-02"	16'-03"	21'-00"	18'-02"	16'-07"	14'-04"
	1.7E	21'-11"	19'-11"	18'-09"	17'-05"	21'-11"	19'-11"	18'-09"	17'-05"
	1.9E	22'-09"	20'-08"	19'-06"	18'-01"	22'-09"	20'-08"	19'-06"	18'-01"
	2.1E	23'-04"	21'-02"	19'-11"	18'-06"	23'-04"	21'-02"	19'-11"	18'-06"
11⅞"	1.6E	22'-06"	20'-05"	19'-00"	17'-00"	21'-11"	19'-00"	17'-04"	15'-02"
	1.7E	23'-02"	21'-00"	19'-09"	18'-04"	23'-02"	21'-00"	19'-09"	18'-04"
	1.9E	24'-01"	21'-10"	20'-07"	19'-01"	24'-01"	21'-10"	20'-07"	19'-01"
	2.1E	24'-07"	22'-04"	21'-01"	19'-07"	24'-07"	22'-04"	21'-01"	19'-07"
14"	1.6E	26'-06"	23'-10"	21'-09"	19'-06"	25'-02"	21'-09"	19'-10"	17'-09"
	1.7E	27'-03"	24'-09"	23'-04"	21'-08"	27'-03"	24'-09"	23'-04"	21'-08"
	1.9E	28'-04"	25'-09"	24'-03"	22'-06"	28'-04"	25'-09"	24'-03"	22'-06"
	2.1E	29'-00"	26'-05"	24'-10"	23'-00"	29'-00"	26'-05"	24'-10"	23'-00"
16"	1.6E	30'-04"	26'-08"	24'-04"	21'-09"	28'-01"	24'-04"	22'-02"	19'-10"
	1.7E	31'-02"	28'-04"	26'-08"	24'-09"	31'-02"	28'-04"	26'-08"	24'-08"
	1.9E	31'-09"	29'-05"	27'-08"	25'-09"	31'-09"	29'-05"	27'-08"	25'-09"
	2.1E	31'-09"	30'-02"	28'-04"	26'-04"	31'-09"	30'-02"	28'-04"	26'-04"

NOTES:

- Spans are maximum clear distances between supports, and are based on uniform loads.
- Design methodology used to develop tabulated spans is similar to that used in Table R502.3.1(2) of the 2009, 2012, and 2015 International Residential Code.
- Minimum end bearing length is 1½" (2" for spans in **bold italics**). Assumes SPF bearing plate ($F_{c\perp} = 425$ psi).
- The top edge of the joist shall be held in line for its entire length to prevent lateral displacement, as by adequate sheathing or subflooring.
- 14" and 16" joists shall be supported laterally at intervals not exceeding 8 feet by solid blocking, diagonal bridging, or a continuous 1x3 nailed across the bottom of the joists.

Residential Living Areas - 40 PSF Live Load (L/480)

Depth	AFL Grade	10 psf Dead Load				20 psf Dead Load			
		12" o.c.	16" o.c.	19.2" o.c.	24" o.c.	12" o.c.	16" o.c.	19.2" o.c.	24" o.c.
7¼"	1.6E	13'-04"	12'-03"	11'-08"	11'-00"	13'-04"	12'-03"	11'-05"	9'-02"
	1.7E	13'-07"	12'-07"	11'-11"	11'-05"	13'-07"	12'-07"	11'-11"	11'-05"
	1.9E	14'-01"	13'-00"	12'-04"	11'-09"	14'-01"	13'-00"	12'-04"	11'-09"
	2.1E	14'-04"	13'-03"	12'-07"	12'-00"	14'-04"	13'-03"	12'-07"	12'-00"
9¼"	1.6E	16'-09"	15'-05"	14'-08"	13'-08"	16'-09"	15'-04"	14'-00"	11'-08"
	1.7E	17'-02"	15'-10"	15'-00"	14'-03"	17'-02"	15'-10"	15'-00"	14'-03"
	1.9E	17'-09"	16'-04"	15'-06"	14'-09"	17'-09"	16'-04"	15'-06"	14'-09"
	2.1E	18'-02"	16'-08"	15'-10"	15'-00"	18'-02"	16'-08"	15'-10"	15'-00"
9½"	1.6E	17'-02"	15'-10"	15'-01"	14'-00"	17'-02"	15'-08"	14'-03"	12'-00"
	1.7E	17'-07"	16'-02"	15'-05"	14'-08"	17'-07"	16'-02"	15'-05"	14'-08"
	1.9E	18'-03"	16'-09"	15'-11"	15'-01"	18'-03"	16'-09"	15'-11"	15'-01"
	2.1E	18'-07"	17'-01"	16'-03"	15'-05"	18'-07"	17'-01"	16'-03"	15'-05"
11¼"	1.6E	20'-02"	18'-07"	17'-08"	16'-01"	20'-02"	18'-00"	16'-05"	14'-03"
	1.7E	20'-09"	19'-00"	18'-01"	17'-02"	20'-09"	19'-00"	18'-01"	17'-02"
	1.9E	21'-05"	19'-08"	18'-08"	17'-08"	21'-05"	19'-08"	18'-08"	17'-08"
	2.1E	21'-11"	20'-01"	19'-01"	18'-00"	21'-11"	20'-01"	19'-01"	18'-00"
11⅞"	1.6E	21'-03"	19'-07"	18'-07"	16'-10"	21'-03"	18'-10"	17'-03"	15'-00"
	1.7E	21'-10"	20'-01"	19'-00"	18'-00"	21'-10"	20'-01"	19'-00"	18'-00"
	1.9E	22'-07"	20'-09"	19'-08"	18'-07"	22'-07"	20'-09"	19'-08"	18'-07"
	2.1E	23'-01"	21'-02"	20'-01"	19'-00"	23'-01"	21'-02"	20'-01"	19'-00"
14"	1.6E	24'-11"	22'-11"	21'-08"	19'-04"	24'-11"	21'-08"	19'-08"	17'-07"
	1.7E	25'-07"	23'-06"	22'-03"	21'-00"	25'-07"	23'-06"	22'-03"	21'-00"
	1.9E	26'-06"	24'-04"	23'-00"	21'-09"	26'-06"	24'-04"	23'-00"	21'-08"
	2.1E	27'-01"	24'-10"	23'-06"	22'-02"	27'-01"	24'-10"	23'-06"	22'-02"
16"	1.6E	28'-05"	26'-01"	24'-02"	21'-07"	28'-00"	24'-02"	22'-00"	19'-08"
	1.7E	29'-02"	26'-08"	25'-04"	23'-10"	29'-02"	26'-08"	25'-03"	23'-10"
	1.9E	30'-02"	27'-08"	26'-02"	24'-08"	30'-02"	27'-08"	26'-02"	24'-08"
	2.1E	30'-10"	28'-03"	26'-09"	25'-02"	30'-10"	28'-03"	26'-08"	25'-02"

NOTES:

- Spans are maximum clear distances between supports, and are based on uniform loads.
- Live load deflection is limited to L/480, providing joists that are one-third stiffer than required by code. Experience has shown that floors designed to the code minimum live load deflection (L/360) may not meet the occupant's expectations for floor performance.
- Spans are based on composite action with glued-nailed APA Rated Sheathing or Sturd-I-Floor panels of minimum thickness 1½" (40/20 or 20 oc) for joist spacing of 19.2" or less, or 2½" (48/24 or 24 oc) for a joist spacing of 24". Apply a ¼" diameter continuous bead of adhesive (meeting APA AFG-01 or ASTM D 3498) to top of joists. Surfaces must be clean and dry. If adhesive is not used, reduce spans by 12".
- Minimum end bearing length is 1½" (2" for spans in **bold italics**). Assumes SPF bearing plate ($F_{cL} = 425$ psi).
- 14" and 16" joists shall be supported laterally at intervals not exceeding 8 feet by solid blocking, diagonal bridging, or a continuous 1x3 nailed across the bottom of the joists.