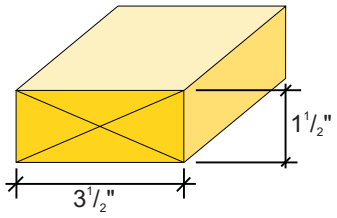
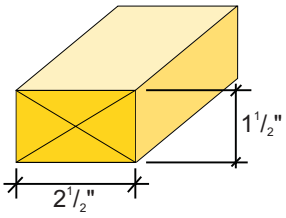
These allowable spans are based on NDS 91. Maximum deflection is limited by L/360 or L/480[1] under live load. Basic Lumber Design Values are $F_{(b)}$=2000 psi $F_{(t)}$=1100 psi $F_{(c)}$=2000 psi E=1,800,000 psi Duration Of Load = 1.00. Spacing of trusses are center to center (in inches). Top Chord Dead Load = 10 psf. Bottom Chord Dead Load = 5 psf. Center Line Chase = 24" max. Trusses must be designed for any special loading, such as concentrated loads. Other floor and roof loading conditions, a variety of species and other lumber grades are available.

4x2 Lumber



3x2 Lumber



40 PSF Live Load / 55 PSF Total Load — 4x2 Lumber

Center Spacing	Deflection Limit	Truss Depth 12"	14"	16"	18"	20"	22"
16" o.c.	L/360	22'2"	24'11"	26'10"	28'8"	30'4"	31'11"
	L/480	20'2"	22'7"	24'11"	27'2"	29'4"	31'5"
19.2" o.c.	L/360	20'9"	22'8"	24'4"	26'0"	27'6"	29'0"
	L/480	18'11"	21'3"	23'6"	25'7"	27'6"	29'0"
24" o.c.	L/360	18'5"	20'1"	21'7"	23'1"	24'5"	25'9"
	L/480	17'7"	19'9"	21'7"	23'1"	24'5"	25'9"

40 PSF Live Load / 55 PSF Total Load — 3x2 Lumber

Truss Depth 12"	14"	16"	18"	20"	22"
19'0"	20'9"	22'4"	23'10"	25'3"	26'7"
18'0"	20'2"	22"4'	23'10"	25'3"	26'7"
17'3"	18'9"	20'3"	21'7"	22'10"	24'1"
16'11"	18'9"	20'3"	21'7"	22'10"	24'1"
15'2"	16'7"	17'10"	19'1"	20'2"	21'3"
15'2"	16'7"	17'10"	19'1"	20'2"	21'3"

60 PSF Live Load / 75 PSF Total Load — 4x2 Lumber

		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	19'4"	21'4"	23'0"	24'6"	26'0"	27'4"
	L/480	17'7"	19'9"	21'10"	23'9"	25'8"	27'4"
19.2" o.c.	L/360	17'9"	19'4"	20'10"	22'3"	23'7"	24'10"
	L/480	16'7"	18'7"	20'6"	22'3"	23'7"	24'10"
24" o.c.	L/360	15'9"	17'2"	18'6"	19'9"	20'11"	22'0"
	L/480	15'4"	17'2"	18'6"	19'9"	20'11"	22'0"

60 PSF Live Load / 75 PSF Total Load — 3x2 Lumber

12"	14"	16"	18"	20"	22"
16'3"	17'9"	19'2"	20'5"	21'8"	22'9"
15'9"	17'8"	19'2"	20'5"	21'8"	22'9"
14'9"	16'1"	17'4"	18'6"	19'7"	20'7"
14'9"	16'1"	17'4"	18'6"	19'7"	20'7"
13'0"	14'2"	15'3"	16'4"	17'3"	18'2"
13'0"	14'2"	15'3"	16'4"	17'3"	18'2"

85 PSF Live Load / 100 PSF Total Load — 4x2 Lumber

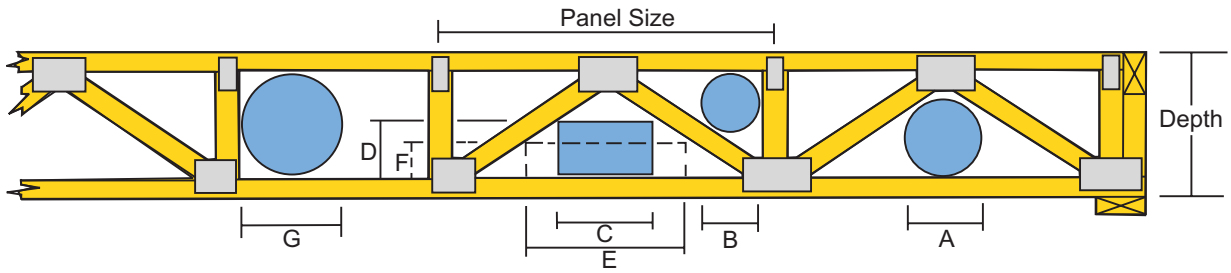
		12"	14"	16"	18"	20"	22"
16" o.c.	L/360	16'11"	18'6"	19'11"	21'3"	22'6"	23'8"
	L/480	15'8"	17'7"	19'5"	21'2"	22'6"	23'8"
19.2" o.c.	L/360	15'4"	16'9"	18'1"	19'3"	20'5"	21'6"
	L/480	14'9"	16'6"	18'1"	19'3"	20'5"	21'6"
24" o.c.	L/360	13'8"	14'10"	16'0"	17'1"	18'1"	19'1"
	L/480	13'8"	14'10"	16'0"	17'1"	18'1"	19'1"

85 PSF Live Load / 100 PSF Total Load — 3x2 Lumber

12"	14"	16"	18"	20"	22"
14'1"	15'5"	16'7"	17'8"	18'9"	19'9"
14'0"	15'5"	16'7"	17'8"	18'9"	19'9"
12'9"	13'11"	15'0"	16'0"	16'11"	17'10"
12'9"	13'11"	15'0"	16'0"	16'11"	17'10"
11'3"	12'3"	13'3"	14'1"	14'11"	15'9"
11'3"	12'3"	13'3"	14'1"	14'11"	15'9"

(1) Vibration Control -- Research by Virginia Tech indicates that L/480 live load deflection criteria provides a high degree of resistance to floor vibration (bounce). The building designer desiring this benefit may choose to specify an L/480 live load deflection criteria to be used for the floor trusses.

Duct Openings For Fan Style Floor Trusses With 4x2 or 3x2 Chords & Webs



Typical Duct Opening Sizes For 4x2 Fan Style Floor Trusses

Depth	Panel Size	A	B	C	D	E	F	G
10	60	4 1/2	4 1/4	11	4 1/2	16	4	7
11	60	5 1/4	5 1/4	12	5 1/2	15	5	8
11 7/8	60	7 3/4	6 3/4	10	6 1/4	14	5 1/2	8 3/4
12	60	6 1/4	6 1/4	14	6	20	5	9
13	60	7 1/4	7 1/4	12	7	18 1/2	6	10
14	60	8 1/4	8 1/4	17	7	22	6	11
15	60	9 1/4	8 1/2	15	8	25	6	12
16	60	10 1/4	9 1/2	14	9	27	6	13
18	60	12 1/4	10 1/2	14 1/2	10 1/2	26	7	15
20	60	14	11 1/2	14 1/2	12	26	8	17
22	60	16	12 1/2	15	13	30	8	19
24	60	18	13 1/2	16	14	32	8	21
26	60	19	14 1/2	18	15	34	8	23
30	60	22	16	20	17	32	10	24
36	60	25	17 1/2	22	19 1/2	36	10	24

All Dimensions In Inches

Typical Duct Opening Sizes For 3x2 Fan Style Floor Trusses

Depth	Panel Size	A	B	C	D	E	F	G
9 1/2	36	5 1/2	4 1/2	8	3 1/2	10	3	6 1/2
11 7/8	60	7 3/4	6 3/4	10	6 1/4	14	5 1/2	8 3/4
11 7/8	54	7 3/4	6 1/2	10	6 1/4	14	5 1/2	8 3/4
12	54	7 3/4	6 3/4	10	6 1/2	14	5 3/4	9
13	54	8 3/4	7 1/2	12	7	16	6	10
14	54	9 3/4	8	13	7 1/4	16	6 3/4	11
15	54	10 1/2	8 1/2	14	7 3/4	17	7 1/4	12
16	54	11 1/2	9 1/4	15	8 1/4	18	7 3/4	13
18	54	13	10 1/4	16	9 1/2	20	8 1/4	15
20	54	14 1/2	11 1/4	17	10 1/2	22	8 1/2	17
22	54	16	12	18	11	24	9	19
24	54	17 1/2	13	20	12	26	9 1/2	21

All Dimensions In Inches

Maximum duct dimensions are based on a truss plate width of 4 inches. Larger plate widths may cause a reduction in duct sizes. Chase sizes are maximum possible for centered openings.