



Waterloo Building Department
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FLOOR JOIST SPANS

Residential Living Areas - 2015 IRC

JOIST SPACING	SPECIES AND GRADE		MAXIMUM FLOOR JOIST SPAN ft-in			
			2 x 6	2 x 8	2 x 10	2 x 12
12" oc	Douglas fir-larch	SS	11-4	15-0	19-1	23-3
	Douglas fir-larch	#1	10-11	14-5	18-5	22-0
	Douglas fir-larch	#2	10-9	14-2	18-0	20-11
	Douglas fir-larch	#3	8-11	11-3	13-9	16-0
	Hem-fir	SS	10-9	14-2	18-0	21-11
	Hem-fir	#1	10-6	13-10	17-8	21-6
	Hem-fir	#2	10-0	13-2	16-10	20-4
	Hem-fir	#3	8-8	11-0	13-5	15-7
	Southern-pine	SS	11-2	14-8	18-9	22-10
	Southern-pine	#1	10-9	14-2	18-0	21-11
	Southern-pine	#2	10-3	13-6	16-2	19-1
	Southern-pine	#3	8-2	10-3	12-6	14-9
	Spruce-pine-fir	SS	10-6	13-10	17-8	21-6
	Spruce-pine-fir	#1	10-3	13-6	17-3	20-7
	Spruce-pine-fir	#2	10-3	13-6	17-3	20-7
	Spruce-pine-fir	#3	8-8	11-0	13-5	15-7
16" oc	Douglas fir-larch	SS	10-4	13-7	17-4	12-1
	Douglas fir-larch	#1	9-11	13-1	16-5	19-1
	Douglas fir-larch	#2	9-9	12-9	15-7	18-1
	Douglas fir-larch	#3	7-8	9-9	11-11	13-10
	Hem-fir	SS	9-9	12-10	16-5	19-11
	Hem-fir	#1	9-6	12-7	16-0	18-10
	Hem-fir	#2	9-1	12-0	15-2	17-7
	Hem-fir	#3	7-6	9-6	11-8	13-6
	Southern-pine	SS	10-2	13-4	17-0	20-9
	Southern-pine	#1	9-9	12-10	16-1	19-1
	Southern-pine	#2	9-4	11-10	14-0	16-6
	Southern-pine	#3	7-1	8-11	10-10	12-10
	Spruce-pine-fir	SS	9-6	12-7	16-0	19-6
	Spruce-pine-fir	#1	9-4	12-3	15-5	17-10
	Spruce-pine-fir	#2	9-4	12-3	15-5	17-10
	Spruce-pine-fir	#3	7-6	9-6	11-8	13-6
24" oc	Douglas fir-larch	SS	9-0	11-11	15-2	18-5
	Douglas fir-larch	#1	8-8	11-0	13-5	15-7
	Douglas fir-larch	#2	8-3	10-5	12-9	14-9
	Douglas fir-larch	#3	6-3	8-0	9-9	11-3
	Hem-fir	SS	8-6	11-3	14-4	17-5
	Hem-fir	#1	8-4	10-10	13-3	15-5
	Hem-fir	#2	7-11	10-2	12-5	14-4
	Hem-fir	#3	6-2	7-9	9-6	11-0
	Southern-pine	SS	8-10	11-8	14-11	18-1
	Southern-pine	#1	8-6	11-3	13-1	15-7
	Southern-pine	#2	7-7	9-8	11-5	13-6
	Southern-pine	#3	5-9	7-3	8-10	10-5
	Spruce-pine-fir	SS	8-4	11-0	14-0	17-0
	Spruce-pine-fir	#1	8-1	10-3	12-7	14-7
	Spruce-pine-fir	#2	8-1	10-3	12-7	14-7
	Spruce-pine-fir	#3	6-2	7-9	9-6	11-0

TABLE R502.3.1(2)
 LIVE LOAD 40 psf.
 DEAD LOAD 10 psf.
 DIMENSIONAL LUMBER

This brochure is intended to explain some of the requirements for residential floor joist spans. If you have further questions, please contact the Waterloo Building Department.