

## Residential Header & Girder Span Requirements

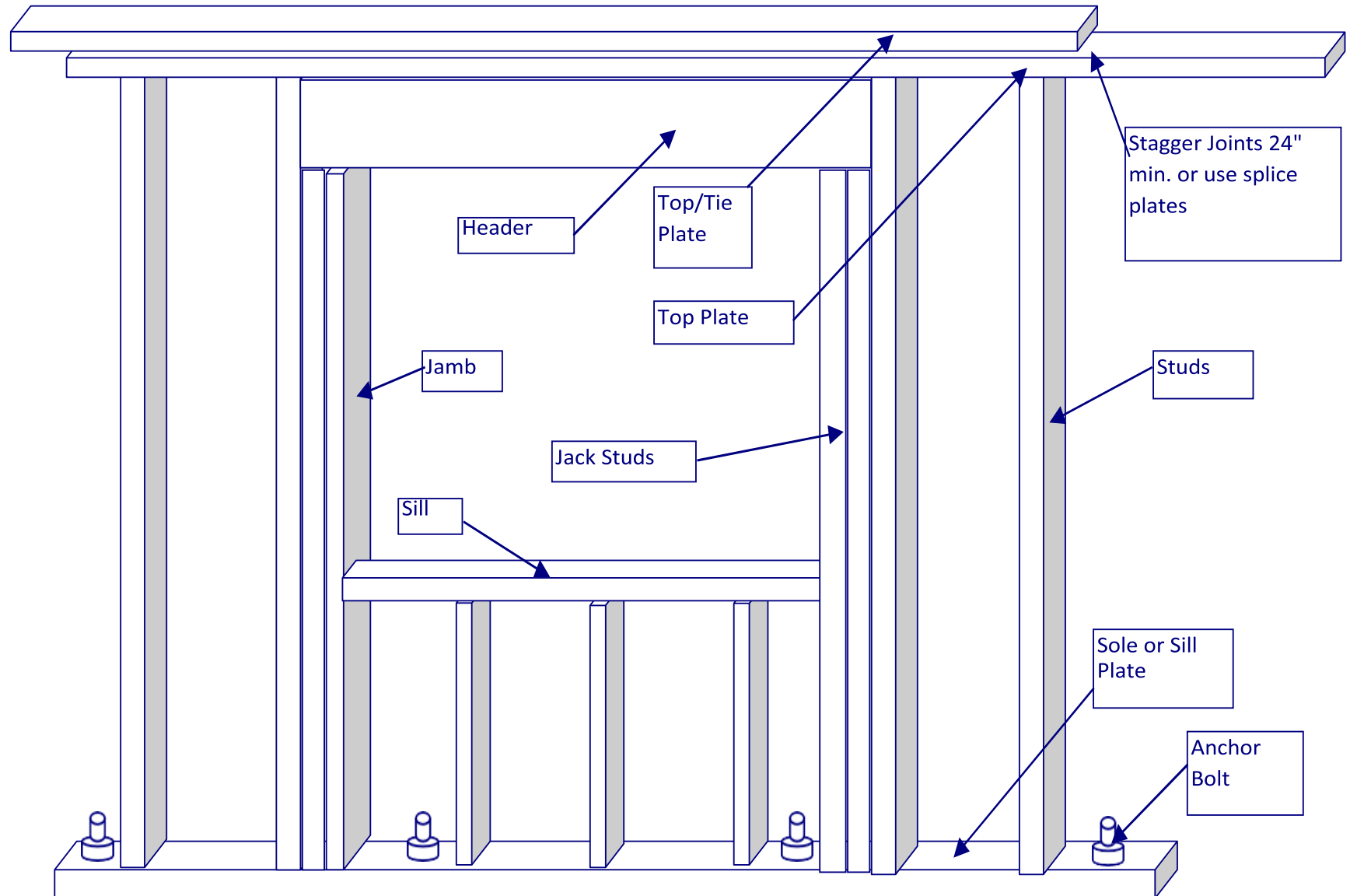
per Minnesota State Residential Code, Chapter 1309

The following is a guide, intended to provide maximum spans that the residential code allows for Douglas fir- larch, southern pine and spruce-pine-fir #2 or better lumber. The reference in the MN State Residential Code is Table R502.5 (1) for the exterior bearing wall requirements, as it applies to Duluth, and Table R502.5 (2) for Interior bearing walls.

EXTERIOR BEARING WALL GIRDER AND HEADER SPANS							
		Building Width (Measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.)					
		20		28		36	
GIRDERS AND HEADERS SUPPORTING:	SIZE	SPAN feet and inches)	Number of Jack Studs	SPAN feet and inches)	Number of Jack Studs	SPAN feet and inches)	Number of Jack Studs
Roof and ceiling	2-2X4	2-10	1	2-6	1	2-3	1
	2-2X6	4-2	1	3-8	2	3-3	2
	2-2X8	5-4	2	4-7	2	4-1	2
	2-2x10	6-6	2	5-7	2	5-0	2
	2-2x12	7-6	2	6-6	2	5-10	3
	3-2x8	6-8	1	5-9	2	5-2	2
	3-2x10	8-2	2	7-0	2	6-4	2
	3-2x12	9-5	2	8-2	2	7-4	2
	4-2x8	7-8	1	6-8	1	5-11	2
	4-2x10	9-5	2	8-2	2	7-3	2
	4-2x12	10-11	2	9-5	2	8-5	2
Roof, ceiling and one center-bearing floor	2-2X4	2-7	1	2-3	1	2-0	1
	2-2X6	3-9	2	3-3	2	2-11	2
	2-2X8	4-9	2	4-2	2	3-9	2
	2-2x10	5-9	2	5-1	2	4-7	3
	2-2x12	6-8	2	5-10	3	5-3	3
	3-2x8	5-11	2	5-2	2	4-8	2
	3-2x10	7-3	2	6-4	2	5-8	2
	3-2x12	8-5	2	7-4	2	6-7	2
	4-2x8	6-10	1	6-0	2	5-5	2
	4-2x10	8-4	2	7-4	2	6-7	2
	4-2x12	9-8	2	8-6	2	7-7	2

EXTERIOR BEARING WALL GIRDER AND HEADER SPANS (continued)							
GIRDERS AND HEADERS SUPPORTING:		20		28		36	
	SIZE	SPAN feet and inches)	Number of Jack Studs	SPAN feet and inches)	Number of Jack Studs	SPAN feet and inches)	Number of Jack Studs
Roof, ceiling and one clear span floor	2-2X4	2-5	1	2-1	1	1-10	1
	2-2X6	3-6	2	3-1	2	2-9	2
	2-2X8	4-6	2	3-11	2	3-6	2
	2-2x10	5-6	2	4-9	2	4-3	3
	2-2x12	6-4	2	5-6	3	5-0	3
	3-2x8	5-7	2	4-11	2	4-5	2
	3-2x10	6-10	2	6-0	2	5-4	2
	3-2x12	7-11	2	6-11	2	6-3	2
	4-2x8	6-6	1	5-8	2	5-1	2
	4-2x10	7-11	2	6-11	2	6-2	2
	4-2x12	9-2	2	8-0	2	7-2	2
Roof, ceiling and two center- bearing floors	2-2X4	2-4	1	2-0	1	1-9	1
	2-2X6	3-5	2	3-0	2	2-8	2
	2-2X8	4-4	2	3-9	2	3-5	2
	2-2x10	5-3	2	4-7	3	4-2	3
	2-2x12	6-1	3	5-4	3	4-10	3
	3-2x8	5-5	2	4-9	2	4-3	2
	3-2x10	6-7	2	5-9	2	5-3	2
	3-2x12	7-8	2	6-9	2	6-1	3
	4-2x8	6-3	2	5-6	2	4-11	2
	4-2x10	7-7	2	6-8	2	6-0	2
	4-2x12	8-10	2	7-9	2	7-0	2
Roof, ceiling and one clear span floor	2-2X4	2-0	1	1-8	1	1-5	2
	2-2X6	2-11	2	2-7	2	2-3	2
	2-2X8	3-9	2	3-3	2	2-11	3
	2-2x10	4-7	3	4-0	3	3-6	3
	2-2x12	5-4	3	4-7	3	4-1	4
	3-2x8	4-8	2	4-1	2	3-8	2
	3-2x10	5-9	2	4-11	2	4-5	3
	3-2x12	6-8	2	5-9	3	5-2	3
	4-2x8	5-5	2	4-8	2	4-2	2
	4-2x10	6-7	2	5-9	2	5-1	2
	4-2x12	7-8	2	6-8	2	5-11	3

### Typical Framed Opening and Related Terms:



<b>INTERIOR BEARING WALL GIRDER AND HEADER SPANS</b>							
		<b>Building Width</b> (Measured perpendicular to the ridge. For widths between those shown, spans are permitted to be interpolated.)					
		20		28		36	
<b>GIRDERS AND HEADERS SUPPORTING:</b>	<b>SIZE</b>	<b>SPAN</b> feet and inches)	<b>Number of Jack Studs</b>	<b>SPAN</b> feet and inches)	<b>Number of Jack Studs</b>	<b>SPAN</b> feet and inches)	<b>Number of Jack Studs</b>
Roof, ceiling and two center-bearing floors	2-2X4	3-1	1	2-8	1	2-5	1
	2-2X6	4-6	1	3-11	1	3-6	1
	2-2X8	5-9	1	5-0	2	4-5	2
	2-2x10	7-0	2	6-1	2	5-5	2
	2-2x12	8-1	2	7-0	2	6-3	2
	3-2x8	7-2	1	6-3	1	5-7	2
	3-2x10	8-9	1	7-7	2	6-9	2
	3-2x12	10-2	2	8-10	2	7-10	2
	4-2x8	9-0	1	7-8	1	6-9	1
	4-2x10	10-1	1	8-9	1	7-10	2
4-2x12	11-9	1	10-2	2	9-1	2	
Roof, ceiling and two clear span floors	2-2X4	2-2	1	1-10	1	1-7	1
	2-2X6	3-2	2	2-9	2	2-5	2
	2-2X8	4-1	2	3-6	2	3-2	2
	2-2x10	4-11	2	4-3	2	3-10	3
	2-2x12	5-9	2	5-0	3	4-5	3
	3-2x8	5-1	2	4-5	2	3-11	2
	3-2x10	6-2	2	5-4	2	4-10	2
	3-2x12	7-2	2	6-3	2	5-7	3
	4-2x8	6-1	1	5-3	2	4-8	2
	4-2x10	7-2	2	6-2	2	5-6	2
	4-2x12	8-4	2	7-2	2	6-5	2