

MWPS-44' Truss

44' span, 4-web trusses

with plywood gussets.

CAUTION!

Additional professional services will be required to tailor this plan to your situation, including but not limited to: assurance of compliance with codes and regulations; review of specifications for materials and equipment; supervision of site selection, bid letting and construction; and provision for utilities, waste management, roads or other access. **Furthermore, any deviation from the given specifications may result in structural failure, property damage, and personal injury including loss of life.**

WARRANTY DISCLAIMER

This plan provides conceptual information only. **Neither midwest plan service nor any of the cooperating land-grant universities, or their respective agents or employees, have made, and do not hereby make, any representation, warranty or covenant with respect to the specifications in this plan.** Additional professional services will be required to tailor this plan to your situation, including but not limited to: assurance of compliance with codes and regulations; review of specifications for materials and equipment; supervision of site selection, bid letting and construction; and provision for utilities, waste management, roads or other access.

MIDWEST PLAN SERVICE
Cooperative Extension Work in Agriculture and Home Economics and Agricultural Experiment Stations of North Central Region - USDA Cooperating
44' Truss
Title Page
MIDWEST PLAN NO. 44' TRUSS

44' span, 4-web trusses with plywood gussets

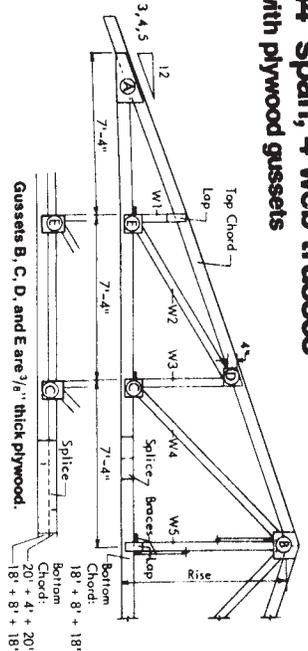


Table of lengths

Slope	Rise	Chord	W1	W2	W3	W4	W5
Roof	5'-6"	18'+5"	2'	8'	4'	9'+8"	6'
3/12	7'-4"	20'+4"	3'	9'	5'	10'+9"	7'
4/12	9'-2"	20'+4"	3'	10'	6'+5"	12'+11"	9'

4+4+6+6+6 indicate stacked lower chord
4&4, 6&4, indicate double web; a 2x4 is attached to the web member to increase its stiffness

This sheet is to help you SELECT and ERRECT trusses. DO NOT try to BUILD trusses from it because it does not include enough information on gluing, joints, splices, and fabrication. See "Designs for Glued Trusses," MWPS-9. If you buy metal-plate trusses, use their designer's data.

1100L Lumber

Top chord chord	Truss spacing, ft.								Web member sizes					Gusset Sizes, in.										
	0	5	8	0	5	8	0	5	8	W1	W2	W3	W4	W5	A	T	H	W	H	W	H	W	H	
2x4	2x4	0	17	0	0	0	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x3x20	3/8x4x23	10x12	8x12	8x8	8x8	8x8	8x8	8x8	8x8
2x6	2x6	0	22	0	0	0	0	0	0	"	"	"	"	"	3/8x4x23	3/8x4x23	10x12	8x12	8x8	8x8	8x8	8x8	8x8	
2x6	2x6	37	32	29	0	0	0	0	0	"	"	"	"	"	3/8x4x32	3/8x4x32	10x12	8x12	8x8	8x8	8x8	8x8	8x8	
2x8	2x6	39	34	31	0	12	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x4x33	3/8x4x33	12x12	8x10	8x10	8x8	8x8	8x8	8x8	
2x12	4x4	53	51	48	0	16	0	0	0	"	"	"	"	"	3/8x4x28	3/8x4x28	18x16	12x10	12x10	10x8	10x8	10x8	10x8	
2x12	4x4	77	64	61	30	26	18	0	0	"	"	"	"	"	3/8x4x30	3/8x4x30	18x16	14x10	14x10	12x8	12x8	12x8	12x8	
2x12	4x6	79	72	69	34	30	27	0	0	"	"	"	"	"	3/8x4x34	3/8x4x34	18x16	14x12	14x12	12x8	12x8	12x8	12x8	
2x4	2x4	22	20	0	0	0	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x3x17	3/8x4x22	8x12	8x8	8x8	8x8	8x8	8x8	8x8	
2x6	2x4	44	42	41	0	16	0	0	0	"	"	"	"	"	3/8x4x22	3/8x4x22	10x12	8x10	8x10	8x8	8x8	8x8	8x8	
2x6	2x6	44	42	41	0	16	0	0	0	"	"	"	"	"	3/8x4x18	3/8x4x18	12x12	8x10	8x10	8x8	8x8	8x8	8x8	
2x8	2x6	52	49	47	0	18	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x4x19	3/8x4x25	14x12	10x10	10x10	8x8	8x8	8x8	8x8	
2x10	4x4	72	67	61	31	22	0	0	0	"	"	"	"	"	3/8x4x25	3/8x4x25	14x16	12x10	12x10	10x8	10x8	10x8	10x8	
2x12	4x6	91	84	84	39	35	26	0	0	"	"	"	"	"	3/8x4x31	3/8x4x31	16x20	14x14	14x14	12x10	12x10	12x10	12x10	
2x12	4x6	100+	95	95	44	41	36	0	17	0	0	0	0	0	3/8x4x36	3/8x4x36	18x20	18x14	18x14	16x10	16x10	16x10	16x10	
2x4	2x4	24	23	16	0	0	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x3x15	3/8x4x22	8x12	8x8	8x8	8x8	8x8	8x8	8x8	
2x6	2x4	43	38	17	0	0	0	0	0	"	"	"	"	"	3/8x4x22	3/8x4x22	10x12	8x10	8x10	8x8	8x8	8x8	8x8	
2x6	2x6	50	48	17	21	19	0	0	0	"	"	"	"	"	3/8x4x16	3/8x4x16	10x16	10x8	10x8	8x8	8x8	8x8	8x8	
2x8	2x6	66	61	58	28	23	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x4x19	3/8x4x26	12x16	10x12	10x12	8x10	8x10	8x8	8x8	
2x10	4x4	90	85	78	39	33	0	0	0	"	"	"	"	"	3/8x4x26	3/8x4x26	14x20	14x14	14x14	12x10	12x10	12x10	12x10	
2x12	4x6	100+	100+	100+	49	45	34	0	12	0	0	0	0	0	3/8x4x31	3/8x4x31	18x16	18x14	18x14	16x10	16x10	16x10	16x10	
2x12	4x6	100+	100+	100+	53	49	47	26	21	0	0	0	0	0	3/8x4x31	3/8x4x31	18x20	18x14	18x14	16x10	16x10	16x10	16x10	

1600L Lumber

Top chord chord	Truss spacing, ft.								Web member sizes					Gusset Sizes, in.									
	0	5	8	0	5	8	0	5	8	W1	W2	W3	W4	W5	A	T	H	W	H	W	H	W	H
2x4	2x4	28	26	25	0	0	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x3x17	3/8x4x22	8x12	8x8	8x8	8x8	8x8	8x8	8x8
2x6	2x4	40	38	35	0	0	0	0	0	"	"	"	"	"	3/8x4x20	3/8x4x20	10x16	10x10	10x10	8x8	8x8	8x8	8x8
2x6	2x6	57	53	50	25	20	17	0	0	"	"	"	"	"	3/8x4x28	3/8x4x28	10x16	10x10	10x10	8x8	8x8	8x8	8x8
2x8	2x6	61	56	53	26	22	18	0	0	2x4	2x4	2x4	2x4	2x4	3/8x4x29	3/8x4x39	12x16	10x10	10x10	8x8	8x8	8x8	8x8
2x10	4x4	87	81	81	37	34	24	0	0	"	"	"	"	"	3/8x4x39	3/8x4x39	16x20	12x12	12x12	8x10	8x10	8x10	8x10
2x12	4x6	100+	100+	100+	48	44	44	41	18	0	0	0	0	0	3/8x4x42	3/8x4x42	18x20	16x12	16x12	12x8	12x8	12x8	12x8
2x12	4x6	100+	100+	100+	51	47	45	45	25	21	17	17	17	17	3/8x4x48	3/8x4x48	20x20	18x14	18x14	16x10	16x10	16x10	16x10
2x4	2x4	32	30	29	0	12	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x3x14	3/8x4x22	8x12	8x8	8x8	8x8	8x8	8x8	8x8
2x6	2x4	54	52	48	0	18	12	0	0	"	"	"	"	"	3/8x4x20	3/8x4x20	12x12	8x10	8x10	8x8	8x8	8x8	8x8
2x6	2x6	65	63	61	29	26	22	0	0	"	"	"	"	"	3/8x4x25	3/8x4x25	10x16	10x10	10x10	8x10	8x10	8x10	8x10
2x8	2x6	83	79	75	36	33	30	0	14	0	2x4	2x4	2x4	2x4	3/8x4x29	3/8x4x39	12x20	10x10	10x10	8x8	8x10	8x10	8x10
2x10	4x4	100+	100+	100+	47	44	44	44	20	15	11	11	11	11	3/8x4x39	3/8x4x39	16x20	14x12	14x12	12x10	12x10	12x10	12x10
2x12	4x6	100+	100+	100+	63	60	57	57	31	28	25	25	25	25	3/8x4x42	3/8x4x42	18x20	16x14	16x14	14x10	14x10	14x10	14x10
2x12	4x6	100+	100+	100+	66	61	58	58	33	29	27	27	27	27	3/8x4x48	3/8x4x48	20x24	20x14	20x14	16x12	16x12	16x12	16x12
2x4	2x4	36	34	15	14	14	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x3x21	3/8x4x22	8x12	8x8	8x8	8x8	8x8	8x8	8x8
2x6	2x4	68	62	54	30	30	13	0	0	"	"	"	"	"	3/8x4x20	3/8x4x20	10x16	10x10	10x10	8x8	8x8	8x8	8x8
2x6	2x6	74	71	70	30	29	0	13	0	"	"	"	"	"	3/8x4x23	3/8x4x23	10x20	10x10	10x10	8x8	8x8	8x8	8x8
2x8	2x6	100+	97	98	45	42	34	0	13	0	2x4	2x4	2x4	2x4	3/8x4x29	3/8x4x39	14x16	12x12	12x12	8x10	8x10	8x10	8x10
2x10	4x4	100+	100+	100+	62	53	41	31	14	0	"	"	"	"	3/8x4x38	3/8x4x38	16x20	14x16	14x16	12x10	12x10	12x10	12x10
2x12	4x6	100+	100+	100+	77	72	72	70	39	31	17	17	17	17	3/8x4x42	3/8x4x42	20x24	18x16	18x16	14x10	14x10	14x10	14x10
2x12	4x6	100+	100+	100+	79	77	73	70	39	35	32	32	32	32	3/8x4x48	3/8x4x48	20x24	20x18	20x18	16x12	16x12	16x12	16x12

- To select a truss:
1. estimate roof dead load
 2. determine appropriate snow load
 3. roof dead load plus snow load = roof design load, l_{rd}
 4. select a truss to carry at least the total roof load for the lumber quality, slope, spacing, and ceiling dead load you will use.

For more information see back page and MWPS-9, Designs for Glued Trusses, 4th Edition, 1981.

1400L Lumber

Top chord chord	Truss spacing, ft.								Web member sizes					Gusset Sizes, in.									
	0	5	8	0	5	8	0	5	8	W1	W2	W3	W4	W5	A	T	H	W	H	W	H	W	H
2x4	2x4	23	21	20	0	0	0	0	0	2x4	2x4	2x4	2x4	2x4	3/8x3x25	3/8x4x27	8x12	8x8	8x8	8x8	8x8	8x8	8x8
2x6	2x4	34	34	34	0	0	0	0	0	"	"	"	"	"	3/8x4x25	3/8x4x25	10x12	8x10	8x10	8x8	8x8	8x8	8x8
2x6	2x6	46	44	41	0	16	0	0	0	"	"	"	"	"	3/8x4x23	3/8x4x23	10x16	10x10	10x10	8x8	8x8	8x8	8x8
2x8	2x6	51	47	44	0	17	12	0	0	2x4	2x4	2x4	2x4	2x4	3/8x4x25	3/8x4x25	12x16	10x10	10x10	8x8	8x8	8x8	8x8
2x10	4x4	72	67	63	31	26	14	0	0	"	"	"	"	"									

