

Trenco

818 Soundside Rd Edenton, NC 27932

Site Information:

Project Customer: DRB Raleigh Project Name:

Lot/Block: Subdivision: DRB Raleigh

Model: Address:

RE:

City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design

Drawings Show Special Loading Conditions):

Design Code: IRC2021/TPI2014

Wind Code: ASCE 7-16 Wind Speed: 120 mph Roof Load: 40.0 psf

Mean Roof Height (feet): 25

Design Program: MiTek 20/20 8.8

Design Method: MWFRS (Envelope)/C-C hybrid Wind ASCE 7-16

Floor Load: N/A psf

Exposure Category: B

No.	Seal#	Truss Name	Date
No. 1234567891011121314 1617	Seal# 171624284 171624285 171624286 171624288 171624289 171624290 171624291 171624292 171624294 171624296 171624297 171624297 171624299 171624299 171624290 171624290	Truss Name G1G G1 P1G P1G C1G C1G A1G A1A A2G A2S A1SG PB1G PB1 V7G V6 V5	Date 2/26/25

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters

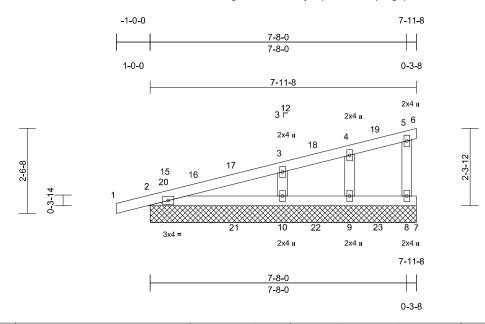
My license renewal date for the state of North Carolina is December 31, 2025.

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(e) ideating designs comply with ANSI/TEL 2015. that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

February 26,2025

Job	Truss	Truss Type	Qty	Ply		
	G1G	Monopitch Supported Gable	6	1	Job Reference (optional)	I71624284

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:26 ID: TIKeFgTRVtiJUR7oXNce8Jy9kmp-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?ffcerffree to the control of the co



Scale = 1:33.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.31	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 31 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 **WEBS OTHERS** 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

2=7-11-8, 8=7-11-8, 9=7-11-8, REACTIONS (size) 10=7-11-8

2=51 (LC 12) Max Horiz

Max Uplift 2=-11 (LC 12), 9=-52 (LC 51) 2=341 (LC 55), 8=298 (LC 54),

9=303 (LC 58), 10=430 (LC 51) **FORCES** (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/20, 2-3=-188/48, 3-4=-51/34,

4-5=-40/28, 5-6=-5/0

BOT CHORD 2-10=-39/171, 9-10=0/0, 8-9=0/0, 7-8=0/0 WEBS 4-9=-274/103, 3-10=-329/181, 5-8=-274/62

NOTES

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 7-11-8 zone; cantilever left and right exposed; end vertical left and right exposed:C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For stude exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 4) Unbalanced snow loads have been considered for this desian.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No.2
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 2, 52 lb uplift at joint 9 and 11 lb uplift at joint 2.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard





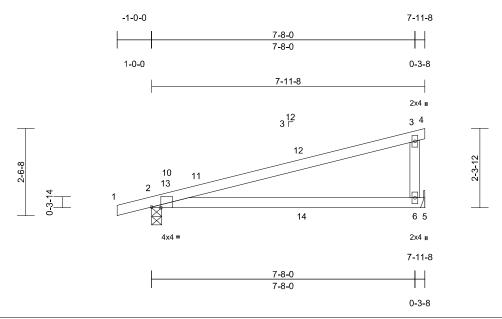
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFUKE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSUFIT Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	
	G1	Monopitch	30	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:26 ID: bc Cqh ZEbRXmE 9G15Hpmekpy 9klp-RfC? PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC? for the property of the prop



Scale = 1:32.6

Plate Offsets (X, Y): [2:0-3-4,Edge]

										_		
Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.24	6-9	>382	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.38	6-9	>240	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.11	6-9	>849	240		
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP SS 2x4 SP DSS **BOT CHORD** WEBS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied. **BOT CHORD** Rigid ceiling directly applied. 2=0-3-8, 6= Mechanical **REACTIONS** (size)

Max Horiz 2=51 (LC 12)

Max Uplift 2=-7 (LC 12)

Max Grav 2=427 (LC 43), 6=417 (LC 45)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/20, 2-3=-346/47, 3-4=-5/0

BOT CHORD 2-6=-94/325, 5-6=0/0

3-6=-336/145 **WEBS**

NOTES

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 7-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP DSS
- Refer to girder(s) for truss to truss connections.
- 10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 11) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard





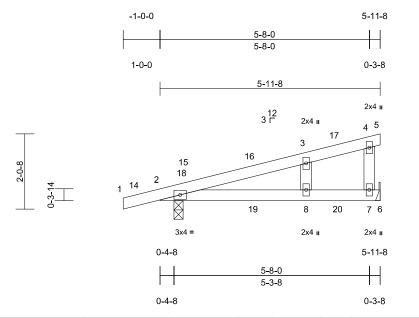
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Job	Truss	Truss Type	Qty	Ply		
	P1G	Monopitch Structural Gable	3	1	Job Reference (optional)	171624286

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:26 ID:pKKEe8smniZf8NyIrp8?u4y9kh7-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scal	e =	= 1	30	.3

Loading	(psf)	Spacing	2-0-0	csi		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.09	8-13	>775	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.13	8-13	>522	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	8-13	>999	240		
BCDL	10.0										Weight: 23 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 **WEBS OTHERS** 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

2=0-3-0, 7= Mechanical REACTIONS (size)

Max Horiz 2=40 (LC 12)

Max Uplift 2=-57 (LC 12), 7=-32 (LC 12)

Max Grav 2=415 (LC 41), 7=367 (LC 49)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/20, 2-3=-181/169, 3-4=-29/50, 4-5=-5/0

2-8=-138/164, 7-8=0/0, 6-7=0/0 **BOT CHORD** WEBS

3-8=-125/127, 4-7=-310/97

NOTES

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 5-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable. or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

Unbalanced snow loads have been considered for this

LOAD CASE(S) Standard

- 5) This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 10) Bearings are assumed to be: Joint 2 SP No.2
- 11) Refer to girder(s) for truss to truss connections
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 15) This truss design requires that a minimum of 7/16' structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.





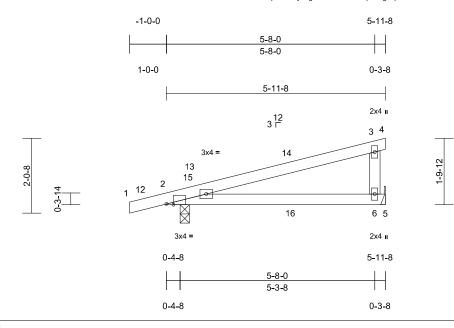
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Job	Truss	Truss Type	Qty	Ply	
	P1	Monopitch	12	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:26 ID: a8 Lhuh ASu Oi 6e DNZpZ5s PLy9kgk-RfC? PsB70 Hq3NSgPqnL8w3uITXbGKWrCDoi 7J4zJC? full file of the property of the propert



Scale = 1:30.5

Plate Offsets (X, Y): [2:0-2-4,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.70	Vert(LL)	-0.11	6-11	>626	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.15	6-11	>453	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	6-11	>999	240		
BCDL	10.0										Weight: 21 lb	FT = 20%

LUMBER

2x4 SP No.2 TOP CHORD 2x4 SP No.2 **BOT CHORD WEBS** 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

2=0-3-0, 6= Mechanical **REACTIONS** (size) Max Horiz 2=40 (LC 12)

Max Uplift 2=-57 (LC 12), 6=-32 (LC 12) Max Grav 2=415 (LC 48), 6=367 (LC 47)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=0/20, 2-3=-182/169, 3-4=-5/0

BOT CHORD 2-6=-138/163, 5-6=0/0

3-6=-311/118 **WEBS**

NOTES

- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 5-11-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- Bearings are assumed to be: Joint 2 SP No.2.
- Refer to girder(s) for truss to truss connections.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 32 lb uplift at joint 6.
- 11) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
- 12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



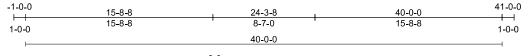
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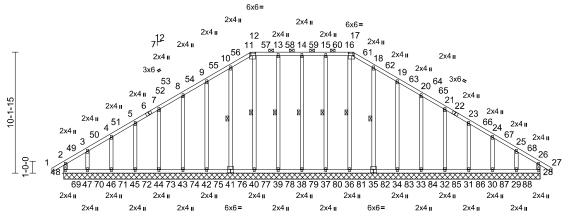
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Job	Truss	Truss Type	Qty	Ply		
	A1G	Piggyback Base Supported Gable	3	1	Job Reference (optional)	171624290

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:18 ID:lf9Vpe?Mn0LHJR9QsIDi0Wy9l63-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f





Scale = 1:94

Plate Offsets (X, Y): [11:0-4-8,0-2-8], [17:0-4-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	csi		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	ВС	0.19	Vert(CT)	n/a	_	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	28	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 310 lb	FT = 20%

40-0-0

LUMBER TOP CHORD

2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 **WEBS** 2x4 SP No.3 **OTHERS** 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied,

except end verticals, and 2-0-0 oc purlins

(6-0-0 max.): 11-17.

BOT CHORD Rigid ceiling directly applied. WEBS

14-38, 13-39, 12-40, 10-41, 15-37, 16-36, 1 Row at midpt

18-35

REACTIONS (size) 28=40-0-0, 29=40-0-0, 30=40-0-0, 31=40-0-0, 32=40-0-0, 33=40-0-0, 34=40-0-0, 35=40-0-0, 36=40-0-0, 37=40-0-0, 38=40-0-0, 39=40-0-0, 40=40-0-0, 41=40-0-0, 42=40-0-0, 43=40-0-0, 44=40-0-0, 45=40-0-0, 46=40-0-0, 47=40-0-0, 48=40-0-0 Max Horiz 48=-174 (LC 14) Max Uplift 28=-26 (LC 13), 29=-49 (LC 17), 30=-1 (LC 17), 31=-13 (LC 17),

32=-10 (LC 17), 33=-10 (LC 17), 34=-14 (LC 17), 42=-14 (LC 16), 43=-10 (LC 16), 44=-10 (LC 16), 45=-13 (LC 16), 47=-64 (LC 13),

48=-65 (LC 12)

Max Grav 28=315 (LC 153), 29=328 (LC 152), 30=334 (LC 151), 31=333 (LC 150), 32=333 (LC 149), 33=333 (LC 148), 34=333 (LC 147), 35=333 (LC 146), 36=332 (LC 145), 37=333 (LC 144), 38=333 (LC 143), 39=333 (LC 142), 40=332 (LC 141), 41=333 (LC 140), 42=333 (LC 139), 43=333 (LC 138), 44=333 (LC 137), 45=333 (LC 136), 46=334 (LC 135), 47=328 (LC 134), 48=315 (LC 133)

(lb) - Maximum Compression/Maximum Tension

TOP CHORD 2-48=-297/55, 1-2=0/47, 2-3=-130/122, 3-4=-99/95, 4-5=-96/96, 5-7=-96/94, 7-8=-93/132, 8-9=-110/171, 9-10=-130/213,

10-11=-147/242, 11-12=-129/225, 12-13=-129/225, 13-14=-129/225, 14-15=-129/225, 15-16=-129/225, 16-17=-129/225, 17-18=-147/242, 18-19=-130/213, 19-20=-110/171,

20-21=-93/132, 21-23=-75/92, 23-24=-91/57, 24-25=-71/76, 25-26=-90/73, 26-27=0/47,

26-28=-297/26 **BOT CHORD**

47-48=-72/91, 46-47=-72/91, 45-46=-72/91, 44-45=-72/91, 43-44=-72/91, 42-43=-72/91, 40-42=-72/91, 39-40=-72/91, 38-39=-72/91, 37-38=-72/91, 36-37=-72/91, 34-36=-72/91,

33-34=-72/91, 32-33=-72/91, 31-32=-72/91, 30-31=-72/91, 29-30=-72/91, 28-29=-72/91

WEBS

14-38=-267/37, 13-39=-268/38, 12-40=-260/3, 10-41=-271/34, 9-42=-273/62, 8-43=-276/54, 7-44=-279/55, 5-45=-281/56, 4-46=-286/54, 3-47=-282/75, 15-37=-268/38 16-36=-264/3, 18-35=-271/34. 19-34=-273/62, 20-33=-276/54 21-32=-279/55, 23-31=-281/56 24-30=-286/54, 25-29=-282/73

NOTES

- Unbalanced roof live loads have been considered for 1)
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph: TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -1-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 15-8-8, Corner (3R) 15-8-8 to 20-0-0, Exterior(2N) 20-0-0 to 24-3-8, Corner(3R) 24-3-8 to 28-0-0, Exterior(2N) 28-0-0 to 41-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber



February 26,2025

Continued on page 2

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL7473 rev. 1/2/2023 REFORE USE

FORCES

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTER REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly amage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply		
	A1G	Piggyback Base Supported Gable	3	1 Job	Reference (optional)	I71624290

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:18 ID:If9Vpe?Mn0LHJR9QsIDi0Wy9I63-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

Page: 2

- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding,
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 13) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 14) All bearings are assumed to be SP No.2 .
- 15) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 65 lb uplift at joint 48, 26 lb uplift at joint 28, 14 lb uplift at joint 42, 10 lb 45, 26 is upilit at joint 26, 14 is upilit at joint 41, 13 lb uplift at joint 45, 16 lb uplift at joint 47, 14 lb uplift at joint 45, 64 lb uplift at joint 34, 10 lb uplift at joint 33, 10 lb uplift at joint 32, 13 lb uplift at joint 31, 1 lb uplift at joint 30 and 49 lb uplift at joint 29.
- 16) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 17) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 18) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFUKE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSUFIT Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	
	A1A	Piggyback Base	6	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:17 ID:RX?XJfgIEi1ffmvK2iFSiqy9I94-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



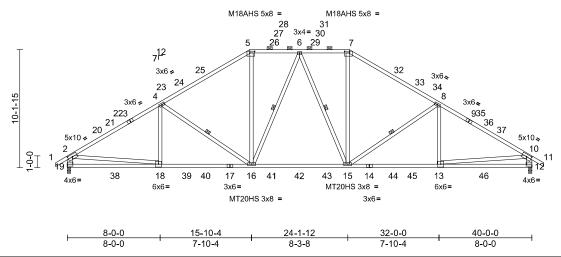


Plate Offsets (X, Y): [2:0-4-15,0-2-8], [5:0-5-0,0-1-12], [7:0-5-0,0-1-12], [10:0-4-15,0-2-8], [12:Edge,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.71	Vert(LL)	-0.30	15-16	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.44	15-16	>999	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.08	12	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	16-18	>999	240		
BCDL	10.0										Weight: 257 lb	FT = 20%

LUMBER

Scale = 1:96.4

TOP CHORD 2x4 SP No.2 *Except* 3-5,7-9:2x4 SP SS

BOT CHORD 2x4 SP SS

WEBS 2x4 SP No.3 *Except* 19-2,12-10:2x6 SP

BRACING

TOP CHORD Structural wood sheathing directly applied,

except end verticals, and 2-0-0 oc purlins

(3-9-15 max.): 5-7. BOT CHORD

Rigid ceiling directly applied. 4-16, 6-16, 6-15, 8-15 **WEBS** 1 Row at midpt

REACTIONS 12=0-3-8, 19=0-3-8 (size)

Max Horiz 19=-175 (LC 14)

Max Grav 12=1947 (LC 59), 19=1947 (LC 57)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/51, 2-4=-3047/0, 4-5=-2483/52,

5-6=-2039/81, 6-7=-2039/81, 7-8=-2483/52, 8-10=-3047/0, 10-11=0/51, 2-19=-1966/31,

10-12=-1966/31

BOT CHORD 18-19=-118/670, 16-18=0/2546,

15-16=0/1977, 13-15=0/2544, 12-13=-12/586

WEBS 4-18=-36/300, 4-16=-718/72, 5-16=0/761, 6-16=-268/110, 6-15=-268/110, 7-15=0/761,

8-15=-718/72, 8-13=-36/300, 2-18=0/1980,

10-13=0/1981

NOTES

Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-0-0, Interior (1) 3-0-0 to 15-8-8, Exterior(2R) 15-8-8 to 21-4-6, Interior (1) 21-4-6 to 24-3-8, Exterior(2R) 24-3-8 to 29-11-6, Interior (1) 29-11-6 to 41-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1,60 plate grip DOL=1,60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 5 degree rotation about its center.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) All bearings are assumed to be SP SS.
- 12) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 13) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or

LOAD CASE(S) Standard



February 26,2025

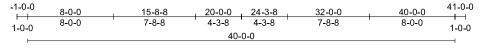
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFUKE USE.

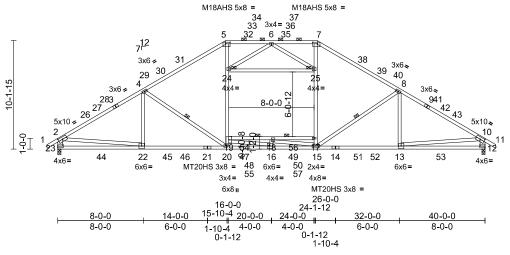
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSUFIT Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply	
	A1	Attic	21	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:16 ID:IdJI8k1V7E6N2WOTw?Ls?Ly9IDn-RfC?PsB70Hq3NSqPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:104.8

Plate Offsets (X, Y): [2:0-4-15,0-2-8], [5:0-5-0,0-1-12], [7:0-5-0,0-1-12], [10:0-4-15,0-2-8], [12:Edge,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.78	Vert(LL)	-0.33	20-22	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-0.52	20-22	>921	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.82	Horz(CT)	0.10	12	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.11	20-22	>999	240		
BCDL	10.0										Weight: 276 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-5.7-9:2x4 SP SS BOT CHORD 2x4 SP SS *Except* 19-17:2x4 SP No.2 **WEBS**

2x4 SP No.3 *Except* 5-20,7-15,24-25,22-2,13-10:2x4 SP No.2,

23-2,12-10:2x6 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied,

except end verticals, and 2-0-0 oc purlins

(3-2-10 max.): 5-7.

BOT CHORD Rigid ceiling directly applied. WEBS 1 Row at midpt 4-20, 8-15

JOINTS 1 Brace at Jt(s): 24, 25

REACTIONS (size) 12=0-3-8, 23=0-3-8

Max Horiz 23=-175 (LC 14)

Max Grav 12=2411 (LC 60), 23=2395 (LC 58)

FORCES (lb) - Maximum Compression/Maximum

BOT CHORD

TOP CHORD 1-2=0/51, 2-4=-3799/0, 4-5=-3296/0,

5-6=-2781/0, 6-7=-2818/0, 7-8=-3334/0, 8-10=-3823/0, 10-11=0/51, 2-23=-2412/0,

10-12=-2426/0

22-23=-81/703, 20-22=0/3194, 16-20=0/2460,

15-16=0/3728, 13-15=0/3212, 12-13=0/628,

18-19=-1273/0, 17-18=-72/385

4-22=-99/242, 4-20=-661/123, 19-20=0/730, 19-24=0/1136, 5-24=0/1175, 15-17=0/1004,

17-25=0/1177, 7-25=0/1193, 8-13=-105/238 24-25=-35/338, 2-22=0/2596, 10-13=0/2612,

16-18=-239/31, 6-24=-376/115,

6-25=-379/113, 8-15=-650/126, 16-19=0/1483, 15-18=-1473/0

NOTES

WEBS

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-0-0, Interior (1) 3-0-0 to 15-8-8, Exterior(2R) 15-8-8 to 21-4-6, Interior (1) 21-4-6 to 24-3-8, Exterior(2R) 24-3-8 to 29-11-6, Interior (1) 29-11-6 to 41-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- 250.0lb AC unit load placed on the bottom chord, 20-0-0 from left end, supported at two points, 5-0-0 apart.
- Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 12) Bottom chord live load (20.0 psf) and additional bottom chord dead load (20.0 psf) applied only to room. 18-19, 17-18
- 13) All bearings are assumed to be SP SS.

- 14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 16) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 17) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard



February 26,2025

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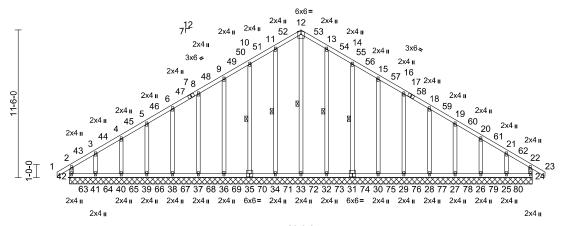


Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply		
	A2G	Common Supported Gable	3	1 Job F	Reference (optional)	I71624293

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:24 ID:EaK6NyRxJ3uAezwLzJs9U6y9I5V-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





36-0-0 Scale = 1:87.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a		n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.01	24	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 273 lb	FT = 20%

LUMBER TOP CHORD BOT CHORD

2x4 SP No 2 2x4 SP No.2 2x4 SP No.3

OTHERS 2x4 SP No.3 BRACING

TOP CHORD

WEBS

Structural wood sheathing directly applied, except end verticals.

Rigid ceiling directly applied. **BOT CHORD WEBS** 1 Row at midpt 12-33, 11-34, 10-35,

13-32, 14-31

REACTIONS (size) 24=36-0-0, 25=36-0-0, 26=36-0-0, 27=36-0-0, 28=36-0-0, 29=36-0-0,

> 30=36-0-0, 31=36-0-0, 32=36-0-0, 33=36-0-0, 34=36-0-0, 35=36-0-0, 36=36-0-0, 37=36-0-0, 38=36-0-0, 39=36-0-0, 40=36-0-0, 41=36-0-0,

42=36-0-0

Max Horiz 42=-195 (LC 14) Max Uplift

24=-34 (LC 13), 25=-56 (LC 17), 27=-13 (LC 17), 28=-10 (LC 17),

29=-11 (LC 17), 30=-10 (LC 17), 31=-15 (LC 17), 34=-1 (LC 16), 35=-14 (LC 16), 36=-10 (LC 16), 37=-11 (LC 16), 38=-10 (LC 16),

39=-14 (LC 16), 41=-73 (LC 13),

42=-74 (LC 12) 24=315 (LC 117), 25=328 (LC 116), Max Grav 26=334 (LC 115), 27=333 (LC 114),

28=333 (LC 113), 29=333 (LC 112), 30=333 (LC 111), 31=333 (LC 110), 32=334 (LC 109), 33=329 (LC 108), 34=334 (LC 107), 35=333

(LC 106), 36=333 (LC 105), 37=333 (LC 104), 38=333 (LC 103), 39=333 (LC 102), 40=334 (LC 101), 41=328 (LC 100),

42=315 (LC 99)

FORCES

(lb) - Maximum Compression/Maximum

Tension

2-42=-297/61, 1-2=0/47, 2-3=-148/136 TOP CHORD 3-4=-111/107, 4-5=-109/105, 5-6=-99/103,

6-8=-91/120, 8-9=-99/160, 9-10=-121/199, 10-11=-146/241, 11-12=-165/273, 12-13=-165/273, 13-14=-146/241,

14-15=-121/199, 15-16=-99/160, 16-18=-76/120, 18-19=-76/80, 19-20=-77/70,

20-21=-72/76, 21-22=-101/87, 22-23=0/47, 22-24=-297/30

BOT CHORD 41-42=-82/101, 40-41=-82/101,

39-40=-82/101, 38-39=-82/101,

37-38=-82/101, 36-37=-82/101, 34-36=-82/101, 33-34=-82/101.

32-33=-82/101, 30-32=-82/101, 29-30=-82/101, 28-29=-82/101,

27-28=-82/101, 26-27=-82/101 25-26=-82/101, 24-25=-82/101

WFBS 12-33=-249/81, 11-34=-271/37 10-35=-271/62, 9-36=-273/54, 8-37=-276/55,

6-38=-279/55, 5-39=-281/56, 4-40=-286/53, 3-41=-282/78, 13-32=-271/37,

14-31=-271/62. 15-30=-273/54 16-29=-276/55, 18-28=-279/55 19-27=-281/56, 20-26=-286/53,

21-25=-282/76

NOTES

Unbalanced roof live loads have been considered for this design.

Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Corner (3E) -1-0-0 to 2-7-3, Exterior(2N) 2-7-3 to 18-0-0, Corner (3R) 18-0-0 to 21-7-3, Exterior(2N) 21-7-3 to 37-0-0 zone; cantilever left and right exposed; end vertical left and right exposed: C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- 3) Truss designed for wind loads in the plane of the truss only. For study exposed to wind (normal to the face). see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 10) Gable studs spaced at 2-0-0 oc.
- 11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.



February 26,2025

Continued on page 2

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL7473 rev. 1/2/2023 REFORE USE

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITTER REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFORE USE.

Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly amage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and BCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply		
	A2G	Common Supported Gable	3	1	Job Reference (optional)	I71624293

Run: 8.83~S~ Feb 18~2025~ Print: 8.830~ S Feb 18~2025~ MiTek Industries, Inc. Tue Feb 25~ 07:55:24

Page: 2

- 12) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 13) All bearings are assumed to be SP No.2.
- 14) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 74 lb uplift at joint 42, 34 lb uplift at joint 24, 1 lb uplift at joint 34, 14 lb uplift at joint 35, 10 lb uplift at joint 36, 11 lb uplift at joint 37, 10 lb uplift at joint 38, 14 lb uplift at joint 39, 73 lb uplift at joint 41, 15 lb uplift at joint 31, 10 lb uplift at joint 30, 11 lb uplift at joint 29, 10 lb uplift at joint 28, 13 lb uplift at joint 27 and 56 lb uplift at joint 25.

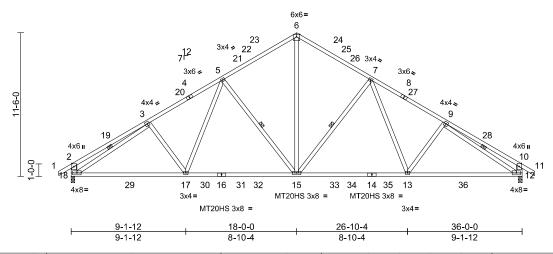
 15) This truss has been designed for a moving concentrated
- load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 16) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	
	A2	Common	9	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:23 ID:IkGC4uq0mvwdTtMUr1Rfnsy9l5?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f





Scale = 1:89.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.36	15-17	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.65	Vert(CT)	-0.50	15-17	>845	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.55	Horz(CT)	80.0	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	15-17	>999	240		
BCDL	10.0										Weight: 225 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 **BOT CHORD** 2x4 SP SS

2x4 SP No.3 *Except* 18-2,12-10:2x6 SP **WEBS**

BRACING

TOP CHORD Structural wood sheathing directly applied,

except end verticals.

BOT CHORD Rigid ceiling directly applied.

WEBS 1 Row at midpt 7-15, 5-15, 3-18, 9-12

REACTIONS 12=0-3-8, 18=0-3-8

Max Horiz 18=-196 (LC 14)

Max Grav 12=1696 (LC 35), 18=1696 (LC 34)

FORCES (lb) - Maximum Compression/Maximum

TOP CHORD 1-2=0/51, 2-3=-721/76, 3-5=-2474/107,

5-6=-1860/154, 6-7=-1860/154, 7-9=-2474/107, 9-10=-721/76, 10-11=0/51,

2-18=-585/84, 10-12=-585/84

BOT CHORD 17-18=-8/2095, 15-17=0/1844, 13-15=0/1843,

12-13=0/2091

6-15=-52/1447, 7-15=-675/103, 7-13=0/487, WEBS 9-13=-204/106, 5-15=-675/103, 5-17=0/487,

3-17=-204/106, 3-18=-1945/36,

9-12=-1945/36

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 2-7-3, Interior (1) 2-7-3 to 18-0-0, Exterior(2R) 18-0-0 to 21-7-3, Interior (1) 21-7-3 to 37-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 5 degree rotation about its center.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) All bearings are assumed to be SP SS
- 11) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 12) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard





WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFUKE USE.

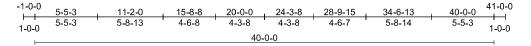
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSUFIT Quality Criteria and DSB-22 available from Truss Plate Institute (www.tpinst.org) and PCSI Building Component Safety Information available from the Structural Building Component Association (www.sbcacomponents.com)



Job	Truss	Truss Type	Qty	Ply		
	A1SG	Piggyback Base Structural Gable	2	1	Job Reference (optional)	

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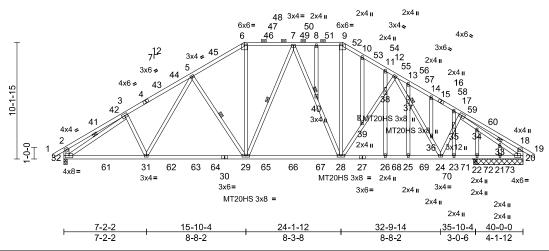


Plate Offsets (X, Y): [6:0-3-0,0-1-12], [9:0-3-0,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.33	29-31	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.48	29-31	>902	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.09	20	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.04	29-31	>999	240		
BCDL	10.0										Weight: 323 lb	FT = 20%

LUMBER TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP SS **WEBS** 2x4 SP No.3 *Except* 32-2,20-18:2x6 SP No.2, 32-3,20-17:2x4 SP No.2

OTHERS 2x4 SP No.3

BRACING

Scale = 1:97.6

Structural wood sheathing directly applied, TOP CHORD

except end verticals, and 2-0-0 oc purlins

(4-3-8 max.): 6-9.

BOT CHORD Rigid ceiling directly applied. **WEBS** 1 Row at midpt 7-29, 3-32, 5-29

JOINTS 1 Brace at Jt(s): 33, 37, 39, 40

REACTIONS (size) 20=4-3-8, 21=4-3-8, 22=4-3-8, 32=0-3-8

Max Horiz 32=-175 (LC 14) Max Uplift 21=-254 (LC 45)

20=1161 (LC 59), 21=168 (LC 116), Max Grav

22=1105 (LC 51), 32=1862 (LC 57)

FORCES (lb) - Maximum Compression/Maximum

Tension TOP CHORD

1-2=0/51, 2-3=-531/41, 3-5=-2836/4, 5-6=-2253/69, 6-7=-1879/84, 7-8=-1772/92,

8-9=-1772/92 9-10=-2018/82 10-11=-2072/64, 11-12=-2150/43, 12-13=-2001/63, 13-14=-2109/46, 14-16=-2136/26, 16-17=-2022/15 17-18=-300/81, 18-19=0/51, 2-32=-457/72,

18-20=-351/92

BOT CHORD 31-32=0/2354, 29-31=0/2141, 28-29=0/1780, 26-28=0/1866, 25-26=0/1866, 24-25=0/1866,

23-24=0/1475, 22-23=0/1475, 21-22=0/1475,

20-21=0/1475

WEBS 6-29=0/854, 7-29=-201/163, 7-40=-348/83, 28-40=-342/84, 9-28=0/759, 3-31=-162/137, 3-32=-2479/0, 5-31=0/408, 5-29=-634/82, 24-35=0/680, 17-35=-3/522, 17-34=-2049/0 33-34=-1614/0, 20-33=-1707/0, 28-39=-362/88, 38-39=-339/81

12-38=-373/94, 12-37=-295/85 36-37=-299/79, 24-36=-314/67, 21-33=0/166, 22-34=-692/0, 16-35=-275/31, 23-35=-451/0,

14-36=-171/19, 13-37=-63/181 25-37=-57/201, 11-38=-37/207

26-38=-46/232, 10-39=-69/16, 8-40=-40/29

NOTES

Unbalanced roof live loads have been considered for this design.

Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II: Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 3-0-0, Interior (1) 3-0-0 to 15-8-8, Exterior(2R) 15-8-8 to 21-4-6, Interior (1) 21-4-6 to 24-3-8, Exterior(2R) 24-3-8 to 30-0-0, Interior (1) 30-0-0 to 41-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.

TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=20.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10, Lu=50-0-0

Unbalanced snow loads have been considered for this

This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.

- 7) Provide adequate drainage to prevent water ponding.
- All plates are MT20 plates unless otherwise indicated.
- Plates checked for a plus or minus 5 degree rotation about its center.
- 10) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
- 11) Gable studs spaced at 2-0-0 oc.
- 12) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 14) All bearings are assumed to be SP SS
- 15) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 21. This connection is for uplift only and does not consider lateral forces.
- 16) This truss has been designed for a moving concentrated load of 250 0lb live and 3 0lb dead located at all mid. panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.



Continued on page 2

Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MIL7473 rev. 1/2/2023 REFORE USE

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Job	Truss	Truss Type	Qty	Ply	
	A1SG	Piggyback Base Structural Gable	2	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:20 ID: kdTAtRg2TpEKNsdG?uaOjDy9ky9-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

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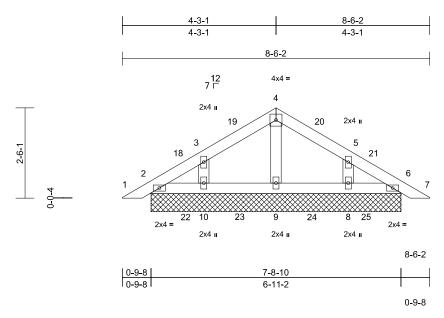
- 17) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 18) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S) Standard



Job	Truss	Truss Type	Qty	Ply		
	PB1G	Piggyback	6	1	Job Reference (optional)	

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:27 ID:Wr82Z5ihgKCqpblcu?GrVFy9l6S-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:31

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	15	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 30 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.3 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=6-11-2, 6=6-11-2, 8=6-11-2,

9=6-11-2, 10=6-11-2 Max Horiz 2=-37 (LC 14)

8=-14 (LC 17), 10=-14 (LC 16) Max Uplift

2=288 (LC 57), 6=288 (LC 69),

8=332 (LC 67), 9=322 (LC 66),

10=332 (LC 65)

FORCES (lb) - Maximum Compression/Maximum

Tension

1-2=0/21, 2-3=-78/75, 3-4=-110/52,

4-5=-110/52, 5-6=-78/75, 6-7=0/21

BOT CHORD 2-10=-13/55, 9-10=-13/38, 8-9=-13/38, 6-8=-13/55

4-9=-240/0, 3-10=-290/85, 5-8=-290/85 WFBS

NOTES

TOP CHORD

- Unbalanced roof live loads have been considered for
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-3-8, Exterior(2R) 4-3-8 to 7-3-8, Interior (1) 7-3-8 to 8-3-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face). see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- This truss has been designed for greater of min roof live load of 12.0 psf or 2.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- 10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 12) All bearings are assumed to be SP No.313) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 8. This connection is for uplift only and does not consider lateral forces.
- 14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
- 16) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



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Job	Truss	Truss Type	Qty	Ply	
	PB1	Piggyback	30	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:27

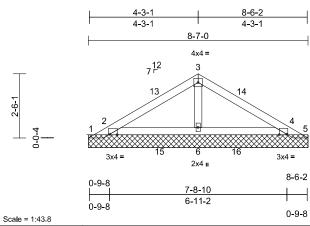


Plate Offsets (X, Y): [2:0-3-9,Edge], [4:0-3-9,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.34	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.52	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.3 OTHERS 2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied. **BOT CHORD** Rigid ceiling directly applied.

REACTIONS (size) 1=8-7-0, 2=8-7-0, 4=8-7-0, 5=8-7-0, 6=8-7-0

Max Horiz 1=37 (LC 13)

Max Uplift 1=-303 (LC 46), 2=-20 (LC 16),

4=-22 (LC 17), 5=-300 (LC 47) 1=186 (LC 44), 2=573 (LC 46), 4=559 (LC 47), 5=189 (LC 56), Max Grav

6=366 (LC 63)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-42/164, 2-3=-139/138, 3-4=-139/137,

4-5=-32/163 **BOT CHORD** 2-6=-128/47. 4-6=-128/47

WEBS 3-6=-250/21

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16: Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-3-8, Exterior(2R) 4-3-8 to 7-3-8, Interior (1) 7-3-8 to 8-3-5 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable. or consult qualified building designer as per ANSI/TPI 1.

- 4) TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this desian.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No.3
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 303 lb uplift at joint 1 and 300 lb uplift at joint 5.
- 13) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 4. This connection is for uplift only and does not consider lateral forces.
- 14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord
- 16) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard



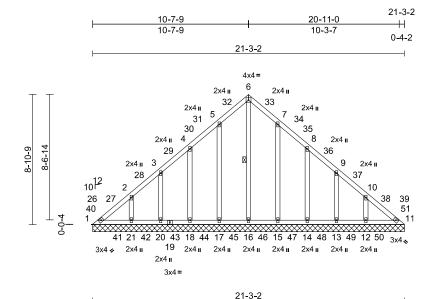
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 1/2/2023 BEFUKE USE.

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Job	Truss	Truss Type	Qty	Ply	
	V7G	Valley	1	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:29 ID:aFIhH8YdMIBxbaaUmDJroby3krd-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
•			2-0-0	I			111	(IOC)	i/ueii			
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	n/a	_	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.25	Horiz(TL)	0.00	11	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 133 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2

2x4 SP No.3 *Except* 19-11:2x4 SP No.2 **BOT CHORD** 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD

WFBS

Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied. WEBS 1 Row at midpt 6-16

REACTIONS (size)

1=21-3-2, 11=21-3-2, 12=21-3-2, 13=21-3-2, 14=21-3-2, 15=21-3-2, 16=21-3-2, 17=21-3-2, 18=21-3-2,

20=21-3-2, 21=21-3-2

Max Horiz 1=139 (LC 13)

1=-23 (LC 12), 12=-15 (LC 17), Max Uplift 13=-29 (LC 17), 14=-28 (LC 17), 15=-21 (LC 17), 17=-22 (LC 16),

18=-27 (LC 16), 20=-28 (LC 16),

21=-18 (LC 16) 1=294 (LC 55), 11=294 (LC 67),

12=362 (LC 89), 13=324 (LC 88),

14=335 (LC 87), 15=334 (LC 86), 16=335 (LC 85), 17=334 (LC 84),

18=335 (LC 83), 20=324 (LC 82) 21=362 (LC 81)

FORCES (lb) - Maximum Compression/Maximum

Tension

Max Grav

TOP CHORD 1-2=-270/133, 2-3=-101/100, 3-4=-91/96, 4-5=-87/101, 5-6=-124/136, 6-7=-124/132,

7-8=-87/101, 8-9=-91/96, 9-10=-97/90,

10-11=-269/131

BOT CHORD 1-21=-71/189, 20-21=-71/103

18-20=-71/103, 17-18=-71/103, 16-17=-71/103, 15-16=-71/103,

14-15=-71/103, 13-14=-71/103,

12-13=-71/103. 11-12=-71/188

6-16=-220/40, 5-17=-279/68, 4-18=-281/64, 3-20=-280/60, 2-21=-301/55, 7-15=-279/67,

8-14=-281/64, 9-13=-280/60, 10-12=-300/55

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 10-7-14, Exterior(2R) 10-7-14 to 13-7-14, Interior (1) 13-7-14 to 21-3-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For stude exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1. TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15
- Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- 5) Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No 2
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 1, 22 lb uplift at joint 17, 27 lb uplift at joint 18, 28 lb uplift at joint 20, 18 lb uplift at joint 21, 21 lb uplift at joint 15, 28 lb uplift at joint 14, 29 lb uplift at joint 13 and 15 lb uplift at joint 12.

- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



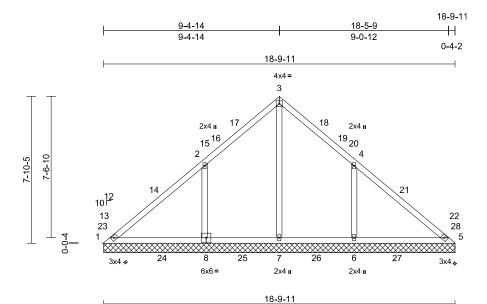
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Job	Truss	Truss Type	Qty	Ply	
	V6	Valley	1	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:28 ID:pipfbPSbEIA3dMzyIY9zTvy3krl-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:59.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.61	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.43	Horiz(TL)	0.01	8	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 86 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=18-9-11, 5=18-9-11, 6=18-9-11,

7=18-9-11, 8=18-9-11 Max Horiz 1=123 (LC 13)

1=-15 (LC 47), 5=-26 (LC 44), Max Uplift 6=-67 (LC 17), 8=-67 (LC 16) Max Grav

1=293 (LC 49), 5=240 (LC 55) 6=575 (LC 34), 7=552 (LC 33),

8=573 (LC 33)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-274/321, 2-3=-74/241, 3-4=-74/225,

4-5=-261/322

BOT CHORD 1-7=-200/198, 6-7=-200/99, 5-6=-200/192 3-7=-397/0, 2-8=-375/147, 4-6=-379/149 WFBS

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 9-5-2, Exterior(2R) 9-5-2 to 12-5-2, Interior (1) 12-5-2 to 18-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face). see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation 6) about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) All bearings are assumed to be SP No.2.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 15 lb uplift at joint 1, 26 lb uplift at joint 5, 67 lb uplift at joint 8 and 67 lb uplift at joint 6.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16' structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard





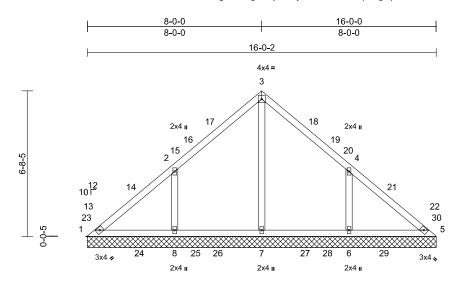
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Job	Truss	Truss Type	Qty	Ply	
	V5	Valley	1	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:28 ID:2AKdwgMa7rACg7MPqs058Dy3krt-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:51.4

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.00	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 71 lb	FT = 20%

16-0-0

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=16-0-2, 5=16-0-2, 6=16-0-2,

7=16-0-2, 8=16-0-2 Max Horiz 1=-104 (LC 14)

Max Uplift 1=-6 (LC 12), 6=-55 (LC 17), 8=-57

(LC 16)

Max Grav 1=299 (LC 49), 5=299 (LC 55), 6=460 (LC 34), 7=455 (LC 33),

8=462 (LC 33)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-280/210, 2-3=-129/133, 3-4=-129/123,

4-5=-280/210

BOT CHORD 1-8=-84/201, 7-8=-84/79, 6-7=-84/79,

5-6=-84/201

WFBS 3-7=-299/0, 2-8=-343/140, 4-6=-343/140

NOTES

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 8-0-6, Exterior(2R) 8-0-6 to 11-0-6, Interior (1) 11-0-6 to 16-0-7 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation 6) about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom 9) chord live load nonconcurrent with any other live loads.
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 11) All bearings are assumed to be SP No.2.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 6 lb uplift at joint 1, 57 lb uplift at joint 8 and 55 lb uplift at joint 6.
- 13) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 5.
- 14) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 15) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



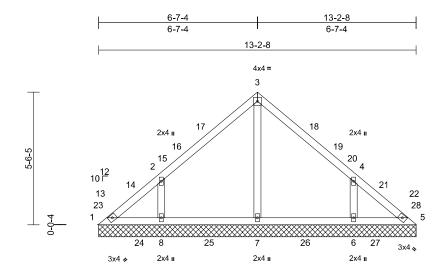
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Job	Truss	Truss Type	Qty	Ply	
	V4	Valley	1	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:28 ID:Ob4gqI?OywWJhgeqdH?HT5y3ksK-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:46.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.43	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 56 lb	FT = 20%

13-2-8

LUMBER

TOP CHORD 2x4 SP No 2 **BOT CHORD** 2x4 SP No.2 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=13-2-8, 5=13-2-8, 6=13-2-8,

7=13-2-8, 8=13-2-8

Max Horiz 1=-85 (LC 12) 1=-11 (LC 12), 6=-45 (LC 17), Max Uplift

8=-47 (LC 16)

Max Grav 1=292 (LC 49), 5=292 (LC 55),

6=403 (LC 65), 7=403 (LC 64),

8=403 (LC 63)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-262/135, 2-3=-168/99, 3-4=-168/94, 4-5=-262/135

1-8=-28/181, 7-8=-28/59, 6-7=-28/59,

5-6=-28/181 3-7=-254/0, 2-8=-327/153, 4-6=-327/153 WFBS

NOTES

BOT CHORD

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 6-7-9, Exterior(2R) 6-7-9 to 9-7-9, Interior (1) 9-7-9 to 13-2-13 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.

- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.
- Plates checked for a plus or minus 5 degree rotation 6) about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No.2.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1, 47 lb uplift at joint 8 and 45 lb uplift at joint 6.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard



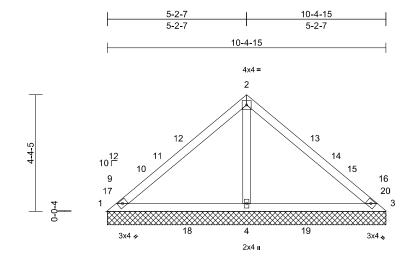
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Job	Truss	Truss Type	Qty	Ply	
	V3	Valley	1	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:28 ID:H5ol6IrE0xtAeg8LN2GERMy3ksX-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



10-4-15 Scale = 1:41.8

Coalc	_	'	•	•	'	•

Loading	(psf)	Spacing	2-0-0	csı		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	n/a	` _	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.21	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 40 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.3 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=10-4-15, 3=10-4-15, 4=10-4-15

Max Horiz 1=-67 (LC 12)

Max Uplift 1=-61 (LC 54), 3=-61 (LC 53) 1=269 (LC 47), 3=269 (LC 51), Max Grav

4=760 (LC 2)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-224/341, 2-3=-224/341 **BOT CHORD** 1-4=-233/155, 3-4=-233/155

WEBS 2-4=-666/212

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 5-2-12, Exterior(2R) 5-2-12 to 8-2-12, Interior (1) 8-2-12 to 10-5-3 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1 15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 5) Unbalanced snow loads have been considered for this desian.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No.3
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 61 lb uplift at joint 1 and 61 lb uplift at joint 3.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard





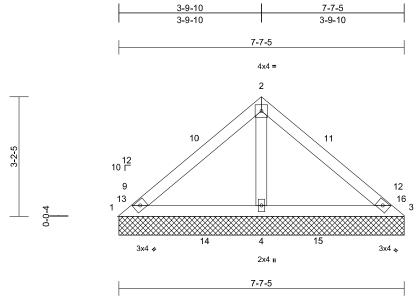
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Job	Truss	Truss Type	Qty	Ply	
	V2	Valley	1	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:27 ID:KAd8Y?PfUtLGJ8OQGUdo_my3kt5-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:29.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.45	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.62	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 28 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.3 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=7-7-5, 3=7-7-5, 4=7-7-5

Max Horiz 1=48 (LC 13)

Max Uplift 1=-47 (LC 45), 3=-47 (LC 44) 1=272 (LC 47), 3=272 (LC 51), Max Grav

4=552 (LC 44)

FORCES (lb) - Maximum Compression/Maximum

Tension

TOP CHORD 1-2=-213/268, 2-3=-213/268 **BOT CHORD** 1-4=-183/147, 3-4=-183/147

WEBS 2-4=-441/178

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 3-9-15, Exterior(2R) 3-9-15 to 6-10-4, Interior (1) 6-10-4 to 7-7-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable or consult qualified building designer as per ANSI/TPI 1.
- TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1 15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp.; Ce=1.0; Cs=1.00; Ct=1.10

- 5) Unbalanced snow loads have been considered for this desian.
- Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
- 11) All bearings are assumed to be SP No.3
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 1 and 47 lb uplift at joint 3.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard





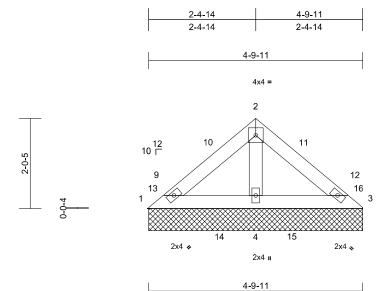
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Job	Truss	Truss Type	Qty	Ply	
	V1	Valley	1	1	Job Reference (optional)

Run: 8.83 S Feb 18 2025 Print: 8.830 S Feb 18 2025 MiTek Industries, Inc. Tue Feb 25 07:55:27 ID:V0FtIxLuv1a7bDxGvDWOkVy3ktB-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:25.1

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.30	Vert(TL)	n/a	_	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horiz(TL)	0.00	4	n/a	n/a		
BCLL	0.0 *	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 17 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No 2 BOT CHORD 2x4 SP No.3 2x4 SP No.3 **OTHERS**

BRACING

TOP CHORD Structural wood sheathing directly applied. BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=4-9-11, 3=4-9-11, 4=4-9-11

Max Horiz 1=29 (LC 15)

Max Uplift 1=-26 (LC 50), 3=-26 (LC 48) 1=277 (LC 47), 3=277 (LC 51), Max Grav

4=397 (LC 57)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-209/165, 2-3=-209/165 **BOT CHORD** 1-4=-82/143, 3-4=-82/143

WEBS 2-4=-278/83

NOTES

- 1) Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable,
- or consult qualified building designer as per ANSI/TPI 1. TCLL: ASCE 7-16; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf; Pf=15.4 psf (Lum DOL = 1.15 Plate DOL = 1.15); Is=1.0; Rough Cat B; Partially Exp; Ce=1.0; Cs=1.00; Ct=1.10
- Unbalanced snow loads have been considered for this design.

- 6) Plates checked for a plus or minus 5 degree rotation about its center.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads
- 10) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members
- 11) All bearings are assumed to be SP No.3.
- 12) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 1 and 26 lb uplift at joint 3.
- 13) This truss has been designed for a moving concentrated load of 250.0lb live and 3.0lb dead located at all mid panels and at all panel points along the Top Chord and Bottom Chord, nonconcurrent with any other live loads.
- 14) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S) Standard





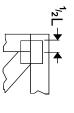
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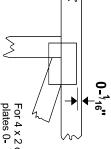


Symbols

PLATE LOCATION AND ORIENTATION



and fully embed teeth. Apply plates to both sides of truss Dimensions are in ft-in-sixteenths. offsets are indicated. Center plate on joint unless x, y



edge of truss. plates 0- ʰɹɕ" from outside For 4 x 2 orientation, locate

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6 Ö

connector plates. required direction of slots in This symbol indicates the

*Plate location details available in MiTek software or upon request

PLATE SIZE



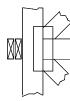
to slots. Second dimension is the length parallel to slots. width measured perpendicular The first dimension is the plate

LATERAL BRACING LOCATION



output. Use T or I bracing if indicated. by text in the bracing section of the Indicated by symbol shown and/or

BEARING



Indicates location where bearings Min size shown is for crushing only. number/letter where bearings occur. reaction section indicates joint (supports) occur. Icons vary but

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Building Component Safety Information, Design Standard for Bracing Plate Connected Wood Truss Construction.

Guide to Good Practice for Handling,

Plate Connected Wood Trusses

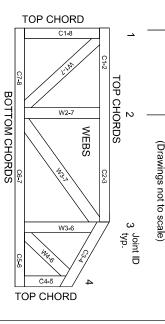
Installing, Restraining & Bracing of Metal

DSB-22:

Numbering System

6-4-8

dimensions shown in ft-in-sixteenths



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

Product Code Approvals

ICC-ES Reports:

ESR-1988, ESR-2362, ESR-2685, ESR-3282 ESR-4722, ESL-1388

Design General Notes

truss unless otherwise shown. Trusses are designed for wind loads in the plane of the

section 6.3 These truss designs rely on lumber values established by others. Lumber design values are in accordance with ANSI/TPI 1

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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

▲ General Safety Notes

Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.

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Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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Provide copies of this truss design to the building all other interested parties. designer, erection supervisor, property owner and

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- Cut members to bear tightly against each other.
- Place plates on each face of truss at each locations are regulated by ANSI/TPI 1. joint and embed fully. Knots and wane at joint
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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- 9 Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
- 10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- 12. Lumber used shall be of the species and size, and in all respects, equal to or better than that
- 13. Top chords must be sheathed or purlins provided at spacing indicated on design
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted
- 15. Connections not shown are the responsibility of others
- 16. Do not cut or alter truss member or plate without prior approval of an engineer
- 17. Install and load vertically unless indicated otherwise.
- 18. Use of green or treated lumber may pose unacceptable project engineer before use. environmental, health or performance risks. Consult with
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
- The design does not take into account any dynamic or other loads other than those expressly stated.