ENGINEERING BY TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

RE: 2503-4263-A - Blake Pond Lot 00.0094 Roof

Site Information:

Project Customer: DRB Raleigh Project Name: Blake Pond Lot 00.0094
Lot/Block: 00.0094 Subdivision: Blake Pond
Model: Stonehaven
Address: 149 Whimbrel Court
City: Lillington State: NC

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.	Seal#	Truss Name	Date
1	I72897067	D1G	4/22/25	35	I72897101	A2A	4/22/25
2	I72897068	D1	4/22/25	36	I72897102	A1SG	4/22/25
3	I72897069	VC1	4/22/25	37	I72897103	A1B	4/22/25
4	I72897070	V1	4/22/25	38	I72897104	A1A	4/22/25
5	I72897071	VC2	4/22/25	39	I72897105	A1	4/22/25
6	I72897072	P1G	4/22/25	40	I72897106	A1G	4/22/25
7	I72897073	P1	4/22/25				
8	I72897074	P2G	4/22/25				
9	I72897075	V2	4/22/25				
10	I72897076	G1	4/22/25				
11	I72897077	VC3	4/22/25				
12	I72897078	PB1A	4/22/25				
13	I72897079	PB1	4/22/25				
14	I72897080	V3	4/22/25				
	I72897081	G1G	4/22/25				
16	I72897082	G1A	4/22/25				
17	I72897083	B2GR	4/22/25				
18	I72897084	VC4	4/22/25				
19	I72897085	B2G	4/22/25				
20	I72897086	V4	4/22/25				
21	I72897087	C1G	4/22/25				
22	I72897088	C1	4/22/25				
23	I72897089	V5	4/22/25				
	I72897090	B1G	4/22/25				
25	I72897091	B1GR	4/22/25				
26	I72897092	MR2G	4/22/25				
27	I72897093	MR2	4/22/25				
28	I72897094	MR3	4/22/25				
29	I72897095	G3G	4/22/25				
30	I72897096	G3A	4/22/25				
31	I72897097	G3	4/22/25				
32	I72897098	A2G	4/22/25				
	I72897099	A2B	4/22/25				
34	I72897100	A2	4/22/25				

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

Truss Design Engineer's Name: Galinski, John
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(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.

April 22,2025

Galinski, John

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	D1G	Monopitch Supported Gable	3	1	Job Reference (optional)	I72897067

Structural, LLC, Thurmont, MD - 21788,

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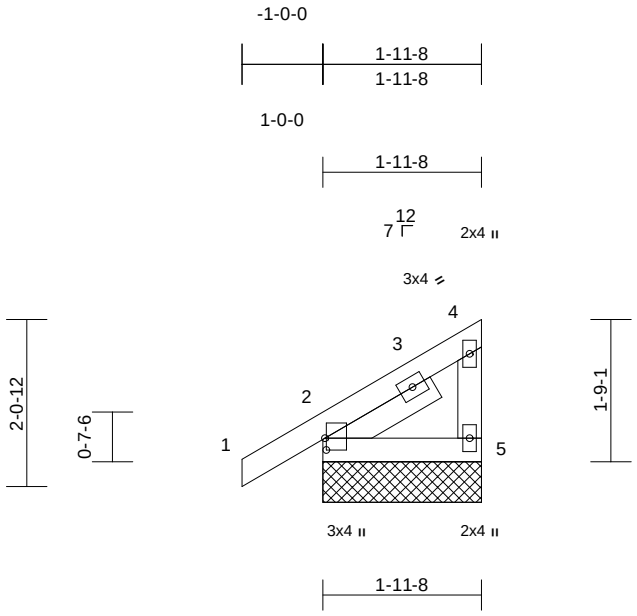

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Plate Offsets (X, Y): [2:0-1-12,0-0-3]

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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 12 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=1-11-8, 5=1-11-8
Max Horiz 2=38 (LC 15)
Max Uplift 5=-5 (LC 13)
Max Grav 2=180 (LC 23), 5=65 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-4=-53/49, 4-5=-69/73
BOT CHORD 2-5=-20/27

NOTES
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) 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
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.
3) 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 design.
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.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 5.

LOAD CASE(S) Standard

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Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof
2503-4263-A	D1	Monopitch	13	1	I72897068 Job Reference (optional)

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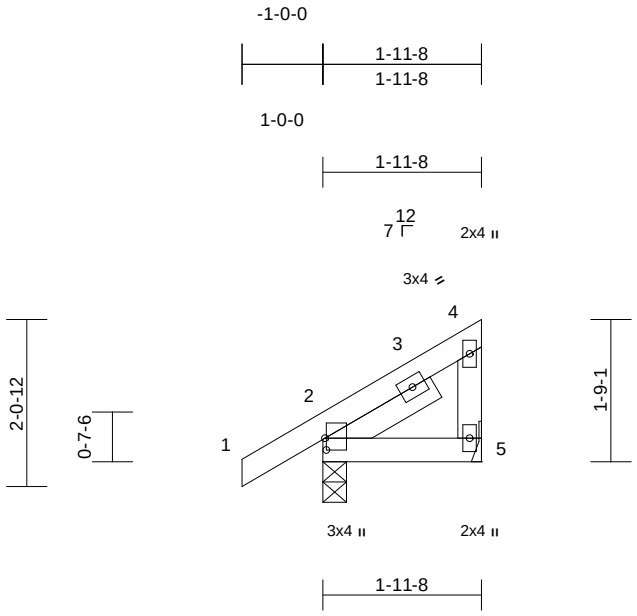

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Plate Offsets (X, Y): [2:0-1-12,0-0-3]

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	0.10	Vert(LL)	0.00	8	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	5-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP		Wind(LL)	0.00	8	>999	240		
BCDL	10.0										Weight: 12 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-8, 5= Mechanical
Max Horiz 2=38 (LC 15)
Max Uplift 5=-5 (LC 13)
Max Grav 2=182 (LC 23), 5=62 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/42, 2-4=-45/43, 4-5=-65/47
BOT CHORD 2-5=-20/22

NOTES
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 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) 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.
5) 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.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 5.
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.

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Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	VC1	Valley	1	1	Job Reference (optional)	I72897069

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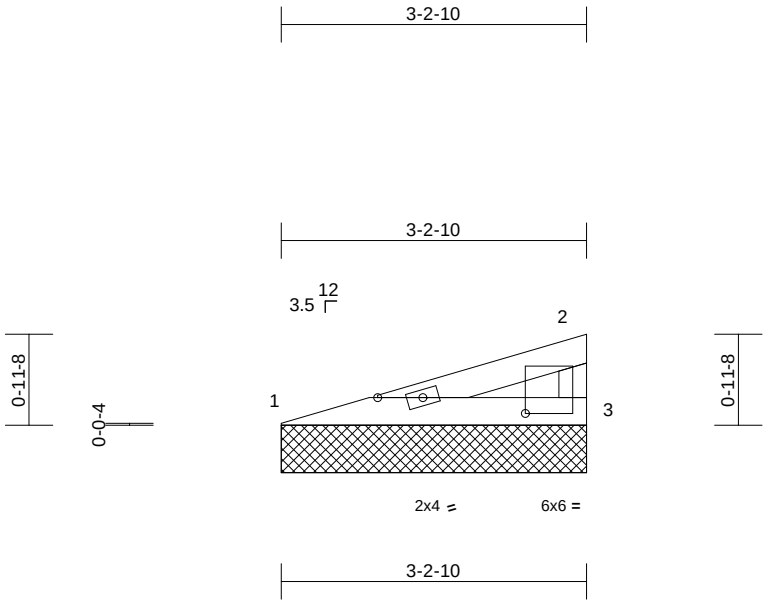

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Plate Offsets (X, Y): [3:1-6-11,0-2-0]

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	0.09	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(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 9 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-2-10 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-2-10, 3=3-2-10
Max Horiz 1=18 (LC 13)
Max Grav 1=135 (LC 22), 3=135 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-244/83, 2-3=-77/48
BOT CHORD 1-3=-128/233

NOTES
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 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
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.
3) 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 design.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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.

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Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	V1	Valley	4	1	Job Reference (optional)	I72897070

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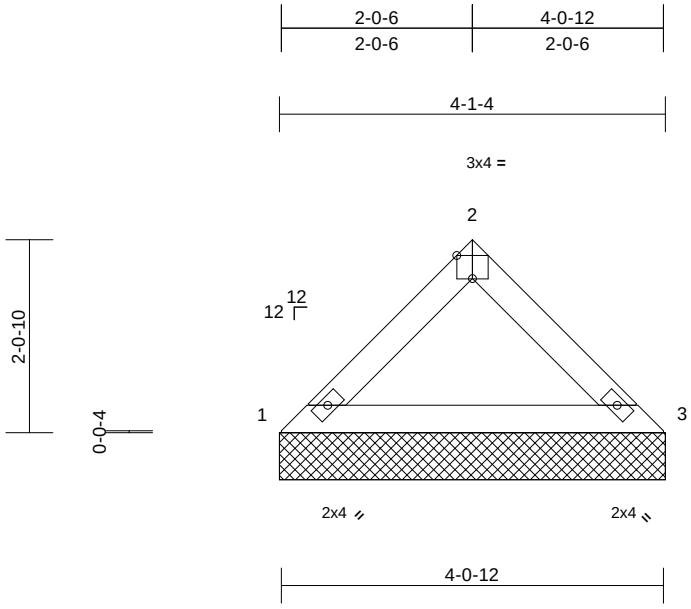

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Plate Offsets (X, Y): [2:0-2-0,Edge]

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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 13 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-1-4, 3=4-1-4
Max Horiz 1=-30 (LC 14)
Max Grav 1=174 (LC 22), 3=174 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-231/84, 2-3=-231/86
BOT CHORD 1-3=-66/156

NOTES
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) 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 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
5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) 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) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 3.

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Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	VC2	Valley	1	1	Job Reference (optional)	I72897071

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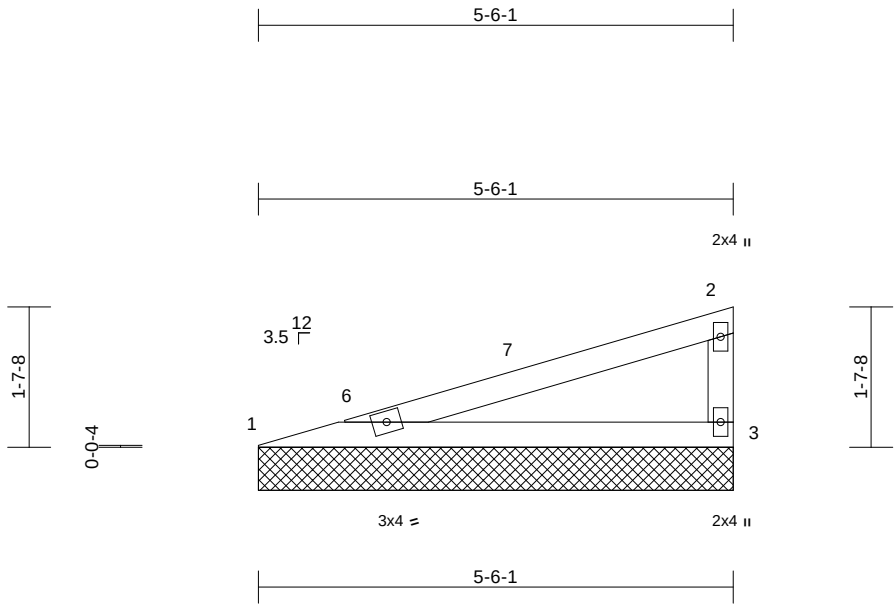

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.76	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	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
WEBS 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=5-6-1, 3=5-6-1
Max Horiz 1=35 (LC 13)
Max Grav 1=249 (LC 22), 3=249 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-608/176, 2-3=-163/108
BOT CHORD 1-3=-269/575

NOTES
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 Exterior(2E) 0-0-14 to 3-0-14, Interior (1) 3-0-14 to 5-5-3 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
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.
3) 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 design.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) 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	Blake Pond Lot 00.0094 Roof	
2503-4263-A	P1G	Monopitch Supported Gable	2	1	Job Reference (optional)	I72897072

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:38 Page: 1
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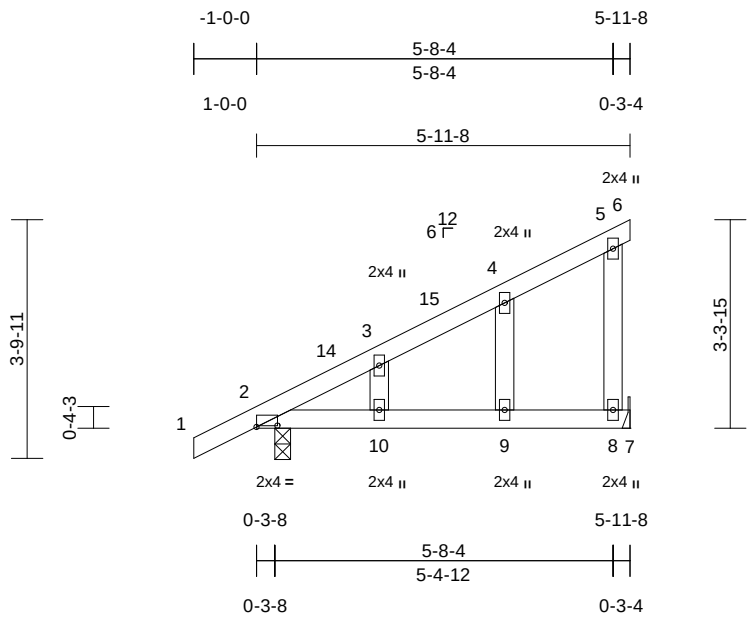

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Plate Offsets (X, Y): [2:0-4-0,0-0-4]

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	0.47	Vert(LL)	-0.09	9-10	>788	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.15	9-10	>458	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.09	9-10	>744	240		
BCDL	10.0										Weight: 28 lb	FT = 20%

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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-0, 8= Mechanical
Max Horiz 2=73 (LC 16)
Max Uplift 2=-6 (LC 13), 8=-27 (LC 13)
Max Grav 2=305 (LC 23), 8=302 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-111/45, 3-4=-92/46, 4-5=-62/63, 5-6=-10/0
BOT CHORD 2-10=-56/63, 9-10=0/0, 8-9=0/0, 7-8=0/0
WEBS 4-9=-70/45, 3-10=-57/30, 5-8=-175/114

NOTES
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 Exterior(2E) -1-0-0 to 1-11-8, Interior (1) 1-11-8 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
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.
3) 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 design.
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.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) Refer to girder(s) for truss to truss connections.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 8.
12) 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.
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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	P1	Monopitch	16	1	Job Reference (optional)	I72897073

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:38 Page: 1
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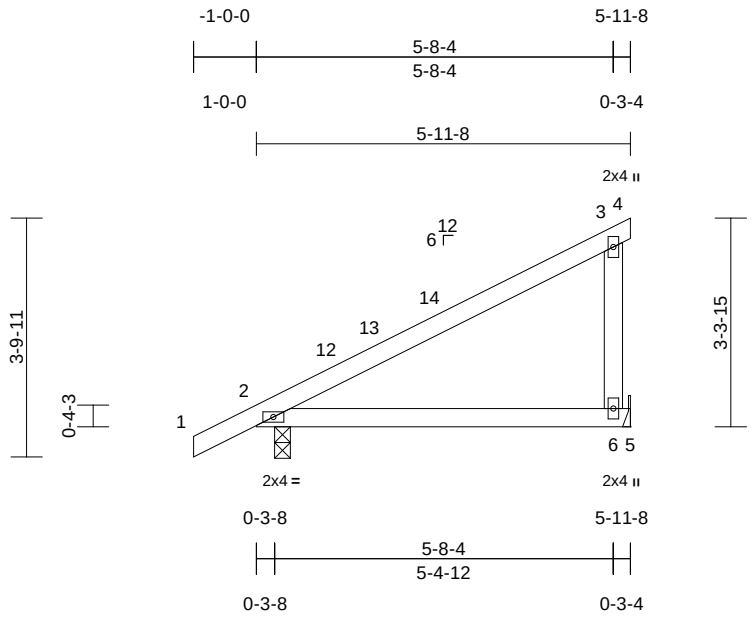

Scale = 1:36.7

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	0.51	Vert(LL)	-0.04	6-11	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.09	6-11	>794	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	6-11	>999	240		
BCDL	10.0										Weight: 25 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 6= Mechanical
Max Horiz 2=73 (LC 16)
Max Uplift 2=-6 (LC 13), 6=-27 (LC 13)
Max Grav 2=321 (LC 23), 6=286 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-123/158, 3-4=-10/0
BOT CHORD 2-6=-157/143, 5-6=0/0
WEBS 3-6=-211/139

NOTES
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 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) 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.
5) 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.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 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 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	P2G	Monopitch Supported Gable	2	1	Job Reference (optional)	I72897074

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:39 Page: 1
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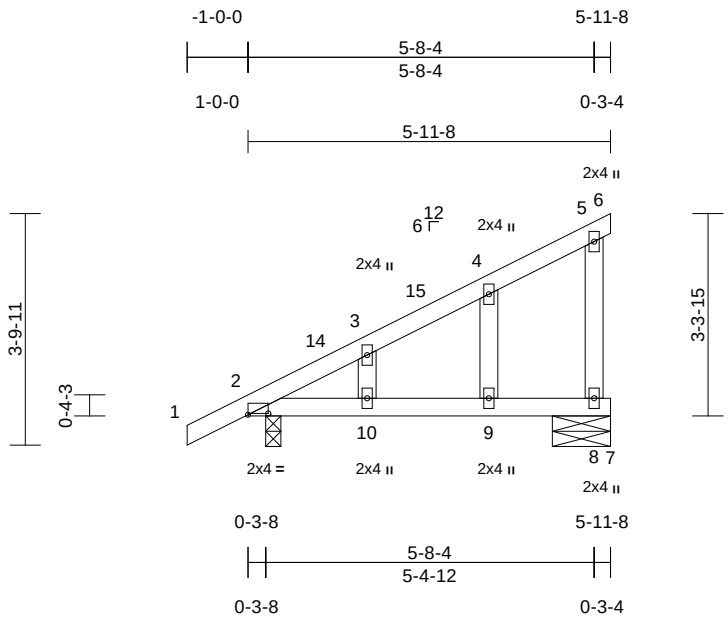

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Plate Offsets (X, Y): [2:0-4-0,0-0-4]

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	0.47	Vert(LL)	-0.09	9-10	>788	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.51	Vert(CT)	-0.15	9-10	>458	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.09	9-10	>744	240		
BCDL	10.0										Weight: 28 lb	FT = 20%

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.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-0, 8=0-11-8
Max Horiz 2=73 (LC 16)
Max Uplift 2=-6 (LC 13), 8=-27 (LC 13)
Max Grav 2=305 (LC 23), 8=302 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-111/45, 3-4=-92/46, 4-5=-62/63, 5-6=-10/0
BOT CHORD 2-10=-56/63, 9-10=0/0, 8-9=0/0, 7-8=0/0
WEBS 4-9=-70/45, 3-10=-57/30, 5-8=-175/114

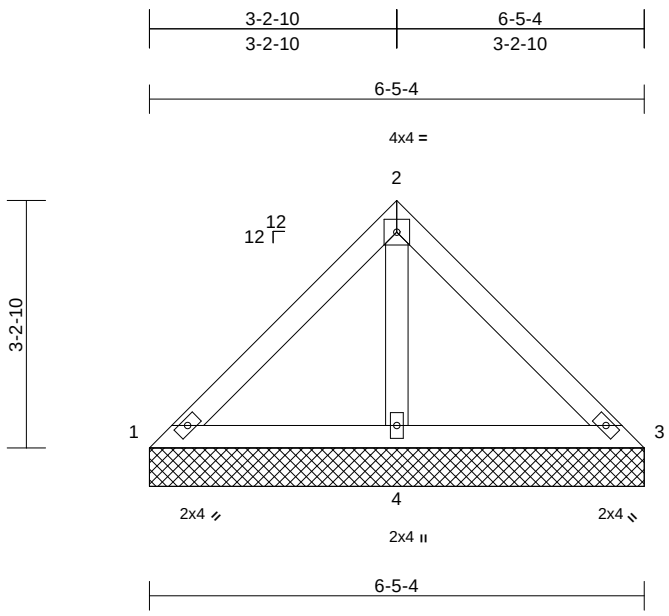
NOTES
1) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) -1-0-0 to 1-11-8, Interior (1) 1-11-8 to 5-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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.
3) 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 design.
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.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 27 lb uplift at joint 8.
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 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	V2	Valley	4	1	Job Reference (optional)	I72897075



Scale = 1:30

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	0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.29	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 26 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 or 6-5-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=6-5-4, 3=6-5-4, 4=6-5-4
Max Horiz 1=48 (LC 13)
Max Grav 1=68 (LC 22), 3=68 (LC 23), 4=427 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-95/165, 2-3=-75/165
BOT CHORD 1-4=-130/134, 3-4=-130/134
WEBS 2-4=-348/191

NOTES
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) 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 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
5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) 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.

LOAD CASE(S) Standard

April 22,2025

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	G1	Monopitch	10	1	Job Reference (optional)	I72897076

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:36 Page: 1
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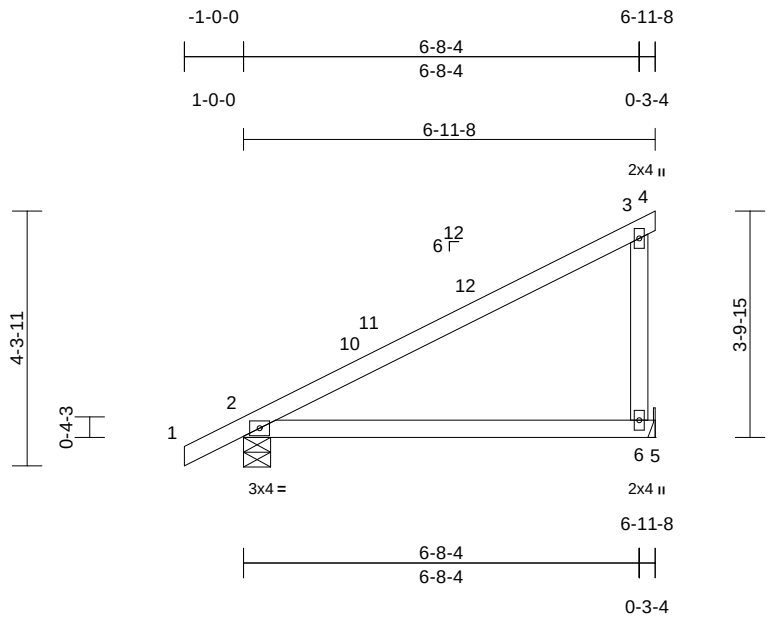

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.75	Vert(LL)	-0.10	6-9	>823	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.21	6-9	>389	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.08	6-9	>999	240		
BCDL	10.0										Weight: 28 lb	FT = 20%

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

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

REACTIONS (size) 2=0-5-8, 6= Mechanical
Max Horiz 2=84 (LC 16)
Max Uplift 6=-10 (LC 16)
Max Grav 2=332 (LC 23), 6=346 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-101/81, 3-4=-10/0
BOT CHORD 2-6=-49/98, 5-6=0/0
WEBS 3-6=-253/143

NOTES
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 Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 6-11-8 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) 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.
5) 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.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 6.
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 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	VC3	Valley	1	1	Job Reference (optional)	I72897077

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:41 Page: 1
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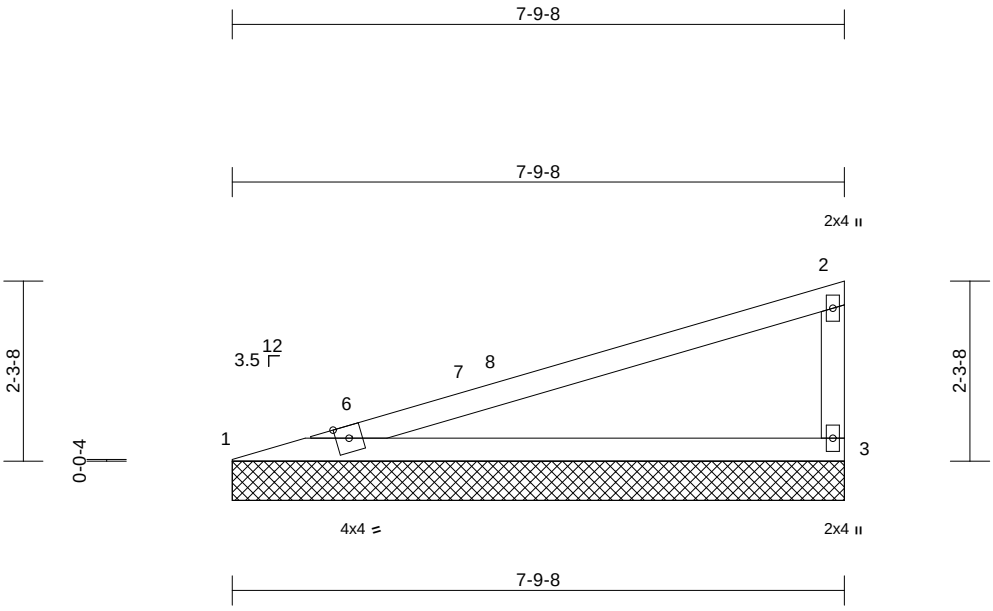

Scale = 1:29.3

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	0.90	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.87	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.02	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 25 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=7-9-8, 3=7-9-8
Max Horiz 1=52 (LC 13)
Max Grav 1=324 (LC 22), 3=352 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-906/200, 2-3=-239/142
BOT CHORD 1-3=-286/863

NOTES
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 Exterior(2E) 0-0-14 to 3-0-14, Interior (1) 3-0-14 to 7-8-10 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
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.
3) 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 design.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	PB1A	Piggyback	4	1	Job Reference (optional)	I72897078

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:39 Page: 1
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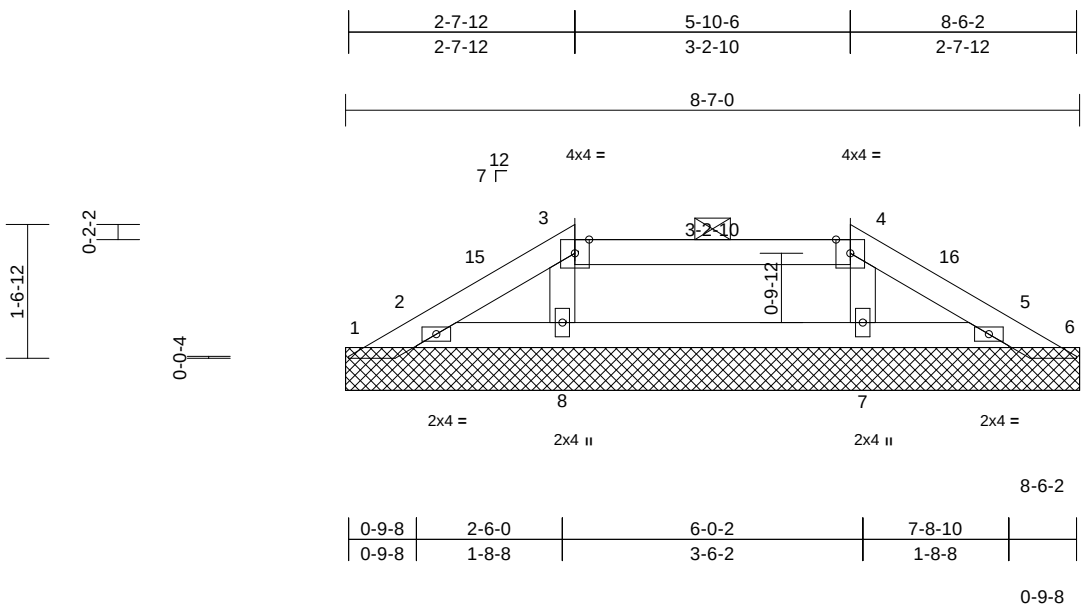

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 27 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 3-4.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 1=8-7-0, 2=8-7-0, 5=8-7-0, 6=8-7-0, 7=8-7-0, 8=8-7-0
Max Horiz 1=21 (LC 13)
Max Uplift 1=-22 (LC 57), 2=-13 (LC 16), 5=-17 (LC 17), 6=-14 (LC 45)
Max Grav 1=17 (LC 13), 2=190 (LC 45), 5=178 (LC 45), 6=9 (LC 17), 7=230 (LC 44), 8=231 (LC 44)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-26/50, 2-3=-40/23, 3-4=-37/36, 4-5=-40/23, 5-6=-6/37
BOT CHORD 2-8=-6/16, 7-8=-4/27, 5-7=-6/16
WEBS 3-8=-162/44, 4-7=-162/44

NOTES
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) 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) 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
4) Unbalanced snow loads have been considered for this design.
5) Provide adequate drainage to prevent water ponding.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 14 lb uplift at joint 6.
11) N/A
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.
13) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
14) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	PB1	Piggyback	22	1	Job Reference (optional)	I72897079

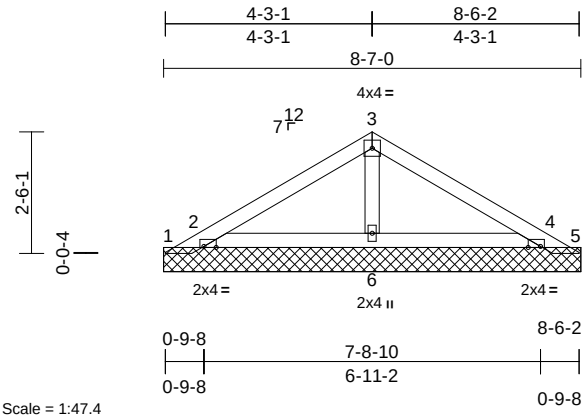

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Plate Offsets (X, Y): [2:0-3-1,Edge], [4:0-3-1,Edge]

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	0.25	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	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
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 15)
Max Uplift 1=-184 (LC 23), 2=-20 (LC 16), 4=-22 (LC 17), 5=-181 (LC 24)
Max Grav 1=27 (LC 16), 2=459 (LC 23), 4=445 (LC 24), 5=19 (LC 17), 6=207 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-42/124, 2-3=-105/75, 3-4=-105/74, 4-5=-32/118
BOT CHORD 2-6=-67/38, 4-6=-67/38
WEBS 3-6=-113/21

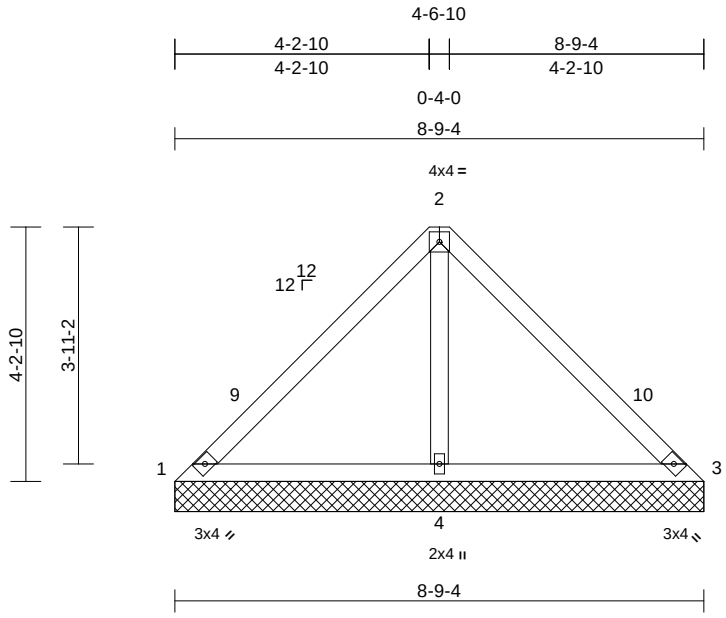
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-16; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) and C-C Exterior(2E) 0-3-11 to 3-3-11, Interior (1) 3-3-11 to 4-3-8, Exterior(2R) 4-3-8 to 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
3) 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
5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 184 lb uplift at joint 1 and 181 lb uplift at joint 5.
12) N/A
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) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	V3	Valley	4	1	Job Reference (optional)	I72897080



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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	0.36	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	0.19	Horiz(TL)	0.00	3	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 35 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 or 8-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-9-4, 3=8-9-4, 4=8-9-4
Max Horiz 1=67 (LC 13)
Max Uplift 1=-39 (LC 23), 3=-39 (LC 22), 4=-14 (LC 16)
Max Grav 1=56 (LC 39), 3=56 (LC 40), 4=671 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-161/309, 2-3=-150/309
BOT CHORD 1-4=-231/211, 3-4=-231/211
WEBS 2-4=-593/286

NOTES
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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 4-4-10, Exterior(2R) 4-4-10 to 7-4-10, Interior (1) 7-4-10 to 8-9-4 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 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
5) Unbalanced snow loads have been considered for this design.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 4-0-0 oc.
9) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1, 39 lb uplift at joint 3 and 14 lb uplift at joint 4.

LOAD CASE(S) Standard

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	G1G	Monopitch Supported Gable	2	1	Job Reference (optional)	I72897081

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:36 Page: 1

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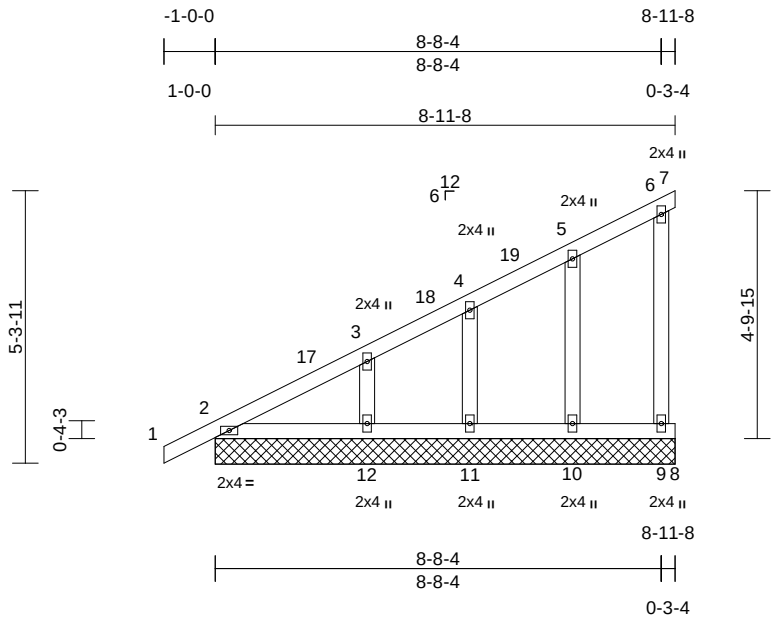

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 46 lb	FT = 20%

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.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS (size) 2=8-11-8, 7=8-11-8, 8=8-11-8, 9=8-11-8, 10=8-11-8, 11=8-11-8, 12=8-11-8

Max Horiz 2=106 (LC 16)

Max Uplift 8=-21 (LC 7), 10=-8 (LC 16), 11=-5 (LC 16), 12=-9 (LC 16)

Max Grav 2=170 (LC 2), 7=1 (LC 23), 8=-6 (LC 12), 9=106 (LC 23), 10=208 (LC 23), 11=168 (LC 23), 12=224 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/36, 2-3=-241/89, 3-4=-166/55, 4-5=-107/46, 5-6=-38/19, 6-7=-9/0
BOT CHORD	2-12=-32/33, 11-12=0/0, 10-11=0/0, 9-10=0/0, 8-9=0/0
WEBS	5-10=-167/130, 4-11=-138/107, 3-12=-177/141, 6-9=-75/61

NOTES

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 2-0-0, Exterior(2N) 2-0-0 to 8-11-8 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
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.
3) 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 design.
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.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) Gable requires continuous bottom chord bearing.
8) Gable studs spaced at 2-0-0 oc.
9) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 21 lb uplift at joint 8, 8 lb uplift at joint 10, 5 lb uplift at joint 11 and 9 lb uplift at joint 12.
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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	G1A	Monopitch	10	1	Job Reference (optional)	I72897082

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:36 Page: 1
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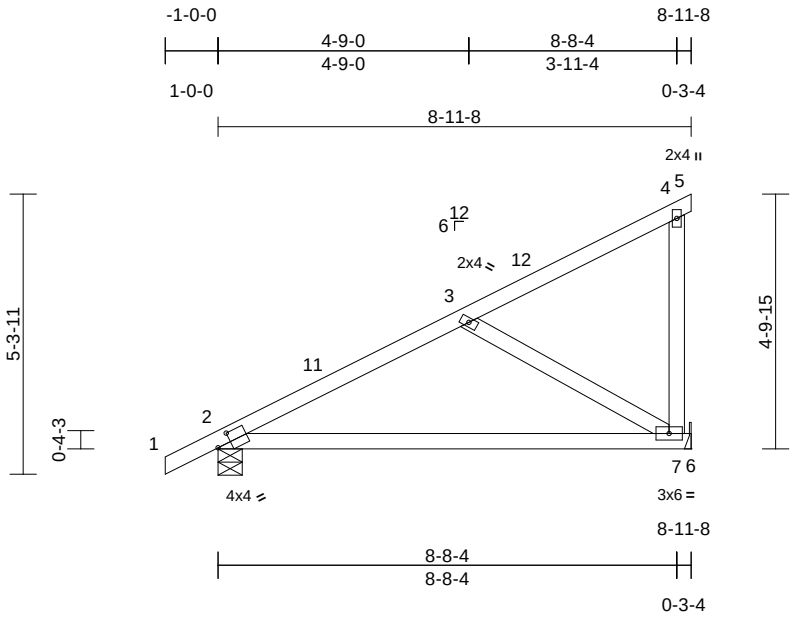

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Plate Offsets (X, Y): [2:0-3-2,0-2-2]

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	0.57	Vert(LL)	-0.17	7-10	>612	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.35	7-10	>298	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.02	7-10	>999	240		
BCDL	10.0										Weight: 43 lb	FT = 20%

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

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

REACTIONS (size) 2=0-5-8, 7= Mechanical
Max Horiz 2=105 (LC 16)
Max Uplift 7=-13 (LC 16)
Max Grav 2=411 (LC 2), 7=423 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/36, 2-3=-401/46, 3-4=-91/40, 4-5=-10/0
BOT CHORD 2-7=-160/366, 6-7=0/0
WEBS 4-7=-144/89, 3-7=-421/184

NOTES
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 Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 8-11-8 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) 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.
5) 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.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 13 lb uplift at joint 7.
10) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof
2503-4263-A	B2GR	Hip Girder	2	**2**	I72897083 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:34 Page: 1
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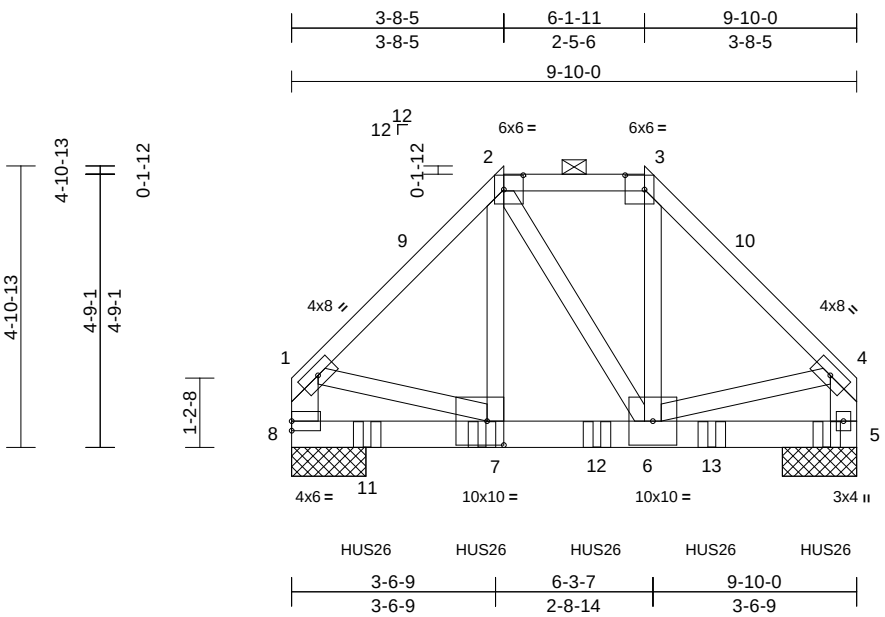

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Plate Offsets (X, Y): [2:0-4-1,0-3-0], [3:0-4-1,0-3-0], [7:0-3-8,0-5-0]

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	0.25	Vert(LL)	-0.02	7-8	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.03	7-8	>999	240		
TCDL	10.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.00	7-8	>999	240		
BCDL	10.0										Weight: 149 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 8-1,5-4:2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 5=1-3-8, 8=1-3-8
Max Horiz 8=-78 (LC 10)
Max Grav 5=4913 (LC 26), 8=4021 (LC 25)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-3207/0, 2-3=-2186/0, 3-4=-3153/0, 1-8=-2814/0, 4-5=-2800/0
BOT CHORD 7-8=0/570, 6-7=0/2201, 5-6=0/343
WEBS 2-7=0/2072, 2-6=-39/53, 3-6=0/2037, 1-7=0/1824, 4-6=0/1964

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) 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
6) Unbalanced snow loads have been considered for this design.
7) Provide adequate drainage to prevent water ponding.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) Use Simpson Strong-Tie HUS26 (14-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 1-7-4 from the left end to 9-7-4 to connect truss(es) to back face of bottom chord.
13) Fill all nail holes where hanger is in contact with lumber.
14) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1664 lb down at 9-10-12 on bottom chord. The design/ selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-3=-61, 3-4=-51, 5-8=-20
Concentrated Loads (lb)
Vert: 5=-1279 (B), 7=-1272 (B), 11=-1272 (B), 12=-1272 (B), 13=-1272 (B)

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	VC4	Valley	1	1	Job Reference (optional)	I72897084

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:41 Page: 1

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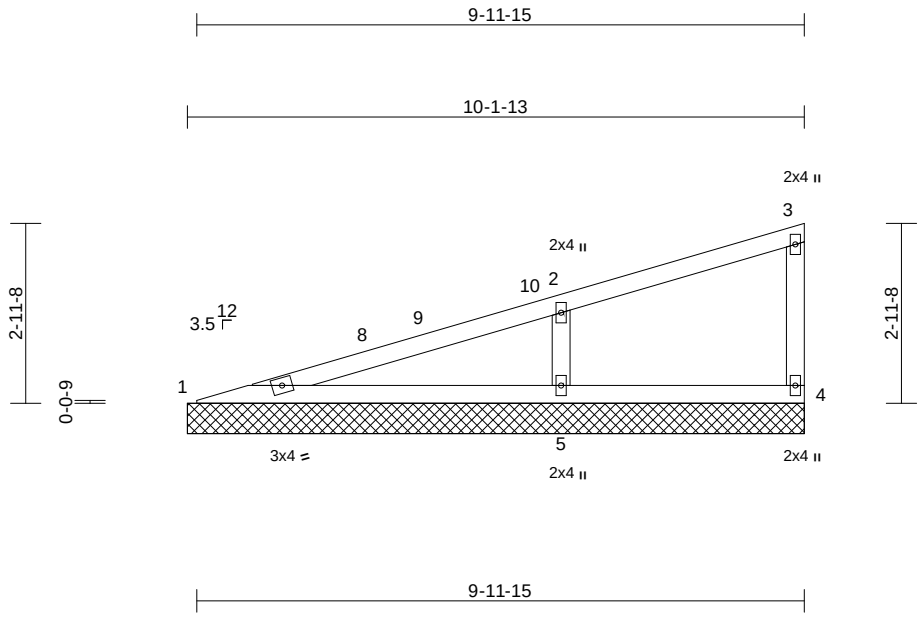

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.37	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.59	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.01	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 34 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS (size) 1=10-1-13, 4=10-1-13, 5=10-1-13
Max Horiz 1=69 (LC 13)
Max Grav 1=199 (LC 2), 4=105 (LC 22), 5=558 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-500/101, 2-3=-57/44, 3-4=-95/80
BOT CHORD	1-5=-123/501, 4-5=-42/43
WEBS	2-5=-396/183

NOTES

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 Exterior(2E) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-0-1 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
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.
3) 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 design.
5) Plates checked for a plus or minus 5 degree rotation about its center.
6) Gable requires continuous bottom chord bearing.
7) Gable studs spaced at 4-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1.
11) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	B2G	Hip Supported Gable	2	1	Job Reference (optional)	I72897085

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:34 Page: 1
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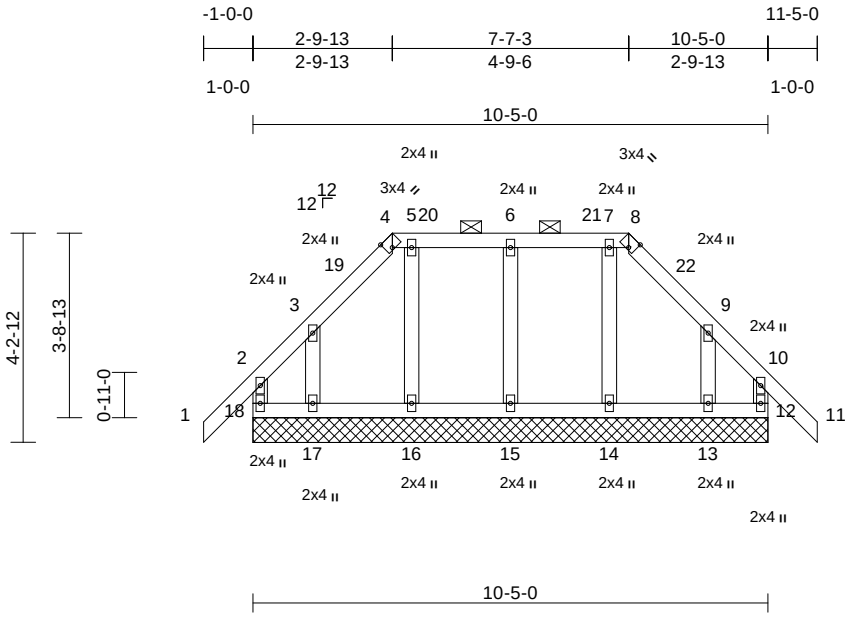

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Plate Offsets (X, Y): [4:0-1-8,Edge], [8:0-1-8,Edge]

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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 60 lb	FT = 20%

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 or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 4-8.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 12=10-5-0, 13=10-5-0, 14=10-5-0, 15=10-5-0, 16=10-5-0, 17=10-5-0, 18=10-5-0
Max Horiz 18=79 (LC 15)
Max Uplift 12=-25 (LC 13), 13=-36 (LC 17), 15=-4 (LC 12), 17=-38 (LC 16), 18=-35 (LC 12)
Max Grav 12=208 (LC 45), 13=161 (LC 59), 14=203 (LC 44), 15=261 (LC 44), 16=203 (LC 44), 17=167 (LC 57), 18=208 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-18=-190/120, 1-2=0/83, 2-3=-64/54, 3-4=-81/122, 4-5=-49/119, 5-6=-49/119, 6-7=-49/119, 7-8=-49/119, 8-9=-81/121, 9-10=-55/44, 10-11=0/83, 10-12=-190/120
BOT CHORD 17-18=-39/81, 16-17=-39/81, 15-16=-39/81, 14-15=-39/81, 13-14=-39/81, 12-13=-39/81
WEBS 6-15=-222/79, 5-16=-161/8, 3-17=-162/97, 7-14=-161/3, 9-13=-161/96

NOTES
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 Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 2-9-13, Corner (3R) 2-9-13 to 5-9-13, Exterior(2N) 5-9-13 to 7-7-3, Corner(3R) 7-7-3 to 10-7-3, Exterior(2N) 10-7-3 to 11-5-0 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 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=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
5) Unbalanced snow loads have been considered for this design.
6) 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.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 18, 25 lb uplift at joint 12, 4 lb uplift at joint 15, 38 lb uplift at joint 17 and 36 lb uplift at joint 13.
15) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	V4	Valley	2	1	Job Reference (optional)	I72897086

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:40 Page: 1
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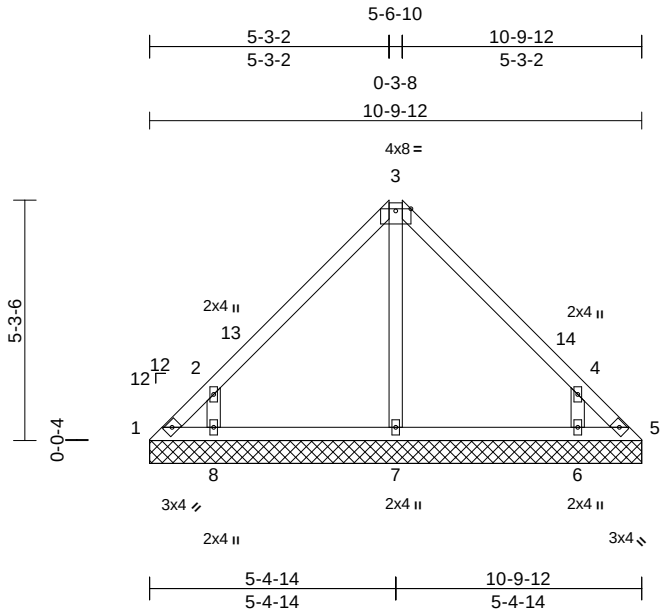

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 47 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=10-9-12, 5=10-9-12, 6=10-9-12, 7=10-9-12, 8=10-9-12
Max Horiz 1=82 (LC 13)
Max Uplift 1=-48 (LC 14), 5=-24 (LC 15), 6=-63 (LC 17), 8=-68 (LC 16)
Max Grav 1=69 (LC 13), 5=48 (LC 12), 6=367 (LC 23), 7=213 (LC 2), 8=373 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-113/93, 2-3=-194/96, 3-4=-196/96, 4-5=-110/83
BOT CHORD 1-8=-51/67, 7-8=-18/64, 6-7=-18/66, 5-6=-48/66
WEBS 3-7=-125/0, 4-6=-377/237, 2-8=-393/242

NOTES
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 Corner (3E) 0-0-4 to 3-0-4, Exterior(2N) 3-0-4 to 5-6-0, Corner (3R) 5-6-0 to 8-6-0, Exterior(2N) 8-6-0 to 10-10-0 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 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
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) Plates checked for a plus or minus 5 degree rotation about its center.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 4-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 48 lb uplift at joint 1, 24 lb uplift at joint 5, 63 lb uplift at joint 6 and 68 lb uplift at joint 8.

LOAD CASE(S) Standard

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	C1G	Monopitch Supported Gable	1	1	Job Reference (optional)	I72897087

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:35 Page: 1

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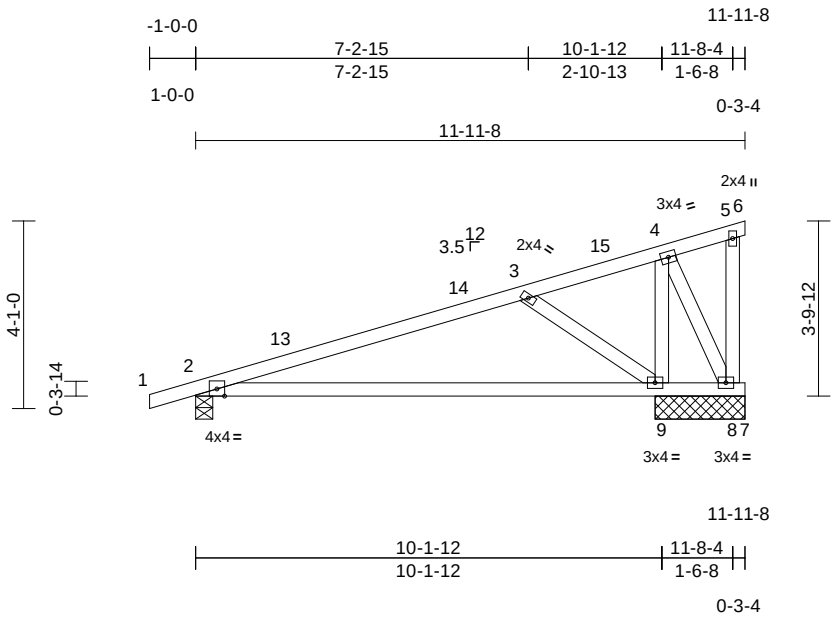

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	-0.17	9-12	>727	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.37	9-12	>328	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.18	9-12	>664	240		
BCDL	10.0										Weight: 56 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 2=0-4-8, 6=1-11-8, 7=1-11-8, 8=1-11-8, 9=1-11-8
Max Horiz 2=85 (LC 12)
Max Uplift 2=-66 (LC 12), 6=-33 (LC 2), 7=-62 (LC 12), 8=-799 (LC 7), 9=-131 (LC 12)
Max Grav 2=418 (LC 2), 6=5 (LC 12), 7=504 (LC 7), 8=111 (LC 12), 9=934 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-376/87, 3-4=-68/115, 4-5=-18/20, 5-6=-14/4
BOT CHORD 2-9=-165/342, 8-9=-109/35, 7-8=0/0
WEBS 5-8=-121/58, 4-9=-303/91, 4-8=-76/237, 3-9=-541/238

NOTES

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 Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 11-11-8 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
2) 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
3) Unbalanced snow loads have been considered for this design.
4) 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.
5) 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.
7) * 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.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 33 lb uplift at joint 6, 62 lb uplift at joint 7 and 799 lb uplift at joint 8.
9) N/A
10) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	C1	Monopitch	7	1	Job Reference (optional)	I72897088

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:35 Page: 1
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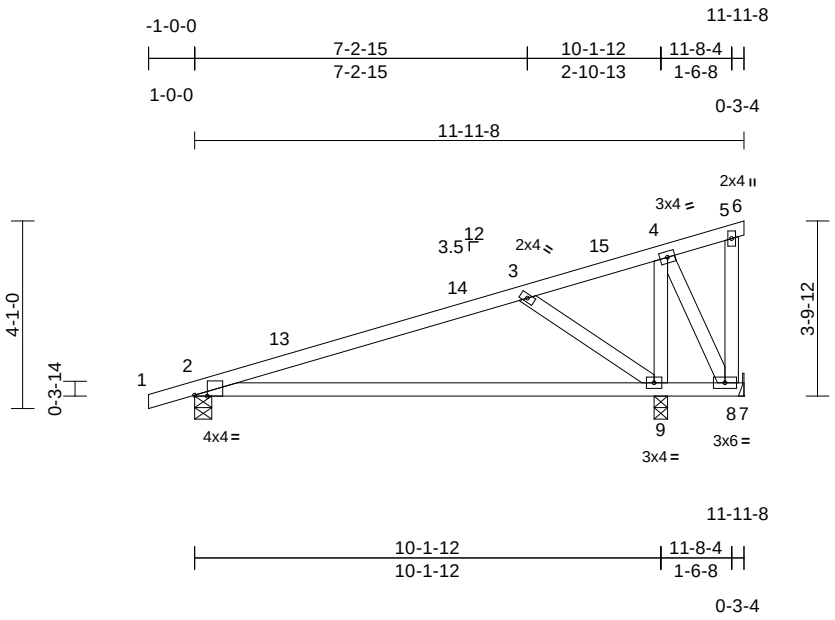

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Plate Offsets (X, Y): [2:0-3-5,Edge]

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	0.56	Vert(LL)	-0.17	9-12	>709	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.38	9-12	>320	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.19	9-12	>649	240		
BCDL	10.0										Weight: 56 lb	FT = 20%

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

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

REACTIONS (size) 2=0-4-8, 8= Mechanical, 9=0-3-8
Max Horiz 2=85 (LC 12)
Max Uplift 2=-66 (LC 12), 8=-256 (LC 2), 9=-120 (LC 12)
Max Grav 2=419 (LC 2), 8=43 (LC 12), 9=876 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/23, 2-3=-377/90, 3-4=-67/114, 4-5=-17/16, 5-6=-6/0
BOT CHORD 2-9=-166/344, 8-9=-108/35, 7-8=0/0
WEBS 5-8=-84/42, 4-9=-306/93, 4-8=-76/235, 3-9=-542/238

NOTES
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 Exterior(2E) -1-0-0 to 2-0-0, Interior (1) 2-0-0 to 11-11-8 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) 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
3) Unbalanced snow loads have been considered for this design.
4) 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.
5) 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.
7) * 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.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 256 lb uplift at joint 8.
10) One H2.5A Simpson Strong-Tie connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
11) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	V5	Valley	2	1	Job Reference (optional)	I72897089

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:40 Page: 1
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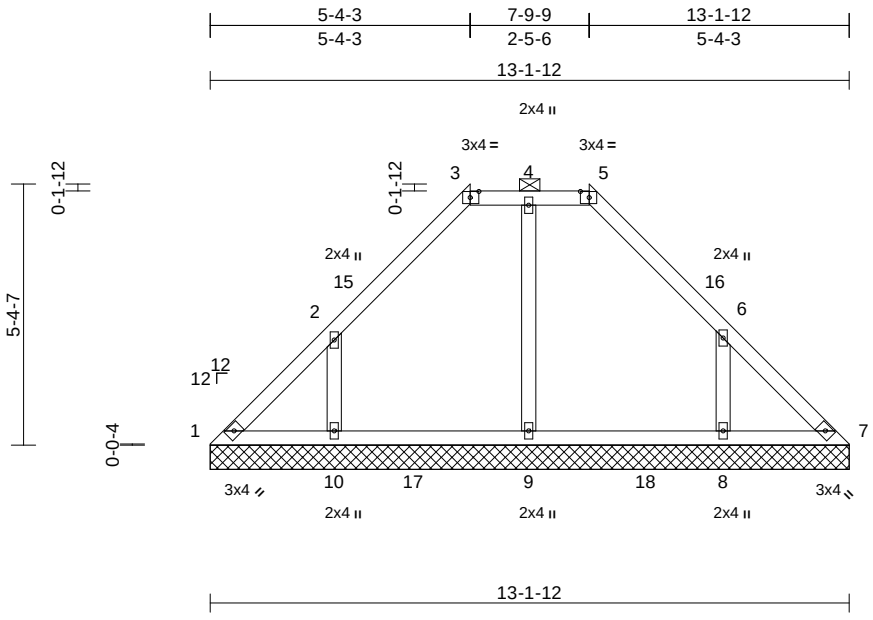

Scale = 1:47.4

Plate Offsets (X, Y): [3:0-2-3,0-1-8], [5:0-2-3,0-1-8]

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	0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	7	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 57 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=13-1-12, 7=13-1-12, 8=13-1-12, 9=13-1-12, 10=13-1-12
Max Horiz 1=-81 (LC 12)
Max Uplift 1=-7 (LC 12), 8=-47 (LC 17), 10=-51 (LC 16)
Max Grav 1=206 (LC 44), 7=210 (LC 44), 8=466 (LC 58), 9=349 (LC 61), 10=471 (LC 56)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-243/52, 2-3=-273/114, 3-4=-140/123, 4-5=-140/123, 5-6=-271/114, 6-7=-247/37
BOT CHORD 1-10=-22/170, 9-10=-19/116, 8-9=-19/116, 7-8=-19/172
WEBS 4-9=-178/13, 2-10=-338/211, 6-8=-335/207

NOTES
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 Corner (3E) 0-0-4 to 3-0-4, Exterior(2N) 3-0-4 to 5-4-7, Corner (3E) 5-4-7 to 7-9-13, Corner(3R) 7-9-13 to 10-6-14, Exterior(2N) 10-6-14 to 13-2-0 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 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=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
5) Unbalanced snow loads have been considered for this design.
6) Provide adequate drainage to prevent water ponding.
7) Plates checked for a plus or minus 5 degree rotation about its center.
8) Gable requires continuous bottom chord bearing.
9) Gable studs spaced at 4-0-0 oc.
10) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
11) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1, 51 lb uplift at joint 10 and 47 lb uplift at joint 8.
13) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof
2503-4263-A	B1G	Hip Supported Gable	2	1	I72897090 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:33 Page: 1

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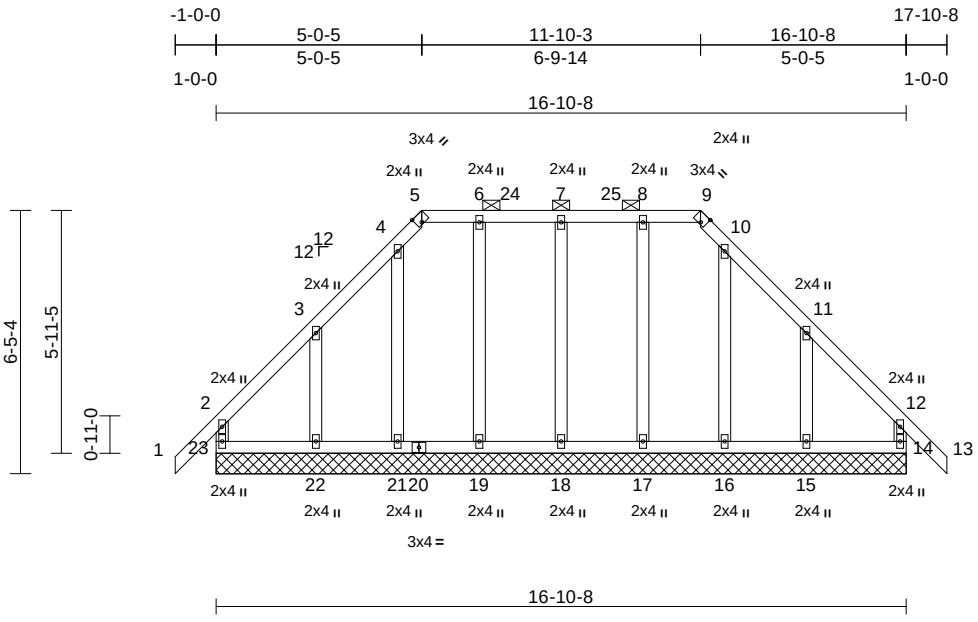

Scale = 1:56.4

Plate Offsets (X, Y): [5:0-1-8,Edge], [9:0-1-8,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	0.16	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 109 lb	FT = 20%

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 or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-9.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 14=16-10-8, 15=16-10-8, 16=16-10-8, 17=16-10-8, 18=16-10-8, 19=16-10-8, 21=16-10-8, 22=16-10-8, 23=16-10-8

Max Horiz 23=114 (LC 15)

Max Uplift 14=-13 (LC 13), 15=-78 (LC 17), 18=-2 (LC 12), 22=-79 (LC 16), 23=-24 (LC 12)

Max Grav 14=264 (LC 45), 15=274 (LC 59), 16=208 (LC 45), 17=240 (LC 44), 18=248 (LC 44), 19=240 (LC 44), 21=208 (LC 45), 22=277 (LC 57), 23=264 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-23=-242/35, 1-2=0/83, 2-3=-112/106, 3-4=-135/125, 4-5=-121/115, 5-6=-105/124, 6-7=-105/124, 7-8=-105/124, 8-9=-105/124, 9-10=-121/115, 10-11=-135/125, 11-12=-101/95, 12-13=0/83, 12-14=-242/31
BOT CHORD	22-23=-52/87, 21-22=-52/87, 19-21=-52/87, 18-19=-52/87, 17-18=-52/87, 16-17=-52/87, 15-16=-52/87, 14-15=-52/87
WEBS	7-18=-218/61, 6-19=-200/11, 4-21=-170/7, 3-22=-287/143, 8-17=-200/9, 10-16=-170/1, 11-15=-288/143

NOTES

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 Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 5-0-5, Corner (3R) 5-0-5 to 8-0-5, Exterior(2N) 8-0-5 to 11-10-3, Corner(3R) 11-10-3 to 14-10-3, Exterior(2N) 14-10-3 to 17-10-8 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
3) 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=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
5) Unbalanced snow loads have been considered for this design.
6) 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.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 24 lb uplift at joint 23, 13 lb uplift at joint 14, 2 lb uplift at joint 18, 79 lb uplift at joint 22 and 78 lb uplift at joint 15.
15) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof
2503-4263-A	B1GR	Hip Girder	2	2	I72897091 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 E Feb 1 2025 Print: 8.830 E Feb 1 2025 MiTek Industries, Inc. Tue Apr 22 20:34:33 Page: 1
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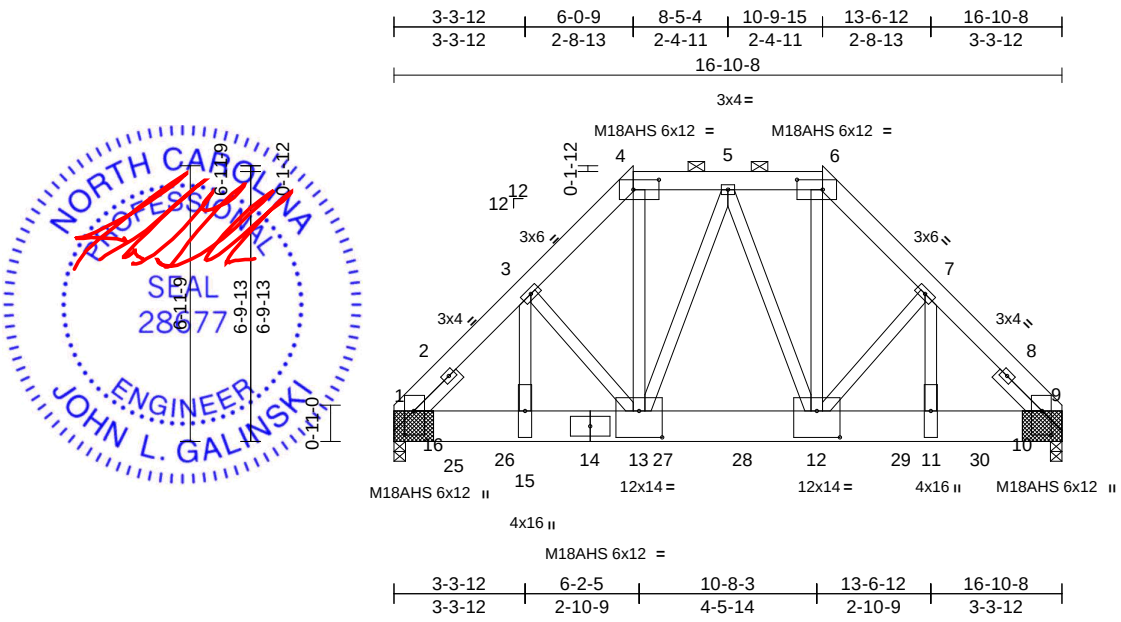

Scale = 1:58.2

Plate Offsets (X, Y): [1:0-7-4,0-2-12], [4:0-7-12,0-3-0], [6:0-7-12,0-3-0], [9:0-7-4,0-2-12], [12:0-7-0,0-8-0], [13:0-7-0,0-8-0]

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	0.46	Vert(LL)	-0.06	12-13	>999	360	M18AHS	186/179
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.42	Vert(CT)	-0.12	12-13	>999	240	MT20	244/190
TCDL	10.0	Rep Stress Incr	NO	WB	0.74	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-MS		Wind(LL)	0.00	13	>999	240		
BCDL	10.0										Weight: 389 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP DSS *Except* 4-6:2x6 SP No.2
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.3 *Except* 13-4,12-6:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-1 oc purlins, except
2-0-0 oc purlins (5-3-8 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=(0-3-8 + bearing block), (req. 0-5-9), 9=(0-3-8 + bearing block), (req. 0-5-2)
Max Horiz 1=-94 (LC 8)
Max Grav 1=11004 (LC 44), 9=10110 (LC 46)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-9771/0, 2-3=-11232/0, 3-4=-9908/0, 4-5=-7358/0, 5-6=-7267/0, 6-7=-9781/0, 7-8=-10838/0, 8-9=-8658/0
BOT CHORD 1-16=0/7815, 16-25=0/7815, 25-26=0/7815, 15-26=0/7815, 14-15=0/7815, 13-14=0/7815, 13-27=0/7168, 27-28=0/7168, 12-28=0/7168, 12-29=0/7465, 11-29=0/7465, 11-30=0/7465, 10-30=0/7465, 9-10=0/7465
WEBS 3-15=0/1994, 3-13=-905/0, 4-13=0/6089, 6-12=0/5997, 7-12=-581/0, 7-11=0/1572, 5-12=0/371, 5-13=0/640

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 3 rows staggered at 0-4-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) 2x10 SP DSS bearing block 12" long at jt. 1 attached to each face with 5 rows of 10d (0.131"x3") nails spaced 3" o.c. 20 Total fasteners per block. Bearing is assumed to be SP DSS.
4) 2x10 SP DSS bearing block 12" long at jt. 9 attached to each face with 5 rows of 10d (0.131"x3") nails spaced 3" o.c. 20 Total fasteners per block. Bearing is assumed to be SP DSS.
5) Unbalanced roof live loads have been considered for this design.
6) 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); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
7) 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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
8) Unbalanced snow loads have been considered for this design.
9) Provide adequate drainage to prevent water ponding.
10) All plates are MT20 plates unless otherwise indicated.
11) Plates checked for a plus or minus 5 degree rotation about its center.
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) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 2036 lb down at 1-6-4, 2523 lb down at 2-9-12, 2523 lb down at 4-9-12, 2523 lb down at 6-9-12, 2523 lb down at 8-9-12, 2523 lb down at 10-9-12, and 2523 lb down at 12-9-12, and 2523 lb down at 14-9-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15

April 22,2025

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Uniform Loads (lb/ft)
Vert: 1-4=-51, 4-6=-61, 6-9=-51, 17-21=-20
Concentrated Loads (lb)
Vert: 14=-2234 (B), 12=-2234 (B), 25=-1843 (B), 26=-2234 (B), 27=-2234 (B), 28=-2234 (B), 29=-2234 (B), 30=-2234 (B)

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	MR2G	Roof Special Supported Gable	1	1	Job Reference (optional)	I72897092

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:38 Page: 1

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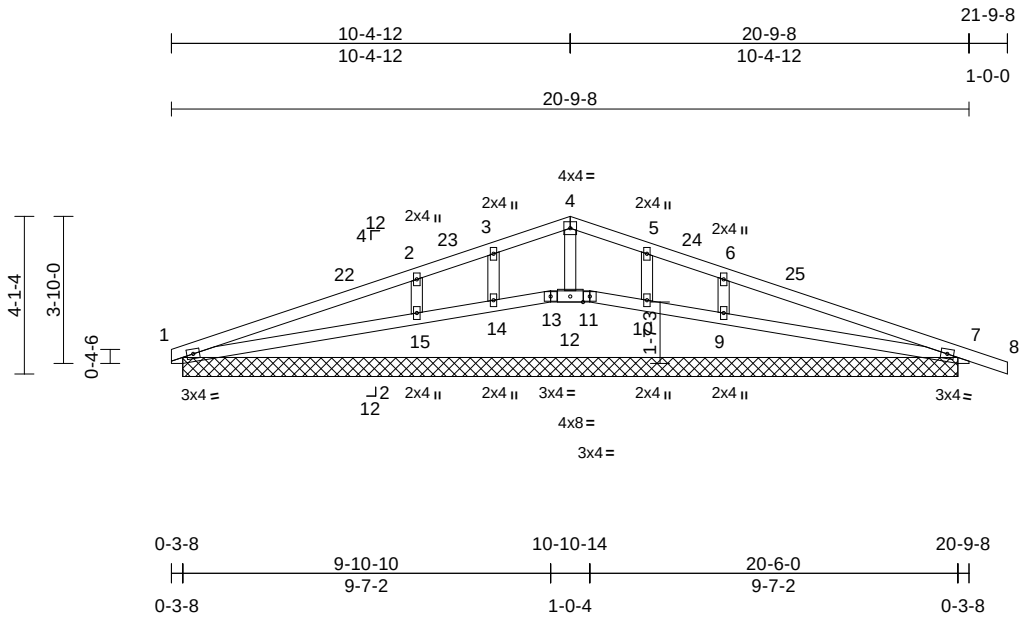

Scale = 1:60.1

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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.01	1	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 75 lb	FT = 20%

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

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

REACTIONS (size) 1=20-2-8, 7=20-2-8, 9=20-2-8, 10=20-2-8, 11=20-2-8, 12=20-2-8, 13=20-2-8, 14=20-2-8, 15=20-2-8
Max Horiz 1=-33 (LC 21)
Max Uplift 7=-20 (LC 13), 10=-73 (LC 2), 12=-54 (LC 7), 14=-82 (LC 2), 15=-2 (LC 16)
Max Grav 1=233 (LC 2), 7=299 (LC 2), 9=558 (LC 24), 10=-6 (LC 17), 11=122 (LC 7), 12=28 (LC 24), 13=122 (LC 7), 14=-4 (LC 12), 15=569 (LC 23)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-227/65, 2-3=-212/122, 3-4=-172/133, 4-5=-172/130, 5-6=-211/117, 6-7=-192/61, 7-8=0/26
BOT CHORD 1-15=-35/199, 14-15=0/132, 13-14=0/148, 12-13=0/139, 11-12=0/139, 10-11=0/148, 9-10=0/133, 7-9=-12/163
WEBS 4-12=-81/3, 3-14=-30/37, 2-15=-385/159, 5-10=-34/38, 6-9=-379/156

NOTES
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 Corner (3E) 0-0-0 to 3-0-0, Exterior(2N) 3-0-0 to 10-4-12, Corner(3R) 10-4-12 to 13-4-12, Exterior(2N) 13-4-12 to 21-9-8 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
3) 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
5) Unbalanced snow loads have been considered for this design.
6) 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) Plates checked for a plus or minus 5 degree rotation about its center.
8) Gable studs spaced at 2-0-0 oc.
9) 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 12, 82 lb uplift at joint 14, 2 lb uplift at joint 15 and 73 lb uplift at joint 10.
12) N/A
13) Non Standard bearing condition. Review required.
14) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 1, 13, 11, 7, 12, 14, 15, 10, 9, 16, 19.
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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	MR2	Roof Special	4	1	Job Reference (optional)	I72897093

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:37 Page: 1

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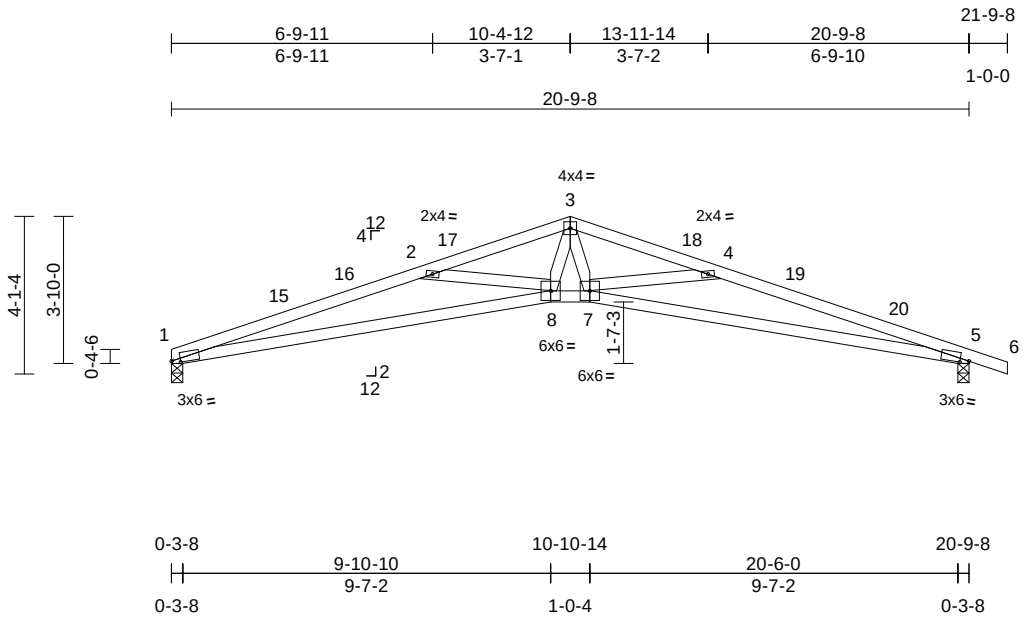

Scale = 1:60.1

Plate Offsets (X, Y): [1:0-2-13,0-0-12], [2:Edge,0-0-0], [5:0-2-13,0-0-12]

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	0.57	Vert(LL)	-0.24	7-8	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.52	8-11	>477	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.22	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.13	7-8	>999	240		
BCDL	10.0										Weight: 81 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS *Except* 8-7:2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=-33 (LC 17)
Max Grav 1=830 (LC 2), 5=893 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-3262/361, 2-3=-2647/229, 3-4=-2643/220, 4-5=-3251/370, 5-6=0/26
BOT CHORD 1-8=-293/3118, 7-8=-102/2282, 5-7=-304/3105
WEBS 3-7=-20/733, 4-7=-681/187, 3-8=-26/746, 2-8=-688/190

NOTES
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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-4-12, Exterior(2R) 10-4-12 to 13-4-12, Interior (1) 13-4-12 to 21-9-8 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
3) 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 design.
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.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	MR3	Roof Special	2	1	Job Reference (optional)	I72897094

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:38 Page: 1

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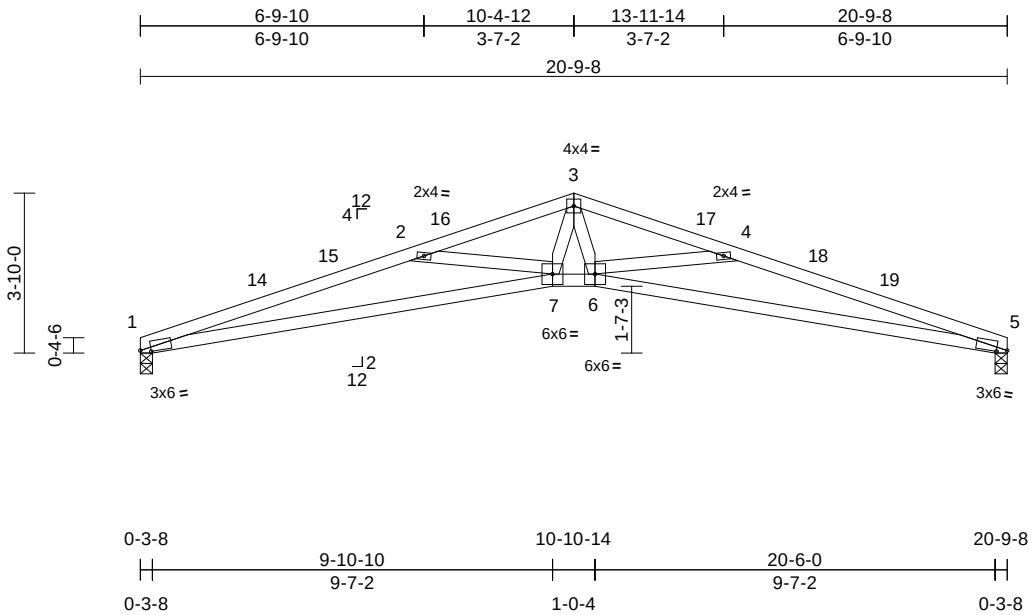

Scale = 1:55.3

Plate Offsets (X, Y): [1:0-3-1,0-0-12], [5:0-3-1,0-0-12]

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	0.57	Vert(LL)	-0.24	6-7	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.52	7-10	>476	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.22	5	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.13	7	>999	240		
BCDL	10.0										Weight: 80 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS *Except* 7-6:2x4 SP No.2
WEBS 2x4 SP No.3

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

REACTIONS (size) 1=0-3-8, 5=0-3-8
Max Horiz 1=28 (LC 20)
Max Grav 1=832 (LC 2), 5=832 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-3271/386, 2-3=-2655/238, 3-4=-2655/243, 4-5=-3271/382
BOT CHORD 1-7=-333/3126, 6-7=-128/2290, 5-6=-325/3126
WEBS 3-6=-30/744, 4-6=-689/189, 3-7=-28/744, 2-7=-689/189

NOTES
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) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 10-4-12, Exterior(2R) 10-4-12 to 13-4-12, Interior (1) 13-4-12 to 20-9-8 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
3) 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 design.
5) 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.
7) * 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.
8) Bearing at joint(s) 1, 5 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof
2503-4263-A	G3G	Hip Supported Gable	1	1	I72897095 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:37 Page: 1

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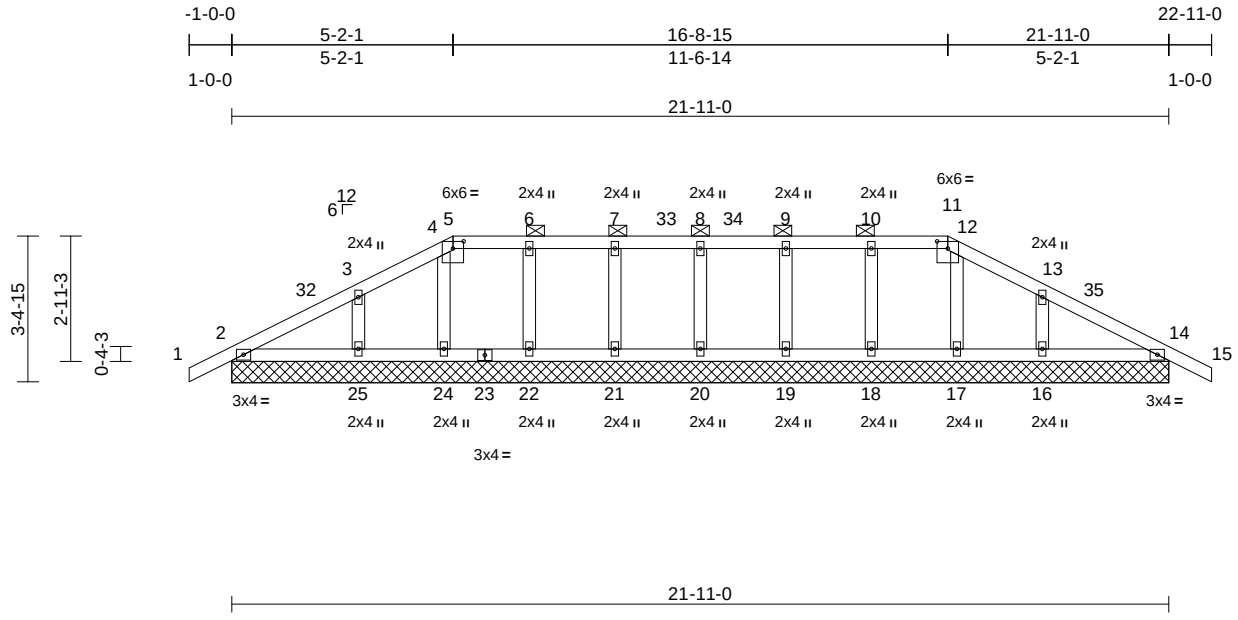

Scale = 1:53.9

Plate Offsets (X, Y): [5:0-3-0,0-2-0], [11:0-3-0,0-2-0]

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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	29	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 99 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 5-11.
BOT CHORD Rigid ceiling directly applied.

REACTIONS (size) 2=21-11-0, 14=21-11-0, 16=21-11-0, 17=21-11-0, 18=21-11-0, 19=21-11-0, 20=21-11-0, 21=21-11-0, 22=21-11-0, 24=21-11-0, 25=21-11-0
Max Horiz 2=-27 (LC 14)
Max Uplift 16=-10 (LC 17), 25=-10 (LC 16)
Max Grav 2=240 (LC 45), 14=240 (LC 45), 16=306 (LC 45), 17=134 (LC 45), 18=225 (LC 44), 19=213 (LC 44), 20=216 (LC 44), 21=213 (LC 44), 22=225 (LC 44), 24=134 (LC 45), 25=306 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/39, 2-3=-42/50, 3-4=-61/64, 4-5=-56/72, 5-6=-34/71, 6-7=-34/71, 7-8=-34/71, 8-9=-34/71, 9-10=-34/71, 10-11=-34/71, 11-12=-56/72, 12-13=-60/69, 13-14=-39/46, 14-15=0/39

BOT CHORD 2-25=-30/58, 24-25=-17/58, 22-24=-17/58, 21-22=-17/58, 20-21=-17/58, 19-20=-17/58, 18-19=-17/58, 17-18=-17/58, 16-17=-17/58, 14-16=-30/58

WEBS 8-20=-176/45, 7-21=-173/46, 6-22=-183/42, 4-24=-107/20, 3-25=-231/86, 9-19=-173/46, 10-18=-183/41, 12-17=-107/22, 13-16=-231/86

NOTES

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 Corner (3E) -1-0-0 to 2-0-0, Exterior(2N) 2-0-0 to 5-2-1, Corner (3R) 5-2-1 to 8-2-1, Exterior(2N) 8-2-1 to 16-8-15, Corner(3R) 16-8-15 to 19-8-15, Exterior(2N) 19-8-15 to 22-11-0 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 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=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
5) Unbalanced snow loads have been considered for this design.
6) 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.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) Gable requires continuous bottom chord bearing.
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.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 25 and 10 lb uplift at joint 16.
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.
15) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	G3A	Hip	1	1	Job Reference (optional)	I72897096

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:37 Page: 1

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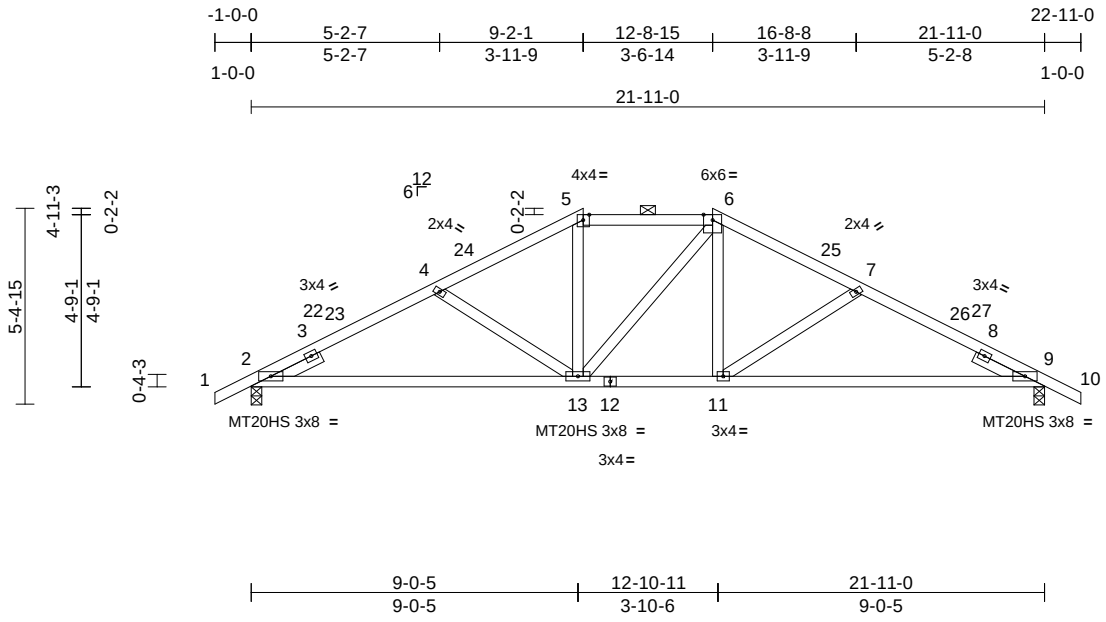

Scale = 1:63.6

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	0.36	Vert(LL)	-0.12	11-20	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.26	11-20	>992	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.19	Horz(CT)	0.05	9	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.03	13-16	>999	240		
BCDL	10.0										Weight: 111 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (5-5-3 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied.

REACTIONS (size) 2=0-3-8, 9=0-3-8
Max Horiz 2=-43 (LC 14)
Max Grav 2=1158 (LC 45), 9=1158 (LC 45)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/45, 2-4=-1721/119, 4-5=-1384/98, 5-6=-1156/112, 6-7=-1383/99, 7-9=-1721/119, 9-10=0/45
BOT CHORD	2-13=-34/1522, 11-13=0/1155, 9-11=-45/1522
WEBS	4-13=-423/81, 5-13=0/355, 6-13=-107/110, 6-11=0/355, 7-11=-424/80

NOTES

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 2-0-0, Interior (1) 2-0-0 to 9-2-1, Exterior(2E) 9-2-1 to 12-8-15, Exterior(2R) 12-8-15 to 16-10-4, Interior (1) 16-10-4 to 22-11-0 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) 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
4) Unbalanced snow loads have been considered for this design.
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.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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) 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.
12) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	G3	Common	5	1	Job Reference (optional)	I72897097

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:36 Page: 1
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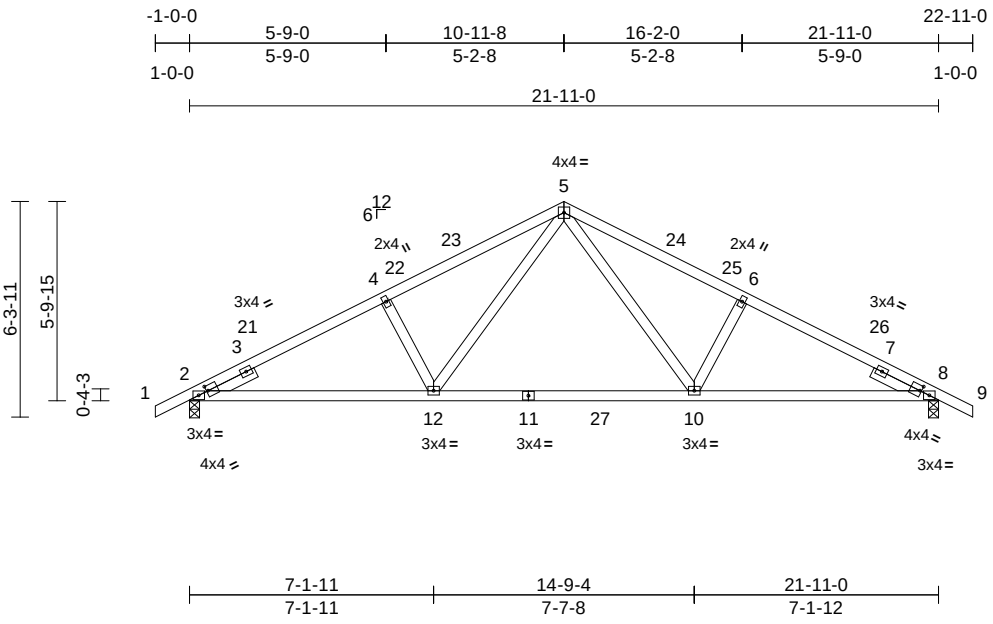

Scale = 1:67.4

Plate Offsets (X, Y): [2:0-0-8,0-1-13], [8:0-0-8,0-1-13], [8:Edge,0-0-0]

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	0.35	Vert(LL)	-0.12	10-12	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.22	10-12	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.26	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.03	12-15	>999	240		
BCDL	10.0										Weight: 105 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

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

REACTIONS (size) 2=0-3-8, 8=0-3-8
Max Horiz 2=52 (LC 15)
Max Grav 2=992 (LC 3), 8=992 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/42, 2-4=-1730/131, 4-5=-1646/158, 5-6=-1646/158, 6-8=-1730/131, 8-9=0/42
BOT CHORD 2-12=-39/1520, 10-12=0/995, 8-10=-48/1522
WEBS 5-10=-25/682, 6-10=-317/119, 5-12=-25/682, 4-12=-317/119

NOTES
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 2-0-0, Interior (1) 2-0-0 to 10-11-8, Exterior(2R) 10-11-8 to 13-11-8, Interior (1) 13-11-8 to 22-11-0 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) 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 design.
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.
6) Plates checked for a plus or minus 5 degree rotation about its center.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * 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.
9) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	A2G	Hip Supported Gable	2	1	Job Reference (optional)	I72897098

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 E Feb 1 2025 Print: 8.830 E Feb 1 2025 MiTek Industries, Inc. Tue Apr 22 20:37:08 Page: 1

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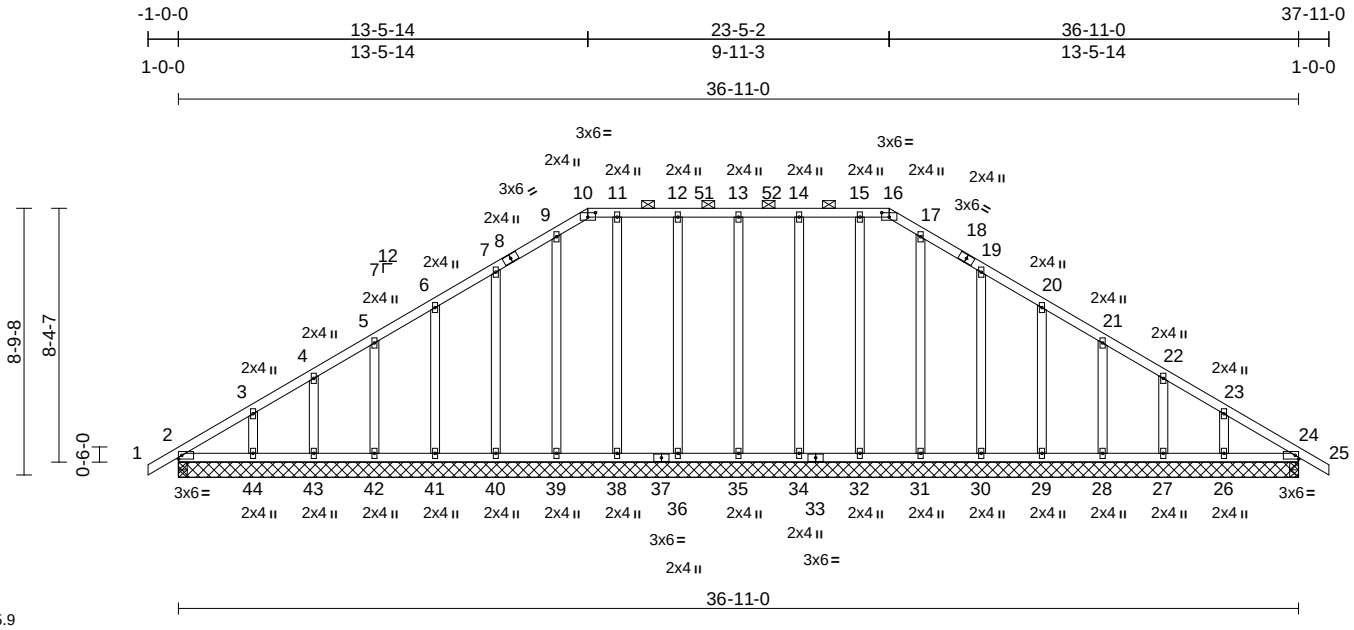

Scale = 1:75.9

Plate Offsets (X, Y): [10:0-3-0,0-1-12], [16:0-3-0,0-1-12]

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	0.09	Vert(LL)	0.00	44-47	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	44-47	>999	240		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.01	24	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.00	44-47	>999	240		
BCDL	10.0										Weight: 255 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD Structural wood sheathing directly applied, except 2-0-0 oc purlins (6-0-0 max.): 10-16.
BOT CHORD Rigid ceiling directly applied.

REACTIONS All bearings 36-11-0.

(lb) - Max Horiz 2=-136 (LC 14)
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 26, 27, 28, 29, 30, 36, 40, 41, 42, 43, 44
Max Grav All reactions 250 (lb) or less at joint (s) 2, 24, 26, 27, 28, 29, 30, 31, 32, 34, 35, 36, 38, 39, 40, 41, 42, 43, 44

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

NOTES

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 Corner (3E) -1-0-0 to 2-5-8, Exterior(2N) 2-5-8 to 13-5-14, Corner(3R) 13-5-14 to 17-2-3, Exterior(2N) 17-2-3 to 23-5-2, Corner(3R) 23-5-2 to 27-1-7, Exterior(2N) 27-1-7 to 37-11-0 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 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=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; Min. flat roof snow load governs. Rain surcharge applied to all exposed surfaces with slopes less than 0.500/12 in accordance with IBC 1608.3.4.
5) Unbalanced snow loads have been considered for this design.
6) 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.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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.
11) * 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint (s) 2, 40, 41, 42, 43, 44, 30, 29, 28, 27, 26, 2.
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 bottom chord.

LOAD CASE(S) Standard

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof
2503-4263-A	A2B	Hip	2	1	I72897099 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:32 Page: 1
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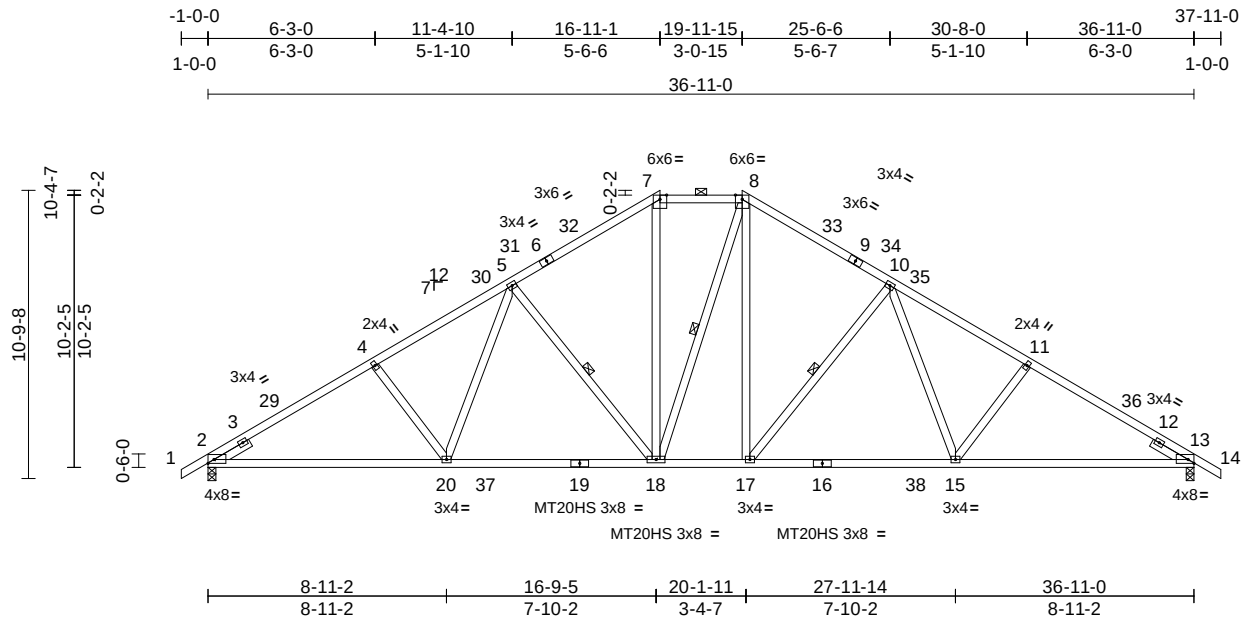

Scale = 1:86.3

Plate Offsets (X, Y): [2:Edge,0-1-12], [13:Edge,0-1-12]

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)	-0.30	15-17	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.47	15-17	>929	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.13	13	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.05	15-17	>999	240		
BCDL	10.0										Weight: 229 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (4-2-0 max.): 7-8.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-18, 8-18, 10-17

REACTIONS (size) 2=0-3-8, 13=0-3-8
Max Horiz 2=166 (LC 15)
Max Grav 2=1877 (LC 57), 13=1877 (LC 59)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-4=-3164/0, 4-5=-3032/0, 5-7=-2306/45, 7-8=-1908/70, 8-10=-2305/52, 10-11=-3032/0, 11-13=-3164/0, 13-14=0/47
BOT CHORD 2-20=0/2658, 18-20=0/2320, 17-18=0/1822, 15-17=0/2321, 13-15=0/2660
WEBS 4-20=-256/81, 5-20=0/555, 5-18=-781/62, 7-18=0/821, 8-18=-172/180, 8-17=0/823, 10-17=-786/62, 10-15=0/556, 11-15=-255/81

NOTES
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 2-8-5, Interior (1) 2-8-5 to 16-11-1, Exterior(2E) 16-11-1 to 19-11-15, Exterior(2R) 19-11-15 to 25-2-10, Interior (1) 25-2-10 to 37-11-0 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) 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
4) Unbalanced snow loads have been considered for this design.
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.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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, with BCDL = 10.0psf.
11) 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.
12) 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

April 22,2025

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	A2	Common	8	1	Job Reference (optional)	I72897100

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:31 Page: 1

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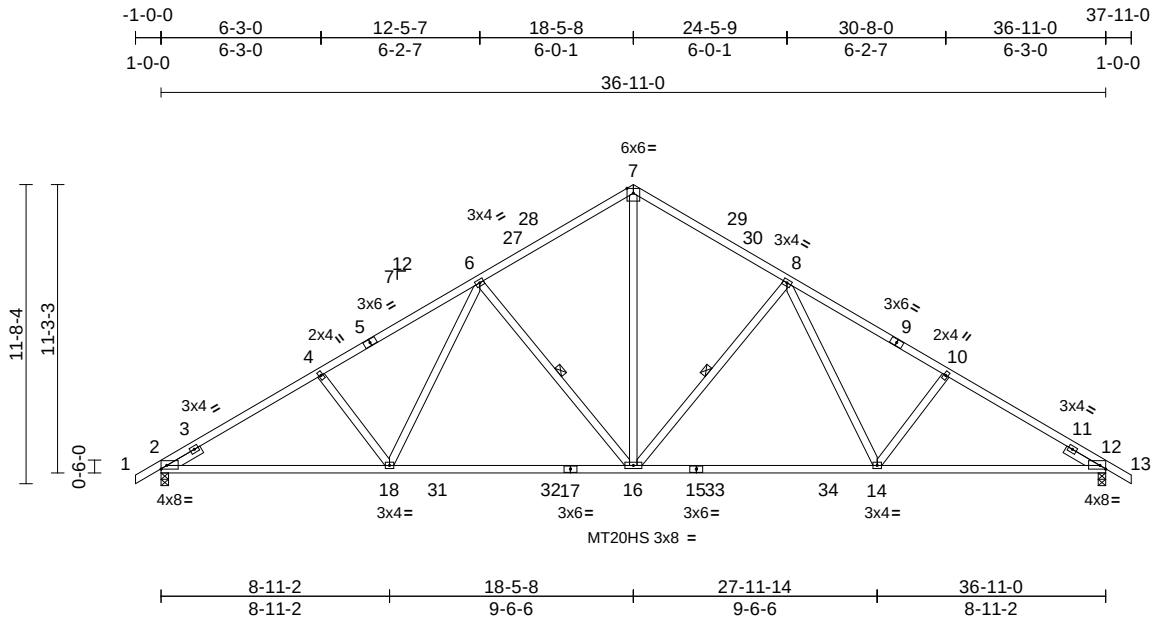

Scale = 1:90

Plate Offsets (X, Y): [2:Edge,0-1-12], [12:0-0-0,0-0-0], [12:Edge,0-1-12]

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	0.50	Vert(LL)	-0.31	16-18	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.53	16-18	>832	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.11	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	14-16	>999	240		
BCDL	10.0										Weight: 207 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2 *Except* 17-15:2x4 SP SS
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 8-16, 6-16

REACTIONS (size) 2=0-3-8, 12=0-3-8
Max Horiz 2=-182 (LC 14)
Max Grav 2=1744 (LC 34), 12=1744 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/47, 2-4=-2969/78, 4-6=-2816/105, 6-7=-2016/149, 7-8=-2016/149, 8-10=-2816/105, 10-12=-2969/78, 12-13=0/47
BOT CHORD	2-18=0/2484, 16-18=0/2035, 14-16=0/2036, 12-14=0/2486
WEBS	7-16=-47/1602, 8-16=-756/112, 8-14=0/641, 10-14=-299/103, 6-16=-756/112, 6-18=0/641, 4-18=-299/103

NOTES

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 2-8-5, Interior (1) 2-8-5 to 18-5-8, Exterior(2R) 18-5-8 to 22-1-13, Interior (1) 22-1-13 to 37-11-0 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) 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 design.
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.
6) All plates are MT20 plates unless otherwise indicated.
7) Plates checked for a plus or minus 5 degree rotation about its center.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	A2A	Common	10	1	Job Reference (optional)	I72897101

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:31 Page: 1

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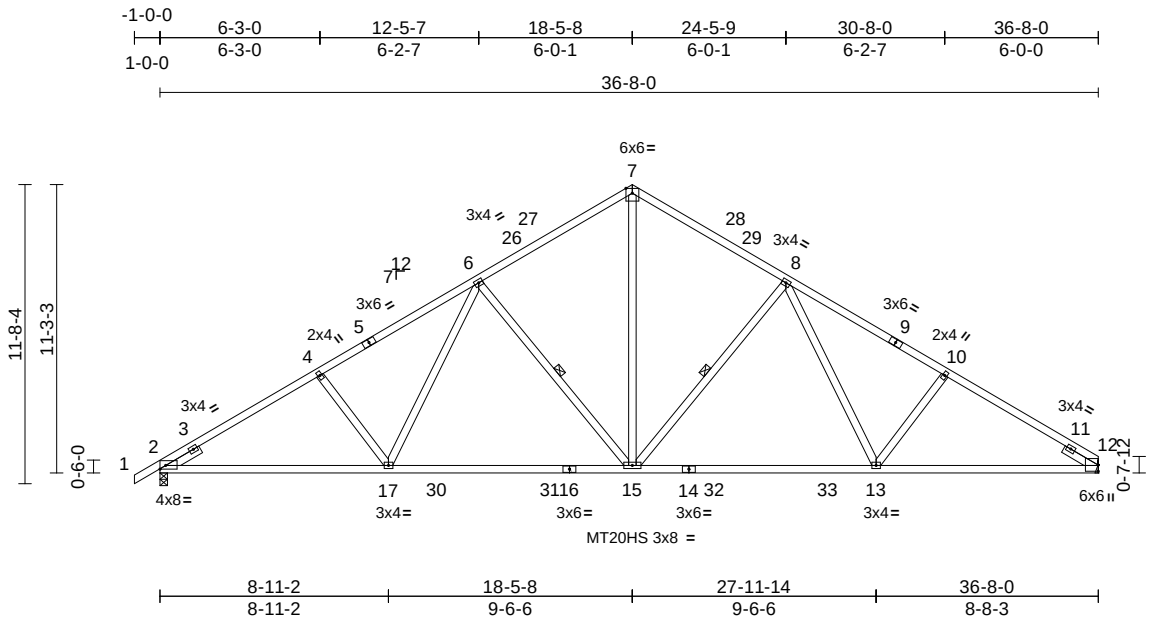

Scale = 1:90

Plate Offsets (X, Y): [2:Edge,0-1-12]

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	0.65	Vert(LL)	-0.31	13-15	>999	360	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.54	13-15	>812	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.57	Horz(CT)	0.11	12	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	13-15	>999	240		
BCDL	10.0										Weight: 204 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 14-16:2x4 SP SS
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 -- 1-6-0, Right 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-15, 8-15

REACTIONS (size) 2=0-3-8, 12= Mechanical
Max Horiz 2=178 (LC 13)
Max Grav 2=1741 (LC 34), 12=1677 (LC 35)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-4=-2961/78, 4-6=-2808/105, 6-7=-2008/149, 7-8=-2009/150, 8-10=-2781/109, 10-12=-2932/82
BOT CHORD 2-17=-14/2474, 15-17=0/2023, 13-15=0/2016, 12-13=-80/2441
WEBS 7-15=-48/1595, 10-13=-278/104, 6-15=-756/112, 6-17=0/640, 4-17=-299/103, 8-13=0/610, 8-15=-743/112

NOTES

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 2-8-0, Interior (1) 2-8-0 to 18-5-8, Exterior(2R) 18-5-8 to 22-1-8, Interior (1) 22-1-8 to 36-8-0 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) 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 design.
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.
6) All plates are MT20 plates unless otherwise indicated.
7) Plates checked for a plus or minus 5 degree rotation about its center.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * 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) Refer to girder(s) for truss to truss connections.
11) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof
2503-4263-A	A1SG	Hip Structural Gable	2	1	I72897102 Job Reference (optional)

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:30 Page: 1
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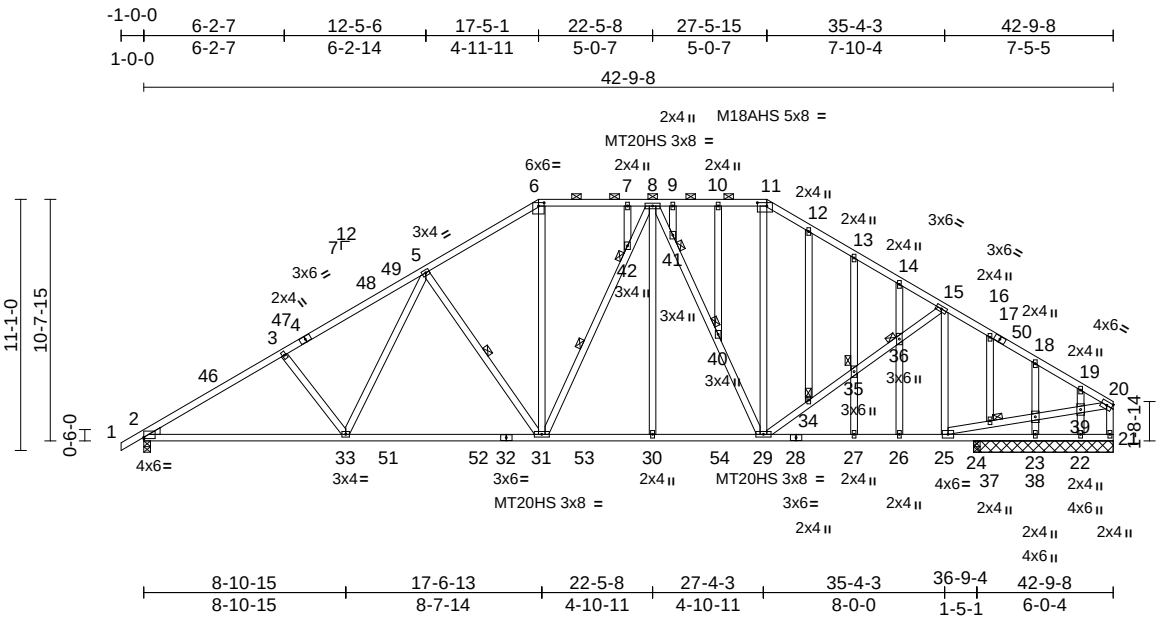


Scale = 1:101.7

Plate Offsets (X, Y): [2:Edge,0-0-12], [6:0-3-0,0-1-12], [11:0-5-0,0-1-12]

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	0.64	Vert(LL)	-0.29	31-33	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.96	Vert(CT)	-0.47	31-33	>936	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.83	Horz(CT)	0.10	24	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.10	27	>999	240		
BCDL	10.0										Weight: 342 lb	FT = 20%

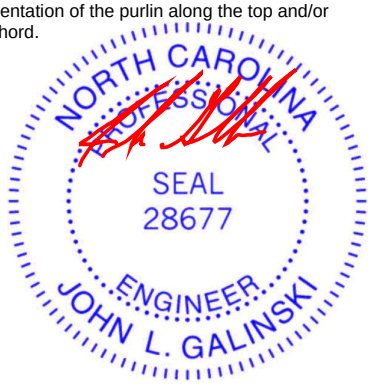
LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS *Except* 28-21:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 25-20:2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Left: 2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-3 max.): 6-11.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 5-31, 31-42
JOINTS 1 Brace at Jt(s): 34, 35, 36, 37, 40, 41, 42

REACTIONS (size) 2=0-3-8, 21=6-2-0, 22=6-2-0, 23=6-2-0, 24=0-3-8
Max Horiz 2=184 (LC 15)
Max Uplift 22=-7 (LC 17), 23=-26 (LC 17)
Max Grav 2=1958 (LC 57), 21=1217 (LC 51), 22=100 (LC 35), 23=270 (LC 59), 24=568 (LC 51)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-3=-3491/0, 3-5=-3324/0, 5-6=-2484/68, 6-7=-2073/82, 7-8=-2073/82, 8-9=-1868/105, 9-10=-1868/105, 10-11=-1868/105, 11-12=-2081/94, 12-13=-2164/74, 13-14=-2144/31, 14-15=-2262/9, 15-16=-1956/52, 16-18=-2077/38, 18-19=-1961/14, 19-20=-1971/0, 20-21=-1382/0
BOT CHORD 2-33=-105/2976, 31-33=0/2483, 30-31=0/1970, 29-30=0/1970, 27-29=0/1717, 26-27=0/1717, 25-26=0/1717, 24-25=-77/25, 23-24=-77/25, 22-23=-77/25, 21-22=-77/25
WEBS 3-33=-345/94, 5-33=0/670, 5-31=-845/71, 6-31=0/930, 31-42=-183/193, 8-42=-152/197, 8-30=0/200, 8-41=-511/69, 40-41=-539/60, 29-40=-535/74, 11-29=0/654, 29-34=-70/359, 34-35=-71/328, 35-36=-60/360, 15-36=-60/370, 15-25=-737/0, 25-37=0/1836, 37-38=0/1804, 38-39=0/1775, 20-39=0/1808, 12-34=0/53, 13-35=-200/65, 27-35=-121/62, 14-36=0/88, 26-36=0/106, 16-37=0/124, 18-38=-309/47, 23-38=-490/53, 19-39=-67/37, 22-39=0/152, 10-40=-17/55, 9-41=-62/0, 7-42=-42/12

NOTES
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 3-3-6, Interior (1) 3-3-6 to 17-5-1, Exterior(2R) 17-5-1 to 23-4-3, Interior (1) 23-4-3 to 27-5-15, Exterior(2R) 27-5-15 to 33-4-3, Interior (1) 33-4-3 to 42-7-12 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 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=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
5) Unbalanced snow loads have been considered for this design.
6) 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.
8) All plates are MT20 plates unless otherwise indicated.
9) Plates checked for a plus or minus 5 degree rotation about its center.
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.
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, with BCDL = 10.0psf.
13) N/A
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.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



April 22,2025

Continued on page 2

ENGINEERING BY TRENCO A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S) Standard

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	A1B	Attic	14	1	Job Reference (optional)	I72897103

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:28 Page: 1

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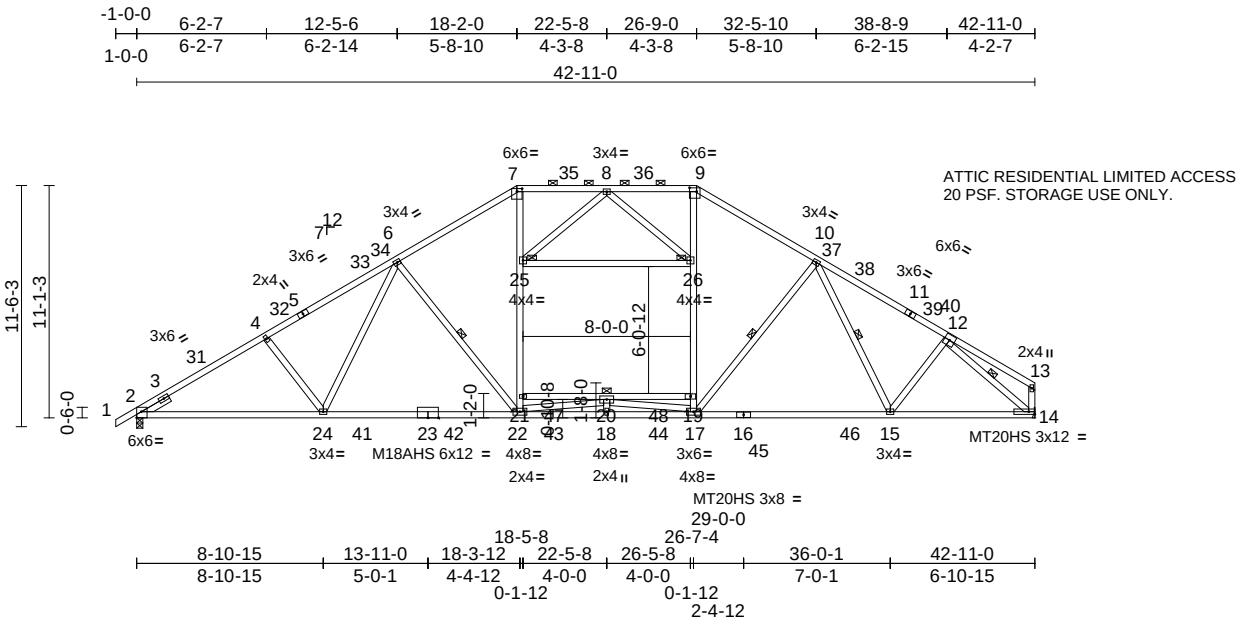

Scale = 1:110.1

Plate Offsets (X, Y): [2:Edge,0-3-8], [7:0-3-0,0-1-12], [9:0-4-0,0-2-4]

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	0.79	Vert(LL)	-0.39	22-24	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.80	Vert(CT)	-0.70	22-24	>732	240	M18AHS	186/179
TCDL	10.0	Rep Stress Incr	YES	WB	0.80	Horz(CT)	0.17	14	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.12	22-24	>999	240		
BCDL	10.0										Weight: 296 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 1-5:2x4 SP SS
BOT CHORD 2x4 SP SS *Except* 21-19:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 7-22,9-17:2x4 SP SS, 25-26:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-3-12 max.): 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-22, 10-17, 10-15, 12-14
JOINTS 1 Brace at Jt(s): 25, 26

REACTIONS (size) 2=0-3-8, 14= Mechanical
Max Horiz 2=191 (LC 15)
Max Grav 2=2526 (LC 58), 14=2543 (LC 60)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/47, 2-4=-4453/0, 4-6=-4310/0, 6-7=-3546/0, 7-8=-3041/0, 8-9=-2916/0, 9-10=-3460/0, 10-12=-3639/0, 12-13=-230/29, 13-14=-202/13
BOT CHORD 2-24=0/3789, 22-24=0/3418, 18-22=0/3710, 17-18=0/3710, 15-17=0/3098, 14-15=0/2728, 20-21=-232/250, 19-20=-26/503
WEBS 21-22=0/1285, 21-25=0/1446, 7-25=0/1451, 17-19=0/1109, 19-26=0/1273, 9-26=0/1384, 25-26=-29/270, 18-20=-37/99, 8-25=-263/126, 8-26=-395/81, 20-22=-1169/0, 17-20=-1393/0, 6-22=-842/90, 10-17=-453/150, 6-24=0/555, 4-24=-234/111, 10-15=-190/2, 12-15=0/547, 12-14=-3567/0

NOTES

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 3-3-8, Interior (1) 3-3-8 to 18-2-0, Exterior(2R) 18-2-0 to 24-2-13, Interior (1) 24-2-13 to 26-9-0, Exterior(2R) 26-9-0 to 32-9-13, Interior (1) 32-9-13 to 42-9-4 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) 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
4) Unbalanced snow loads have been considered for this design.
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.
6) 250.0lb AC unit load placed on the bottom chord, 22-5-8 from left end, supported at two points, 5-0-0 apart.
7) Provide adequate drainage to prevent water ponding.
8) All plates are MT20 plates unless otherwise indicated.
9) 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.
11) * 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. 20-21, 19-20
13) Refer to girder(s) for truss to truss connections.
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.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
16) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	A1A	Piggyback Base	2	1	Job Reference (optional)	I72897104

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:27 Page: 1

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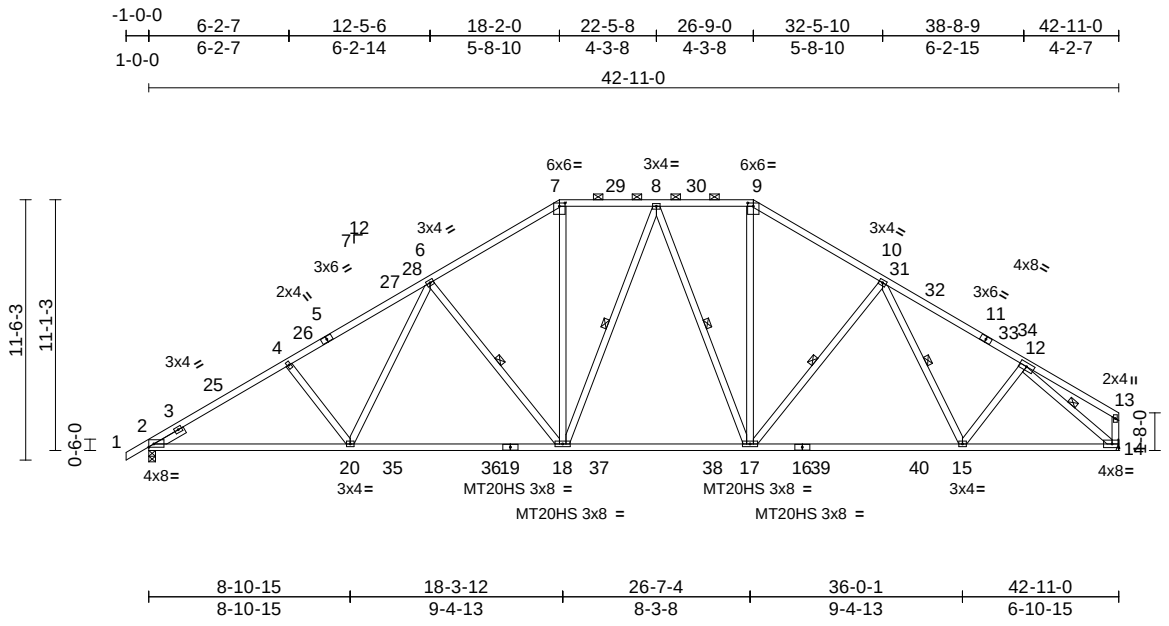

Scale = 1:101.9

Plate Offsets (X, Y): [2:Edge,0-1-12], [7:0-3-0,0-1-12], [9:0-3-0,0-1-12]

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	0.83	Vert(LL)	-0.35	18-20	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.58	18-20	>882	240	MT20HS	187/143
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.13	14	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	18-20	>999	240		
BCDL	10.0										Weight: 278 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 14-13:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-9-15 max.): 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 8-18, 8-17, 12-14, 10-17, 10-15, 6-18

REACTIONS (size) 2=0-3-8, 14= Mechanical
Max Horiz 2=191 (LC 15)
Max Grav 2=2094 (LC 57), 14=2056 (LC 59)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/47, 2-4=-3655/0, 4-6=-3521/0, 6-7=-2698/65, 7-8=-2249/87, 8-9=-2170/88, 9-10=-2606/67, 10-12=-2939/3, 12-13=-202/46, 13-14=-184/24
BOT CHORD 2-20=0/3112, 18-20=0/2702, 17-18=0/2168, 15-17=0/2422, 14-15=0/2221
WEBS 7-18=0/1004, 8-18=-224/160, 8-17=-359/98, 9-17=0/954, 4-20=-260/93, 6-20=0/599, 12-15=0/387, 12-14=-2898/0, 10-17=-543/93, 10-15=-47/151, 6-18=-853/76

NOTES

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 3-3-8, Interior (1) 3-3-8 to 18-2-0, Exterior(2R) 18-2-0 to 24-2-13, Interior (1) 24-2-13 to 26-9-0, Exterior(2R) 26-9-0 to 32-9-13, Interior (1) 32-9-13 to 42-9-4 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) 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
4) Unbalanced snow loads have been considered for this design.
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.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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, with BCDL = 10.0psf.
11) Refer to girder(s) for truss to truss connections.
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.
13) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	A1	Piggyback Base	10	1	Job Reference (optional)	I72897105

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:26 Page: 1

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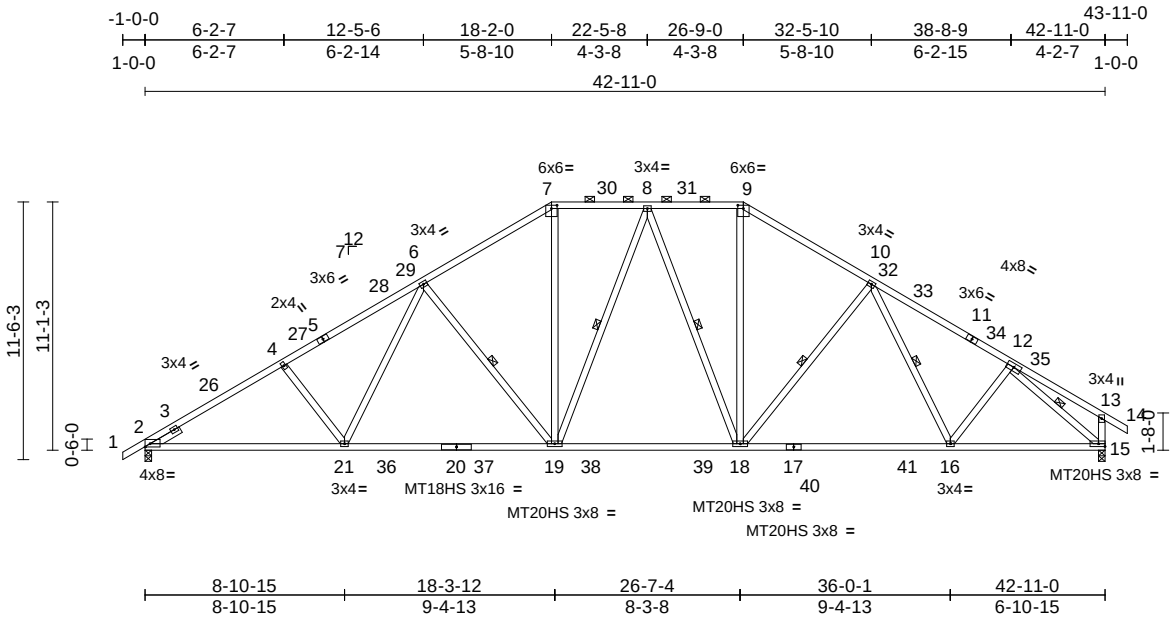

Scale = 1:103

Plate Offsets (X, Y): [2:Edge,0-1-12], [7:0-3-0,0-1-12], [9:0-3-0,0-1-12]

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	0.83	Vert(LL)	-0.35	19-21	>999	360	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.58	19-21	>882	240	MT18HS	244/190
TCDL	10.0	Rep Stress Incr	YES	WB	0.64	Horz(CT)	0.13	15	n/a	n/a	MT20HS	187/143
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS		Wind(LL)	0.06	19-21	>999	240		
BCDL	10.0										Weight: 280 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP SS
WEBS 2x4 SP No.3 *Except* 15-13:2x4 SP No.2
SLIDER Left 2x4 SP No.3 -- 1-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (3-10-0 max.): 7-9.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-19, 8-19, 8-18, 10-18, 10-16, 12-15

REACTIONS (size) 2=0-3-8, 15=0-3-8
Max Horiz 2=195 (LC 15)
Max Grav 2=2093 (LC 57), 15=2110 (LC 59)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/47, 2-4=-3653/0, 4-6=-3520/0, 6-7=-2697/63, 7-8=-2248/86, 8-9=-2168/89, 9-10=-2604/66, 10-12=-2933/0, 12-13=-204/54, 13-14=0/47, 13-15=-243/64
BOT CHORD 2-21=0/3107, 19-21=0/2698, 18-19=0/2163, 16-18=0/2416, 15-16=0/2208
WEBS 4-21=-260/93, 6-21=0/599, 6-19=-853/76, 7-19=0/1003, 8-19=-223/165, 8-18=-360/98, 9-18=0/954, 10-18=-541/94, 10-16=-52/149, 12-16=0/390, 12-15=-2887/0

NOTES

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 3-3-8, Interior (1) 3-3-8 to 18-2-0, Exterior(2R) 18-2-0 to 24-2-13, Interior (1) 24-2-13 to 26-9-0, Exterior(2R) 26-9-0 to 32-9-13, Interior (1) 32-9-13 to 43-11-0 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) 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
4) Unbalanced snow loads have been considered for this design.
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.
6) Provide adequate drainage to prevent water ponding.
7) All plates are MT20 plates unless otherwise indicated.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) 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, with BCDL = 10.0psf.
11) 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.
12) 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

April 22,2025

ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Blake Pond Lot 00.0094 Roof	
2503-4263-A	A1G	Hip Supported Gable	2	1	Job Reference (optional)	I72897106

Structural, LLC, Thurmont, MD - 21788, Run: 8.83 S Apr 11 2025 Print: 8.830 S Apr 11 2025 MiTek Industries, Inc. Mon Apr 21 09:47:29 Page: 1

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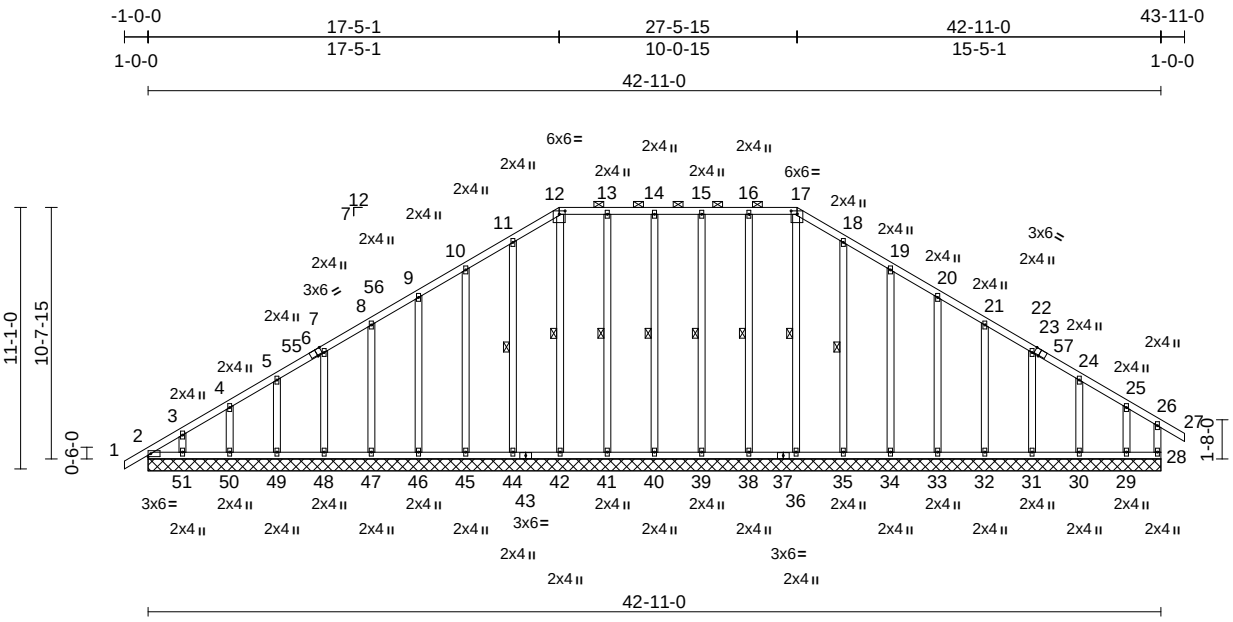

Scale = 1:97.6

Plate Offsets (X, Y): [6:0-2-12,Edge], [12:0-3-0,0-1-12], [17:0-3-0,0-1-12], [23:0-2-12,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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.00	28	n/a	n/a		
BCLL	0.0*	Code	IRC2021/TPI2014	Matrix-AS								
BCDL	10.0										Weight: 346 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
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.): 12-17.
BOT CHORD	Rigid ceiling directly applied.
WEBS	1 Row at midpt 14-40, 13-41, 12-42, 11-44, 15-39, 16-38, 17-36, 18-35

REACTIONS (size) 2=42-11-0, 28=42-11-0, 29=42-11-0, 30=42-11-0, 31=42-11-0, 32=42-11-0, 33=42-11-0, 34=42-11-0, 35=42-11-0, 36=42-11-0, 38=42-11-0, 39=42-11-0, 40=42-11-0, 41=42-11-0, 42=42-11-0, 44=42-11-0, 45=42-11-0, 46=42-11-0, 47=42-11-0, 48=42-11-0, 49=42-11-0, 50=42-11-0, 51=42-11-0

Max Horiz 2=187 (LC 15)

Max Uplift 2=-77 (LC 12), 28=-4 (LC 13), 29=-62 (LC 17), 30=-3 (LC 17), 31=-12 (LC 17), 32=-10 (LC 17), 33=-10 (LC 17), 34=-13 (LC 17), 35=-6 (LC 17), 44=-8 (LC 16), 45=-12 (LC 16), 46=-10 (LC 16), 47=-10 (LC 16), 48=-10 (LC 16), 49=-11 (LC 16), 50=-8 (LC 16), 51=-24 (LC 16)

Max Grav 2=169 (LC 35), 28=142 (LC 22), 29=141 (LC 35), 30=169 (LC 2), 31=211 (LC 45), 32=223 (LC 45), 33=220 (LC 45), 34=220 (LC 45), 35=228 (LC 45), 36=155 (LC 65), 38=232 (LC 44), 39=220 (LC 44), 40=220 (LC 44), 41=232 (LC 44), 42=162 (LC 37), 44=228 (LC 45), 45=220 (LC 45), 46=220 (LC 45), 47=223 (LC 45), 48=213 (LC 45), 49=159 (LC 34), 50=167 (LC 64), 51=146 (LC 34)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/41, 2-3=-178/173, 3-4=-158/160, 4-5=-153/149, 5-7=-145/148, 7-8=-136/147, 8-9=-128/164, 9-10=-120/203, 10-11=-144/245, 11-12=-165/281, 12-13=-144/257, 13-14=-144/257, 14-15=-144/257, 15-16=-144/257, 16-17=-144/257, 17-18=-165/281, 18-19=-144/245, 19-20=-120/203, 20-21=-102/164, 21-22=-84/124, 22-24=-55/84, 24-25=-36/45, 25-26=-46/48, 26-27=0/47, 26-28=-130/14

BOT CHORD 2-51=-97/89, 50-51=-42/80, 49-50=-42/80, 48-49=-42/80, 47-48=-42/80, 46-47=-42/80, 45-46=-42/80, 44-45=-42/80, 42-44=-42/80, 41-42=-42/80, 40-41=-42/80, 39-40=-42/80, 38-39=-42/80, 36-38=-42/80, 35-36=-42/80, 34-35=-42/80, 33-34=-42/80, 32-33=-42/80, 31-32=-42/80, 30-31=-42/80, 29-30=-42/80, 28-29=-42/80

WEBS 14-40=-180/38, 13-41=-192/26, 12-42=-122/23, 11-44=-188/49, 10-45=-181/59, 9-46=-180/55, 8-47=-183/55, 7-48=-174/55, 5-49=-133/55, 4-50=-139/57, 3-51=-118/51, 15-39=-180/38, 16-38=-192/26, 17-36=-115/4, 18-35=-188/49, 19-34=-181/59, 20-33=-180/55, 21-32=-183/55, 22-31=-173/55, 24-30=-140/54, 25-29=-111/73

NOTES

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

April 22,2025

Continued on page 2

ENGINEERING BY TRENCO
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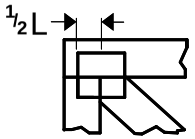
818 Soundside Road
Edenton, NC 27932

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 Corner (3E) -1-0-0 to 3-5-8, Exterior(2N) 3-5-8 to 17-5-1, Corner (3R) 17-5-1 to 21-5-8, Exterior(2N) 21-5-8 to 27-5-15, Corner(3R) 27-5-15 to 31-9-7, Exterior(2N) 31-9-7 to 43-11-0 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 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=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
5) Unbalanced snow loads have been considered for this design.
6) 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.
8) Plates checked for a plus or minus 5 degree rotation about its center.
9) Gable requires continuous bottom chord bearing.
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.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 77 lb uplift at joint 2, 4 lb uplift at joint 28, 8 lb uplift at joint 44, 12 lb uplift at joint 45, 10 lb uplift at joint 46, 10 lb uplift at joint 47, 10 lb uplift at joint 48, 11 lb uplift at joint 49, 8 lb uplift at joint 50, 24 lb uplift at joint 51, 6 lb uplift at joint 35, 13 lb uplift at joint 34, 10 lb uplift at joint 33, 10 lb uplift at joint 32, 12 lb uplift at joint 31, 3 lb uplift at joint 30, 62 lb uplift at joint 29 and 77 lb uplift at joint 2.
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.
15) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

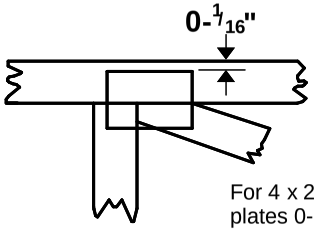
LOAD CASE(S) Standard

Symbols

PLATE LOCATION AND ORIENTATION



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



For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

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

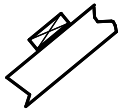
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

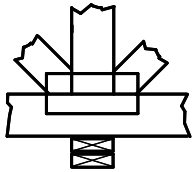
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

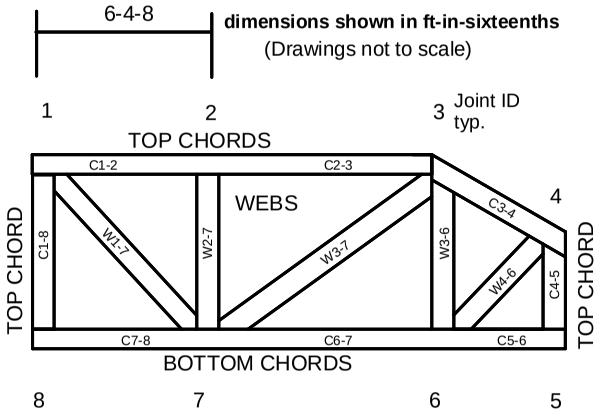


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



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

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

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

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. 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.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
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 specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. 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 environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.