ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: P02609-25470
996 Serenity

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Lumber 2383 (Dunn, NC).

Pages or sheets covered by this seal: I73525653 thru I73525684

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

North Carolina COA: C-0844

May 16,2025

Gilbert, Eric

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.

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	A01E	Common Supported Gable	1	1	I73525653 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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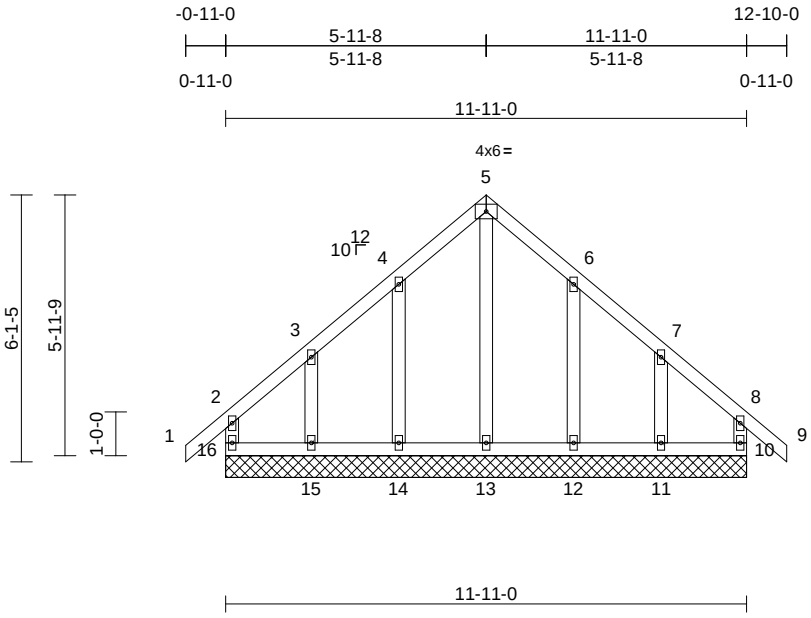

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.08	Horz(CT)	0.00	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 72 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.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 10=11-11-0, 11=11-11-0, 12=11-11-0, 13=11-11-0, 14=11-11-0, 15=11-11-0, 16=11-11-0
Max Horiz 16=-133 (LC 12)
Max Uplift 10=-36 (LC 11), 11=-94 (LC 15), 12=-61 (LC 15), 14=-61 (LC 14), 15=-96 (LC 14), 16=-48 (LC 10)
Max Grav 10=145 (LC 26), 11=178 (LC 27), 12=174 (LC 27), 13=179 (LC 29), 14=173 (LC 30), 15=183 (LC 26), 16=156 (LC 27)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	2-16=-127/66, 1-2=0/41, 2-3=-84/80, 3-4=-79/95, 4-5=-133/157, 5-6=-133/156, 6-7=-78/93, 7-8=-72/67, 8-9=0/41, 8-10=-125/64
BOT CHORD	15-16=-63/68, 14-15=-63/68, 13-14=-63/68, 12-13=-63/68, 11-12=-63/68, 10-11=-63/68
WEBS	5-13=-154/68, 4-14=-136/77, 3-15=-128/92, 6-12=-137/77, 7-11=-129/91

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-11-0 to 1-11-8, Exterior (2) 1-11-8 to 5-11-8, Corner (3) 5-11-8 to 8-11-8, Exterior (2) 8-11-8 to 12-10-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
7) All plates are 2x4 (||) MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
9) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
10) Gable studs spaced at 2-0-0 oc.
11) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
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 48 lb uplift at joint 16, 36 lb uplift at joint 10, 61 lb uplift at joint 14, 96 lb uplift at joint 15, 61 lb uplift at joint 12 and 94 lb uplift at joint 11.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	A02SE	Common Structural Gable	1	1	I73525654 Job Reference (optional)

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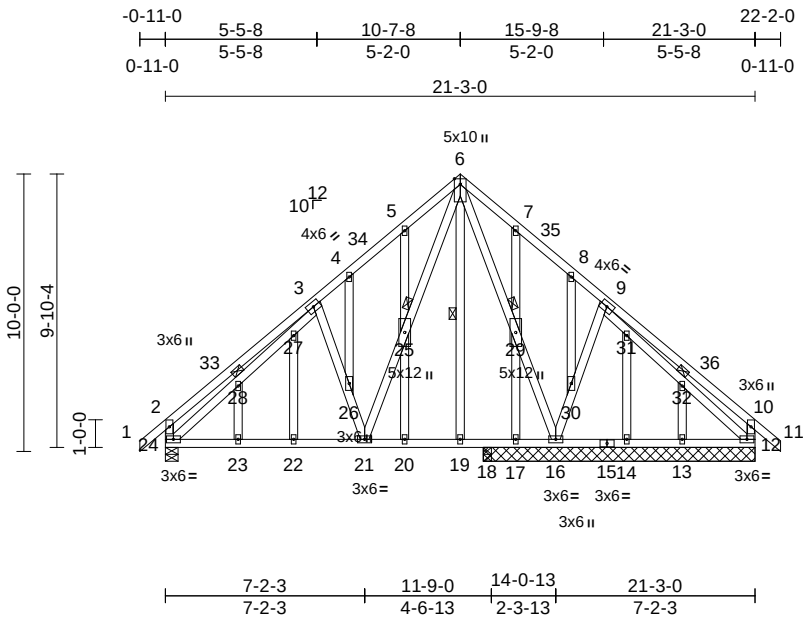

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	-0.02	22-23	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.05	22-23	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.20	Horz(CT)	0.01	12	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 210 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.2

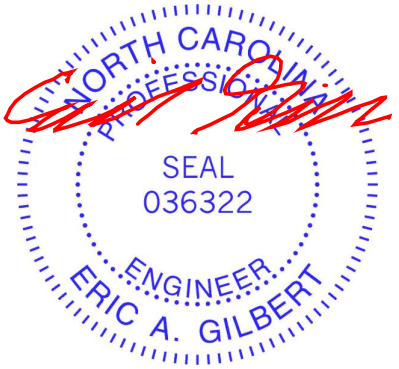
BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 14-16,13-14,12-13.
WEBS 1 Row at midpt 6-19
JOINTS 1 Brace at Jt(s): 25, 28, 29, 32

REACTIONS (size) 12=9-9-8, 13=9-9-8, 14=9-9-8, 16=9-9-8, 17=9-9-8, 18=0-3-8, 24=0-5-8
Max Horiz 24=205 (LC 13)
Max Uplift 12=-80 (LC 15), 14=-7 (LC 11), 16=-74 (LC 14), 17=-86 (LC 15), 24=-78 (LC 14)
Max Grav 12=307 (LC 31), 13=124 (LC 5), 14=85 (LC 5), 16=698 (LC 2), 17=84 (LC 31), 18=209 (LC 5), 24=598 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-3=-406/158, 3-4=-405/154, 4-5=-413/176, 5-6=-440/232, 6-7=-148/188, 7-8=-103/150, 8-9=-113/129, 9-10=-255/188, 10-11=0/41, 2-24=-421/148, 10-12=-319/169
BOT CHORD 23-24=-99/420, 22-23=-99/420, 21-22=-99/420, 20-21=-61/178, 19-20=-61/178, 18-19=-61/177, 17-18=-61/177, 16-17=-61/177, 14-16=-35/76, 13-14=-35/76, 12-13=-35/76
WEBS 6-29=-399/20, 16-29=-439/22, 16-30=-278/196, 9-30=-269/185, 21-25=-167/440, 6-25=-186/489, 3-26=-242/145, 21-26=-290/160, 24-28=-171/28, 27-28=-184/31, 3-27=-138/57, 9-31=-147/171, 31-32=-120/143, 12-32=-117/138, 6-19=-38/23, 5-25=-92/63, 20-25=-41/43, 4-26=-51/16, 22-27=0/119, 23-28=-19/4, 7-29=-152/57, 17-29=-125/68, 8-30=-10/11, 14-31=-37/37, 13-32=-4/7

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-5-2, Exterior (2) 10-5-2 to 13-5-2, Interior (1) 13-5-2 to 22-2-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
7) All plates are 2x4 (||) MT20 unless otherwise indicated.
8) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
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 74 lb uplift at joint 16, 78 lb uplift at joint 24, 80 lb uplift at joint 12, 86 lb uplift at joint 17 and 7 lb uplift at joint 14.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-6=-51, 6-10=-51, 10-11=-51
Trapezoidal Loads (lb/ft)



May 16,2025

Continued on page 2

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818 Soundside Road
Edenton, NC 27932

Vert: 24=-20-to-23=-22 (F=-2), 23=-22 (F=-2)-to-22=-23 (F=-3), 22=-23 (F=-3)-to-21=-25 (F=-5), 21=-25 (F=-5)-to-20=-26 (F=-6), 20=-26 (F=-6)-to-19=-28 (F=-8), 19=-28 (F=-8)-to-18=-28 (F=-8), 18=-28 (F=-8)-to-17=-29 (F=-9), 17=-29 (F=-9)-to-16=-30 (F=-10), 16=-30 (F=-10)-to-15=-31 (F=-11), 15=-31 (F=-11)-to-14=-32 (F=-12), 14=-32 (F=-12)-to-13=-33 (F=-13), 13=-33 (F=-13)-to-12=-35 (F=-15)

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A03	Common	5	1	Job Reference (optional)	I73525655

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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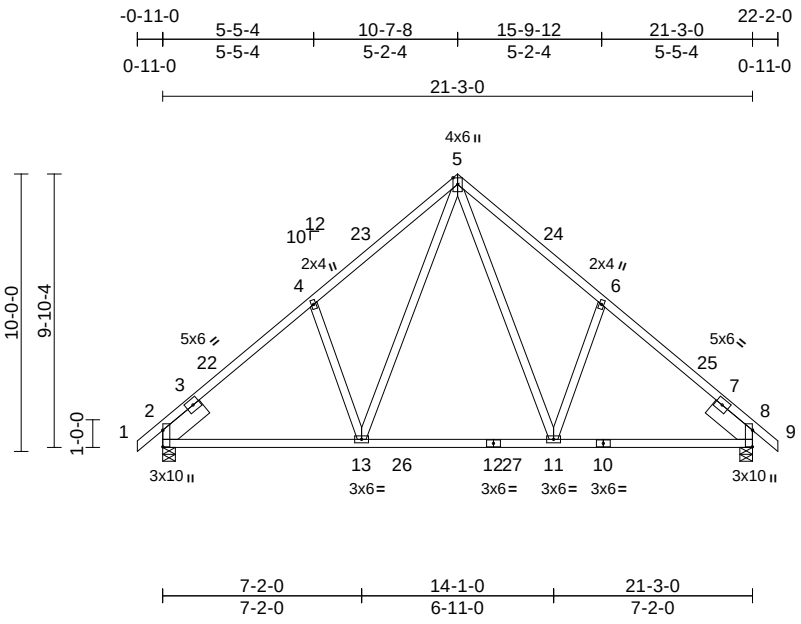

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Plate Offsets (X, Y): [2:0-7-3,0-0-1], [8:0-7-3,0-0-1]

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	0.43	Vert(LL)	-0.13	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.20	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.03	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 133 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
SLIDER	Left 2x8 SP DSS -- 1-11-0, Right 2x8 SP DSS -- 1-11-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-2-3 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=-186 (LC 12)
Max Uplift 2=-81 (LC 14), 8=-81 (LC 15)
Max Grav 2=905 (LC 2), 8=905 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/35, 2-4=-967/127, 4-5=-893/214, 5-6=-893/214, 6-8=-967/127, 8-9=0/35
BOT CHORD	2-13=-156/782, 11-13=0/539, 8-11=-41/691
WEBS	5-11=-157/469, 6-11=-255/190, 5-13=-156/469, 4-13=-255/189

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-7-8, Exterior (2) 10-7-8 to 13-7-8, Interior (1) 13-7-8 to 22-2-0 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 2 and 81 lb uplift at joint 8.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A04	Common	3	1	Job Reference (optional)	I73525656

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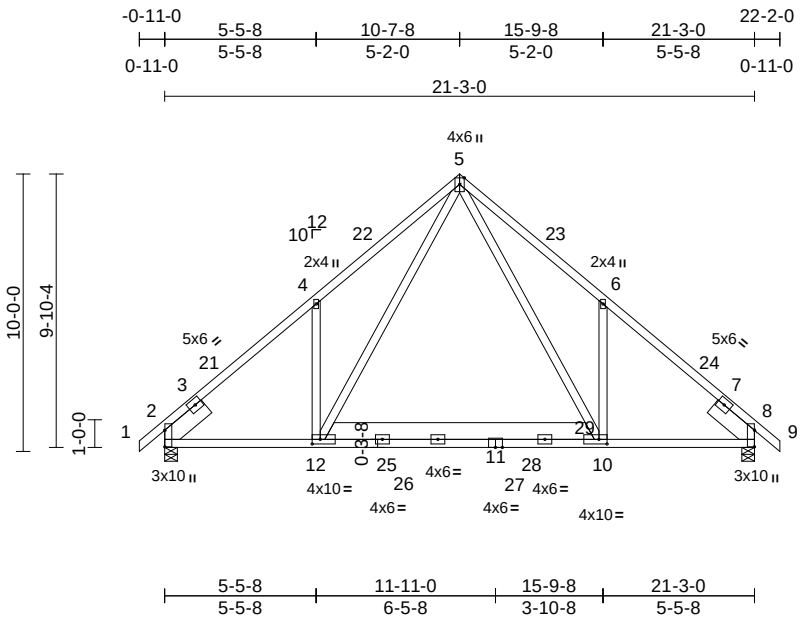

Scale = 1:83

Plate Offsets (X, Y): [2:0-7-3,0-0-1], [8:0-7-3,0-0-1], [10:0-3-8,0-2-0], [12:0-3-8,0-2-0]

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	0.65	Vert(LL)	-0.10	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.20	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 165 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 12-10:2x8 SP DSS
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0, Right 2x8 SP DSS -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=-186 (LC 12)
Max Uplift 2=-104 (LC 14), 8=-107 (LC 15)
Max Grav 2=1058 (LC 2), 8=1080 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-1183/155, 4-5=-1219/322, 5-6=-1246/326, 6-8=-1213/159, 8-9=0/35
BOT CHORD 2-12=-175/953, 10-12=-14/622, 8-10=-61/881
WEBS 5-10=-255/778, 6-10=-284/224, 5-12=-242/695, 4-12=-286/225

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-7-8, Exterior (2) 10-7-8 to 13-7-8, Interior (1) 13-7-8 to 22-2-0 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 104 lb uplift at joint 2 and 107 lb uplift at joint 8.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 113 lb down and 17 lb up at 12-7-8, and 113 lb down and 17 lb up at 8-7-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-51, 5-9=-51, 13-17=-20, 5-29=-20 (F)
Concentrated Loads (lb)
Vert: 26=-100 (F), 27=-100 (F)

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A05	Common	1	1	Job Reference (optional)	I73525657

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:04 Page: 1
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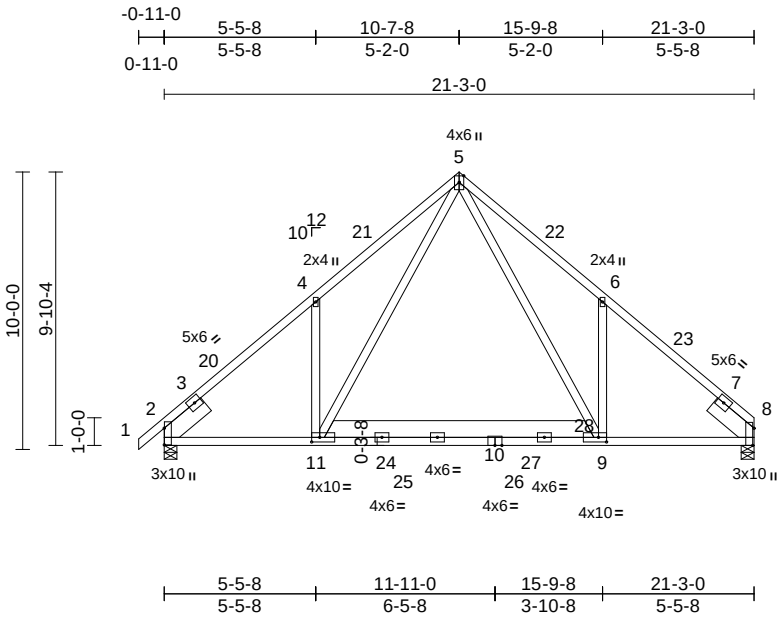


Scale = 1:83

Plate Offsets (X, Y): [2:0-7-3,0-0-1], [8:0-7-7,Edge], [9:0-3-8,0-2-0], [11:0-3-8,0-2-0]

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	0.64	Vert(LL)	-0.10	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.57	Vert(CT)	-0.19	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.50	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 163 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 11-9:2x8 SP DSS
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0, Right 2x8 SP DSS -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-2-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=181 (LC 13)
Max Uplift 2=-104 (LC 14), 8=-95 (LC 15)
Max Grav 2=1059 (LC 2), 8=1024 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-1185/155, 4-5=-1220/322, 5-6=-1252/326, 6-8=-1218/163
BOT CHORD 2-11=-184/947, 9-11=-23/616, 8-9=-80/877
WEBS 5-9=-255/785, 6-9=-287/224, 5-11=-242/694, 4-11=-286/225

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-7-8, Exterior (2) 10-7-8 to 13-7-8, Interior (1) 13-7-8 to 21-3-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 95 lb uplift at joint 8 and 104 lb uplift at joint 2.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 113 lb down and 17 lb up at 12-7-8, and 113 lb down and 17 lb up at 8-7-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-5=-51, 5-8=-51, 12-16=-20, 5-28=-20 (F)
Concentrated Loads (lb)
Vert: 25=-100 (F), 26=-100 (F)

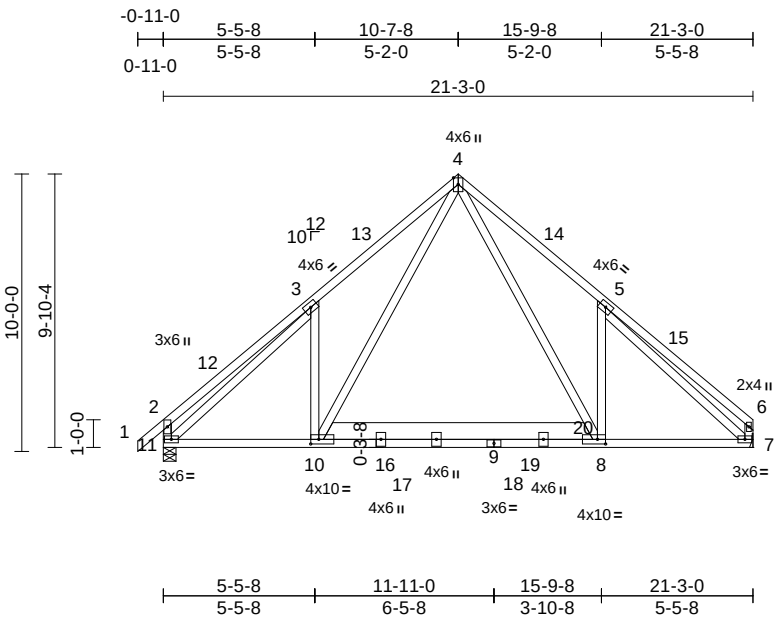
May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A06	Common	2	1	Job Reference (optional)	I73525658

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:04 Page: 1
ID:usYfWLl9c1kSbwhlObVuaJzxXRS-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:83

Plate Offsets (X, Y): [8:0-3-8,0-2-0], [10:0-3-8,0-2-0]

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	0.41	Vert(LL)	-0.08	8-10	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.49	Vert(CT)	-0.15	8-10	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.02	7	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 173 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2 *Except* 10-8:2x8 SP DSS
WEBS 2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-11-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 7= Mechanical, 11=0-5-8
Max Horiz 11=203 (LC 11)
Max Uplift 7=-93 (LC 15), 11=-105 (LC 14)
Max Grav 7=1012 (LC 2), 11=1057 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-3=-339/172, 3-4=-1218/303, 4-5=-1254/309, 5-6=-289/133, 2-11=-370/154, 6-7=-272/110
BOT CHORD 10-11=-125/950, 8-10=-11/611, 7-8=-57/884
WEBS 4-8=-237/786, 5-8=-258/229, 4-10=-222/690, 3-10=-254/227, 3-11=-999/26, 5-7=-1064/54

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-7-8, Exterior (2) 10-7-8 to 13-7-8, Interior (1) 13-7-8 to 21-1-4 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 11 and 93 lb uplift at joint 7.
10) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 119 lb down and 17 lb up at 12-7-8, and 119 lb down and 17 lb up at 8-7-8 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-4=-51, 4-6=-51, 7-11=-20, 4-20=-20 (F)
Concentrated Loads (lb)
Vert: 17=-100 (F), 18=-100 (F)

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A07	Hip	1	1	Job Reference (optional)	I73525659

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:04
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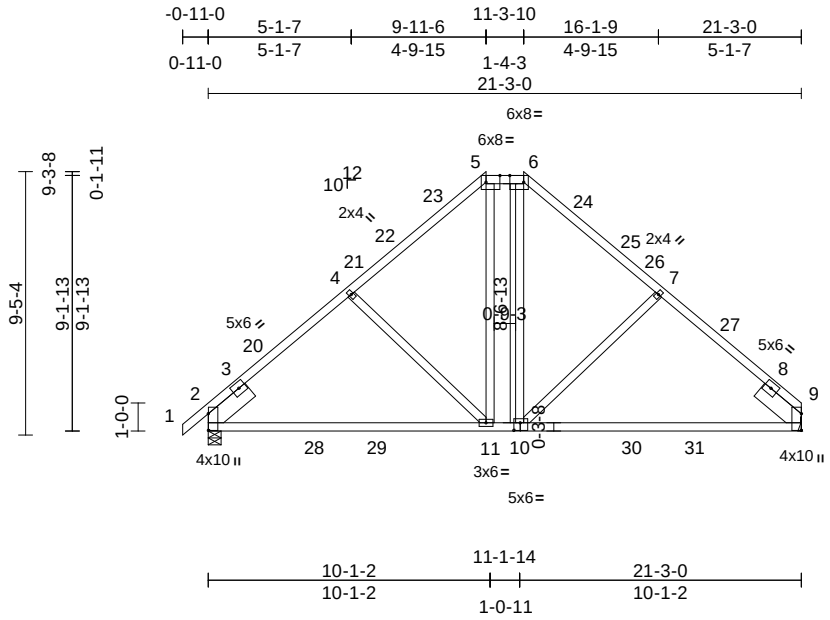

Scale = 1:82.6

Plate Offsets (X, Y): [2:0-7-3,0-0-1], [5:0-6-0,Edge], [6:0-6-0,Edge], [9:0-7-3,0-0-1], [10:0-2-12,0-3-4]

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	0.52	Vert(LL)	-0.15	11-18	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.76	Vert(CT)	-0.30	11-18	>858	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 132 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.2
SLIDER	Left 2x8 SP DSS -- 1-11-0, Right 2x8 SP DSS -- 1-11-0

BRACING

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

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=169 (LC 15)
Max Uplift 2=-79 (LC 16), 9=-67 (LC 17)
Max Grav 2=1204 (LC 39), 9=1155 (LC 39)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/35, 2-4=-1363/144, 4-5=-1077/169, 5-6=-713/164, 6-7=-1079/172, 7-9=-1365/148
BOT CHORD	2-11=-155/954, 9-11=-81/957
WEBS	4-11=-359/167, 5-11=-59/340, 6-10=-63/343, 7-10=-362/167

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 9-11-6, Exterior (2) 9-11-6 to 15-6-8, Interior (1) 15-6-8 to 21-3-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
7) Provide adequate drainage to prevent water ponding.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 9 and 79 lb uplift at joint 2.
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

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A08	Hip	1	1	Job Reference (optional)	I73525660

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:05 Page: 1
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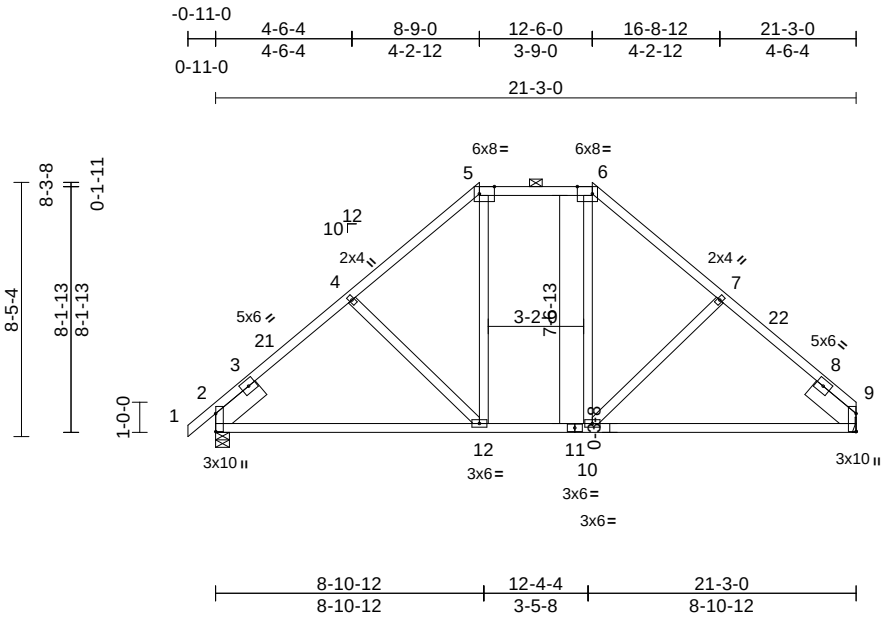

Scale = 1:76.4

Plate Offsets (X, Y): [2:0-7-3,0-0-1], [5:0-6-0,Edge], [6:0-6-0,Edge], [9:0-7-3,0-0-1]

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	0.29	Vert(LL)	-0.13	10-15	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.22	10-15	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 125 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0, Right 2x8 SP DSS -- 1-11-0

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

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=150 (LC 11)
Max Uplift 2=-76 (LC 14), 9=-63 (LC 15)
Max Grav 2=906 (LC 2), 9=849 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-957/152, 4-5=-812/175, 5-6=-569/165, 6-7=-813/178, 7-9=-959/155
BOT CHORD 2-12=-124/719, 10-12=-17/578, 9-10=-80/684
WEBS 4-12=-203/155, 5-12=-39/280, 6-10=-42/281, 7-10=-208/155

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 8-9-0, Exterior (2) 8-9-0 to 16-10-0, Interior (1) 16-10-0 to 21-3-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 63 lb uplift at joint 9 and 76 lb uplift at joint 2.
11) 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

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	A09	Hip	1	1	I73525661
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:05 Page: 1
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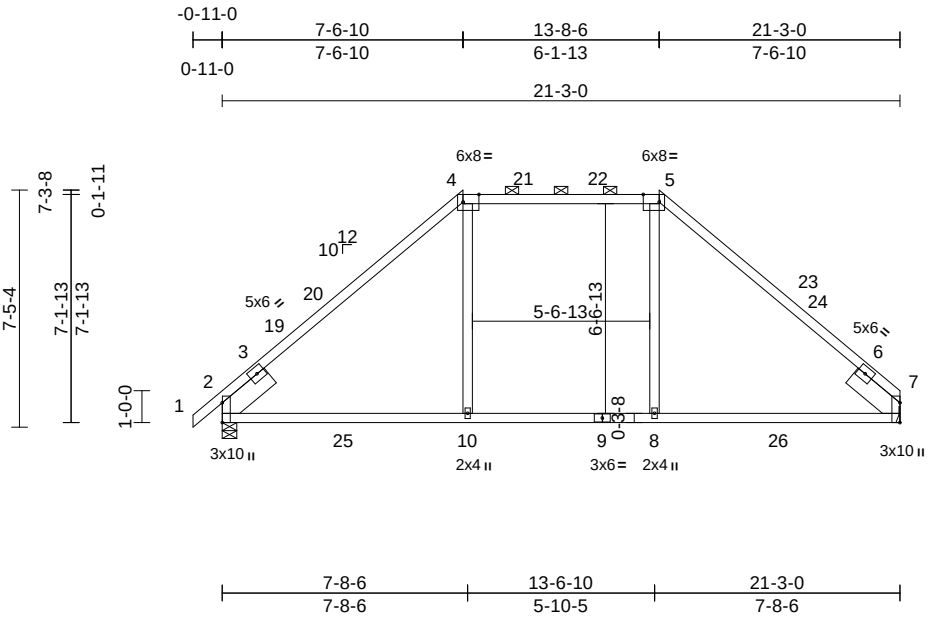


Scale = 1:72.2

Plate Offsets (X, Y): [2:0-7-7,Edge], [4:0-6-0,Edge], [5:0-6-0,Edge], [7:0-7-7,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	0.78	Vert(LL)	-0.35	8-13	>722	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.41	8-13	>615	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.09	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 104 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0, Right 2x8 SP DSS -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-6-8 oc purlins, except 2-0-0 oc purlins (5-9-9 max.): 4-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 7= Mechanical
Max Horiz 2=130 (LC 13)
Max Uplift 2=-71 (LC 14), 7=-58 (LC 15)
Max Grav 2=995 (LC 3), 7=947 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-1084/159, 4-5=-760/171, 5-7=-1083/161
BOT CHORD 2-10=-203/754, 8-10=-36/760, 7-8=-135/754
WEBS 4-10=-13/364, 5-8=-13/363

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 7-6-10, Exterior (2) 7-6-10 to 11-9-8, Interior (1) 11-9-8 to 13-8-6, Exterior (2) 13-8-6 to 17-11-5, Interior (1) 17-11-5 to 21-3-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 7 and 71 lb uplift at joint 2.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

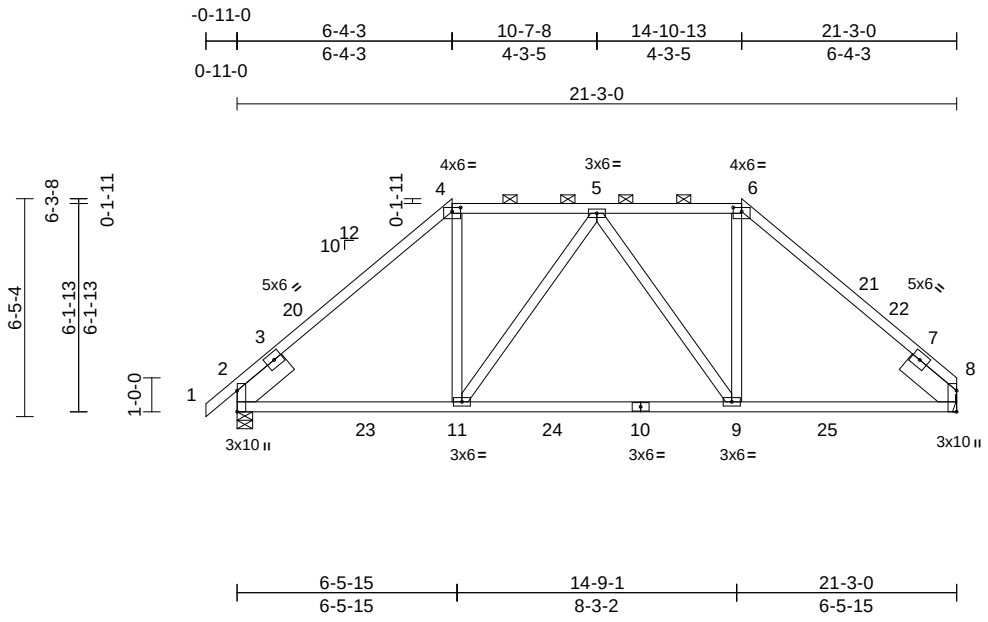
LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	A10	Hip	1	1	I73525662
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:05 Page: 1
ID:7s7UzE3TU00mjwglw2z_dozxXR2-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:68

Plate Offsets (X, Y): [2:0-7-7,Edge], [4:0-3-0,0-1-7], [6:0-3-0,0-1-7], [8:0-7-7,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)	-0.12	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.24	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 120 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0, Right 2x8 SP DSS -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-12 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8= Mechanical
Max Horiz 2=111 (LC 11)
Max Uplift 2=-64 (LC 14), 8=-51 (LC 15)
Max Grav 2=910 (LC 3), 8=862 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-1007/149, 4-5=-713/162, 5-6=-715/161, 6-8=-1009/153
BOT CHORD 2-11=-156/703, 9-11=-83/799, 8-9=-102/705
WEBS 4-11=-27/402, 5-11=-242/112, 5-9=-239/112, 6-9=-27/401

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 6-4-3, Exterior (2) 6-4-3 to 10-7-8, Interior (1) 10-7-8 to 14-10-13, Exterior (2) 14-10-13 to 19-1-11, Interior (1) 19-1-11 to 21-3-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 51 lb uplift at joint 8 and 64 lb uplift at joint 2.
11) 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

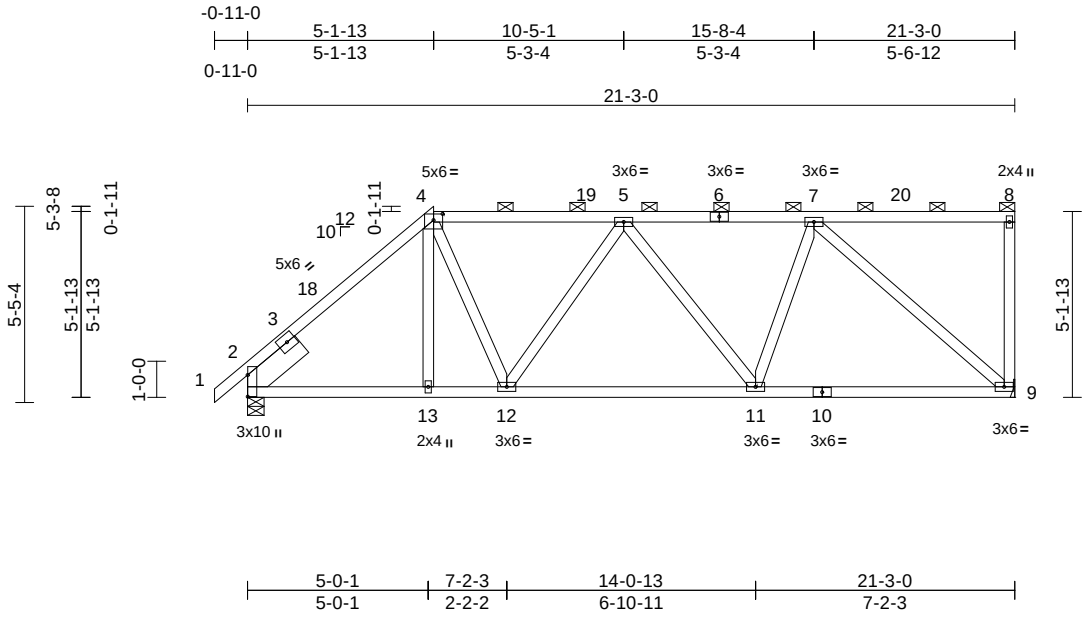
May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A11	Half Hip	1	1	Job Reference (optional)	I73525663

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:06
ID:qEgPx0mQ8e_AqEq8W0XMfkzxXRQ-RfC?PsB70Hq3NSgPqnL8w3ulTXbGKWrCDoi7J4zJC?f



Scale = 1:63.8

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

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	0.41	Vert(LL)	-0.06	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.13	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.89	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 129 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0

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

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=147 (LC 14)
Max Uplift 2=-61 (LC 11), 9=-130 (LC 11)
Max Grav 2=900 (LC 2), 9=845 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-960/132, 4-5=-806/128, 5-7=-828/119, 7-8=-17/1, 8-9=-144/43
BOT CHORD 2-13=-187/674, 12-13=-135/674, 11-12=-155/935, 9-11=-119/729
WEBS 7-9=-957/158, 4-13=-33/69, 4-12=-70/387, 5-12=-270/97, 5-11=-179/70, 7-11=-10/371

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 5-1-13, Exterior (2) 5-1-13 to 9-4-11, Interior (1) 9-4-11 to 21-1-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 9 and 61 lb uplift at joint 2.
11) 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

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A12	Half Hip	1	1	Job Reference (optional)	I73525664

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:06
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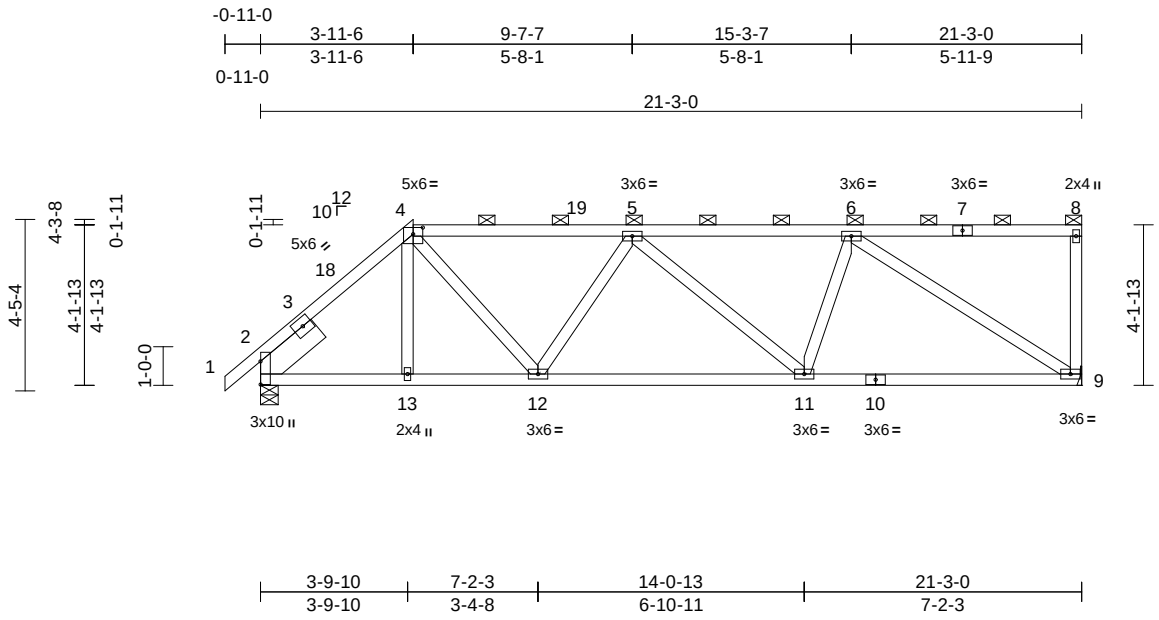


Scale = 1:59.6

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

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	0.43	Vert(LL)	-0.07	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.14	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.98	Horz(CT)	0.03	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 121 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-12 oc purlins, except end verticals, and 2-0-0 oc purlins (5-2-4 max.): 4-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=117 (LC 14)
Max Uplift 2=-77 (LC 11), 9=-130 (LC 11)
Max Grav 2=900 (LC 2), 9=848 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-961/136, 4-5=-1014/150, 5-6=-1054/152, 6-8=-27/3, 8-9=-157/46
BOT CHORD 2-13=-142/689, 12-13=-128/690, 11-12=-195/1179, 9-11=-156/972
WEBS 6-9=-1135/183, 4-13=-38/53, 4-12=-81/531, 5-12=-326/105, 5-11=-168/66, 6-11=0/356

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 3-11-6, Exterior (2) 3-11-6 to 8-2-5, Interior (1) 8-2-5 to 21-1-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 9 and 77 lb uplift at joint 2.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

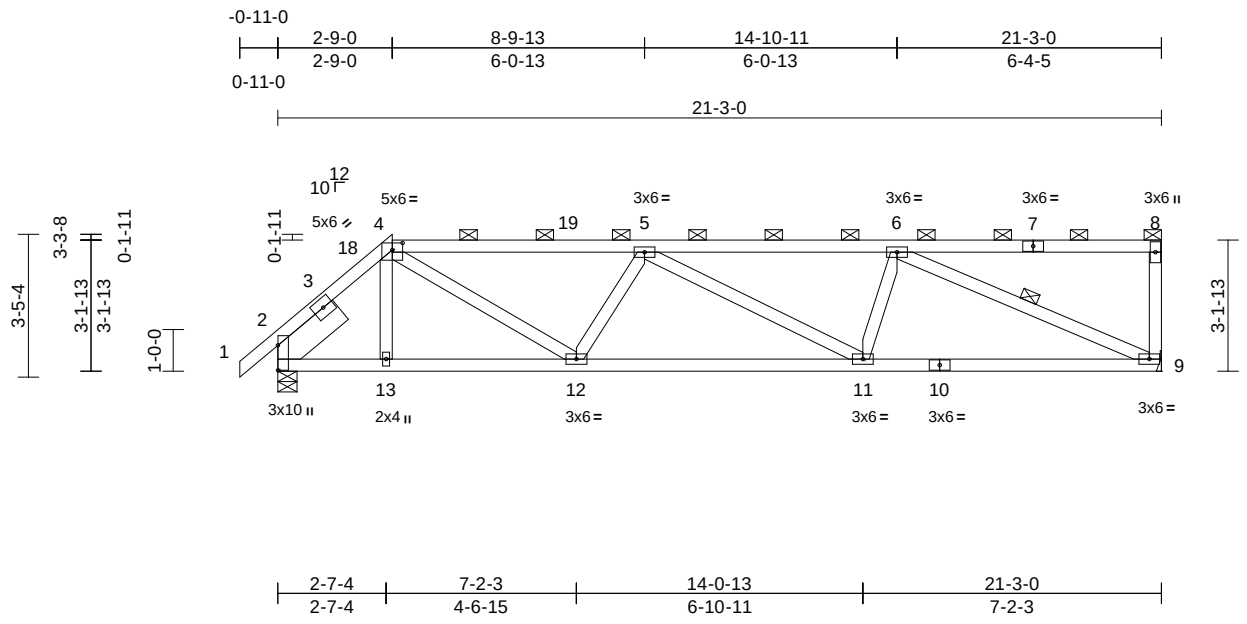
LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A13	Half Hip	1	1	Job Reference (optional)	I73525665

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:06 Page: 1
ID:IQEo8Mn2uy61SOPK3j2bBxzxXRP-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:55.4

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

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	0.51	Vert(LL)	-0.07	9-11	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.16	9-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.04	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 115 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x8 SP DSS -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-4-8 oc purlins, except end verticals, and 2-0-0 oc purlins (4-2-6 max.): 4-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-9

REACTIONS (size) 2=0-5-8, 9= Mechanical
Max Horiz 2=87 (LC 14)
Max Uplift 2=-93 (LC 11), 9=-130 (LC 11)
Max Grav 2=900 (LC 2), 9=850 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-952/137, 4-5=-1396/206, 5-6=-1443/211, 6-8=-45/6, 8-9=-171/50
BOT CHORD 2-13=-121/695, 12-13=-123/697, 11-12=-258/1582, 9-11=-217/1379
WEBS 6-9=-1468/232, 4-13=-51/52, 4-12=-123/840, 5-12=-376/115, 5-11=-159/64, 6-11=0/338

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 2-9-0, Exterior (2) 2-9-0 to 6-11-15, Interior (1) 6-11-15 to 21-1-4 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
6) Provide adequate drainage to prevent water ponding.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 9 and 93 lb uplift at joint 2.
11) 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

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	A14G	Half Hip Girder	1	2	Job Reference (optional)	I73525666

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:07
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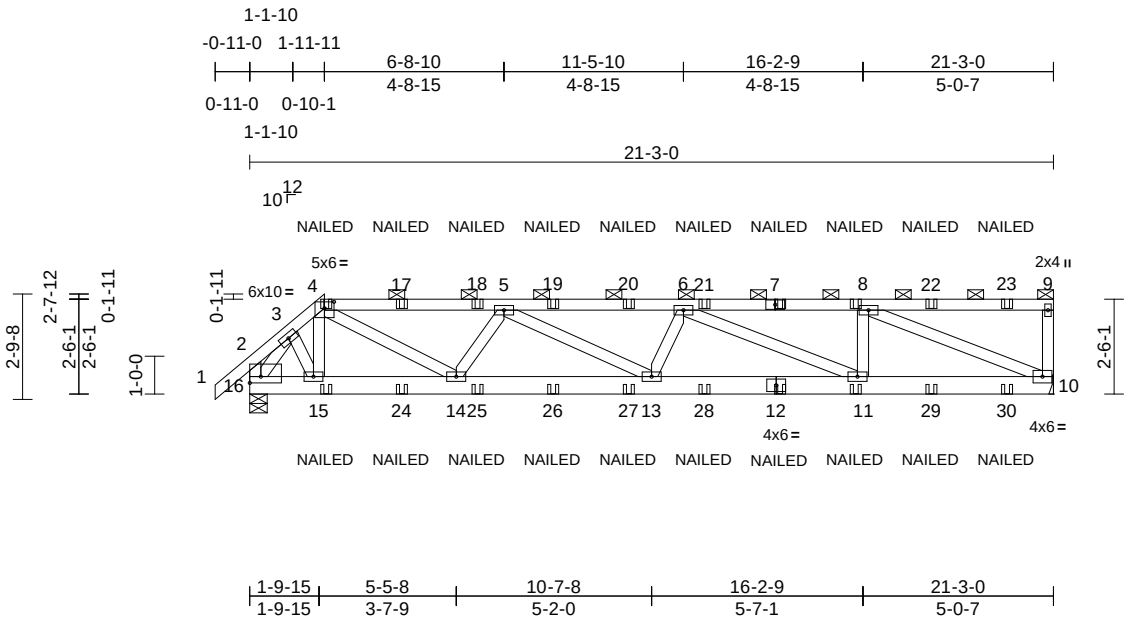


Scale = 1:60.9

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

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	0.21	Vert(LL)	-0.05	11-13	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.33	Vert(CT)	-0.11	11-13	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.25	Horz(CT)	0.02	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 259 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 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.): 4-9.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10= Mechanical, 16=0-5-8
Max Horiz 16=59 (LC 10)
Max Uplift 10=-233 (LC 7), 16=-215 (LC 7)
Max Grav 10=1153 (LC 2), 16=1203 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-3=-232/71, 3-4=-1080/232, 4-5=-2107/425, 5-6=-2839/564, 6-8=-2102/423, 8-9=-65/17, 9-10=-177/67, 2-16=-297/74
BOT CHORD 15-16=-157/663, 14-15=-211/928, 13-14=-530/2470, 11-13=-590/2849, 10-11=-423/2102
WEBS 3-16=-1045/185, 4-15=-366/118, 3-15=-126/531, 4-14=-256/1385, 5-14=-715/211, 5-13=-45/422, 6-13=-27/121, 6-11=-818/182, 8-11=-16/541, 8-10=-2223/443

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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 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 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10, Lu=50-0-0
6) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
8) Provide adequate drainage to prevent water ponding.
9) All plates are 3x6 (=) MT20 unless otherwise indicated.
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) Refer to girder(s) for truss to truss connections.
13) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 10 and 215 lb uplift at joint 16.
14) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
15) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

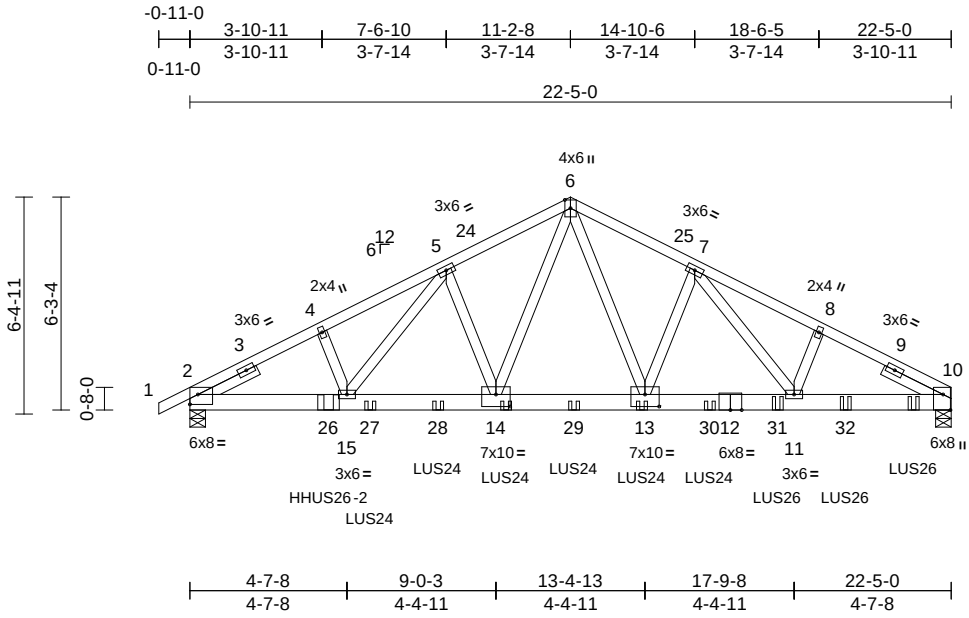
LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-2=-51, 2-4=-51, 4-9=-61, 10-16=-20
Concentrated Loads (lb)
Vert: 4=-38 (B), 7=-26 (B), 12=-21 (B), 15=-34 (B), 11=-21 (B), 8=-26 (B), 17=-26 (B), 18=-26 (B), 19=-26 (B), 20=-26 (B), 21=-26 (B), 22=-26 (B), 23=-26 (B), 24=-21 (B), 25=-21 (B), 26=-21 (B), 27=-21 (B), 28=-21 (B), 29=-21 (B), 30=-21 (B)

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	B01G	Common Girder	1	**2**	I73525667 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:07 Page: 1
ID:Ma9usJA6Mn8UIJsUxRd6UhzxXQv-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:67.8

Plate Offsets (X, Y): [2:Edge,0-3-8], [10:0-5-8,Edge], [13:0-5-0,0-4-4], [14:0-5-0,0-4-4]

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	0.86	Vert(LL)	-0.13	14-15	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.50	Vert(CT)	-0.25	14-15	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.41	Horz(CT)	0.05	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 293 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.1 *Except* 6-10:2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-11-0, Right 2x4 SP No.2 -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-10-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 10=0-5-8
Max Horiz 2=87 (LC 12)
Max Uplift 2=-688 (LC 12), 10=-614 (LC 13)
Max Grav 2=4912 (LC 2), 10=5816 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/31, 2-4=-8413/1178, 4-5=-8320/1200, 5-6=-7089/934, 6-7=-7027/831, 7-8=-8319/934, 8-10=-8407/907
BOT CHORD 2-15=-1064/7340, 14-15=-851/6621, 13-14=-558/5127, 11-13=-663/6571, 10-11=-762/7378
WEBS 6-13=-303/3180, 7-13=-1054/178, 7-11=-162/1624, 8-11=-31/285, 6-14=-569/3334, 5-14=-998/276, 5-15=-358/1441, 4-15=-60/404

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.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-8-0 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 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
6) Unbalanced snow loads have been considered for this design.
7) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
8) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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 614 lb uplift at joint 10 and 688 lb uplift at joint 2.
12) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 4-1-0 from the left end to connect truss(es) to front face of bottom chord.
13) Use Simpson Strong-Tie LUS24 (4-SD9112 Girder, 2-SD9212 Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 5-3-12 from the left end to 15-3-12 to connect truss(es) to front face of bottom chord.
14) Use Simpson Strong-Tie LUS26 (4-SD9112 Girder, 4-SD9212 Truss, Single Ply Girder) or equivalent at 17-3-12 from the left end to connect truss(es) to front face of bottom chord.
15) Use Simpson Strong-Tie LUS26 (4-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-0 oc max. starting at 19-3-12 from the left end to 21-3-12 to connect truss(es) to front face of bottom chord.
16) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-6=-51, 6-10=-51, 16-20=-20
Concentrated Loads (lb)

May 16,2025

Continued on page 2

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

Vert: 13=-762 (F), 14=-825 (F), 18=-877 (F),
26=-1073 (F), 27=-830 (F), 28=-828 (F), 29=-774 (F),
30=-750 (F), 31=-1135 (F), 32=-876 (F)

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	B02	Common	3	1	Job Reference (optional)	I73525668

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:08 Page: 1
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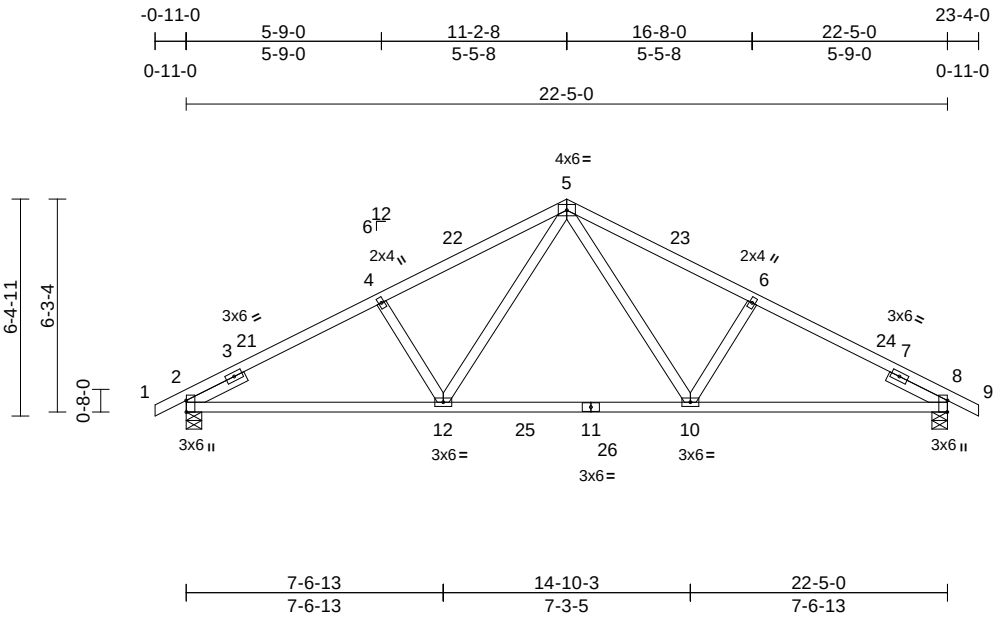

Scale = 1:67.8

Plate Offsets (X, Y): [2:0-4-1,Edge], [8:0-4-1,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	0.45	Vert(LL)	-0.12	10-12	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.21	10-12	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.04	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 110 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-11-0, Right 2x4 SP No.2 -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-6-10 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8=0-5-8
Max Horiz 2=79 (LC 16)
Max Uplift 2=-103 (LC 16), 8=-103 (LC 17)
Max Grav 2=952 (LC 2), 8=952 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-4=-1409/169, 4-5=-1278/192, 5-6=-1278/192, 6-8=-1409/169, 8-9=0/25
BOT CHORD 2-12=-151/1215, 10-12=-35/845, 8-10=-89/1215
WEBS 5-10=-90/465, 6-10=-295/137, 5-12=-90/465, 4-12=-295/137

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 11-2-8, Exterior (2) 11-2-8 to 14-2-8, Interior (1) 14-2-8 to 23-4-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 2 and 103 lb uplift at joint 8.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	B03	Roof Special	5	1	Job Reference (optional)	I73525669

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:08 Page: 1

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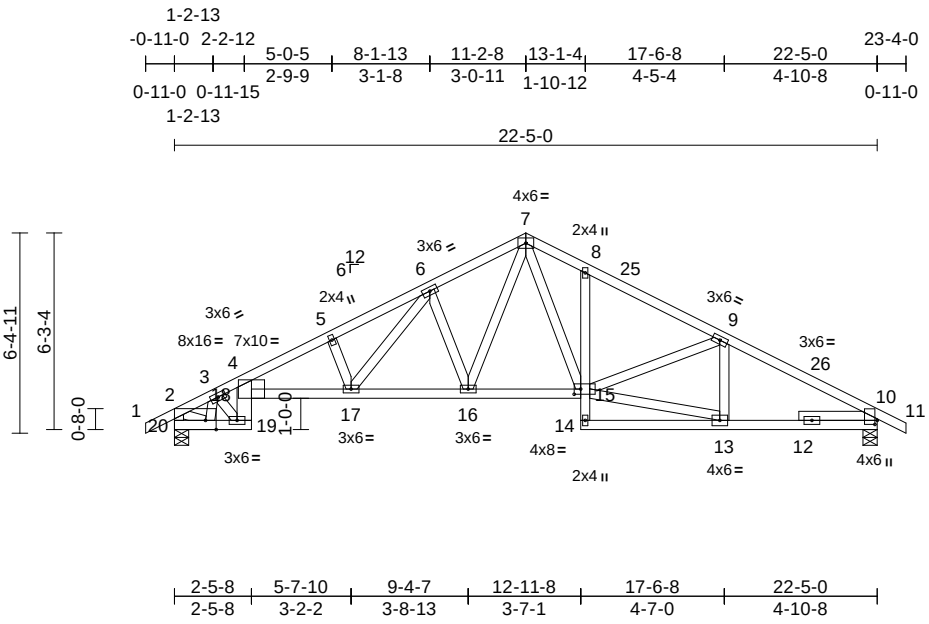

Scale = 1:73.5

Plate Offsets (X, Y): [2:0-4-1,Edge], [10:0-1-9,0-0-15], [15:0-2-8,0-2-0]

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	0.88	Vert(LL)	-0.13	17-18	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.85	Vert(CT)	-0.26	17-18	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.16	10	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 137 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1

BOT CHORD 2x4 SP No.2 *Except* 19-4:2x6 SP No.2, 18-15:2x4 SP No.1

WEBS 2x4 SP No.2

SLIDER Right 2x4 SP No.2 -- 2-6-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.

BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 10=0-5-8, 20=0-5-8

Max Horiz 20=-76 (LC 21)

Max Uplift 10=-103 (LC 17), 20=-104 (LC 16)

Max Grav 10=945 (LC 2), 20=955 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/29, 2-3=-154/31, 3-4=-1195/129, 4-5=-2074/232, 5-6=-2049/263, 6-7=-1340/191, 7-8=-1376/213, 8-9=-1407/171, 9-10=-1433/159, 10-11=0/25, 2-20=-196/77

BOT CHORD 19-20=-156/953, 18-19=-24/85, 4-18=-12/175, 17-18=-231/1917, 16-17=-112/1326, 15-16=-35/993, 14-15=0/92, 8-15=-209/85, 13-14=-2/77, 10-13=-92/1224

WEBS 7-15=-121/590, 9-15=-95/92, 7-16=-98/518, 5-17=-430/116, 6-17=-136/754, 6-16=-456/129, 3-20=-1131/114, 3-19=-72/38, 9-13=-236/49, 13-15=-82/1176

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-15, Interior (1) 2-1-15 to 11-2-8, Exterior (2) 11-2-8 to 14-2-8, Interior (1) 14-2-8 to 23-4-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 103 lb uplift at joint 10 and 104 lb uplift at joint 20.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	B04E	Common Supported Gable	1	1	Job Reference (optional)	I73525670

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:08 Page: 1

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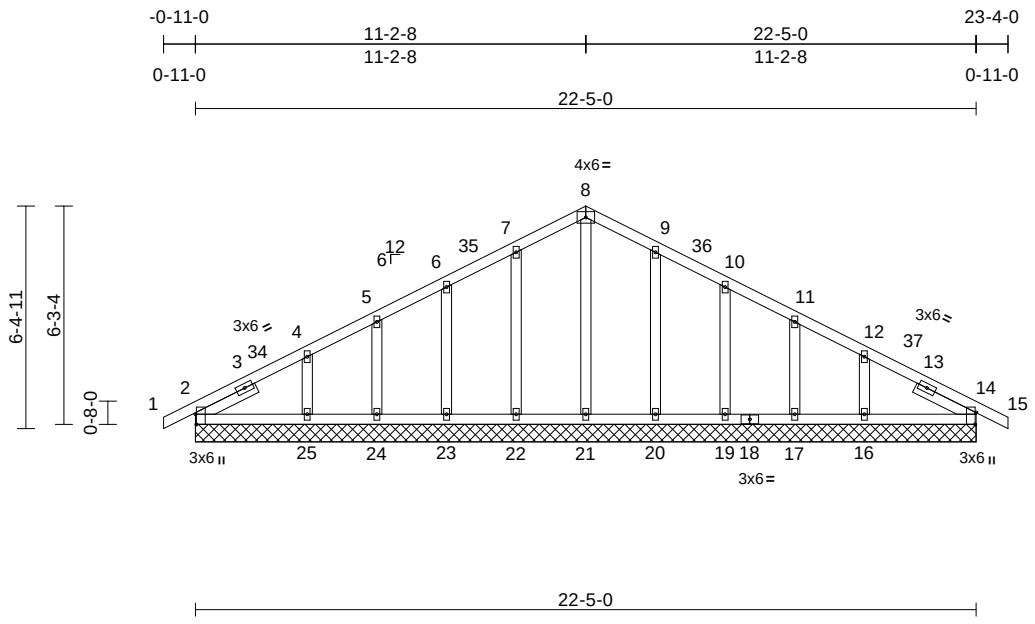

Scale = 1:66.2

Plate Offsets (X, Y): [2:0-3-8,Edge], [14:0-4-1,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	0.09	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	14	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 127 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.2
SLIDER	Left 2x4 SP No.2 -- 1-11-0, Right 2x4 SP No.2 -- 1-11-0

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)

	2=22-5-0, 14=22-5-0, 16=22-5-0, 17=22-5-0, 19=22-5-0, 20=22-5-0, 21=22-5-0, 22=22-5-0, 23=22-5-0, 24=22-5-0, 25=22-5-0
Max Horiz	2=79 (LC 16)
Max Uplift	2=-18 (LC 17), 14=-6 (LC 17), 16=-73 (LC 17), 17=-27 (LC 17), 19=-44 (LC 17), 20=-39 (LC 17), 22=-40 (LC 16), 23=-44 (LC 16), 24=-25 (LC 16), 25=-78 (LC 16)
Max Grav	2=199 (LC 2), 14=199 (LC 2), 16=240 (LC 35), 17=132 (LC 2), 19=166 (LC 2), 20=185 (LC 24), 21=130 (LC 33), 22=185 (LC 23), 23=166 (LC 2), 24=132 (LC 2), 25=240 (LC 34)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/25, 2-4=-89/48, 4-5=-86/74, 5-6=-75/105, 6-7=-76/144, 7-8=-87/180, 8-9=-87/182, 9-10=-76/146, 10-11=-75/107, 11-12=-82/76, 12-14=-89/32, 14-15=0/25
BOT CHORD	2-25=0/74, 24-25=0/74, 23-24=0/74, 22-23=0/74, 21-22=0/74, 20-21=0/74, 19-20=0/74, 17-19=0/74, 16-17=0/74, 14-16=0/74
WEBS	8-21=-91/9, 7-22=-145/106, 6-23=-123/68, 5-24=-105/49, 4-25=-167/100, 9-20=-145/106, 10-19=-123/68, 11-17=-105/49, 12-16=-167/100

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 11-2-8, Corner (3) 11-2-8 to 14-2-8, Exterior (2) 14-2-8 to 23-4-0 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
8) All plates are 2x4 (||) MT20 unless otherwise indicated.
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 18 lb uplift at joint 2, 6 lb uplift at joint 14, 40 lb uplift at joint 22, 44 lb uplift at joint 23, 25 lb uplift at joint 24, 78 lb uplift at joint 25, 39 lb uplift at joint 20, 44 lb uplift at joint 19, 27 lb uplift at joint 17, 73 lb uplift at joint 16, 18 lb uplift at joint 2 and 6 lb uplift at joint 14.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	G01	Common	11	1	Job Reference (optional)	I73525671

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:08
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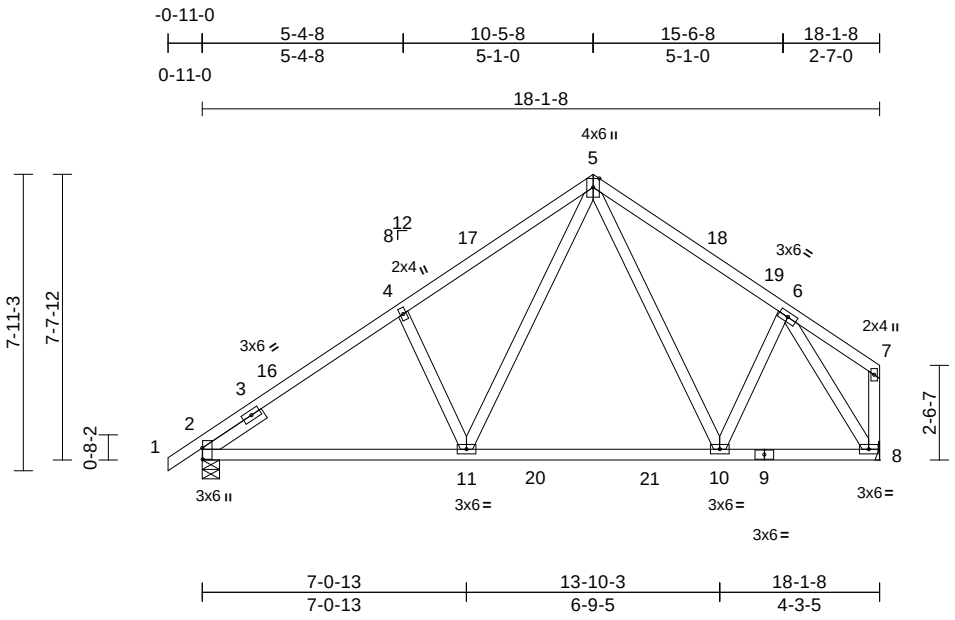

Scale = 1:61.7

Plate Offsets (X, Y): [2:0-3-10,0-0-2]

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	0.31	Vert(LL)	-0.09	10-11	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.13	10-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.02	8	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
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.2
SLIDER	Left 2x4 SP No.2 -- 1-11-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 8= Mechanical
Max Horiz 2=141 (LC 14)
Max Uplift 2=-81 (LC 14), 8=-55 (LC 15)
Max Grav 2=776 (LC 2), 8=718 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/31, 2-4=-887/108, 4-5=-825/163, 5-6=-629/142, 6-7=-20/64, 7-8=-28/15
BOT CHORD	2-11=-164/779, 10-11=-35/461, 8-10=-42/408
WEBS	5-10=-64/123, 6-10=-25/177, 5-11=-113/489, 4-11=-275/152, 6-8=-773/81

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 10-5-8, Exterior (2) 10-5-8 to 13-5-8, Interior (1) 13-5-8 to 17-11-12 zone; cantilever left and right exposed ; end vertical left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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, with BCDL = 10.0psf.
8) Refer to girder(s) for truss to truss connections.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 2 and 55 lb uplift at joint 8.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	G01E	Common Supported Gable	1	1	I73525672 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:09
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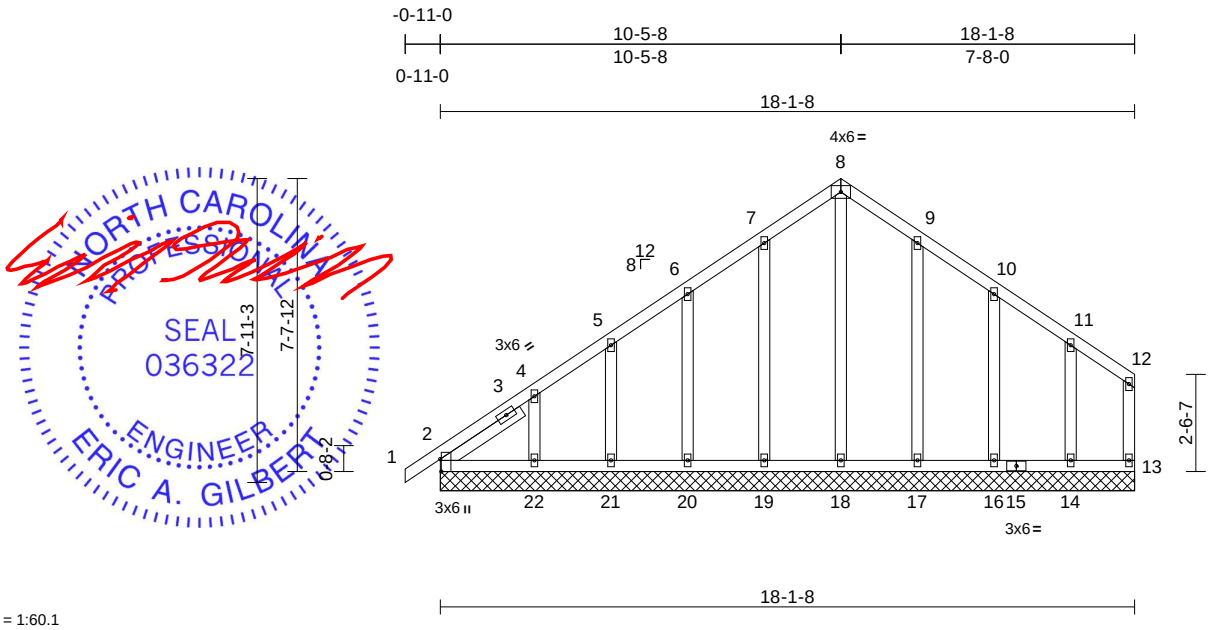

Scale = 1:60.1

Plate Offsets (X, Y): [2:0-3-14,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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 121 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.2
SLIDER	Left 2x4 SP No.2 -- 2-6-0

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=18-1-8, 13=18-1-8, 14=18-1-8, 16=18-1-8, 17=18-1-8, 18=18-1-8, 19=18-1-8, 20=18-1-8, 21=18-1-8, 22=18-1-8
Max Horiz 2=141 (LC 14)
Max Uplift 2=-55 (LC 10), 13=-4 (LC 15), 14=-64 (LC 15), 16=-57 (LC 15), 17=-52 (LC 15), 19=-54 (LC 14), 20=-56 (LC 14), 21=-44 (LC 14), 22=-89 (LC 14)
Max Grav 2=179 (LC 27), 13=63 (LC 2), 14=187 (LC 27), 16=192 (LC 27), 17=192 (LC 27), 18=215 (LC 29), 19=188 (LC 26), 20=176 (LC 26), 21=161 (LC 2), 22=217 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/31, 2-4=-143/150, 4-5=-122/115, 5-6=-109/114, 6-7=-97/142, 7-8=-135/167, 8-9=-135/159, 9-10=-97/112, 10-11=-58/62, 11-12=-25/27, 12-13=-40/12
BOT CHORD	2-22=-2/5, 21-22=-2/5, 20-21=-2/5, 19-20=-2/5, 18-19=-2/5, 17-18=-2/5, 16-17=-2/5, 14-16=-2/5, 13-14=-2/5
WEBS	8-18=-157/52, 7-19=-133/63, 6-20=-123/66, 5-21=-117/58, 4-22=-155/90, 9-17=-129/61, 10-16=-125/66, 11-14=-119/65

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -0-11-0 to 2-1-0, Exterior (2) 2-1-0 to 10-5-8, Corner (3) 10-5-8 to 13-5-8, Exterior (2) 13-5-8 to 17-11-12 zone; cantilever left and right exposed ; end vertical left 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) This truss has been designed for greater of min roof live load of 12.0 psf or 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
7) All plates are 2x4 (||) MT20 unless otherwise indicated.
8) Gable requires continuous bottom chord bearing.
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 4 lb uplift at joint 13, 55 lb uplift at joint 2, 54 lb uplift at joint 19, 56 lb uplift at joint 20, 44 lb uplift at joint 21, 89 lb uplift at joint 22, 52 lb uplift at joint 17, 57 lb uplift at joint 16, 64 lb uplift at joint 14 and 55 lb uplift at joint 2.
13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard

1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-8=-51, 8-12=-51
   Trapezoidal Loads (lb/ft)
   Vert: 23=-20-to-25=-20 (F=0), 25=-20 (F=0)-to-22=-22 (F=-2), 22=-22 (F=-2)-to-21=-24 (F=-4), 21=-24 (F=-4)-to-20=-25 (F=-5), 20=-25 (F=-5)-to-19=-27 (F=-7), 19=-27 (F=-7)-to-18=-29 (F=-9), 18=-29 (F=-9)-to-17=-30 (F=-10), 17=-30 (F=-10)-to-16=-32 (F=-12), 16=-32 (F=-12)-to-15=-33 (F=-13), 15=-33 (F=-13)-to-14=-34 (F=-14), 14=-34 (F=-14)-to-13=-35 (F=-15)

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	J01	Jack-Open Girder	1	1	I73525673 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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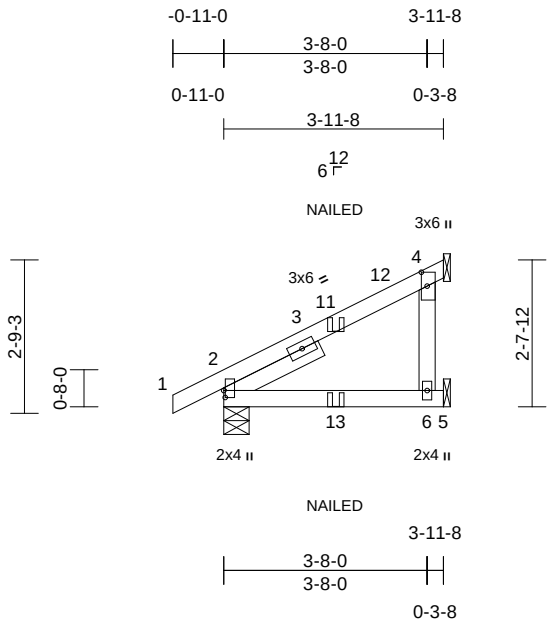

Scale = 1:41.5

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

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	0.23	Vert(LL)	0.01	6-9	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	6-9	>999	180		
TCDL	10.0	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.01	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 20 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 -- 1-11-0

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 4= Mechanical, 6= Mechanical
Max Horiz 2=67 (LC 12)
Max Uplift 2=-20 (LC 12), 4=-41 (LC 12), 6=-2 (LC 12)
Max Grav 2=209 (LC 2), 4=94 (LC 19), 6=77 (LC 7)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/25, 2-4=-133/34
BOT CHORD 2-6=-57/60, 5-6=0/0
WEBS 4-6=0/0

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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 20 lb uplift at joint 2, 41 lb uplift at joint 4 and 2 lb uplift at joint 6.
10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Snow (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-51, 5-7=-20
Concentrated Loads (lb)
Vert: 11=-26 (F), 13=-3 (F)

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	J02	Jack-Open	1	1	I73525674 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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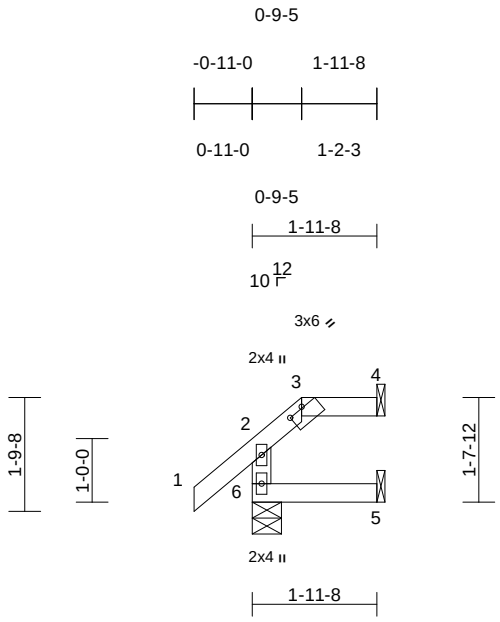

Scale = 1:36.2

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

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	0.13	Vert(LL)	0.00	5-6	>999	240	MT20	244/190
Snow (Pf/Pg)	20.4/20.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	5-6	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 9 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 1-11-8 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 4= Mechanical, 5= Mechanical, 6=0-5-8
Max Horiz 6=34 (LC 13)
Max Uplift 4=-18 (LC 13), 5=-2 (LC 13), 6=-12 (LC 16)
Max Grav 4=71 (LC 35), 5=33 (LC 7), 6=215 (LC 36)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-6=-189/67, 1-2=0/67, 2-3=-57/10, 3-4=0/0
BOT CHORD 5-6=0/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 1-11-6 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=20.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
7) Provide adequate drainage to prevent water ponding.
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 12 lb uplift at joint 6, 18 lb uplift at joint 4 and 2 lb uplift at joint 5.
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

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	J03	Jack-Open	9	1	I73525675 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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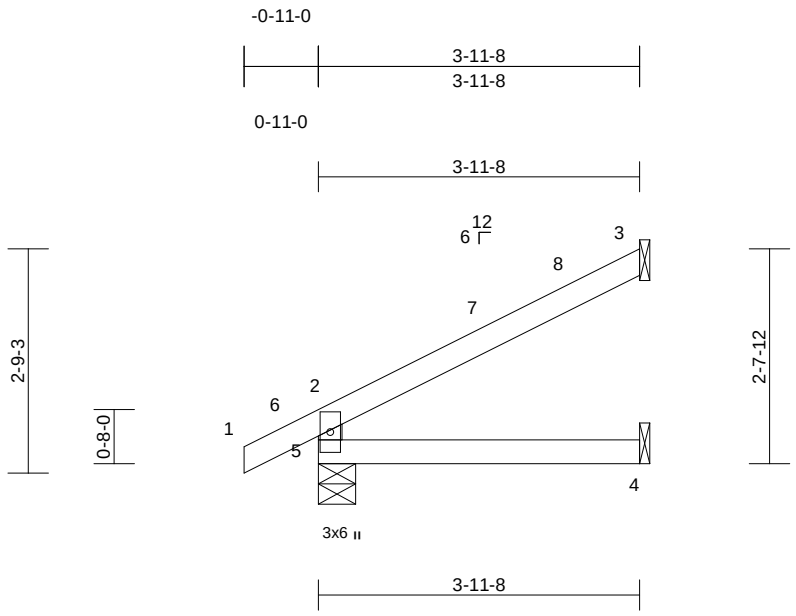

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.01	4-5	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	4-5	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 14 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-11-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3= Mechanical, 4= Mechanical, 5=0-5-8
Max Horiz 5=66 (LC 16)
Max Uplift 3=-44 (LC 16), 5=-19 (LC 16)
Max Grav 3=99 (LC 2), 4=70 (LC 7), 5=223 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 2-5=-190/91, 1-2=0/29, 2-3=-62/34
BOT CHORD 4-5=0/0

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-11-0 to 2-1-0, Interior (1) 2-1-0 to 3-10-12 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) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) Refer to girder(s) for truss to truss connections.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 5 and 44 lb uplift at joint 3.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	P01E	Monopitch Supported Gable	1	1	I73525676 Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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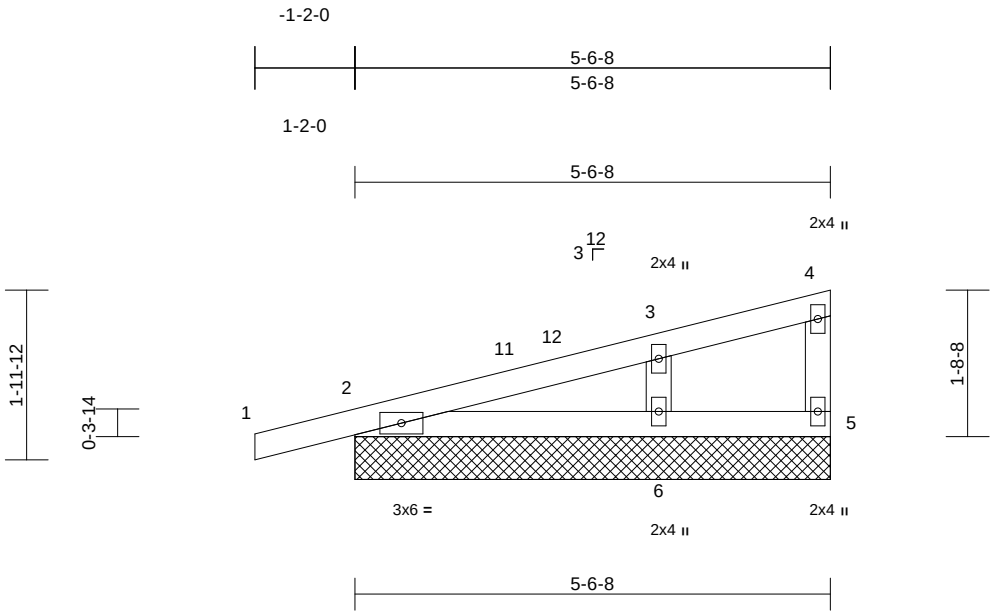

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.36	Vert(CT)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 21 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.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-6-8 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=5-6-8, 5=5-6-8, 6=5-6-8
Max Horiz 2=53 (LC 12)
Max Uplift 2=-51 (LC 12), 6=-33 (LC 16)
Max Grav 2=207 (LC 2), 5=117 (LC 7), 6=290 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/17, 2-3=-57/31, 3-4=-22/2, 4-5=-20/37
BOT CHORD	2-6=-18/53, 5-6=0/0
WEBS	3-6=-218/149

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-2-0 to 1-10-0, Exterior (2) 1-10-0 to 5-4-12 zone; cantilever left and right exposed ; end vertical left 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
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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
8) Gable requires continuous bottom chord bearing.
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 51 lb uplift at joint 2, 33 lb uplift at joint 6 and 51 lb uplift at joint 2.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	P02	Monopitch	5	1	Job Reference (optional)	I73525677

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:10 Page: 1
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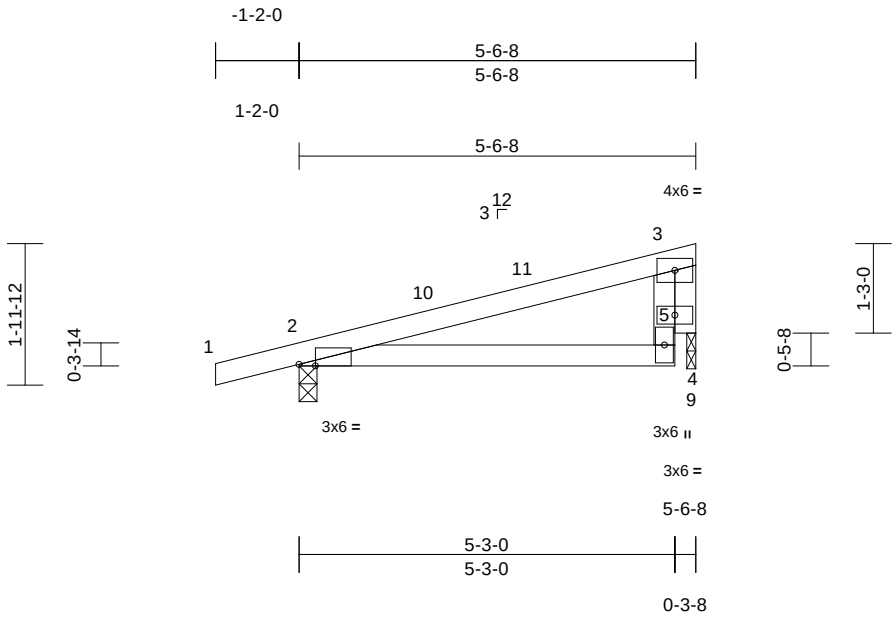

Scale = 1:32.2

Plate Offsets (X, Y): [2:0-2-12,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	0.27	Vert(LL)	0.02	4-8	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.24	Vert(CT)	-0.03	4-8	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	9	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 21 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.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-6-8 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-3-0, 9=0-1-8
Max Horiz 2=45 (LC 12)
Max Uplift 2=-105 (LC 12), 9=-64 (LC 12)
Max Grav 2=296 (LC 2), 9=183 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-234/135, 4-5=-96/109, 3-5=-56/59
BOT CHORD 2-4=-146/213
WEBS 3-9=-114/102

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-2-0 to 1-10-0, Interior (1) 1-10-0 to 5-1-4 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
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2, 9.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 2 and 64 lb uplift at joint 9.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	P03	Monopitch	4	1	Job Reference (optional)	I73525678

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:10 Page: 1
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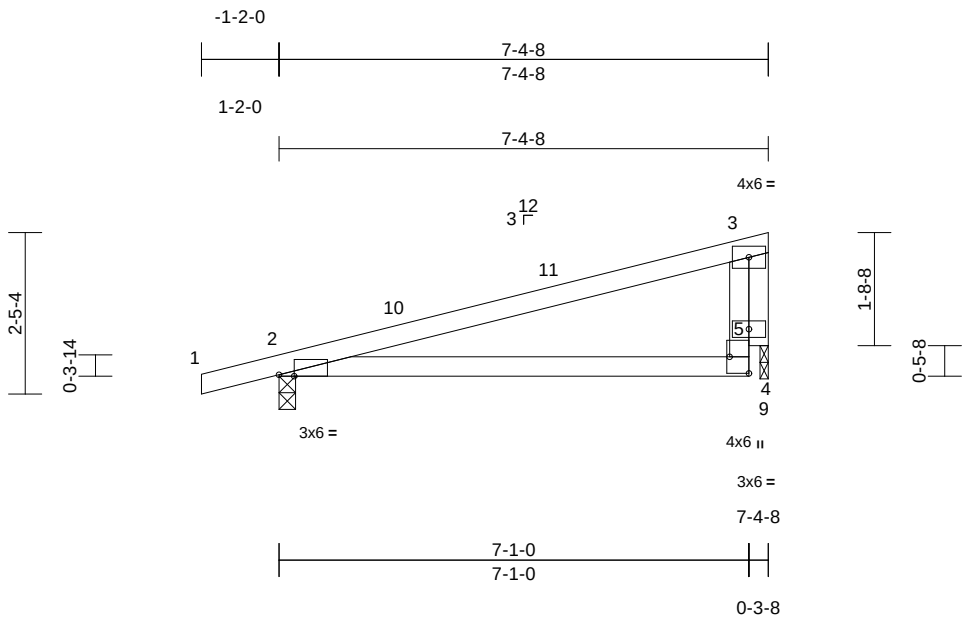

Scale = 1:34.7

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

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	0.54	Vert(LL)	0.08	4-8	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.11	4-8	>806	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
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.2
OTHERS 2x4 SP No.2

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

REACTIONS (size) 2=0-3-0, 9=0-1-8
Max Horiz 2=64 (LC 12)
Max Uplift 2=-127 (LC 12), 9=-91 (LC 12)
Max Grav 2=367 (LC 2), 9=258 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/17, 2-3=-320/171, 4-5=-131/152, 3-5=-127/140
BOT CHORD 2-4=-185/289
WEBS 3-9=-206/179

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-2-0 to 1-10-0, Interior (1) 1-10-0 to 6-11-4 zone; cantilever left and right exposed ; end vertical left 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
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 127 lb uplift at joint 2 and 91 lb uplift at joint 9.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	P04	Monopitch	9	1	I73525679
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:10
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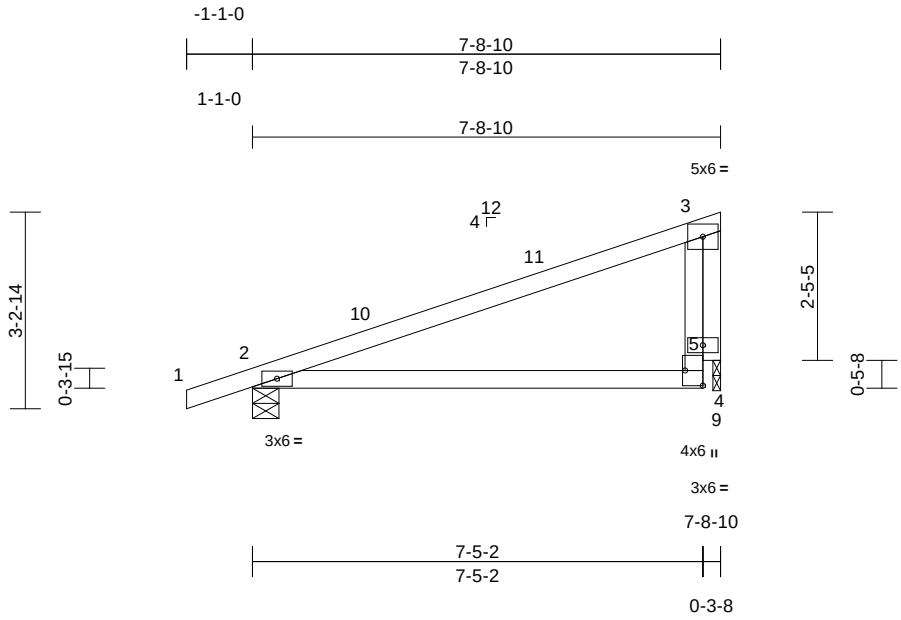

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Plate Offsets (X, Y): [4:Edge,0-3-8]

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	0.60	Vert(LL)	0.10	4-8	>889	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.13	4-8	>692	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MR								
BCDL	10.0										Weight: 31 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.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-4, 9=0-1-8
Max Horiz 2=88 (LC 12)
Max Uplift 2=-123 (LC 12), 9=-102 (LC 12)
Max Grav 2=375 (LC 2), 9=272 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/21, 2-3=-275/130, 4-5=-140/162, 3-5=-172/196
BOT CHORD	2-4=-149/227
WEBS	3-9=-253/220

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-1-0 to 1-11-0, Interior (1) 1-11-0 to 7-3-6 zone; cantilever left and right exposed ; end vertical left 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
3) TCLL: ASCE 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 9.
11) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 123 lb uplift at joint 2 and 102 lb uplift at joint 9.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	P05E	Monopitch Structural Gable	2	1	Job Reference (optional)	I73525680

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:10 Page: 1
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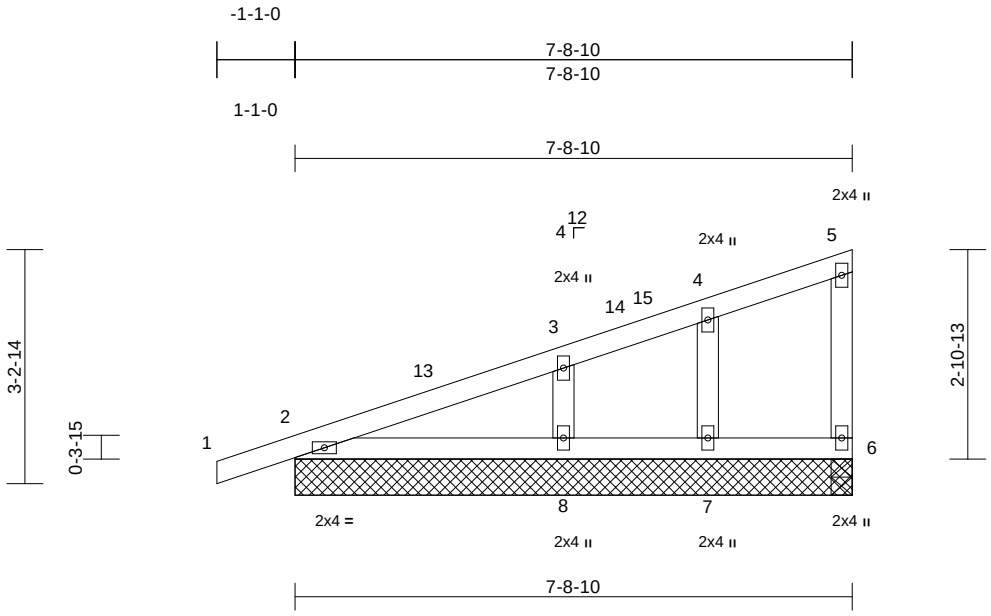

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	8-11	>999	240	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.01	8-11	>999	180		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	6	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 33 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.2

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

REACTIONS (size) 2=7-8-10, 6=7-8-10, 7=7-8-10, 8=7-8-10
Max Horiz 2=90 (LC 15)
Max Uplift 2=-42 (LC 12), 6=-9 (LC 13), 7=-27 (LC 12), 8=-54 (LC 16)
Max Grav 2=199 (LC 2), 6=67 (LC 23), 7=130 (LC 23), 8=281 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/21, 2-3=-96/71, 3-4=-69/45, 4-5=-40/37, 5-6=-49/34
BOT CHORD 2-8=-35/42, 7-8=-35/38, 6-7=-35/38
WEBS 4-7=-106/68, 3-8=-189/61

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-1-0 to 1-11-0, Interior (1) 1-11-0 to 7-6-14 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; 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 1.00 times flat roof load of 15.4 psf on overhangs non-concurrent with other live loads.
7) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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 42 lb uplift at joint 2, 9 lb uplift at joint 6, 27 lb uplift at joint 7, 54 lb uplift at joint 8 and 42 lb uplift at joint 2.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	V01	Valley	1	1	I73525681
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:11 Page: 1
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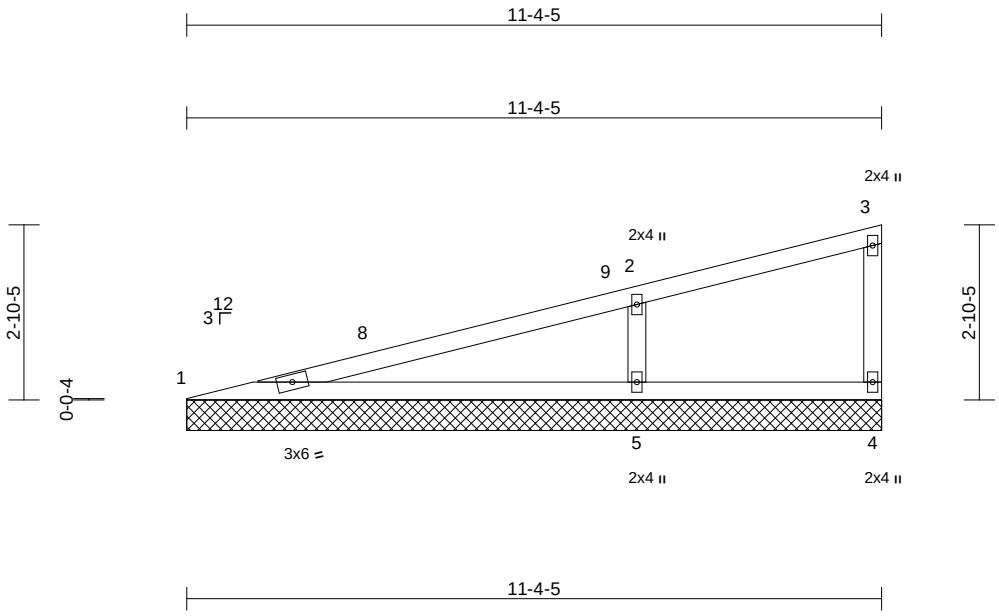

Scale = 1:37.7

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)	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	0.05	Horiz(TL)	0.01	4	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MS								
BCDL	10.0										Weight: 38 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.2

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=11-4-5, 4=11-4-5, 5=11-4-5
Max Horiz 1=81 (LC 12)
Max Uplift 1=-23 (LC 12), 4=-10 (LC 12), 5=-104 (LC 12)
Max Grav 1=241 (LC 2), 4=68 (LC 22), 5=604 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-675/82, 2-3=-43/10
BOT CHORD	1-5=-143/648, 4-5=0/0
WEBS	2-5=-400/117, 3-4=-67/41

NOTES

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-0 to 3-1-0, Interior (1) 3-1-0 to 11-3-9 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 4, 23 lb uplift at joint 1 and 104 lb uplift at joint 5.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	V02	Valley	1	1	Job Reference (optional)	I73525682

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334, Run: 8.83 S Apr 24 2025 Print: 8.830 S Apr 24 2025 MiTek Industries, Inc. Thu May 15 12:23:11 Page: 1
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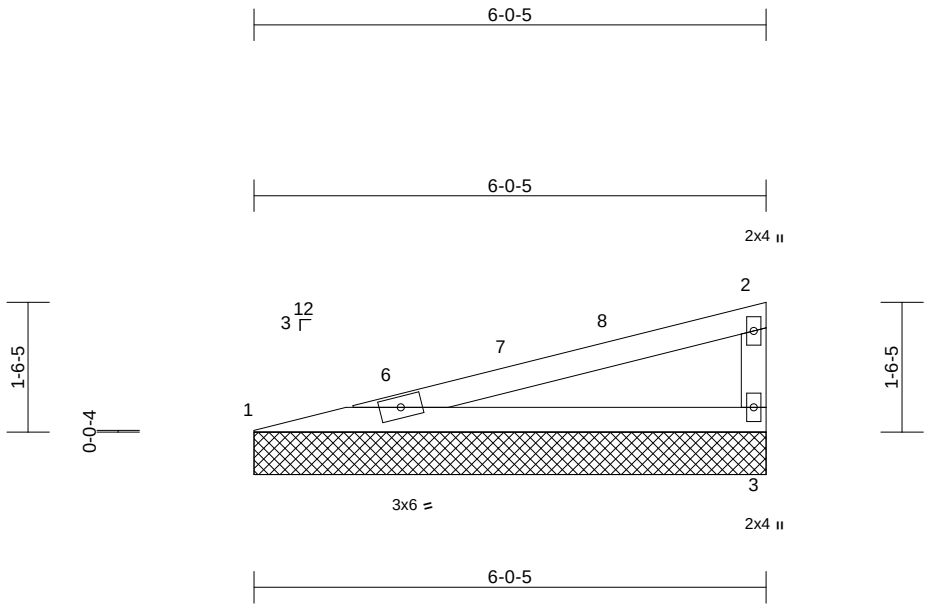

Scale = 1:27.1

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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.51	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.01	3	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 18 lb	FT = 20%

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

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=6-0-5, 3=6-0-5
Max Horiz 1=41 (LC 12)
Max Uplift 1=-31 (LC 12), 3=-41 (LC 12)
Max Grav 1=235 (LC 2), 3=235 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-653/148
BOT CHORD 1-3=-190/627
WEBS 2-3=-144/68

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-0 to 3-1-0, Interior (1) 3-1-0 to 5-11-9 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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
4) Unbalanced snow loads have been considered for this design.
5) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 3 and 31 lb uplift at joint 1.

LOAD CASE(S) Standard

May 16,2025

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

Job	Truss	Truss Type	Qty	Ply	996 Serenity	
P02609-25470	V03	Valley	1	1	Job Reference (optional)	I73525683

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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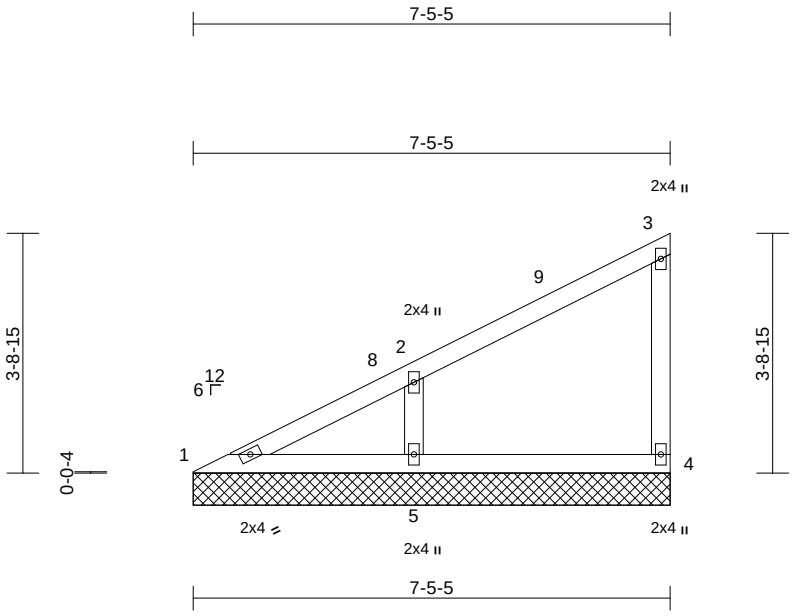

Scale = 1:36

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	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
TCDL	10.0	Rep Stress Incr	YES	WB	0.03	Horiz(TL)	0.00	5	n/a	n/a		
BCLL	0.0*	Code	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 29 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.2

BRACING

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=7-5-5, 4=7-5-5, 5=7-5-5
Max Horiz 1=106 (LC 13)
Max Uplift 4=-19 (LC 13), 5=-84 (LC 16)
Max Grav 1=101 (LC 30), 4=120 (LC 2), 5=365 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=-163/108, 2-3=-88/63, 3-4=-91/81
BOT CHORD	1-5=-56/129, 4-5=-46/50
WEBS	2-5=-262/147

NOTES

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 7-4-1 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
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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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 19 lb uplift at joint 4 and 84 lb uplift at joint 5.

LOAD CASE(S) Standard

May 16,2025

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	996 Serenity
P02609-25470	V04	Valley	1	1	I73525684
					Job Reference (optional)

84 Lumber-2383 (Dunn, NC), Dunn, NC - 28334,

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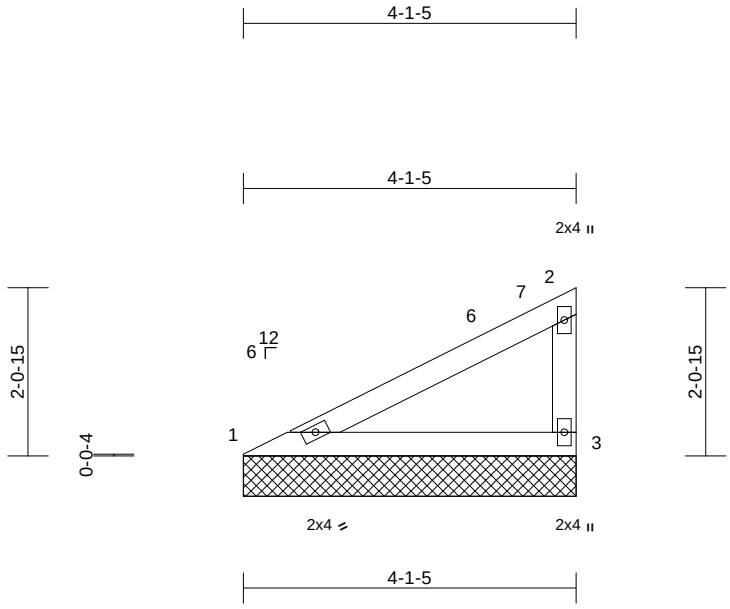
ID:?MqZEnvJY0NcfwAFfpExb2zxXRF-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:28.5

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	0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
Snow (Pf/Pg)	15.4/20.0	Lumber DOL	1.15	BC	0.22	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	IRC2015/TPI2014	Matrix-MP								
BCDL	10.0										Weight: 14 lb	FT = 20%

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

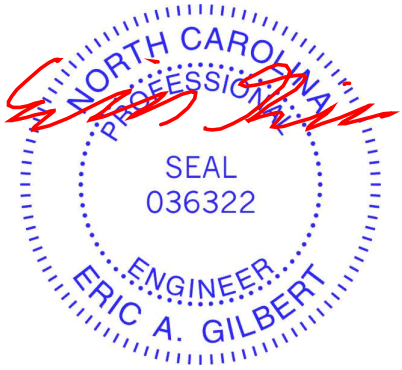
BRACING
TOP CHORD Structural wood sheathing directly applied or 4-1-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=4-1-5, 3=4-1-5
Max Horiz 1=55 (LC 13)
Max Uplift 1=-18 (LC 16), 3=-31 (LC 16)
Max Grav 1=159 (LC 2), 3=159 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-260/77, 2-3=-99/72
BOT CHORD 1-3=-131/226

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=3.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 4-0-1 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
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 7-10; Pr=20.0 psf (roof LL: Lum DOL=1.15 Plate DOL=1.15); Pg=20.0 psf (ground snow); Pf=15.4 psf (flat roof snow: Lum DOL=1.15 Plate DOL=1.15); Category II; Exp B; Partially Exp.; Ct=1.10
5) Unbalanced snow loads have been considered for this design.
6) Building Designer/Project engineer responsible for verifying Rain Load = 5.0 (psf) covers rain loading requirements specific to the use of this truss component.
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 31 lb uplift at joint 3 and 18 lb uplift at joint 1.

LOAD CASE(S) Standard



May 16,2025

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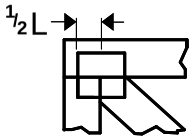
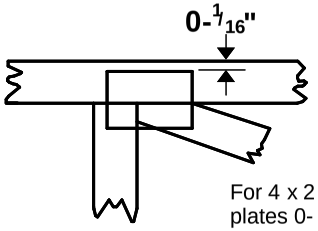
Symbols

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.

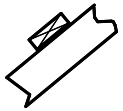
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

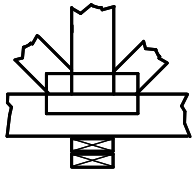
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

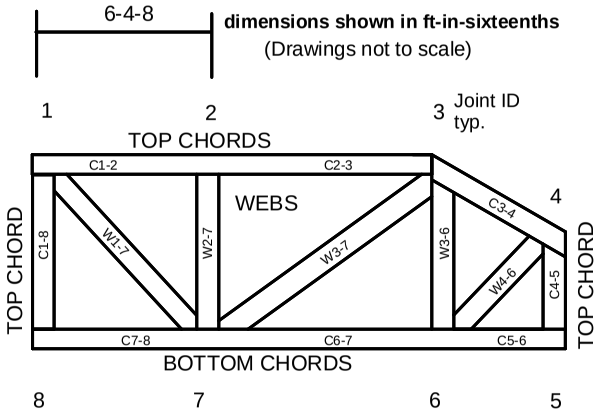


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

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®

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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.