ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 34893A
5 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 Components - #2383.

Pages or sheets covered by this seal: I56131948 thru I56132001

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

January 17,2023

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	5 SERENITY	
34893A	A1E	Common Supported Gable	1	1	Job Reference (optional)	I56131948

84 Components (Dunn), Dunn, NC - 28334, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:48 Page: 1
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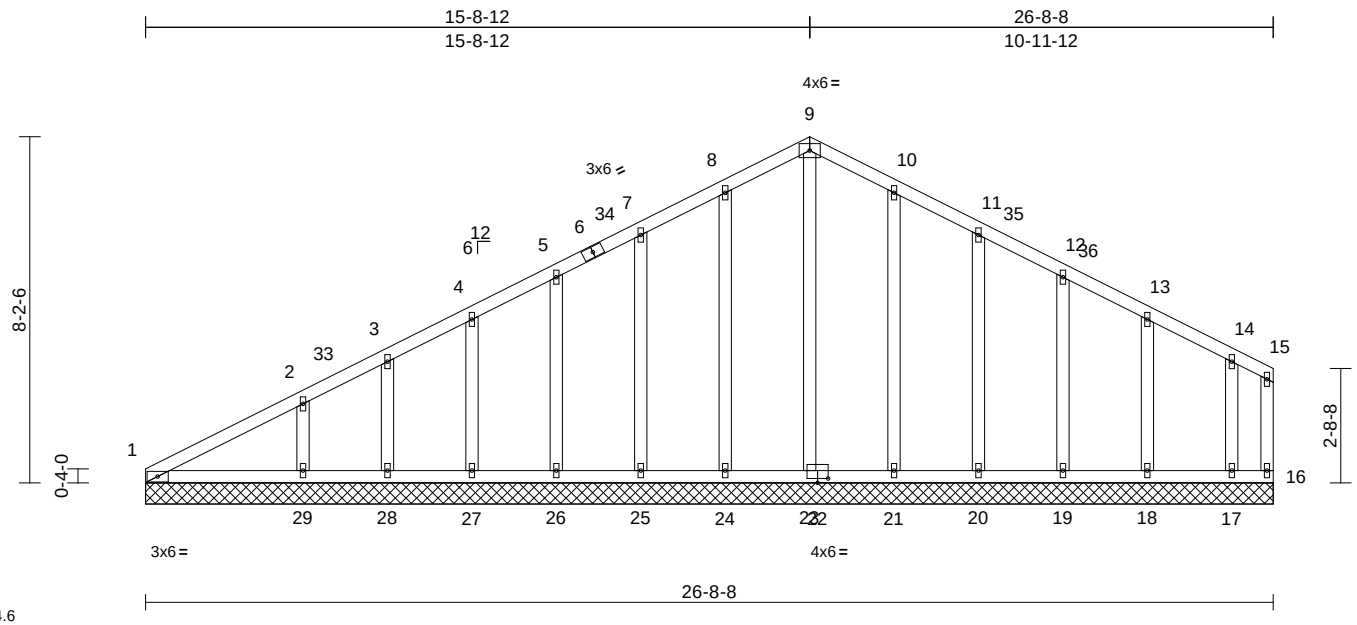

Scale = 1:54.6

Plate Offsets (X, Y): [22:0-3-0,0-1-4]

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	16	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 171 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3 *Except* 23-9,24-8,21-10:2x4 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=26-8-8, 16=26-8-8, 17=26-8-8, 18=26-8-8, 19=26-8-8, 20=26-8-8, 21=26-8-8, 23=26-8-8, 24=26-8-8, 25=26-8-8, 26=26-8-8, 27=26-8-8, 28=26-8-8, 29=26-8-8, 30=26-8-8
Max Horiz 1=128 (LC 11), 30=128 (LC 11)
Max Uplift 1=-4 (LC 8), 16=-3 (LC 12), 17=-38 (LC 13), 18=-28 (LC 13), 19=-27 (LC 13), 20=-29 (LC 13), 21=-25 (LC 13), 24=-27 (LC 12), 25=-29 (LC 12), 26=-27 (LC 12), 27=-30 (LC 12), 28=-17 (LC 12), 29=-54 (LC 12), 30=-4 (LC 8)
Max Grav 1=131 (LC 20), 16=31 (LC 22), 17=127 (LC 24), 18=176 (LC 2), 19=203 (LC 26), 20=198 (LC 2), 21=207 (LC 26), 23=222 (LC 22), 24=208 (LC 19), 25=198 (LC 2), 26=201 (LC 25), 27=183 (LC 25), 28=101 (LC 1), 29=304 (LC 23), 30=131 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-116/91, 2-3=-98/88, 3-4=-82/116, 4-5=-73/156, 5-7=-76/192, 7-8=-89/231, 8-9=-103/265, 9-10=-103/256, 10-11=-89/198, 11-12=-76/143, 12-13=-63/106, 13-14=-49/68, 14-15=-35/35, 15-16=-26/16
BOT CHORD 1-29=-30/47, 28-29=-30/39, 27-28=-30/39, 26-27=-30/39, 25-26=-30/39, 24-25=-30/39, 23-24=-30/39, 21-23=-30/39, 20-21=-30/39, 19-20=-30/39, 18-19=-30/39, 17-18=-30/39, 16-17=-30/39
WEBS 9-23=-162/22, 8-24=-129/109, 7-25=-119/98, 5-26=-119/58, 4-27=-127/64, 3-28=-88/48, 2-29=-202/160, 10-21=-129/107, 11-20=-119/99, 12-19=-119/75, 13-18=-125/114, 14-17=-95/98

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-0-0 to 4-6-6, Exterior (2) 4-6-6 to 15-8-12, Corner (3) 15-8-12 to 20-3-2, Exterior (2) 20-3-2 to 26-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 1-00-00 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 4 lb uplift at joint 1, 3 lb uplift at joint 16, 27 lb uplift at joint 24, 29 lb uplift at joint 25, 27 lb uplift at joint 26, 30 lb uplift at joint 27, 17 lb uplift at joint 28, 54 lb uplift at joint 29, 25 lb uplift at joint 21, 29 lb uplift at joint 20, 27 lb uplift at joint 19, 28 lb uplift at joint 18, 38 lb uplift at joint 17 and 4 lb uplift at joint 1.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	A2	Common	6	1	Job Reference (optional)	I56131949

84 Components (Dunn), Dunn, NC - 28334,

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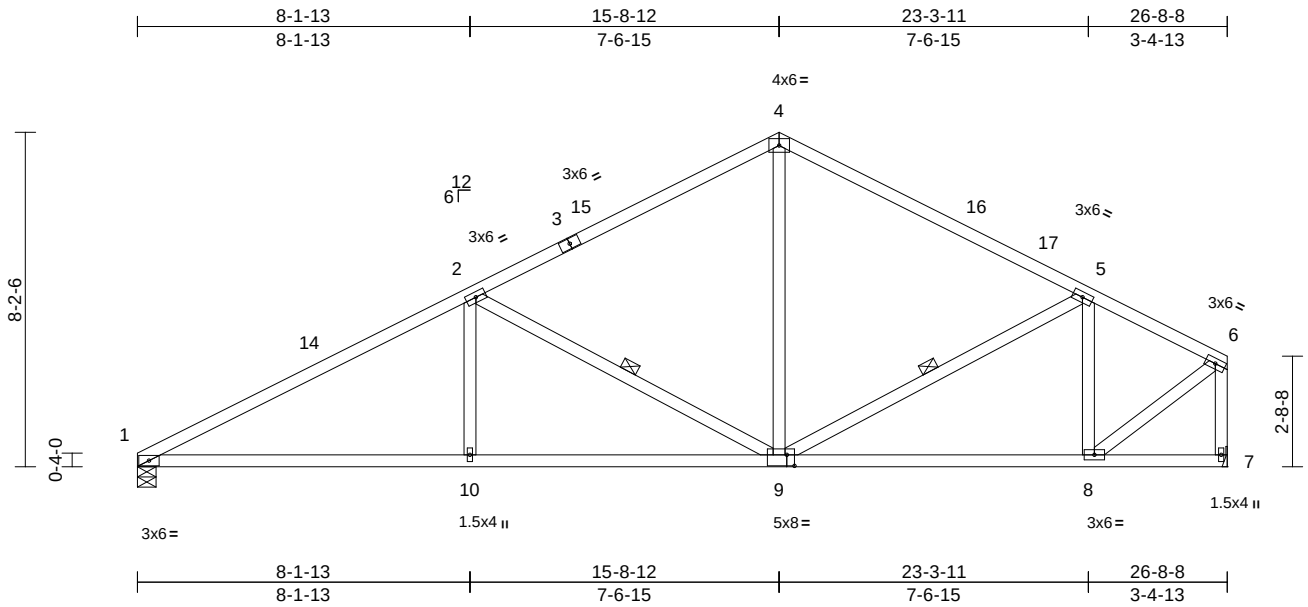

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Plate Offsets (X, Y): [9:0-2-4,0-3-4]

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	0.86	Vert(LL)	-0.13	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.30	10-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.43	Horz(CT)	0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 141 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 9-4,9-5,9-2:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-4-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 7-8.
WEBS 1 Row at midpt 5-9, 2-9

REACTIONS (size) 1=0-5-8, 7= Mechanical
Max Horiz 1=128 (LC 11)
Max Uplift 1=-38 (LC 12), 7=-11 (LC 13)
Max Grav 1=1062 (LC 1), 7=1063 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1842/98, 2-4=-1115/125, 4-5=-1108/120, 5-6=-919/68, 6-7=-1051/70
BOT CHORD 1-10=-100/1592, 8-10=-100/1592, 7-8=-31/35
WEBS 4-9=0/544, 5-9=-51/180, 5-8=-500/112, 2-9=-806/152, 2-10=0/339, 6-8=-56/1037

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-6-6, Interior (1) 4-6-6 to 15-8-12, Exterior (2) 15-8-12 to 20-3-2, Interior (1) 20-3-2 to 26-6-12 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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 1-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1 and 11 lb uplift at joint 7.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	A2A	Attic	2	1	Job Reference (optional)	I56131950

84 Components (Dunn), Dunn, NC - 28334,

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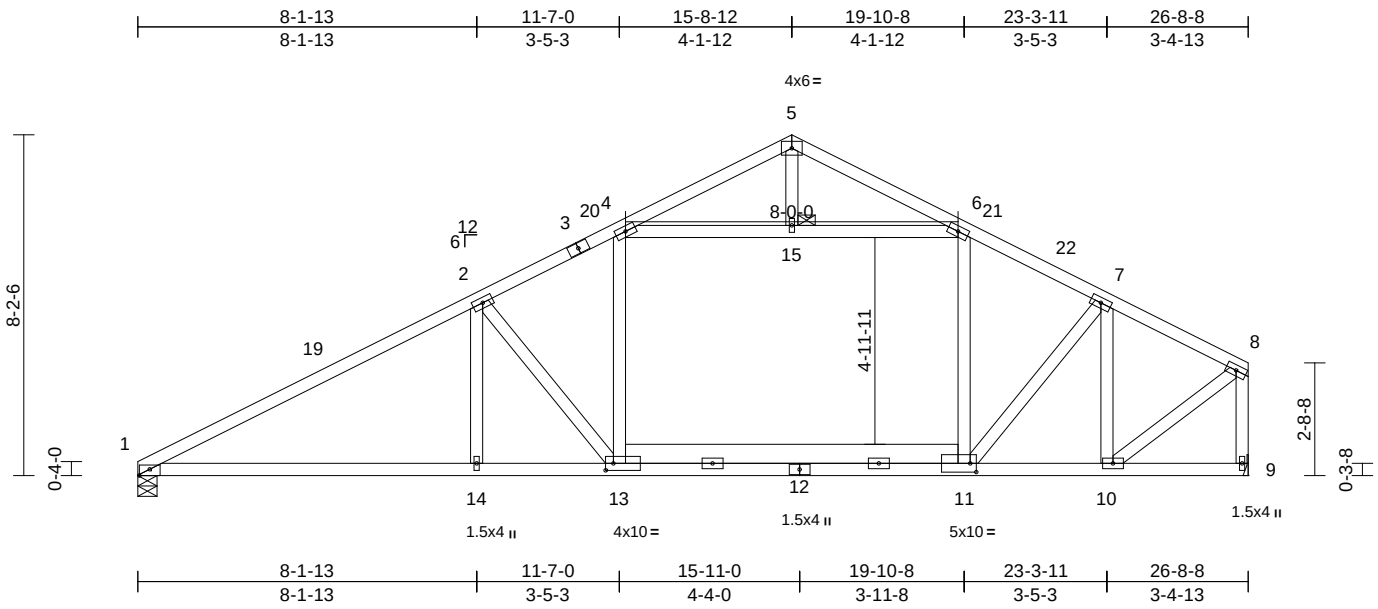

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Plate Offsets (X, Y): [1:0-3-0,Edge], [11:0-1-12,0-2-8], [13:0-2-4,0-2-0]

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	0.76	Vert(LL)	-0.39	13-14	>822	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.65	13-14	>489	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 170 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP DSS *Except* 13-11:2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 4-6:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 5-8-6 oc bracing.
JOINTS 1 Brace at Jt(s): 15

REACTIONS (size) 1=0-5-8, 9= Mechanical
Max Horiz 1=128 (LC 11)
Max Uplift 1=-38 (LC 12), 9=-11 (LC 13)
Max Grav 1=1063 (LC 1), 9=1077 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1879/100, 2-4=-1359/127, 4-5=-342/96, 5-6=-398/97, 6-7=-1267/112, 7-8=-850/68, 8-9=-981/77
BOT CHORD 1-14=-100/1604, 13-14=-100/1604, 11-13=-50/1134, 10-11=-54/722, 9-10=-21/41
WEBS 7-11=-60/675, 7-10=-775/83, 2-13=-896/166, 2-14=0/471, 8-10=-41/870, 4-13=0/443, 6-11=0/202, 4-15=-882/65, 6-15=-882/65, 5-15=-3/41

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-6-6, Interior (1) 4-6-6 to 15-8-12, Exterior (2) 15-8-12 to 20-3-2, Interior (1) 20-3-2 to 26-6-12 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) All plates are 3x6 MT20 unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 38 lb uplift at joint 1 and 11 lb uplift at joint 9.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	A3A	Attic	1	1	Job Reference (optional)	I56131951

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:52 Page: 1
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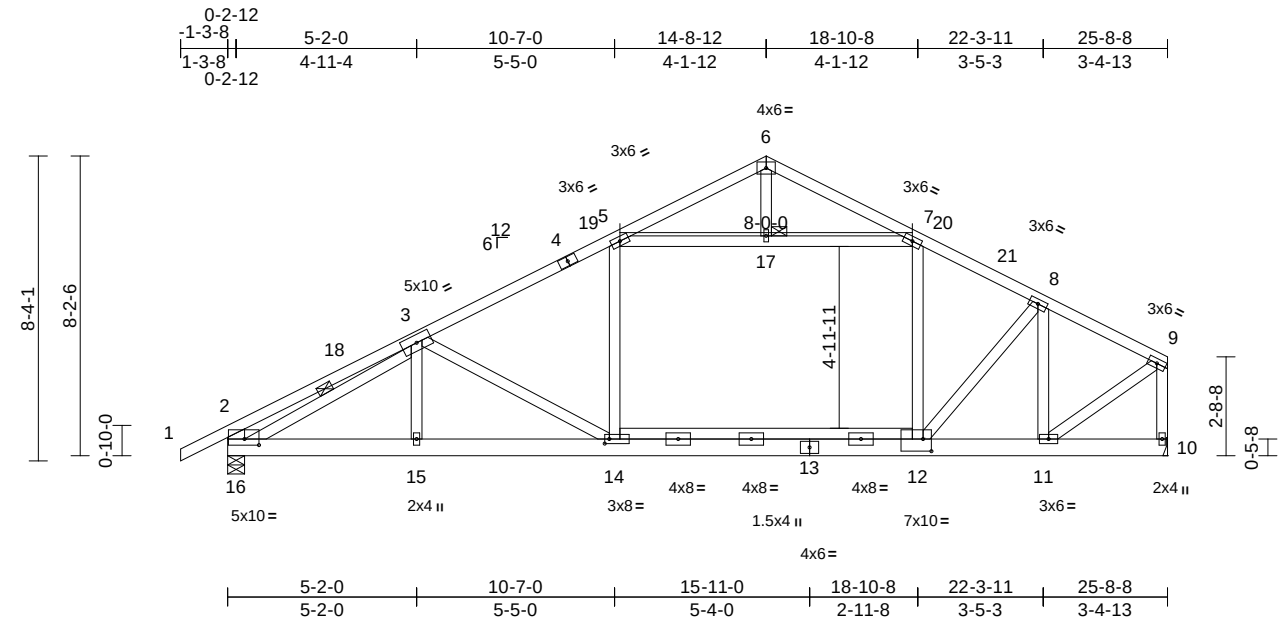

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Plate Offsets (X, Y): [12:0-2-12,0-4-0], [14:0-1-8,0-1-8], [16:0-4-12,0-2-0]

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	0.39	Vert(LL)	-0.20	14-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.36	14-15	>833	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.03	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.14	12-14	>737	360	Weight: 190 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 13-10:2x6 SP DSS, 14-12:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 5-7:2x4 SP No.2, 16-2:2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-0-4 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-1-6 oc bracing.
WEBS 1 Row at midpt 3-16
JOINTS 1 Brace at Jt(s): 17

REACTIONS (size) 10= Mechanical, 16=0-5-8
Max Horiz 16=131 (LC 11)
Max Grav 10=1330 (LC 2), 16=1298 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/41, 2-3=-59/104, 3-5=-1742/0, 5-6=-402/48, 6-7=-416/47, 7-8=-1692/0, 8-9=-1071/0, 9-10=-1206/0
BOT CHORD 15-16=0/1771, 14-15=0/1770, 12-14=0/1496, 11-12=0/923, 10-11=-21/39
WEBS 3-14=-497/143, 3-15=0/306, 9-11=0/1110, 5-14=0/416, 7-12=0/366, 5-17=-1208/0, 7-17=-1208/0, 6-17=0/108, 8-11=-1079/0, 8-12=0/933, 2-16=-223/156, 3-16=-2060/0

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-3-8 to 4-2-14, Interior (1) 4-2-14 to 15-8-12, Exterior (2) 15-8-12 to 20-3-2, Interior (1) 20-3-2 to 26-6-12 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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 1-00-00 wide will fit between the bottom chord and any other members.
5) Ceiling dead load (5.0 psf) on member(s). 5-17, 7-17; Wall dead load (5.0psf) on member(s).5-14, 7-12
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-14
7) Refer to girder(s) for truss to truss connections.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	A4A	Attic	2	1	Job Reference (optional)	I56131952

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:52

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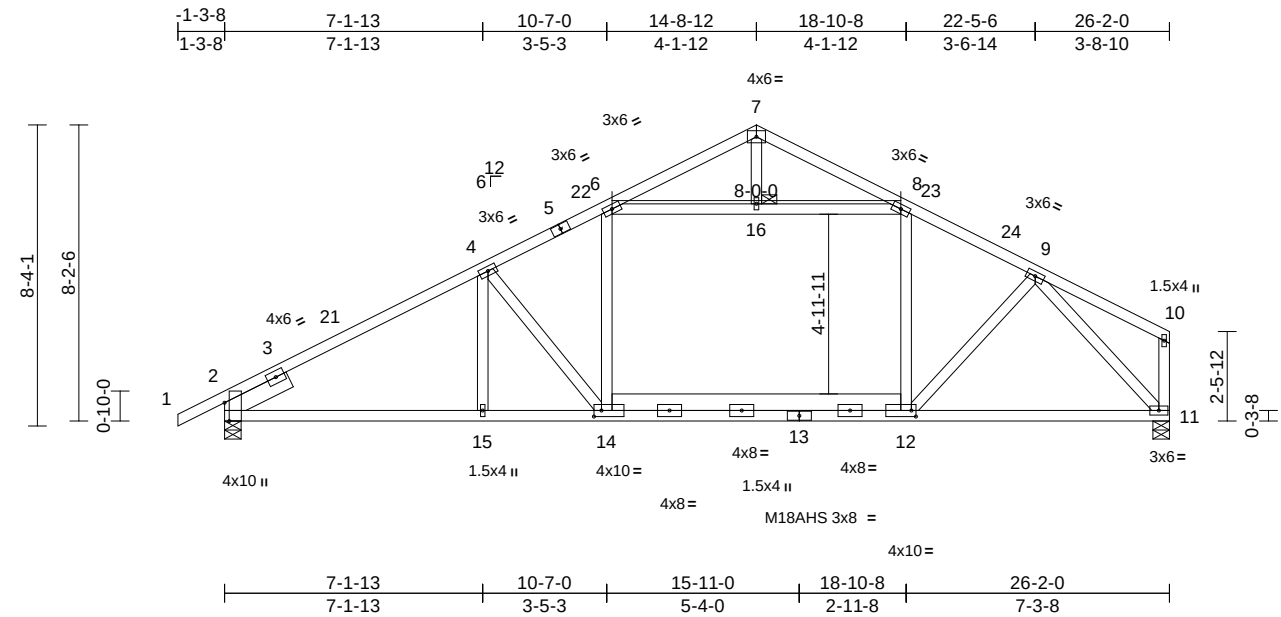
Page: 1



Scale = 1:63.8

Plate Offsets (X, Y): [2:0-6-1,Edge], [12:0-1-8,0-2-0], [14:0-2-8,0-2-0]

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	0.79	Vert(LL)	-0.43	14-15	>727	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.71	14-15	>441	180	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.95	Horz(CT)	0.04	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS		Attic	-0.31	12-14	>319	360	Weight: 171 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP DSS *Except* 14-12:2x6 SP No.2
WEBS 2x4 SP No.3 *Except* 6-8:2x4 SP No.2
SLIDER Left 2x6 SP No.2 -- 2-0-0

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-4-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 9-4-10 oc bracing.
JOINTS 1 Brace at Jt(s): 16

REACTIONS (size) 2=0-5-8, 11=0-5-8
Max Horiz 2=127 (LC 11)
Max Grav 2=1315 (LC 2), 11=1350 (LC 2)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/35, 2-4=-2040/0, 4-6=-1735/0, 6-7=-394/55, 7-8=-450/53, 8-9=-1669/0, 9-10=-79/60, 10-11=-122/39
BOT CHORD 2-15=-125/1759, 14-15=0/1759, 12-14=0/1493, 11-12=0/1109
WEBS 4-14=-616/174, 4-15=-18/325, 9-11=-1673/0, 6-14=0/481, 8-12=0/286, 6-16=-1190/0, 8-16=-1190/0, 7-16=0/107, 9-12=0/604

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -0-3-8 to 4-2-14, Interior (1) 4-2-14 to 15-8-12, Exterior (2) 15-8-12 to 20-3-2, Interior (1) 20-3-2 to 27-0-4 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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 1-00-00 wide will fit between the bottom chord and any other members.
6) Ceiling dead load (5.0 psf) on member(s). 6-16, 8-16; Wall dead load (5.0psf) on member(s).6-14, 8-12
7) Bottom chord live load (40.0 psf) and additional bottom chord dead load (5.0 psf) applied only to room. 12-14
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	A5E	Common Supported Gable	1	1	I56131953
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:53 Page: 1
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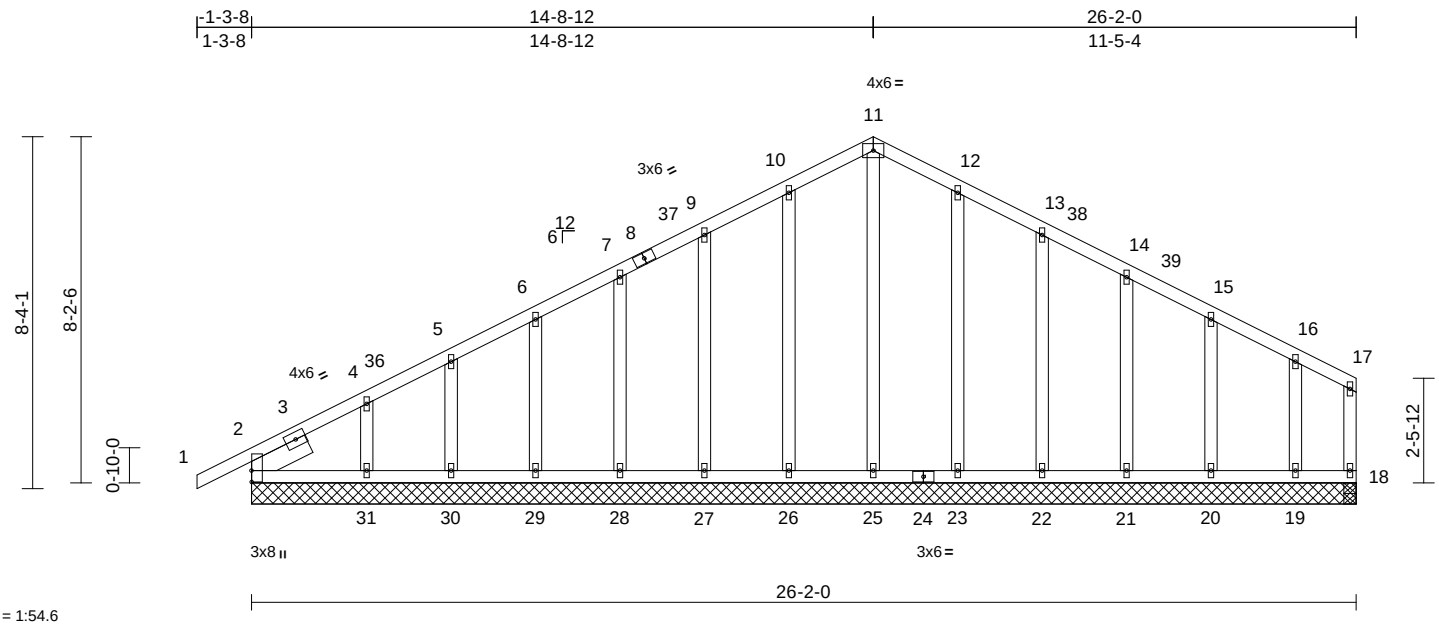

Scale = 1:54.6

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

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	0.11	Vert(LL)	0.00	31-34	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	0.00	31-34	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 174 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* 25-11,26-10,23-12:2x4 SP No.2
SLIDER	Left 2x6 SP No.2 -- 1-6-0

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=26-2-0, 18=26-2-0, 19=26-2-0, 20=26-2-0, 21=26-2-0, 22=26-2-0, 23=26-2-0, 25=26-2-0, 26=26-2-0, 27=26-2-0, 28=26-2-0, 29=26-2-0, 30=26-2-0, 31=26-2-0, 32=26-2-0
Max Horiz 2=127 (LC 11), 32=127 (LC 11)
Max Uplift 2=-34 (LC 8), 18=-6 (LC 12), 19=-39 (LC 13), 20=-27 (LC 13), 21=-28 (LC 13), 22=-30 (LC 13), 23=-25 (LC 13), 26=-27 (LC 12), 27=-29 (LC 12), 28=-27 (LC 12), 29=-31 (LC 12), 30=-14 (LC 12), 31=-70 (LC 12), 32=-34 (LC 8)
Max Grav 2=192 (LC 1), 18=45 (LC 22), 19=140 (LC 24), 20=174 (LC 2), 21=203 (LC 26), 22=198 (LC 2), 23=207 (LC 26), 25=231 (LC 22), 26=208 (LC 19), 27=198 (LC 2), 28=204 (LC 25), 29=173 (LC 19), 30=149 (LC 1), 31=195 (LC 23), 32=192 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/35, 2-4=-107/81, 4-5=-89/87, 5-6=-82/122, 6-7=-70/160, 7-9=-77/197, 9-10=-91/236, 10-11=-104/270, 11-12=-104/261, 12-13=-91/203, 13-14=-77/150, 14-15=-65/111, 15-16=-51/73, 16-17=-36/38, 17-18=-35/23
BOT CHORD	2-31=-26/37, 30-31=-26/37, 29-30=-26/37, 28-29=-26/37, 27-28=-26/37, 26-27=-26/37, 25-26=-26/37, 23-25=-26/37, 22-23=-26/37, 21-22=-26/37, 20-21=-26/37, 19-20=-26/37, 18-19=-26/37
WEBS	11-25=-166/23, 10-26=-129/108, 9-27=-118/98, 7-28=-120/58, 6-29=-121/61, 5-30=-115/54, 4-31=-137/109, 12-23=-129/107, 13-22=-119/99, 14-21=-120/67, 15-20=-123/108, 16-19=-106/105

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-3-8 to 3-2-14, Exterior (2) 3-2-14 to 14-8-12, Corner (3) 14-8-12 to 19-3-2, Exterior (2) 19-3-2 to 26-0-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 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 34 lb uplift at joint 2, 6 lb uplift at joint 18, 27 lb uplift at joint 26, 29 lb uplift at joint 27, 27 lb uplift at joint 28, 31 lb uplift at joint 29, 14 lb uplift at joint 30, 70 lb uplift at joint 31, 25 lb uplift at joint 23, 30 lb uplift at joint 22, 28 lb uplift at joint 21, 27 lb uplift at joint 20, 39 lb uplift at joint 19 and 34 lb uplift at joint 2.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	B1E	Common Supported Gable	1	1	Job Reference (optional)	I56131954

84 Components (Dunn), Dunn, NC - 28334, Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:54 Page: 1
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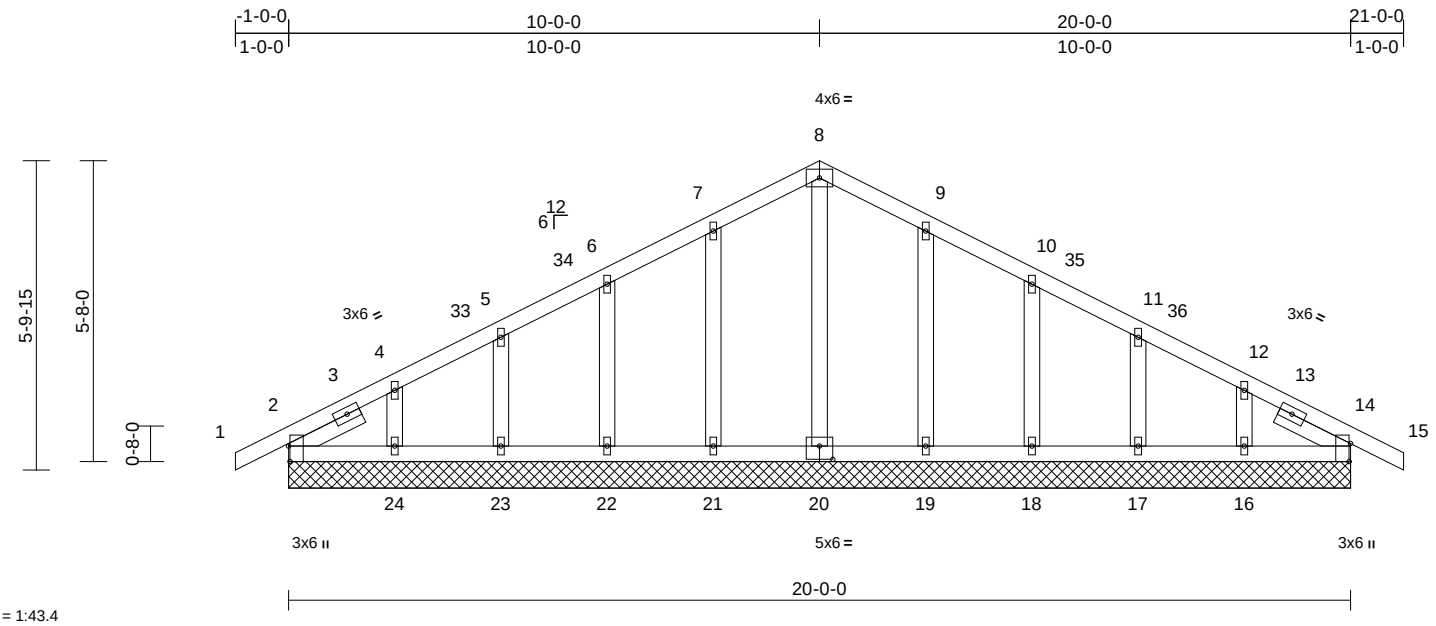

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Plate Offsets (X, Y): [2:0-3-8,Edge], [14:0-4-1,Edge], [20:0-3-0,0-3-0]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 110 lb	FT = 20%

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

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

REACTIONS (size) 2=20-0-0, 14=20-0-0, 16=20-0-0, 17=20-0-0, 18=20-0-0, 19=20-0-0, 20=20-0-0, 21=20-0-0, 22=20-0-0, 23=20-0-0, 24=20-0-0, 25=20-0-0, 29=20-0-0
Max Horiz 2=72 (LC 12), 25=72 (LC 12)
Max Uplift 2=-7 (LC 13), 16=-41 (LC 13), 17=-25 (LC 13), 18=-29 (LC 13), 19=-28 (LC 13), 21=-29 (LC 12), 22=-29 (LC 12), 23=-24 (LC 12), 24=-47 (LC 12), 25=-7 (LC 13)
Max Grav 2=152 (LC 1), 14=152 (LC 1), 16=155 (LC 24), 17=161 (LC 1), 18=158 (LC 1), 19=176 (LC 26), 20=212 (LC 22), 21=176 (LC 25), 22=158 (LC 1), 23=161 (LC 1), 24=155 (LC 23), 25=152 (LC 1), 29=152 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-4=-75/40, 4-5=-61/47, 5-6=-48/81, 6-7=-44/118, 7-8=-58/155, 8-9=-58/157, 9-10=-44/121, 10-11=-43/84, 11-12=-42/40, 12-14=-50/17, 14-15=0/27
BOT CHORD 2-24=-13/78, 23-24=-13/78, 22-23=-13/78, 21-22=-13/78, 19-21=-13/78, 18-19=-13/78, 17-18=-13/78, 16-17=-13/78, 14-16=-13/78
WEBS 8-20=-104/0, 7-21=-129/112, 6-22=-118/97, 5-23=-122/73, 4-24=-112/108, 9-19=-129/112, 10-18=-118/97, 11-17=-122/73, 12-16=-112/108

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-0-0 to 3-6-6, Exterior (2) 3-6-6 to 10-0-0, Corner (3) 10-0-0 to 14-6-6, Exterior (2) 14-6-6 to 21-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For 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) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 1-00-00 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 7 lb uplift at joint 2, 29 lb uplift at joint 21, 29 lb uplift at joint 22, 24 lb uplift at joint 23, 47 lb uplift at joint 24, 28 lb uplift at joint 19, 29 lb uplift at joint 18, 25 lb uplift at joint 17, 41 lb uplift at joint 16 and 7 lb uplift at joint 2.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	B2	Common	9	1	Job Reference (optional)	I56131955

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:54 Page: 1
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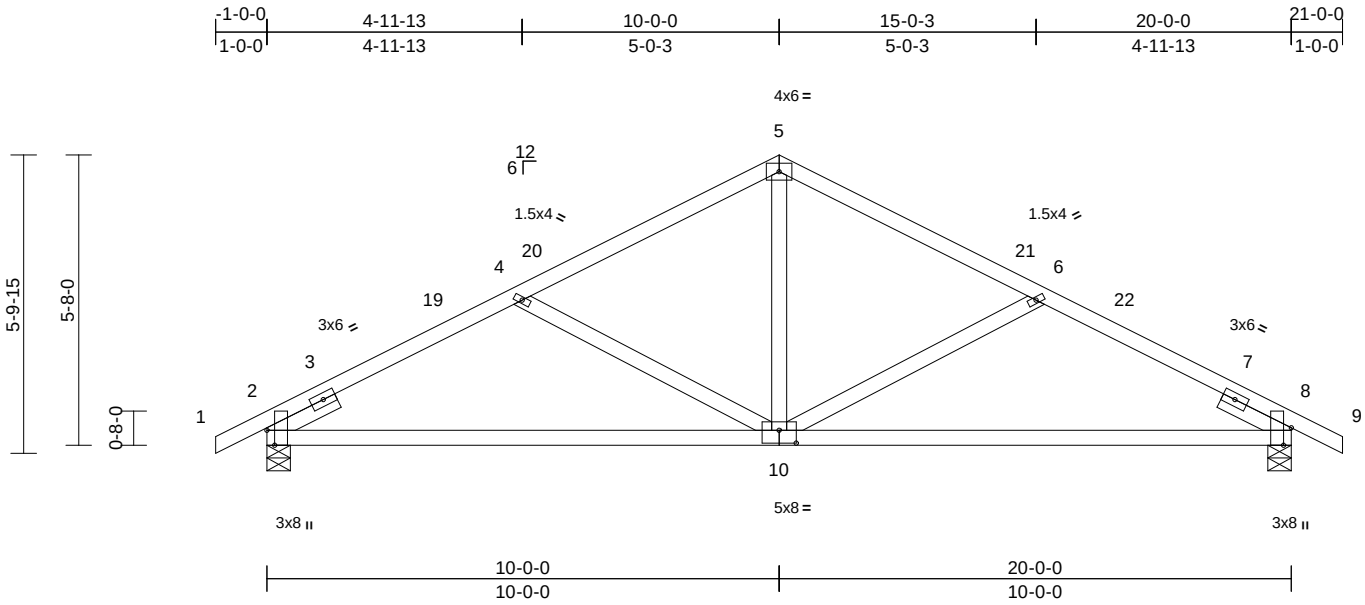

Scale = 1:45

Plate Offsets (X, Y): [2:0-3-8,Edge], [8:0-4-1,Edge], [10:0-4-0,0-3-0]

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	0.32	Vert(LL)	-0.13	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.26	10-13	>907	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.22	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 95 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-2-0 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=72 (LC 12)
Max Uplift 2=-35 (LC 12), 8=-35 (LC 13)
Max Grav 2=860 (LC 1), 8=860 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-4=-1225/107, 4-5=-947/84, 5-6=-947/84, 6-8=-1225/107, 8-9=0/27
BOT CHORD 2-8=-138/1057
WEBS 5-10=0/537, 4-10=-336/131, 6-10=-336/132

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 10-0-0, Exterior (2) 10-0-0 to 14-6-6, Interior (1) 14-6-6 to 21-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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 1-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 35 lb uplift at joint 2 and 35 lb uplift at joint 8.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	B3	Common	2	1	Job Reference (optional)	I56131956

84 Components (Dunn), Dunn, NC - 28334,

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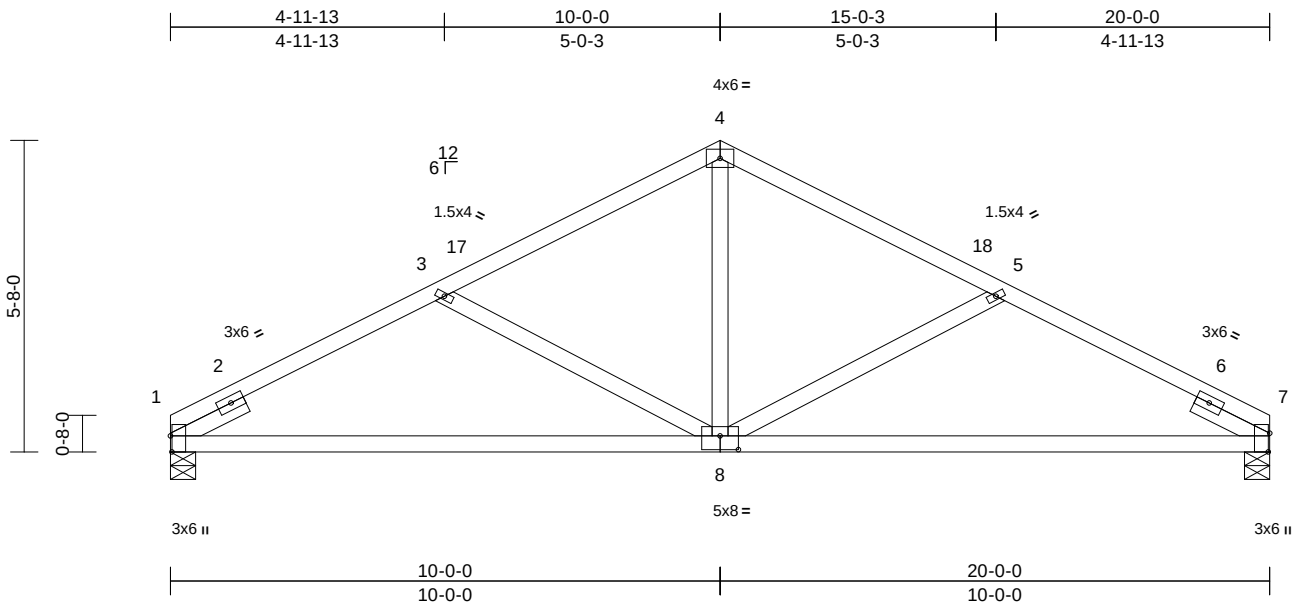

Scale = 1:41.9

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

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	0.30	Vert(LL)	-0.13	8-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.27	8-11	>902	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 92 lb	FT = 20%

LUMBER

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

BRACING

TOP CHORD	Structural wood sheathing directly applied or 5-3-15 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=0-5-8, 7=0-5-8
Max Horiz 1=65 (LC 12)
Max Uplift 1=-20 (LC 12), 7=-20 (LC 13)
Max Grav 1=800 (LC 1), 7=800 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-3=-1149/128, 3-4=-954/93, 4-5=-954/93, 5-7=-1149/128
BOT CHORD	1-7=-150/1069
WEBS	4-8=0/540, 3-8=-343/133, 5-8=-343/133

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-9-14, Interior (1) 4-9-14 to 10-0-0, Exterior (2) 10-0-0 to 14-6-6, Interior (1) 14-6-6 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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 1-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 20 lb uplift at joint 1 and 20 lb uplift at joint 7.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	B4G	Common Girder	1	2	Job Reference (optional)	I56131957

84 Components (Dunn), Dunn, NC - 28334,

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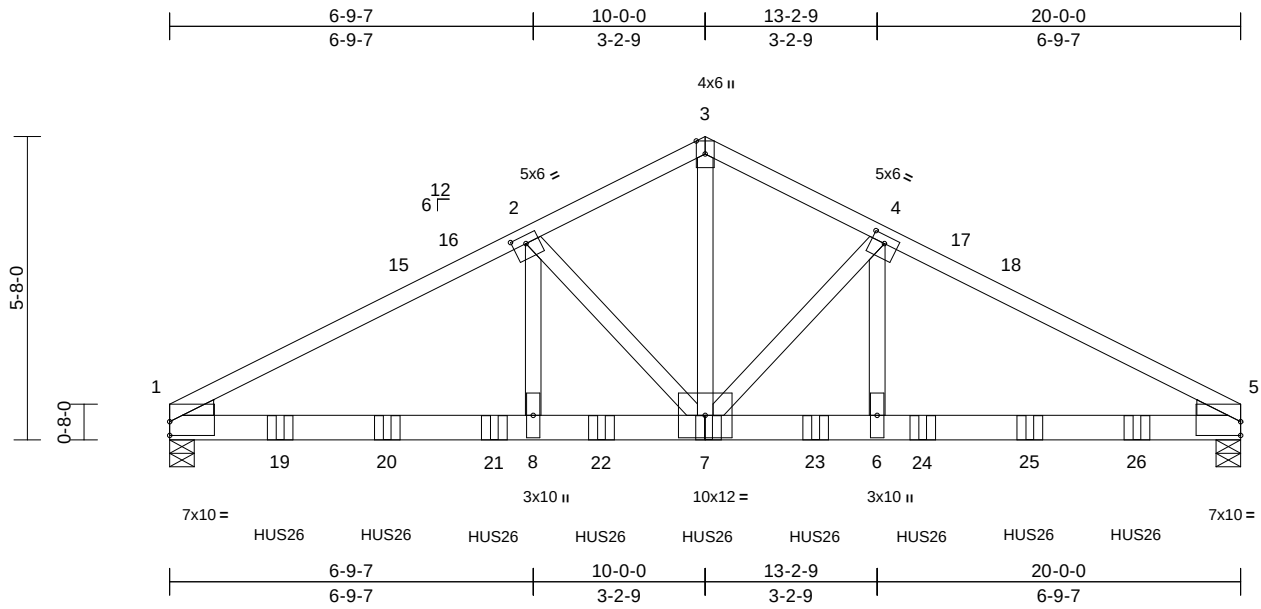

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Plate Offsets (X, Y): [1:Edge,0-3-1], [2:0-3-0,0-1-12], [4:0-3-0,0-1-12], [5:Edge,0-3-1]

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	0.97	Vert(LL)	-0.13	8-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.26	6-14	>927	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.68	Horz(CT)	0.04	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 225 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except* 7-3:2x4 SP No.2
WEDGE Left: 2x4 SP No.3
Right: 2x4 SP No.3

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

REACTIONS (size) 1=0-5-8, 5=0-5-8
Max Horiz 1=-65 (LC 33)
Max Uplift 1=-83 (LC 12)
Max Grav 1=5476 (LC 1), 5=5615 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-8673/181, 2-3=-6442/165, 3-4=-6444/162, 4-5=-8707/27
BOT CHORD 1-8=-133/7673, 6-8=-108/7791, 5-6=-95/7706
WEBS 3-7=-101/5542, 2-7=-3036/141, 4-7=-3116/0, 4-6=0/3046, 2-8=-5/2932

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-6-6, Interior (1) 4-6-6 to 10-0-0, Exterior (2) 10-0-0 to 14-6-6, Interior (1) 14-6-6 to 20-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 83 lb uplift at joint 1.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use MiTek HUS26 (With 14-16d nails into Girder & 6-16d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 2-0-12 from the left end to 18-0-12 to connect truss(es) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-5=-60, 9-12=-20
Concentrated Loads (lb)
Vert: 7=-1042 (F), 19=-1042 (F), 20=-1042 (F), 21=-1042 (F), 22=-1042 (F), 23=-1042 (F), 24=-1043 (F), 25=-1043 (F), 26=-1151 (F)

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	C1	Common	3	1	Job Reference (optional)	I56131958

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:56 Page: 1
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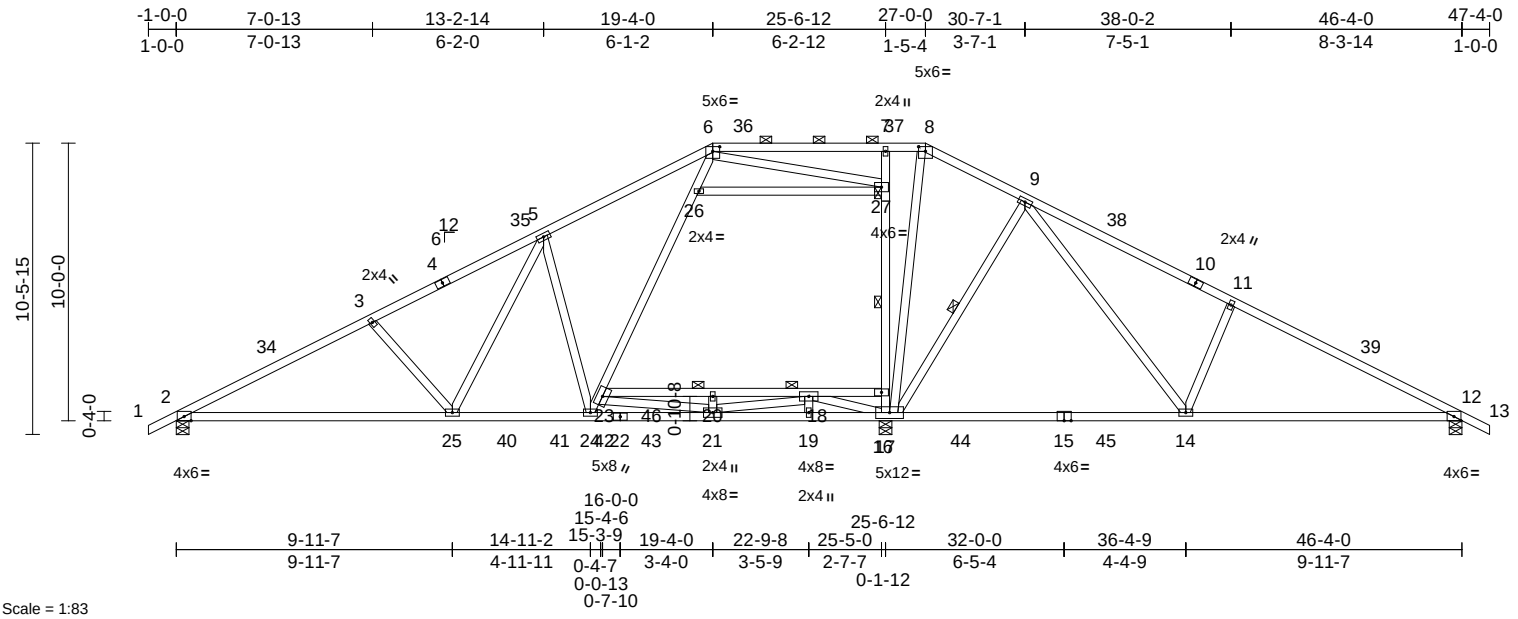

Scale = 1:83

Plate Offsets (X, Y): [6:0-3-0,0-2-0], [8:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.92	Vert(LL)	-0.34	14-16	>734	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.52	24	>584	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.11	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 303 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 4-1,10-13:2x4 SP No.1
BOT CHORD 2x4 SP DSS *Except* 15-12:2x4 SP No.1, 23-17:2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 24-6,7-16:2x4 SP No.1, 5-25,24-5,9-14,8-16,16-9,26-27,6-27:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 2-2-1 oc purlins, except 2-0-0 oc purlins (2-2-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 10-0-0 oc bracing: 17-23
WEBS 1 Row at midpt 16-27, 9-16
JOINTS 1 Brace at Jt(s): 27

REACTIONS (size) 2=0-5-8, 12=0-5-8, 16=0-5-8
Max Horiz 2=-133 (LC 13)
Max Uplift 2=-79 (LC 12), 12=-2 (LC 13)
Max Grav 2=1585 (LC 23), 12=1440 (LC 1), 16=1420 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-2912/156, 3-5=-2706/155, 5-6=-2277/220, 6-7=-1040/200, 7-8=-1354/222, 8-9=-1395/219, 9-11=-2366/213, 11-12=-2491/163, 12-13=0/27
BOT CHORD 2-25=-187/2566, 24-25=-80/2120, 21-24=0/1825, 19-21=0/1693, 16-19=0/1727, 14-16=-10/1547, 12-14=-34/2180, 20-23=-1411/0, 18-20=-1411/0, 17-18=-25/613
WEBS 23-24=-120/688, 23-26=-34/1066, 6-26=-28/945, 3-25=-388/147, 5-25=-25/580, 5-24=-729/175, 9-14=-70/836, 11-14=-473/189, 16-17=-831/121, 17-27=-773/130, 7-27=-624/121, 8-16=-119/858, 9-16=-713/175, 18-19=-103/0, 20-21=-212/0, 21-23=0/1122, 18-21=0/1022, 16-18=-1025/0, 26-27=-17/303, 6-27=-768/46

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-7-10, Interior (1) 3-7-10 to 19-4-0, Exterior (2) 19-4-0 to 25-10-10, Interior (1) 25-10-10 to 27-0-0, Exterior (2) 27-0-0 to 33-6-10, Interior (1) 33-6-10 to 47-4-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are 3x6 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 12 and 79 lb uplift at joint 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) 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

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	C2	Common	1	1	Job Reference (optional)	I56131959

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:56 Page: 1
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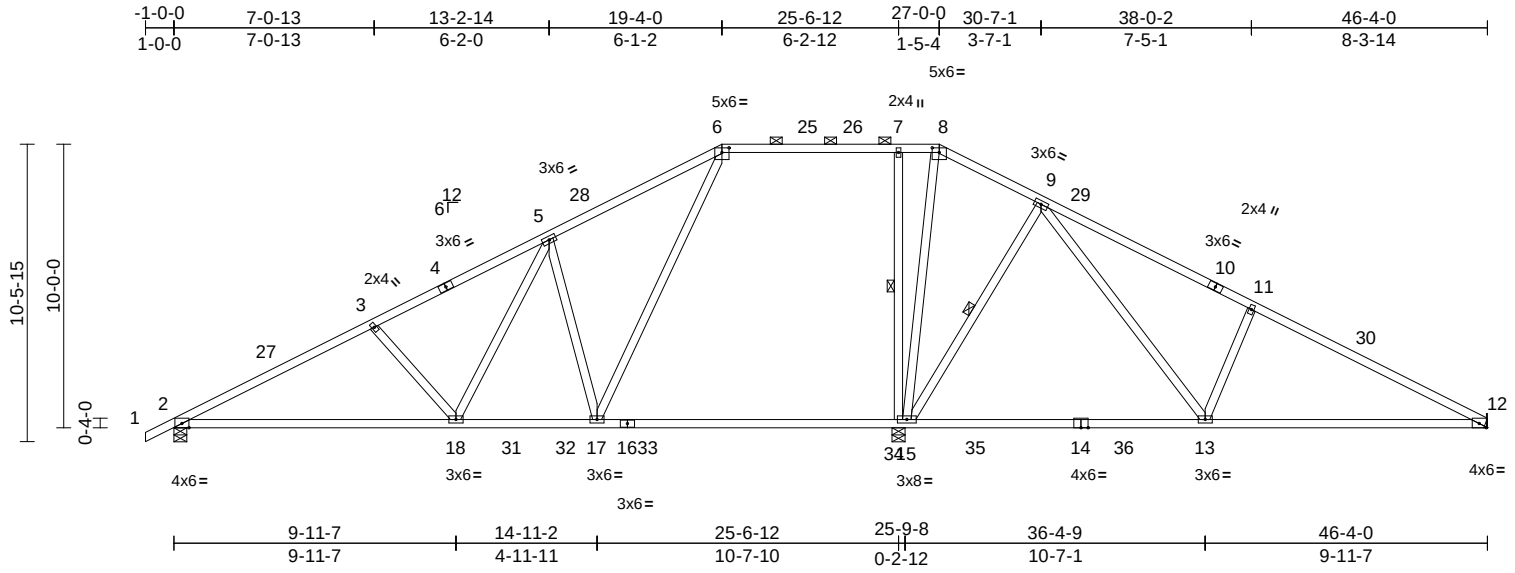

Scale = 1:81.3

Plate Offsets (X, Y): [6:0-3-0,0-2-0], [8:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	1.00	Vert(LL)	-0.47	15-17	>661	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.86	15-17	>360	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.13	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 251 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2 *Except* 10-12,4-1:2x4 SP No.1
BOT CHORD 2x4 SP DSS *Except* 12-14:2x4 SP No.1
WEBS 2x4 SP No.2 *Except* 3-18,11-13:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied, except
2-0-0 oc purlins (2-2-0 max.): 6-8.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 7-15, 9-15

REACTIONS (size) 2=0-5-8, 12= Mechanical, 15=0-5-8
Max Horiz 2=139 (LC 16)
Max Uplift 2=-139 (LC 12), 12=-29 (LC 12), 15=-63 (LC 13)
Max Grav 2=1726 (LC 23), 12=1609 (LC 1), 15=819 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 6-7=-1764/285, 7-8=-1749/283, 1-2=0/27, 2-3=-3164/290, 3-5=-2918/289, 5-6=-2498/329, 8-9=-1875/292, 9-11=-2855/296, 11-12=-3004/245
BOT CHORD 2-18=-312/2784, 17-18=-200/2306, 15-17=-117/1764, 13-15=-109/1971, 12-13=-132/2632
WEBS 5-18=-41/544, 5-17=-711/187, 9-13=-79/827, 3-18=-387/145, 11-13=-477/189, 6-17=-88/956, 7-15=-585/118, 8-15=-147/1034, 9-15=-701/179

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-7-10, Interior (1) 3-7-10 to 19-4-0, Exterior (2) 19-4-0 to 23-11-10, Interior (1) 23-11-10 to 27-0-0, Exterior (2) 27-0-0 to 31-7-10, Interior (1) 31-7-10 to 46-4-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are 3x6 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 12, 139 lb uplift at joint 2 and 63 lb uplift at joint 15.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	C2A	Common	1	1	Job Reference (optional)	I56131960

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:57

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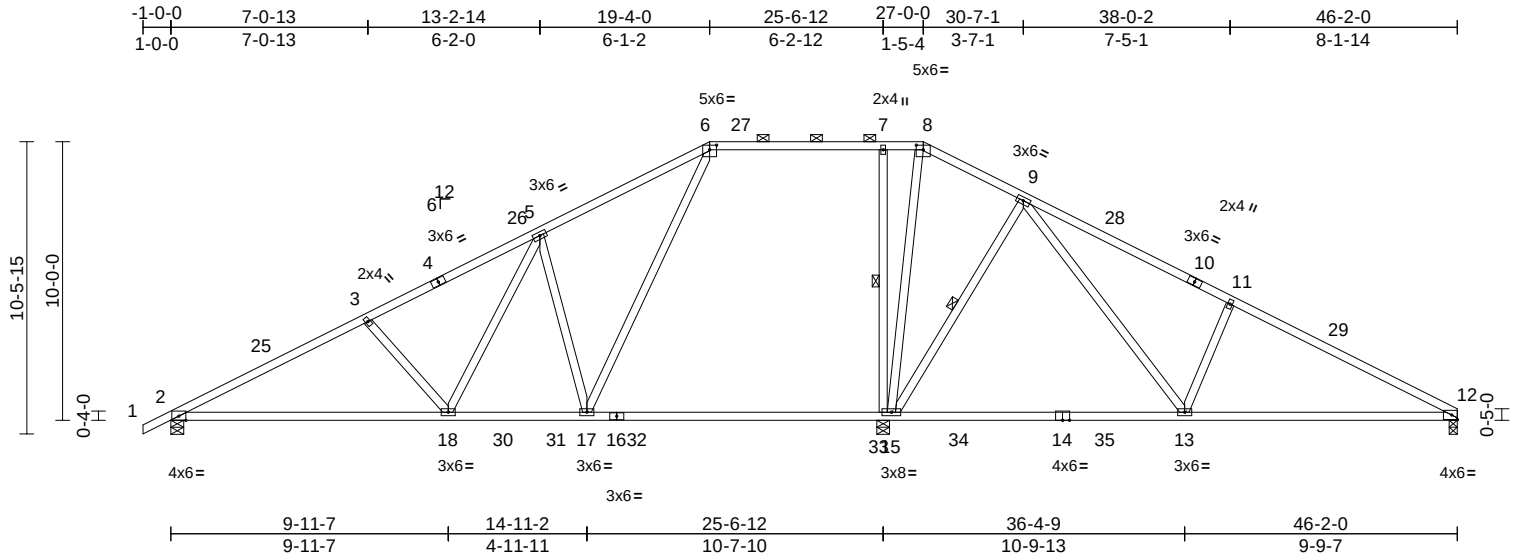

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Plate Offsets (X, Y): [6:0-3-0,0-2-0], [8:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.80	Vert(LL)	-0.46	15-17	>672	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.84	15-17	>367	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.12	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 250 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 4-6,10-8:2x4 SP No.2

BOT CHORD 2x4 SP DSS *Except* 12-14:2x4 SP No.1

WEBS 2x4 SP No.2 *Except* 3-18,11-13:2x4 SP No.3

BRACING

TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-5-8 max.): 6-8.

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

WEBS 1 Row at midpt 7-15, 9-15

REACTIONS (size) 2=0-5-8, 12=0-3-8, 15=0-5-8

Max Horiz 2=141 (LC 12)

Max Uplift 2=-139 (LC 12), 12=-30 (LC 12), 15=-61 (LC 13)

Max Grav 2=1722 (LC 23), 12=1605 (LC 1), 15=815 (LC 26)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=0/27, 2-3=-3156/289, 3-5=-2909/288, 5-6=-2489/351, 6-7=-1756/326, 7-8=-1741/323, 8-9=-1868/329, 9-11=-2799/335, 11-12=-2970/284

BOT CHORD 2-18=-313/2776, 17-18=-201/2298, 15-17=-118/1756, 13-15=-109/1955, 12-13=-169/2574

WEBS 5-18=-41/544, 5-17=-711/187, 9-13=-79/785, 3-18=-387/145, 11-13=-456/189, 6-17=-88/956, 7-15=-600/129, 8-15=-173/1044, 9-15=-689/179

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-7-6, Interior (1) 3-7-6 to 19-4-0, Exterior (2) 19-4-0 to 25-6-12, Interior (1) 25-6-12 to 27-0-0, Exterior (2) 27-0-0 to 33-6-6, Interior (1) 33-6-6 to 46-2-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are 3x6 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 30 lb uplift at joint 12, 139 lb uplift at joint 2 and 61 lb uplift at joint 15.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) 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

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	C3	Common Structural Gable	3	1	Job Reference (optional)	I56131961

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:57 Page: 1
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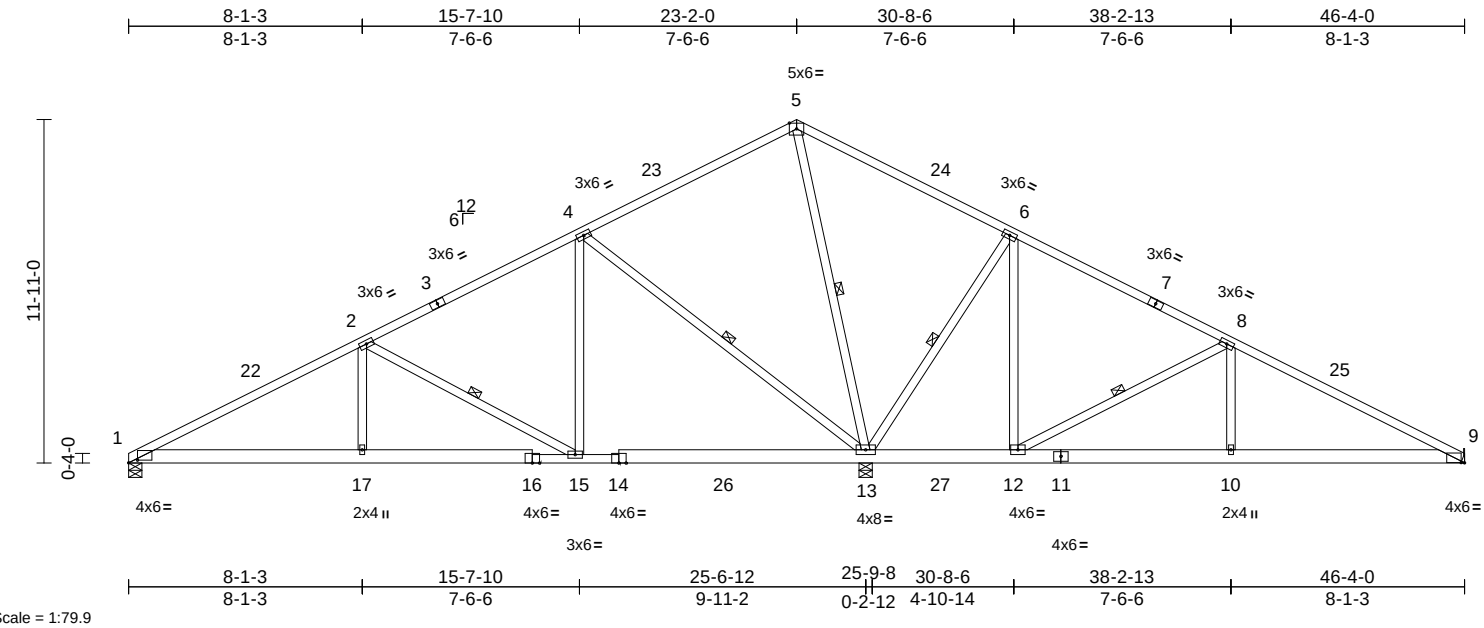

Scale = 1:79.9

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

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	0.85	Vert(LL)	-0.08	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.16	13-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 289 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2 *Except* 16-14:2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 8-10,2-17:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-13, 6-13, 8-12, 4-13, 2-15

REACTIONS (size) 1=0-5-8, 9= Mechanical, 13=0-5-8
Max Horiz 1=152 (LC 12)
Max Uplift 1=-39 (LC 12), 9=-54 (LC 13), 13=-26 (LC 12)
Max Grav 1=772 (LC 23), 9=548 (LC 24), 13=2550 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1236/80, 2-4=-481/78, 4-5=0/703, 5-6=0/956, 6-8=-34/477, 8-9=-737/110
BOT CHORD 1-17=-140/1028, 15-17=-140/1030, 13-15=-24/366, 12-13=-397/123, 10-12=-43/580, 9-10=-43/580
WEBS 5-13=-1092/35, 6-13=-824/183, 6-12=0/451, 8-12=-782/125, 8-10=0/387, 4-13=-981/165, 4-15=0/592, 2-15=-781/132, 2-17=0/376

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-7-10, Interior (1) 4-7-10 to 23-2-0, Exterior (2) 23-2-0 to 27-9-10, Interior (1) 27-9-10 to 46-3-4 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1, 26 lb uplift at joint 13 and 54 lb uplift at joint 9.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	C4E	Common Structural Gable	1	1	Job Reference (optional)	I56131962

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:58

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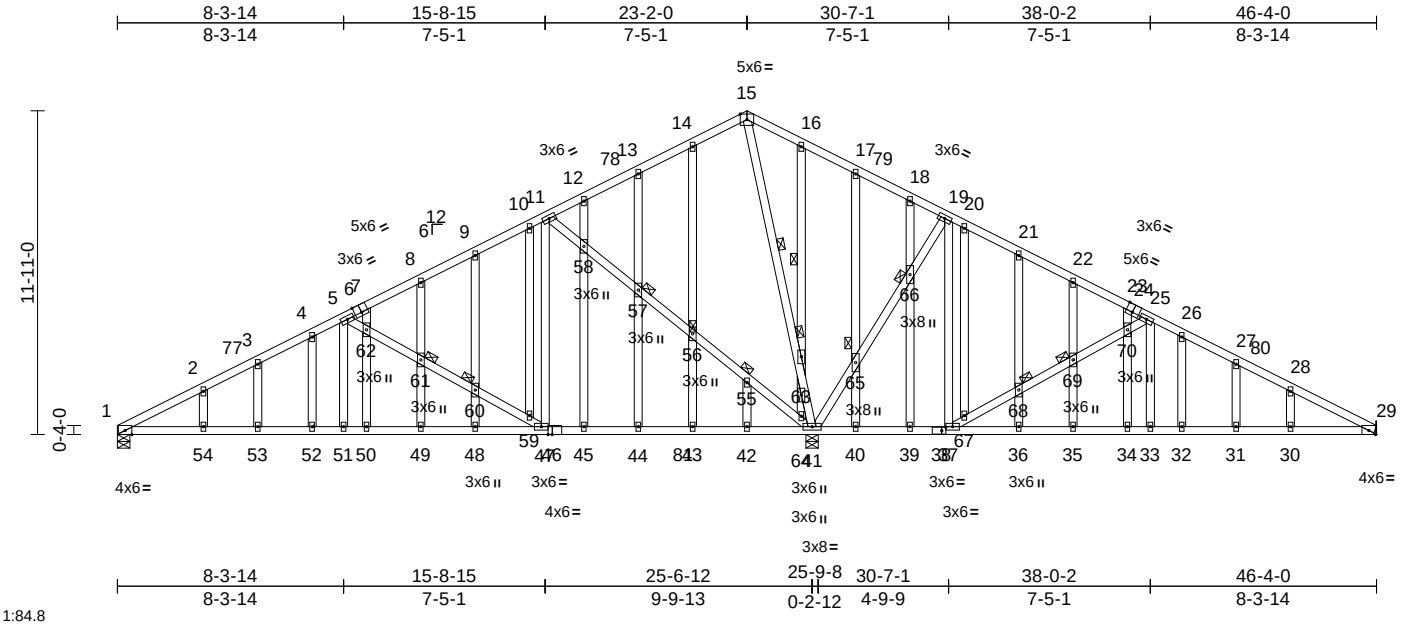

Scale = 1:84.8

Plate Offsets (X, Y): [6:0-3-0,Edge], [24:0-3-0,Edge], [38:0-1-13,0-1-8], [46:0-1-13,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	0.67	Vert(LL)	-0.18	53-54	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.36	53-54	>844	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.46	Horz(CT)	0.03	41	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 427 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP No.2

WEBS 2x4 SP No.2 *Except* 25-33,5-51:2x4 SP No.3

OTHERS 2x4 SP No.3 *Except* 56-14,45-58,59-10,63-16,65-17,67-20:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-14 oc purlins.

BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

WEBS 1 Row at midpt 15-63, 16-63

JOINTS 1 Brace at Jt(s): 55, 56, 57, 60, 61, 63, 65, 66, 68, 69

REACTIONS (size) 1=0-5-8, 29= Mechanical, 41=0-5-8

Max Horiz 1=-151 (LC 13)

Max Uplift 1=-39 (LC 12), 29=-57 (LC 13), 41=-24 (LC 12)

Max Grav 1=782 (LC 23), 29=552 (LC 24), 41=2542 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD 1-2=-1191/27, 2-3=-1146/57, 3-4=-1120/87, 4-5=-1065/105, 5-7=-503/30, 7-8=-433/42, 8-9=-416/68, 9-10=-403/96, 10-11=-279/99, 11-12=-3/544, 12-13=0/614, 13-14=0/601, 14-15=0/693, 15-16=0/889, 16-17=0/846, 17-18=0/867, 18-19=0/807, 19-20=0/466, 20-21=0/434, 21-22=-16/422, 22-23=-36/416, 23-25=-50/363, 25-26=-564/144, 26-27=-620/126, 27-28=-645/97, 28-29=-691/66

BOT CHORD 1-54=-138/1017, 53-54=-138/1017, 52-53=-138/1017, 51-52=-138/1017, 50-51=-138/1017, 49-50=-138/1017, 48-49=-138/1017, 47-48=-138/1017, 45-47=-23/367, 44-45=-23/367, 43-44=-23/367, 42-43=-23/367, 41-42=-23/367, 40-41=-374/121, 39-40=-374/121, 37-39=-374/121, 36-37=-22/570, 35-36=-22/570, 34-35=-22/570, 33-34=-22/570, 32-33=-22/570, 31-32=-22/570, 30-31=-22/570, 29-30=-24/570

WEBS 15-63=-997/0, 41-63=-1062/0, 41-65=-782/143, 65-66=-773/137, 19-66=-748/134, 19-37=-61/485, 37-67=-791/139, 67-68=-834/142, 68-69=-798/138, 69-70=-768/132, 25-70=-872/150, 25-33=-55/376, 11-58=-963/162, 57-58=-932/158, 56-57=-987/166, 55-56=-983/169, 55-64=-980/161, 41-64=-950/160, 11-47=-61/480, 5-62=-829/146, 61-62=-734/129, 60-61=-765/135, 59-60=-797/139, 47-59=-712/131, 5-51=-54/357, 42-55=-24/24, 14-56=0/132, 43-56=0/112, 13-57=-150/54, 44-57=-62/41, 12-58=0/89, 45-58=-2/54, 10-59=-13/174, 9-60=-85/48, 48-60=-19/46, 8-61=-83/46, 49-61=-21/34, 7-62=0/118, 50-62=-88/40, 4-52=-5/39, 3-53=-50/39, 2-54=-51/50, 16-63=-97/85, 63-64=-45/139, 17-65=-156/50, 40-65=-149/42, 18-66=0/51, 39-66=0/76, 20-67=-6/82, 21-68=-80/48, 36-68=-7/57, 22-69=-86/46, 35-69=-25/34, 23-70=0/128, 34-70=-94/41, 26-32=-3/41, 27-31=-51/39, 28-30=-51/50

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-7-10, Interior (1) 4-7-10 to 23-2-0, Exterior (2) 23-2-0 to 27-9-10, Interior (1) 27-9-10 to 46-4-0 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) All plates are 2x4 MT20 unless otherwise indicated.

5) Gable studs spaced at 2-0-0 oc.

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 1-00-00 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.

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Continued on page 2

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9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 1, 24 lb uplift at joint 41 and 57 lb uplift at joint 29.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	D1E	Common Supported Gable	1	1	Job Reference (optional)	I56131963

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:16:59
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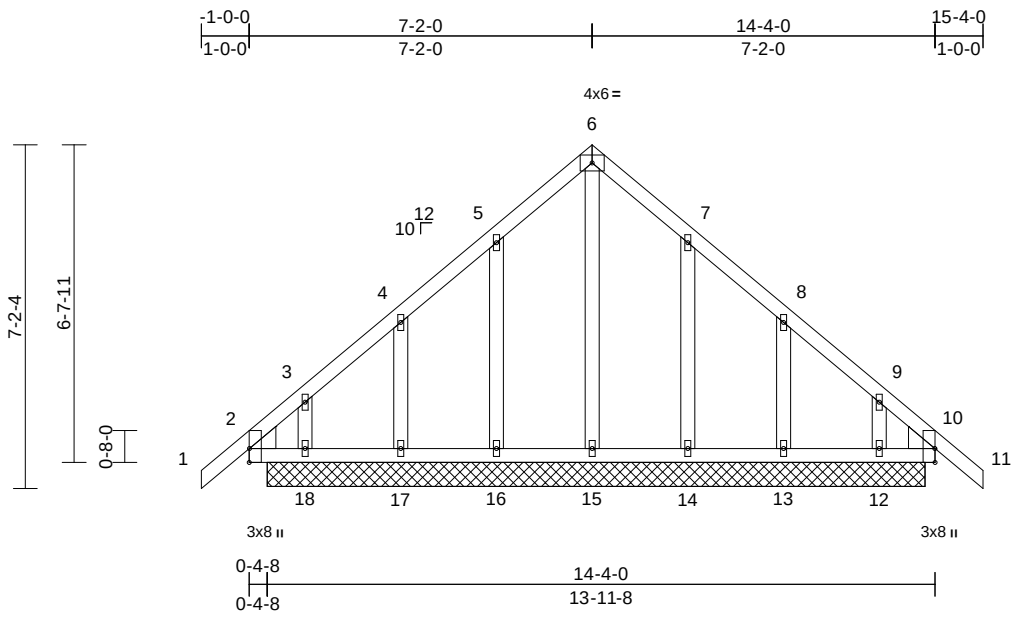

Scale = 1:48.2

Plate Offsets (X, Y): [2:Edge,0-0-1], [10:Edge,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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 90 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

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

REACTIONS (size) 2=13-9-0, 10=13-9-0, 12=13-9-0, 13=13-9-0, 14=13-9-0, 15=13-9-0, 16=13-9-0, 17=13-9-0, 18=13-9-0, 21=13-9-0, 23=13-9-0
Max Horiz 2=-132 (LC 10), 21=-132 (LC 10)
Max Uplift 2=-65 (LC 8), 10=-29 (LC 9), 12=-70 (LC 13), 13=-54 (LC 13), 14=-62 (LC 13), 16=-63 (LC 12), 17=-51 (LC 12), 18=-152 (LC 12), 21=-65 (LC 8), 23=-29 (LC 9)
Max Grav 2=251 (LC 20), 10=119 (LC 24), 12=137 (LC 20), 13=166 (LC 20), 14=211 (LC 20), 15=233 (LC 22), 16=211 (LC 19), 17=168 (LC 19), 18=127 (LC 10), 21=251 (LC 20), 23=119 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-135/96, 3-4=-69/83, 4-5=-56/72, 5-6=-116/119, 6-7=-116/119, 7-8=-56/66, 8-9=-63/74, 9-10=-109/88, 10-11=0/38
BOT CHORD 2-18=-67/114, 17-18=-67/114, 16-17=-67/114, 15-16=-67/114, 14-15=-67/114, 13-14=-67/114, 12-13=-67/114, 10-12=-67/114
WEBS 6-15=-124/57, 5-16=-142/85, 4-17=-129/80, 3-18=-118/101, 7-14=-142/85, 8-13=-129/80, 9-12=-111/73

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-0-0 to 3-6-6, Exterior (2) 3-6-6 to 7-2-0, Corner (3) 7-2-0 to 11-8-6, Exterior (2) 11-8-6 to 15-4-0 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) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 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 65 lb uplift at joint 2, 29 lb uplift at joint 10, 63 lb uplift at joint 16, 51 lb uplift at joint 17, 152 lb uplift at joint 18, 62 lb uplift at joint 14, 54 lb uplift at joint 13, 70 lb uplift at joint 12, 65 lb uplift at joint 2 and 29 lb uplift at joint 10.
9) Non Standard bearing condition. Review required.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	D2	Common	4	1	Job Reference (optional)	I56131964

84 Components (Dunn), Dunn, NC - 28334,

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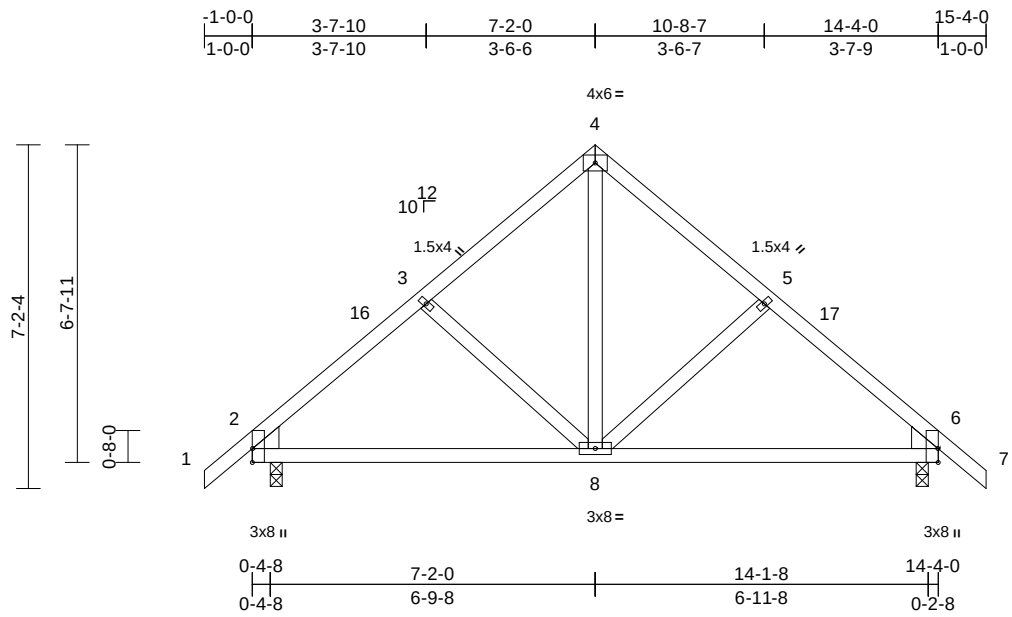

Scale = 1:48.2

Plate Offsets (X, Y): [2:Edge,0-0-1], [6:Edge,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	0.44	Vert(LL)	-0.04	8-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.45	Vert(CT)	-0.08	8-15	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 79 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE Left: 2x6 SP DSS
Right: 2x6 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) 2=0-3-0, 6=0-3-0
Max Horiz 2=-132 (LC 10)
Max Uplift 2=-18 (LC 12), 6=-18 (LC 13)
Max Grav 2=656 (LC 1), 6=610 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-603/66, 3-4=-466/79, 4-5=-476/82, 5-6=-617/70, 6-7=0/38
BOT CHORD 2-8=-37/422, 6-8=0/441
WEBS 4-8=-43/358, 3-8=-151/117, 5-8=-205/118

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-4, Interior (1) 3-6-4 to 7-2-0, Exterior (2) 7-2-0 to 11-8-6, Interior (1) 11-8-6 to 15-4-0 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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 1-00-00 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 2 and 18 lb uplift at joint 6.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	E1E	Common Supported Gable	1	1	Job Reference (optional)	I56131965

84 Components (Dunn), Dunn, NC - 28334,

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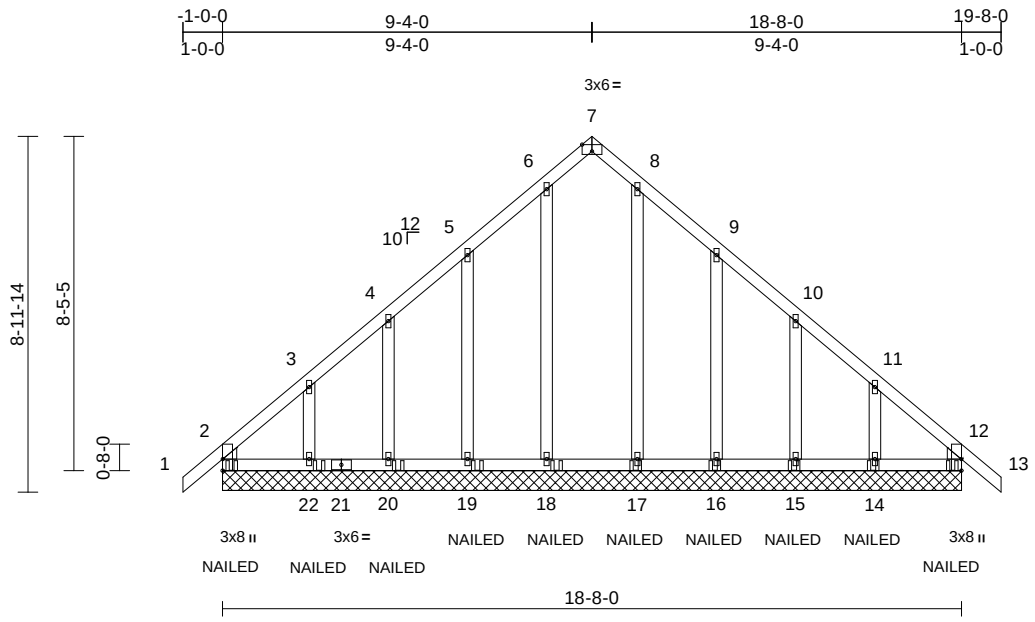

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Plate Offsets (X, Y): [2:Edge,0-0-1], [7:0-3-0,Edge], [12:Edge,0-0-1]

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	0.07	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 122 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
OTHERS	2x4 SP No.3 *Except* 18-6,17-8:2x4 SP No.2
WEDGE	Left: 2x4 SP No.3 Right: 2x4 SP No.3

BRACING

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

REACTIONS (size) 2=18-8-0, 12=18-8-0, 14=18-8-0, 15=18-8-0, 16=18-8-0, 17=18-8-0, 18=18-8-0, 19=18-8-0, 20=18-8-0, 22=18-8-0, 23=18-8-0, 26=18-8-0
Max Horiz 2=-167 (LC 10), 23=-167 (LC 10)
Max Uplift 2=-32 (LC 8), 12=-16 (LC 9), 14=-127 (LC 13), 15=-64 (LC 13), 16=-101 (LC 13), 17=-11 (LC 13), 18=-22 (LC 12), 19=-98 (LC 12), 20=-64 (LC 12), 22=-129 (LC 12), 23=-32 (LC 8), 26=-16 (LC 9)
Max Grav 2=227 (LC 21), 12=219 (LC 22), 14=205 (LC 20), 15=211 (LC 20), 16=256 (LC 20), 17=230 (LC 20), 18=243 (LC 19), 19=252 (LC 19), 20=211 (LC 19), 22=208 (LC 19), 23=227 (LC 21), 26=219 (LC 22)

FORCES (lb) - Maximum Compression/Maximum Tension

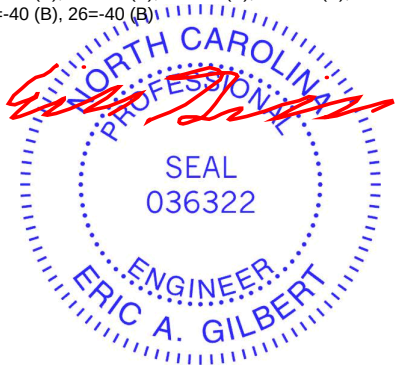
TOP CHORD	1-2=0/38, 2-3=-212/137, 3-4=-137/78, 4-5=-100/57, 5-6=-88/58, 6-7=-71/56, 7-8=-71/56, 8-9=-73/44, 9-10=-88/36, 10-11=-123/74, 11-12=-197/140, 12-13=0/38
BOT CHORD	2-22=-125/192, 20-22=-125/192, 19-20=-125/192, 18-19=-125/192, 17-18=-125/192, 16-17=-125/192, 15-16=-125/192, 14-15=-125/192, 12-14=-125/192
WEBS	6-18=-115/24, 8-17=-105/12, 5-19=-138/93, 4-20=-125/71, 3-22=-144/97, 9-16=-138/96, 10-15=-125/71, 11-14=-144/96

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) -1-0-0 to 3-6-6, Exterior (2) 3-6-6 to 9-4-0, Corner (3) 9-4-0 to 13-10-6, Exterior (2) 13-10-6 to 19-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 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) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 1-00-00 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 32 lb uplift at joint 2, 16 lb uplift at joint 12, 22 lb uplift at joint 18, 11 lb uplift at joint 17, 98 lb uplift at joint 19, 64 lb uplift at joint 20, 129 lb uplift at joint 22, 101 lb uplift at joint 16, 64 lb uplift at joint 15, 127 lb uplift at joint 14, 32 lb uplift at joint 2 and 16 lb uplift at joint 12.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (lb/ft)
   Vert: 1-7=-60, 7-13=-60, 23-26=-20
   Concentrated Loads (lb)
   Vert: 18=-32 (B), 17=-32 (B), 19=-32 (B), 20=-32 (B), 22=-32 (B), 16=-32 (B), 15=-32 (B), 14=-32 (B), 23=-40 (B), 26=-40 (B)



January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	E2G	Common Girder	1	**2**	Job Reference (optional)	I56131966

84 Components (Dunn), Dunn, NC - 28334,

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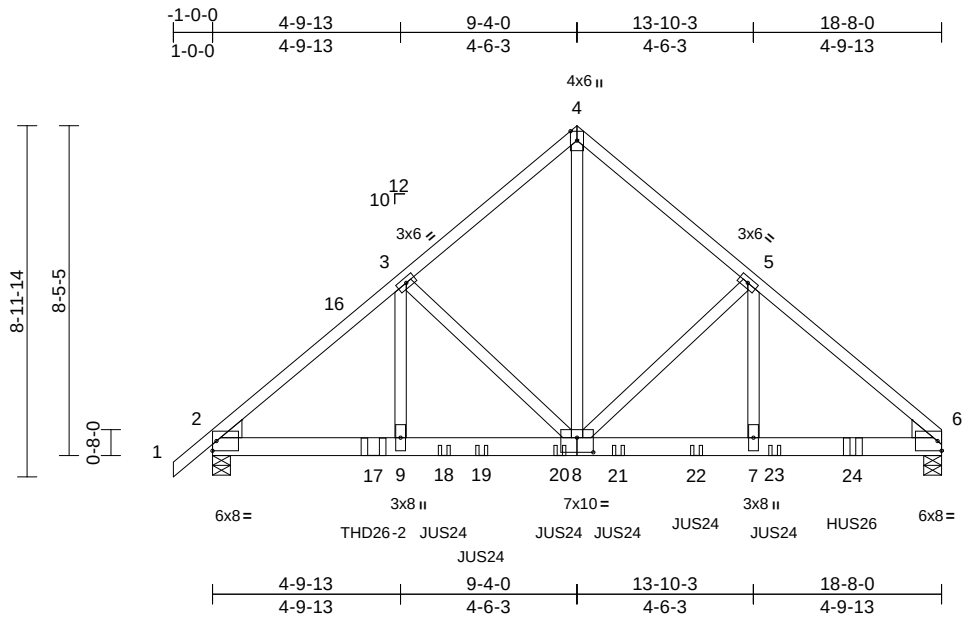

Scale = 1:59

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

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	0.30	Vert(LL)	-0.06	8-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.46	Vert(CT)	-0.11	8-9	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.45	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 251 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP DSS
WEBS 2x4 SP No.3 *Except* 8-4:2x4 SP No.2
WEDGE Left: 2x6 SP No.2
Right: 2x6 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-7-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 2=0-5-8, 6=0-5-8
Max Horiz 2=161 (LC 9)
Max Uplift 2=-355 (LC 12), 6=-289 (LC 13)
Max Grav 2=3297 (LC 1), 6=4051 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-4486/523, 3-4=-3154/406, 4-5=-3160/411, 5-6=-4667/449
BOT CHORD 2-9=-405/3363, 7-9=-405/3524, 6-7=-271/3524
WEBS 3-9=-194/1555, 3-8=-1393/300, 4-8=-440/3659, 5-8=-1614/214, 5-7=-81/1786

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 0-6-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 9-4-0, Exterior (2) 9-4-0 to 13-10-3, Interior (1) 13-10-3 to 18-8-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 289 lb uplift at joint 6 and 355 lb uplift at joint 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Use MiTek THD26-2 (With 18-16d nails into Girder & 12-10d nails into Truss) or equivalent at 4-1-8 from the left end to connect truss(es) to front face of bottom chord.
10) Use MiTek JUS24 (With 4-10d nails into Girder & 2-10d nails into Truss) or equivalent spaced at 2-0-0 oc max. starting at 5-11-4 from the left end to 14-4-12 to connect truss(es) to front face of bottom chord.
11) Use MiTek HUS26 (With 14-16d nails into Girder & 4-16d nails into Truss) or equivalent at 16-4-12 from the left end to connect truss(es) to front face of bottom chord.
12) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-4=-60, 4-6=-60, 10-13=-20
Concentrated Loads (lb)
Vert: 17=-924 (F), 18=-580 (F), 19=-586 (F), 20=-532 (F), 21=-528 (F), 22=-528 (F), 23=-528 (F), 24=-1589 (F)

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	FG1	Flat Girder	1	2	Job Reference (optional)	I56131967

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:17:05 Page: 1
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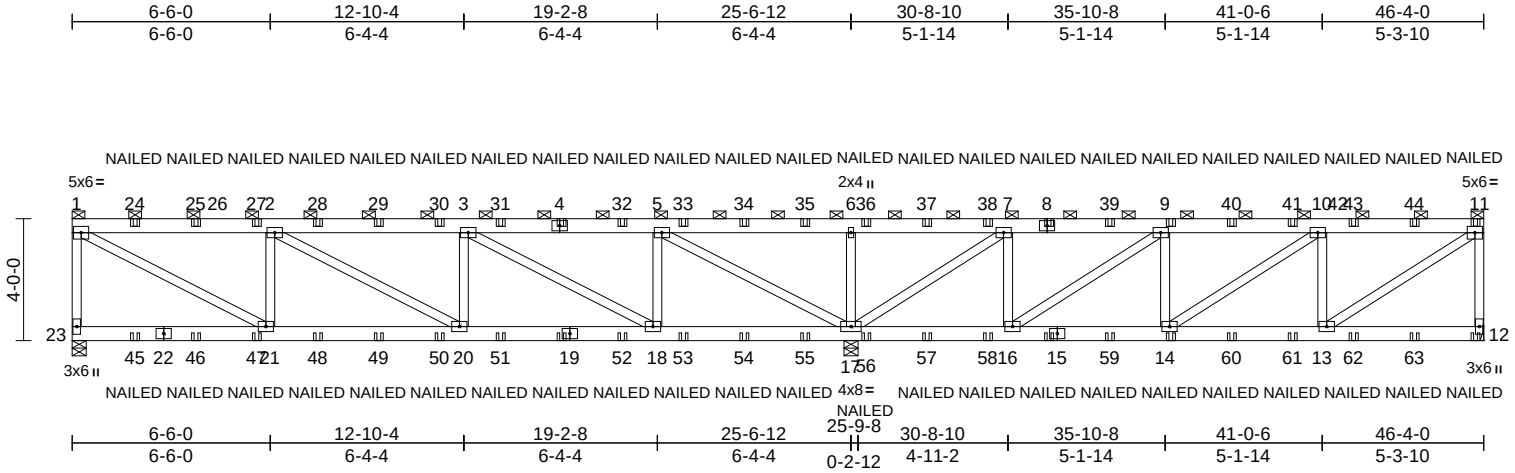

Scale = 1:75.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.32	Vert(LL)	0.04	20	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	-0.08	20-21	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.52	Horz(CT)	0.02	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 665 lb	FT = 20%

LUMBER
TOP CHORD 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
5-17,21-1,20-2,18-3:2x4 SP No.2

BRACING
TOP CHORD 2-0-0 oc purlins (6-0-0 max.): 1-11, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 16-17.

REACTIONS (size) 12= Mechanical, 17=0-5-8, 23=0-5-8
Max Horiz 23=-100 (LC 8)
Max Uplift 12=-181 (LC 9), 17=-626 (LC 9), 23=-221 (LC 8)
Max Grav 12=944 (LC 1), 17=3202 (LC 1), 23=1180 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-23=-1087/259, 1-2=-1621/320, 2-3=-1811/340, 3-5=-708/132, 5-6=-354/1624, 6-7=-354/1624, 7-9=-41/28, 9-10=-890/184, 10-11=-909/194, 11-12=-833/229
BOT CHORD 21-23=-92/120, 20-21=-364/1621, 18-20=-384/1811, 17-18=-153/708, 16-17=-37/64, 14-16=-180/890, 13-14=-189/909, 12-13=-27/50
WEBS 6-17=-512/241, 7-16=-23/750, 7-17=-1967/386, 9-16=-1084/212, 9-14=0/302, 10-14=-22/14, 10-13=-424/219, 11-13=-198/1081, 5-17=-2670/530, 2-21=-649/305, 1-21=-355/1821, 2-20=-49/218, 3-20=0/269, 3-18=-1263/264, 5-18=-4/814

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc, 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 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) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 4-9-6, Interior (1) 4-9-6 to 46-2-4 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
4) Provide adequate drainage to prevent water ponding.
5) All plates are 4x6 MT20 unless otherwise indicated.
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 1-00-00 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 221 lb uplift at joint 23, 181 lb uplift at joint 12 and 626 lb uplift at joint 17.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
11) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
12) "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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-11=-60, 12-23=-20
Concentrated Loads (lb)
Vert: 4=-38 (B), 11=-64 (B), 12=-41 (B), 9=-38 (B), 14=-32 (B), 8=-38 (B), 15=-32 (B), 19=-32 (B), 24=-38 (B), 25=-38 (B), 27=-38 (B), 28=-38 (B), 29=-38 (B), 30=-38 (B), 31=-38 (B), 32=-38 (B), 33=-38 (B), 34=-38 (B), 35=-38 (B), 36=-38 (B), 37=-38 (B), 38=-38 (B), 39=-38 (B), 40=-38 (B), 41=-38 (B), 43=-38 (B), 44=-38 (B), 45=-32 (B), 46=-32 (B), 47=-32 (B), 48=-32 (B), 49=-32 (B), 50=-32 (B), 51=-32 (B), 52=-32 (B), 53=-32 (B), 54=-32 (B), 55=-32 (B), 56=-32 (B), 57=-32 (B), 58=-32 (B), 59=-32 (B), 60=-32 (B), 61=-32 (B), 62=-32 (B), 63=-32 (B)

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	H1	Hip	1	1	Job Reference (optional)	I56131968

84 Components (Dunn), Dunn, NC - 28334,

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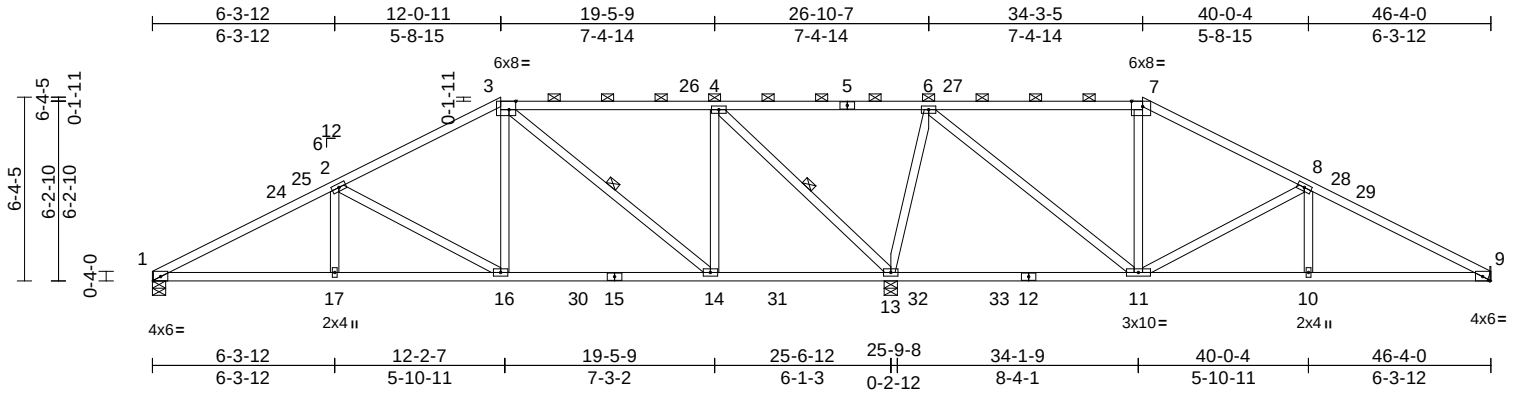

Scale = 1:79.8

Plate Offsets (X, Y): [3:0-2-12,Edge], [7:0-4-10,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	0.88	Vert(LL)	-0.11	11-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.23	11-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.86	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 243 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
16-2,14-3,13-4,11-6,11-8:2x4 SP No.2

BRACING
TOP CHORD Structural wood sheathing directly applied or 4-3-12 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 11-13.
WEBS 1 Row at midpt 3-14, 4-13

REACTIONS (size) 1=0-5-8, 9= Mechanical, 13=0-5-8
Max Horiz 1=-78 (LC 13)
Max Uplift 1=-31 (LC 12), 9=-52 (LC 13), 13=-27 (LC 9)
Max Grav 1=838 (LC 23), 9=606 (LC 24), 13=2331 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1446/106, 2-3=-905/107, 3-4=-260/95, 4-6=0/892, 6-7=-272/112, 7-8=-389/98, 8-9=-934/113
BOT CHORD 1-17=-73/1251, 16-17=-73/1251, 14-16=-9/750, 13-14=-42/258, 11-13=-638/111, 10-11=-39/794, 9-10=-39/794
WEBS 2-17=0/250, 2-16=-583/118, 3-16=0/473, 3-14=-682/47, 4-14=0/587, 4-13=-1466/87, 6-13=-1178/145, 6-11=-51/1069, 7-11=-253/76, 8-11=-592/121, 8-10=0/241

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-7-10, Interior (1) 4-7-10 to 12-0-11, Exterior (2) 12-0-11 to 18-7-5, Interior (1) 18-7-5 to 34-3-5, Exterior (2) 34-3-5 to 40-9-15, Interior (1) 40-9-15 to 46-4-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are 3x6 MT20 unless otherwise indicated.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 1, 52 lb uplift at joint 9 and 27 lb uplift at joint 13.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) 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

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	H2	Half Hip	1	1	Job Reference (optional)	I56131969

84 Components (Dunn), Dunn, NC - 28334,

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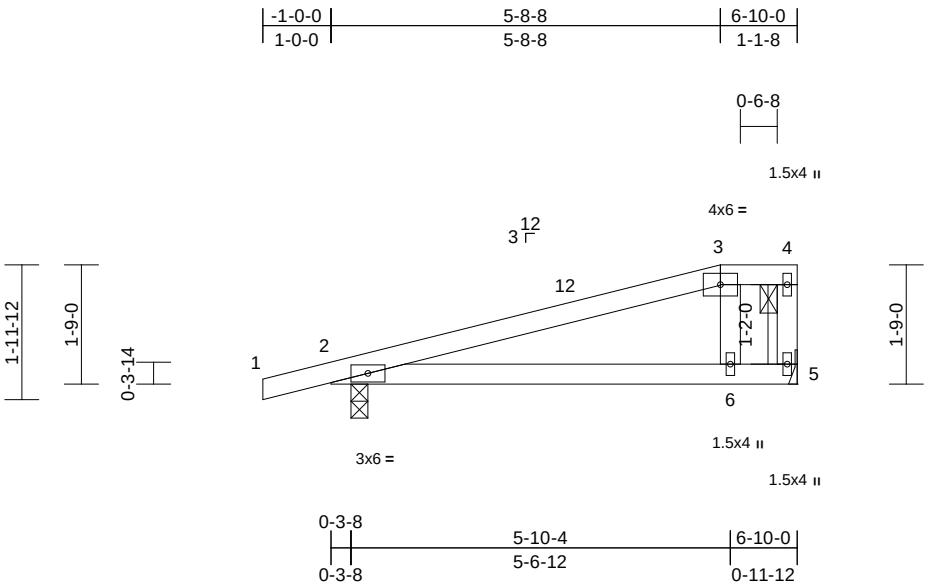

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.49	Vert(LL)	-0.08	6-11	>972	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.19	6-11	>423	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 26 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-0-0 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) 2=0-3-0, 5= Mechanical
Max Horiz 2=50 (LC 11)
Max Uplift 2=-51 (LC 8), 5=-19 (LC 8)
Max Grav 2=347 (LC 1), 5=248 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-113/78, 3-4=-20/22, 4-5=-29/16
BOT CHORD 2-6=-84/89, 5-6=-20/22
WEBS 3-6=-177/89

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 5-8-8, Exterior (2) 5-8-8 to 6-8-4 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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 1-00-00 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 19 lb uplift at joint 5 and 51 lb uplift at joint 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) 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

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	H3G	Half Hip Girder	1	1	Job Reference (optional)	I56131970

84 Components (Dunn), Dunn, NC - 28334,

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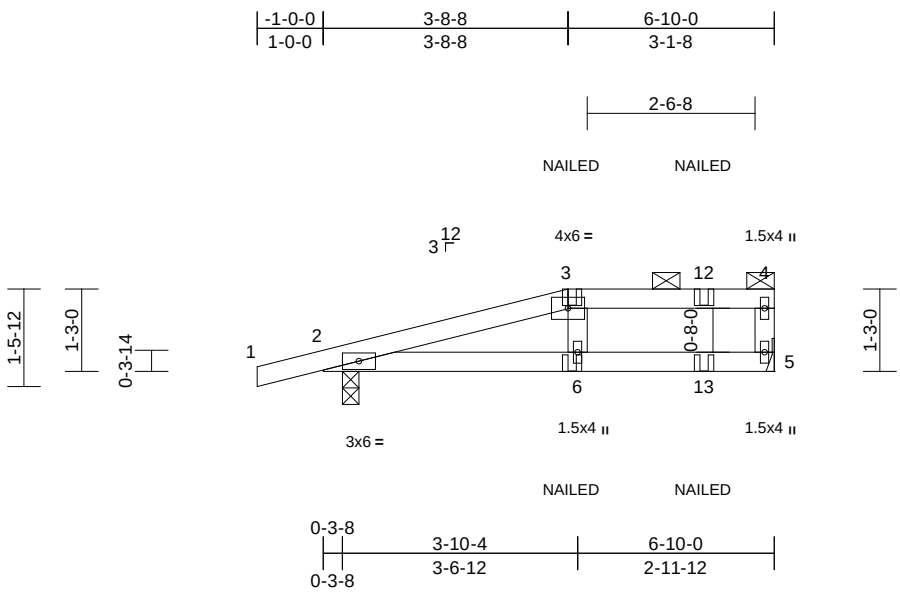

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.15	6-11	>536	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.97	Vert(CT)	-0.32	6-11	>250	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 24 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

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

REACTIONS (size) 2=0-3-0, 5= Mechanical
Max Horiz 2=34 (LC 11)
Max Uplift 2=-50 (LC 8), 5=-10 (LC 8)
Max Grav 2=382 (LC 1), 5=332 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-143/77, 3-4=-13/14, 4-5=-111/44
BOT CHORD 2-6=-85/110, 5-6=-13/14
WEBS 3-6=-260/86

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Provide adequate drainage to prevent water ponding.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * 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 1-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 10 lb uplift at joint 5 and 50 lb uplift at joint 2.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (lb/ft)
Vert: 1-3=-60, 3-4=-60, 5-7=-20
Concentrated Loads (lb)
Vert: 3=-28 (F), 6=-29 (F), 12=-31 (F), 13=-30 (F)

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	H4	Flat	1	1	Job Reference (optional)	I56131971

84 Components (Dunn), Dunn, NC - 28334,

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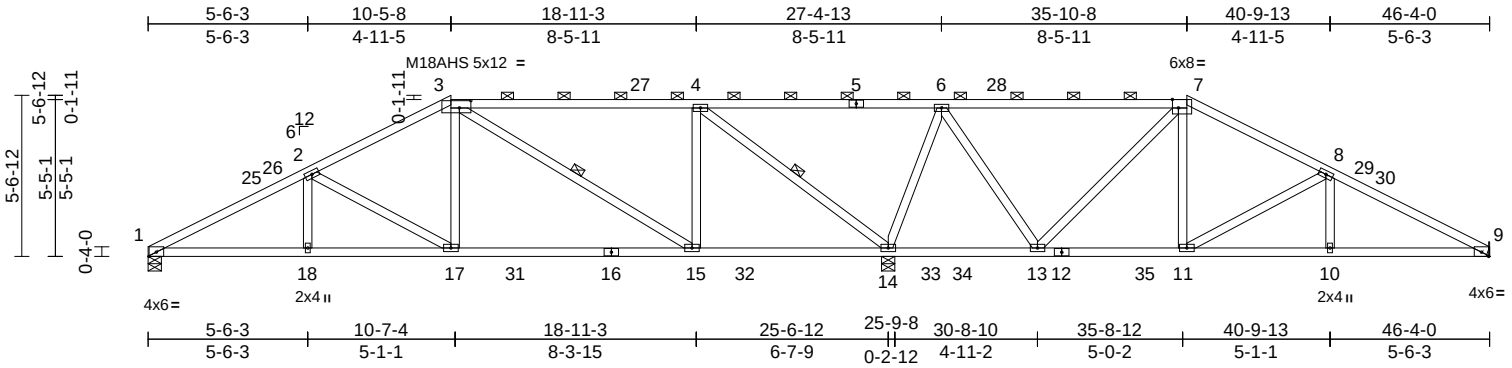

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Plate Offsets (X, Y): [3:0-4-12,0-3-0], [7:0-2-8,Edge]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.81	Vert(LL)	-0.11	15-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.25	15-17	>999	180	M18AHS	186/179
BCLL	0.0*	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.04	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 240 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.2 *Except* 3-5,5-7:2x4 SP No.1
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except* 15-3,14-4,13-7:2x4 SP No.2

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-4-12 oc purlins, except 2-0-0 oc purlins (6-0-0 max.): 3-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 13-14.
WEBS 1 Row at midpt 3-15, 4-14

REACTIONS (size) 1=0-5-8, 9= Mechanical, 14=0-5-8
Max Horiz 1=67 (LC 16)
Max Uplift 1=-23 (LC 12), 9=-43 (LC 13), 14=-65 (LC 9)
Max Grav 1=835 (LC 23), 9=600 (LC 24), 14=2325 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-1477/112, 2-3=-1039/103, 3-4=-387/91, 4-6=0/1032, 6-7=0/215, 7-8=-500/86, 8-9=-966/91
BOT CHORD 1-18=-63/1284, 17-18=-63/1284, 15-17=-13/886, 14-15=-45/385, 13-14=-609/102, 11-13=0/400, 10-11=-30/827, 9-10=-30/827
WEBS 2-18=0/195, 2-17=-466/106, 3-17=0/446, 3-15=-634/49, 4-15=0/577, 4-14=-1679/94, 6-14=-1252/132, 6-13=0/759, 7-13=-762/78, 7-11=0/378, 8-11=-499/96, 8-10=0/229

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-0-0 to 4-7-10, Interior (1) 4-7-10 to 10-5-8, Exterior (2) 10-5-8 to 17-0-2, Interior (1) 17-0-2 to 35-10-8, Exterior (2) 35-10-8 to 42-5-2, Interior (1) 42-5-2 to 46-4-0 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) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) All plates are 3x6 MT20 unless otherwise indicated.
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 1-00-00 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 23 lb uplift at joint 1, 43 lb uplift at joint 9 and 65 lb uplift at joint 14.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
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

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	J1	Jack-Partial Supported Gable	1	1	Job Reference (optional)	I56131972

84 Components (Dunn), Dunn, NC - 28334,

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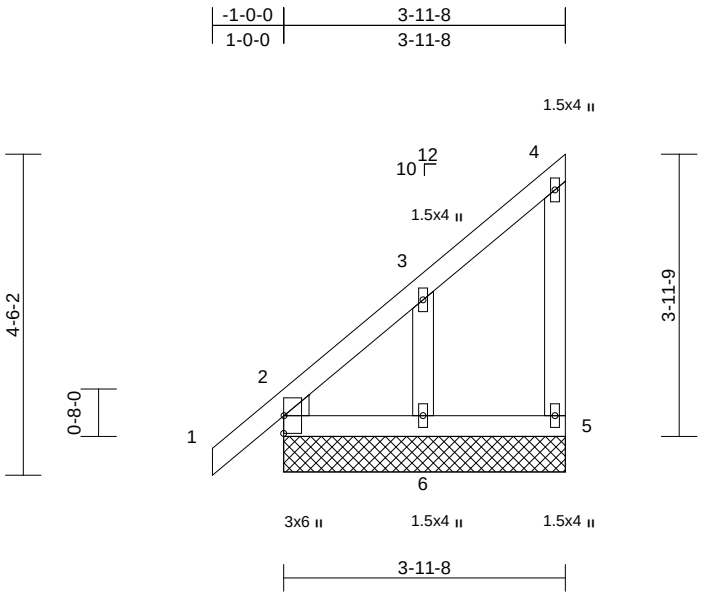

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 24 lb	FT = 20%

LUMBER

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
WEDGE	Left: 2x4 SP No.3

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) 2=3-11-8, 5=3-11-8, 6=3-11-8, 7=3-11-8
Max Horiz 2=111 (LC 11), 7=111 (LC 11)
Max Uplift 2=-11 (LC 8), 5=-19 (LC 9), 6=-75 (LC 12), 7=-11 (LC 8)
Max Grav 2=147 (LC 20), 5=68 (LC 19), 6=187 (LC 19), 7=147 (LC 20)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-2=0/38, 2-3=-158/168, 3-4=-79/94, 4-5=-88/60
BOT CHORD	2-6=-118/123, 5-6=-50/67
WEBS	3-6=-149/106

NOTES

1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 2, 19 lb uplift at joint 5, 75 lb uplift at joint 6 and 11 lb uplift at joint 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	J2	Jack-Open	23	1	Job Reference (optional)	I56131973

84 Components (Dunn), Dunn, NC - 28334,

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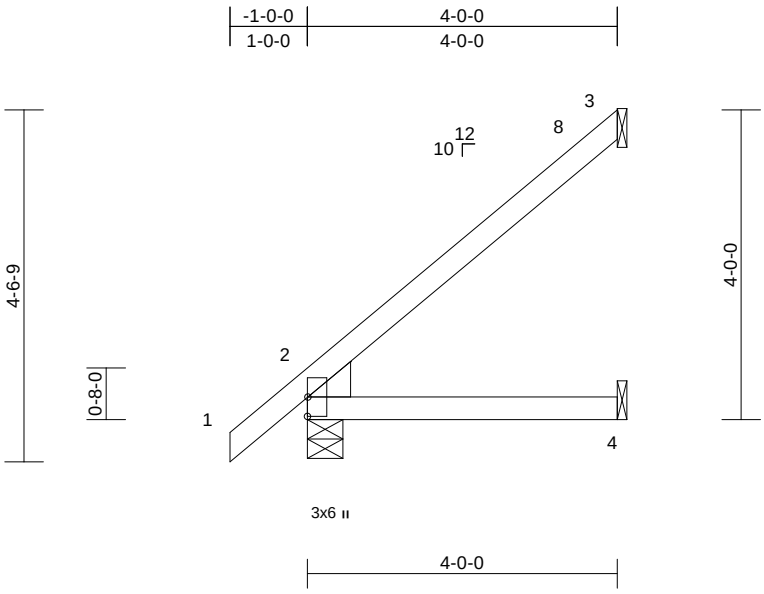


Scale = 1:29.7

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	0.20	Vert(LL)	0.02	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	-0.03	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 17 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEDGE Left: 2x6 SP No.2

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

REACTIONS (size) 2=0-5-8, 3= Mechanical, 4= Mechanical
Max Horiz 2=121 (LC 12)
Max Uplift 3=-62 (LC 12)
Max Grav 2=225 (LC 1), 3=105 (LC 19), 4=73 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/38, 2-3=-92/67
BOT CHORD 2-4=-80/92

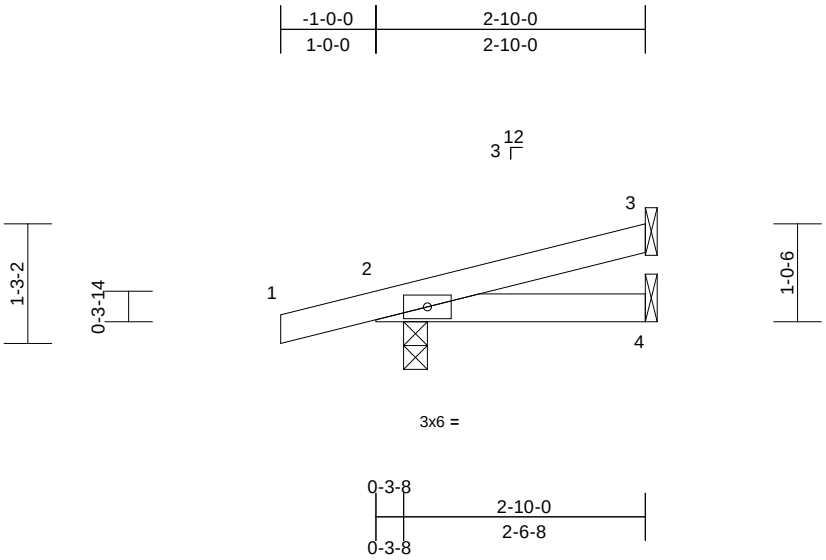
NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 3-11-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 1-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 3.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	J3	Jack-Open Structural Gable	2	1	I56131974
					Job Reference (optional)



Scale = 1:24.2

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	0.07	Vert(LL)	0.00	4-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=31 (LC 8)
Max Uplift 2=-44 (LC 8), 3=-14 (LC 12)
Max Grav 2=203 (LC 1), 3=52 (LC 1), 4=40 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-51/81
BOT CHORD 2-4=-87/71

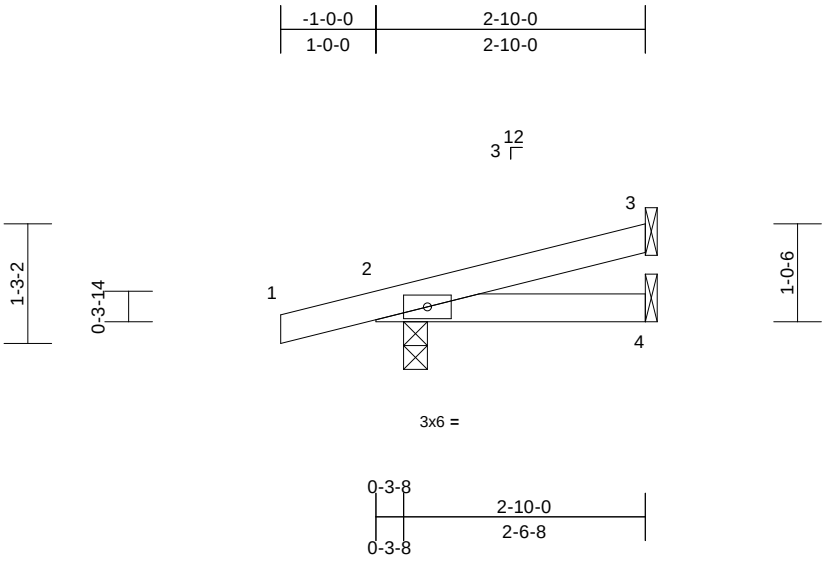
NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 1-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 3 and 44 lb uplift at joint 2.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	J4	Jack-Open Structural Gable	8	1	Job Reference (optional)	I56131975



Scale = 1:24.2

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	0.07	Vert(LL)	0.00	4-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	0.00	4-9	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=31 (LC 8)
Max Uplift 2=-44 (LC 8), 3=-14 (LC 12)
Max Grav 2=203 (LC 1), 3=52 (LC 1), 4=40 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-51/81
BOT CHORD 2-4=-87/71

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 1-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 2.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 14 lb uplift at joint 3 and 44 lb uplift at joint 2.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	J5	Jack-Open	2	1	Job Reference (optional)	I56131976

84 Components (Dunn), Dunn, NC - 28334,

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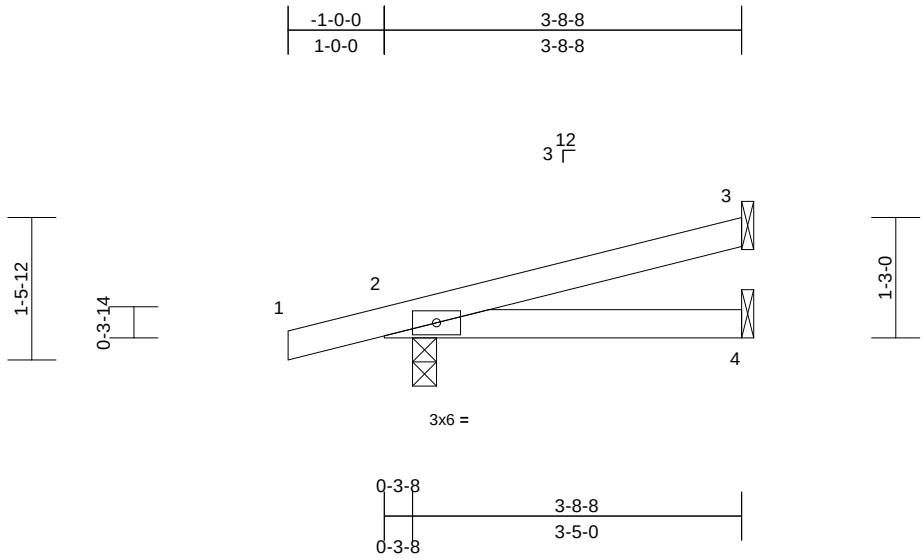

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 13 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 3= Mechanical, 4= Mechanical
Max Horiz 2=38 (LC 8)
Max Uplift 2=-40 (LC 8), 3=-22 (LC 12)
Max Grav 2=214 (LC 1), 3=88 (LC 1), 4=63 (LC 3)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-78/18
BOT CHORD 2-4=-18/68

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 1-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 3 and 40 lb uplift at joint 2.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	M1	Monopitch	3	1	Job Reference (optional)	I56131977

84 Components (Dunn), Dunn, NC - 28334,

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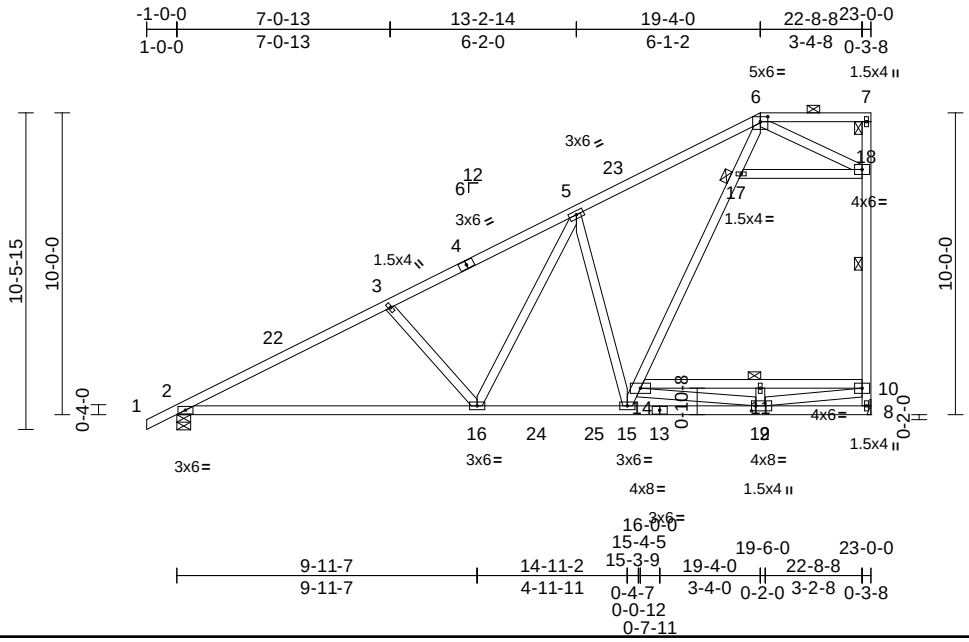


Scale = 1:76.4

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

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	0.93	Vert(LL)	-0.24	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.37	Vert(CT)	-0.48	16-21	>566	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.90	Horz(CT)	0.02	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 164 lb	FT = 20%

LUMBER

TOP CHORD 2x4 SP No.1 *Except* 4-6:2x4 SP No.2
BOT CHORD 2x4 SP DSS *Except* 14-10:2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3 *Except* 5-16,15-5:2x4 SP No.2, 15-6,7-8:2x4 SP DSS

BRACING

TOP CHORD Structural wood sheathing directly applied or 4-3-1 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 8-9.
6-0-0 oc bracing: 10-14
WEBS 1 Row at midpt 7-8
JOINTS 1 Brace at Jt(s): 7, 17

REACTIONS (size) 2=0-5-8, 8= Mechanical
Max Horiz 2=306 (LC 11)
Max Uplift 2=-36 (LC 12)
Max Grav 2=1000 (LC 1), 8=1037 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-1563/59, 3-5=-1316/58, 5-6=-829/114, 6-7=-61/370, 8-10=-1024/77, 10-18=-690/88, 7-18=-121/33
BOT CHORD 2-16=-193/1352, 15-16=-143/835, 12-15=-210/852, 9-12=0/792, 8-9=-692/236, 11-14=-653/0, 10-11=-657/0
WEBS 5-16=-25/601, 5-15=-754/175, 3-16=-388/147, 14-15=-112/515, 14-17=-67/800, 6-17=-56/614, 17-18=-105/517, 6-18=-1213/172, 11-12=-103/0, 9-10=-66/1293, 12-14=-374/391

NOTES

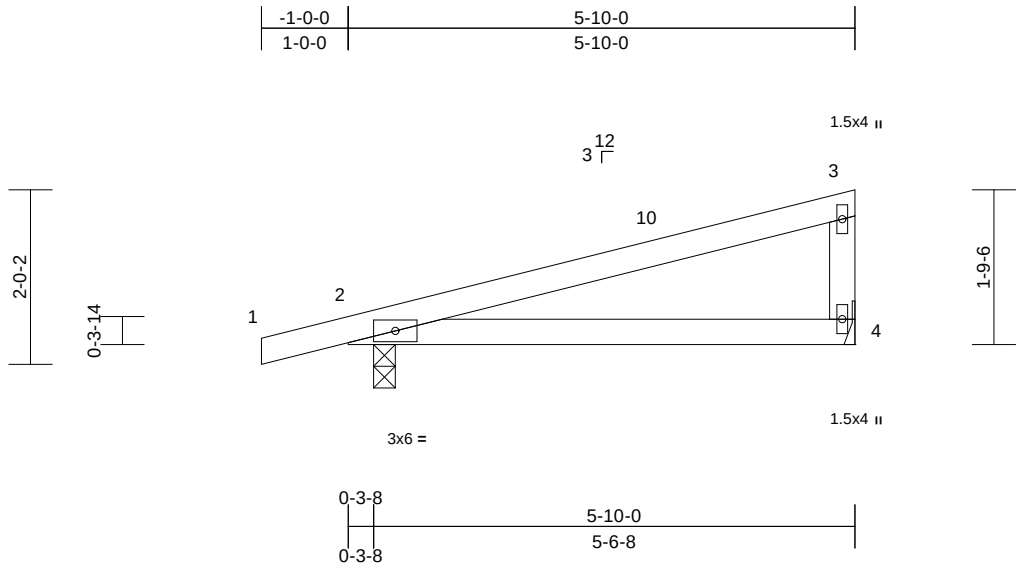
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 19-4-0, Exterior (2) 19-4-0 to 22-10-4 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) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 36 lb uplift at joint 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) 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

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	M2	Monopitch Structural Gable	1	1	Job Reference (optional)	I56131978



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.03	4-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.08	4-9	>837	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 4= Mechanical
Max Horiz 2=50 (LC 11)
Max Uplift 2=-49 (LC 8), 4=-18 (LC 12)
Max Grav 2=309 (LC 1), 4=206 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-88/79, 3-4=-138/76
BOT CHORD 2-4=-85/74

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 5-8-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 1-00-00 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 4 and 49 lb uplift at joint 2.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

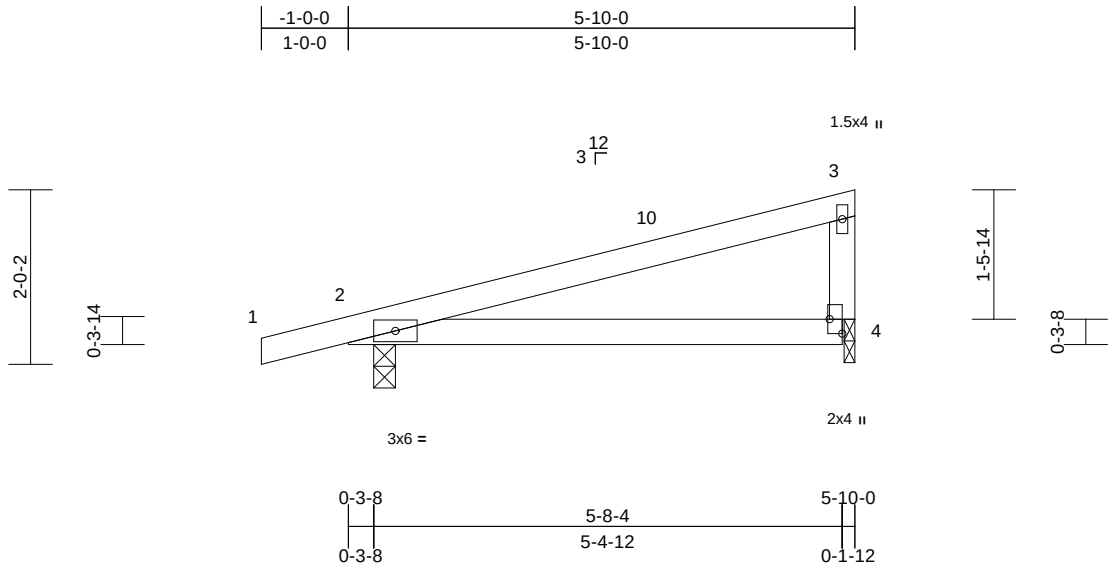
LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	M3	Monopitch Structural Gable	8	1	Job Reference (optional)	I56131979



Scale = 1:26.5

Plate Offsets (X, Y): [4:Edge,0-1-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.03	4-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.08	4-9	>837	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 21 lb	FT = 20%

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

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

REACTIONS (size) 2=0-3-0, 4=0-1-8
Max Horiz 2=50 (LC 11)
Max Uplift 2=-49 (LC 8), 4=-18 (LC 12)
Max Grav 2=309 (LC 1), 4=206 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/15, 2-3=-88/79, 3-4=-138/76
BOT CHORD 2-4=-85/74

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 5-8-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 1-00-00 wide will fit between the bottom chord and any other members.
4) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 49 lb uplift at joint 2 and 18 lb uplift at joint 4.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	M4	Monopitch	1	1	Job Reference (optional)	I56131980

84 Components (Dunn), Dunn, NC - 28334,

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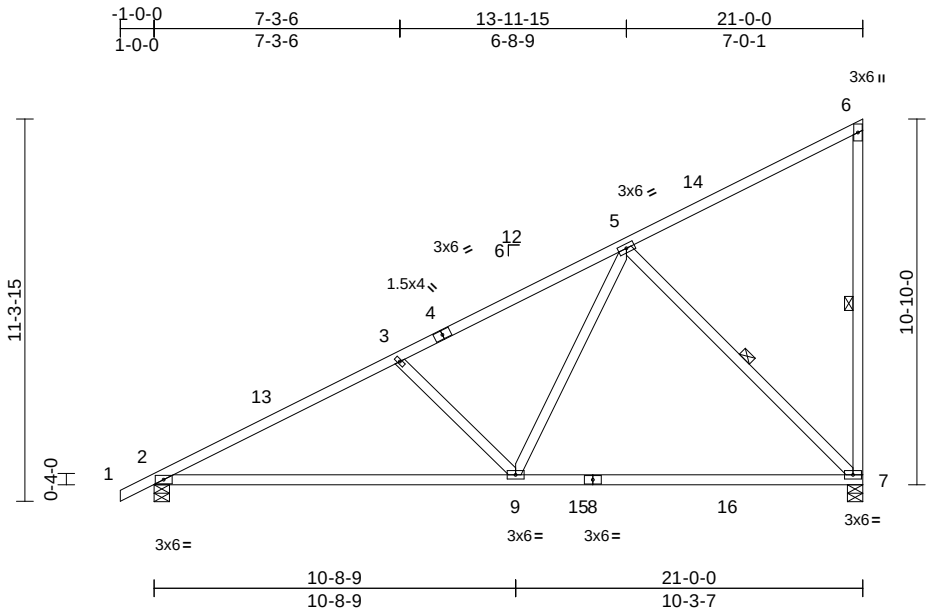

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.65	Vert(LL)	-0.45	7-9	>562	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.68	7-9	>369	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 116 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.1 *Except* 8-7:2x4 SP No.2
WEBS 2x4 SP No.2 *Except* 9-3:2x4 SP No.3

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-9-5 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-7, 5-7

REACTIONS (size) 2=0-5-8, 7=0-5-8
Max Horiz 2=329 (LC 11)
Max Uplift 2=-39 (LC 12), 7=-105 (LC 12)
Max Grav 2=896 (LC 1), 7=834 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=0/27, 2-3=-1319/73, 3-5=-1050/74, 5-6=-202/127, 6-7=-171/113
BOT CHORD 2-9=-185/1135, 7-9=-152/585
WEBS 5-7=-813/163, 5-9=0/675, 3-9=-424/162

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) -1-0-0 to 3-6-6, Interior (1) 3-6-6 to 20-10-4 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
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * 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 1-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 105 lb uplift at joint 7 and 39 lb uplift at joint 2.
5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

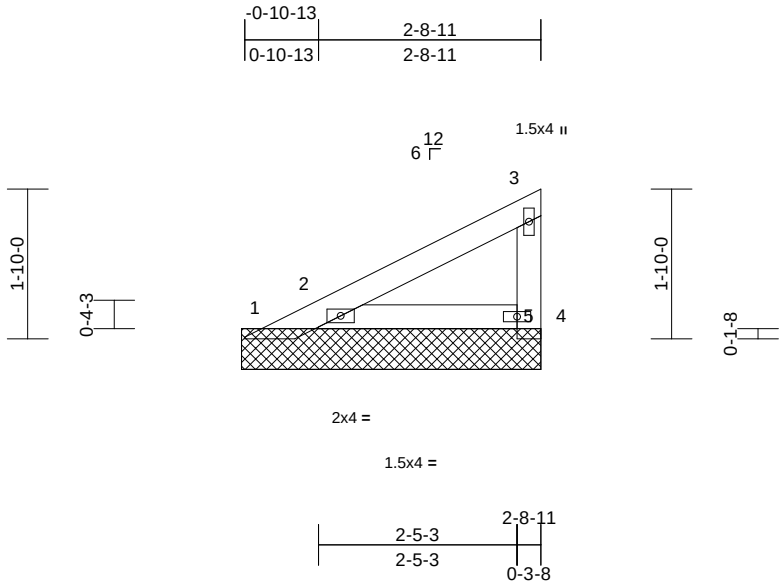
LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	PB1	Piggyback	3	1	Job Reference (optional)	I56131981



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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)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%

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

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

REACTIONS (size) 1=3-8-0, 2=3-8-0, 4=3-8-0, 5=3-8-0, 6=3-8-0
Max Horiz 1=49 (LC 11)
Max Uplift 1=-60 (LC 1), 2=-23 (LC 12), 4=-10 (LC 12), 6=-23 (LC 12)
Max Grav 1=21 (LC 9), 2=243 (LC 1), 4=85 (LC 1), 6=243 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-83/100, 2-3=-34/32, 4-5=0/0, 3-4=-57/29
BOT CHORD 2-4=-28/30

NOTES
1) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * 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 1-00-00 wide will fit between the bottom chord and any other members.
7) Bearing at joint(s) 2, 4, 1, 5, 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 2, 10 lb uplift at joint 4, 60 lb uplift at joint 1 and 23 lb uplift at joint 2.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	PB2	Piggyback	5	1	Job Reference (optional)	I56131982

84 Components (Dunn), Dunn, NC - 28334,

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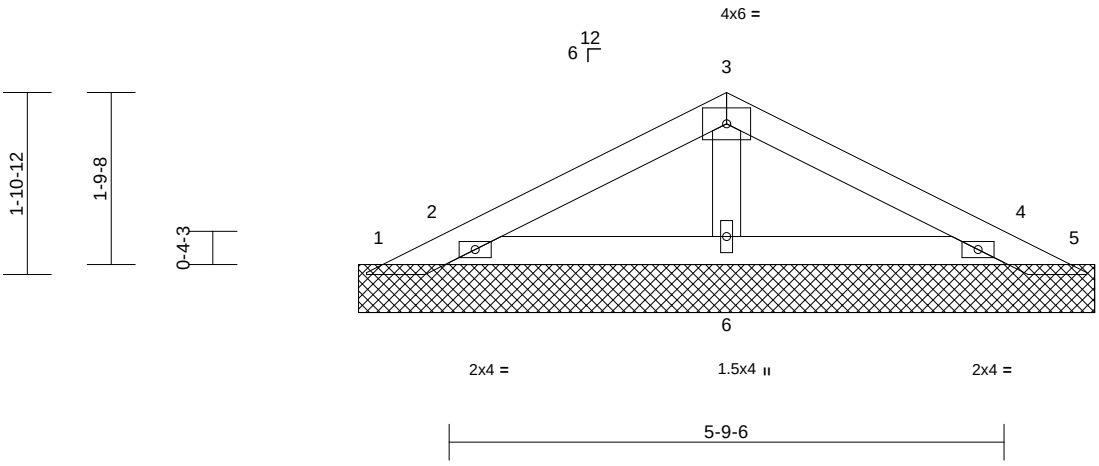

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 23 lb	FT = 20%

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

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

REACTIONS (size) 1=7-8-0, 2=7-8-0, 4=7-8-0, 5=7-8-0, 6=7-8-0, 7=7-8-0, 10=7-8-0
Max Horiz 1=-23 (LC 13)
Max Uplift 1=-81 (LC 23), 2=-39 (LC 12), 4=-42 (LC 13), 5=-77 (LC 24), 7=-39 (LC 12), 10=-42 (LC 13)
Max Grav 1=28 (LC 12), 2=274 (LC 23), 4=259 (LC 24), 5=20 (LC 13), 6=188 (LC 1), 7=274 (LC 23), 10=259 (LC 24)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-32/63, 2-3=-63/44, 3-4=-64/44, 4-5=-16/55
BOT CHORD 2-6=-23/30, 4-6=-23/30
WEBS 3-6=-99/29

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 39 lb uplift at joint 2, 42 lb uplift at joint 4, 81 lb uplift at joint 1, 77 lb uplift at joint 5, 39 lb uplift at joint 2 and 42 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	V1	Valley	1	1	I56131983
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334,

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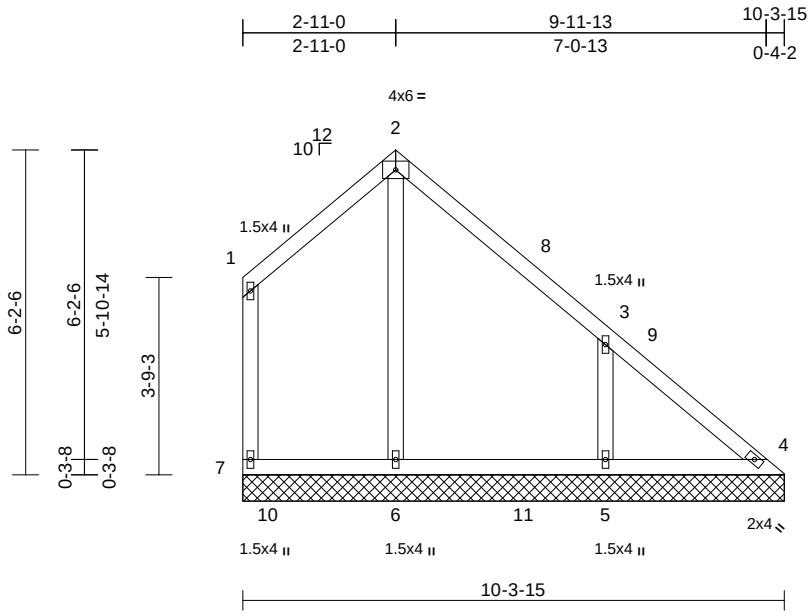

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 52 lb	FT = 20%

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

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

REACTIONS (size) 4=10-3-15, 5=10-3-15, 6=10-3-15, 7=10-3-15
Max Horiz 7=-150 (LC 8)
Max Uplift 4=-39 (LC 9), 5=-127 (LC 13), 6=-5 (LC 8), 7=-36 (LC 9)
Max Grav 4=127 (LC 19), 5=384 (LC 20), 6=382 (LC 20), 7=151 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-125/98, 1-2=-112/121, 2-3=-149/122, 3-4=-153/161
BOT CHORD 6-7=-123/130, 5-6=-123/130, 4-5=-123/130
WEBS 2-6=-197/54, 3-5=-285/175

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 7-5-6, Interior (1) 7-5-6 to 9-11-6 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) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 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 36 lb uplift at joint 7, 39 lb uplift at joint 4, 5 lb uplift at joint 6 and 127 lb uplift at joint 5.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V2	Valley	1	1	Job Reference (optional)	I56131984

84 Components (Dunn), Dunn, NC - 28334,

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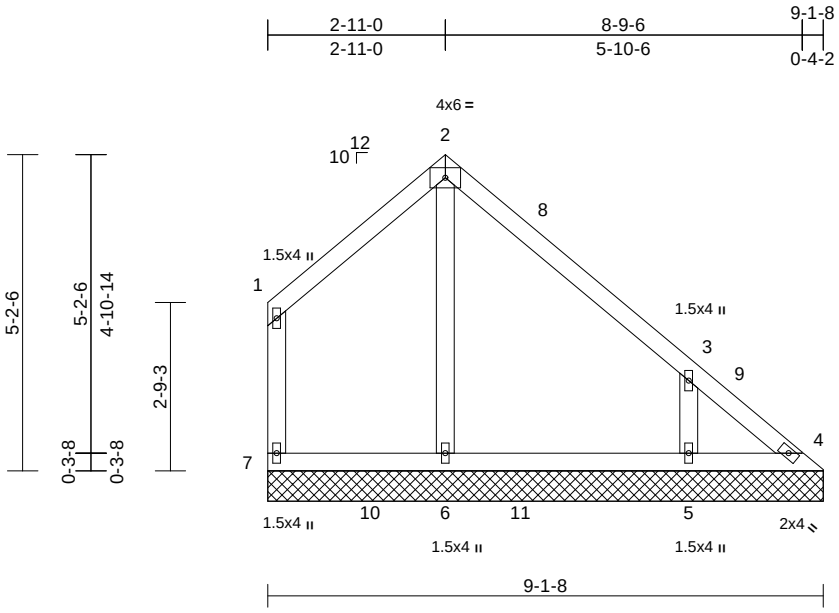


Scale = 1:37.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 43 lb	FT = 20%

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

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

REACTIONS (size) 4=9-1-8, 5=9-1-8, 6=9-1-8, 7=9-1-8
Max Horiz 7=-120 (LC 8)
Max Uplift 4=-58 (LC 11), 5=-119 (LC 13), 7=-32 (LC 12)
Max Grav 4=89 (LC 8), 5=335 (LC 20), 6=340 (LC 20), 7=127 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-7=-115/88, 1-2=-96/104, 2-3=-138/102, 3-4=-134/136
BOT CHORD 6-7=-90/104, 5-6=-90/104, 4-5=-90/104
WEBS 2-6=-194/42, 3-5=-262/164

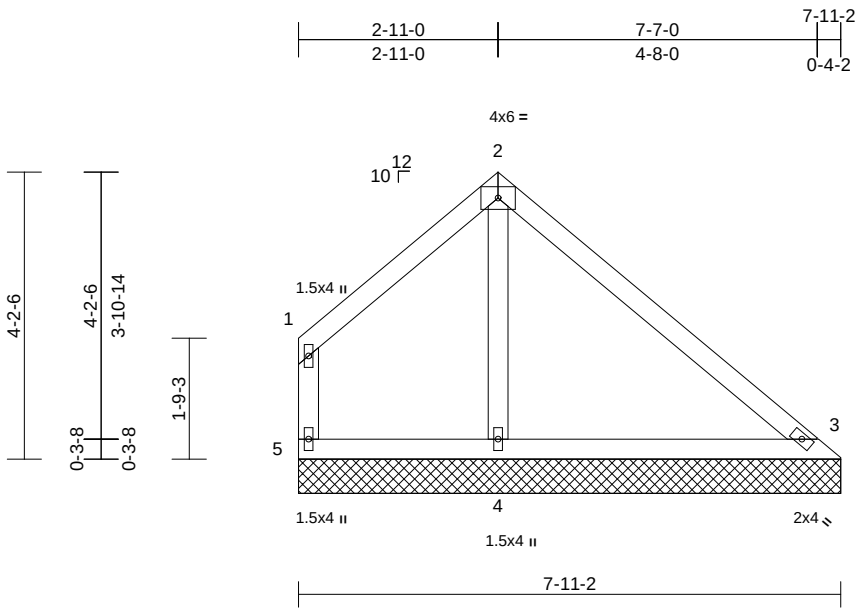
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 7-5-6, Interior (1) 7-5-6 to 8-9-0 zone; cantilever 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 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 32 lb uplift at joint 7, 58 lb uplift at joint 4 and 119 lb uplift at joint 5.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	V3	Valley	1	1	I56131985
					Job Reference (optional)



Scale = 1:33.7

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	0.43	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.17	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 34 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-11-7 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3=7-11-2, 4=7-11-2, 5=7-11-2
Max Horiz 5=-90 (LC 10)
Max Uplift 3=-14 (LC 13), 5=-40 (LC 12)
Max Grav 3=177 (LC 1), 4=331 (LC 20), 5=112 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-105/77, 1-2=-80/86, 2-3=-116/104
BOT CHORD 4-5=-67/81, 3-4=-67/81
WEBS 2-4=-234/57

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 40 lb uplift at joint 5 and 14 lb uplift at joint 3.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V4	Valley	1	1	Job Reference (optional)	I56131986

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:17:13 Page: 1
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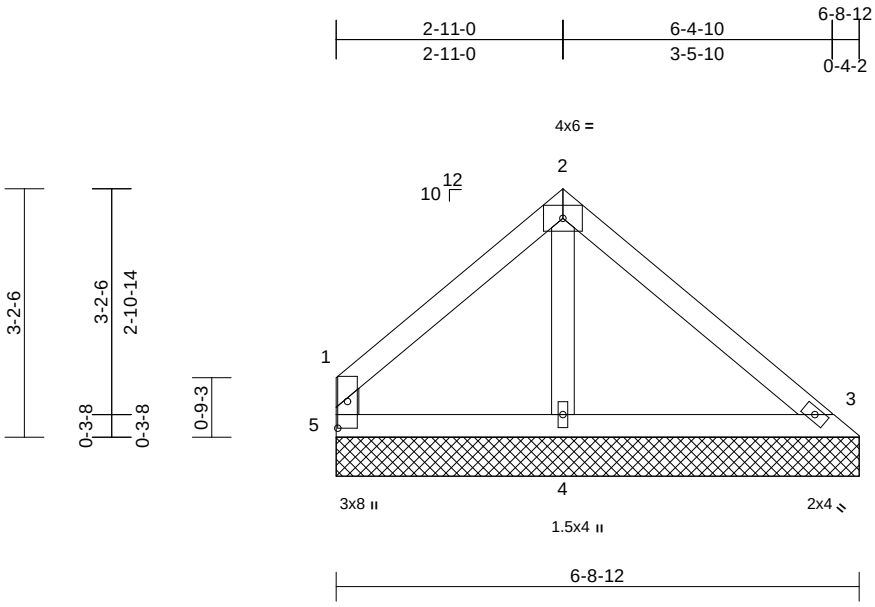

Scale = 1:29.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 6-9-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 3=6-8-12, 4=6-8-12, 5=6-8-12
Max Horiz 5=-61 (LC 8)
Max Uplift 3=-28 (LC 12), 5=-41 (LC 12)
Max Grav 3=130 (LC 1), 4=269 (LC 20), 5=111 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-5=-94/67, 1-2=-63/68, 2-3=-86/80
BOT CHORD 4-5=-53/58, 3-4=-53/58
WEBS 2-4=-191/22

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 41 lb uplift at joint 5 and 28 lb uplift at joint 3.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	V5	Valley	1	1	I56131987
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334,

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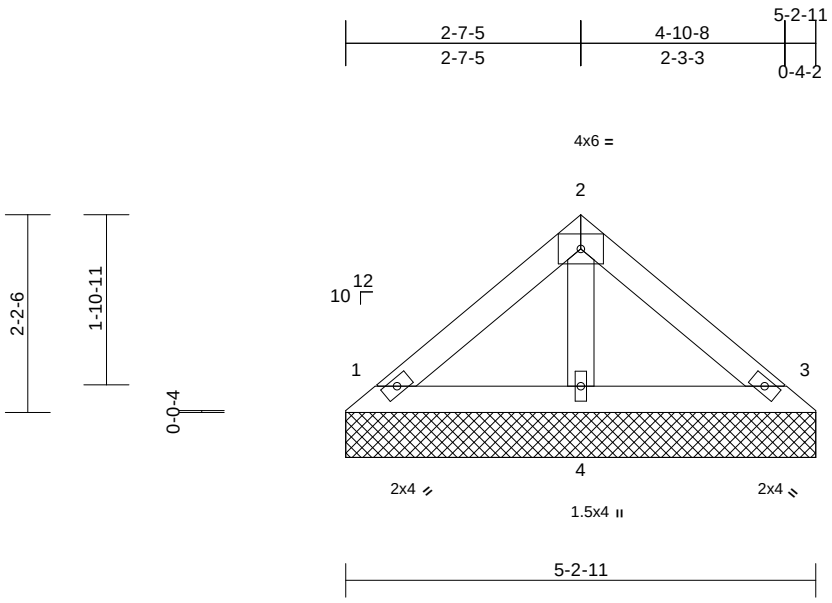

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 19 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-2-11, 3=5-2-11, 4=5-2-11
Max Horiz 1=36 (LC 9)
Max Uplift 1=-11 (LC 13), 3=-15 (LC 13)
Max Grav 1=102 (LC 1), 3=102 (LC 1), 4=154 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-65/30, 2-3=-62/26
BOT CHORD 1-4=-7/29, 3-4=-7/29
WEBS 2-4=-98/23

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 11 lb uplift at joint 1 and 15 lb uplift at joint 3.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V8	Valley	1	1	Job Reference (optional)	I56131988

84 Components (Dunn), Dunn, NC - 28334,

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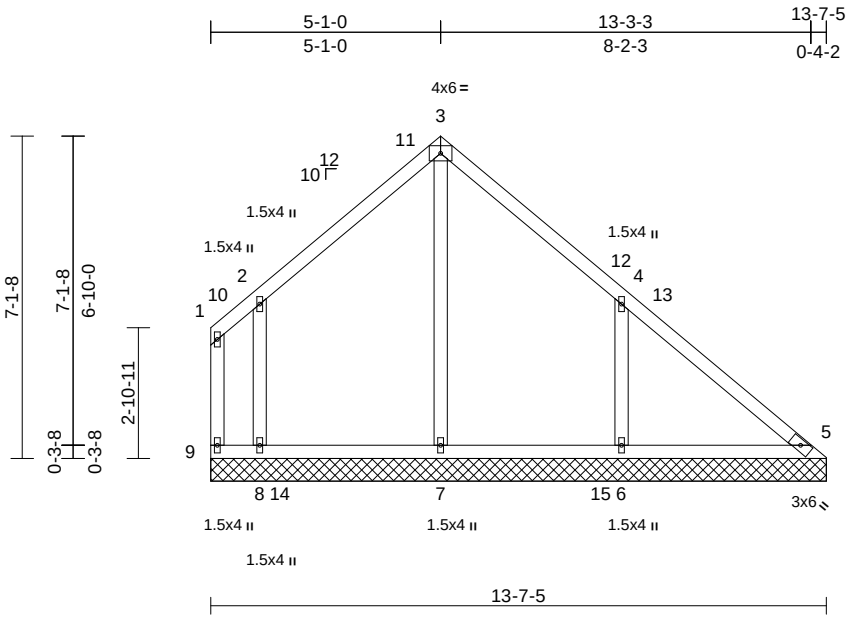

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.17	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 69 lb	FT = 20%

LUMBER
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
OTHERS 2x4 SP No.3 *Except* 7-3:2x4 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) 5=13-7-5, 6=13-7-5, 7=13-7-5, 8=13-7-5, 9=13-7-5
Max Horiz 9=-159 (LC 8)
Max Uplift 5=-45 (LC 9), 6=-144 (LC 13), 8=-132 (LC 12), 9=-104 (LC 2)
Max Grav 5=172 (LC 19), 6=461 (LC 20), 7=423 (LC 20), 8=432 (LC 19), 9=49 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-63/93, 1-2=-56/91, 2-3=-162/162, 3-4=-167/174, 4-5=-170/184
BOT CHORD 8-9=-118/142, 7-8=-118/142, 6-7=-118/142, 5-6=-118/142
WEBS 3-7=-213/51, 2-8=-289/176, 4-6=-325/199

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 4-8-2, Interior (1) 4-8-2 to 5-1-0, Exterior (2) 5-1-0 to 9-7-6, Interior (1) 9-7-6 to 13-2-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 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 9, 45 lb uplift at joint 5, 132 lb uplift at joint 8 and 144 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V9	Valley	1	1	Job Reference (optional)	I56131989

84 Components (Dunn), Dunn, NC - 28334,

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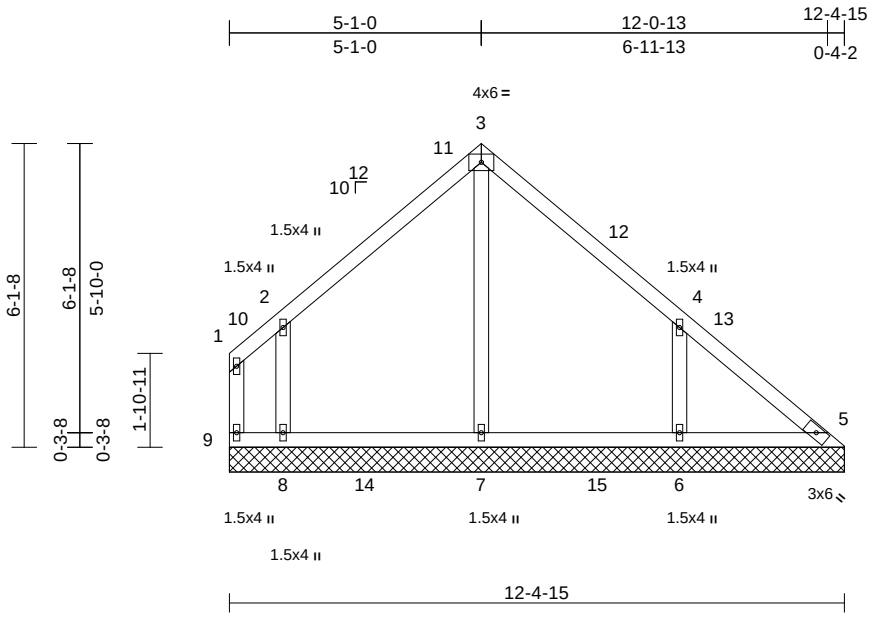

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.14	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 59 lb	FT = 20%

LUMBER

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

BRACING

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

REACTIONS (size) 5=12-4-15, 6=12-4-15, 7=12-4-15, 8=12-4-15, 9=12-4-15
Max Horiz 9=-129 (LC 8)
Max Uplift 5=-53 (LC 9), 6=-127 (LC 13), 8=-135 (LC 12), 9=-94 (LC 19)
Max Grav 5=124 (LC 19), 6=376 (LC 20), 7=411 (LC 20), 8=390 (LC 19), 9=46 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension

TOP CHORD	1-9=-58/88, 1-2=-47/83, 2-3=-147/146, 3-4=-149/154, 4-5=-145/158
BOT CHORD	8-9=-104/119, 7-8=-104/119, 6-7=-104/119, 5-6=-104/119
WEBS	3-7=-216/34, 2-8=-291/177, 4-6=-282/173

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 4-8-2, Interior (1) 4-8-2 to 5-1-0, Exterior (2) 5-1-0 to 9-7-6, Interior (1) 9-7-6 to 12-0-6 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) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 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 94 lb uplift at joint 9, 53 lb uplift at joint 5, 135 lb uplift at joint 8 and 127 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V10	Valley	1	1	Job Reference (optional)	I56131990

84 Components (Dunn), Dunn, NC - 28334,

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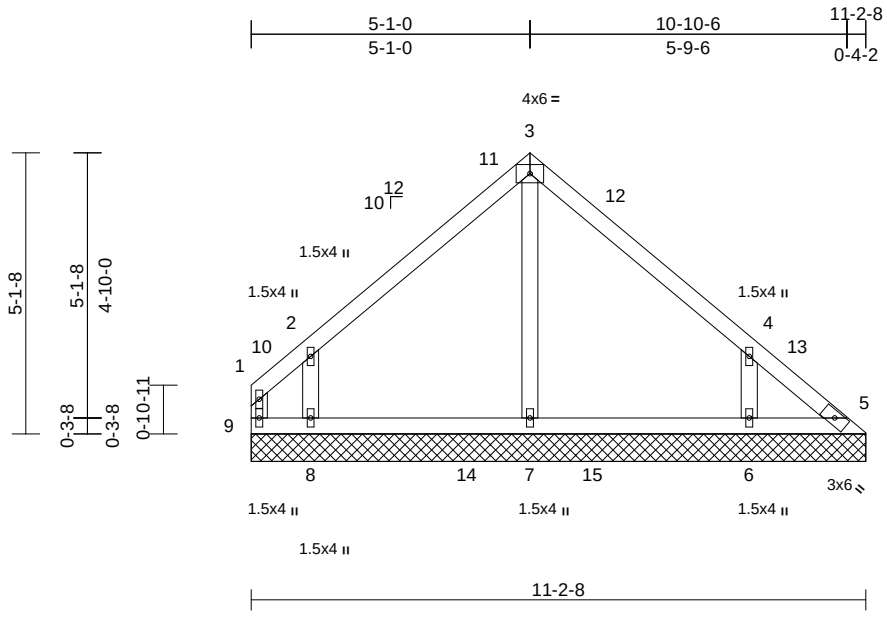


Scale = 1:42

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	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 49 lb	FT = 20%

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

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

REACTIONS (size) 5=11-2-8, 6=11-2-8, 7=11-2-8, 8=11-2-8, 9=11-2-8
Max Horiz 9=-100 (LC 8)
Max Uplift 5=-68 (LC 9), 6=-121 (LC 13), 8=-137 (LC 12), 9=-90 (LC 19)
Max Grav 5=83 (LC 10), 6=332 (LC 20), 7=362 (LC 20), 8=366 (LC 19), 9=43 (LC 12)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-9=-53/82, 1-2=-38/84, 2-3=-131/129, 3-4=-138/136, 4-5=-123/143
BOT CHORD 8-9=-89/95, 7-8=-89/95, 6-7=-89/95, 5-6=-89/95
WEBS 3-7=-213/25, 2-8=-293/180, 4-6=-262/161

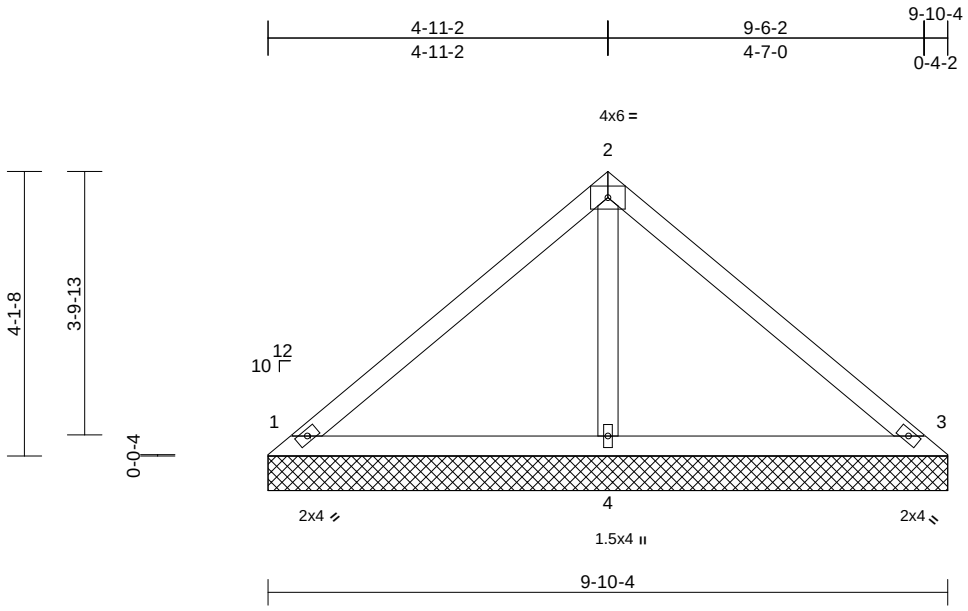
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 0-1-12 to 4-8-2, Interior (1) 4-8-2 to 5-1-0, Exterior (2) 5-1-0 to 9-7-6, Interior (1) 9-7-6 to 10-10-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 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 90 lb uplift at joint 9, 68 lb uplift at joint 5, 137 lb uplift at joint 8 and 121 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	V11	Valley	1	1	I56131991
					Job Reference (optional)



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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.06	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 38 lb	FT = 20%

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

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

REACTIONS (size) 1=9-10-4, 3=9-10-4, 4=9-10-4
Max Horiz 1=73 (LC 11)
Max Uplift 1=-22 (LC 13), 3=-31 (LC 13)
Max Grav 1=209 (LC 1), 3=209 (LC 1), 4=310 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-135/62, 2-3=-130/50
BOT CHORD 1-4=-14/61, 3-4=-14/61
WEBS 2-4=-197/40

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 22 lb uplift at joint 1 and 31 lb uplift at joint 3.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V12	Valley	1	1	Job Reference (optional)	I56131992

84 Components (Dunn), Dunn, NC - 28334,

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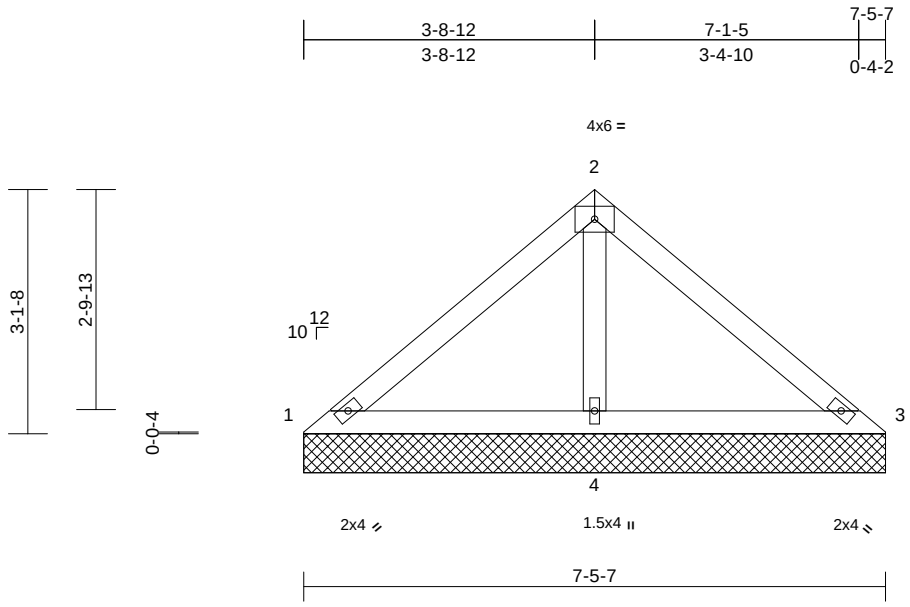


Scale = 1:29.5

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	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.09	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-5-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-5-7, 3=7-5-7, 4=7-5-7
Max Horiz 1=-57 (LC 8)
Max Uplift 1=-8 (LC 24), 3=-8 (LC 23), 4=-37 (LC 12)
Max Grav 1=66 (LC 23), 3=66 (LC 24), 4=519 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-48/200, 2-3=-48/200
BOT CHORD 1-4=-157/87, 3-4=-157/87
WEBS 2-4=-367/94

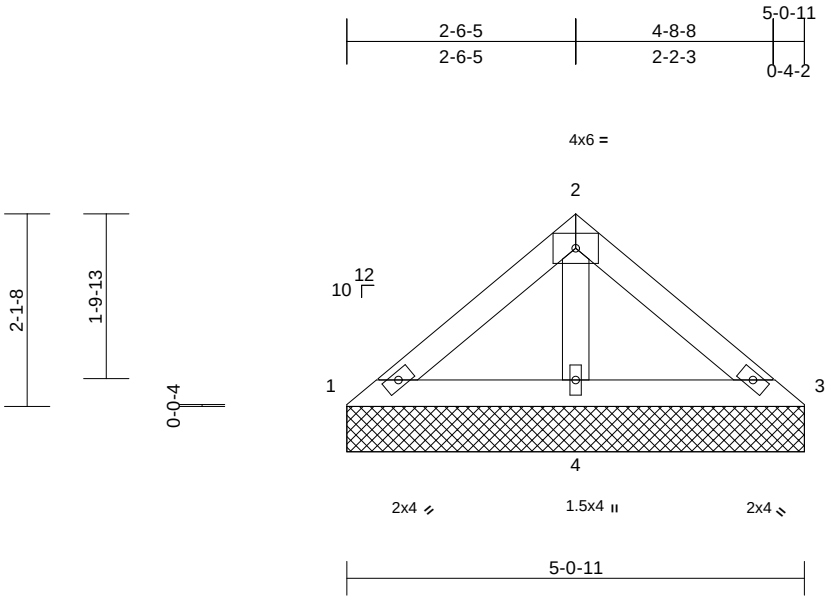
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 8 lb uplift at joint 1, 8 lb uplift at joint 3 and 37 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	V13	Valley	1	1	I56131993
					Job Reference (optional)



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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	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 18 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-0-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=5-0-11, 3=5-0-11, 4=5-0-11
Max Horiz 1=37 (LC 11)
Max Uplift 3=-3 (LC 13), 4=-14 (LC 12)
Max Grav 1=62 (LC 23), 3=62 (LC 24), 4=306 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-55/97, 2-3=-55/97
BOT CHORD 1-4=-77/48, 3-4=-77/48
WEBS 2-4=-193/41

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 3 and 14 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V15	Valley	1	1	Job Reference (optional)	I56131994

84 Components (Dunn), Dunn, NC - 28334,

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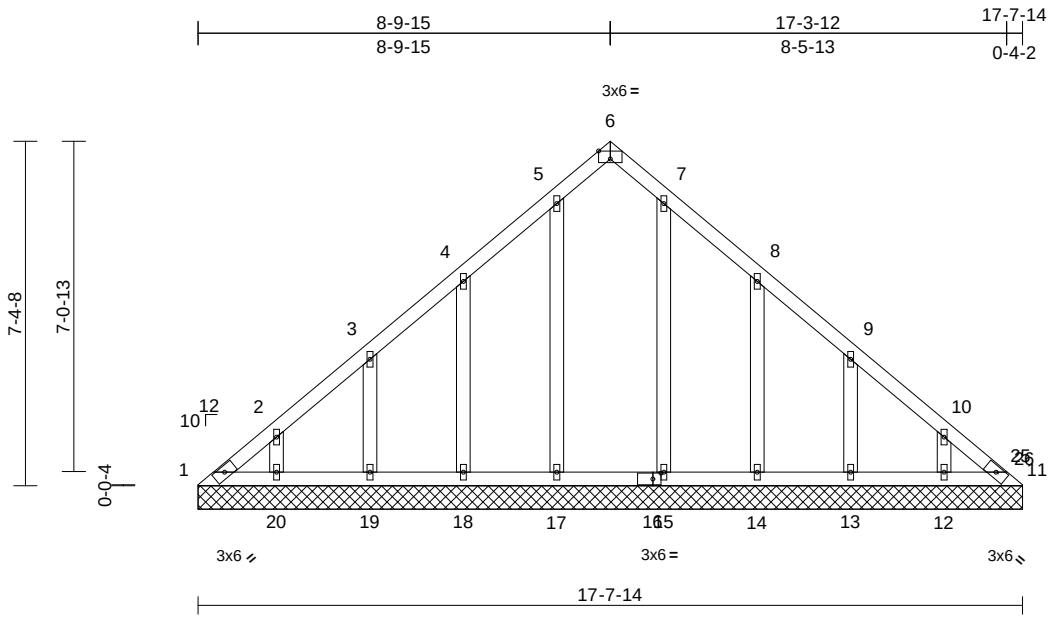

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Plate Offsets (X, Y): [6:0-3-0,Edge], [16:0-2-1,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.08	Horiz(TL)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 99 lb	FT = 20%

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

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

REACTIONS (size) 1=17-7-14, 11=17-7-14, 12=17-7-14, 13=17-7-14, 14=17-7-14, 15=17-7-14, 17=17-7-14, 18=17-7-14, 19=17-7-14, 20=17-7-14
Max Horiz 1=139 (LC 9)
Max Uplift 1=-24 (LC 10), 11=-11 (LC 11), 12=-11 (LC 13), 13=-60 (LC 13), 14=-67 (LC 13), 17=-9 (LC 12), 18=-65 (LC 12), 19=-59 (LC 12), 20=-21 (LC 12)
Max Grav 1=106 (LC 21), 11=92 (LC 13), 12=165 (LC 1), 13=166 (LC 20), 14=200 (LC 20), 15=212 (LC 20), 17=230 (LC 19), 18=197 (LC 19), 19=164 (LC 19), 20=173 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-197/133, 2-3=-155/95, 3-4=-102/58, 4-5=-82/41, 5-6=-61/45, 6-7=-61/45, 7-8=-69/27, 8-9=-93/42, 9-10=-143/95, 10-11=-182/132
BOT CHORD 1-20=-105/157, 19-20=-105/157, 18-19=-105/157, 17-18=-105/157, 15-17=-105/157, 14-15=-105/157, 13-14=-105/157, 12-13=-105/157, 11-12=-105/157
WEBS 5-17=-118/35, 7-15=-108/24, 4-18=-132/89, 3-19=-129/81, 2-20=-118/54, 8-14=-132/91, 9-13=-130/81, 10-12=-113/50

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-0-5 to 4-6-11, Exterior (2) 4-6-11 to 8-10-4, Corner (3) 8-10-4 to 13-4-10, Exterior (2) 13-4-10 to 17-3-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) All plates are 1.5x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
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 1-00-00 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 24 lb uplift at joint 1, 11 lb uplift at joint 11, 9 lb uplift at joint 17, 65 lb uplift at joint 18, 59 lb uplift at joint 19, 21 lb uplift at joint 20, 67 lb uplift at joint 14, 60 lb uplift at joint 13 and 11 lb uplift at joint 12.
10) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V16	Valley	1	1	Job Reference (optional)	I56131995

84 Components (Dunn), Dunn, NC - 28334,

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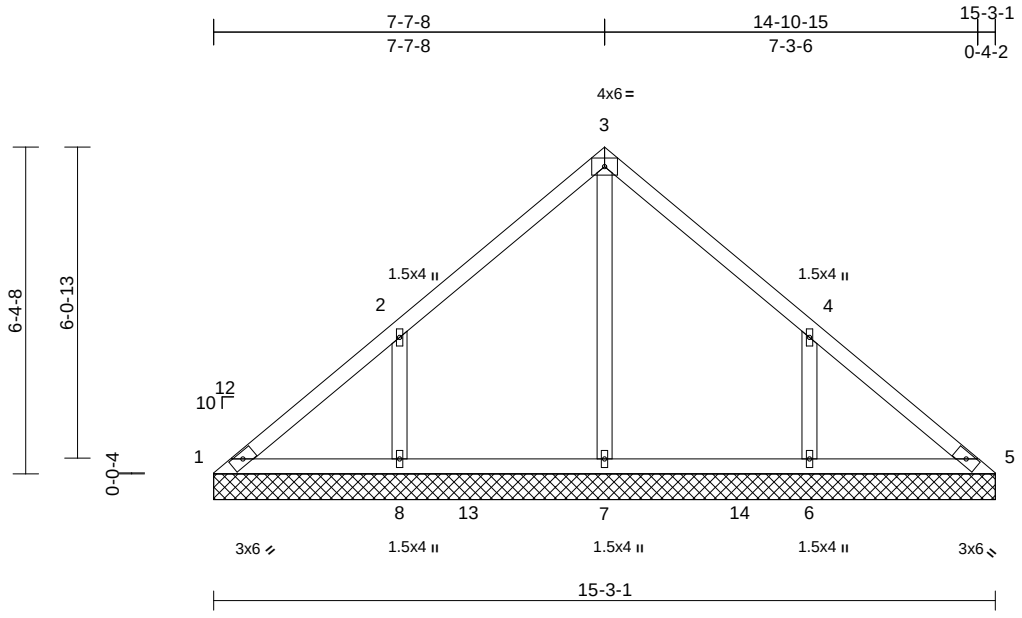

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.23	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.15	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 67 lb	FT = 20%

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

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

REACTIONS (size) 1=15-3-1, 5=15-3-1, 6=15-3-1, 7=15-3-1, 8=15-3-1
Max Horiz 1=120 (LC 9)
Max Uplift 1=-14 (LC 8), 6=-125 (LC 13), 8=-127 (LC 12)
Max Grav 1=112 (LC 20), 5=95 (LC 24), 6=407 (LC 20), 7=392 (LC 19), 8=409 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-134/149, 2-3=-91/104, 3-4=-72/93, 4-5=-111/118
BOT CHORD 1-8=-85/114, 7-8=-85/91, 6-7=-85/91, 5-6=-85/91
WEBS 3-7=-218/0, 2-8=-288/168, 4-6=-286/167

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-0-5 to 4-6-11, Exterior (2) 4-6-11 to 7-7-13, Corner (3) 7-7-13 to 12-2-4, Exterior (2) 12-2-4 to 15-3-6 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) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 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 14 lb uplift at joint 1, 127 lb uplift at joint 8 and 125 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V17	Valley	1	1	Job Reference (optional)	I56131996

84 Components (Dunn), Dunn, NC - 28334,

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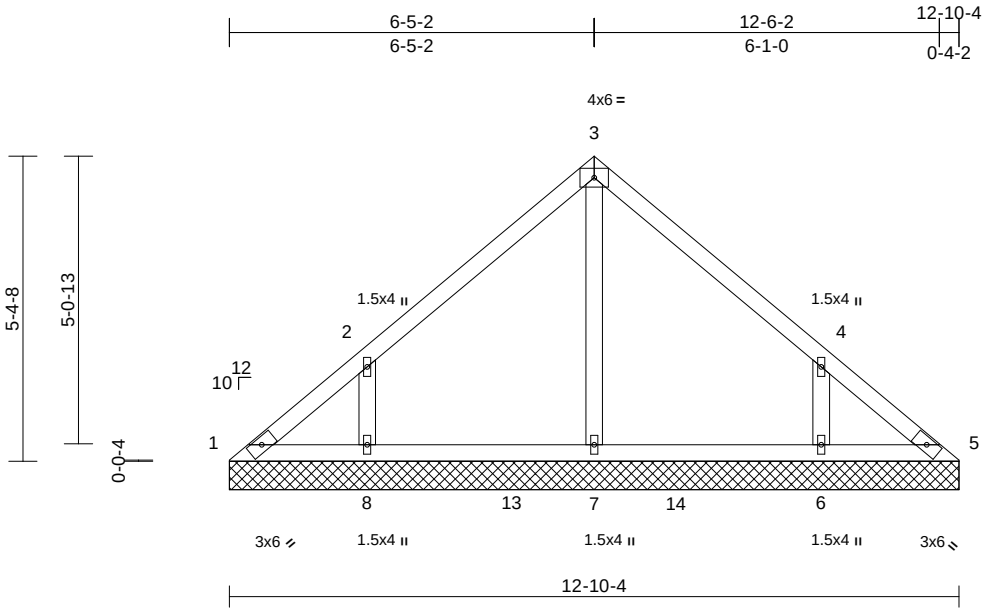

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Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 54 lb	FT = 20%

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

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

REACTIONS (size) 1=12-10-4, 5=12-10-4, 6=12-10-4, 7=12-10-4, 8=12-10-4
Max Horiz 1=-100 (LC 10)
Max Uplift 1=-20 (LC 8), 6=-110 (LC 13), 8=-113 (LC 12)
Max Grav 1=92 (LC 20), 5=73 (LC 19), 6=344 (LC 20), 7=299 (LC 19), 8=347 (LC 19)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-113/94, 2-3=-136/94, 3-4=-130/89, 4-5=-92/64
BOT CHORD 1-8=-31/82, 7-8=-31/68, 6-7=-31/68, 5-6=-31/71
WEBS 3-7=-145/0, 2-8=-275/163, 4-6=-274/162

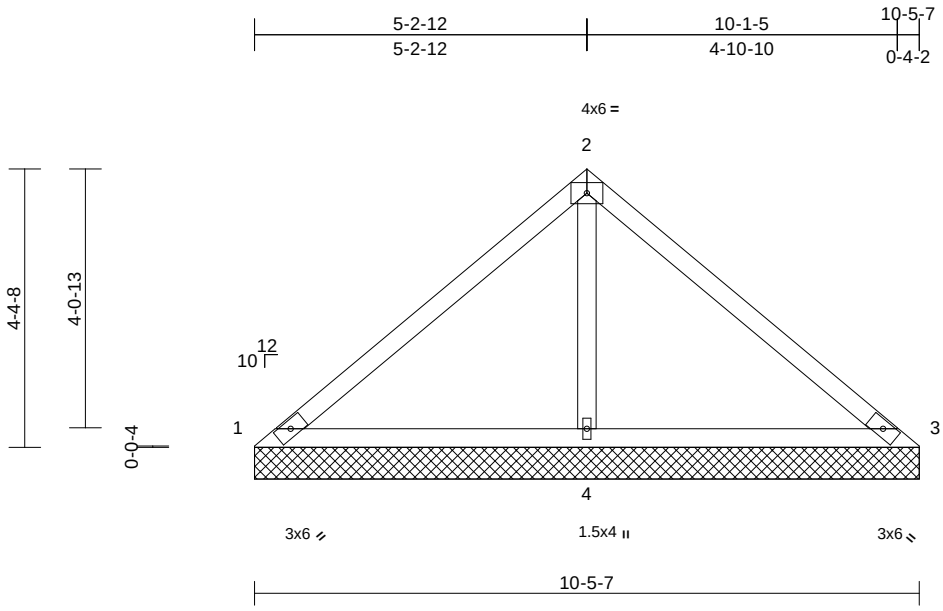
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-0-5 to 4-6-11, Exterior (2) 4-6-11 to 6-5-7, Corner (3) 6-5-7 to 10-11-13, Exterior (2) 10-11-13 to 12-10-9 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
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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 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 20 lb uplift at joint 1, 113 lb uplift at joint 8 and 110 lb uplift at joint 6.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	V18	Valley	1	1	I56131997
					Job Reference (optional)



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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	0.39	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 40 lb	FT = 20%

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

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

REACTIONS (size) 1=10-5-7, 3=10-5-7, 4=10-5-7
Max Horiz 1=-81 (LC 8)
Max Uplift 1=-58 (LC 24), 3=-58 (LC 23), 4=-84 (LC 12)
Max Grav 1=46 (LC 23), 3=50 (LC 12), 4=855 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-107/388, 2-3=-107/388
BOT CHORD 1-4=-298/148, 3-4=-298/148
WEBS 2-4=-659/181

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) 0-0-5 to 4-6-11, Exterior (2) 4-6-11 to 5-3-0, Corner (3) 5-3-0 to 9-8-6, Exterior (2) 9-8-6 to 10-5-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 58 lb uplift at joint 1, 58 lb uplift at joint 3 and 84 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

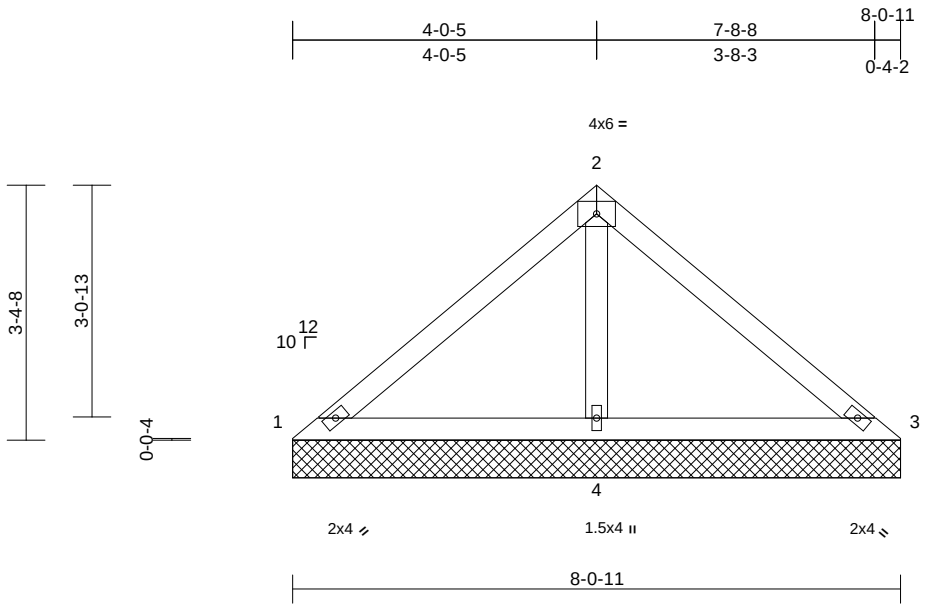
January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V19	Valley	1	1	Job Reference (optional)	I56131998

84 Components (Dunn), Dunn, NC - 28334,

Run: 8.63 S Nov 19 2022 Print: 8.630 S Nov 19 2022 MiTek Industries, Inc. Fri Jan 13 10:17:17 ID:UOMKEgOerbY19y1fq54cUty6LH?-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f



Scale = 1:30.5

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	0.35	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.21	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.11	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 30 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 8-0-11 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=8-0-11, 3=8-0-11, 4=8-0-11
Max Horiz 1=62 (LC 11)
Max Uplift 1=-16 (LC 24), 3=-16 (LC 23), 4=-45 (LC 12)
Max Grav 1=64 (LC 23), 3=64 (LC 24), 4=580 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-58/233, 2-3=-58/233
BOT CHORD 1-4=-182/98, 3-4=-182/98
WEBS 2-4=-419/110

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Corner (3) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 16 lb uplift at joint 1, 16 lb uplift at joint 3 and 45 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V20	Valley	1	1	Job Reference (optional)	I56131999

84 Components (Dunn), Dunn, NC - 28334,

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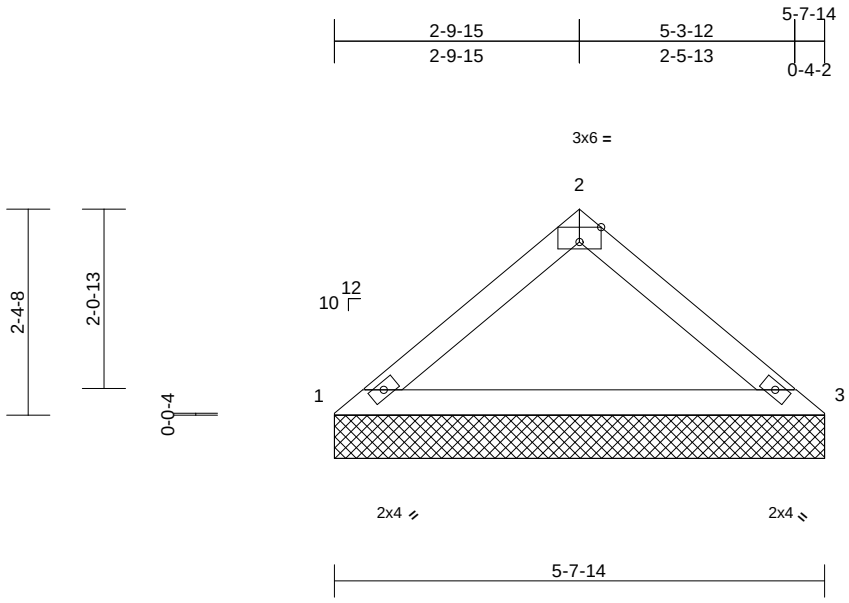


Scale = 1:26.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.33	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.01	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 18 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 5-7-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=5-7-14, 3=5-7-14
Max Horiz 1=42 (LC 11)
Max Uplift 1=-3 (LC 12), 3=-3 (LC 13)
Max Grav 1=226 (LC 1), 3=226 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-315/39, 2-3=-315/39
BOT CHORD 1-3=-22/238

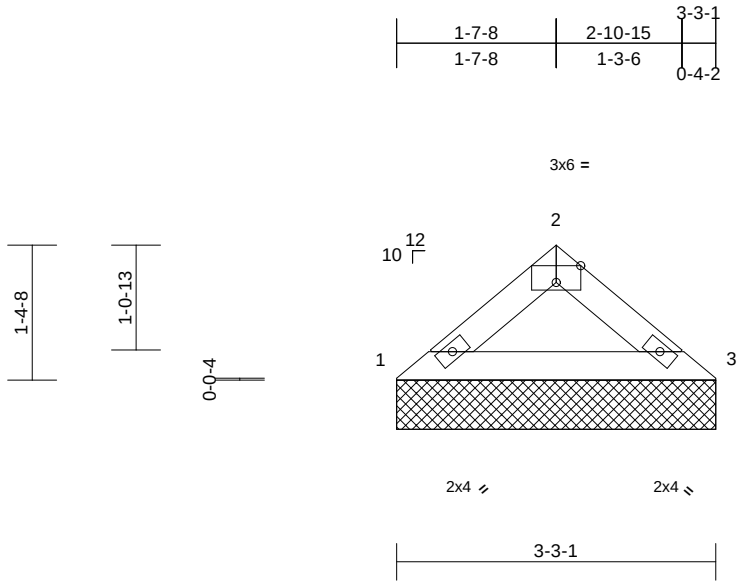
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 3 lb uplift at joint 1 and 3 lb uplift at joint 3.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY	
34893A	V21	Valley	1	1	Job Reference (optional)	I56132000



Scale = 1:23.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horiz(TL)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 10 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 3-3-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (size) 1=3-3-1, 3=3-3-1
Max Horiz 1=-23 (LC 10)
Max Uplift 1=-2 (LC 12), 3=-2 (LC 13)
Max Grav 1=130 (LC 1), 3=130 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-170/21, 2-3=-170/21
BOT CHORD 1-3=-10/127

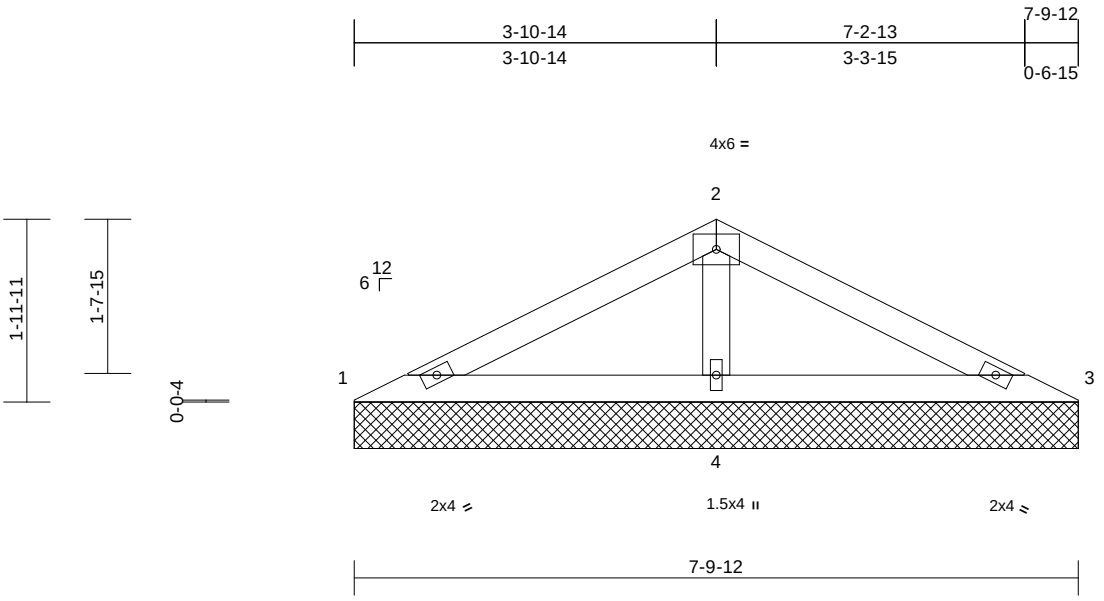
NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=115mph (3-second gust) Vasd=91mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 2 lb uplift at joint 1 and 2 lb uplift at joint 3.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S) Standard

January 17,2023

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

Job	Truss	Truss Type	Qty	Ply	5 SERENITY
34893A	V22	Valley	1	1	I56132001
					Job Reference (optional)



Scale = 1:24.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.15	TC	0.29	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.07	Horiz(TL)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 25 lb	FT = 20%

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

BRACING
TOP CHORD Structural wood sheathing directly applied or 7-9-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS (size) 1=7-9-12, 3=7-9-12, 4=7-9-12
Max Horiz 1=-24 (LC 13)
Max Uplift 1=-5 (LC 12), 3=-10 (LC 13), 4=-8 (LC 12)
Max Grav 1=80 (LC 23), 3=80 (LC 24), 4=517 (LC 1)

FORCES (lb) - Maximum Compression/Maximum Tension
TOP CHORD 1-2=-86/246, 2-3=-86/246
BOT CHORD 1-4=-195/95, 3-4=-195/95
WEBS 2-4=-354/117

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=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) exterior zone and C-C Exterior (2) 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) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
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 1-00-00 wide will fit between the bottom chord and any other members.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 5 lb uplift at joint 1, 10 lb uplift at joint 3 and 8 lb uplift at joint 4.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

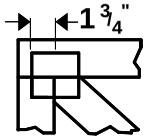
LOAD CASE(S) Standard

January 17,2023

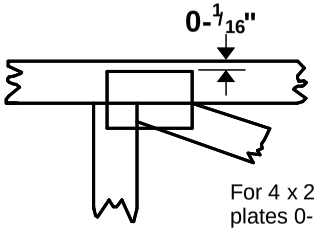
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

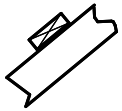
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

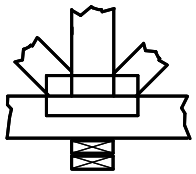
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

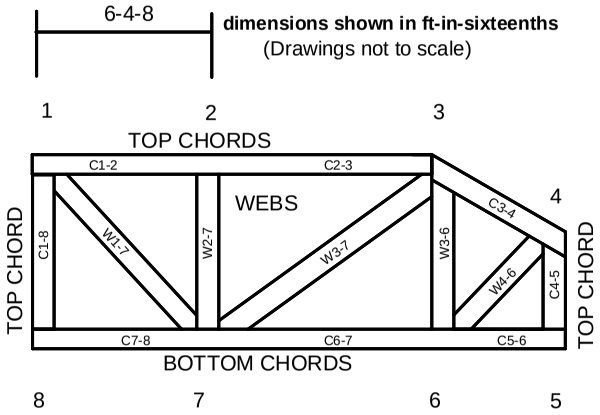


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & 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-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

MiTek Engineering Reference Sheet: MII-7473 rev. 5/19/2020

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.