ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 32380-32380A
60 SERENITY - ROOF

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: I53551680 thru I53551712

My license renewal date for the state of North Carolina is December 31, 2022.

North Carolina COA: C-0844

August 10,2022

Gilbert, Eric

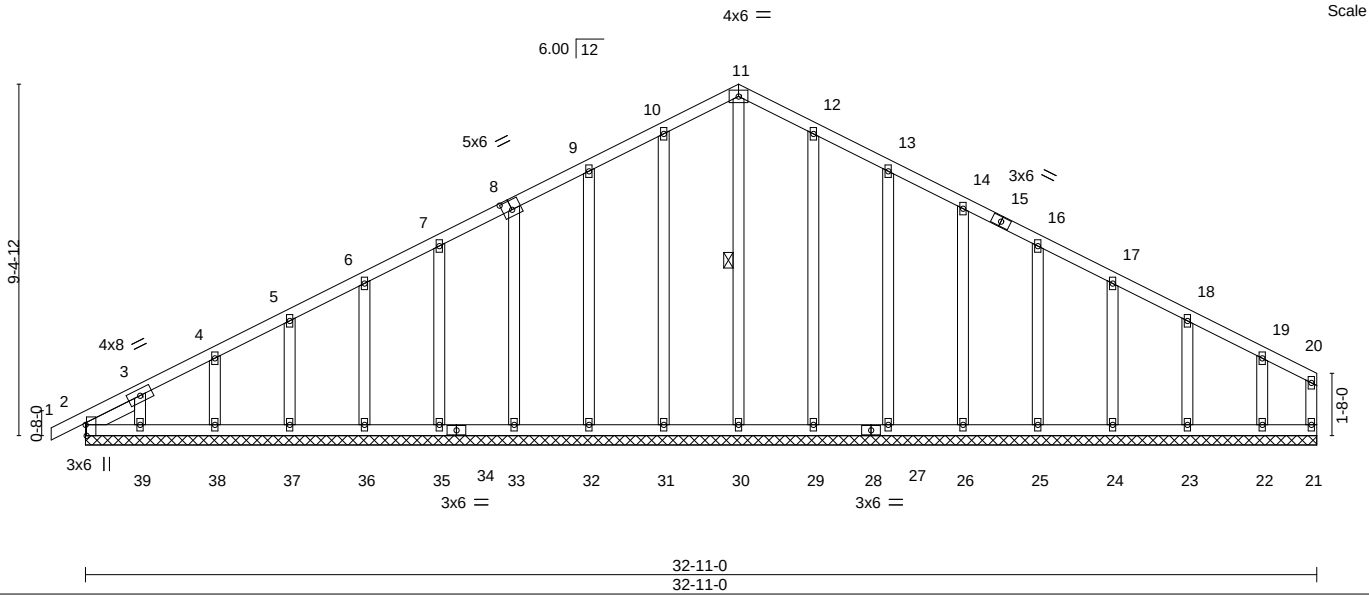
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which 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	60 SERENITY - ROOF
32380-32380A	A1E	Common Supported Gable	1	1	I53551680
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:19 2022 Page 1
ID:MZhk5Z0e?OVdVqlZdr5xTXypp1p-k3fIZz67BqOvmpbWjGkTkzwWO6g8vXSDArMAjeypnnc

-0-11-0 17-5-8 32-11-0
0-11-0 17-5-8 15-5-8

Scale = 1:61.6



32-11-0
32-11-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	21	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 225 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.2 or 2x4 SPF No.2
SLIDER	Left 2x4 SP No.3 1-5-14

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.
WEBS	1 Row at midpt 11-30

REACTIONS. All bearings 32-11-0.
(lb) - Max Horz 2=136(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 31, 32, 33, 35, 36, 37, 38, 39, 29, 27, 26, 25, 24, 23, 22
Max Grav All reactions 250 lb or less at joint(s) 21, 2, 30, 31, 32, 33, 35, 36, 37, 38, 39, 29, 27, 26, 25, 24, 23, 22

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-120/284, 11-12=-120/284

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) All plates are 2x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 31, 32, 33, 35, 36, 37, 38, 39, 29, 27, 26, 25, 24, 23, 22.

August 10,2022

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	A2	Common	2	1	I53551681
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:21 2022 Page 1
ID:MZhk5Z0e?OVdVqlZdr5xTXypp1p-gSn2_f7NjSfd07kvrhmxpO?gsw9WNOiVd9rHoWypnna

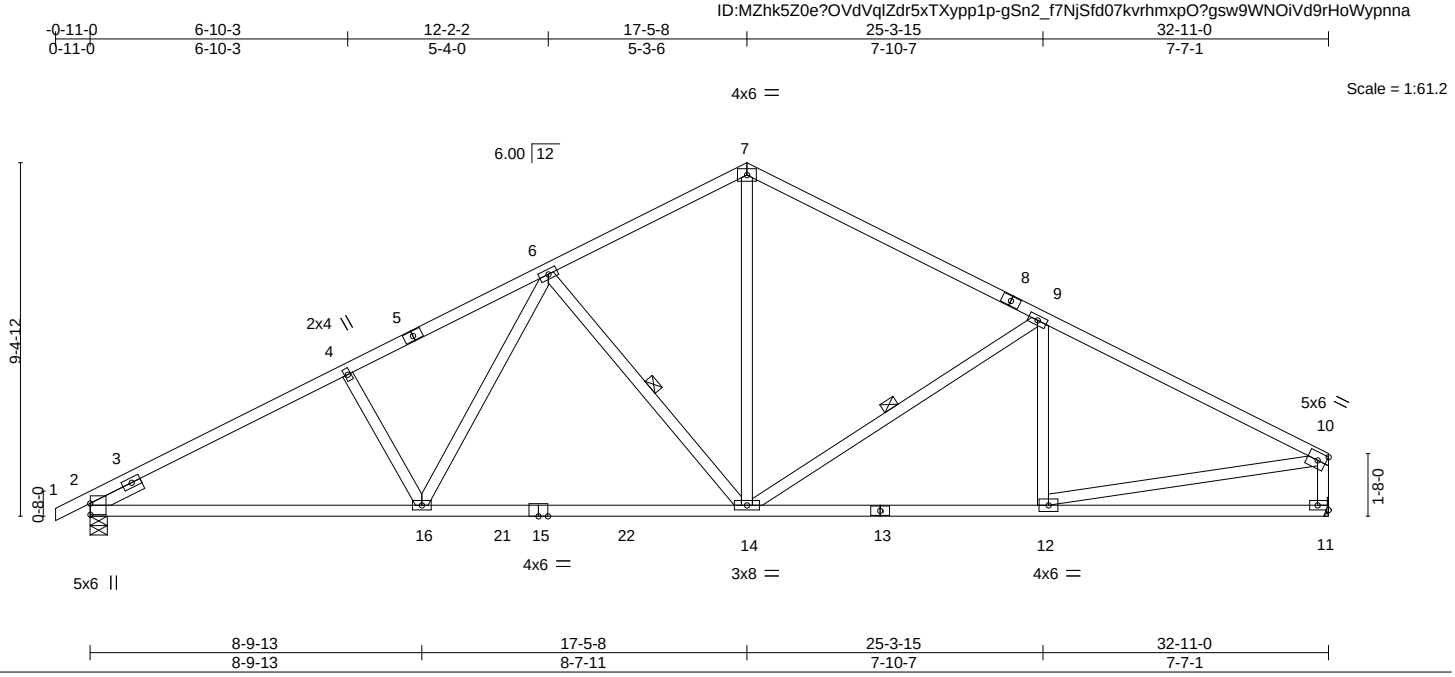

Plate Offsets (X,Y)-- [2:0-3-9,0-0-1], [11:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.25	14-16	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.43	14-16	>912	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.36	Horz(CT)	0.07	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 182 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
10-11: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-14, 9-14

REACTIONS. (size) 2=0-5-8, 11=Mechanical
Max Horz 2=138(LC 14)
Max Uplift 2=-92(LC 10), 11=-64(LC 11)
Max Grav 2=1367(LC 1), 11=1310(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2208/379, 4-6=-2047/402, 6-7=-1418/348, 7-9=-1464/336, 9-10=-1819/321, 10-11=-1239/240
BOT CHORD 2-16=-256/1899, 14-16=-152/1564, 12-14=-172/1551
WEBS 4-16=-281/169, 6-16=-50/474, 6-14=-594/193, 7-14=-145/842, 9-14=-474/170, 10-12=-164/1449

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 11.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	A3	Common	5	1	I53551682
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:22 2022 Page 1
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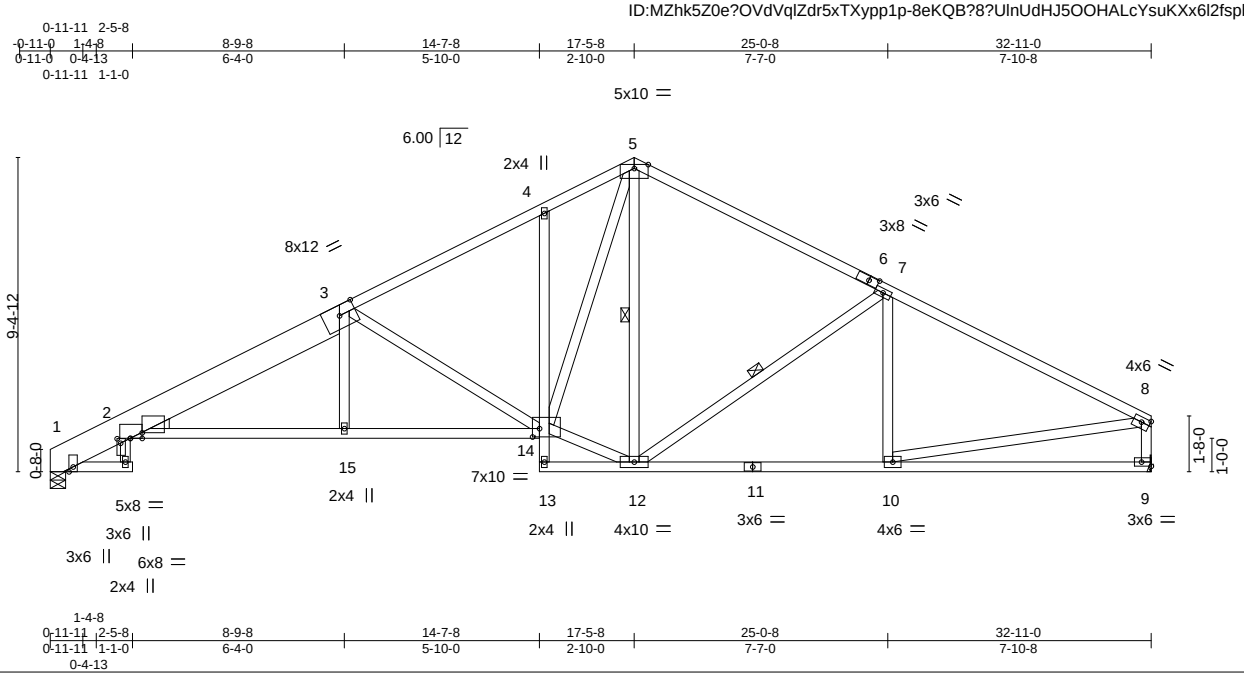

Plate Offsets (X,Y)-- [2:0-4-4,0-2-0], [2:0-1-10,0-1-4], [2:0-4-4,0-0-0], [6:0-3-9,0-1-8], [8:Edge,0-1-12], [9:Edge,0-1-8], [14:0-2-8,0-3-0]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.82	Vert(LL)	-0.14	15-20	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.29	14-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.16	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 219 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2 *Except*
1-3: 2x10 SP DSS
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
8-9: 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 5-12, 7-12

REACTIONS. (size) 9=Mechanical, 1=0-5-8
Max Horz 1=128(LC 14)
Max Uplift 9=-63(LC 11), 1=-67(LC 10)
Max Grav 9=1303(LC 1), 1=1319(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-582/104, 2-3=-2519/405, 3-4=-1851/368, 4-5=-1772/437, 5-7=-1441/338, 7-8=-1810/318, 8-9=-1230/240
BOT CHORD 2-15=-270/2299, 14-15=-267/2305, 4-14=-253/131, 10-12=-165/1538
WEBS 3-15=0/275, 3-14=-852/195, 12-14=0/1218, 5-14=-208/1188, 7-12=-484/166, 8-10=-152/1421

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9, 1.

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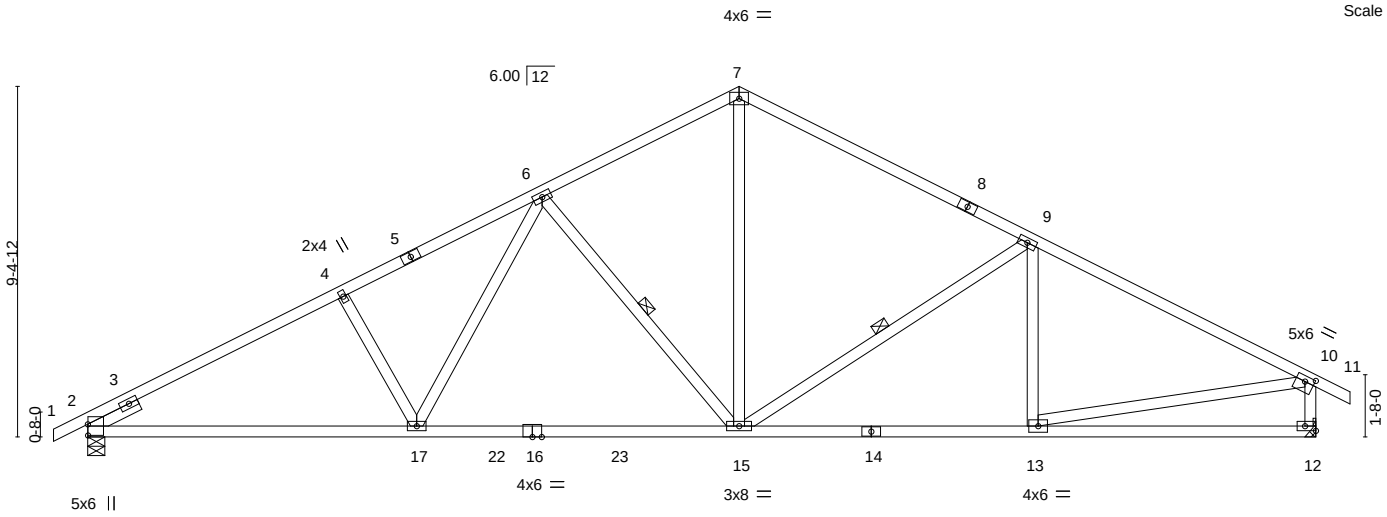
Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	A4	COMMON	5	1	I53551683
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:23 2022 Page 1
ID:MZhk5Z0e?OVdVqlZdr5xTXypp1p-cquoPL9eF3vLFQuIy6oPup40Ejr?rIOo5TKOsPypnnY

-0-11-0 6-10-3 12-2-2 17-5-8 25-3-15 32-11-0 33-10-0
0-11-0 6-10-3 5-4-0 5-3-6 7-10-7 7-7-1 0-11-0

Scale = 1:61.8



8-9-13 17-5-8 25-3-15 32-11-0
8-9-13 8-7-11 7-10-7 7-7-1

Plate Offsets (X,Y)-- [2:0-3-9,0-0-1], [10:0-3-0,0-1-12], [12:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.25	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.43	15-17	>914	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 184 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
10-12: 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 6-15, 9-15

REACTIONS. (size) 2=0-5-8, 12=Mechanical
Max Horz 2=130(LC 14)
Max Uplift 2=-93(LC 10), 12=-81(LC 11)
Max Grav 2=1366(LC 1), 12=1375(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2206/380, 4-6=-2045/403, 6-7=-1416/348, 7-9=-1461/336, 9-10=-1815/324, 10-12=-1304/289
BOT CHORD 2-17=-226/1897, 15-17=-122/1562, 13-15=-140/1541
WEBS 4-17=-281/169, 6-17=-50/474, 6-15=-594/193, 7-15=-144/837, 9-15=-465/168, 10-13=-123/1401

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 12.

August 10,2022

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF	
32380-32380A	A5E	GABLE	1	1	Job Reference (optional)	I53551684

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:24 2022 Page 1
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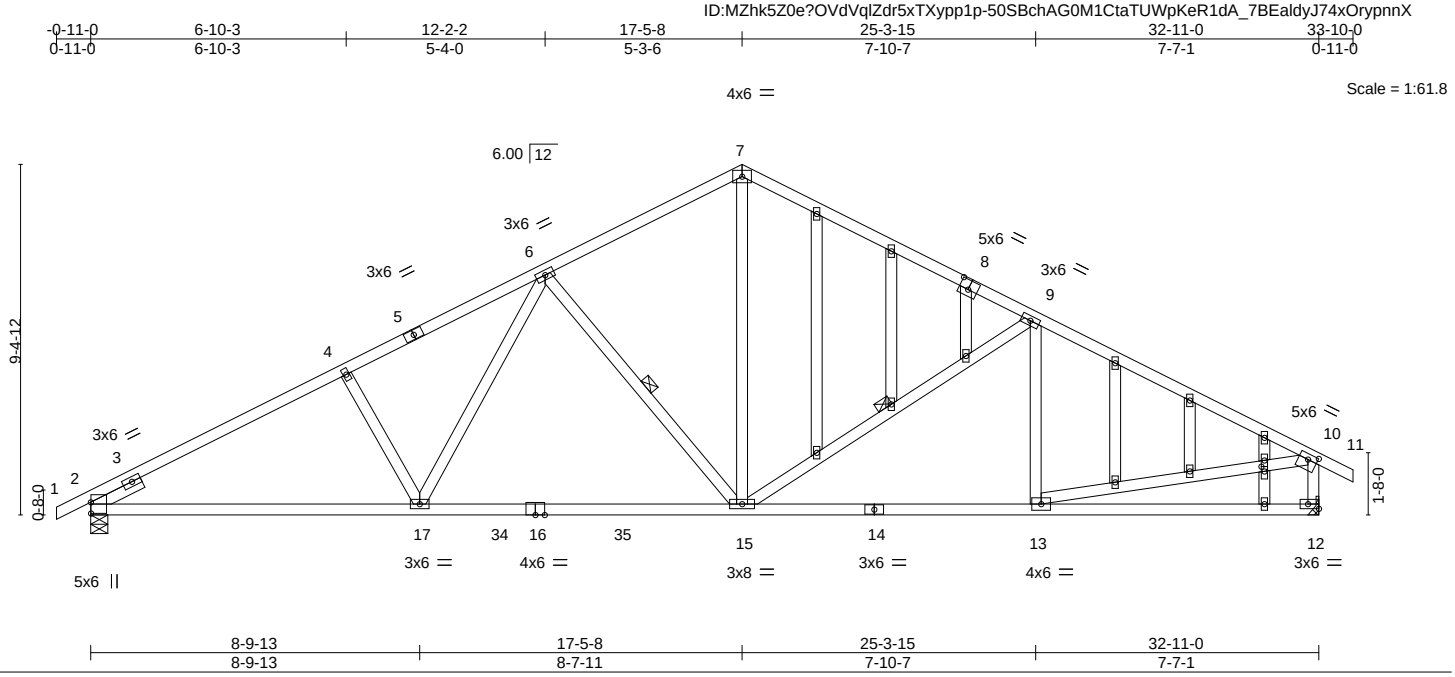

Plate Offsets (X,Y)-- [2:0-3-9,0-0-1], [8:0-3-0,0-3-0], [10:0-3-0,0-1-12], [12:Edge,0-1-8], [29:0-1-9,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.84	Vert(LL)	-0.25	15-17	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.43	15-17	>914	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 213 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.2 or 2x4 SPF No.2 *Except* 10-12: 2x4 SP No.3
OTHERS	2x4 SP No.2 or 2x4 SPF No.2
SLIDER	Left 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 6-15, 9-15

REACTIONS. (size) 2=0-5-8, 12=Mechanical
Max Horz 2=130(LC 14)
Max Uplift 2=-93(LC 10), 12=-81(LC 11)
Max Grav 2=1366(LC 1), 12=1375(LC 1)

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

TOP CHORD	2-4=-2206/380, 4-6=-2045/403, 6-7=-1416/348, 7-9=-1461/336, 9-10=-1815/324, 10-12=-1304/289
BOT CHORD	2-17=-226/1897, 15-17=-122/1562, 13-15=-140/1541
WEBS	4-17=-281/169, 6-17=-50/474, 6-15=-594/193, 7-15=-144/837, 9-15=-465/168, 10-13=-123/1401

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 12.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	B1E	Common Supported Gable	1	1	I53551685
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:26 2022 Page 1
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-0-11-0 / 0-11-0 | 15-5-8 / 15-5-8 | 30-11-0 / 15-5-8

Scale = 1:55.6

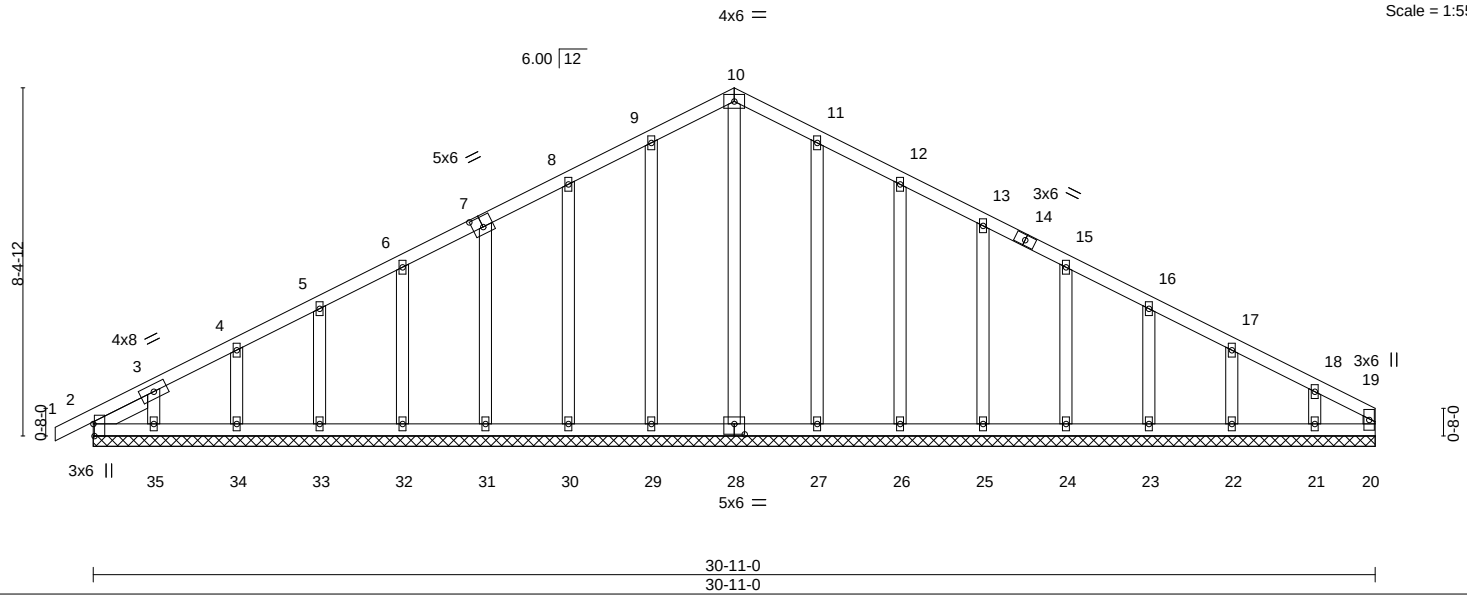

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [7:0-3-0,0-3-0], [28:0-3-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.00	20	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 194 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.2 or 2x4 SPF No.2
SLIDER	Left 2x4 SP No.3 1-5-14

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. All bearings 30-11-0.
(lb) - Max Horz 2=119(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, 21
Max Grav All reactions 250 lb or less at joint(s) 20, 2, 28, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, 21

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) All plates are 2x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 29, 30, 31, 32, 33, 34, 35, 27, 26, 25, 24, 23, 22, 21.

August 10,2022

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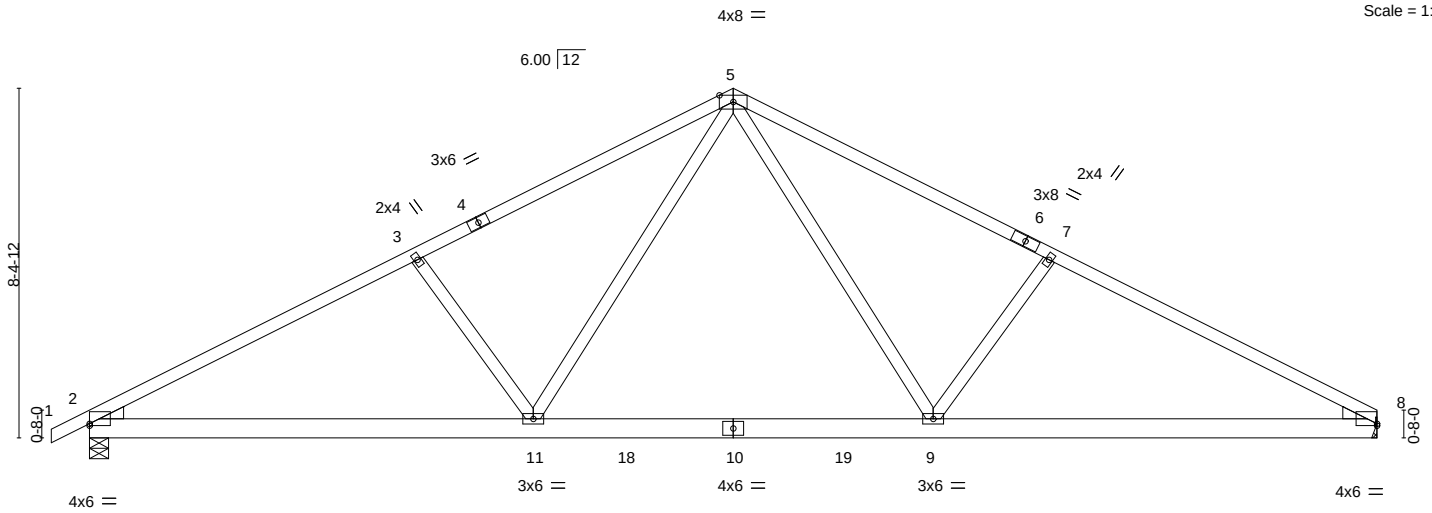
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	B2	Common	6	1	I53551686
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:27 2022 Page 1
ID:MZhk5Z0e?OVdVqlZdr5xTXypp1p-Vb8JFiC8JHPnk2C3BytL2fFgOLHUn7aO05Ic?AypnnU

-0-11-0 / 0-11-0 | 7-10-8 / 7-10-8 | 15-5-8 / 7-7-0 | 23-0-8 / 7-7-0 | 30-11-0 / 7-10-8

Scale = 1:55.3



10-7-14 / 10-7-14 | 20-3-2 / 9-7-4 | 30-11-0 / 10-7-14

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.19	9-11	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.29	9-11	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 168 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 or 2x4 SPF 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) 2=0-5-8, 8=Mechanical
Max Horz 2=123(LC 14)
Max Uplift 2=-83(LC 10), 8=-68(LC 11)
Max Grav 2=1292(LC 1), 8=1236(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2091/376, 3-5=-1828/384, 5-7=-1831/386, 7-8=-2094/379
BOT CHORD 2-11=-247/1782, 9-11=-62/1201, 8-9=-249/1786
WEBS 5-9=-94/696, 7-9=-453/244, 5-11=-90/692, 3-11=-452/243

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 8.

August 10,2022

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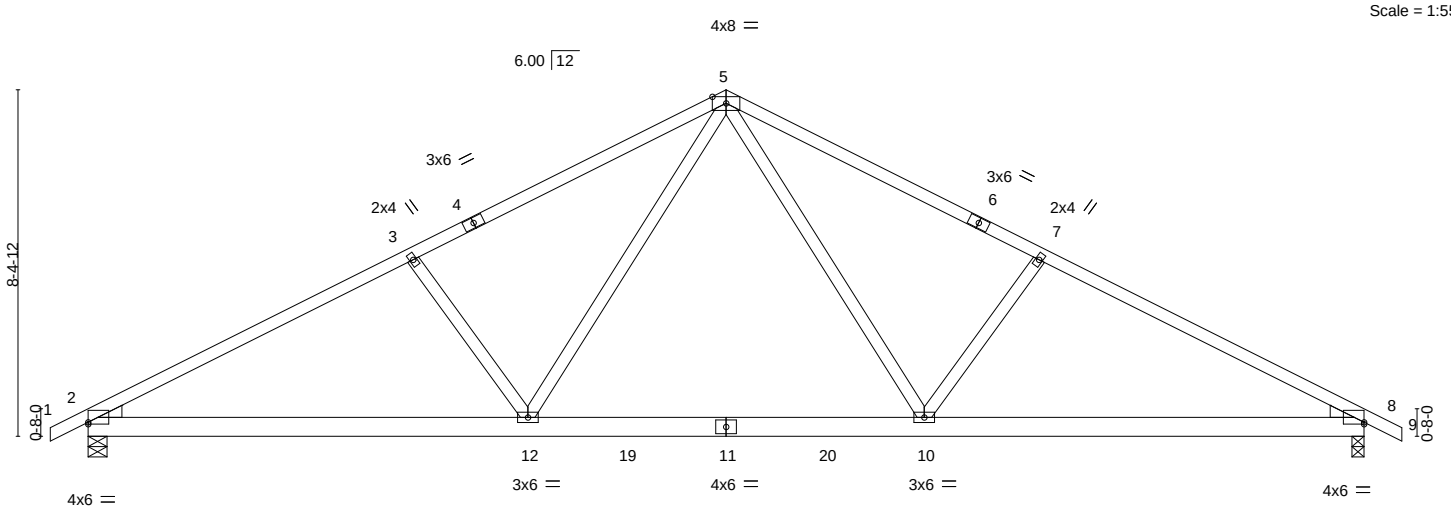
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	B3	COMMON	3	1	I53551687
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:28 2022 Page 1
ID:MZhk5Z0e?OVdVqlZdr5xTXypp1p-zoihS2Dm3bXeLCnFlfOabtor8kdsWaqXEl29XcypnnT

-0-11-0 7-10-8 15-5-8 23-0-8 30-11-0 31-10-0
0-11-0 7-10-8 7-7-0 7-7-0 7-10-8 0-11-0

Scale = 1:55.8



10-7-14 20-3-2 30-11-0
10-7-14 9-7-4 10-7-14

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.18	10-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.28	10-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.20	Horz(CT)	0.05	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 170 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 or 2x4 SPF 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) 2=0-5-8, 8=0-3-8
Max Horz 2=-116(LC 11)
Max Uplift 2=-83(LC 10), 8=-83(LC 11)
Max Grav 2=1292(LC 1), 8=1292(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2089/375, 3-5=-1826/383, 5-7=-1826/383, 7-8=-2089/375
BOT CHORD 2-12=-219/1781, 10-12=-35/1200, 8-10=-219/1781
WEBS 5-10=-91/686, 7-10=-451/243, 5-12=-91/686, 3-12=-451/243

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

August 10,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	C1E	GABLE	1	1	I53551688
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:29 2022 Page 1
ID:MZhk5Z0e?OVdVqlZdr5xTXypp1p-R_G4fODOqvfUzLLRJNvp84KCY84sF38hTPni43ypnnS

0-11-0 6-9-8 13-7-0 14-6-0
0-11-0 6-9-8 6-9-8 0-11-0

3x6 =

Scale = 1:37.4

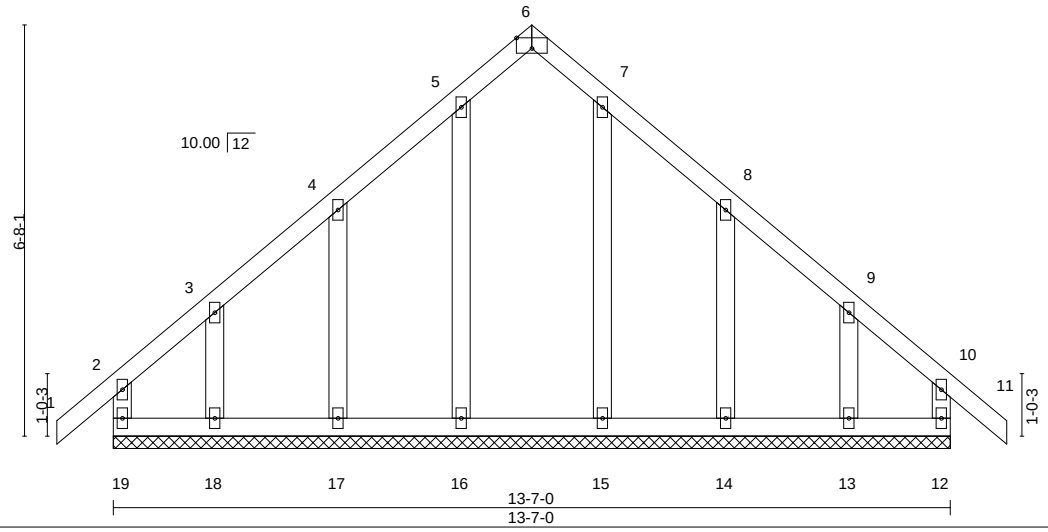

Plate Offsets (X,Y)-- [6:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.15	Vert(LL)	-0.00	11	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 84 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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. All bearings 13-7-0.
(lb) - Max Horz 19=160(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 19, 12, 17, 14 except 18=-127(LC 10), 13=-125(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 19, 12, 16, 17, 18, 15, 14, 13

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 19, 12, 17, 14 except (jt=lb) 18=127, 13=125.

August 10,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	C2G	Common Girder	1	2	I53551689
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:31 2022 Page 1
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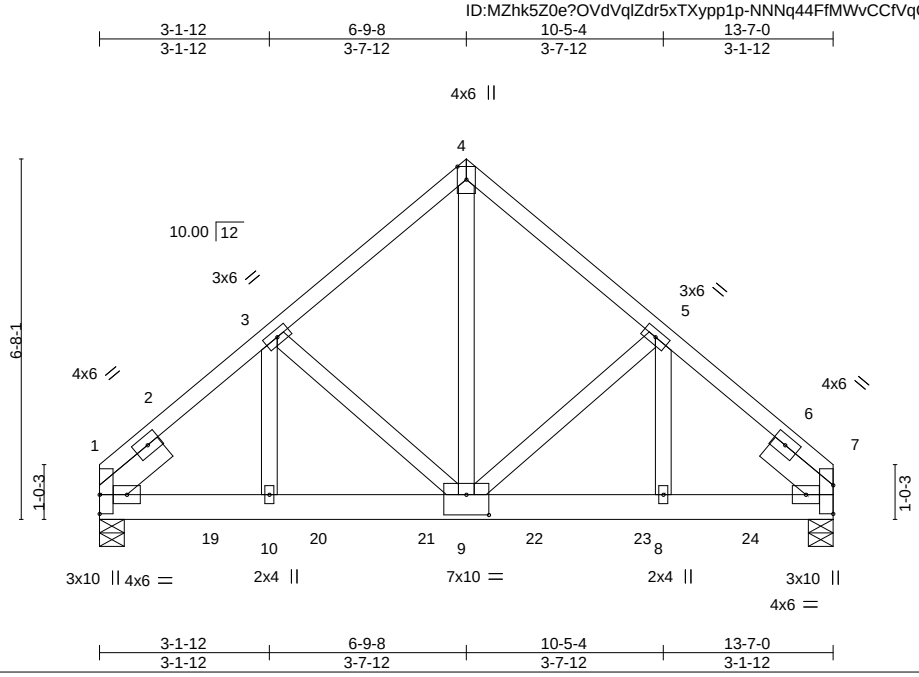

Plate Offsets (X,Y)-- [9:0-5-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.54	Vert(LL)	-0.05	9-10	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.86	Vert(CT)	-0.10	9-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.51	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 193 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2
SLIDER Left 2x6 SP No.2 1-6-0, Right 2x6 SP No.2 1-6-0

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-6 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 Horz 1=-119(LC 23)
Max Uplift 1=-248(LC 8), 7=-267(LC 9)
Max Grav 1=4046(LC 1), 7=4336(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-3=-4611/311, 3-4=-3512/292, 4-5=-3513/292, 5-7=-4681/315
BOT CHORD 1-10=-261/3421, 9-10=-261/3421, 8-9=-203/3483, 7-8=-203/3483
WEBS 4-9=-291/4141, 5-9=-1087/170, 5-8=-84/1434, 3-9=-1005/164, 3-10=-76/1347

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.
Webs 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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 1=248, 7=267.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1216 lb down and 88 lb up at 2-0-12, 1216 lb down and 88 lb up at 4-0-12, 1216 lb down and 88 lb up at 6-0-12, 1216 lb down and 88 lb up at 8-0-12, and 1216 lb down and 88 lb up at 10-0-12, and 1216 lb down and 88 lb up at 12-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-4=-60, 4-7=-60, 11-15=-20

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Continued on page 2

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Edenton, NC 27932

LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 19=-1216(F) 20=-1216(F) 21=-1216(F) 22=-1216(F) 23=-1216(F) 24=-1216(F)

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	C3E	GABLE	1	1	I53551690
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:33 2022 Page 1
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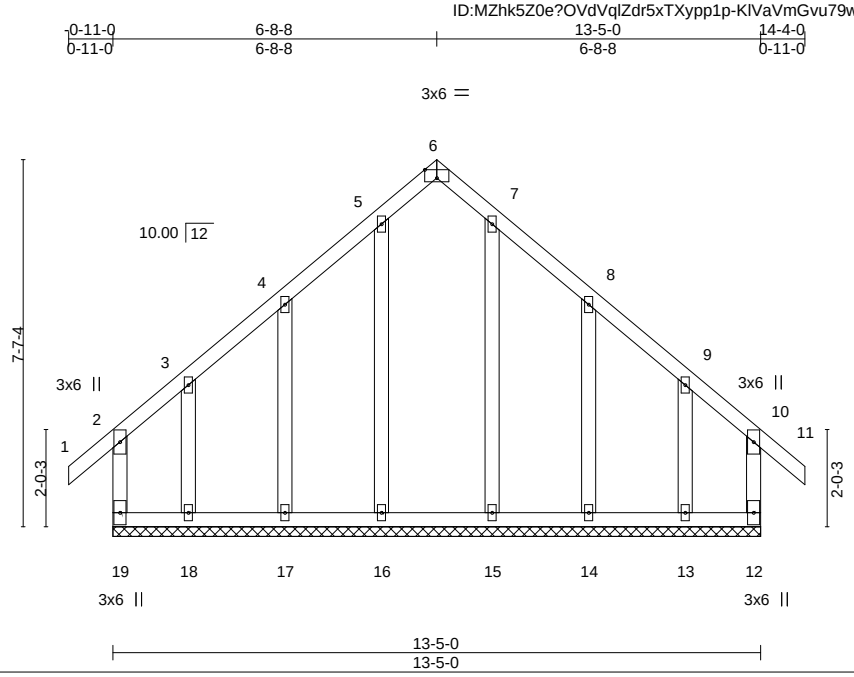

Plate Offsets (X,Y)-- [6:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.00	11	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	11	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	-0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 94 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2
OTHERS 2x4 SP No.2 or 2x4 SPF 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. All bearings 13-5-0.
(lb) - Max Horz 19=-189(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 17, 14 except 19=-135(LC 6), 12=-128(LC 7), 18=-155(LC 7), 13=-150(LC 6)
Max Grav All reactions 250 lb or less at joint(s) 19, 12, 16, 17, 18, 15, 14, 13

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 17, 14 except (jt=lb) 19=135, 12=128, 18=155, 13=150.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	C4G	Common Girder	1	2	I53551691
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:34 2022 Page 1
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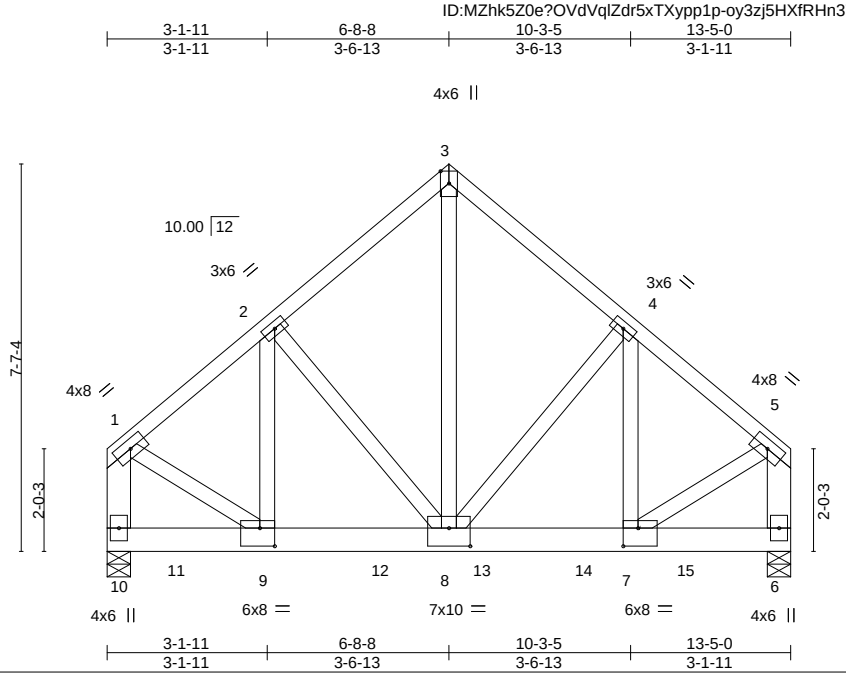

Plate Offsets (X,Y)-- [7:0-3-8,0-4-4], [8:0-5-0,0-4-4], [9:0-3-8,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	-0.03	7-8	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.06	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.42	Horz(CT)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 222 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.2 or 2x4 SPF No.2 *Except*
1-10,5-6: 2x6 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) 10=0-5-8, 6=0-5-8
Max Horz 10=-169(LC 4)
Max Uplift 10=-252(LC 9), 6=-225(LC 8)
Max Grav 10=4599(LC 1), 6=4142(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3480/228, 2-3=-2914/248, 3-4=-2914/248, 4-5=-3439/226, 1-10=-3779/220, 5-6=-3766/219
BOT CHORD 9-10=-163/257, 8-9=-200/2625, 7-8=-136/2594
WEBS 3-8=-240/3413, 4-8=-647/132, 4-7=-87/701, 2-8=-695/135, 2-9=-91/765, 1-9=-140/2858, 5-7=-142/2884

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 0-7-0 oc.
Webs 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=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) except (jt=lb) 10=252, 6=225.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1283 lb down and 83 lb up at 1-4-4, 1283 lb down and 83 lb up at 3-4-4, 1283 lb down and 83 lb up at 5-4-4, 1283 lb down and 83 lb up at 7-4-4, and 1283 lb down and 83 lb up at 9-4-4, and 1290 lb down and 84 lb up at 11-4-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

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Continued on page 2

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LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-3=-60, 3-5=-60, 6-10=-20
   Concentrated Loads (lb)
   Vert: 9=-1283(F) 11=-1283(F) 12=-1283(F) 13=-1283(F) 14=-1283(F) 15=-1290(F)

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	D1E	Common Supported Gable	1	1	I53551692
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:35 2022 Page 1
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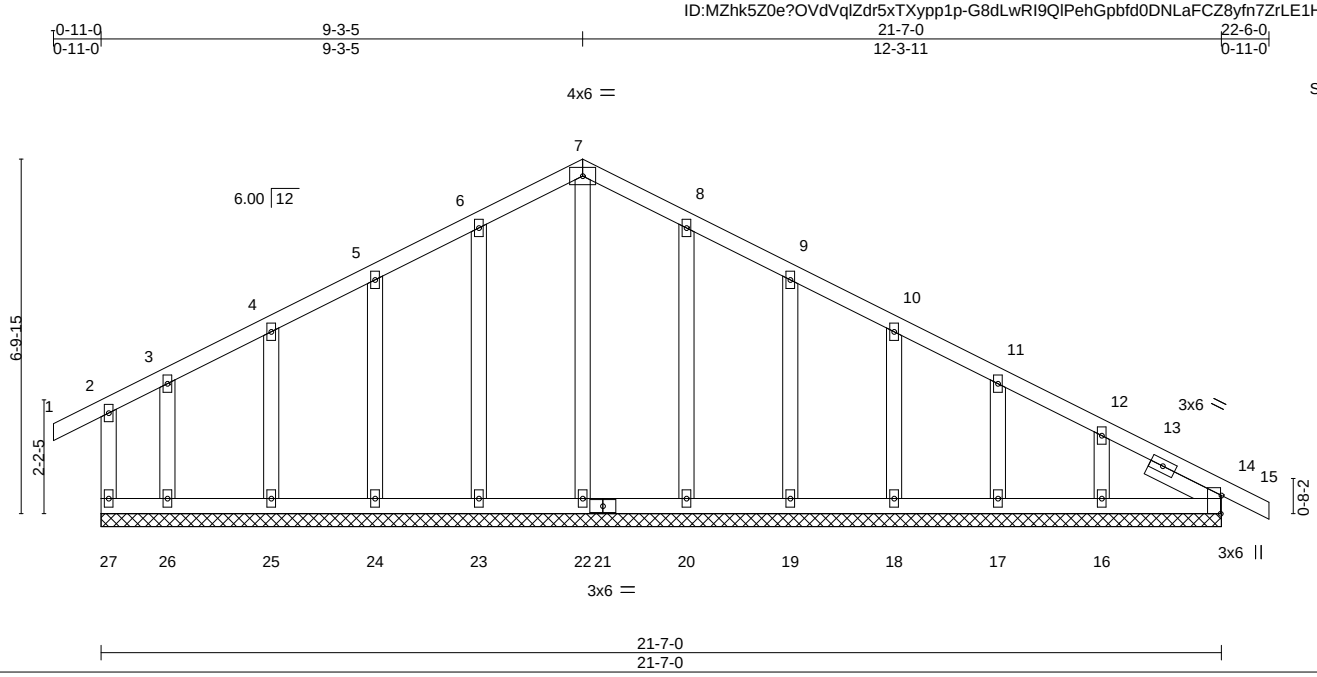

Plate Offsets (X,Y)-- [14:0-4-3,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.08	Vert(LL)	-0.00	14	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	14	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	14	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 132 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3 *Except* 7-22: 2x4 SP No.2 or 2x4 SPF No.2
SLIDER	Right 2x4 SP No.3 1-6-8

BRACING-

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

REACTIONS. All bearings 21-7-0.
(lb) - Max Horz 27=-112(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 27, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14
Max Grav All reactions 250 lb or less at joint(s) 27, 22, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) All plates are 2x4 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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 27, 23, 24, 25, 26, 20, 19, 18, 17, 16, 14.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	D2	Common	4	1	I53551693
					Job Reference (optional)

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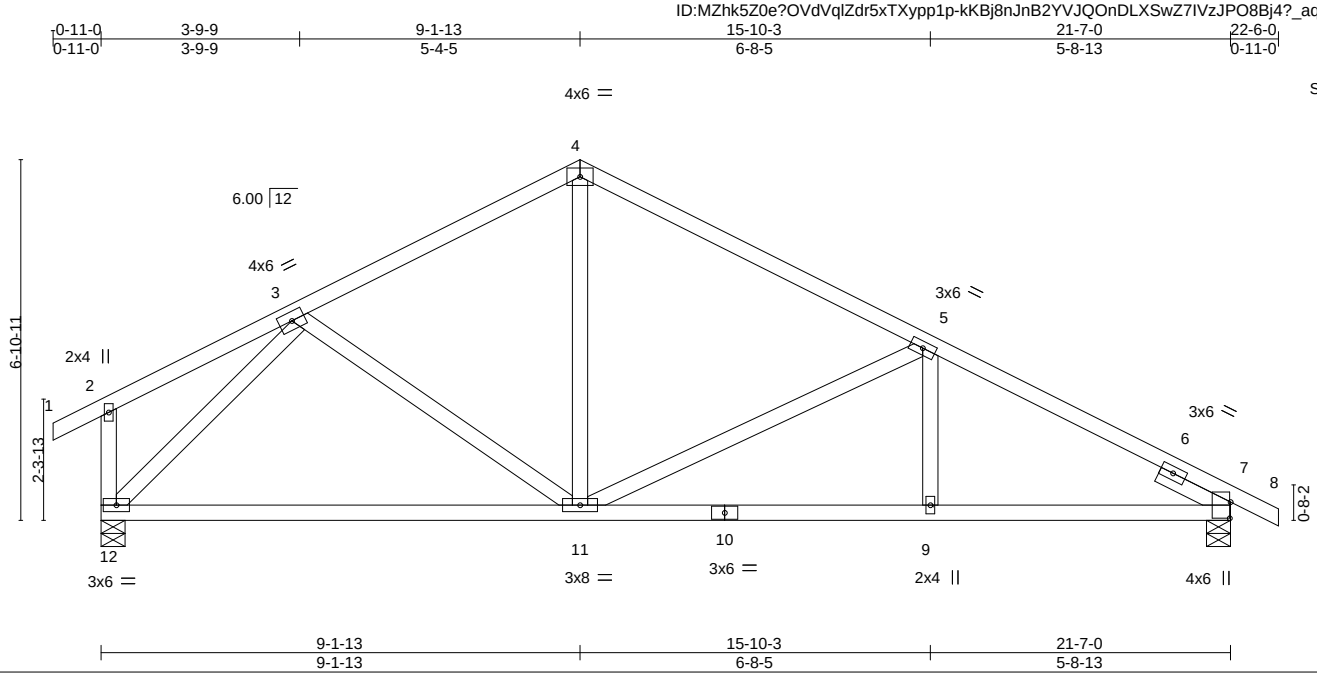

Plate Offsets (X,Y)-- [7:0-3-11,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.17	11-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.35	11-12	>743	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.04	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 118 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF No.2
WEBS	2x4 SP No.2 or 2x4 SPF No.2 *Except* 2-12: 2x4 SP No.3
SLIDER	Right 2x4 SP No.3 1-6-0

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 4-5-7 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 12=0-5-8, 7=0-5-8
Max Horz 12=-117(LC 8)
Max Uplift 12=-51(LC 10), 7=-70(LC 11)
Max Grav 12=922(LC 1), 7=912(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-873/208, 4-5=-894/202, 5-7=-1356/242
BOT CHORD 11-12=-61/655, 9-11=-125/1163, 7-9=-125/1163
WEBS 4-11=-29/434, 5-11=-520/172, 3-12=-910/157

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 12, 7.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	E1E	Common Supported Gable	1	1	I53551694
					Job Reference (optional)

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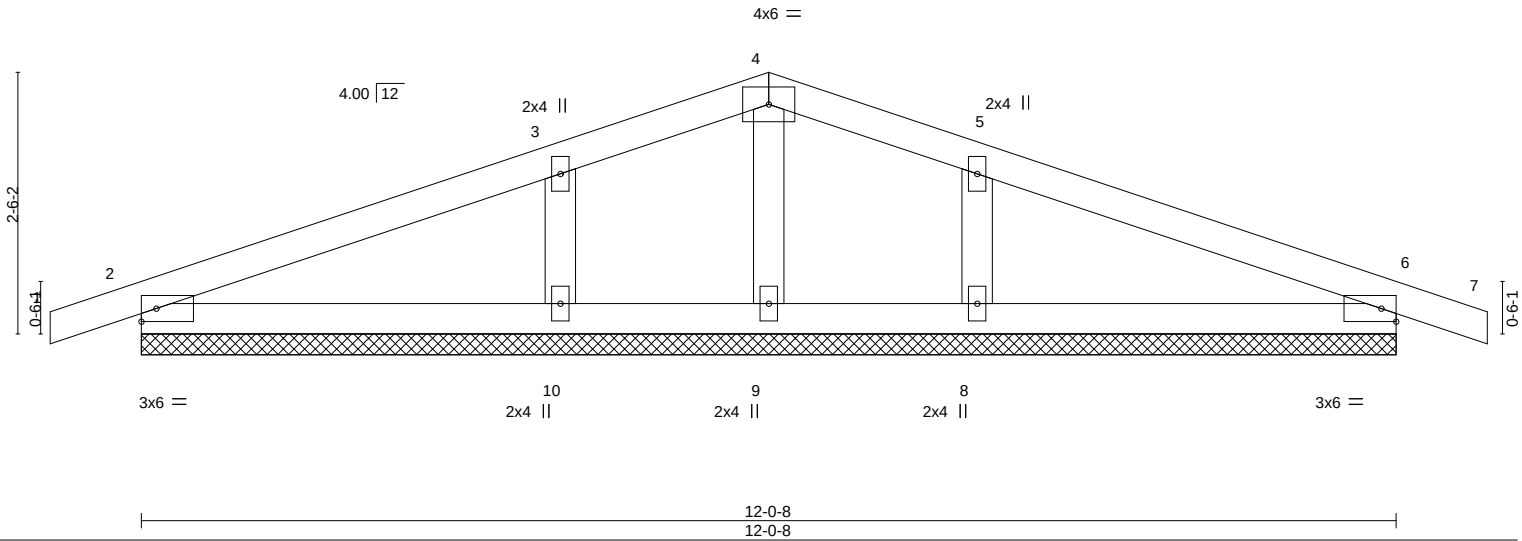
-0-10-8 6-0-4 12-0-8 12-11-0
0-10-8 6-0-4 6-0-4 0-10-8

Scale = 1:22.1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	0.00	7	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.01	7	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 46 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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. All bearings 12-0-8.
(lb) - Max Horz 2=-33(LC 15)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 10, 8
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 9 except 10=328(LC 1), 8=328(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 6, 10, 8.
9) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 6.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	E2	Common	5	1	I53551695
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:38 2022 Page 1
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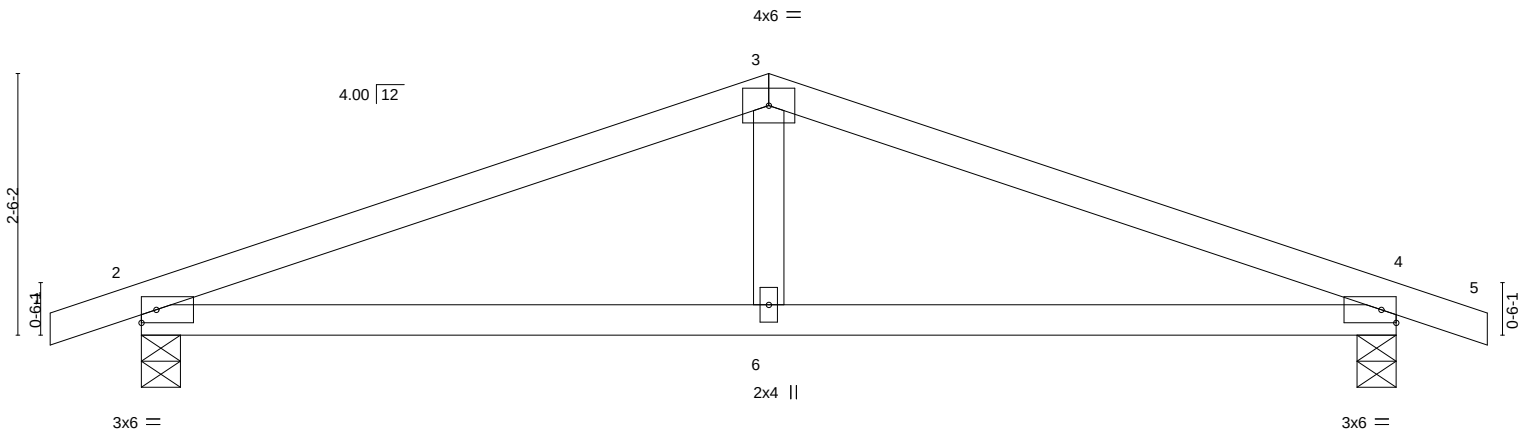
-0-10-8 | 6-0-4 | 12-0-8 | 12-11-0
0-10-8 | 6-0-4 | 6-0-4 | 0-10-8

Scale = 1:22.1



6-0-4 | 12-0-8
6-0-4 | 6-0-4

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.44	Vert(LL)	-0.04	6-12	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.07	6-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS							Weight: 43 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-4-8, 4=0-4-8
Max Horz 2=-33(LC 15)
Max Uplift 2=-65(LC 6), 4=-65(LC 7)
Max Grav 2=534(LC 1), 4=534(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-826/171, 3-4=-826/171
BOT CHORD 2-6=-91/730, 4-6=-91/730
WEBS 3-6=0/256

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 4.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	M1	MONO TRUSS	6	1	I53551696
					Job Reference (optional)

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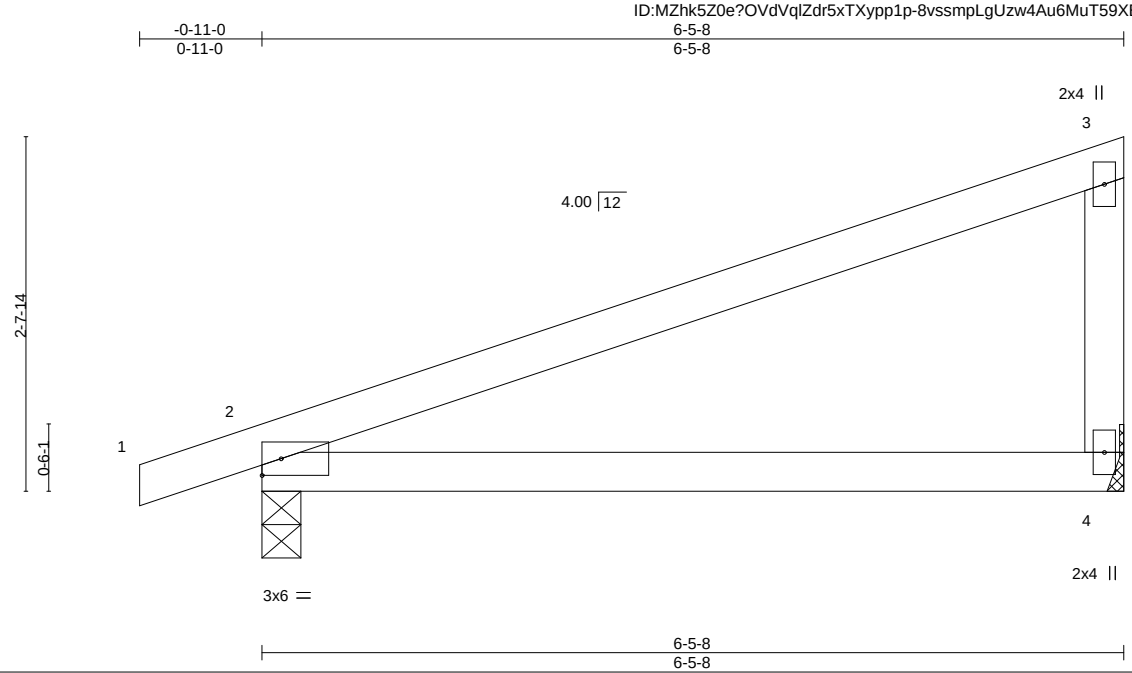

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.64	Vert(LL)	-0.06	4-7	>999	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.16	4-7	>476	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 24 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 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) 2=0-3-8, 4=Mechanical
Max Horz 2=86(LC 9)
Max Uplift 2=-53(LC 6), 4=-34(LC 10)
Max Grav 2=311(LC 1), 4=249(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 4.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	M1GE	Monopitch Supported Gable	1	1	I53551697 Job Reference (optional)

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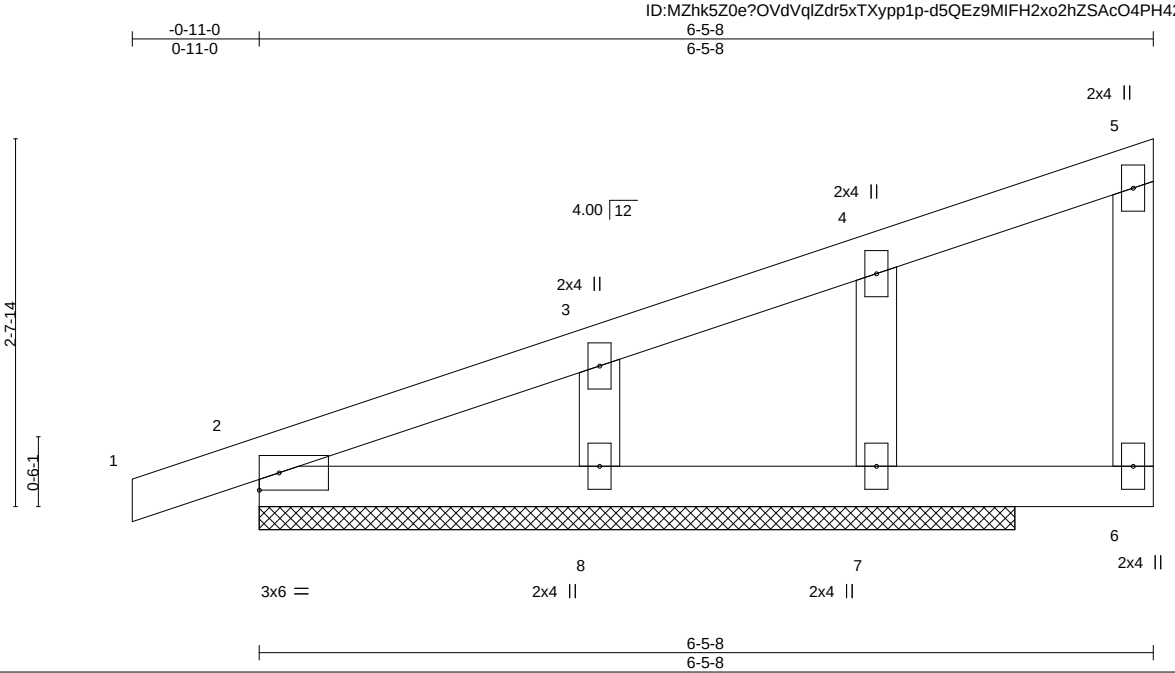

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 28 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 2=5-5-8, 7=5-5-8, 8=5-5-8
Max Horz 2=85(LC 7)
Max Uplift 2=-28(LC 6), 7=-32(LC 10), 8=-29(LC 10)
Max Grav 2=149(LC 1), 7=279(LC 1), 8=132(LC 1)

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

NOTES-

1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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 studs spaced at 2-0-0 oc.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 7, 8.

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Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	M2	MONO TRUSS	3	1	I53551698
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:40 2022 Page 1
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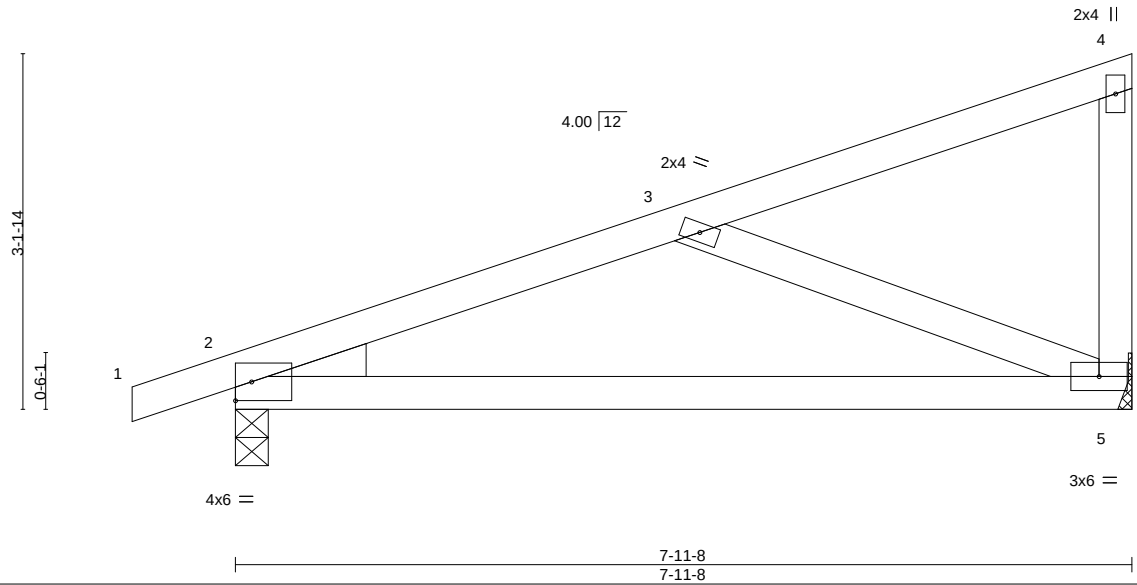

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.12	5-8	>803	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.23	5-8	>401	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.16	Horz(CT)	0.01	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 37 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3
WEDGE
Left: 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) 2=0-3-8, 5=Mechanical
Max Horz 2=104(LC 9)
Max Uplift 2=-58(LC 6), 5=-42(LC 10)
Max Grav 2=371(LC 1), 5=309(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-448/170
BOT CHORD 2-5=-145/411
WEBS 3-5=-440/204

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 5.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	M3	MONO TRUSS	6	1	I53551699
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:41 2022 Page 1
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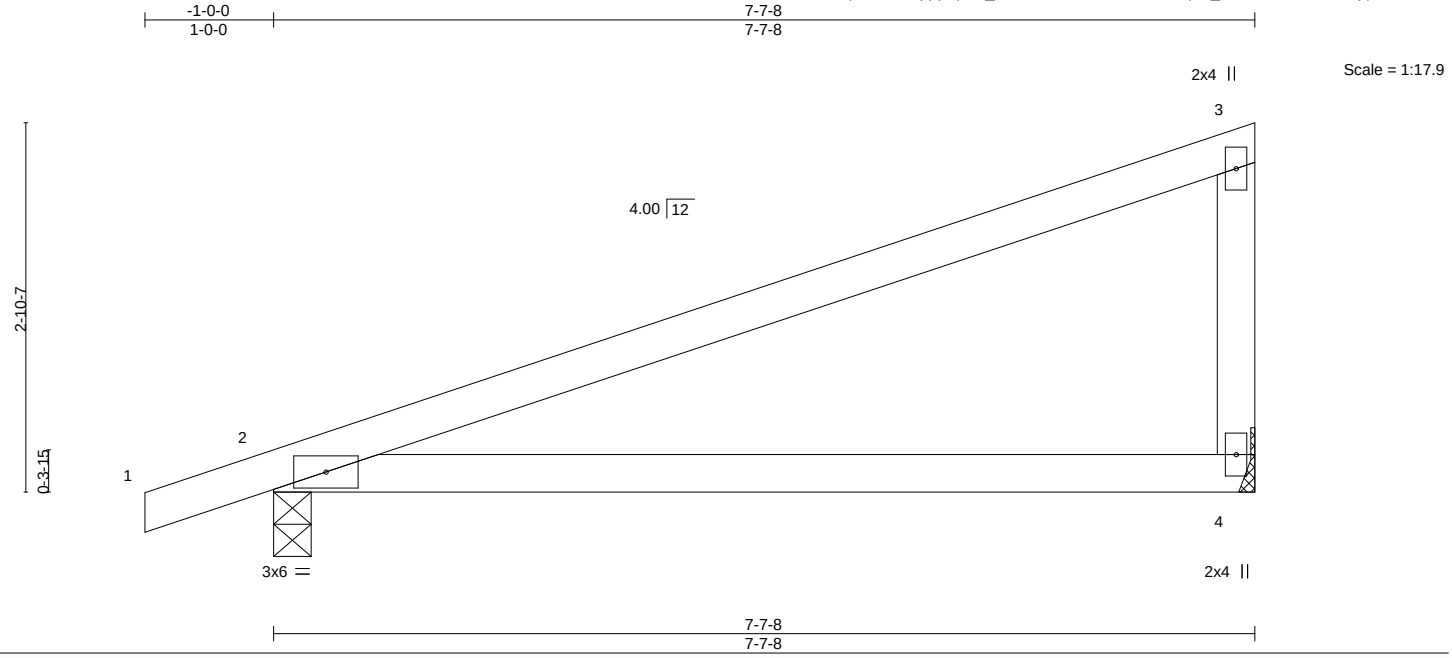

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.14	4-7	>642	240	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.32	4-7	>277	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
WEBS 2x4 SP No.3

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

REACTIONS. (size) 2=0-3-8, 4=Mechanical
Max Horz 2=96(LC 9)
Max Uplift 2=-61(LC 6), 4=-39(LC 10)
Max Grav 2=363(LC 1), 4=295(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 2, 4.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	M3GE	Monopitch Supported Gable	1	1	I53551700 Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:42 2022 Page 1
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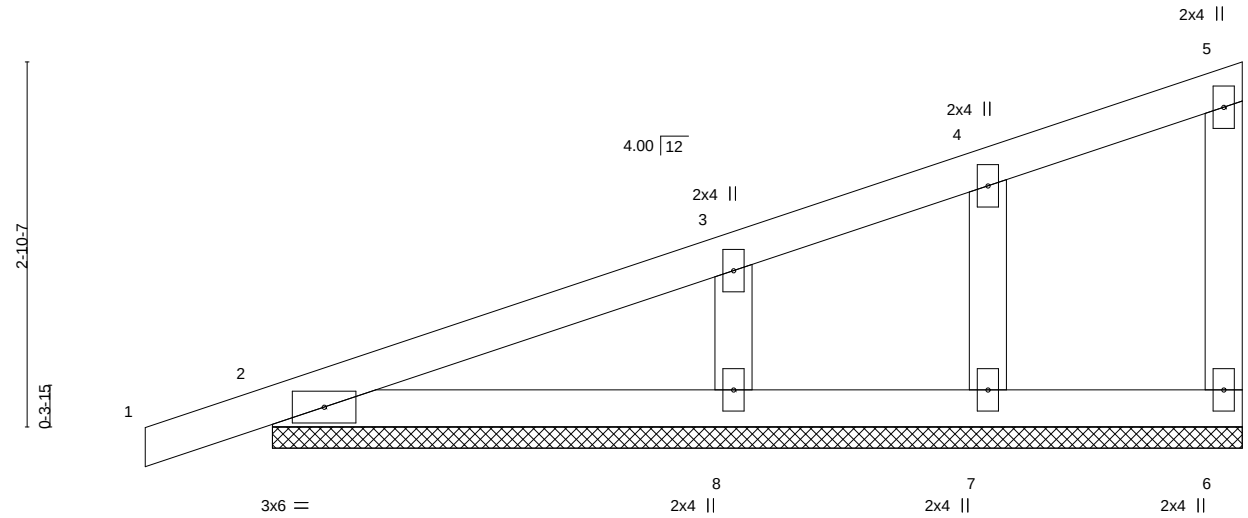

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	0.00	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	-0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 32 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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. All bearings 7-7-8.
(lb) - Max Horz 2=96(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 6, 2, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 6, 2, 7 except 8=276(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 6, 2, 7, 8.

August 10,2022

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	M4GE	GABLE	1	1	I53551701
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:42 2022 Page 1
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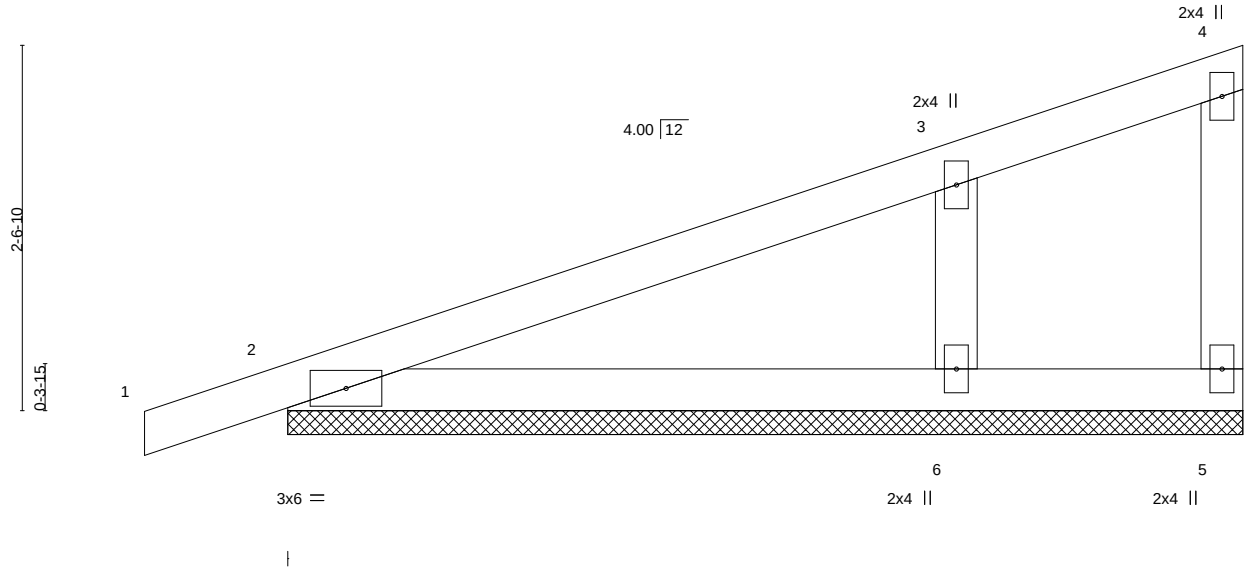
Scale: 3/4"=1'



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.00	1	n/r	120	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	0.01	1	n/r	90		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD	2x4 SP No.2 or 2x4 SPF 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=6-8-0, 2=6-8-0, 6=6-8-0
Max Horz 2=84(LC 7)
Max Uplift 5=-14(LC 18), 2=-43(LC 6), 6=-56(LC 10)
Max Grav 5=6(LC 10), 2=220(LC 1), 6=370(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-274/183

NOTES-

1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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 3-6-0 tall by 2-0-0 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 100 lb uplift at joint(s) 5, 2, 6.

August 10,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V1	GABLE	1	1	I53551702
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:43 2022 Page 1
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6-2-7 | 12-4-13
6-2-7 | 6-2-7

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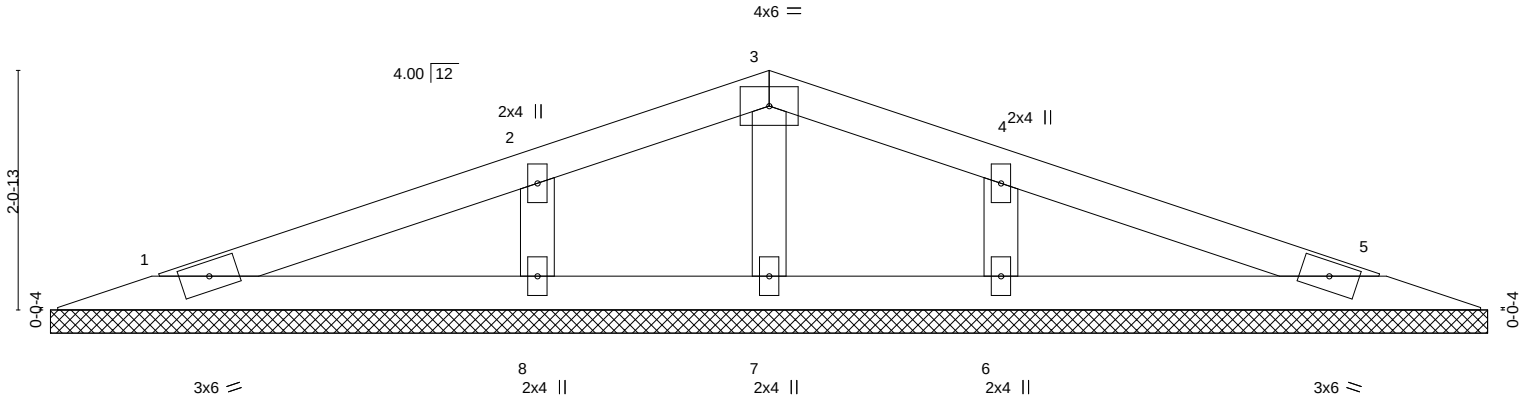

12-4-13
12-4-13

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 39 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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. All bearings 12-4-13.
(lb) - Max Horz 1=25(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 8, 6
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=276(LC 1), 6=276(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5, 8, 6.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V2	Valley	1	1	I53551703
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:46 2022 Page 1
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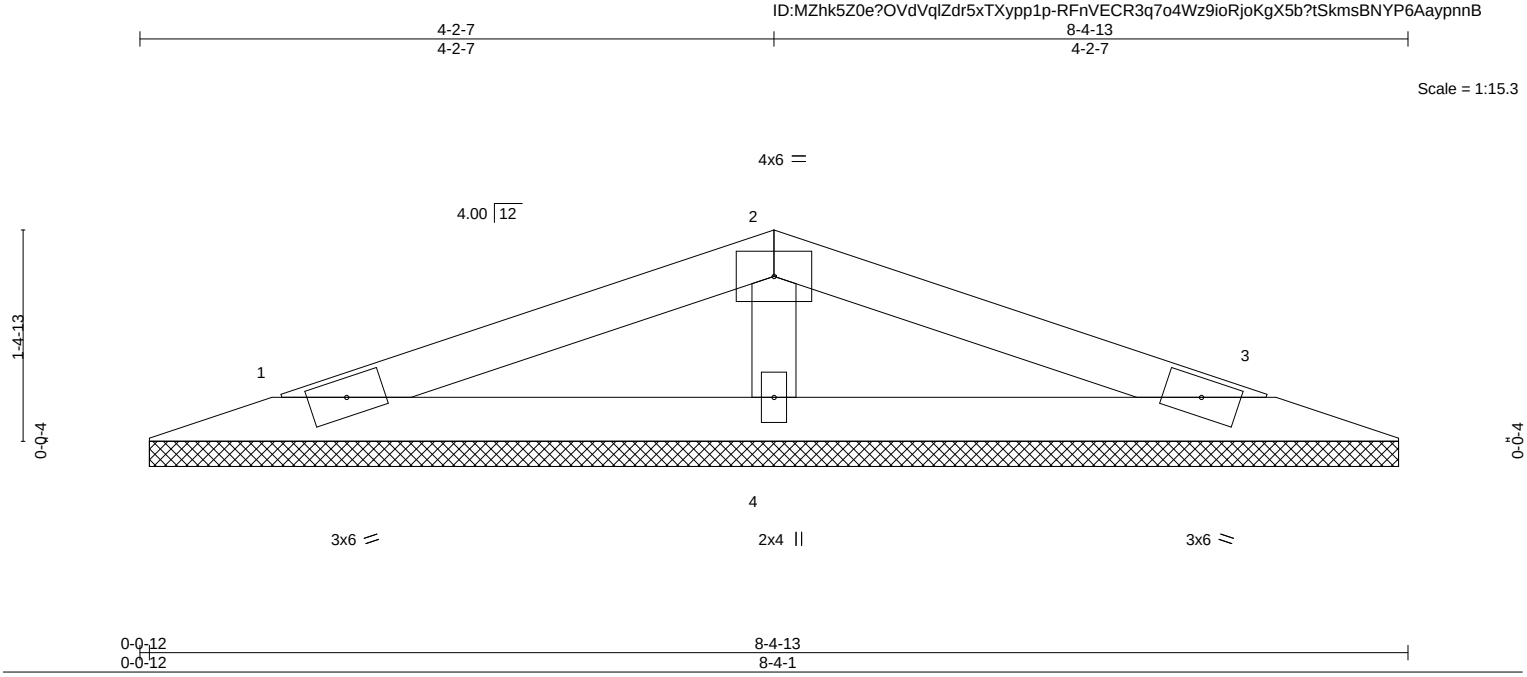

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 24 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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=8-3-5, 3=8-3-5, 4=8-3-5
Max Horz 1=16(LC 14)
Max Uplift 1=-21(LC 6), 3=-23(LC 7)
Max Grav 1=126(LC 1), 3=126(LC 1), 4=270(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V3	Valley	1	1	I53551704
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:47 2022 Page 1
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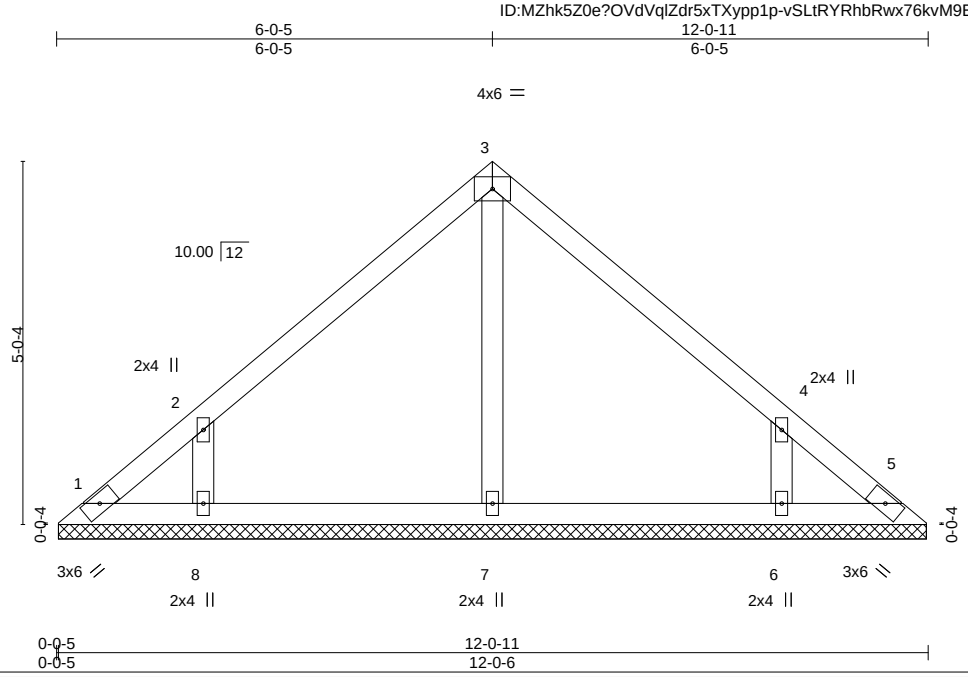

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.18	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 50 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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. All bearings 12-0-1.
(lb) - Max Horz 1=-99(LC 6)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-126(LC 10), 6=-126(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=311(LC 17), 6=311(LC 18)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=126, 6=126.

August 10,2022

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V4	Valley	1	1	I53551705
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:47 2022 Page 1
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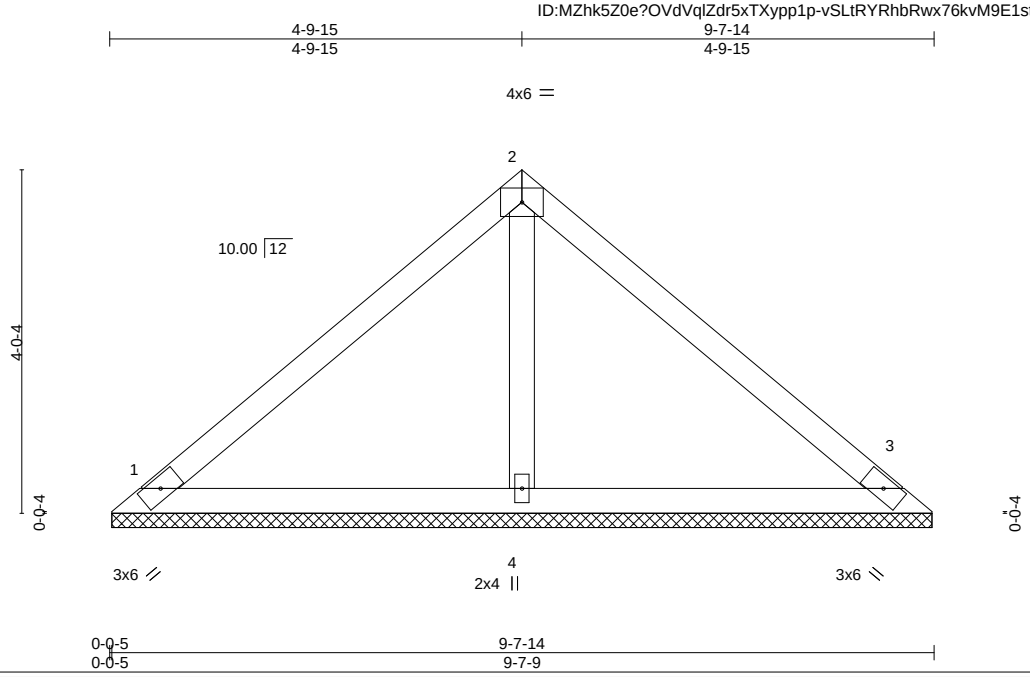

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.20	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 37 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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=9-7-4, 3=9-7-4, 4=9-7-4
Max Horz 1=-78(LC 6)
Max Uplift 1=-18(LC 11), 3=-28(LC 11)
Max Grav 1=187(LC 1), 3=187(LC 1), 4=333(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V5	Valley	1	1	I53551706
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:48 2022 Page 1
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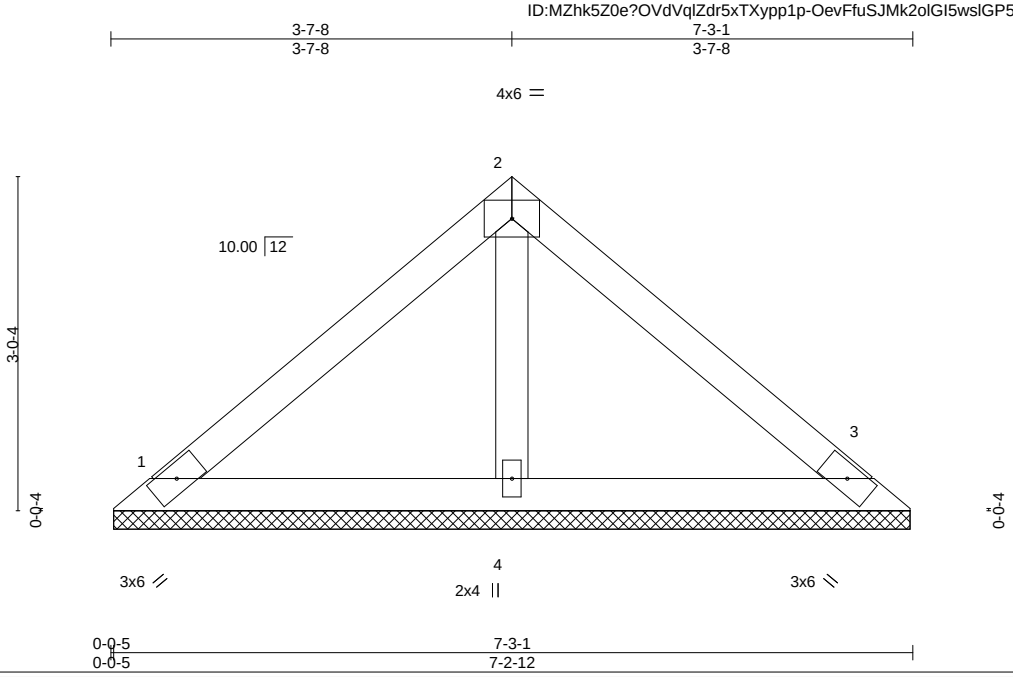

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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=7-2-7, 3=7-2-7, 4=7-2-7
Max Horz 1=-57(LC 6)
Max Uplift 1=-21(LC 11), 3=-28(LC 11)
Max Grav 1=148(LC 1), 3=148(LC 1), 4=220(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V6	Valley	1	1	I53551707
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:49 2022 Page 1
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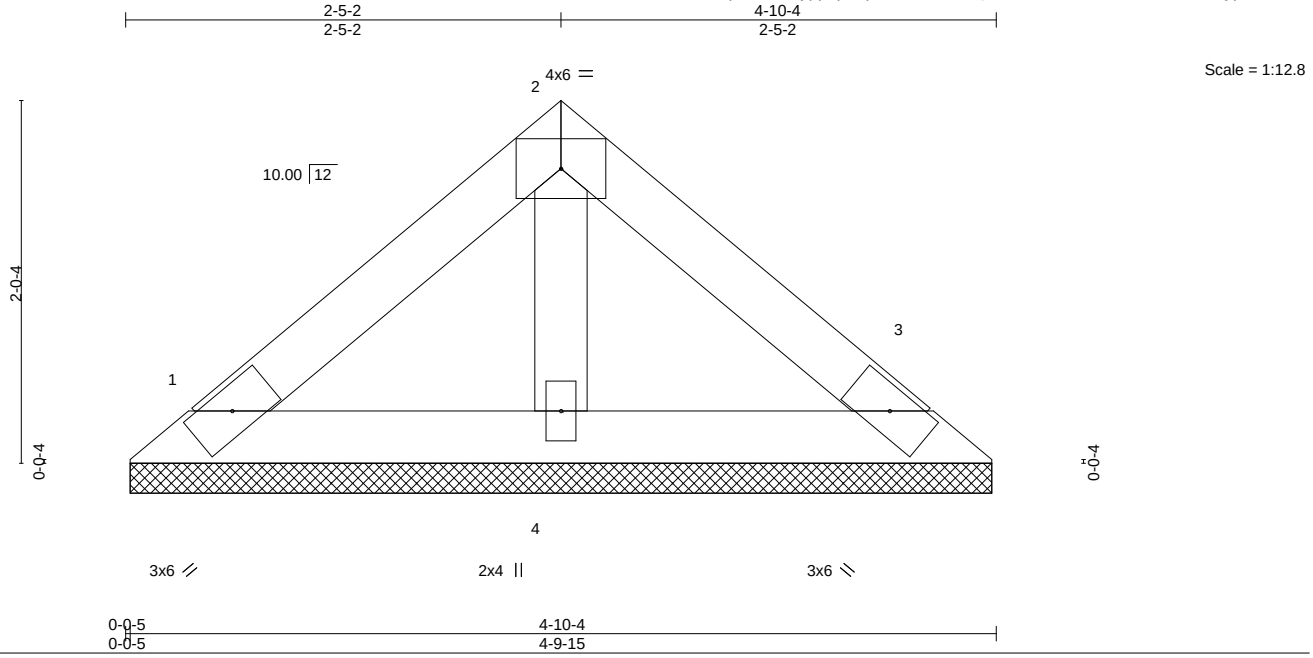

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 17 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2
OTHERS 2x4 SP No.3

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

REACTIONS. (size) 1=4-9-11, 3=4-9-11, 4=4-9-11
Max Horz 1=-36(LC 6)
Max Uplift 1=-13(LC 11), 3=-17(LC 11)
Max Grav 1=93(LC 1), 3=93(LC 1), 4=138(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V7	Valley	1	1	I53551708
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:50 2022 Page 1
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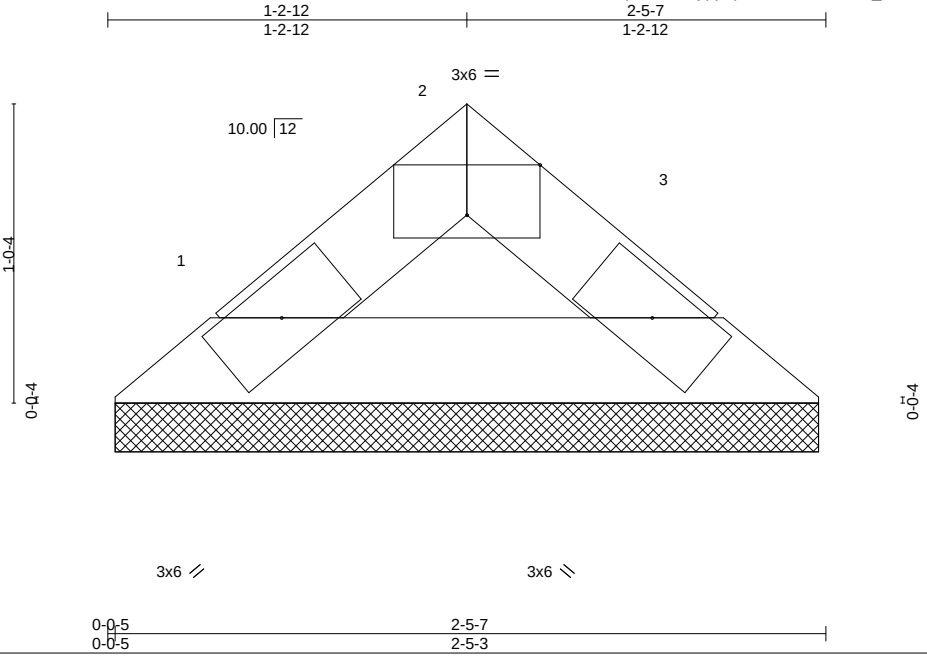

Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.01	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	n/a	-	n/a	999		
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-P							Weight: 7 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=2-4-14, 3=2-4-14
Max Horz 1=-14(LC 6)
Max Uplift 1=-2(LC 10), 3=-2(LC 11)
Max Grav 1=66(LC 1), 3=66(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V8	Valley	1	1	I53551709
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:51 2022 Page 1
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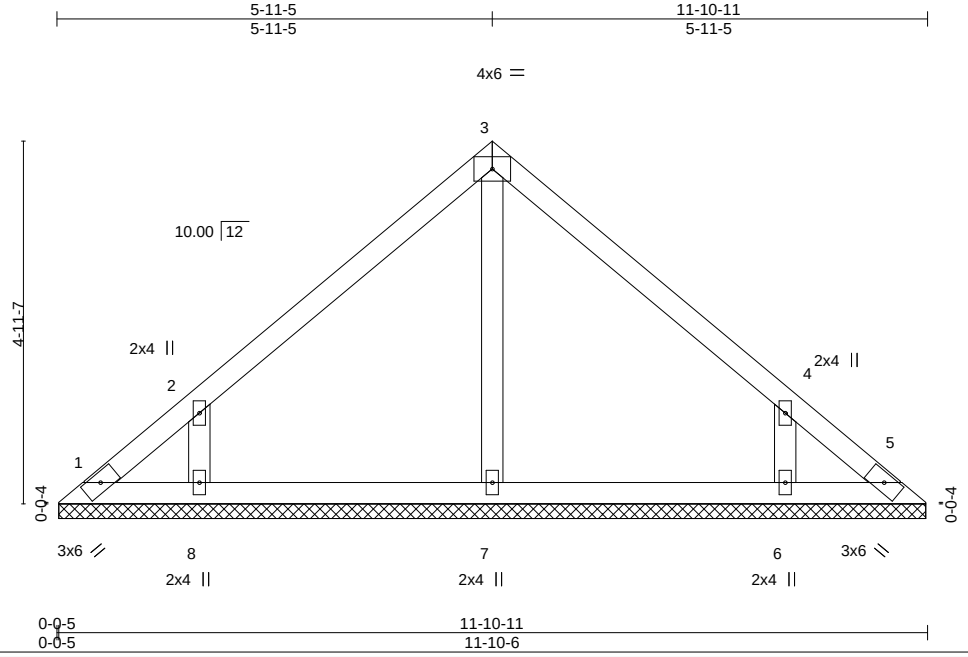

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.12	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.07	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 49 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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. All bearings 11-10-1.
(lb) - Max Horz 1=-97(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-127(LC 10), 6=-126(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=311(LC 17), 6=311(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-250/170, 4-6=-250/170

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=127, 6=126.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V9	Valley	1	1	I53551710
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:52 2022 Page 1
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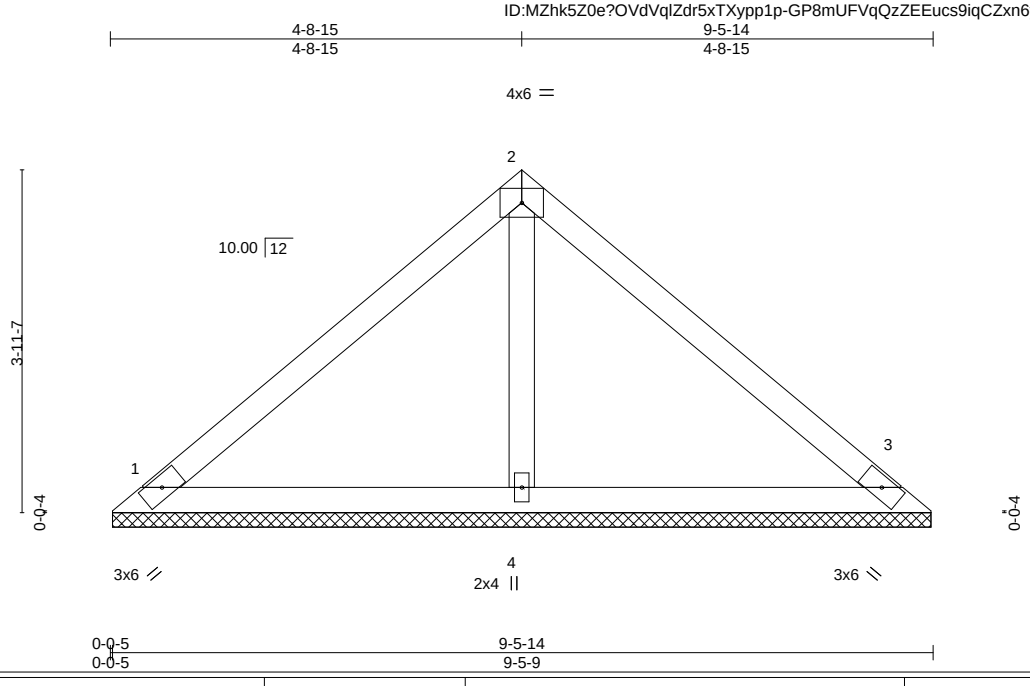

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.19	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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=9-5-4, 3=9-5-4, 4=9-5-4
Max Horz 1=76(LC 9)
Max Uplift 1=-18(LC 11), 3=-28(LC 11)
Max Grav 1=184(LC 1), 3=184(LC 1), 4=327(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V10	Valley	1	1	I53551711
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:44 2022 Page 1
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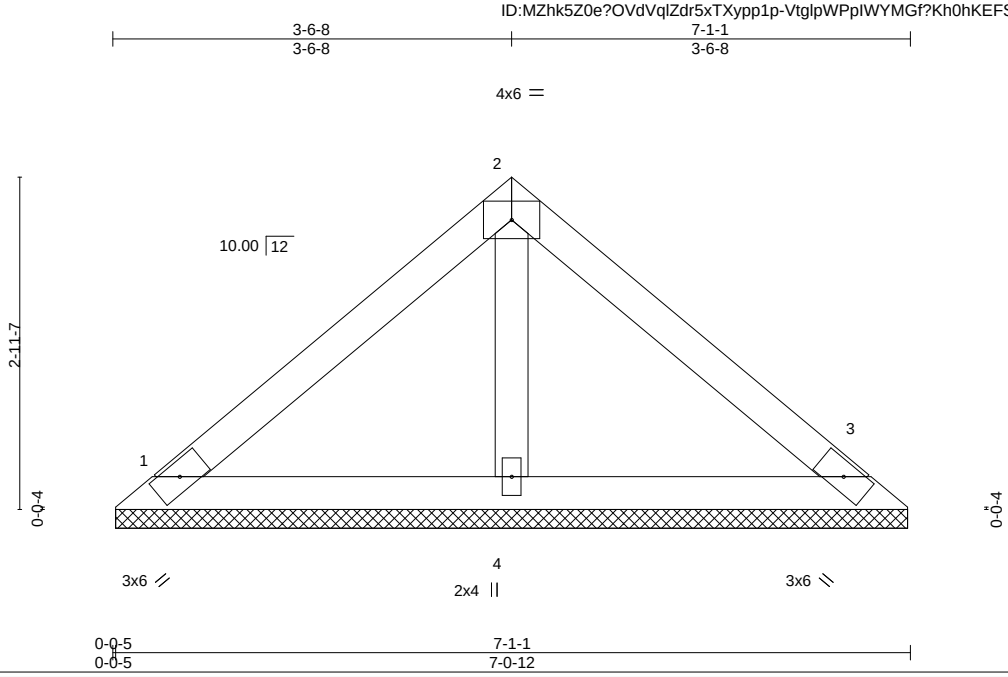

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.19	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF 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=7-0-7, 3=7-0-7, 4=7-0-7
Max Horz 1=55(LC 9)
Max Uplift 1=-20(LC 11), 3=-27(LC 11)
Max Grav 1=144(LC 1), 3=144(LC 1), 4=214(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end 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) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

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

Job	Truss	Truss Type	Qty	Ply	60 SERENITY - ROOF
32380-32380A	V11	Valley	1	1	I53551712
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.610 s Jul 18 2022 MiTek Industries, Inc. Mon Aug 8 21:23:45 2022 Page 1
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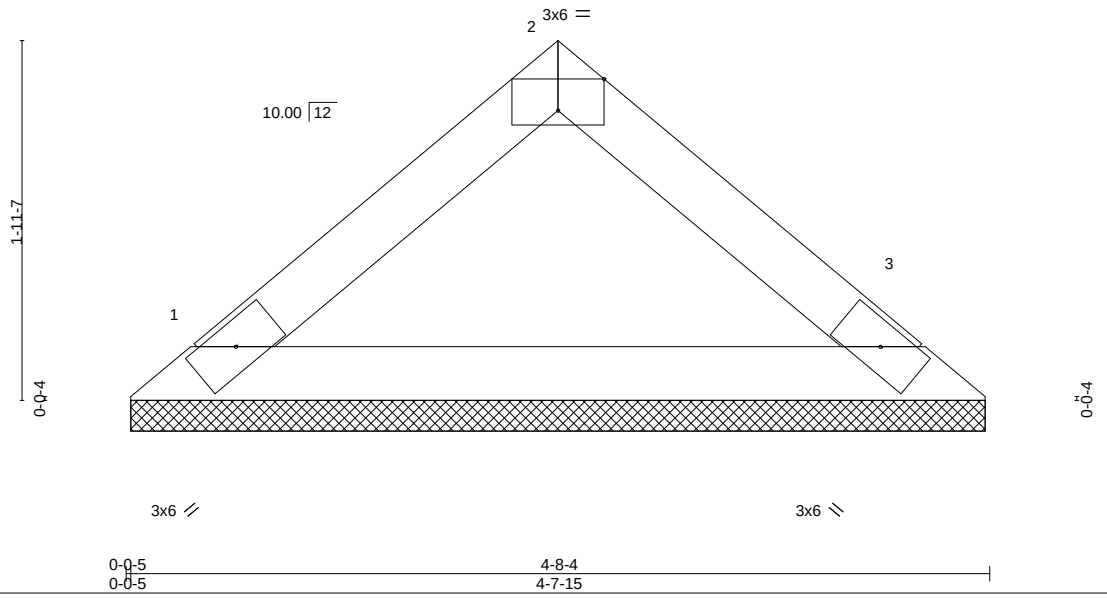


Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	n/a	-	n/a	999	MT20	197/144
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(CT)	n/a	-	n/a	999		
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-P							Weight: 15 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 or 2x4 SPF No.2
BOT CHORD 2x4 SP No.2 or 2x4 SPF No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-8-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-7-11, 3=4-7-11
Max Horz 1=34(LC 7)
Max Uplift 1=-6(LC 10), 3=-6(LC 11)
Max Grav 1=155(LC 1), 3=155(LC 1)

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

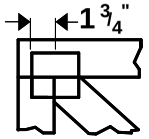
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
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 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

August 10,2022

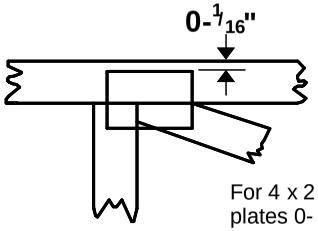
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

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.

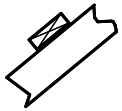
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

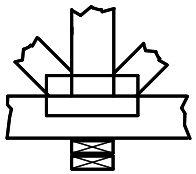
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

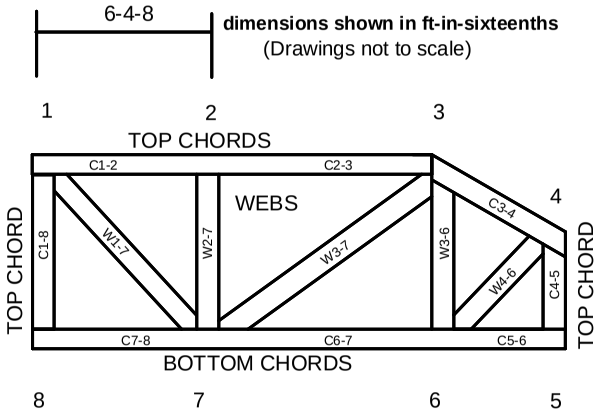


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

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.