

RE: 35473A
 8 SERENITY - ROOF

Trenco
 818 Soundside Rd
 Edenton, NC 27932

Site Information:

Customer: Project Name: 35473A
 Lot/Block: Model:
 Address: Subdivision:
 City: State:

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

Design Code: IRC2015/TPI2014 Design Program: MiTek 20/20 8.6
 Wind Code: ASCE 7-10 Wind Speed: 120 mph
 Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 33 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date	No.	Seal#	Truss Name	Date
1	I55884965	A1GE	12/27/2022	21	I55884985	M1GE	12/27/2022
2	I55884966	A2	12/27/2022	22	I55884986	M2GE	12/27/2022
3	I55884967	A3	12/27/2022	23	I55884987	M3	12/27/2022
4	I55884968	A4	12/27/2022	24	I55884988	M3GE	12/27/2022
5	I55884969	A5	12/27/2022	25	I55884989	V1	12/27/2022
6	I55884970	A6	12/27/2022	26	I55884990	V2	12/27/2022
7	I55884971	A7	12/27/2022	27	I55884991	V3	12/27/2022
8	I55884972	A8	12/27/2022	28	I55884992	V4	12/27/2022
9	I55884973	A9E	12/27/2022	29	I55884993	V5	12/27/2022
10	I55884974	B1E	12/27/2022	30	I55884994	V6	12/27/2022
11	I55884975	B2G	12/27/2022	31	I55884995	V7	12/27/2022
12	I55884976	C1E	12/27/2022	32	I55884996	V8	12/27/2022
13	I55884977	C2	12/27/2022	33	I55884997	V9	12/27/2022
14	I55884978	C3G	12/27/2022				
15	I55884979	D1E	12/27/2022				
16	I55884980	D2	12/27/2022				
17	I55884981	E1E	12/27/2022				
18	I55884982	E2	12/27/2022				
19	I55884983	M1	12/27/2022				
20	I55884984	M1A	12/27/2022				

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.
 Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2023.
 North Carolina COA: C-0844

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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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 35473A	Truss A1GE	Truss Type Roof Special Supported Gable	Qty 1	Ply 1	8 SERENITY - ROOF	155884965
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:05 2022 Page 1

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0-11-0
0-11-0

19-1-8
19-1-8

36-3-0
17-1-8

5x6 =

Scale = 1:66.8

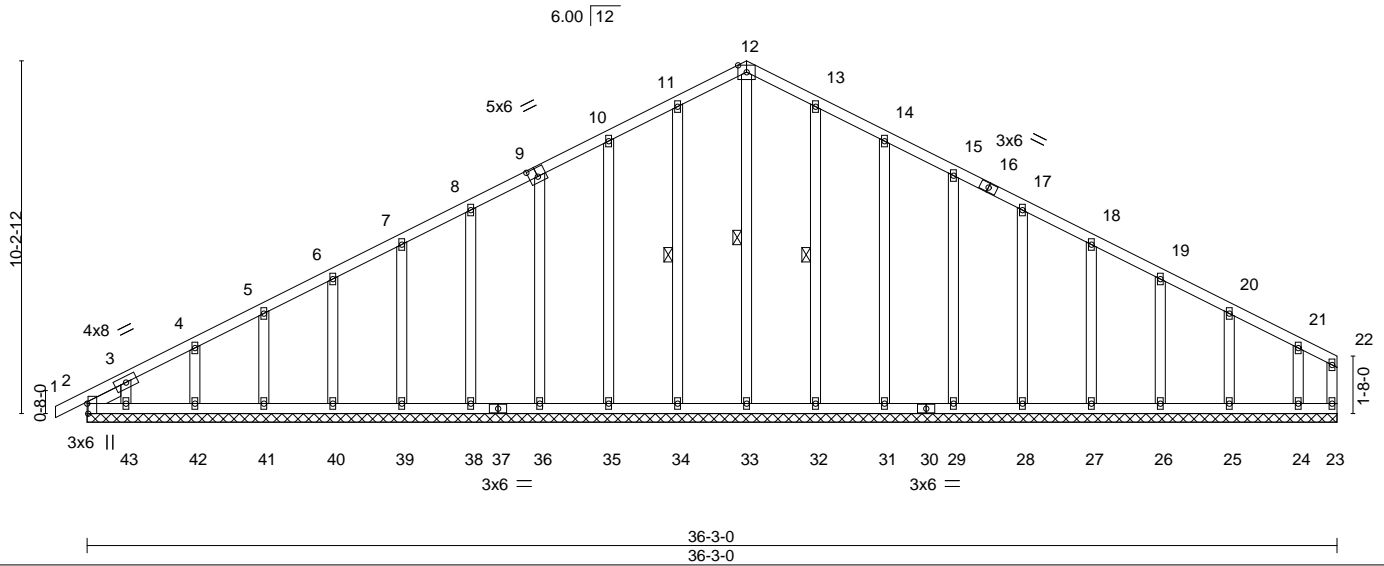


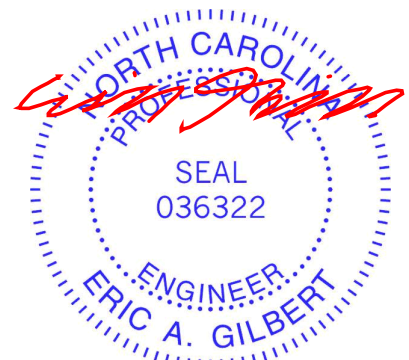
Plate Offsets (X, Y)--	[2:0-3-8,Edge], [9:0-3-0,0-3-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.08	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00 1 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.14	Horz(CT) 0.00 23 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S			
				Weight: 258 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 12-33, 11-34, 13-32
OTHERS 2x4 SP No.3 *Except* 12-33,11-34,10-35,9-36,13-32,14-31,15-29: 2x4 SP No.2	
SLIDER Left 2x4 SP No.3 1-1-6	

REACTIONS. All bearings 36-3-0.
 (lb) - Max Horz 2=148(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 34, 35, 36, 38, 39, 40, 41, 42, 43, 32, 31, 29, 28, 27, 26, 25, 24
 Max Grav All reactions 250 lb or less at joint(s) 23, 2, 33, 34, 35, 36, 38, 39, 40, 41, 42, 43, 32, 31, 29, 28, 27, 26, 25, 24

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 10-11=-114/272, 11-12=-127/308, 12-13=-127/308, 13-14=-114/272

- 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, 34, 35, 36, 38, 39, 40, 41, 42, 43, 32, 31, 29, 28, 27, 26, 25, 24.



December 27, 2022

Job 35473A	Truss A2	Truss Type Roof Special	Qty 1	Ply 1	8 SERENITY - ROOF	I55884966
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84 Components (Dunn), Dunn, NC - 28334,

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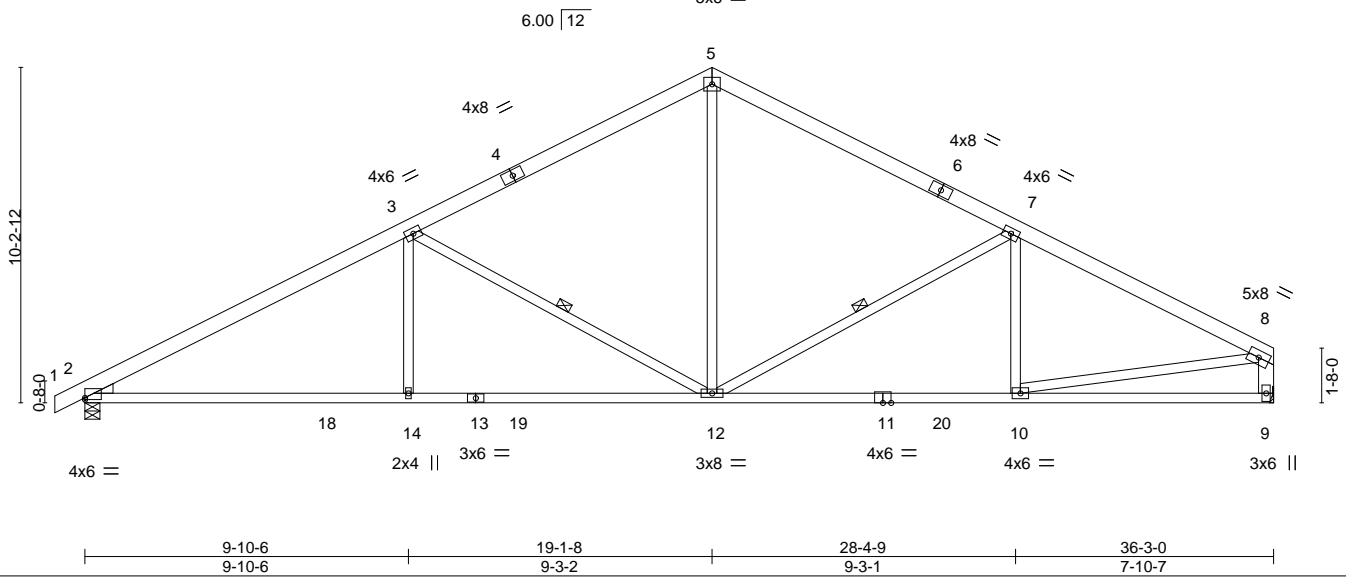


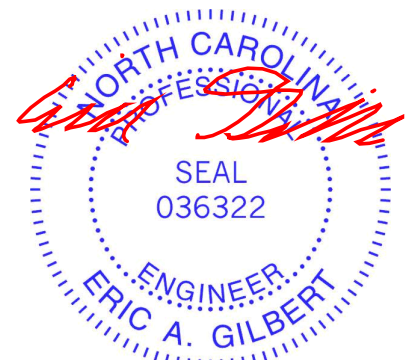
Plate Offsets (X,Y)--	[2:0-0-0,0-0-11]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.49	Vert(LL) -0.15 14-17 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.93	Vert(CT) -0.33 14-17 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.47	Horz(CT) 0.09 9 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 225 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 8-9: 2x6 SP No.2	WEBS 1 Row at midpt 3-12, 7-12
WEDGE Left: 2x4 SP No.3	

REACTIONS.	(size) 2=0-5-8, 9=Mechanical
	Max Horz 2=150(LC 14)
	Max Uplift 2=-100(LC 10), 9=-71(LC 11)
	Max Grav 2=1497(LC 1), 9=1440(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-2470/412, 3-5=-1649/368, 5-7=-1646/367, 7-8=-2064/359, 8-9=-1371/260
BOT CHORD	2-14=-262/2099, 12-14=-262/2099, 10-12=-207/1767
WEBS	3-14=0/377, 3-12=-908/253, 5-12=-105/859, 7-12=-548/190, 8-10=-199/1635

- 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) 9 except (jt=lb) 2=100.



December 27, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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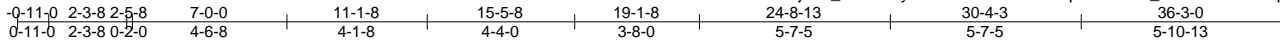
818 Soundside Road
Edenton, NC 27932

Job 35473A	Truss A3	Truss Type Common	Qty 5	Ply 1	8 SERENITY - ROOF	155884967
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84 Components (Dunn), Dunn, NC - 28334,

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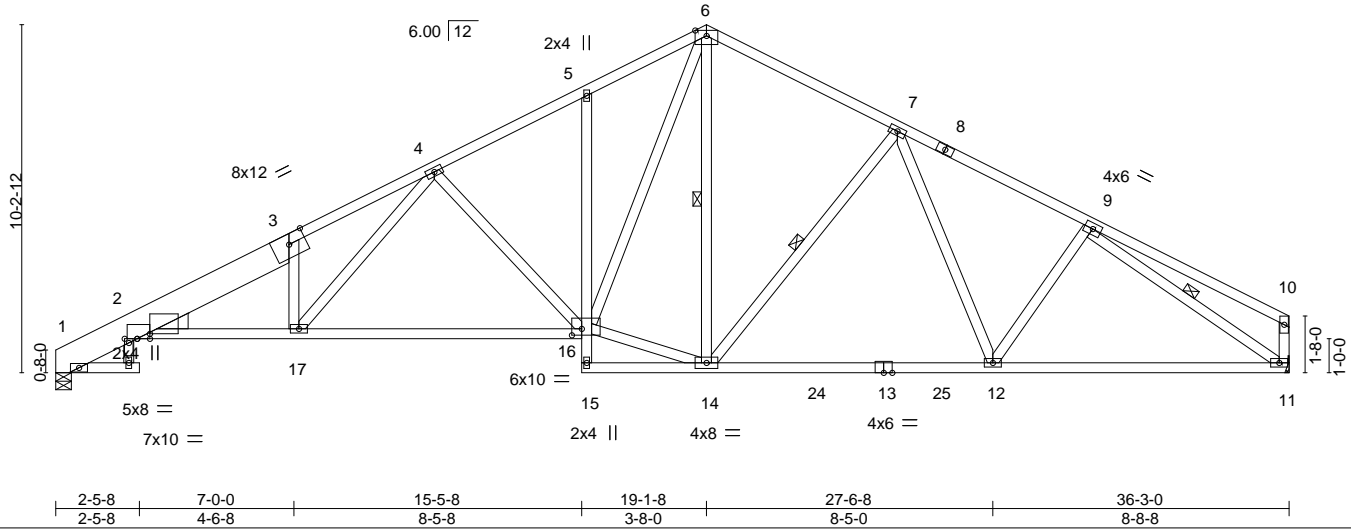


Plate Offsets (X, Y)--	[2:0-4-8,0-0-0], [2:0-4-8,0-1-12], [16:0-3-8,0-2-4], [19:0-1-8,0-1-8]
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LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.49	Vert(LL) -0.23 12-14 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.83	Vert(CT) -0.47 16-17 >918 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.50	Horz(CT) 0.18 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS		Weight: 247 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied or 3-1-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 2-16: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 10-11: 2x4 SP No.3	WEBS 1 Row at midpt 6-14, 7-14, 9-11
OTHERS 2x4 SP No.2	
WEDGE Left: 2x6 SP No.2	

REACTIONS. (size) 1=0-5-8, 11=Mechanical
 Max Horz 1=140(LC 14)
 Max Uplift 1=74(LC 10), 11=71(LC 11)
 Max Grav 1=1452(LC 1), 11=1436(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-641/113, 2-3=-3092/454, 3-4=-3216/562, 4-5=-2055/414, 5-6=-2025/490,
 6-7=-1550/385, 7-9=-1918/385
 BOT CHORD 2-17=-341/2856, 16-17=-248/2219, 12-14=-141/1587, 11-12=-212/1630
 WEBS 3-17=-534/194, 4-17=-130/949, 4-16=-648/194, 14-16=0/1363, 6-16=-231/1250,
 6-14=-90/281, 7-14=-484/178, 7-12=-6/270, 9-11=-1896/280

- 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) 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.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11.



December 27, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss A4	Truss Type COMMON	Qty 1	Ply 1	8 SERENITY - ROOF	155884968
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84 Components (Dunn), Dunn, NC - 28334,

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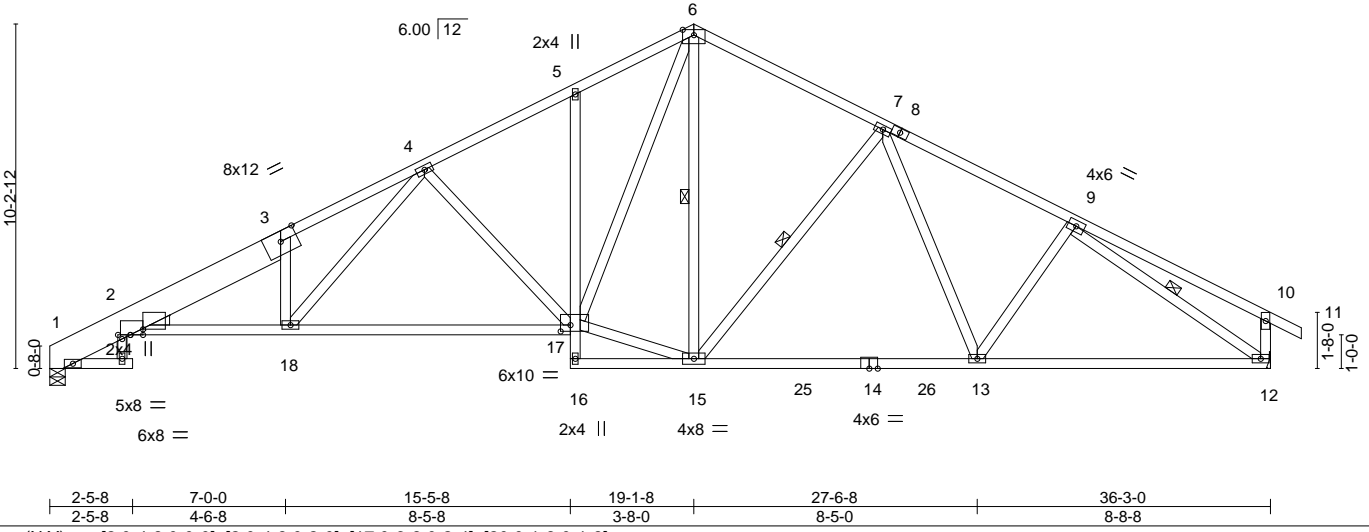
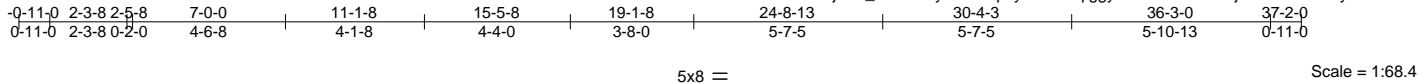


Plate Offsets (X,Y)--	[2:0-4-8,0-0-0], [2:0-4-8,0-2-0], [17:0-3-8,0-2-4], [20:0-1-8,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.83	Vert(LL) -0.23 13-15 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.50	Vert(CT) -0.47 17-18 >918 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.18 12 n/a n/a		
	Code IRC2015/TPI2014			Weight: 247 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-3: 2x10 SP DSS	TOP CHORD Structural wood sheathing directly applied or 3-1-8 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 2-17: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 10-12: 2x4 SP No.3	WEBS 1 Row at midpt 6-15, 7-15, 9-12
OTHERS 2x4 SP No.2 *Except* 20-21: 2x4 SP No.3	
WEDGE Left: 2x4 SP No.3	

REACTIONS.
(size) 1=0-5-8, 12=Mechanical
Max Horz 1=133(LC 14)
Max Uplift 1=74(LC 10), 12=88(LC 11)
Max Grav 1=1451(LC 1), 12=1501(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-641/140, 2-3=-3090/447, 3-4=-3213/552, 4-5=-2053/410, 5-6=-2023/487, 6-7=-1549/386, 7-9=-1910/385, 10-12=-305/168
BOT CHORD 2-18=-302/2854, 17-18=-212/2217, 13-15=-112/1584, 12-13=-181/1620
WEBS 3-18=-534/190, 4-18=-124/948, 4-17=-648/191, 15-17=0/1361, 6-17=-221/1250, 6-15=-95/280, 7-15=-482/179, 7-13=-5/267, 9-12=-1855/243

- 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) 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) 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.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12.



December 27, 2022

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY TRENCO A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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Job 35473A	Truss A5	Truss Type ROOF SPECIAL	Qty 5	Ply 1	8 SERENITY - ROOF	155884969
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:11 2022 Page 1

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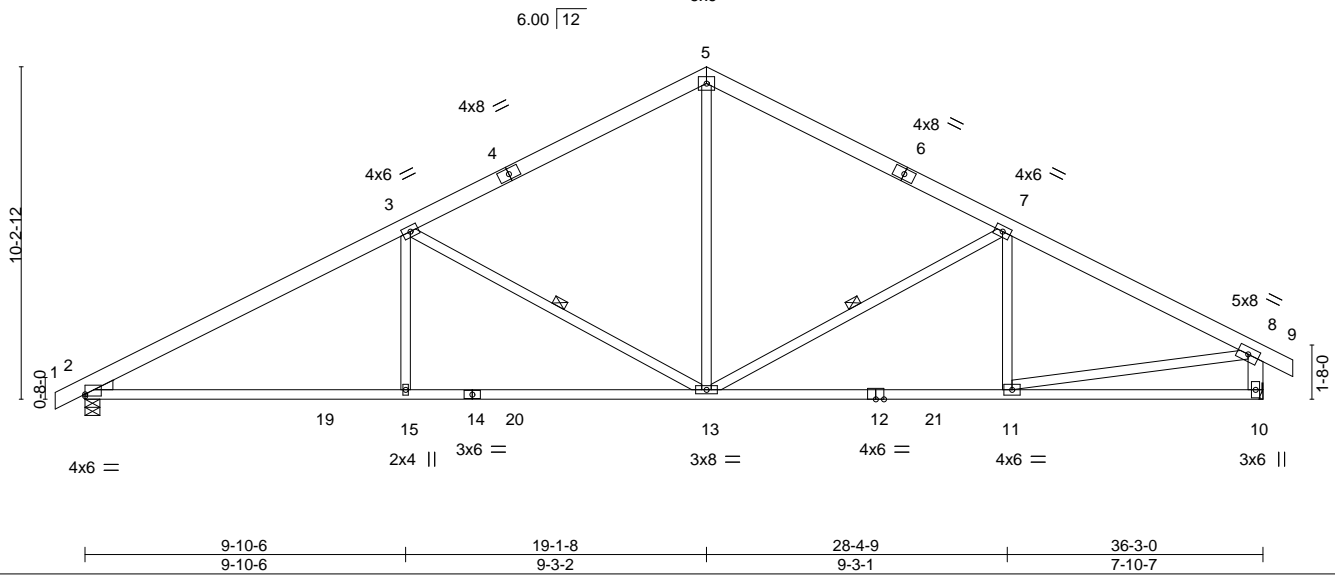


Plate Offsets (X, Y)--	[2:0-0-0,0-0-11]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.49	Vert(LL)	-0.15	15-18	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.93	Vert(CT)	-0.33	15-18	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.09	10	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 228 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 8-10: 2x6 SP No.2	WEBS 1 Row at midpt 3-13, 7-13
WEDGE Left: 2x4 SP No.3	

REACTIONS.
(size) 2=0-5-8, 10=Mechanical
Max Horz 2=142(LC 14)
Max Uplift 2=-101(LC 10), 10=-89(LC 11)
Max Grav 2=1495(LC 1), 10=1510(LC 1)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2467/412, 3-5=-1647/369, 5-7=-1643/366, 7-8=-2060/361, 8-10=-1441/313
BOT CHORD 2-15=-230/2097, 13-15=-230/2097, 11-13=-173/1757
WEBS 3-15=0/377, 3-13=-908/253, 5-13=-104/855, 7-13=-539/188, 8-11=-158/1576

- 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) 10 except (jt=lb) 2=101.



Job 35473A	Truss A6	Truss Type GABLE	Qty 1	Ply 1	8 SERENITY - ROOF	155884970
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:12 2022 Page 1

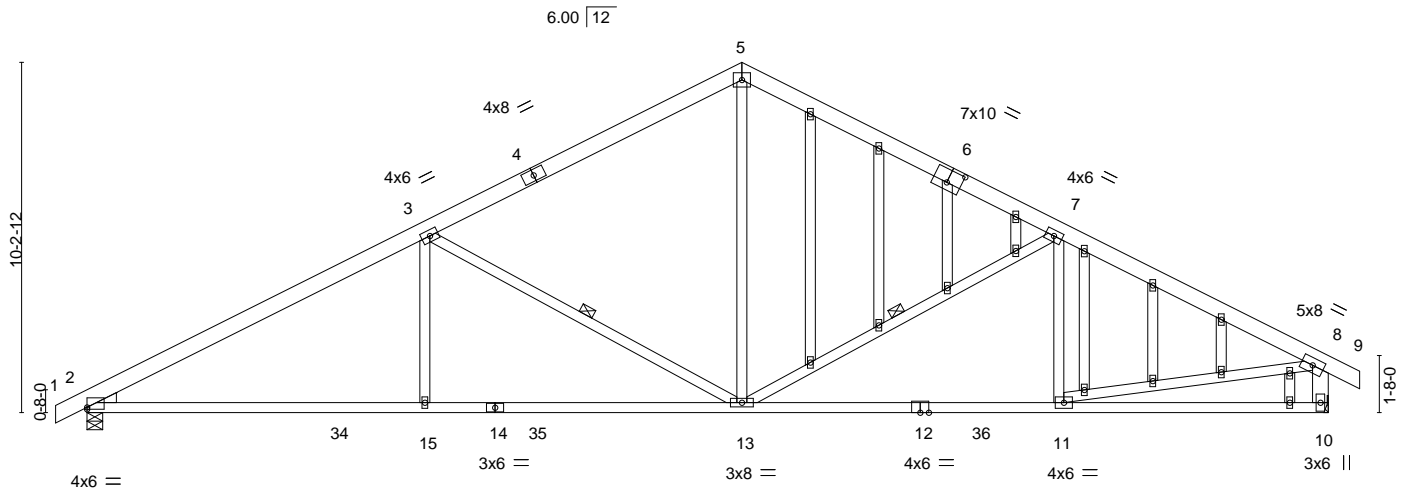
ID: nxbot3WsxISjrAw_FcBFB3yorwP-HBrjQtTH3R?OvFuWvckhUmKeL0NUxWgMX6E4Hpy606f

Job Reference (optional)

0-11-0	9-10-6	19-1-8	28-4-9	36-3-0	37-2-0
0-11-0	9-10-6	9-3-2	9-3-1	7-10-7	0-11-0

5x6 =

Scale = 1:67.3



9-10-6	19-1-8	28-4-9	36-3-0
9-10-6	9-3-2	9-3-1	7-10-7

Plate Offsets (X, Y)-- [2:0-0-0,0-0-11], [6:0-5-0,0-4-8]

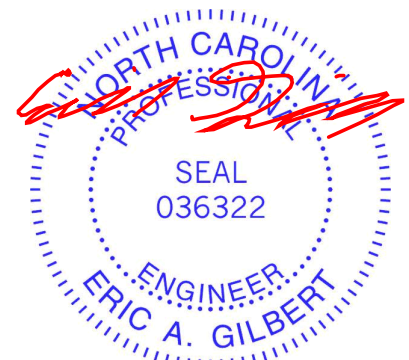
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.93	Vert(LL) -0.15 15-33 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.47	Vert(CT) -0.33 15-33 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.09 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 267 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-2-7 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 2x4 SP No.2 *Except* 8-10: 2x6 SP No.2	WEBS 1 Row at midpt 3-13, 7-13
OTHERS 2x4 SP No.3 *Except* 16-17: 2x4 SP No.2	
WEDGE Left: 2x4 SP No.3	

REACTIONS. (size) 2=0-5-8, 10=Mechanical
 Max Horz 2=142(LC 14)
 Max Uplift 2=-101(LC 10), 10=-89(LC 11)
 Max Grav 2=1495(LC 1), 10=1510(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2467/412, 3-5=-1647/369, 5-7=-1643/366, 7-8=-2060/361, 8-10=-1441/313
 BOT CHORD 2-15=-230/2097, 13-15=-230/2097, 11-13=-173/1757
 WEBS 3-15=0/377, 3-13=-908/253, 5-13=-104/855, 7-13=-539/188, 8-11=-158/1576

- 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) 10 except (jt=lb) 2=101.



December 27, 2022

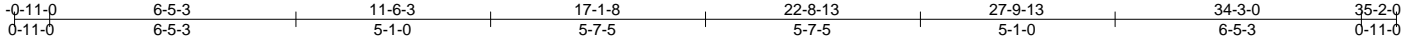
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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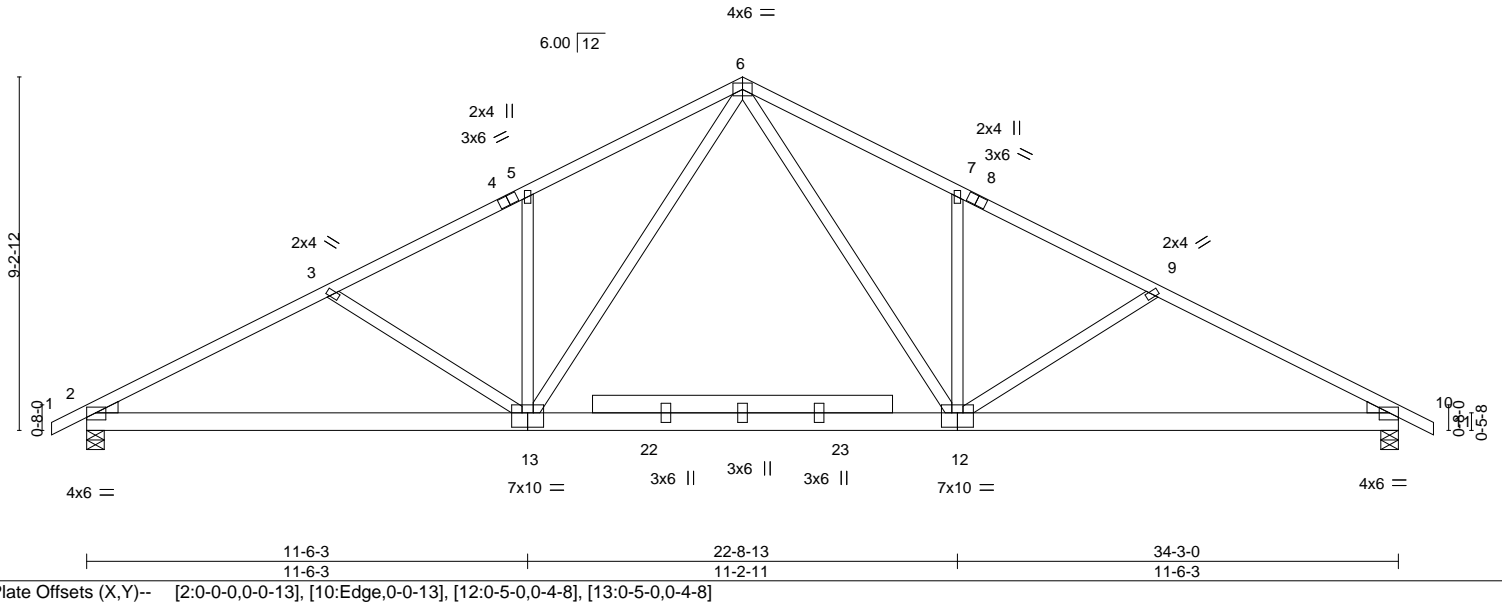
818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss A7	Truss Type Common	Qty 2	Ply 1	8 SERENITY - ROOF	155884971
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8.630 s Nov 21 2022 MITek Industries, Inc. Tue Dec 27 09:49:28 2022 Page 1
 ID:nxbot3WxsISjrAw_FcBFB3yorwP-0vhX18unYLiDLqOOIVaETwHmzc4tV7jqmroiKy4ofr



Scale = 1:60.2



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.73	Vert(LL) -0.15 12-13 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.25	Vert(CT) -0.48 12-13 >849 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.07 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 225 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.3 *Except*
 6-12,6-13: 2x4 SP No.2
 WEDGE
 Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 10=0-5-8
 Max Horz 2=128(LC 10)
 Max Grav 2=1525(LC 1), 10=1525(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-2618/200, 3-5=-2299/131, 5-6=-2312/246, 6-7=-2312/246, 7-9=-2299/131,
 9-10=-2618/200
 BOT CHORD 2-13=-78/2257, 12-13=0/1463, 10-12=-78/2257
 WEBS 6-12=-47/1014, 7-12=-351/188, 9-12=-318/193, 6-13=-47/1014, 5-13=-351/188,
 3-13=-318/193

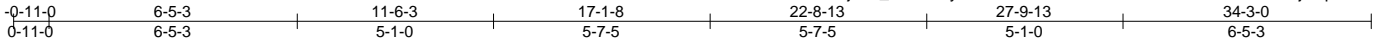
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=30ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 200.0lb AC unit load placed on the bottom chord, 17-1-8 from left end, supported at two points, 5-0-0 apart.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be User Defined crushing capacity of 425 psi.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 27, 2022

Job 35473A	Truss A8	Truss Type COMMON	Qty 7	Ply 1	8 SERENITY - ROOF	155884972
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ID:nxbot3WxISjrAw_FcBFB3yorwP-58kKHL6W?3J1LC1EcVNHw?Q2X4kRljRqK35EXy4oeH
8.630 s Nov 21 2022 MITek Industries, Inc. Tue Dec 27 09:51:08 2022 Page 1



Scale = 1:59.7

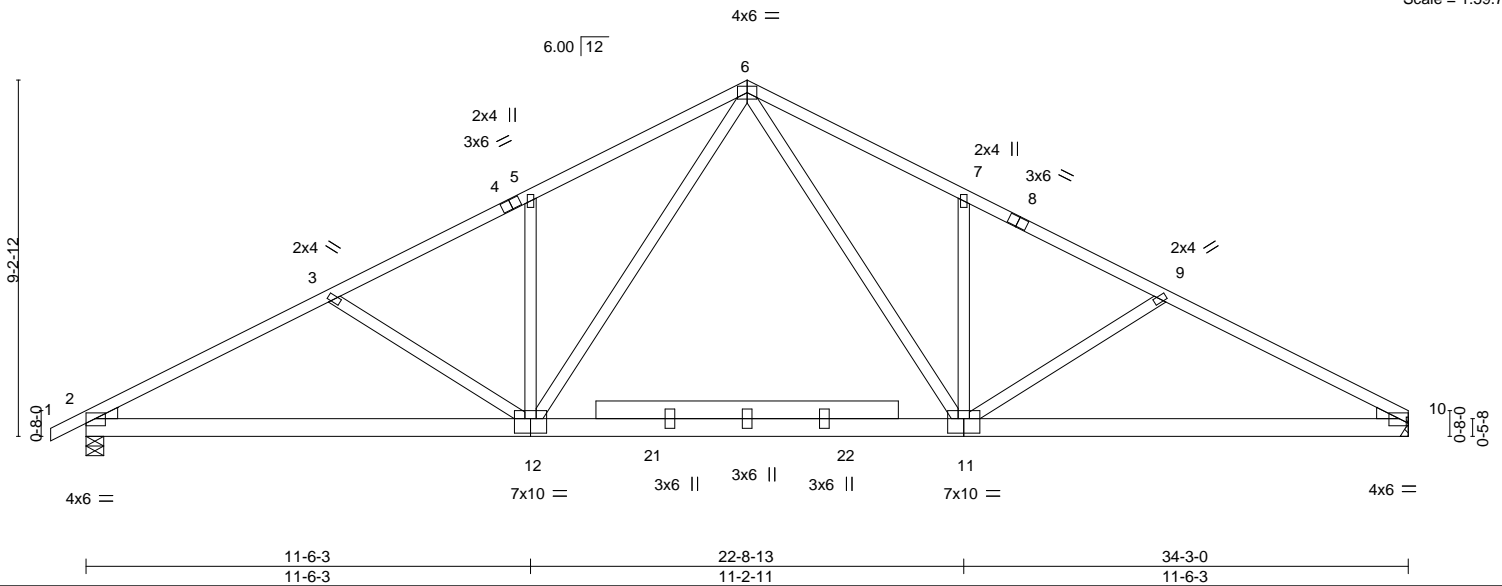


Plate Offsets (X,Y)-- [2:0-0-0,0-0-13], [10:0-0-0,0-0-13], [11:0-5-0,0-4-8], [12:0-5-0,0-4-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.66	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.73	Vert(LL) -0.15 11-12 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.25	Vert(CT) -0.48 11-12 >853 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.07 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 223 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
6-11,6-12: 2x4 SP No.2
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-11-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-5-8, 10=Mechanical
Max Horz 2=135(LC 10)
Max Grav 2=1526(LC 1), 10=1469(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2619/201, 3-5=-2300/132, 5-6=-2314/247, 6-7=-2316/248, 7-9=-2303/134,
9-10=-2623/204
BOT CHORD 2-12=-105/2258, 11-12=0/1465, 10-11=-108/2262
WEBS 6-11=-50/1017, 7-11=-350/187, 9-11=-321/194, 6-12=-47/1014, 5-12=-351/188,
3-12=-318/193

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 200.0lb AC unit load placed on the bottom chord, 17-1-8 from left end, supported at two points, 5-0-0 apart.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - All bearings are assumed to be User Defined crushing capacity of 425 psi.
 - Refer to girder(s) for truss to truss connections.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



December 27, 2022

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Design valid for use only with MITek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 35473A	Truss A9E	Truss Type Common Supported Gable	Qty 1	Ply 1	8 SERENITY - ROOF	I55884973
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:17 2022 Page 1

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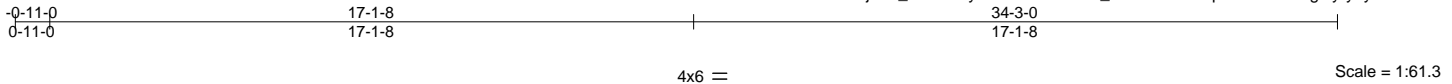


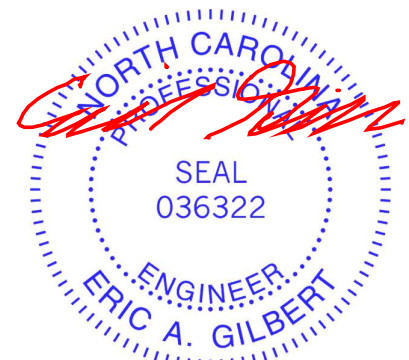
Plate Offsets (X,Y)--	[2:0-3-8,Edge], [8:0-3-0,0-3-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00 1 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.05	Vert(CT) -0.00 1 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.14	Horz(CT) 0.01 22 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 224 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 11-32
OTHERS 2x4 SP No.3 *Except*	
SLIDER Left 2x4 SP No.3 1-1-6	

REACTIONS. All bearings 34-3-0.
 (lb) - Max Horz 2=131(LC 14)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 34, 36, 37, 38, 39, 40, 41, 31, 30, 28, 27, 26, 25, 24, 23
 Max Grav All reactions 250 lb or less at joint(s) 22, 2, 32, 33, 34, 36, 37, 38, 39, 40, 41, 31, 30, 28, 27, 26, 25, 24, 23

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 34, 36, 37, 38, 39, 40, 41, 31, 30, 28, 27, 26, 25, 24, 23.



December 27, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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 818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss B1E	Truss Type Common Supported Gable	Qty 1	Ply 1	8 SERENITY - ROOF	155884974
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84 Components (Dunn),

Dunn, NC - 28334,

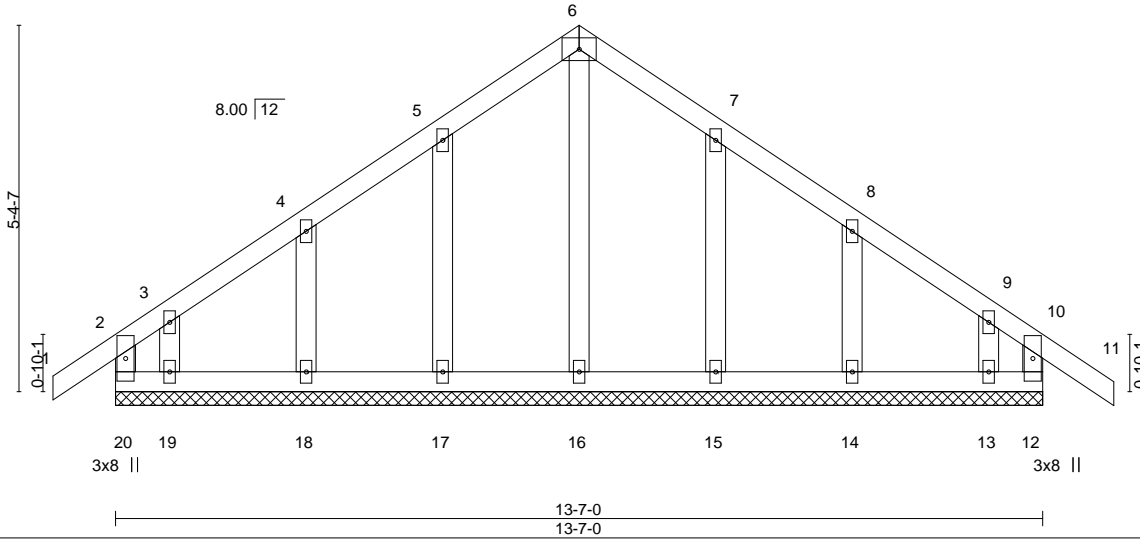
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:18 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-6LD_hwX2eHmYeALfFsR5j1alyQeuLLUEv2hOUTy606Z



4x6 =

Scale = 1:33.8



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 0.10	Vert(LL)	-0.00	11	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	-0.01	11	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						Weight: 76 lb	FT = 20%

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

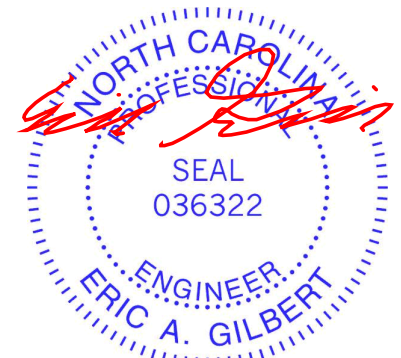
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.

REACTIONS. All bearings 13-7-0.
 (lb) - Max Horz 20=128(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13
 Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 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.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 19, 15, 14, 13.



December 27, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



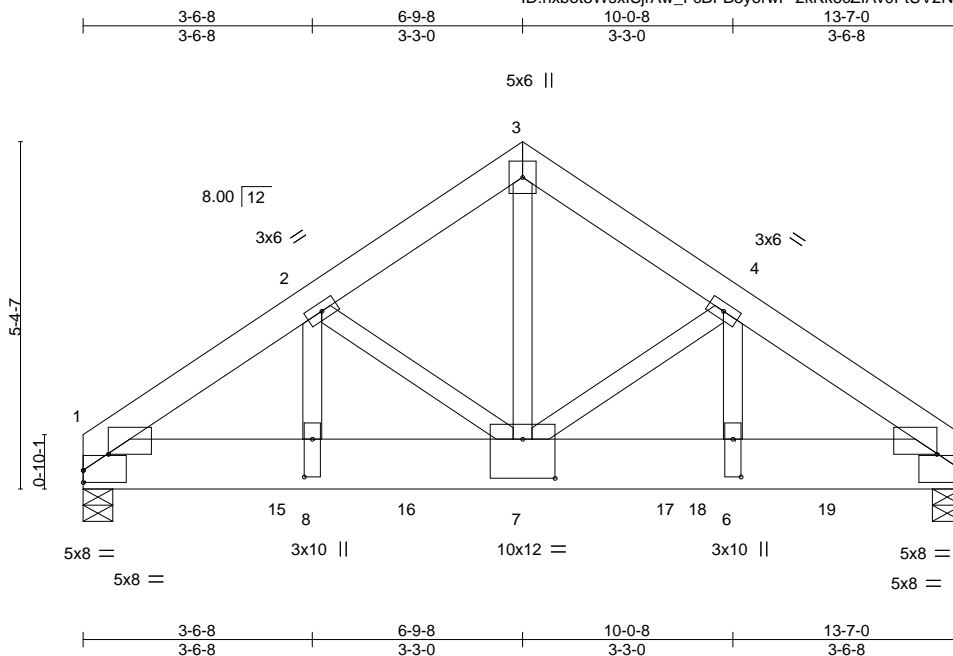
818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss B2G	Truss Type Common Girder	Qty 1	Ply 2	8 SERENITY - ROOF Job Reference (optional)	I55884975
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:20 2022 Page 1

ID: nxbot3WsxISjrAw_FcBFB3yorwP-2kKk6cZlAv0FtUV2NHTZoSf3FEFop5zXMMMAVZLy606X



Scale = 1:35.6

Plate Offsets (X, Y)--	[1:0-0-0,0-2-4], [1:0-4-11,0-3-0], [5:0-0-0,0-2-4], [5:0-4-11,0-3-0], [6:0-7-0,0-1-8], [7:0-6-0,0-7-4], [8:0-7-0,0-1-8]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.33	Vert(LL) -0.04 6-7 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.70	Vert(CT) -0.08 6-7 >999 180		
BCDL 10.0	Rep Stress Incr NO	Matrix-MS	Horz(CT) 0.02 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 231 lb	FT = 20%

LUMBER-

TOP CHORD 2x6 SP No.2
 BOT CHORD 2x10 SP DSS
 WEBS 2x4 SP No.3 *Except*
 3-7: 2x4 SP No.2

BRACING-

TOP CHORD Structural wood sheathing directly applied or 5-7-9 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 1=0-5-8, 5=0-5-8
 Max Horz 1=95(LC 26)
 Max Grav 1=5821(LC 1), 5=5411(LC 1)

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

TOP CHORD 1-2=-6841/0, 2-3=-5543/0, 3-4=-5538/0, 4-5=-7398/0
 BOT CHORD 1-8=0/5622, 7-8=0/5622, 6-7=0/6068, 5-6=0/6068
 WEBS 3-7=0/5715, 4-7=-1851/0, 4-6=0/2164, 2-7=-1285/0, 2-8=0/1487

NOTES-

- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-4-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
- 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.
- Unbalanced roof live loads have been considered for this design.
- 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
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1449 lb down at 1-0-4, 1449 lb down at 3-0-4, 1449 lb down at 5-0-4, 1449 lb down at 7-0-4, 1449 lb down at 9-0-4, and 1449 lb down at 9-6-4, and 1449 lb down at 11-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
 Uniform Loads (plf)
 Vert: 1-3=-60, 3-5=-60, 9-12=-20
 Concentrated Loads (lb)
 Vert: 7=-1449(F) 11=-1449(F) 15=-1449(F) 16=-1449(F) 17=-1449(F) 18=-1449(F) 19=-1449(F)



December 27, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSITPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



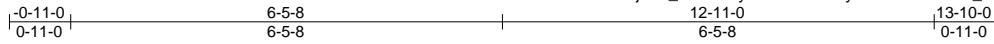
818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss C1E	Truss Type GABLE	Qty 1	Ply 1	8 SERENITY - ROOF	I55884976
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84 Components (Dunn), Dunn, NC - 28334,

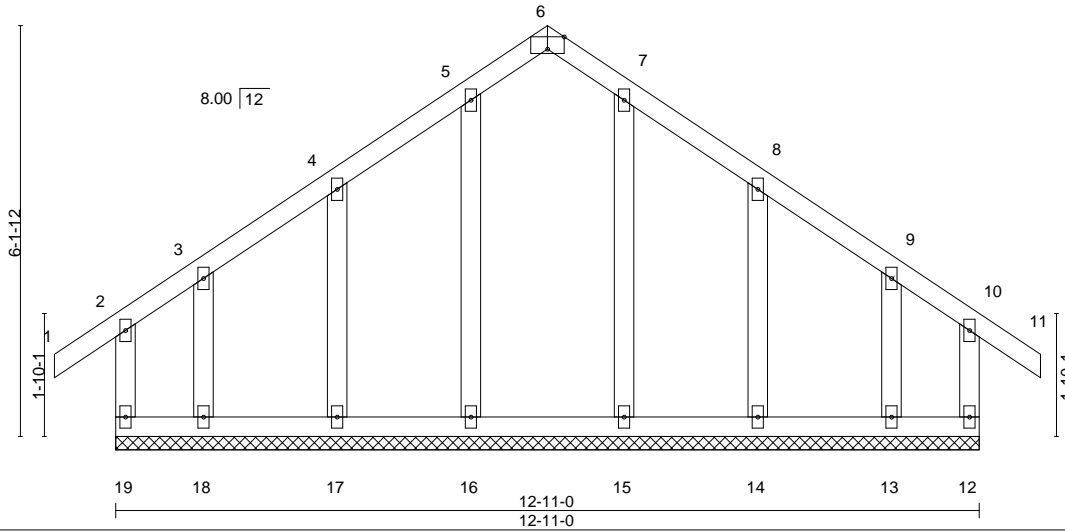
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:21 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-Wwu6JyawxC86Ve4Ex?_oLfCFFeelYh6gb0w25oy606W



3x6 =

Scale = 1:34.5



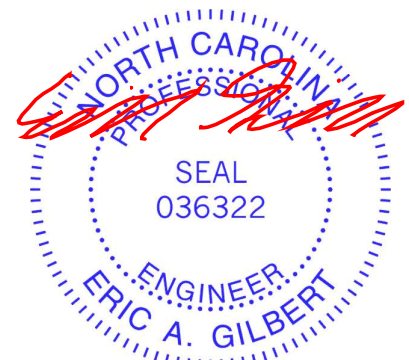
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.16	Vert(LL)	-0.00	11	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.09	Vert(CT)	-0.00	11	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	-0.00	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 82 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 12-11-0.
 (lb) - Max Horz 19=153(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 17, 14 except 19=107(LC 6), 12=100(LC 7), 18=119(LC 7), 13=113(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-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
 - Gable studs spaced at 2-0-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
 - 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=107, 12=100, 18=119, 13=113.



December 27, 2022

<p>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</p> <p>Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>ENGINEERING BY</p> <p>TRENCO</p> <p>A MiTek Affiliate</p> <p>818 Soundside Road Edenton, NC 27932</p>
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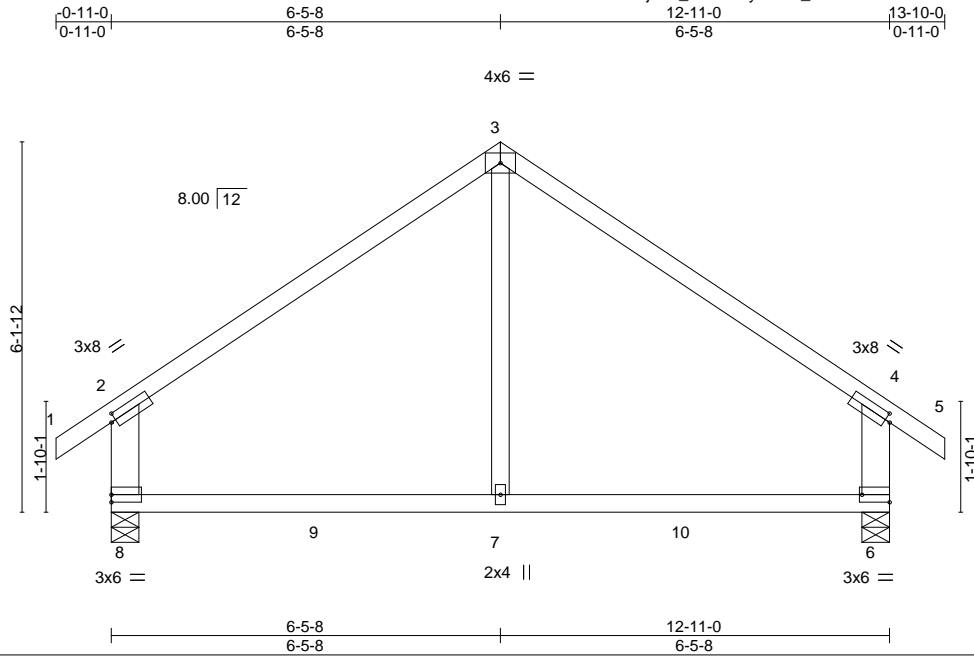
Job 35473A	Truss C2	Truss Type Common	Qty 3	Ply 1	8 SERENITY - ROOF	155884977
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84 Components (Dunn),

Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:22 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP_6SVXHbYiWGz6ofRUIV1utkHg2u6H8nqqgfdEy606V



Scale = 1:38.2

Plate Offsets (X, Y)--	[2:0-1-0,0-1-8], [4:0-1-0,0-1-8], [6: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 0.76	Vert(LL) -0.10 7 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.47	Vert(CT) -0.17 7 >874 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.10	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MR		Weight: 61 lb	FT = 20%

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

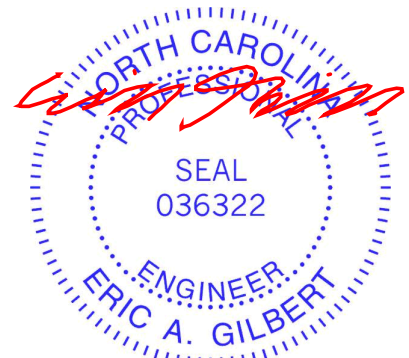
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 8=0-5-8, 6=0-5-8
 Max Horz 8=-155(LC 8)
 Max Uplift 8=-37(LC 10), 6=-37(LC 11)
 Max Grav 8=598(LC 17), 6=598(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-515/109, 3-4=-515/109, 2-8=-498/148, 4-6=-498/148
 BOT CHORD 7-8=0/361, 6-7=0/361
 WEBS 3-7=0/273

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) 8, 6.



December 27, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

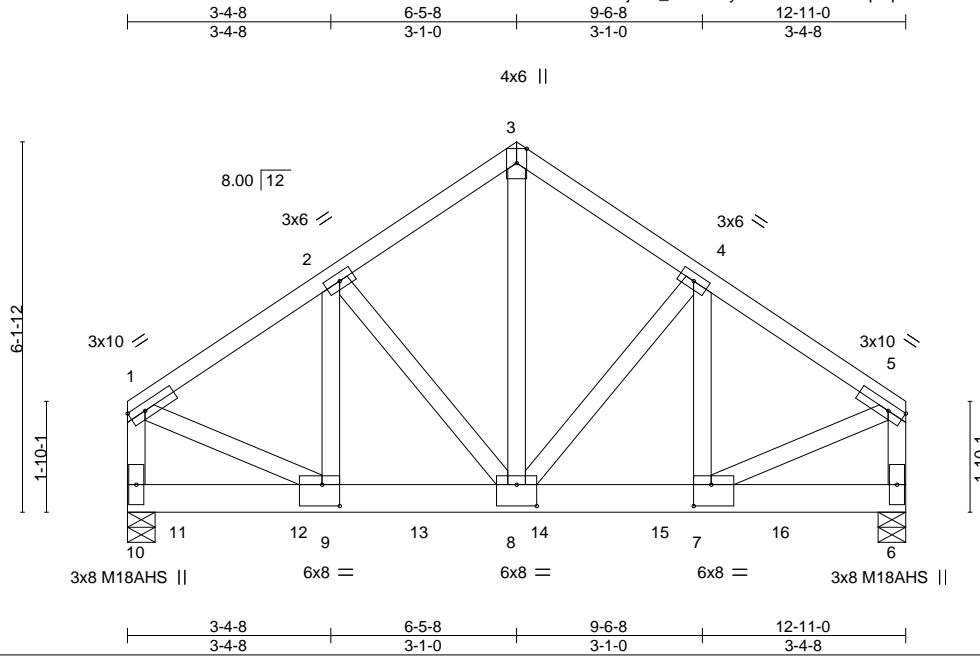
ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss C3G	Truss Type Common Girder	Qty 1	Ply 2	8 SERENITY - ROOF	155884978
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:23 2022 Page 1

ID:nxbot3Wsx1SjrAw_FcBFB3yorwP-SJ0tkdbATqOqkxEd2Q0GQ4HUKRCz0RBz2JP9Agy606U



Scale = 1:38.2

Plate Offsets (X, Y)--	[7:0-3-8,0-4-4], [8:0-4-0,0-4-4], [9:0-3-8,0-4-4]
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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 0.61	Vert(LL)	-0.03	8-9	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.62	Vert(CT)	-0.06	8-9	>999	180	M18AHS	186/179
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.73	Horz(CT)	0.01	6	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS							
									Weight: 196 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 10=0-5-8, 6=0-5-8
 Max Horz 10=-136(LC 4)
 Max Uplift 10=-290(LC 8), 6=-244(LC 9)
 Max Grav 10=5163(LC 1), 6=4350(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-4139/254, 2-3=-3432/257, 3-4=-3433/257, 4-5=-4080/251, 1-10=-3899/234, 5-6=-3860/232
 BOT CHORD 8-9=-207/3389, 7-8=-179/3340
 WEBS 3-8=-229/3546, 4-8=-817/117, 4-7=-83/857, 2-8=-893/121, 2-9=-88/950, 1-9=-176/3543, 5-7=-175/3531

- NOTES-**
- 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 0-7-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - 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
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=290, 6=244.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1419 lb down and 88 lb up at 0-10-4, 1416 lb down and 91 lb up at 2-10-4, 1416 lb down and 91 lb up at 4-10-4, 1416 lb down and 91 lb up at 6-10-4, and 1416 lb down and 91 lb up at 8-10-4, and 1420 lb down and 91 lb up at 10-10-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



December 27, 2022

Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss C3G	Truss Type Common Girder	Qty 1	Ply 2	8 SERENITY - ROOF Job Reference (optional)	I55884978
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:24 2022 Page 2
ID:nxbot3WsxISjrAw_FcBFB3yorwP-wVaFzcpE7WhM5ppc7YVzHqfUrYCluR7Hz8ii7y606T

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: 11=-1419(B) 12=-1416(B) 13=-1416(B) 14=-1416(B) 15=-1416(B) 16=-1420(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job 35473A	Truss D1E	Truss Type Common Supported Gable	Qty 1	Ply 1	8 SERENITY - ROOF	155884979
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:26 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-tuh?Mfe3mlmPbPyCjYaz2iv7SfNtDyeQIHdpm?y606R

0-11-0 19-11-8 39-11-0 40-10-0
0-11-0 19-11-8 19-11-8 0-11-0

Scale = 1:71.4

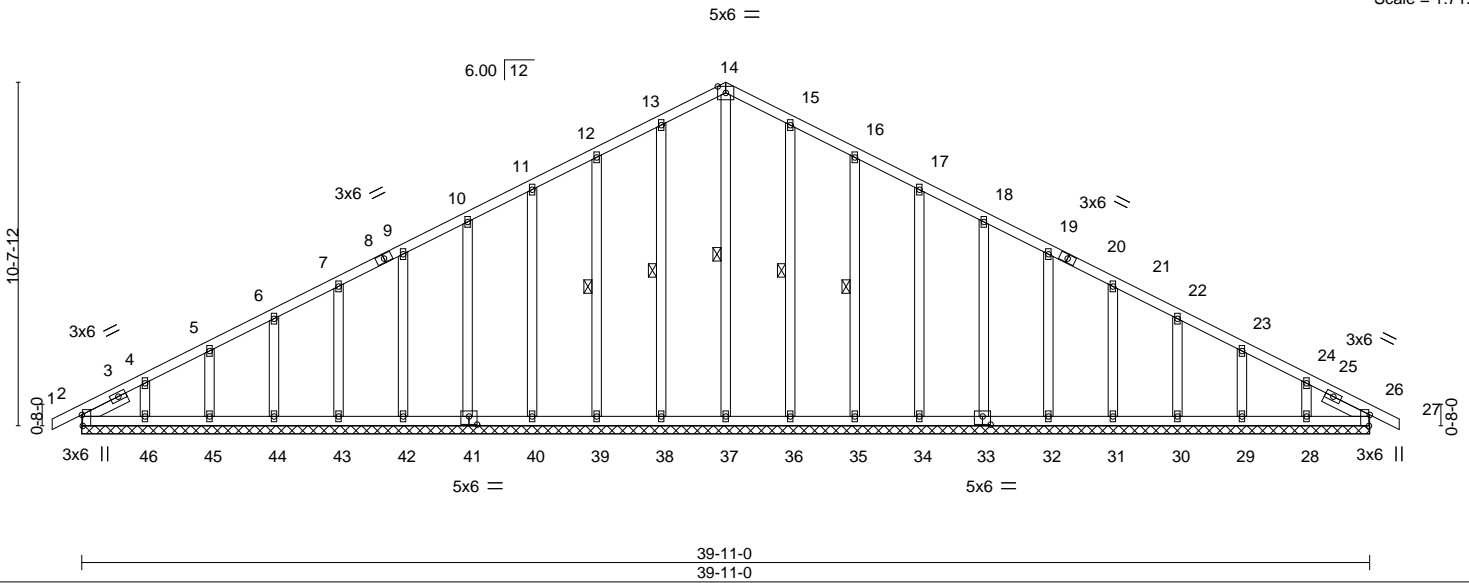


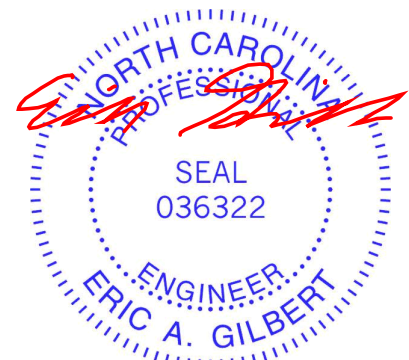
Plate Offsets (X,Y)--	[2:0-4-1,Edge], [26:0-4-1,Edge], [33:0-3-0,0-3-0], [41:0-3-0,0-3-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.06	Vert(LL) -0.00 26 n/r 120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.03	Vert(CT) -0.00 26 n/r 90		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.01 26 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 285 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3 *Except*	WEBS 1 Row at midpt 14-37, 13-38, 12-39, 15-36, 16-35
SLIDER Left 2x4 SP No.3 1-6-7, Right 2x4 SP No.3 1-6-7	

REACTIONS. All bearings 39-11-0.
(lb) - Max Horz 2=-148(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 38, 39, 40, 41, 42, 43, 44, 45, 46, 36, 35, 34, 33, 32, 31, 30, 29, 28
Max Grav All reactions 250 lb or less at joint(s) 2, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 36, 35, 34, 33, 32, 31, 30, 29, 28, 26

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 13-14=-103/259, 14-15=-103/259

- 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, 38, 39, 40, 41, 42, 43, 44, 45, 46, 36, 35, 34, 33, 32, 31, 30, 29, 28.



December 27, 2022

Job 35473A	Truss D2	Truss Type Common	Qty 4	Ply 1	8 SERENITY - ROOF	155884980
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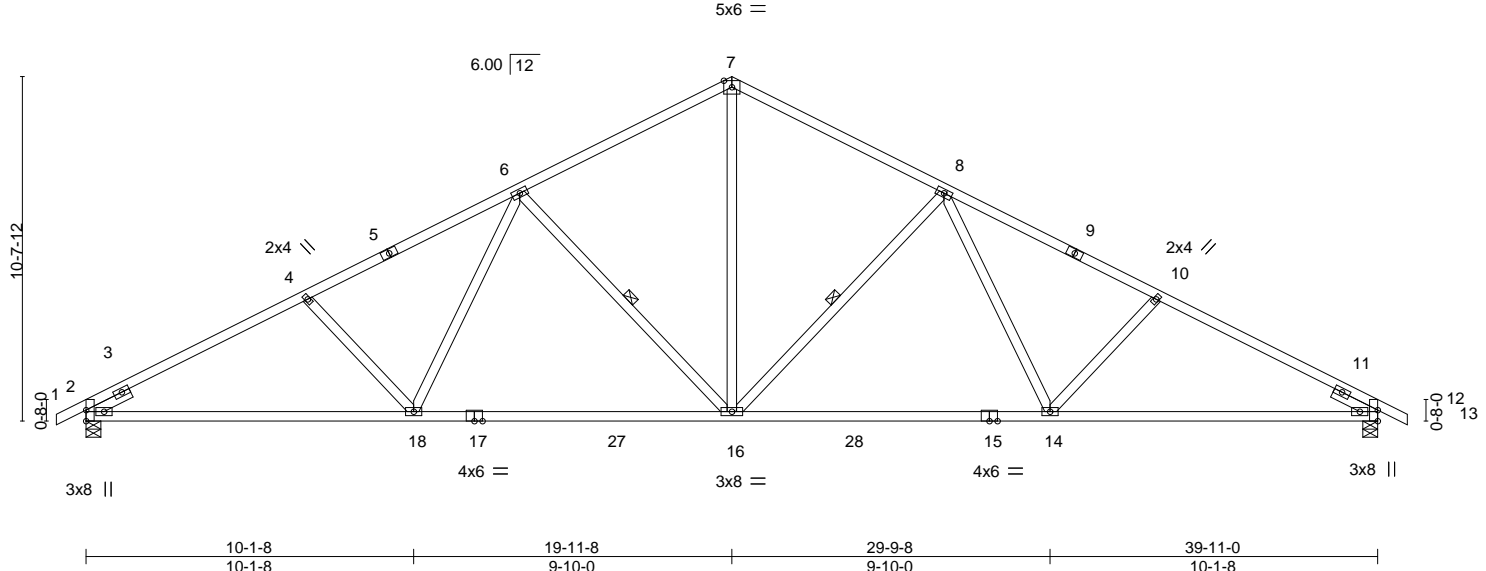
84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:27 2022 Page 1

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Scale = 1:71.2



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 0.89	Vert(LL)	-0.36 16-18	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.90	Vert(CT)	-0.62 16-18	>771	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.43	Horz(CT)	0.13 12	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS					Weight: 213 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 1-5,9-13: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	WEBS 1 Row at midpt 8-16, 6-16
SLIDER Left 2x4 SP No.3 1-6-0, Right 2x4 SP No.3 1-6-0	

REACTIONS. (size) 2=0-5-8, 12=0-5-8
 Max Horz 2=148(LC 10)
 Max Uplift 2=103(LC 10), 12=103(LC 11)
 Max Grav 2=1652(LC 1), 12=1652(LC 1)

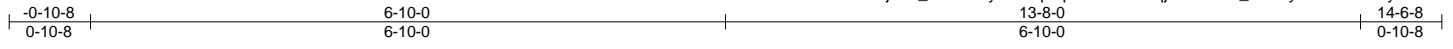
FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-4=-2783/482, 4-6=-2554/468, 6-7=-1851/427, 7-8=-1851/427, 8-10=-2554/468,
 10-12=-2783/482
 BOT CHORD 2-18=-319/2409, 16-18=-190/2035, 14-16=-190/2035, 12-14=-319/2409
 WEBS 7-16=-226/1277, 8-16=-705/233, 8-14=-14/494, 10-14=-307/183, 6-16=-705/233,
 6-18=-14/494, 4-18=-307/183

- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=103, 12=103.

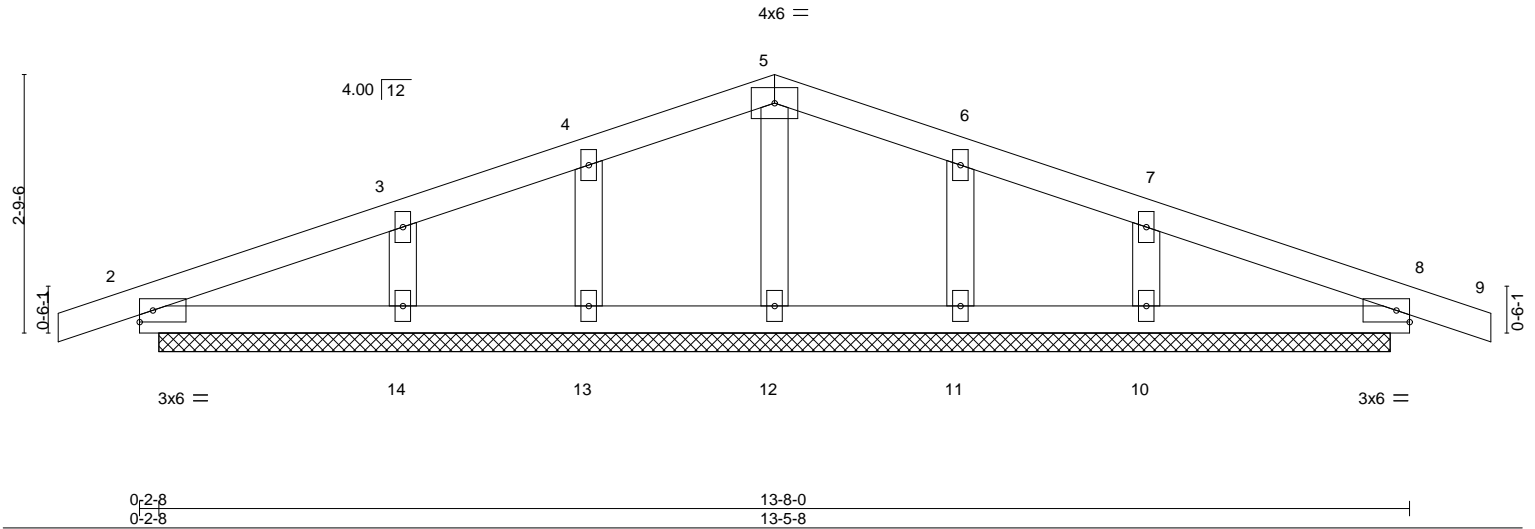


December 27, 2022

Job 35473A	Truss E1E	Truss Type Common Supported Gable	Qty 1	Ply 1	8 SERENITY - ROOF	I55884981
84 Components (Dunn), Dunn, NC - 28334,					8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:28 2022 Page 1	
					ID:nxbot3WxslSjrAw_FcBFB3yorwP-pGpmnLJIM07qj6arzcR77_TnS2yhsPICb6wruy606P	



Scale = 1:24.8



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 0.08	Vert(LL)	0.00	8	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	0.00	9	n/r	90		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 55 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 13-3-0.
 (lb) - Max Horz 2=37(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
 Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 14, 11, 10

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 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, 8, 13, 14, 11, 10.
 - 9) Non Standard bearing condition. Review required.



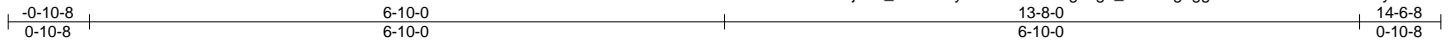
December 27, 2022

Job 35473A	Truss E2	Truss Type Common	Qty 4	Ply 1	8 SERENITY - ROOF	155884982
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:29 2022 Page 1

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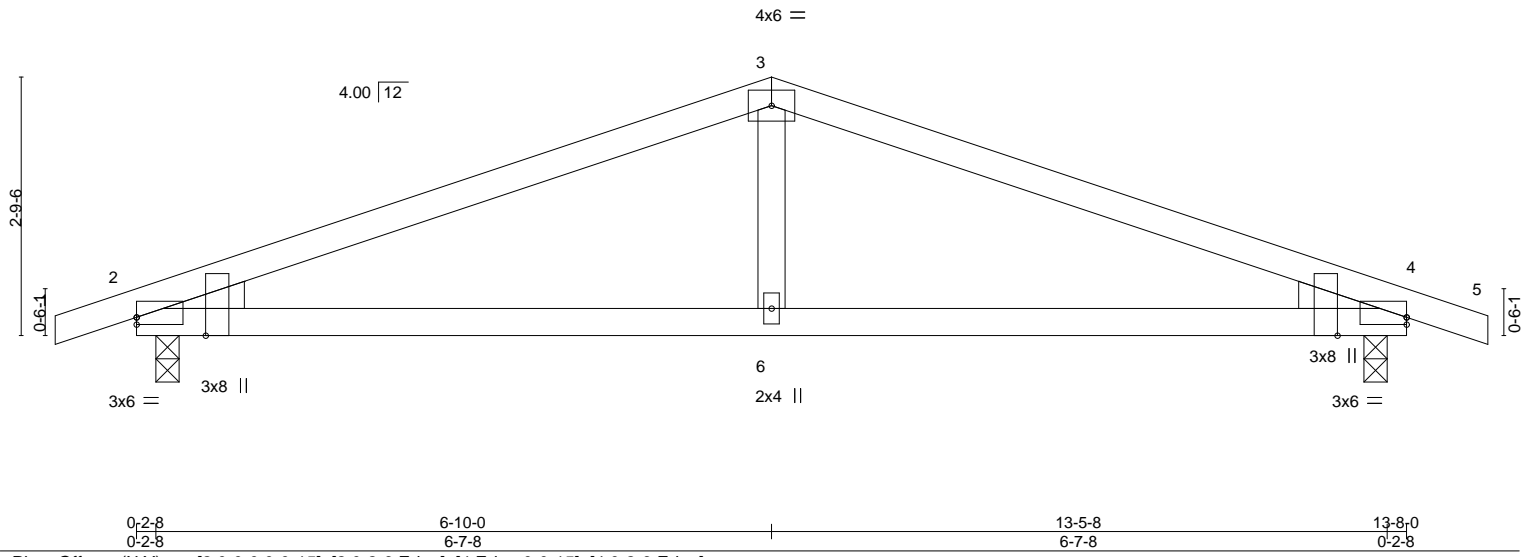


Plate Offsets (X, Y)-- [2:0-0-0,0-0-15], [2:0-2-6,Edge], [4:Edge,0-0-15], [4:0-2-6,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.52	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.53	Vert(LL) -0.07 6-12 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Vert(CT) -0.13 6-9 >999 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 2 n/a n/a		
	Code IRC2015/TPI2014			Weight: 51 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

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

REACTIONS. (size) 2=0-3-0, 4=0-3-0
Max Horz 2=37(LC 14)
Max Uplift 2=69(LC 6), 4=69(LC 7)
Max Grav 2=599(LC 1), 4=599(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=951/189, 3-4=951/189
BOT CHORD 2-6=100/855, 4-6=100/855
WEBS 3-6=0/292

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - 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
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



December 27, 2022

Job 35473A	Truss M1	Truss Type MONO TRUSS	Qty 6	Ply 1	8 SERENITY - ROOF	I55884983
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84 Components (Dunn),

Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:30 2022 Page 1

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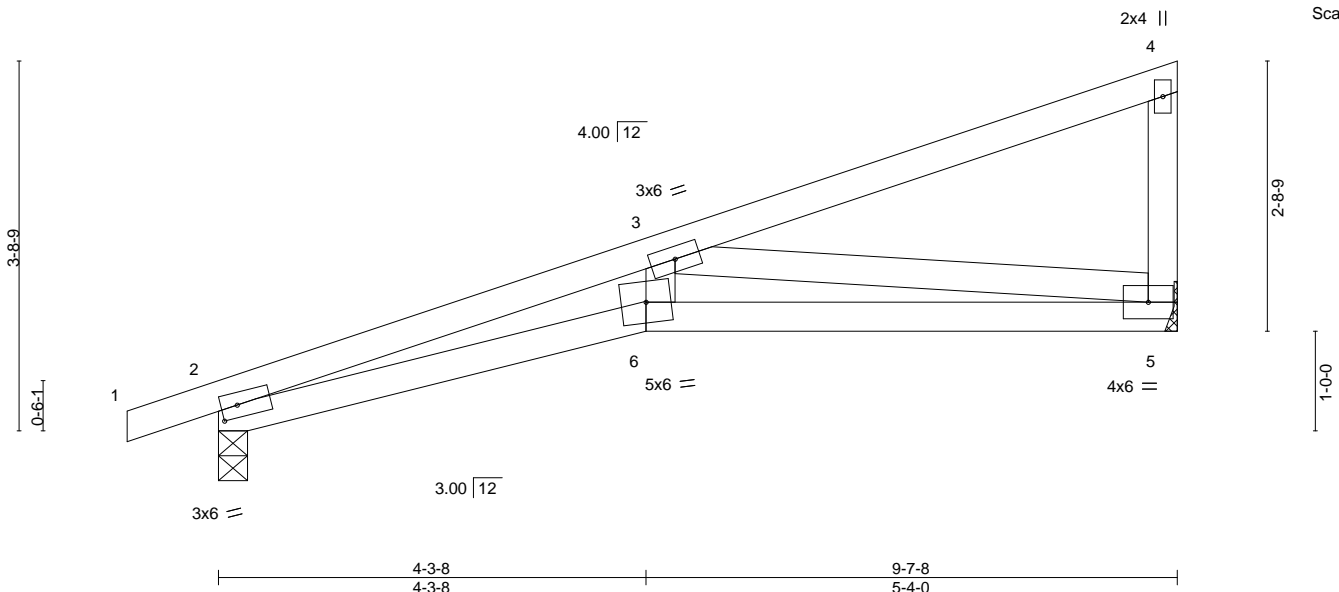


Plate Offsets (X,Y)--	[2:0-1-15,0-1-8]
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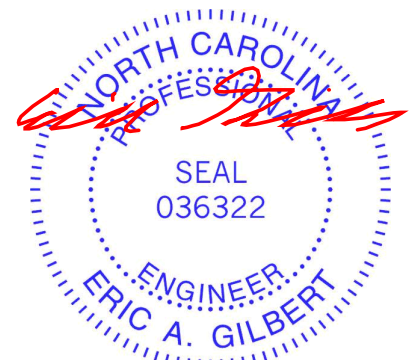
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.39	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.08 6 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.61	Vert(CT) -0.16 5-6 >704 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.06 5 n/a n/a		
	Code IRC2015/TPI2014			Weight: 42 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 4-7-6 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 9-8-1 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 5=Mechanical, 2=0-3-8
 Max Horz 2=108(LC 7)
 Max Uplift 5=-53(LC 10), 2=-62(LC 6)
 Max Grav 5=377(LC 1), 2=437(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1423/357
 BOT CHORD 2-6=-370/1341, 5-6=-354/1227
 WEBS 3-6=-18/392, 3-5=-1184/381

- 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2.



December 27, 2022

Job 35473A	Truss M1A	Truss Type MONO TRUSS	Qty 3	Ply 1	8 SERENITY - ROOF	I55884984
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:31 2022 Page 1

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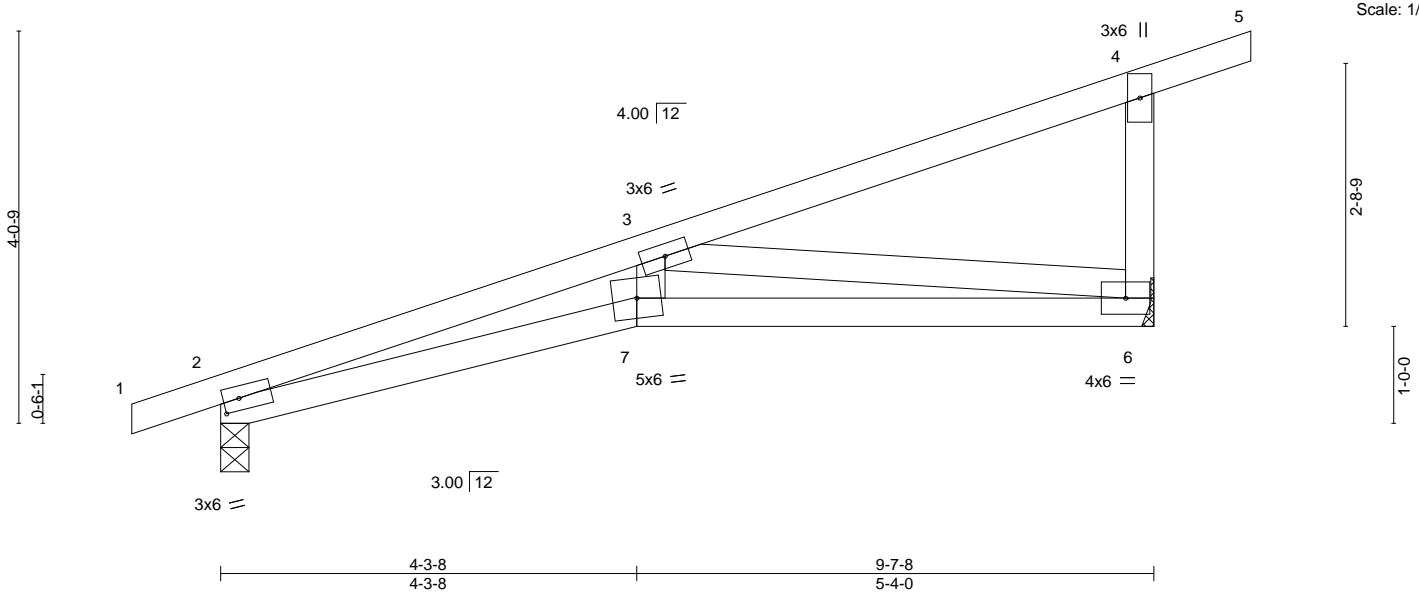
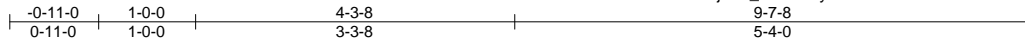


Plate Offsets (X, Y)--	[2:0-1-15,0-1-8]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.42	Vert(LL)	-0.08	7	>999
TCDL 10.0	Lumber DOL	1.15	BC 0.58	Vert(CT)	-0.15	6-7	>734
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.59	Horz(CT)	0.06	6	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS				
							PLATES
							MT20
							GRIP
							244/190
							Weight: 44 lb
							FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 4-8-6 oc purlins, except end verticals.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 9-11-14 oc bracing.
WEBS	2x4 SP No.3		

REACTIONS. (size) 6=Mechanical, 2=0-3-8
 Max Horz 2=121(LC 7)
 Max Uplift 6=-77(LC 10), 2=-57(LC 6)
 Max Grav 6=449(LC 1), 2=433(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1384/310
 BOT CHORD 2-7=-347/1302, 6-7=-331/1190
 WEBS 3-7=-16/390, 3-6=-1141/359

- 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) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
 - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 2.



December 27, 2022

Job 35473A	Truss M1GE	Truss Type MONOPITCH SUPPORTED	Qty 1	Ply 1	8 SERENITY - ROOF	I55884985
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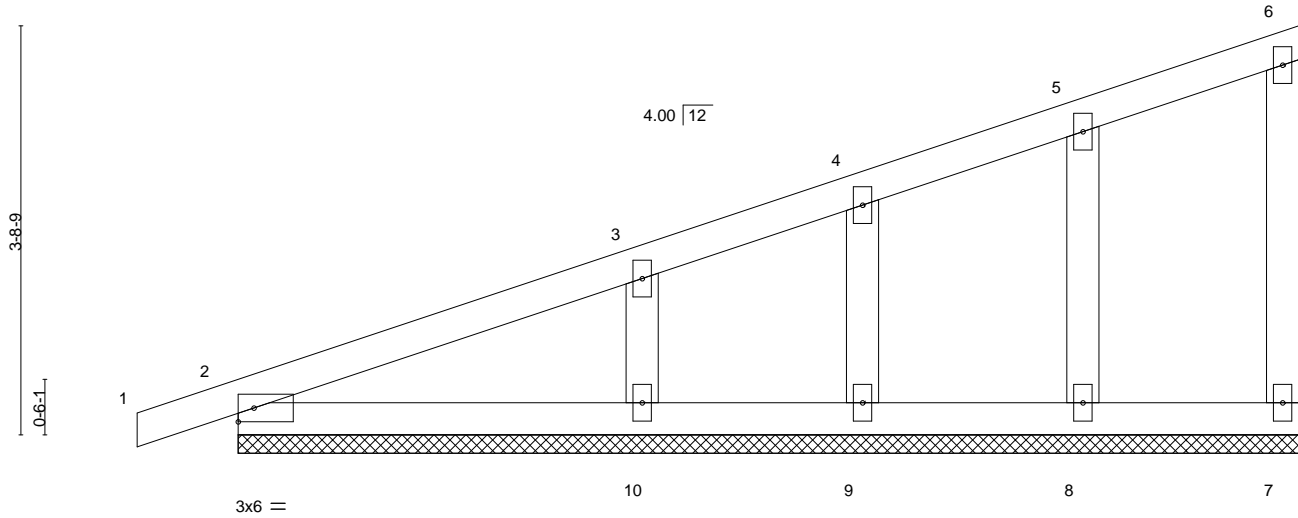
84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:32 2022 Page 1

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9-7-8
9-7-8



Scale = 1:20.9



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 0.14	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
BCLL 0.0 *	Lumber DOL	1.15	BC 0.10	Vert(CT)	0.00	1	n/r	90		
BCDL 10.0	Rep Stress Incr	YES	WB 0.04	Horz(CT)	-0.00	7	n/a	n/a		
	Code IRC2015/TPI2014		Matrix-S						Weight: 44 lb	FT = 20%

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

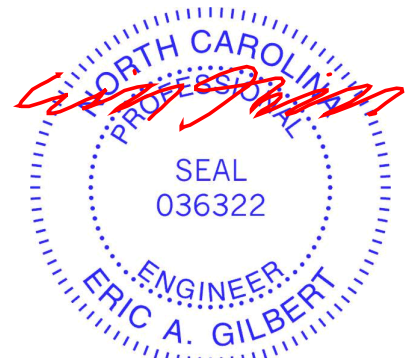
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 9-8-0.
(lb) - Max Horz 2=123(LC 7)
Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 8, 9, 10
Max Grav All reactions 250 lb or less at joint(s) 7, 2, 8, 9 except 10=285(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; TC DL=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) All plates are 2x4 MT20 unless otherwise indicated.
- 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) 7, 2, 8, 9, 10.



December 27, 2022

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

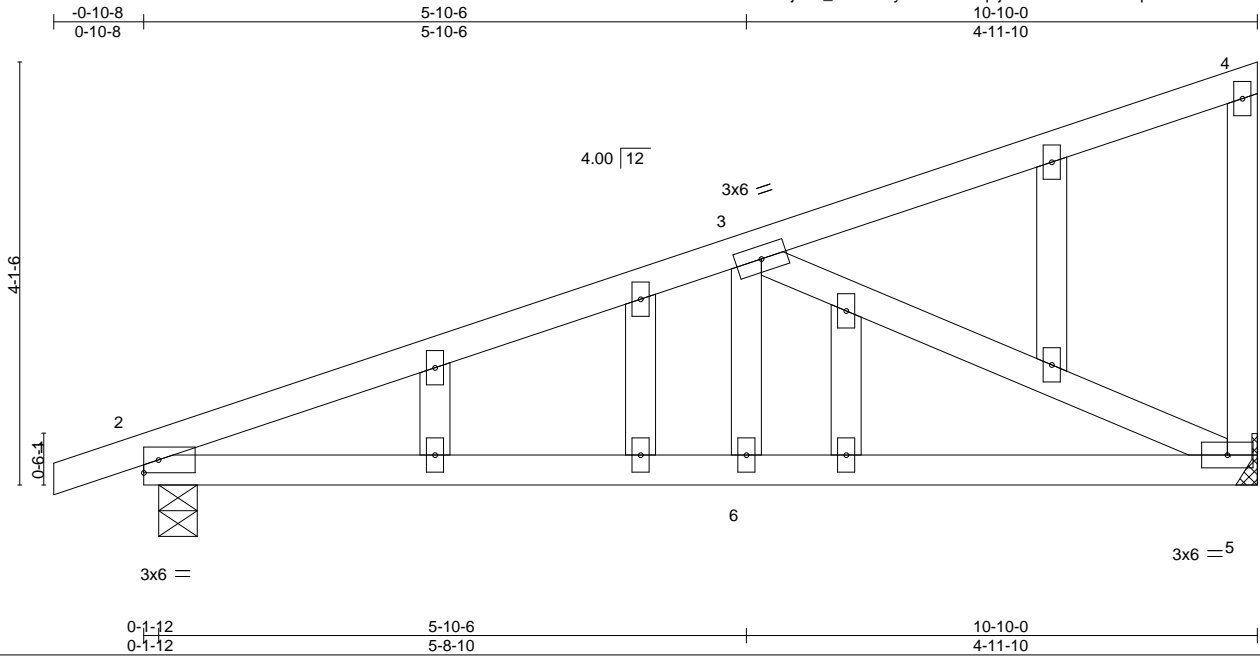


818 Soundside Road
Edenton, NC 27932

Job 35473A	Truss M2GE	Truss Type GABLE	Qty 1	Ply 1	8 SERENITY - ROOF	155884986
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:33 2022 Page 1
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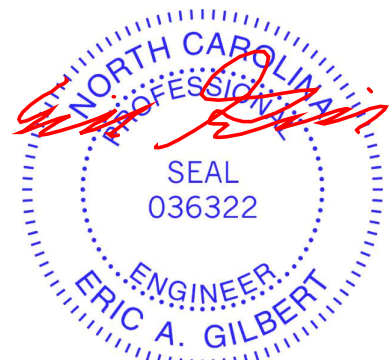
LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.34	Vert(LL)	-0.02	6-17	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(CT)	-0.06	6-17	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.36	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS					Weight: 59 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	

REACTIONS. (size) 2=0-4-8, 5=Mechanical
 Max Horz 2=138(LC 9)
 Max Uplift 2=66(LC 6), 5=58(LC 10)
 Max Grav 2=482(LC 1), 5=425(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-704/146
 BOT CHORD 2-6=-119/622, 5-6=-119/622
 WEBS 3-5=-667/191

- 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) All plates are 2x4 MT20 unless otherwise indicated.
 - 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) Refer to girder(s) for truss to truss connections.
 - 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5.



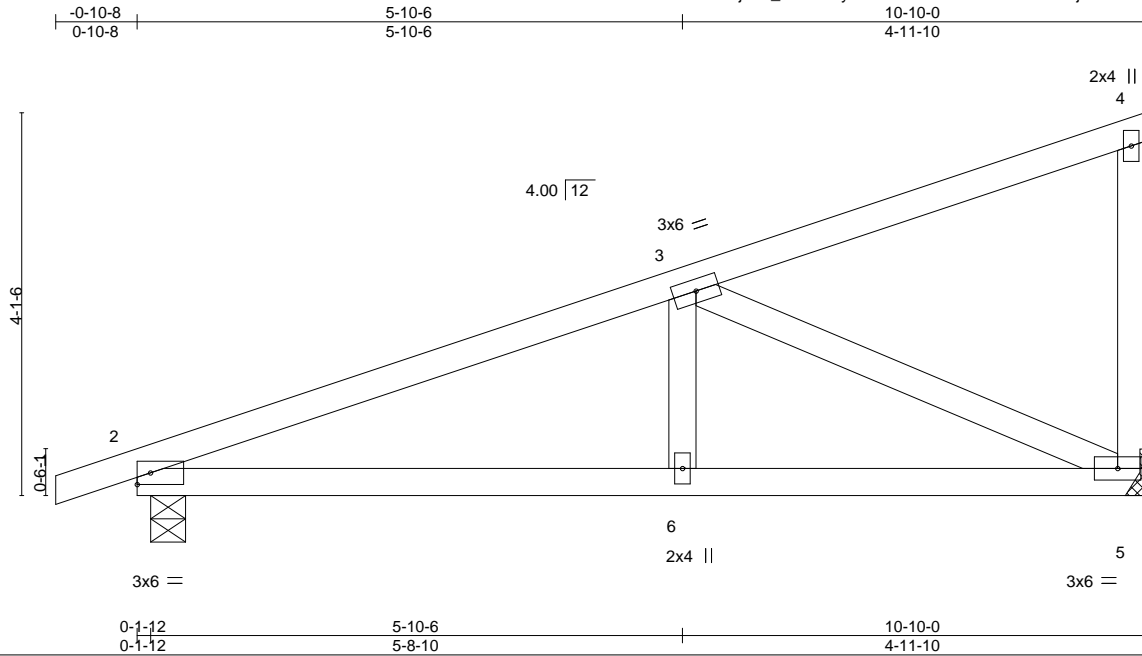
December 27, 2022

Job 35473A	Truss M3	Truss Type Monopitch	Qty 6	Ply 1	8 SERENITY - ROOF	I55884987
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:34 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-eQA12Ok4tCnGYeakBDjrNOEQ3t1H5VjbaXE3Xy606J



Scale = 1:24.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.34	Vert(LL)	-0.02	6-9	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.32	Vert(CT)	-0.06	6-9	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.36	Horz(CT)	0.01	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS					Weight: 50 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

REACTIONS. (size) 2=0-4-8, 5=Mechanical
 Max Horz 2=138(LC 9)
 Max Uplift 2=-66(LC 6), 5=-58(LC 10)
 Max Grav 2=482(LC 1), 5=425(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-704/146
 BOT CHORD 2-6=-119/622, 5-6=-119/622
 WEBS 3-5=-667/191

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.



December 27, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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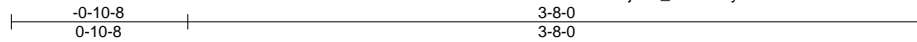
Job 35473A	Truss M3GE	Truss Type Monopitch Structural Gable	Qty 1	Ply 1	8 SERENITY - ROOF	I55884988
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84 Components (Dunn),

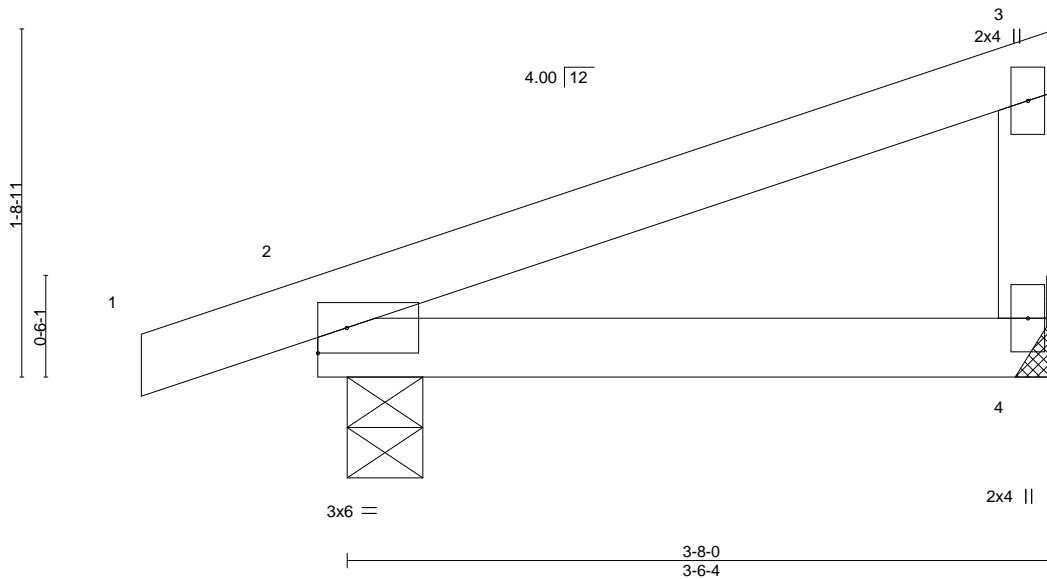
Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:35 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-6ckPFklieWv7An9wlxE4vcneZHQaq1dkpBJob_y606l



Scale = 1:11.4



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 0.17	Vert(LL)	-0.01	4-7	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	-0.01	4-7	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MP						
								Weight: 14 lb	FT = 20%

LUMBER-

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

BRACING-

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

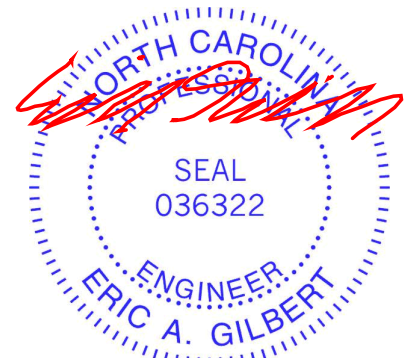
REACTIONS.

(size) 4=Mechanical, 2=0-4-8
 Max Horz 2=52(LC 9)
 Max Uplift 4=-18(LC 10), 2=-43(LC 6)
 Max Grav 4=134(LC 1), 2=200(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) 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) 4, 2.



December 27, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

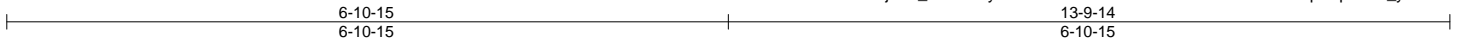


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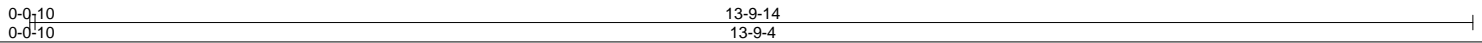
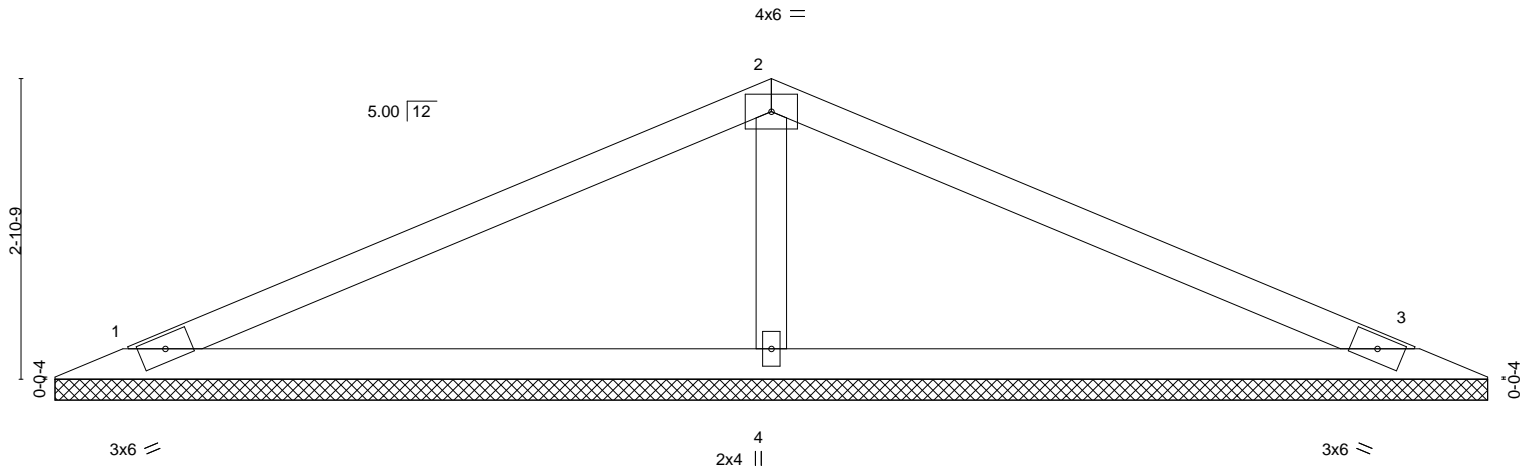
Job 35473A	Truss V1	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	155884989
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:35 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-6ckPFkieWv7An9wIxE4vcnYSHMdq0JkpBJob_y606I



Scale = 1:22.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.56	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.37	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 44 lb	FT = 20%

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

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

REACTIONS. (size) 1=13-8-11, 3=13-8-11, 4=13-8-11
Max Horz 1=-37(LC 15)
Max Uplift 1=-29(LC 10), 3=-36(LC 11)
Max Grav 1=222(LC 21), 3=222(LC 22), 4=551(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-371/147

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 27, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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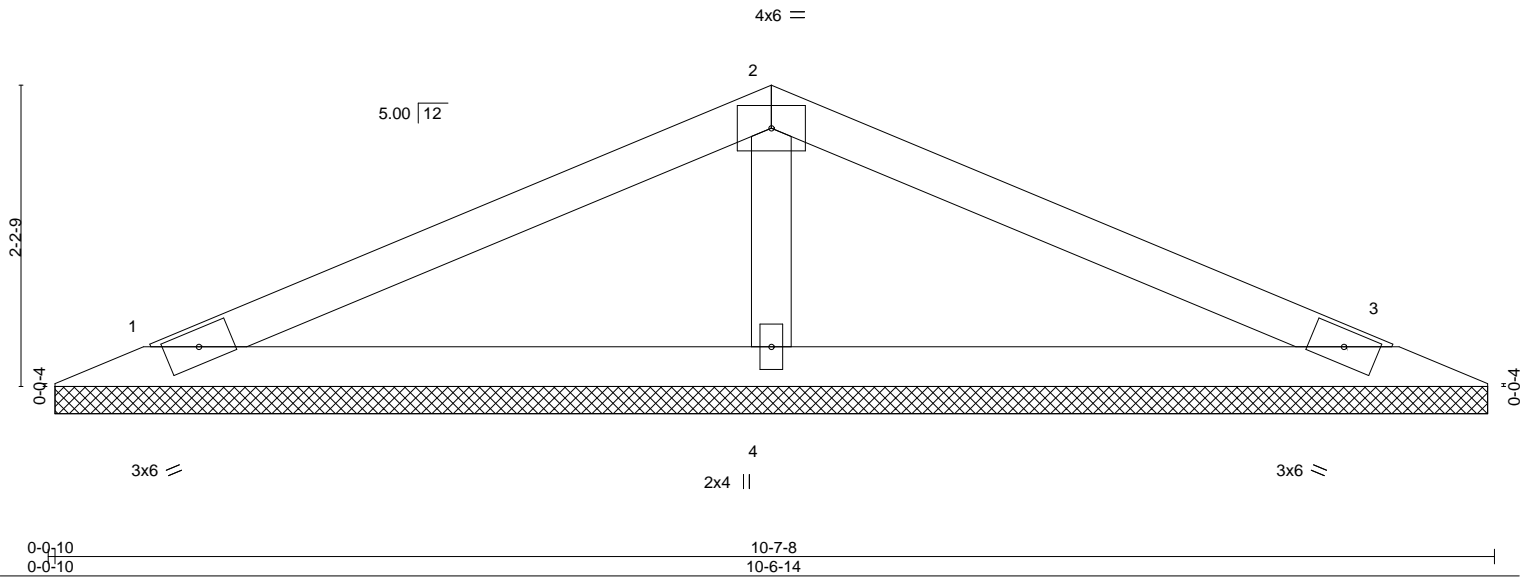
Job 35473A	Truss V2	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	I55884990
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:36 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-aplnT4IKPp1_oxj7JeJSpJkIhkTZU_u2r2L7Qy606H



Scale = 1:16.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.49	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 33 lb	FT = 20%
	Code IRC2015/TPI2014							

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

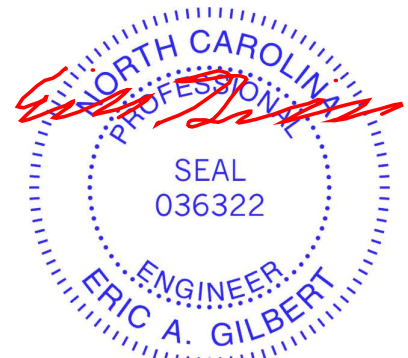
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=10-6-4, 3=10-6-4, 4=10-6-4
Max Horz 1=27(LC 14)
Max Uplift 1=22(LC 10), 3=26(LC 11)
Max Grav 1=164(LC 21), 3=164(LC 22), 4=409(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-275/122

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 27, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



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Job 35473A	Truss V3	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	155884991
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84 Components (Dunn), Dunn, NC - 28334,

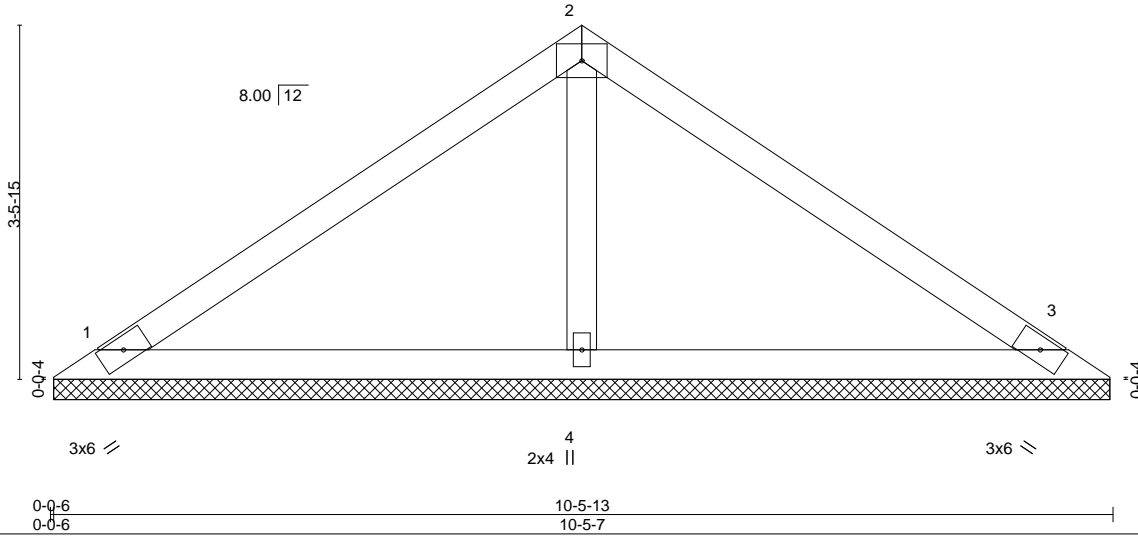
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:37 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-2?s9gQmyA79rP5IJtMGY?1suB54Mlw71GVoufsy606G



4x6 =

Scale = 1:22.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.54	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 37 lb	FT = 20%

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

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

REACTIONS. (size) 1=10-5-1, 3=10-5-1, 4=10-5-1
Max Horz 1=67(LC 6)
Max Uplift 1=22(LC 10), 3=30(LC 11)
Max Grav 1=186(LC 1), 3=186(LC 1), 4=389(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.



December 27, 2022

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Edenton, NC 27932

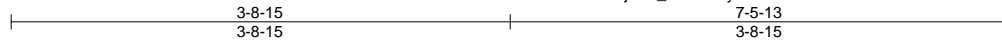
Job 35473A	Truss V4	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	155884992
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84 Components (Dunn),

Dunn, NC - 28334,

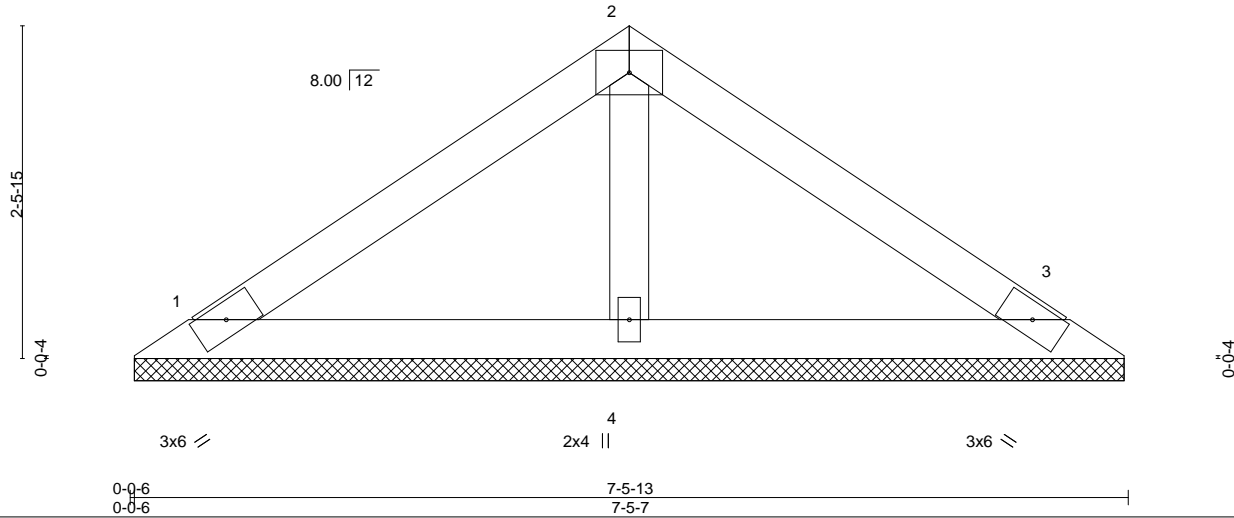
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:38 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorwP-WBQYtmnbxRH11FtVQ3onXEP6BUSU1OrBV9XSCJy606F



4x6 =

Scale = 1:17.3



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.34	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.11	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 26 lb	FT = 20%
	Code IRC2015/TPI2014							

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

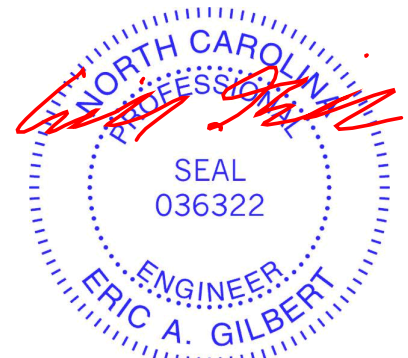
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=7-5-1, 3=7-5-1, 4=7-5-1
 Max Horz 1=46(LC 7)
 Max Uplift 1=-21(LC 10), 3=-27(LC 11)
 Max Grav 1=140(LC 1), 3=140(LC 1), 4=242(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.



December 27, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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Job 35473A	Truss V5	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	I55884993
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:39 2022 Page 1

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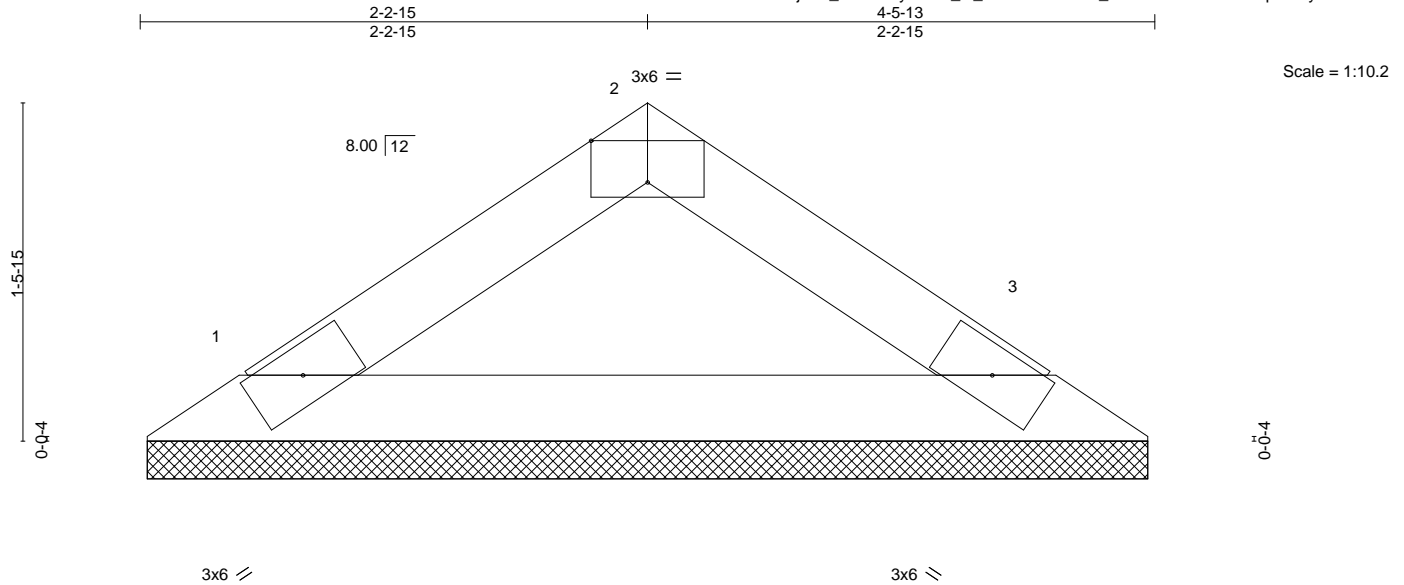


Plate Offsets (X,Y)--	[2:0-3-0,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.09	Vert(LL)	n/a	-	n/a	999
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	n/a	-	n/a	999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					
								PLATES
								MT20
								GRIP
								244/190
								Weight: 13 lb
								FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.3	TOP CHORD	Structural wood sheathing directly applied or 4-5-13 oc purlins.
BOT CHORD	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=4-5-1, 3=4-5-1
 Max Horz 1=25(LC 7)
 Max Uplift 1=7(LC 10), 3=7(LC 11)
 Max Grav 1=141(LC 1), 3=141(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.



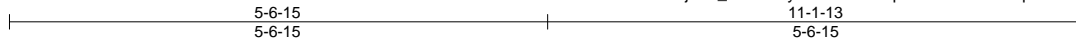
December 27, 2022

Job 35473A	Truss V6	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	I55884994
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84 Components (Dunn), Dunn, NC - 28334,

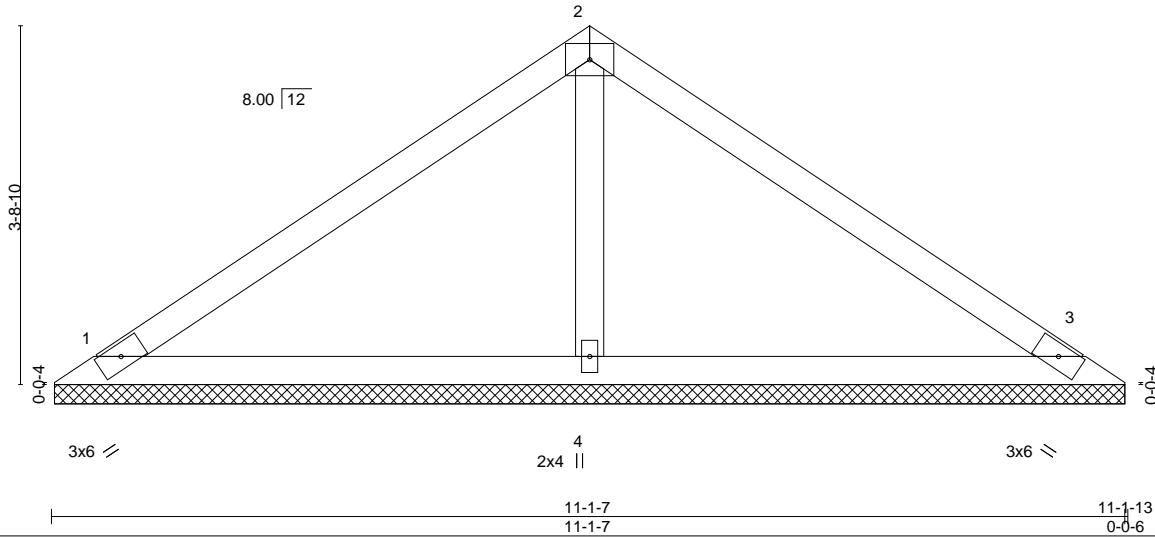
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:40 2022 Page 1

ID:nxbot3WsxISjrAw_FcBFB3yorWP-SaYIIRprT2XQGZ1uYUqFcfUS4I4aVHkTzT0YGBY606D



4x6 =

Scale: 1/2"=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 0.37	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.26	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.07	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 39 lb	FT = 20%

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

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

REACTIONS. (size) 1=11-1-1, 3=11-1-1, 4=11-1-1
 Max Horz 1=-72(LC 6)
 Max Uplift 1=-23(LC 10), 3=-33(LC 11)
 Max Grav 1=201(LC 1), 3=201(LC 1), 4=414(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-263/71

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 27, 2022

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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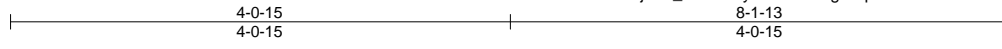
Job 35473A	Truss V7	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	155884995
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84 Components (Dunn),

Dunn, NC - 28334,

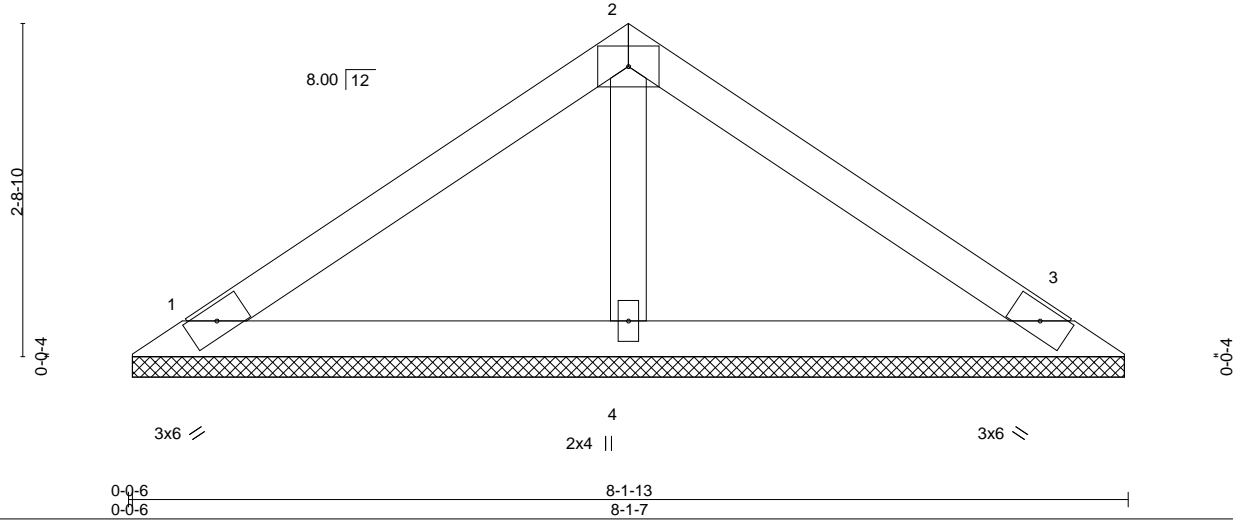
8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:41 2022 Page 1

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4x6 =

Scale = 1:18.8



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 28 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

REACTIONS. (size) 1=8-1-1, 3=8-1-1, 4=8-1-1
 Max Horz 1=50(LC 6)
 Max Uplift 1=23(LC 10), 3=29(LC 11)
 Max Grav 1=154(LC 1), 3=154(LC 1), 4=266(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.



December 27, 2022

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

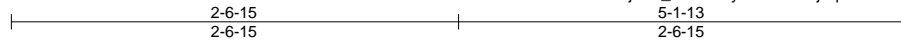


818 Soundside Road
 Edenton, NC 27932

Job 35473A	Truss V8	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF Job Reference (optional)	I55884996
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84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:42 2022 Page 1
ID:nxbot3WsxISjrAw_FcBFB3yorwP-Pzf2j7q5?fn8WsBHfvsji4ZrP6lJzCMmQnVfL4y606B



3x6 =

Scale = 1:13.3

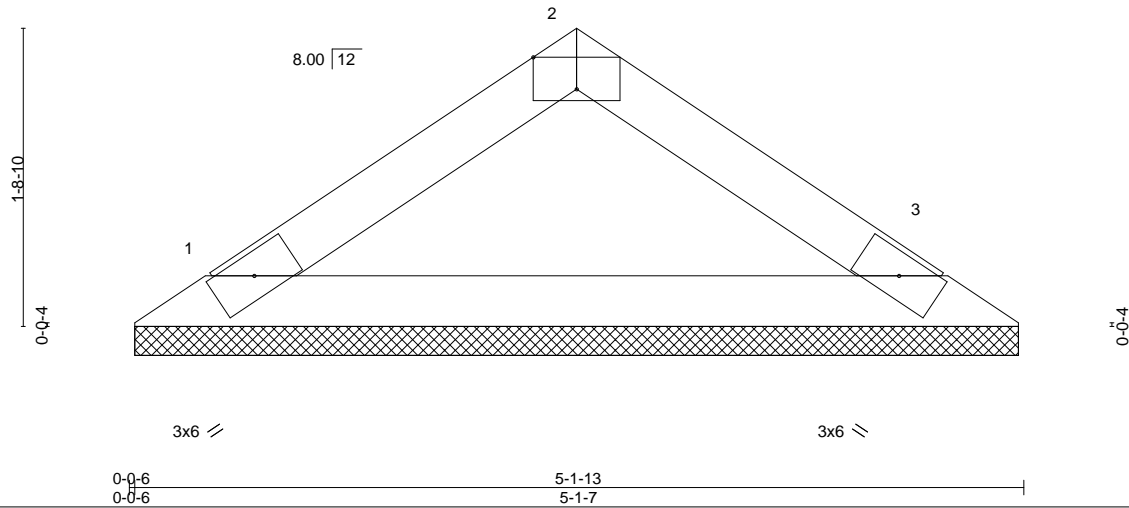


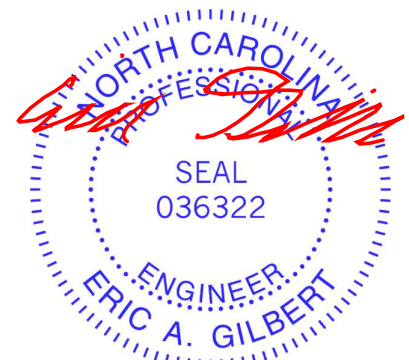
Plate Offsets (X,Y)--	[2:0-3:0,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES
TCLL 20.0	Plate Grip DOL	1.15	TC 0.13	Vert(LL)	n/a	-	n/a	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.37	Vert(CT)	n/a	-	n/a	244/190
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a	
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 15 lb FT = 20%

LUMBER-		BRACING-	
TOP CHORD	2x4 SP No.3	TOP CHORD	Structural wood sheathing directly applied or 5-1-13 oc purlins.
BOT CHORD	2x4 SP No.3	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-1-1, 3=5-1-1
 Max Horz 1=29(LC 7)
 Max Uplift 1=8(LC 10), 3=8(LC 11)
 Max Grav 1=168(LC 1), 3=168(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.



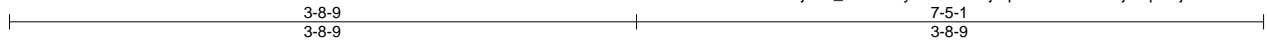
December 27, 2022

Job 35473A	Truss V9	Truss Type Valley	Qty 1	Ply 1	8 SERENITY - ROOF	155884997
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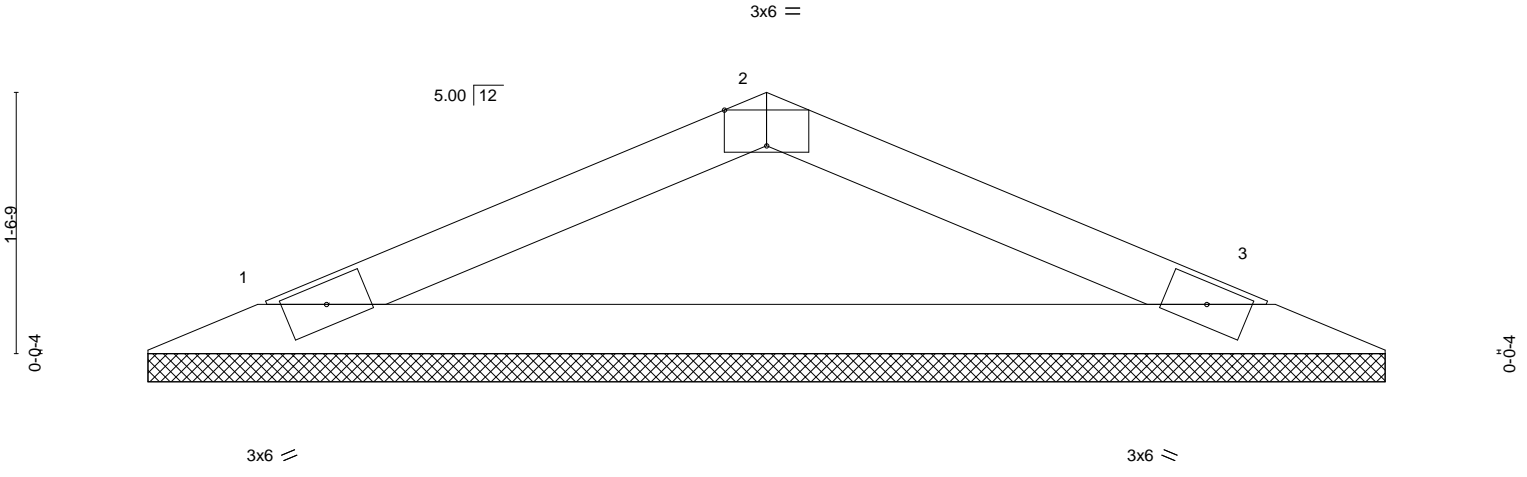
84 Components (Dunn), Dunn, NC - 28334,

8.630 s Nov 19 2022 MiTek Industries, Inc. Fri Dec 23 17:42:42 2022 Page 1

ID: nxbot3WsxISjrAw_FcBFB3yorwP-Pzf2j7q5?fn8WsBHfvsj4ZpD6jszCMmQnVIL4y606B



Scale = 1:13.6



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	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.46	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						
								Weight: 20 lb	FT = 20%

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

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

REACTIONS. (size) 1=7-3-14, 3=7-3-14
Max Horz 1=-18(LC 15)
Max Uplift 1=-14(LC 10), 3=-14(LC 11)
Max Grav 1=237(LC 1), 3=237(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-256/136, 2-3=-256/136

NOTES-

- Unbalanced roof live loads have been considered for this design.
- 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
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.



December 27, 2022

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Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

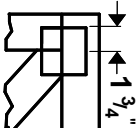
Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Symbols

PLATE LOCATION AND ORIENTATION



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



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



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

* Plate location details available in **MITek 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/TFP 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8
dimensions shown in ft-in-sixteenths
(Drawings not to scale)



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/TFP 1 section 6.3 These truss designs rely on lumber values established by others.

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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/TFP 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TFP 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. Rewriting pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TFP 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.