ENGINEERING BY TRENCO
A MiTek Affiliate

RE: J0321-1973
Lot 50 Sierra Village

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J0321-1973
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 8.3
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 40.0 psf Floor Load: N/A psf

This package includes 16 individual, dated Truss Design Drawings and 0 Additional Drawings.

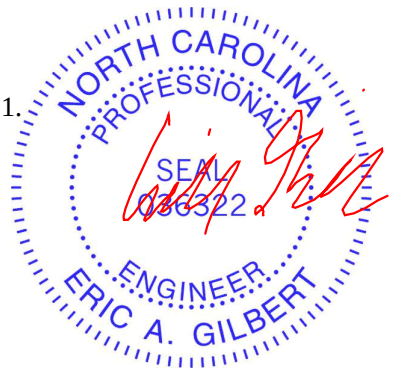
No.	Seal#	Truss Name	Date
1	E15407755	A1	3/26/2021
2	E15407756	A2	3/26/2021
3	E15407757	A2-P	3/26/2021
4	E15407758	A3-P	3/26/2021
5	E15407759	A4	3/26/2021
6	E15407760	A5	3/26/2021
7	E15407761	A6	3/26/2021
8	E15407762	B1	3/26/2021
9	E15407763	B2	3/26/2021
10	E15407764	G1	3/26/2021
11	E15407765	G2	3/26/2021
12	E15407766	M1	3/26/2021
13	E15407767	M2	3/26/2021
14	E15407768	P1	3/26/2021
15	E15407769	P2	3/26/2021
16	E15407770	V1	3/26/2021

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

Truss Design Engineer's Name: Gilbert, Eric

My license renewal date for the state of North Carolina is December 31, 2021.

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.

March 26, 2021

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	A1	GABLE	2	1	E15407755
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:42 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-wz2CCiVnn_fHYvjoaLn53Jihzgq0oC3rzCsOhzzlv6x

-0-10-8 19-3-0 39-0-0
0-10-8 19-3-0 19-9-0

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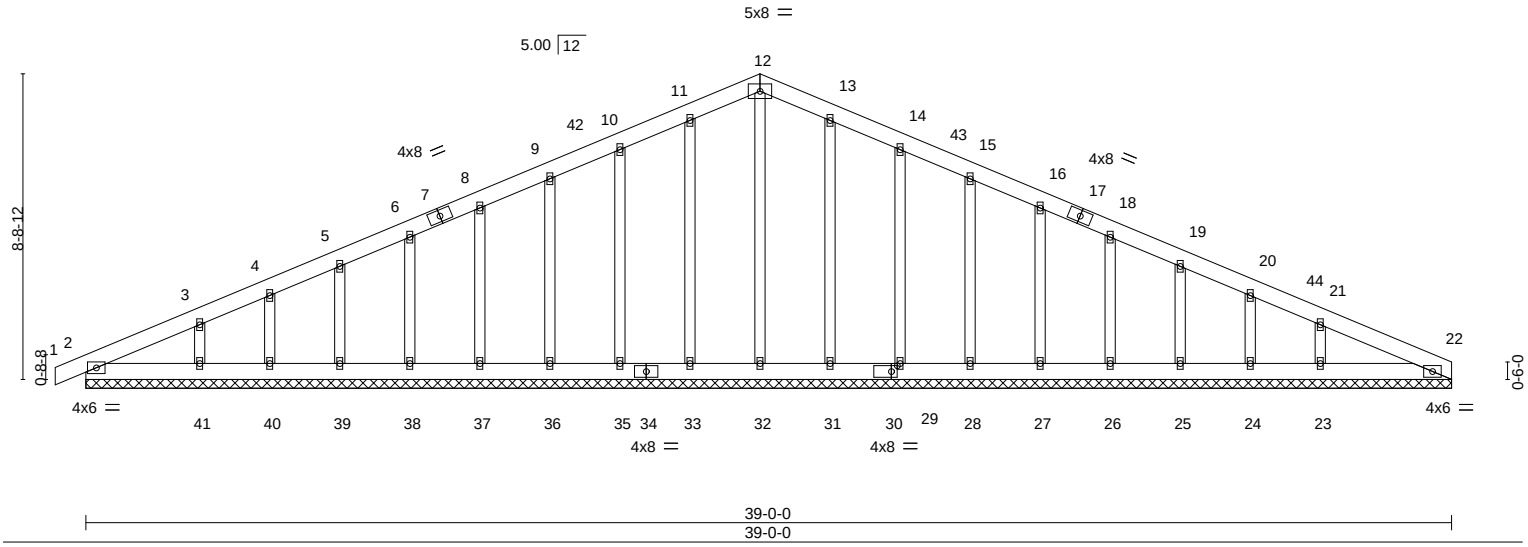


Plate Offsets (X,Y)-- [30:0-2-0,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.15	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 302 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 39-0-0.
(lb) - Max Horz 2=172(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 35, 36, 37, 38, 39, 40, 31, 29, 28, 27, 26, 25, 24 except 41=-111(LC 12), 23=-116(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 22, 32, 33, 35, 36, 37, 38, 39, 40, 41, 31, 29, 28, 27, 26, 25, 24 except 23=302(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-101/296, 11-12=-114/332, 12-13=-114/332, 13-14=-101/297
WEBS 21-23=-216/282

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-3-0, Exterior(2) 3-3-0 to 19-3-0, Corner(3) 19-3-0 to 23-7-13, Exterior(2) 23-7-13 to 39-0-0 zone;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 40.0psf 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, 33, 35, 36, 37, 38, 39, 40, 31, 29, 28, 27, 26, 25, 24 except (jt=lb) 41=111, 23=116.

February 12,2021

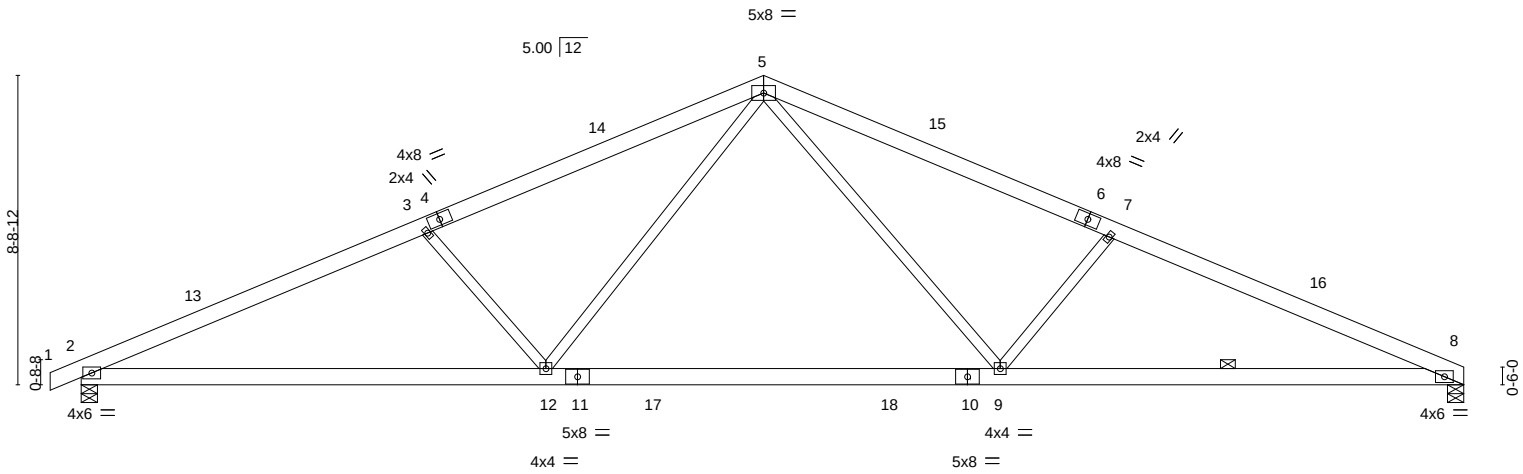
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	A2	COMMON	2	1	E15407756
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:43 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBIV_-O9cbQ2VPYHn893I?83IKcWFlt4y5Xd5_BsbxDPzlv6w

-0-10-8	9-9-4	19-3-0	28-11-15	39-0-0
0-10-8	9-9-4	9-5-12	9-8-15	10-0-1

Scale = 1:65.0



13-1-5	25-11-1	39-0-0
13-1-5	12-9-13	13-0-15

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)	-0.63	9-12	>734	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.80	9-12	>582	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 238 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
10-0-0 oc bracing: 8-9

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=102(LC 16)
Max Uplift 2=-111(LC 12), 8=-99(LC 13)
Max Grav 2=1609(LC 1), 8=1547(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3191/642, 3-5=-2882/603, 5-7=-2994/643, 7-8=-3293/685
BOT CHORD 2-12=-492/2834, 9-12=-223/1941, 8-9=-519/2971
WEBS 3-12=-571/320, 5-12=-110/1071, 5-9=-140/1169, 7-9=-634/342

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 19-3-0, Exterior(2) 19-3-0 to 23-7-13, Interior(1) 23-7-13 to 38-9-4 zone;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 40.0psf 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 except (jt=lb) 2=111.

February 12,2021

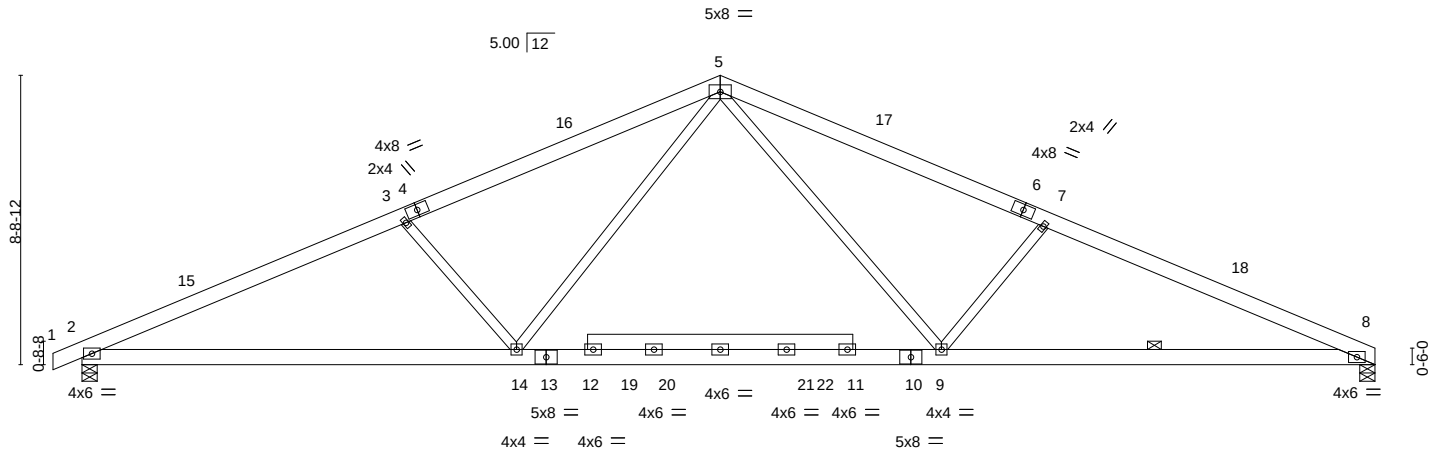
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	A2-P	COMMON	2	1	E15407757
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:44 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-sM9zdOW1Jbv?nDtBimpZ9kotlUK4G3s8QWLVmrzlv6v

-0-10-8	9-9-4	19-3-0	28-11-15	39-0-0
0-10-8	9-9-4	9-5-12	9-8-15	10-0-1

Scale = 1:69.5



13-1-5	15-3-0	23-3-0	25-11-1	39-0-0
13-1-5	2-1-11	8-0-0	2-8-1	13-0-15

LOADING (psf)		**SPACING-**	2-1-8	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	20.0	Plate Grip DOL	1.15	TC	0.67	Vert(LL)	-0.28	9-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.50	9-14	>924	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.32	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 256 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
11-12: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-3-4 oc bracing. Except:
10-0-0 oc bracing: 8-9

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=109(LC 12)
Max Uplift 2=-17(LC 12), 8=-6(LC 13)
Max Grav 2=1811(LC 1), 8=1736(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3526/427, 3-5=-3219/382, 5-7=-3340/421, 7-8=-3658/467
BOT CHORD 2-14=-291/3155, 9-14=-73/2161, 8-9=-312/3304
WEBS 3-14=-596/352, 5-14=0/1215, 5-9=-24/1320, 7-9=-668/369

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 19-3-0, Exterior(2) 19-3-0 to 23-7-13, Interior(1) 23-7-13 to 38-9-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 19-3-0 from left end, supported at two points, 5-0-0 apart.
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 40.0psf 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) 2, 8.

February 12,2021

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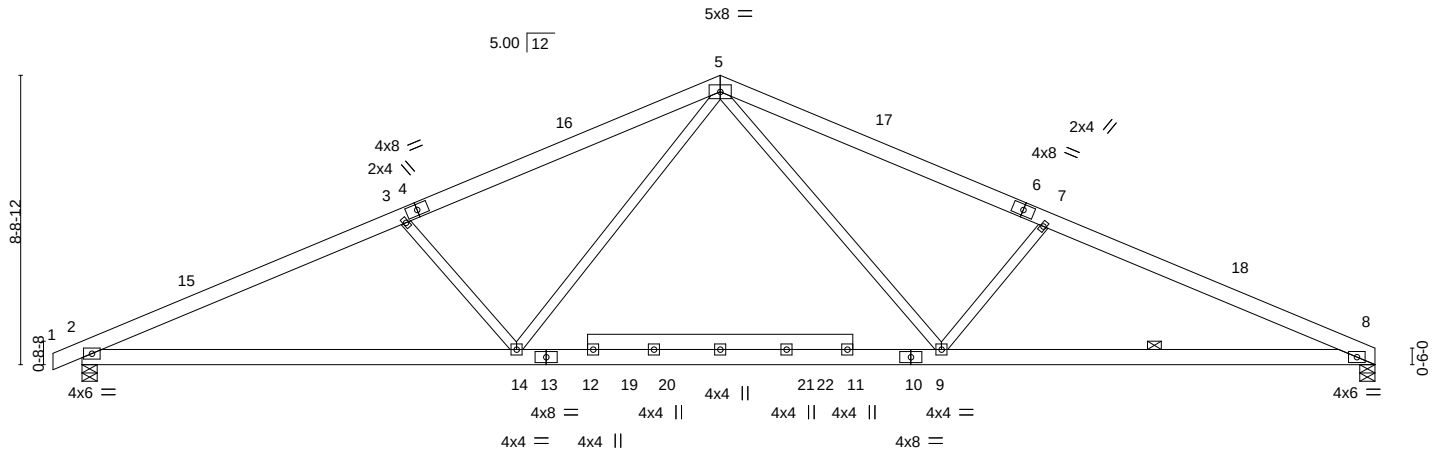
Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	A3-P	COMMON	4	1	E15407758
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:45 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-LYjLrkXf4v1sPNSNFTKohxK4ztg9?XNHfA42IIzlv6u

-0-10-8	9-9-4	19-3-0	28-11-15	39-0-0
0-10-8	9-9-4	9-5-12	9-8-15	10-0-1

Scale = 1:69.5



13-1-5	15-3-0	23-3-0	25-11-1	39-0-0
13-1-5	2-1-11	8-0-0	2-8-1	13-0-15

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	0.51	Vert(LL)	-0.26	9-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.48	9-14	>970	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.31	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 256 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2 *Except*
11-12: 2x6 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-7-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 9-8-12 oc bracing. Except:
10-0-0 oc bracing: 8-9

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=102(LC 16)
Max Uplift 2=-10(LC 12)
Max Grav 2=1710(LC 1), 8=1639(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3334/387, 3-5=-3045/345, 5-7=-3159/380, 7-8=-3458/424
BOT CHORD 2-14=-260/2983, 9-14=-59/2043, 8-9=-280/3124
WEBS 3-14=-560/332, 5-14=0/1151, 5-9=-15/1249, 7-9=-629/348

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 19-3-0, Exterior(2) 19-3-0 to 23-7-13, Interior(1) 23-7-13 to 38-9-4 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) 200.0lb AC unit load placed on the bottom chord, 19-3-0 from left end, supported at two points, 5-0-0 apart.
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 40.0psf 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) 2.

February 12,2021

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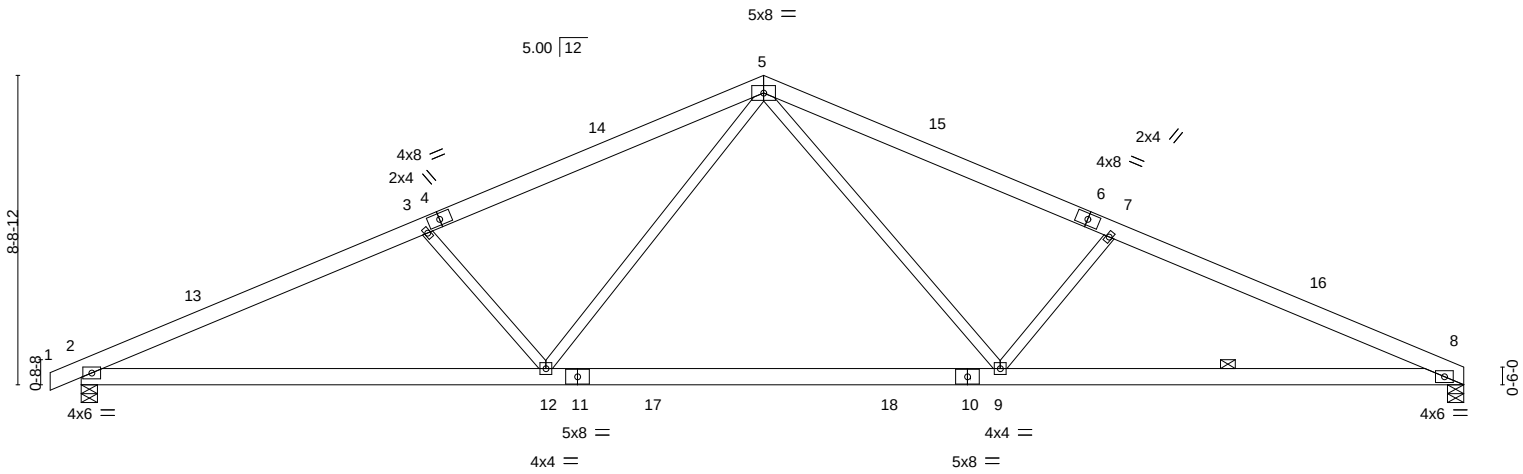
Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	A4	COMMON	1	1	E15407759
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:46 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-pkHj24YHrC9j0W1apBs1E9tG7H_ok_rRtqqbqkzlv6t

-0-10-8	9-9-4	19-3-0	28-11-15	39-0-0
0-10-8	9-9-4	9-5-12	9-8-15	10-0-1

Scale = 1:65.0



13-1-5	15-3-0	23-3-0	25-11-1	39-0-0
13-1-5	2-1-11	8-0-0	2-8-1	13-0-15

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)	-0.63	9-12	>734	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.80	9-12	>582	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.29	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 238 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-9-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
10-0-0 oc bracing: 8-9

REACTIONS. (size) 2=0-5-8, 8=0-5-8
Max Horz 2=102(LC 16)
Max Uplift 2=-111(LC 12), 8=-99(LC 13)
Max Grav 2=1609(LC 1), 8=1547(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3191/642, 3-5=-2882/603, 5-7=-2994/643, 7-8=-3293/685
BOT CHORD 2-12=-492/2834, 9-12=-223/1941, 8-9=-519/2971
WEBS 3-12=-571/320, 5-12=-110/1071, 5-9=-140/1169, 7-9=-634/342

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 19-3-0, Exterior(2) 19-3-0 to 23-7-13, Interior(1) 23-7-13 to 38-9-4 zone;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 40.0psf 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 except (jt=lb) 2=111.

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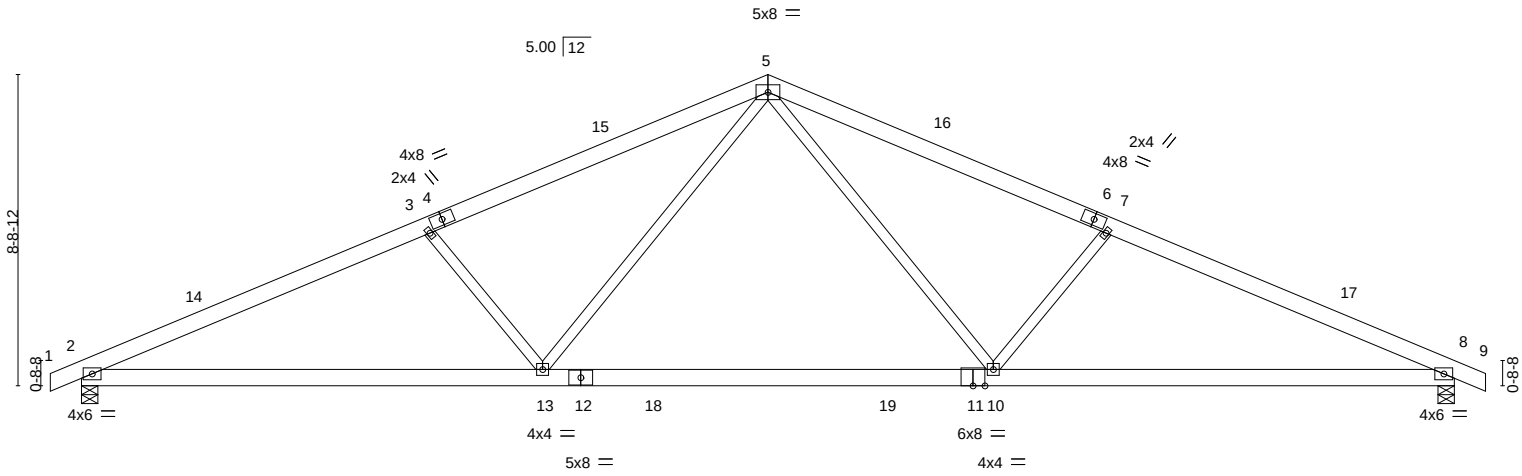
Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	A5	COMMON	3	1	E15407760
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:48 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-l7PUTmZYNqPRGqAyxcuVJaydh5fjCucjL8JivdzIv6r

-0-10-8	9-9-4	19-3-0	28-8-12	38-6-0	39-4-8
0-10-8	9-9-4	9-5-12	9-5-12	9-9-4	0-10-8

Scale: 3/16"=1'



12-11-3	25-6-13	38-6-0
12-11-3	12-7-11	12-11-3

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	20.0	Plate Grip DOL	1.15	TC	0.42	Vert(LL)	-0.59	10-13	>769	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.75	10-13	>610	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.08	2-13	>999	240	Weight: 237 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-0-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 5-1-0 oc bracing.

REACTIONS. (size) 8=0-5-8, 2=0-5-8
Max Horz 2=101(LC 12)
Max Uplift 8=-111(LC 13), 2=-111(LC 12)
Max Grav 8=1588(LC 1), 2=1588(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3139/631, 3-5=-2841/600, 5-7=-2841/600, 7-8=-3139/631
BOT CHORD 2-13=-471/2786, 10-13=-204/1889, 8-10=-472/2786
WEBS 5-10=-119/1074, 7-10=-568/319, 5-13=-119/1074, 3-13=-568/319

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 19-3-0, Exterior(2) 19-3-0 to 23-7-13, Interior(1) 23-7-13 to 39-4-8 zone;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 40.0psf 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) except (jt=lb) 8=111, 2=111.

February 12,2021

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TRENCO
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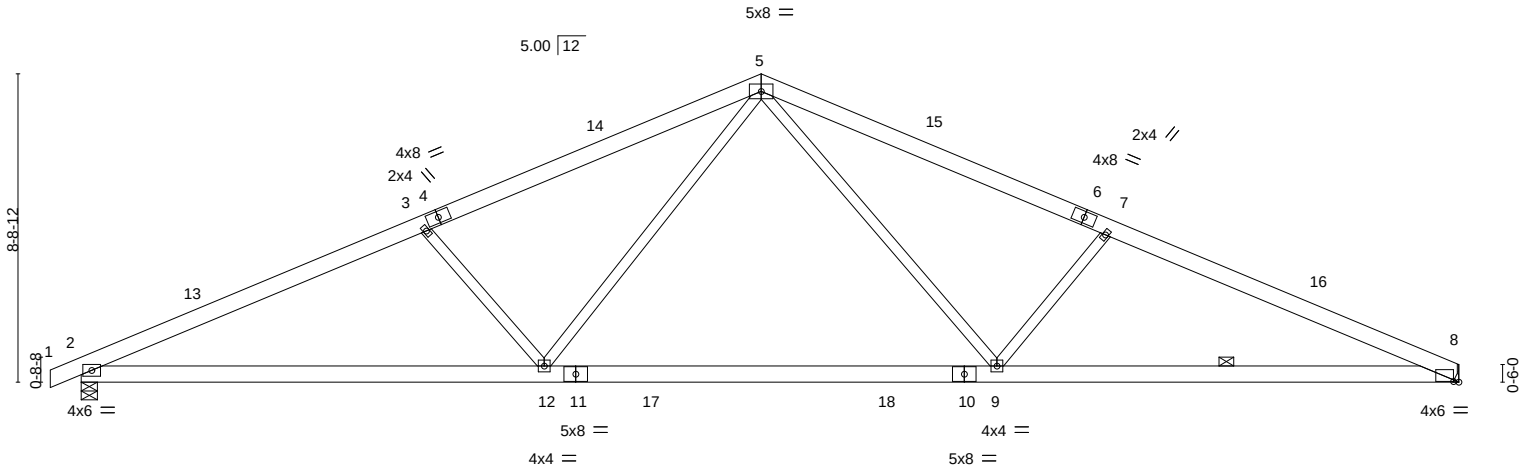
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	A6	COMMON	6	1	E15407761
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:50 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-hWXEuRbovRf9V8KL21wzO?2ynuLkgoh0oSopzVzlv6p

-0-10-8	9-9-4	19-3-0	28-11-15	39-0-0
0-10-8	9-9-4	9-5-12	9-8-15	10-0-1

Scale = 1:65.2



13-1-5	25-11-1	39-0-0
13-1-5	12-9-13	13-0-15

Plate Offsets (X,Y)-- [8:0-1-13,0-0-3]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.51	Vert(LL)	-0.63	9-12	>734	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.94	Vert(CT)	-0.80	9-12	>582	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.09	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.09	8-9	>999	240	Weight: 238 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
10-0-0 oc bracing: 8-9

REACTIONS. (size) 2=0-5-8, 8=Mechanical
Max Horz 2=102(LC 16)
Max Uplift 2=-111(LC 12), 8=-100(LC 13)
Max Grav 2=1615(LC 1), 8=1551(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3205/645, 3-5=-2897/606, 5-7=-3025/648, 7-8=-3332/693
BOT CHORD 2-12=-495/2846, 9-12=-225/1955, 8-9=-527/3014
WEBS 3-12=-571/320, 5-12=-110/1070, 5-9=-144/1192, 7-9=-654/347

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-10-8 to 3-6-5, Interior(1) 3-6-5 to 19-3-0, Exterior(2) 19-3-0 to 23-7-13, Interior(1) 23-7-13 to 38-11-0 zone;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 40.0psf 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) 8 except (jt=lb) 2=111.

February 12,2021

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Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	B1	COMMON SUPPORTED GAB	1	1	E15407762
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:52 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-due_J7c2R2wtkRUjASyRTQ7PsiFe8mPJGmHw2Ozlv6n

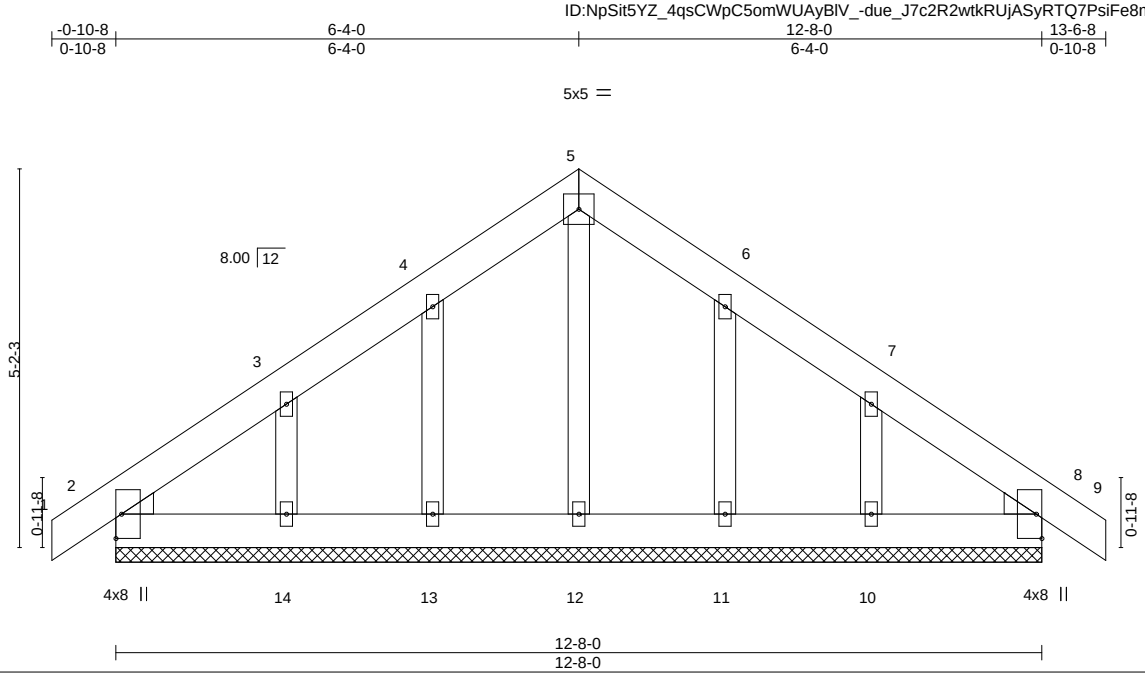

Plate Offsets (X,Y)-- [2:0-0-5,0-0-7], [2:0-0-10,0-4-7], [8:0-0-5,0-0-7], [8:0-0-10,0-4-7]

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	0.02	Vert(LL)	0.00	8	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	8	n/r	120		
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: 92 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
WEDGE
Left: 2x4 SP No.2 , Right: 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. All bearings 12-8-0.
(lb) - Max Horz 2=144(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 11 except 14=-131(LC 12), 10=-127(LC 13)
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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 6-4-0, Corner(3) 6-4-0 to 10-8-13, Exterior(2) 10-8-13 to 13-6-8 zone;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, 8, 13, 11 except (jt=lb) 14=131, 10=127.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

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Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	B2	Common Girder	1	2	E15407763
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:53 2021 Page 1
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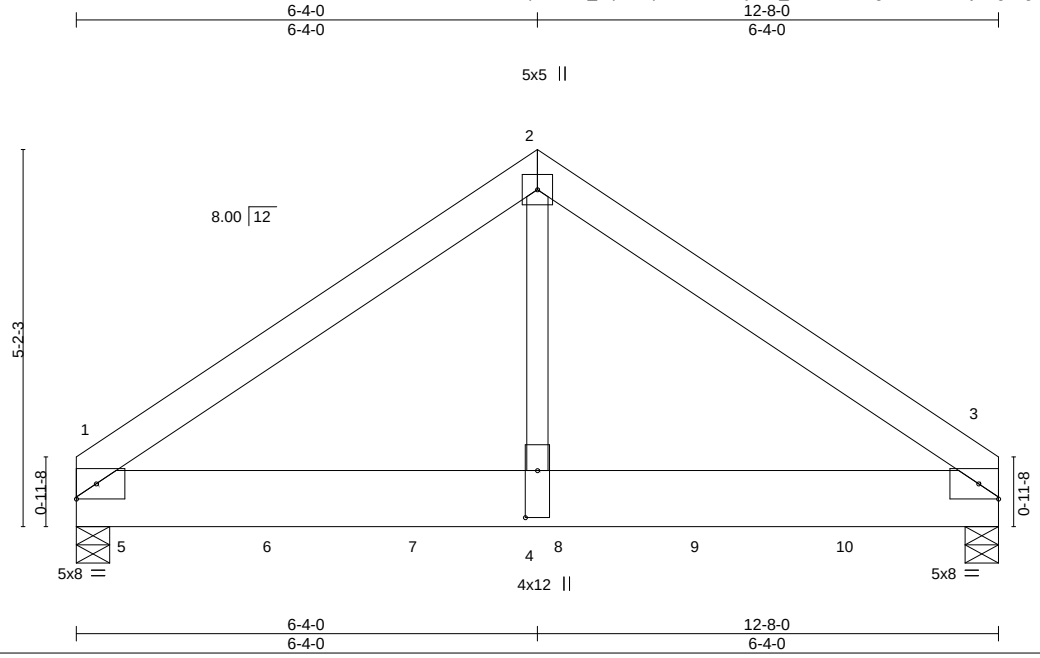

Plate Offsets (X,Y)-- [4:0-7-12,0-2-0]

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	0.20	Vert(LL)	-0.04	1-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.69	Vert(CT)	-0.07	1-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.70	Horz(CT)	0.01	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	1-4	>999	240	Weight: 185 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS. (size) 1=0-5-8, 3=0-5-8
Max Horz 1=108(LC 24)
Max Uplift 1=-391(LC 8), 3=-323(LC 9)
Max Grav 1=5557(LC 1), 3=4584(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-5225/401, 2-3=-5226/400
BOT CHORD 1-4=-261/4152, 3-4=-261/4152
WEBS 2-4=-339/5700

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 2 rows staggered at 0-3-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope); Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=391, 3=323.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1536 lb down and 115 lb up at 0-8-12, 1531 lb down and 120 lb up at 2-8-12, 1531 lb down and 120 lb up at 4-8-12, 1531 lb down and 120 lb up at 6-8-12, and 1531 lb down and 120 lb up at 8-7-4, and 1531 lb down and 120 lb up at 10-7-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-3=-60, 1-3=-20

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Continued on page 2

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LOAD CASE(S) Standard

Concentrated Loads (lb)

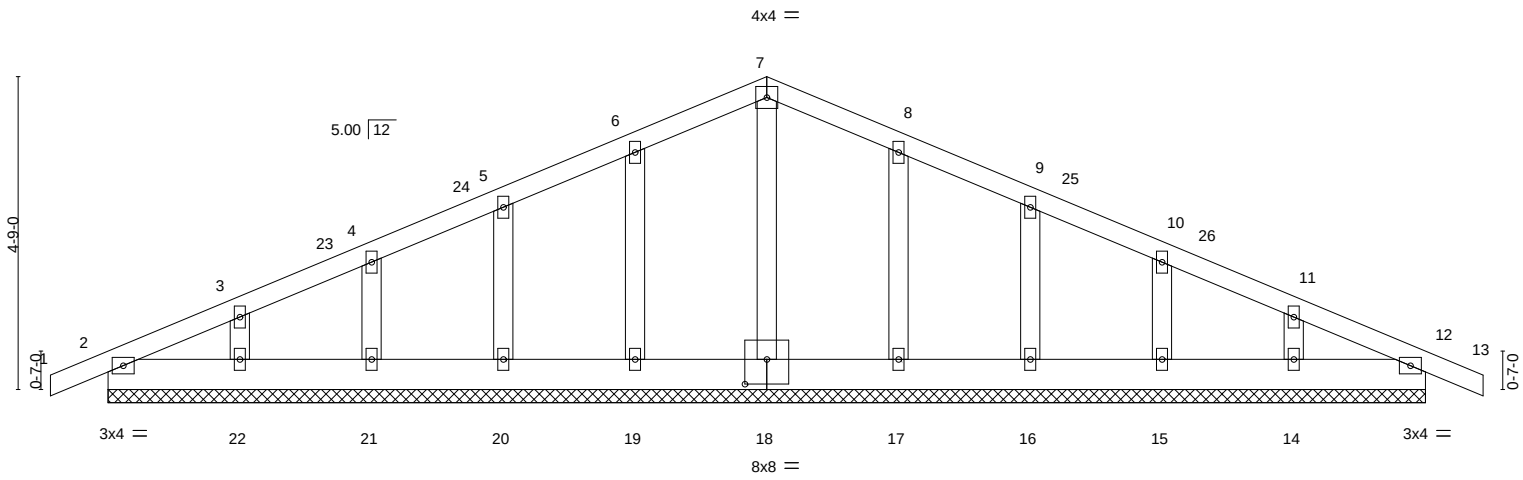
Vert: 5=-1532(F) 6=-1527(F) 7=-1527(F) 8=-1527(F) 9=-1527(F) 10=-1527(F)

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	G1	GABLE	1	1	E15407764
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:54 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-aHmlkpeJygAb_Ie6Hs?vZrClxWwAcgucj4m06Gzlv6l

-0-10-8 / 0-10-8 | 10-10-8 / 10-0-0 | 20-10-8 / 10-0-0 | 21-9-0 / 0-10-8

Scale = 1:35.0



-0-10-8 / 0-10-8 | 20-10-8 / 20-0-0 | 21-9-0 / 0-10-8

Plate Offsets (X,Y)-- [18:0-4-0,0-4-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	12	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 111 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 20-0-0.
(lb) - Max Horz 2=-92(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 12, 2, 19, 20, 21, 22, 17, 16, 15, 14
Max Grav All reactions 250 lb or less at joint(s) 12, 2, 18, 19, 20, 21, 22, 17, 16, 15, 14

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 3-6-5, Exterior(2) 3-6-5 to 10-0-0, Corner(3) 10-0-0 to 14-4-13, Exterior(2) 14-4-13 to 20-10-8 zone;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 40.0psf 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) 12, 2, 19, 20, 21, 22, 17, 16, 15, 14.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

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Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	G2	COMMON	5	1	E15407765
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:55 2021 Page 1
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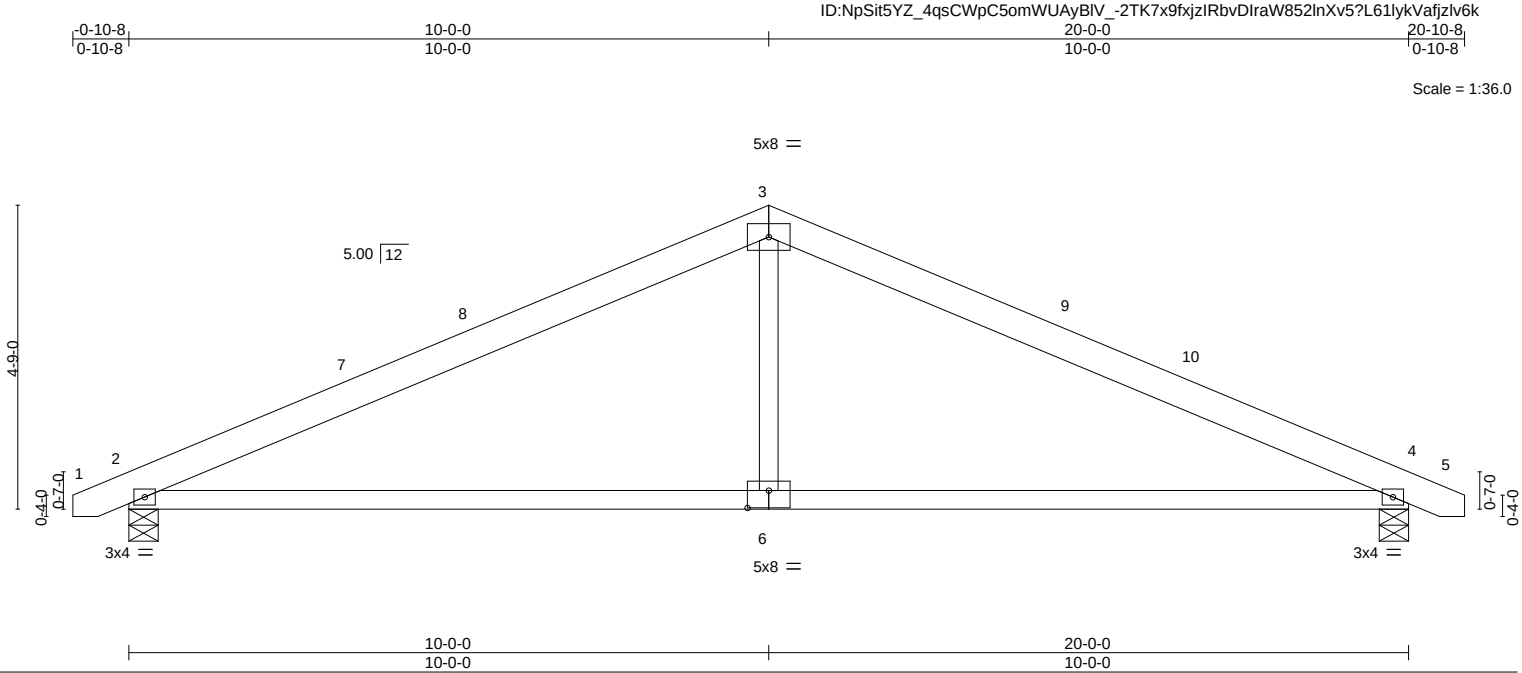

Plate Offsets (X,Y)-- [6:0-4-0,0-3-4]

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	0.57	Vert(LL)	-0.16	2-6	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.35	2-6	>665	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.03	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.05	2-6	>999	240	Weight: 91 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 4=0-5-8, 2=0-5-8
Max Horz 2=-53(LC 17)
Max Uplift 4=-62(LC 13), 2=-62(LC 12)
Max Grav 4=836(LC 1), 2=836(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1190/284, 3-4=-1190/284
BOT CHORD 2-6=-135/1013, 4-6=-135/1013
WEBS 3-6=0/453

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-8-2 to 3-8-10, Interior(1) 3-8-10 to 10-0-0, Exterior(2) 10-0-0 to 14-4-13, Interior(1) 14-4-13 to 20-8-2 zone;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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 4, 2.
6) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

February 12,2021

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	M1	MONOPITCH	1	1	E15407766
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:56 2021 Page 1
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0-10-8 2-0-0

Scale = 1:11.2

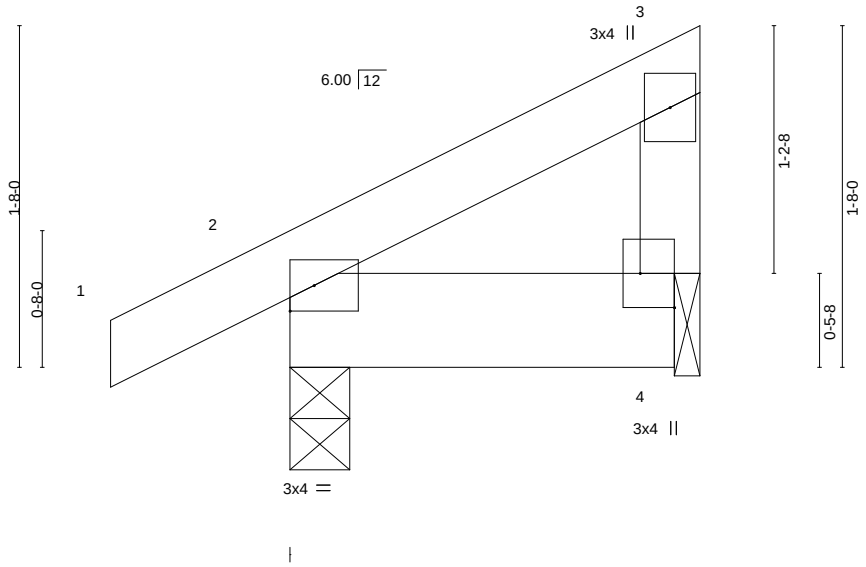

Plate Offsets (X,Y)-- [4:Edge,0-2-0]

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	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 11 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=63(LC 12)
Max Uplift 2=-34(LC 12), 4=-33(LC 12)
Max Grav 2=141(LC 1), 4=60(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone;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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

February 12,2021

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

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	M2	MONOPITCH	3	1	E15407767
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:56 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-WfuV9VgZUHQID3oVPH1NeGH4PJbc4atvBOF7B9zlv6j

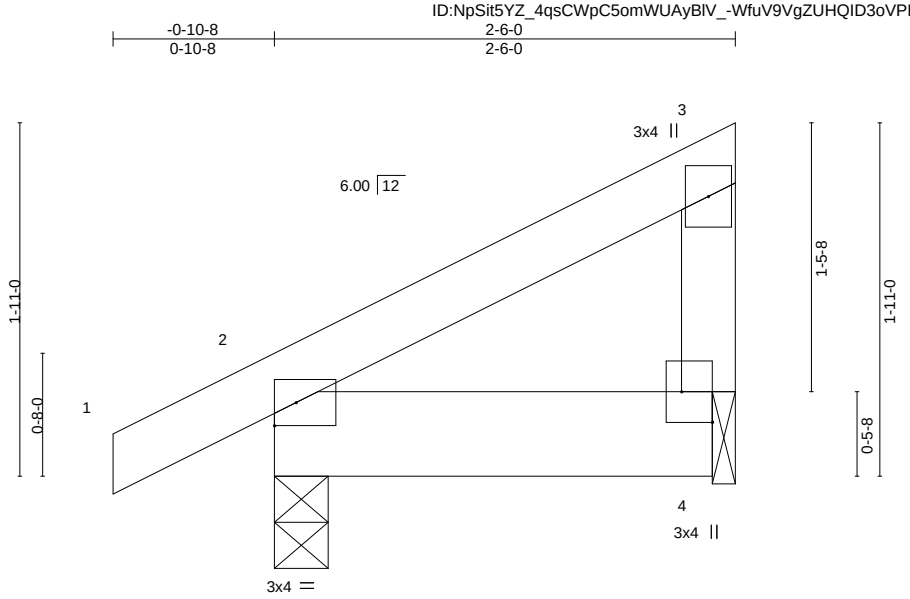

Plate Offsets (X,Y)-- [4:Edge,0-2-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.05	Vert(LL)	-0.00	2	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.00	2	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 13 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=52(LC 12)
Max Uplift 2=-11(LC 12), 4=-22(LC 12)
Max Grav 2=164(LC 1), 4=74(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	P1	GABLE	2	1	E15407768
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:57 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-_sStMrgBFbY9rDNhy?YcATq9ajt1p072P2_hjbzlv6i

0-4-8 5-0-6 10-0-0
0-4-8 5-0-6 4-11-10

Scale = 1:19.7

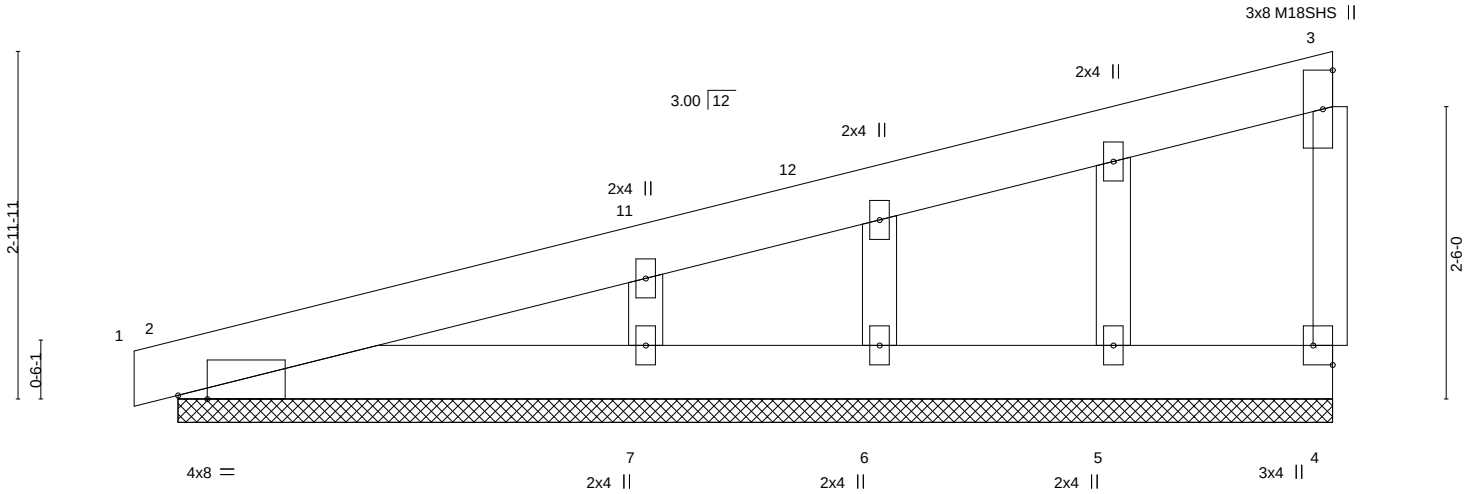

Plate Offsets (X,Y)-- [2:0-3-0,Edge], [4:Edge,0-2-0]

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	0.41	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	0.00	1	n/r	120	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 56 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 9-10-8.
(lb) - Max Horz 2=120(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 7 except 4=-160(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 5, 6 except 4=282(LC 1), 2=262(LC 1), 7=300(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-251/325

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-4-8 to 4-0-5, Exterior(2) 4-0-5 to 9-9-13 zone;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 MT20 plates 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) 2, 6, 7 except (jt=lb) 4=160.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	P2	Monopitch	4	1	E15407769
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:58:58 2021 Page 1
ID:NpSit5YZ_4qsCWpC5omWUAyBlV_-S20FZAhp0ug0SMxtWi3rjhNJz781YTNCeikEF1zlv6h

0-4-8 5-0-6 10-0-0
0-4-8 5-0-6 4-11-10

Scale = 1:19.6

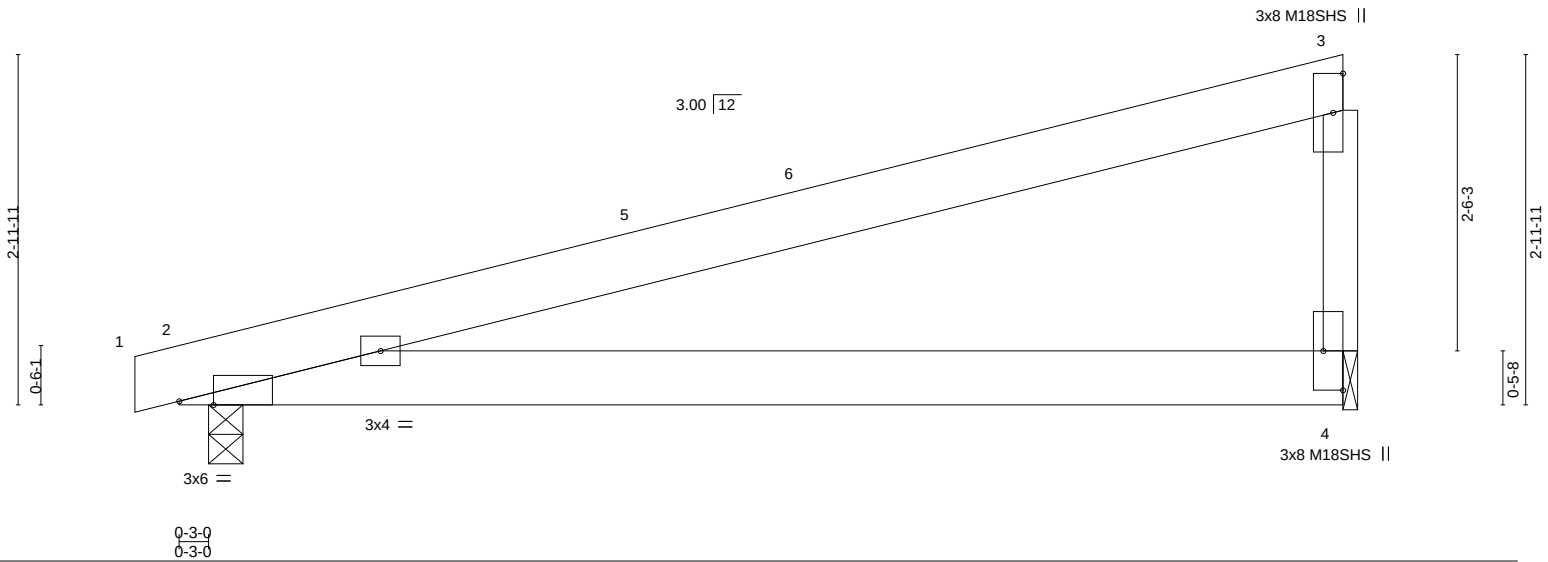

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [4:Edge,0-2-0]

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	0.49	Vert(LL)	0.20	2-4	>570	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.66	Vert(CT)	-0.18	2-4	>658	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 51 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2

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

REACTIONS. (size) 4=0-1-8, 2=0-3-8
Max Horz 2=84(LC 8)
Max Uplift 4=-159(LC 8), 2=-159(LC 8)
Max Grav 4=385(LC 1), 2=420(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 3-4=-262/208

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) -0-4-8 to 4-0-5, Interior(1) 4-0-5 to 9-9-13 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
6) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 4=159, 2=159.

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Job	Truss	Truss Type	Qty	Ply	Lot 50 Sierra Village
J0321-1973	V1	GABLE	1	1	E15407770
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Fri Feb 12 10:59:00 2021 Page 1
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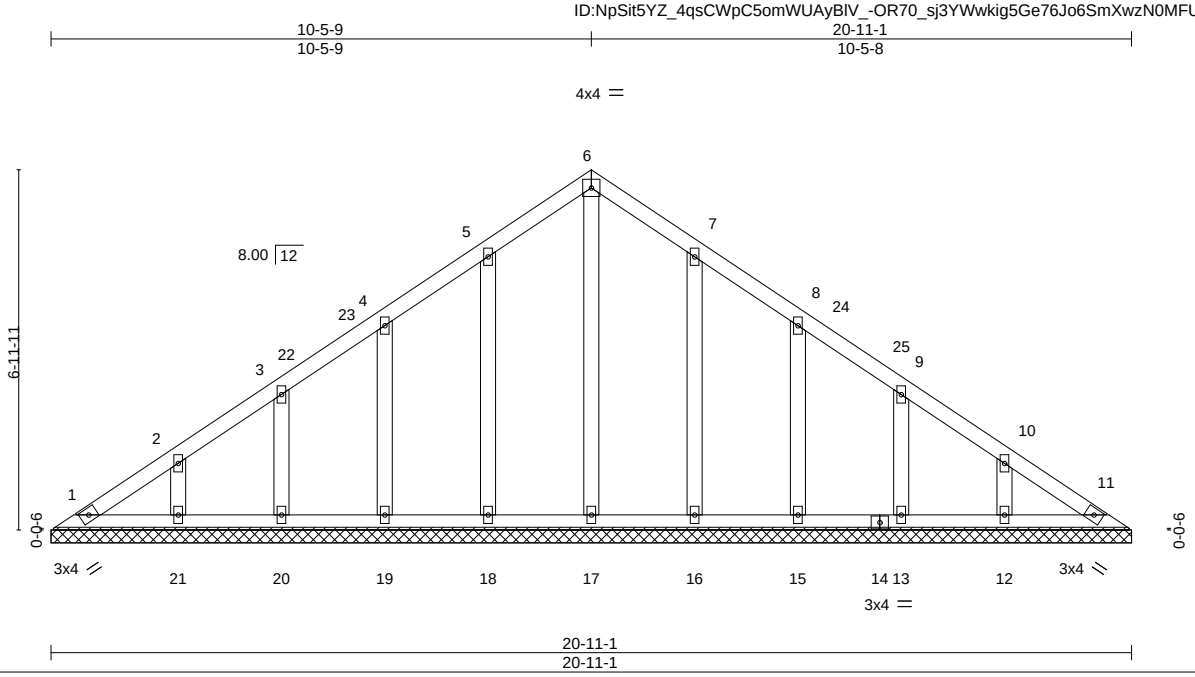

Plate Offsets (X,Y)-- [7:0-0-0,0-0-0], [8:0-0-0,0-0-0], [9:0-0-0,0-0-0], [10:0-0-0,0-0-0]

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	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.10	Horz(CT)	0.00	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 113 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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

REACTIONS. All bearings 20-11-1.
(lb) - Max Horz 1=-199(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 1, 11, 18, 19, 20, 21, 16, 15, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 1, 11, 17, 18, 19, 20, 21, 16, 15, 13, 12

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=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-15 to 4-10-12, Interior(1) 4-10-12 to 10-5-9, Exterior(2) 10-5-9 to 14-10-5, Interior(1) 14-10-5 to 20-5-2 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) All plates are 2x4 MT20 unless otherwise indicated.
4) Gable requires continuous bottom chord bearing.
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 40.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 11, 18, 19, 20, 21, 16, 15, 13, 12.

February 12,2021

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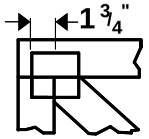
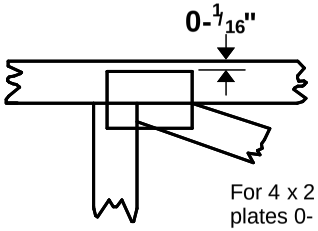
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

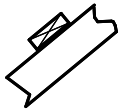
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

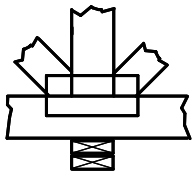
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

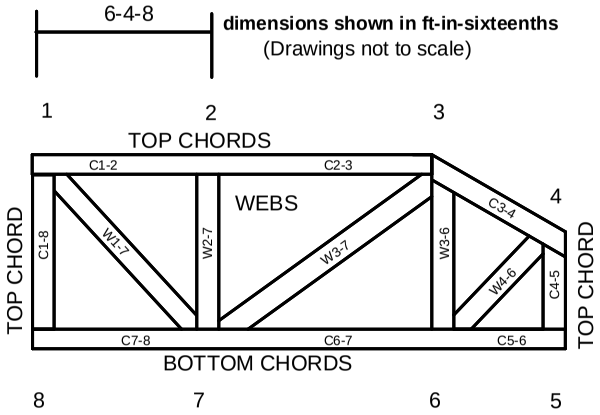


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988
ER-3907, ESR-2362, ESR-1397, ESR-3282

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

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

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

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
8. Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
9. Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber.
10. Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
12. Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
13. Top chords must be sheathed or purlins provided at spacing indicated on design.
14. Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted.
15. Connections not shown are the responsibility of others.
16. Do not cut or alter truss member or plate without prior approval of an engineer.
17. Install and load vertically unless indicated otherwise.
18. Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
19. Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
20. Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.