ENGINEERING BY
TRENCO
A MiTek Affiliate

RE: J1120-5408
Precision/Lot 57 Summerlin/Harnett

Trenco
818 Soundside Rd
Edenton, NC 27932

Site Information:

Customer: Project Name: J1120-5408
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: N/A Wind Speed: N/A mph
Roof Load: N/A psf Floor Load: 55.0 psf

This package includes 15 individual, dated Truss Design Drawings and 0 Additional Drawings.

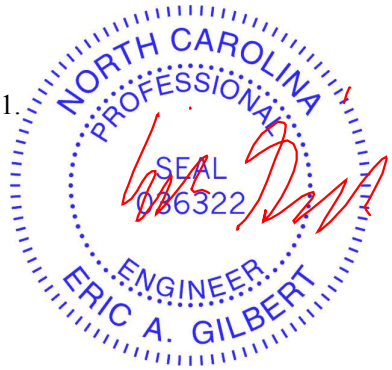
No.	Seal#	Truss Name	Date
1	E14640308	ET1	1/4/2021
2	E14640309	ET2	1/4/2021
3	E14640310	ET3	1/4/2021
4	E14640311	ET6	1/4/2021
5	E14640312	F01	1/4/2021
6	E14640313	F01A	1/4/2021
7	E14640314	F02	1/4/2021
8	E14640315	F03	1/4/2021
9	E14640316	F04	1/4/2021
10	E14640317	F04G	1/4/2021
11	E14640318	F05	1/4/2021
12	E14640319	F06	1/4/2021
13	E14640320	F06-A	1/4/2021
14	E14640321	F07G	1/4/2021
15	E14640322	F08G	1/4/2021

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.

January 04, 2021

Gilbert, Eric

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	ET1	GABLE	1	1	E14640308
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:27 2020 Page 1
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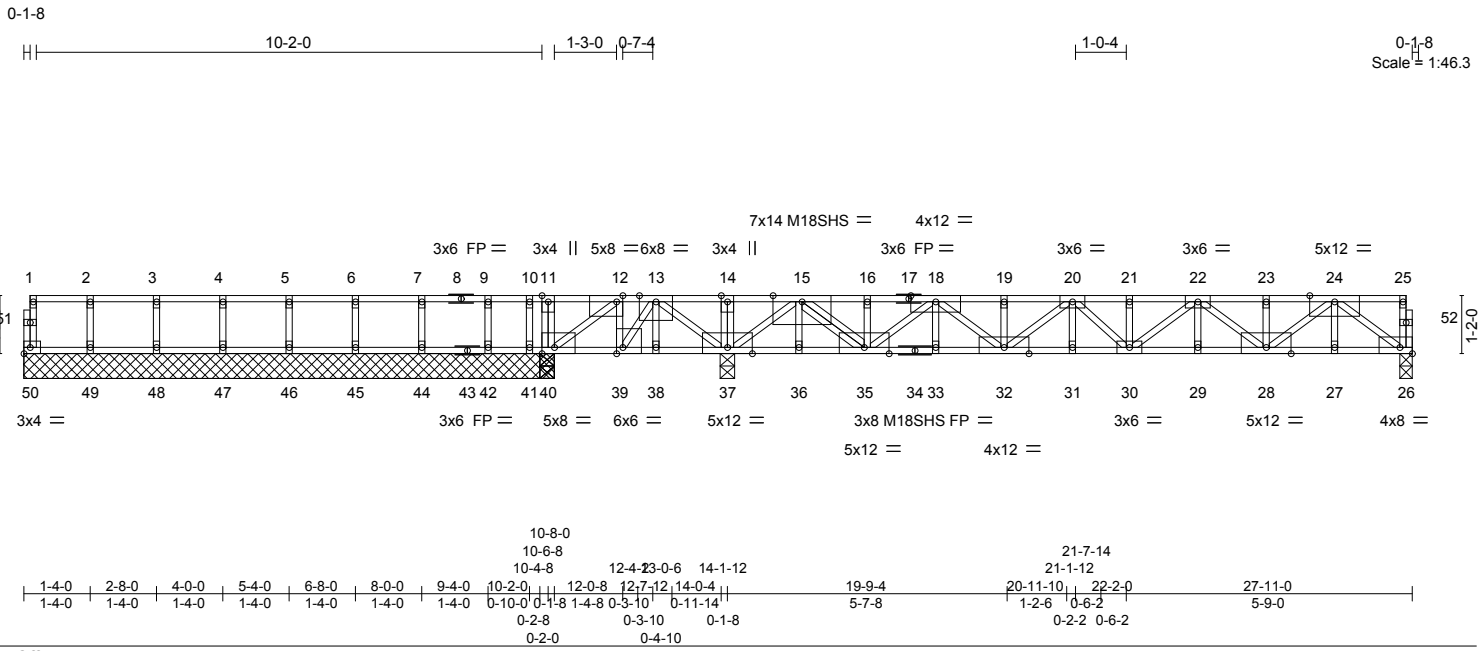

Plate Offsets (X,Y)-- [12:0-1-8,Edge], [26:Edge,0-1-8], [39:0-1-8,Edge], [40:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.89	Vert(LL)	-0.21	30-31	>798	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.63	Vert(CT)	-0.28	30-31	>581	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.99	Horz(CT)	0.03	26	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 150 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD 2x4 SP No.1(flat) *Except*
8-17: 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
26-34: 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat) *Except*
12-40,13-39,15-37: 2x4 SP No.2(flat)
OTHERS 2x4 SP No.3(flat)

BRACING-

TOP CHORD Structural wood sheathing directly applied or 4-9-13 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 39-40,38-39,37-38,36-37,35-36.

REACTIONS. All bearings 10-8-0 except (jt=length) 26=0-3-0, 37=0-3-8.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 41 except 40=-1027(LC 5), 40=-841(LC 1), 40=-841(LC 1)
Max Grav All reactions 250 lb or less at joint(s) 50, 41, 49, 48, 47, 46, 45, 44, 42 except 26=2034(LC 5), 37=5227(LC 1)

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

TOP CHORD 12-13=0/1793, 13-14=0/5536, 14-15=0/5536, 15-16=-782/0, 16-18=-807/0, 18-19=-4532/0, 19-20=-4532/0, 20-21=-5562/0, 21-22=-5562/0, 22-23=-4184/0, 23-24=-4184/0
BOT CHORD 39-40=-1793/0, 38-39=-2992/0, 37-38=-2992/0, 36-37=-1896/0, 35-36=-1893/0, 33-35=0/3026, 32-33=0/3026, 31-32=0/5379, 30-31=0/5379, 29-30=0/5230, 28-29=0/5230, 27-28=0/2528, 26-27=0/2528
WEBS 11-40=-452/0, 14-37=-651/0, 12-40=0/2218, 12-39=-1638/0, 13-37=-3275/0, 13-39=0/2089, 24-26=-3107/0, 24-28=0/2078, 23-28=-457/0, 22-28=-1312/0, 22-30=0/417, 21-30=-418/0, 15-37=-4452/0, 15-35=0/3438, 16-35=-509/0, 18-35=-2749/0, 18-32=0/1892, 19-32=-490/0, 20-32=-1066/0

NOTES-

1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) All plates are 1.5x3 MT20 unless otherwise indicated.
4) Plates checked for a plus or minus 1 degree rotation about its center.
5) Gable studs spaced at 1-4-0 oc.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 41 except (jt=lb) 40=1027.
7) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward movement at the bearings. Building designer must provide for uplift reactions indicated.
8) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
9) CAUTION, Do not erect truss backwards.

July 20,2020

LOAD CASE(S) Standard

Continued on page 2

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Edenton, NC 27932

LOAD CASE(S) Standard

1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
   Vert: 26-50=-10, 1-10=-100, 10-25=-355

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	ET2	GABLE	1	1	E14640309
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:28 2020 Page 1
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0-1-8

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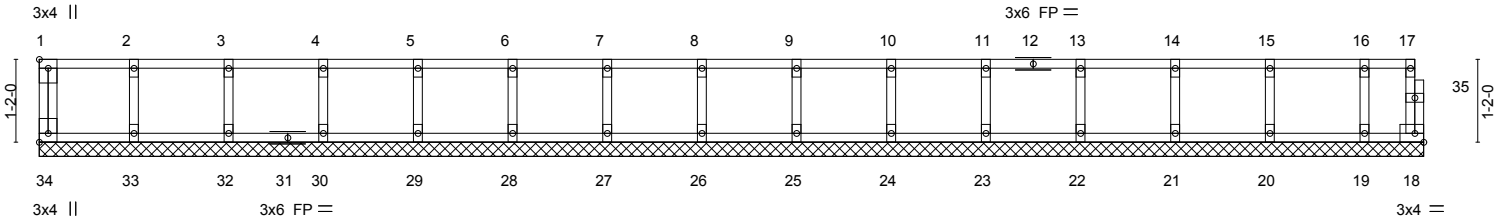

1-4-0	2-8-0	4-0-0	5-4-0	6-8-0	8-0-0	9-4-0	10-8-0	12-0-0	13-4-0	14-8-0	16-0-0	17-4-0	18-8-0	19-6-0
1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	1-4-0	0-10-0

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [34:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 82 lb	FT = 20%F, 11%E

LUMBER-

TOP CHORD	2x4 SP No.1(flat)
BOT CHORD	2x4 SP No.1(flat)
WEBS	2x4 SP No.3(flat)
OTHERS	2x4 SP No.3(flat)

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 19-6-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 34, 18, 33, 32, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	ET3	Floor Supported Gable	1	1	E14640310
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:29 2020 Page 1
ID:Eka5GCyRUKuUEoWDSliDzVywVMV-NKI?JcSTThPik6PMpDGScofhRmKbnGC6qpiIgdyw9qS

0-1-8 0-1-8

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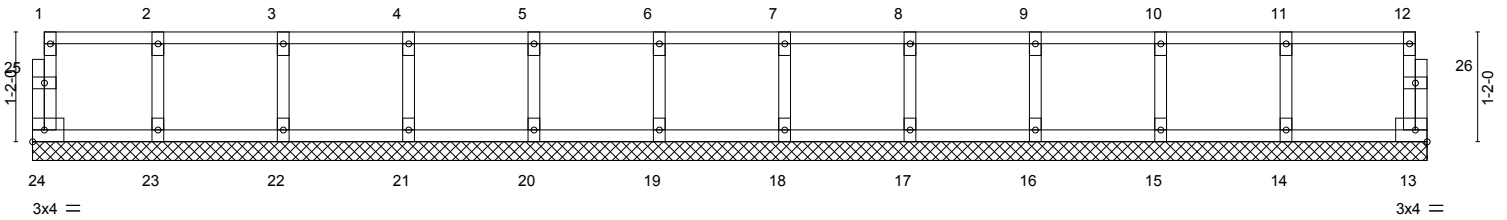


	8-8-0	13-2-8	14-10-0
	8-8-0	4-6-8	1-7-8

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 62 lb	FT = 20%F, 11%E

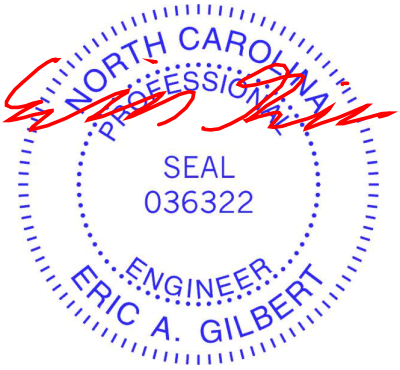
LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 14-10-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 24, 13, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14

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

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable requires continuous bottom chord bearing.
4) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5) Gable studs spaced at 1-4-0 oc.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.



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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	ET6	GABLE	1	1	E14640311
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:30 2020 Page 1
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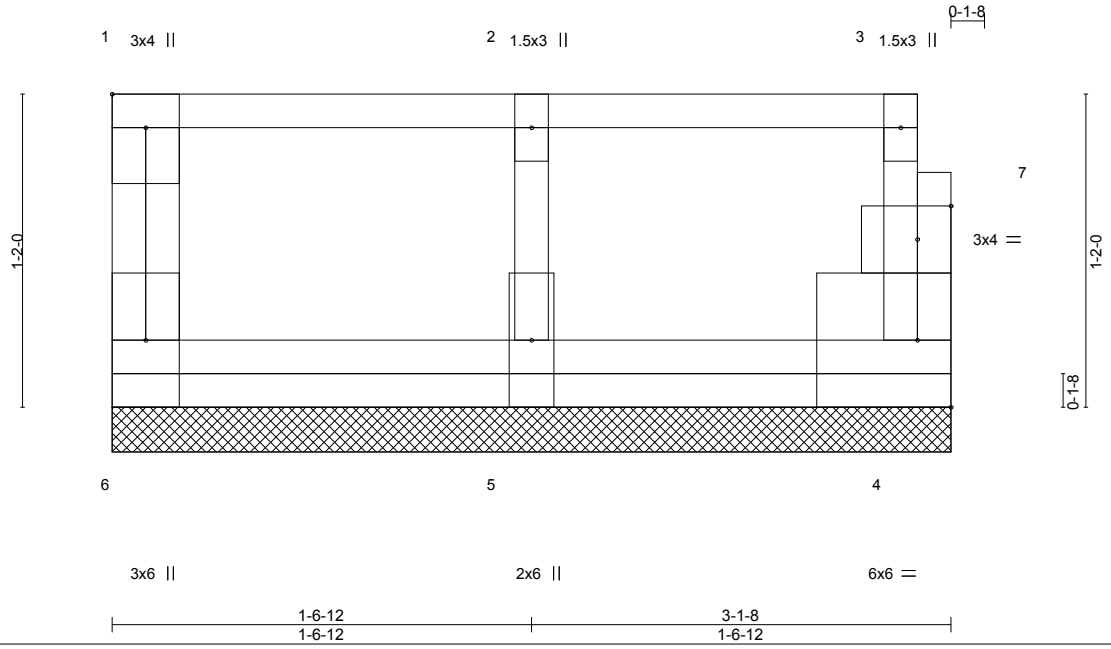

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [7:0-1-8,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.11	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.01	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0	Rep Stress Incr	NO	WB	0.05	Horz(CT)	0.00	4	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-R							Weight: 19 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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

REACTIONS. (size) 6=3-1-8, 4=3-1-8, 5=3-1-8
Max Grav 6=79(LC 1), 4=73(LC 1), 5=227(LC 1)

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

NOTES-
1) Plates checked for a plus or minus 1 degree rotation about its center.
2) Gable requires continuous bottom chord bearing.
3) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
4) Gable studs spaced at 1-4-0 oc.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 4-6=-10, 1-3=-100
Concentrated Loads (lb)
Vert: 2=-69

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F01	Floor	2	1	E14640312
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:31 2020 Page 1
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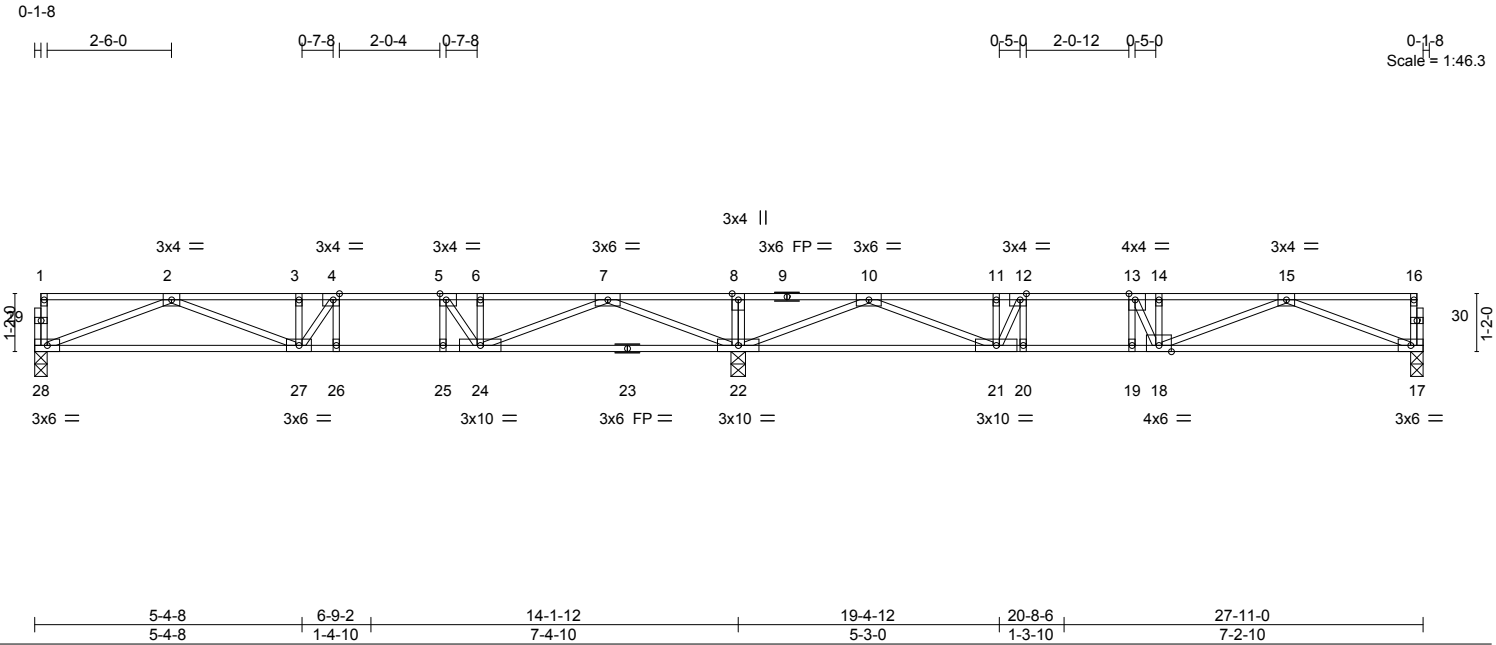

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge], [12:0-1-8,Edge], [13:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.57	Vert(LL)	-0.13	26	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.74	Vert(CT)	-0.17	26	>966	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.04	17	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 139 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 22-24,21-22.

REACTIONS. (size) 28=0-3-0, 22=0-3-8, 17=0-3-0
Max Grav 28=678(LC 3), 22=1793(LC 1), 17=659(LC 4)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2037/0, 3-4=-2037/0, 4-5=-1967/0, 5-6=-1707/30, 6-7=-1707/30, 7-8=0/1690, 8-10=0/1690, 10-11=-1655/76, 11-12=-1655/76, 12-13=-1859/0, 13-14=-1943/0, 14-15=-1943/0
BOT CHORD 27-28=0/1403, 26-27=0/1967, 25-26=0/1967, 24-25=0/1967, 22-24=-484/672, 21-22=-535/669, 20-21=0/1859, 19-20=0/1859, 18-19=0/1859, 17-18=0/1355
WEBS 8-22=-277/0, 2-28=-1503/0, 2-27=0/684, 3-27=-317/0, 7-22=-1989/0, 7-24=0/1243, 5-24=-809/0, 4-27=-74/476, 4-26=-268/0, 10-22=-1943/0, 10-21=0/1206, 15-17=-1452/0, 15-18=0/634, 14-18=-364/0, 13-18=-22/593, 13-19=-341/0, 12-21=-885/0, 12-20=0/299

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F01A	Floor	5	1	E14640313
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:32 2020 Page 1
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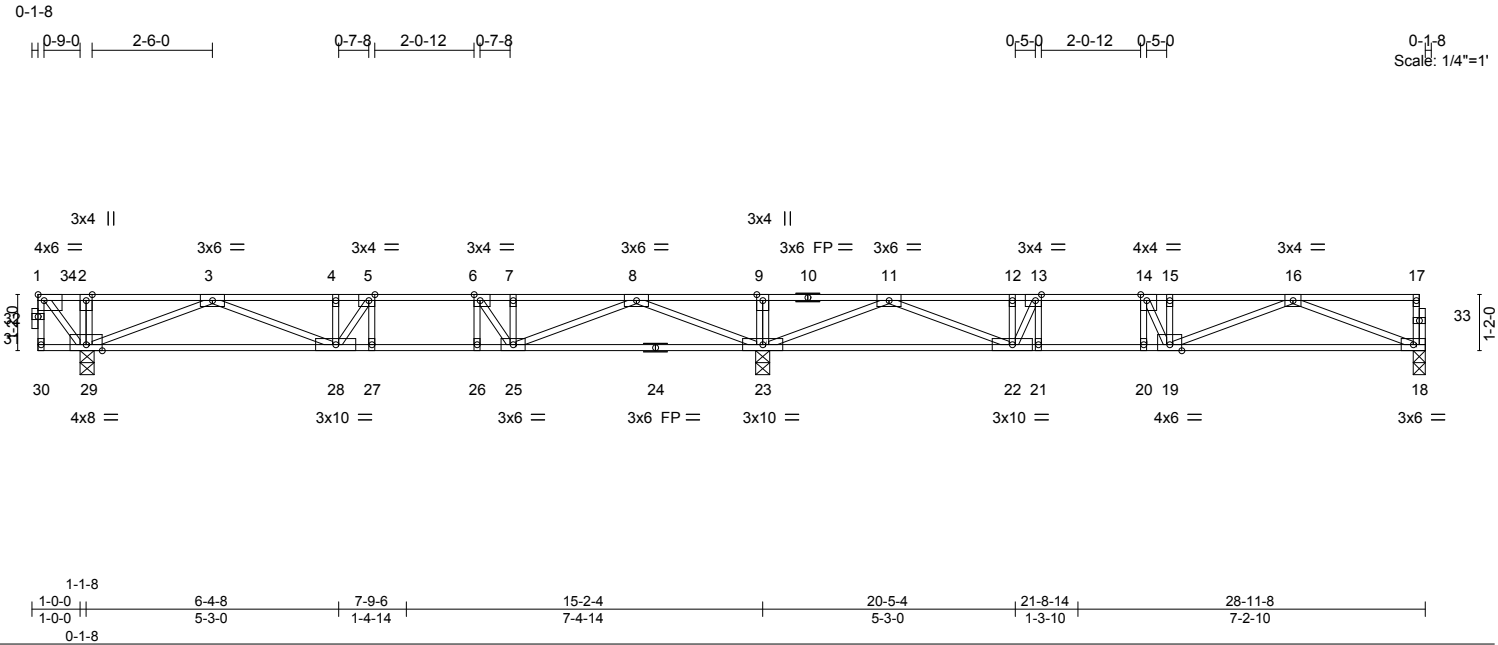

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [5:0-1-8,Edge], [6:0-1-8,Edge], [13:0-1-8,Edge], [14:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.12	20	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.79	Vert(CT)	-0.16	20	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.57	Horz(CT)	0.02	18	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 146 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 29=0-3-8, 23=0-3-8, 18=0-3-0
Max Grav 29=2548(LC 3), 23=1670(LC 4), 18=663(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=0/1505, 2-3=0/1513, 3-4=-1063/705, 4-5=-1063/705, 5-6=-1227/618, 6-7=-1187/561, 7-8=-1187/561, 8-9=0/1635, 9-11=0/1635, 11-12=-1690/42, 12-13=-1690/42, 13-14=-1886/0, 14-15=-1963/0, 15-16=-1963/0
BOT CHORD 28-29=-1050/143, 27-28=-618/1227, 26-27=-618/1227, 25-26=-618/1227, 23-25=-733/429, 22-23=-492/712, 21-22=0/1886, 20-21=0/1886, 19-20=0/1886, 18-19=0/1366
WEBS 2-29=-294/0, 9-23=-276/0, 1-29=-2186/0, 3-29=-1716/0, 3-28=0/1001, 8-23=-1672/0, 8-25=0/944, 6-25=-435/125, 5-28=-482/80, 11-23=-1934/0, 11-22=0/1196, 16-18=-1463/0, 16-19=0/645, 15-19=-360/0, 14-19=-37/578, 14-20=-334/0, 13-22=-868/0, 13-21=0/291

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 18-30=-10, 1-34=-340, 17-34=-100
Concentrated Loads (lb)
Vert: 1=-1500

July 20,2020

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F02	Floor	6	1	E14640314
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:33 2020 Page 1
ID:Eka5GCyRUKuUEoWDSliDzVywVMV-G5?W9zV_Wwv8Djj723KOneqHOOZ6ju3ilRgVpOyw9qO

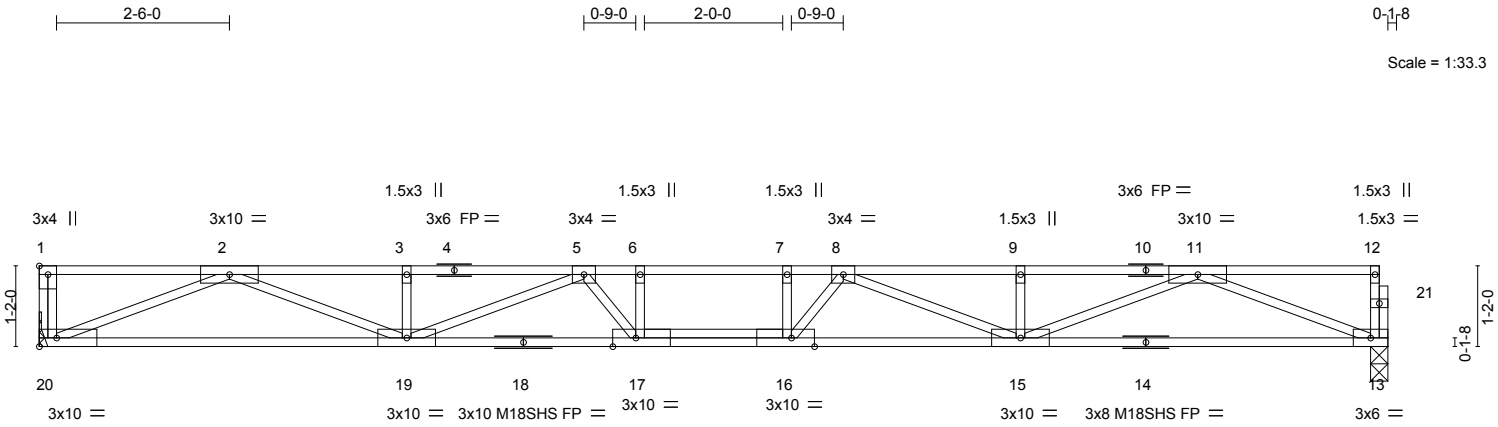

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [16:0-4-0,Edge], [17:0-4-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.34	16-17	>686	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.55	Vert(CT)	-0.46	16-17	>499	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.07	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 99 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP 2400F 2.0E(flat)
BOT CHORD 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat)

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) 20=Mechanical, 13=0-3-0
Max Grav 20=1059(LC 1), 13=1053(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3906/0, 3-5=-3906/0, 5-6=-4831/0, 6-7=-4831/0, 7-8=-4831/0, 8-9=-3906/0, 9-11=-3906/0
BOT CHORD 19-20=0/2338, 17-19=0/4710, 16-17=0/4831, 15-16=0/4710, 13-15=0/2335
WEBS 2-20=-2515/0, 2-19=0/1692, 3-19=-255/0, 11-13=-2506/0, 11-15=0/1696, 9-15=-257/0, 8-15=-870/0, 5-19=-871/0, 5-17=-205/611, 6-17=-389/106, 8-16=-204/611, 7-16=-390/106

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Refer to girder(s) for truss to truss connections.
5) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
6) CAUTION, Do not erect truss backwards.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F03	Floor	1	1	E14640315
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:34 2020 Page 1
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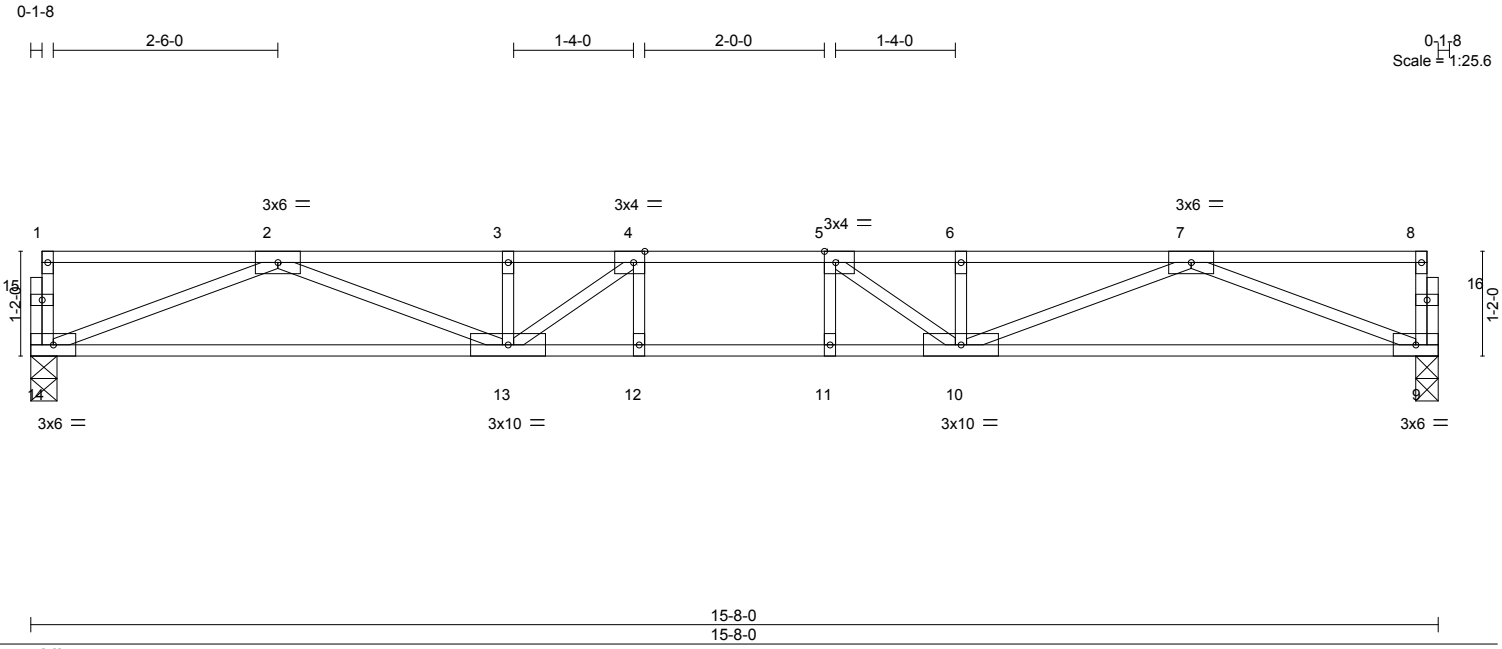

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.19	11-12	>968	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.72	Vert(CT)	-0.27	11-12	>694	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.05	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 77 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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) 14=0-3-8, 9=0-3-0
Max Grav 14=842(LC 1), 9=842(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2839/0, 3-4=-2839/0, 4-5=-3089/0, 5-6=-2839/0, 6-7=-2839/0
BOT CHORD 13-14=0/1813, 12-13=0/3089, 11-12=0/3089, 10-11=0/3089, 9-10=0/1813
WEBS 2-14=-1944/0, 2-13=0/1108, 7-9=-1944/0, 7-10=0/1108, 5-10=-599/55, 4-13=-599/55

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F04	Floor	4	1	E14640316
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:34 2020 Page 1
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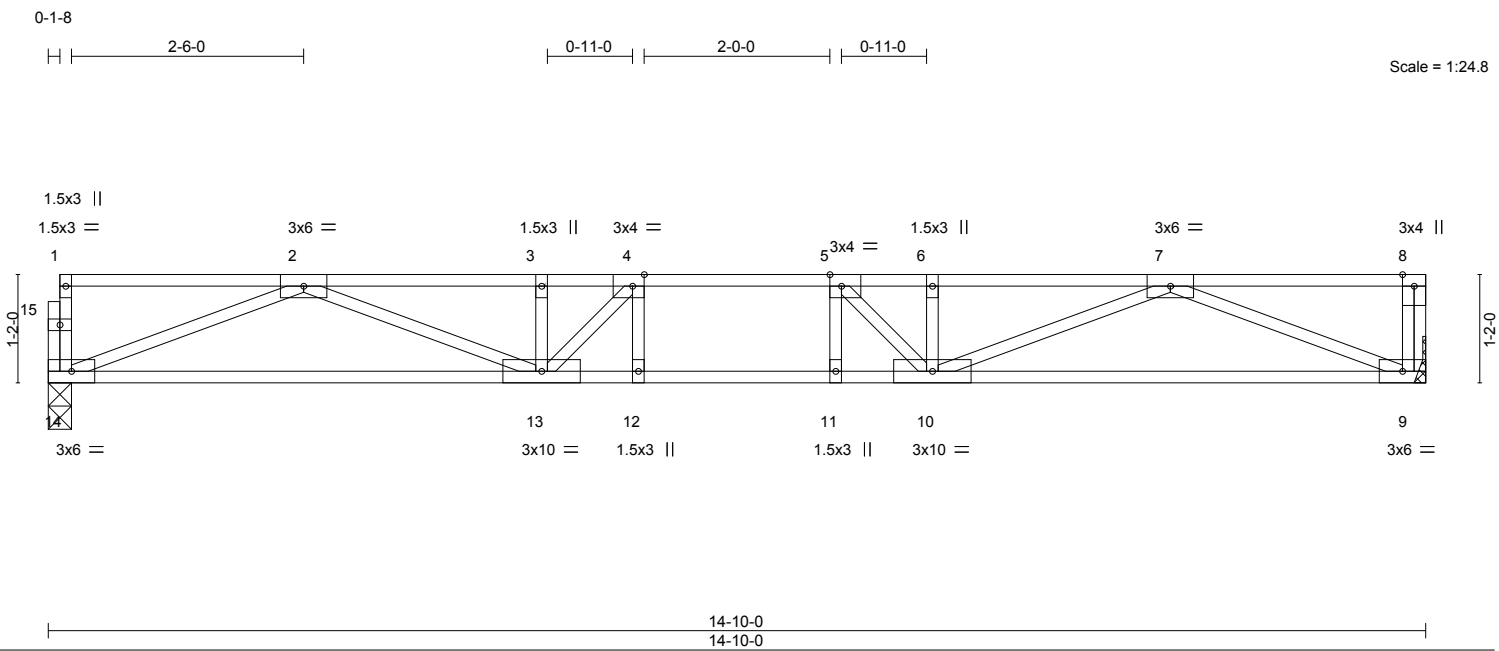

Plate Offsets (X,Y)-- [4:0-1-8,Edge], [5:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	-0.16	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.64	Vert(CT)	-0.22	11-12	>800	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.50	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 74 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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) 14=0-3-0, 9=Mechanical
Max Grav 14=796(LC 1), 9=802(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2611/0, 3-4=-2611/0, 4-5=-2761/0, 5-6=-2611/0, 6-7=-2611/0
BOT CHORD 13-14=0/1699, 12-13=0/2761, 11-12=0/2761, 10-11=0/2761, 9-10=0/1701
WEBS 2-14=-1821/0, 2-13=0/985, 7-9=-1830/0, 7-10=0/982, 5-10=-508/109, 4-13=-508/110

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.

July 20,2020

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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F04G	GABLE	1	1	E14640317
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:35 2020 Page 1
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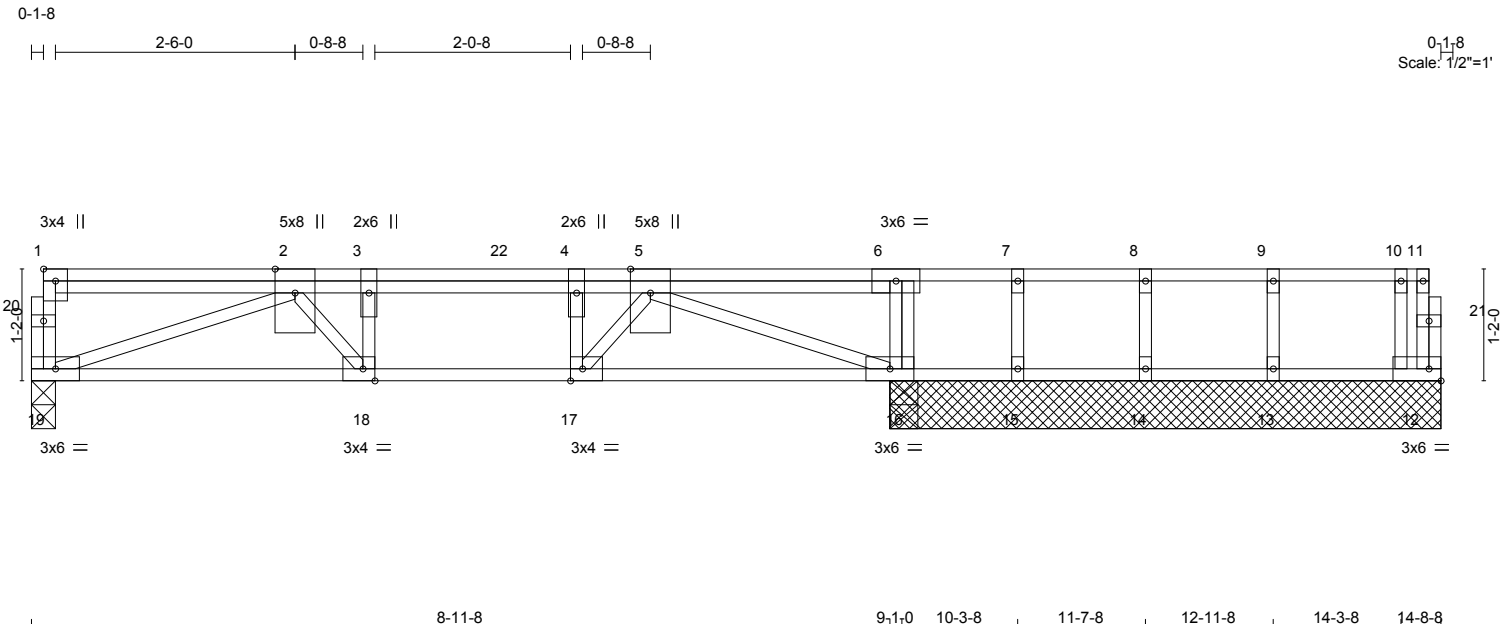

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [17:0-1-8,Edge], [18:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	-0.04	17-18	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.33	Vert(CT)	-0.05	17-18	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.37	Horz(CT)	0.02	16	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 83 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 5-9-0 except (jt=length) 19=0-3-0.
(lb) - Max Uplift All uplift 100 lb or less at joint(s) 15
Max Grav All reactions 250 lb or less at joint(s) 12, 15, 14, 13 except 19=620(LC 1), 16=777(LC 1), 16=777(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1485/0, 3-4=-1485/0, 4-5=-1485/0
BOT CHORD 18-19=0/1298, 17-18=0/1485, 16-17=0/1259
WEBS 6-16=-270/0, 2-19=-1377/0, 5-16=-1326/0, 5-17=0/365, 4-17=-271/0, 2-18=0/303

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are 1.5x3 MT20 unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Gable studs spaced at 1-4-0 oc.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 15.
6) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
7) CAUTION, Do not erect truss backwards.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 177 lb down at 2-11-8, and 177 lb down at 4-11-8, and 177 lb down at 6-5-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
9) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 12-19=-10, 1-11=-100
Concentrated Loads (lb)
Vert: 2=-97(B) 5=-97(B) 22=-97(B)

July 20,2020

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F05	FLOOR	3	1	E14640318
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:36 2020 Page 1
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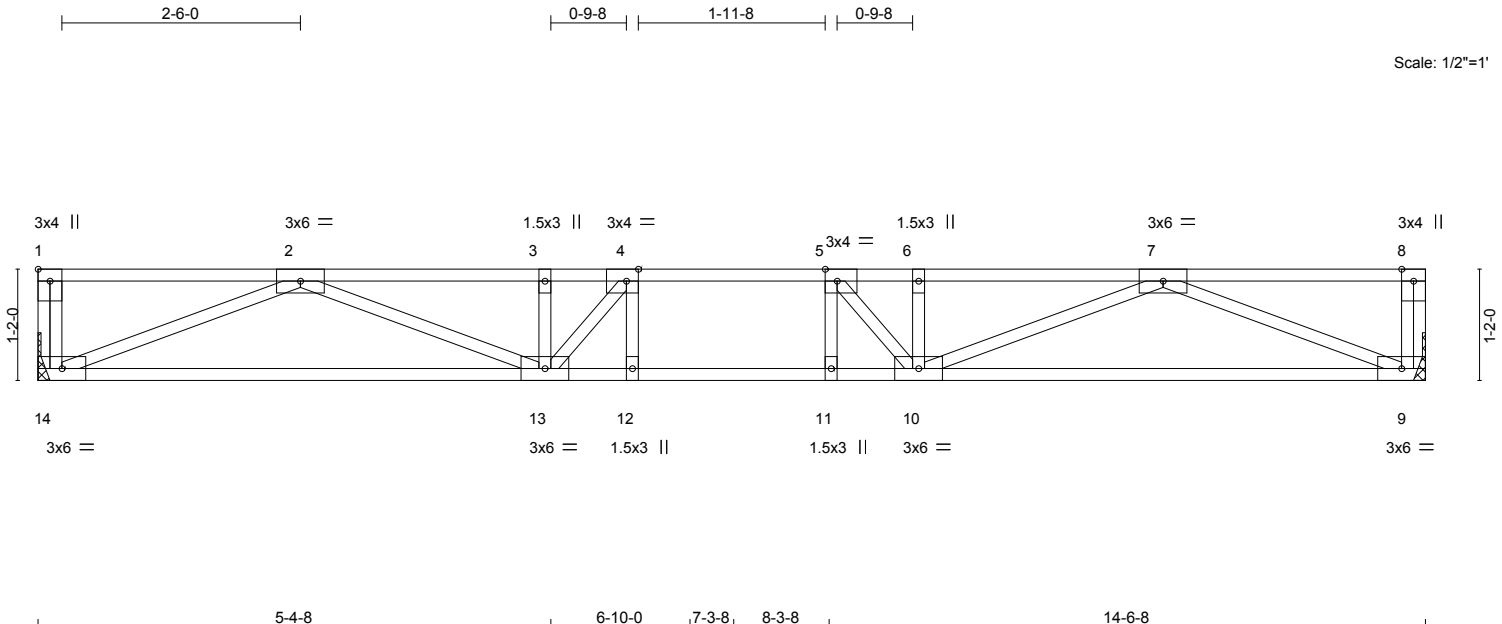

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [4:0-1-8,Edge], [5:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	-0.15	11-12	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.62	Vert(CT)	-0.20	11-12	>841	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.04	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 74 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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) 14=Mechanical, 9=Mechanical
Max Grav 14=786(LC 1), 9=786(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2532/0, 3-4=-2532/0, 4-5=-2652/0, 5-6=-2532/0, 6-7=-2532/0
BOT CHORD 13-14=0/1661, 12-13=0/2652, 11-12=0/2652, 10-11=0/2652, 9-10=0/1661
WEBS 2-14=-1787/0, 2-13=0/940, 7-9=-1787/0, 7-10=0/940, 5-10=-481/131, 4-13=-481/131

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F06	FLOOR	2	1	E14640319
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:36 2020 Page 1
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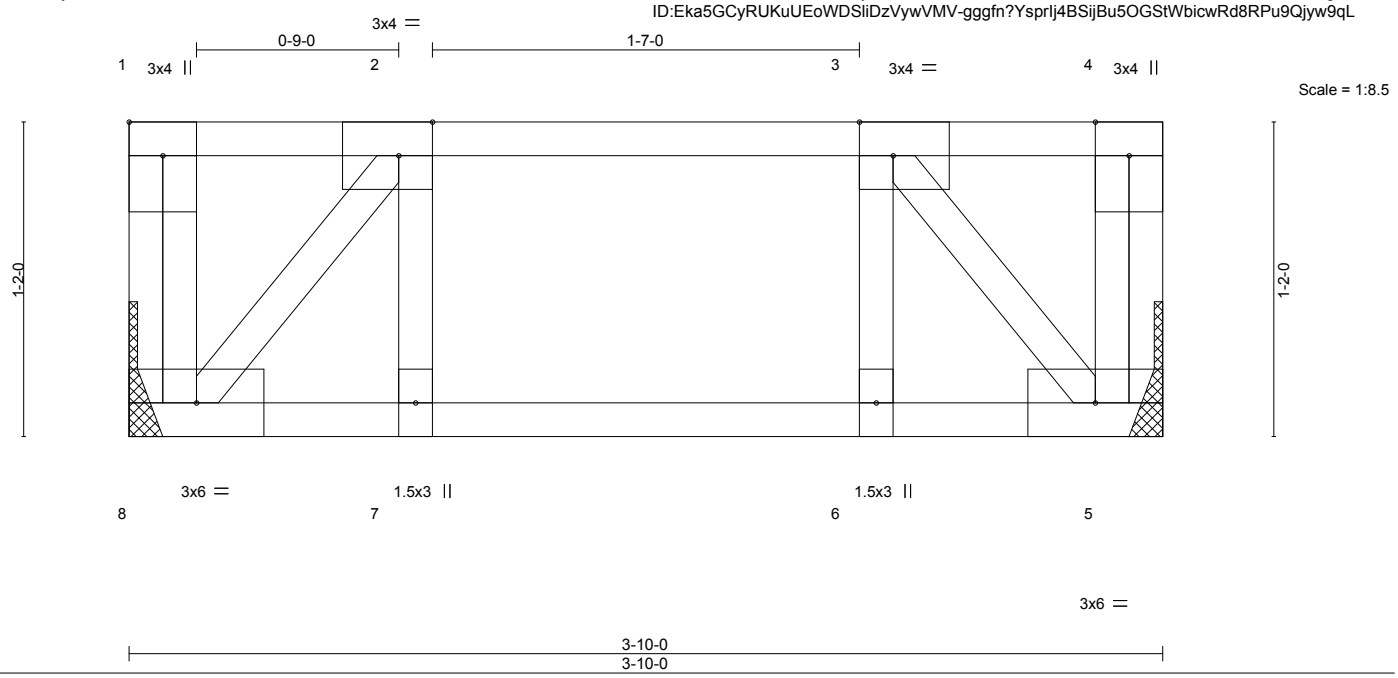

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [2:0-1-8,Edge], [3:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	-0.00	6	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.05	Vert(CT)	-0.00	7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 23 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 8=Mechanical, 5=Mechanical
Max Grav 8=197(LC 1), 5=197(LC 1)

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

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Refer to girder(s) for truss to truss connections.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F06-A	FLOOR	1	1	E14640320
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:37 2020 Page 1
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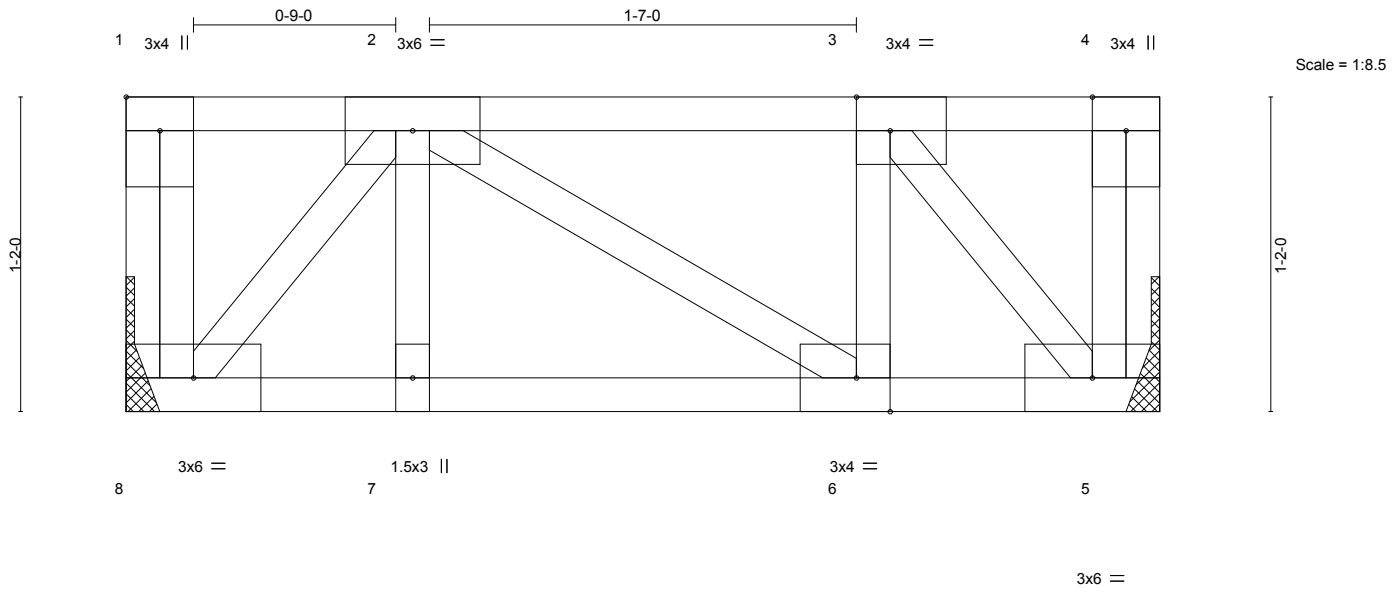

Plate Offsets (X,Y)-- [1:Edge,0-1-8], [3:0-1-8,Edge], [6:0-1-8,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.08	Vert(LL)	-0.00	7	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.04	Vert(CT)	-0.00	7	>999	360		
BCLL	0.0	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)

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

REACTIONS. (size) 8=Mechanical, 5=Mechanical
Max Grav 8=197(LC 1), 5=197(LC 1)

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

NOTES-
1) Plates checked for a plus or minus 1 degree rotation about its center.
2) Refer to girder(s) for truss to truss connections.
3) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F07G	FLOOR GIRDER	1	1	E14640321
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:38 2020 Page 1
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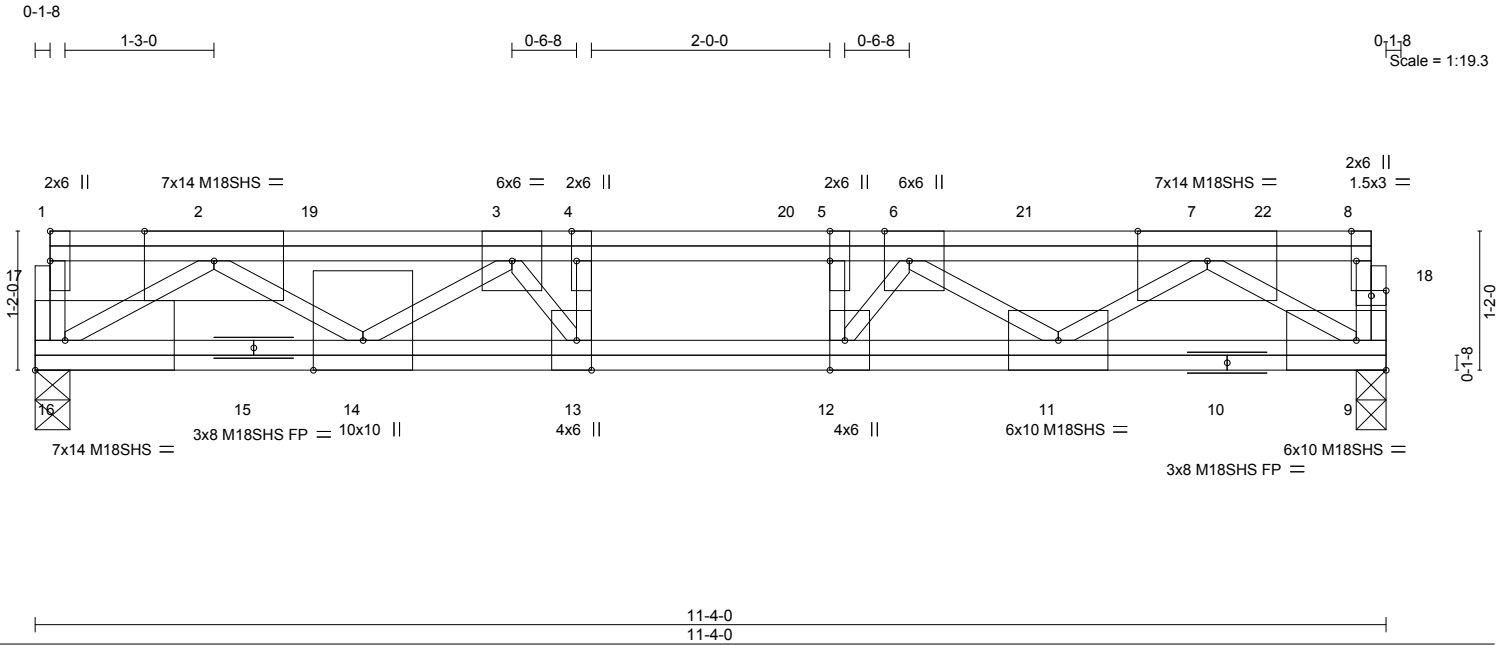

Plate Offsets (X,Y)-- [4:0-3-0,Edge], [5:0-3-0,0-0-0], [6:0-3-0,Edge], [8:0-3-0,Edge], [12:0-3-0,Edge], [13:0-3-0,Edge], [16:Edge,0-3-0], [18:0-1-8,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.98	Vert(LL)	-0.17	12-13	>766	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.75	Vert(CT)	-0.24	12-13	>552	360	M18SHS	244/190
BCLL	0.0	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.03	9	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 88 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat) *Except*
9-15,10-16: 2x4 SP 2400F 2.0E(flat)
WEBS 2x4 SP No.3(flat) *Except*
2-16,2-14,7-9,7-11: 2x4 SP No.2(flat)

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

REACTIONS. (size) 16=0-3-8, 9=0-3-0
Max Grav 16=3507(LC 1), 9=3463(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 8-9=-288/0, 2-3=-7179/0, 3-4=-9991/0, 4-5=-9991/0, 5-6=-9991/0, 6-7=-6750/0
BOT CHORD 14-16=0/5373, 13-14=0/9490, 12-13=0/9991, 11-12=0/9318, 9-11=0/4725
WEBS 2-16=-6261/0, 2-14=0/2253, 7-9=-5509/0, 7-11=0/2520, 6-11=-3184/0, 3-14=-2867/0, 3-13=0/1038, 4-13=-814/0, 6-12=0/1356, 5-12=-958/0

NOTES-
1) Unbalanced floor live loads have been considered for this design.
2) All plates are MT20 plates unless otherwise indicated.
3) Plates checked for a plus or minus 1 degree rotation about its center.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1039 lb down at 1-4-12, 1039 lb down at 2-4-12, 1007 lb down at 4-4-12, 985 lb down at 6-4-12, and 1039 lb down at 8-4-12, and 1041 lb down at 10-4-12 on top chord. The design/selection of such connection device(s) is the responsibility of others.
6) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 9-16=-10, 1-8=-100
Concentrated Loads (lb)
Vert: 2=-959(F) 4=-959(F) 19=-959(F) 20=-959(F) 21=-959(F) 22=-971(F)

July 20,2020

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5408	F08G	GABLE	1	1	E14640322
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s May 6 2020 MiTek Industries, Inc. Mon Jul 20 13:07:39 2020 Page 1
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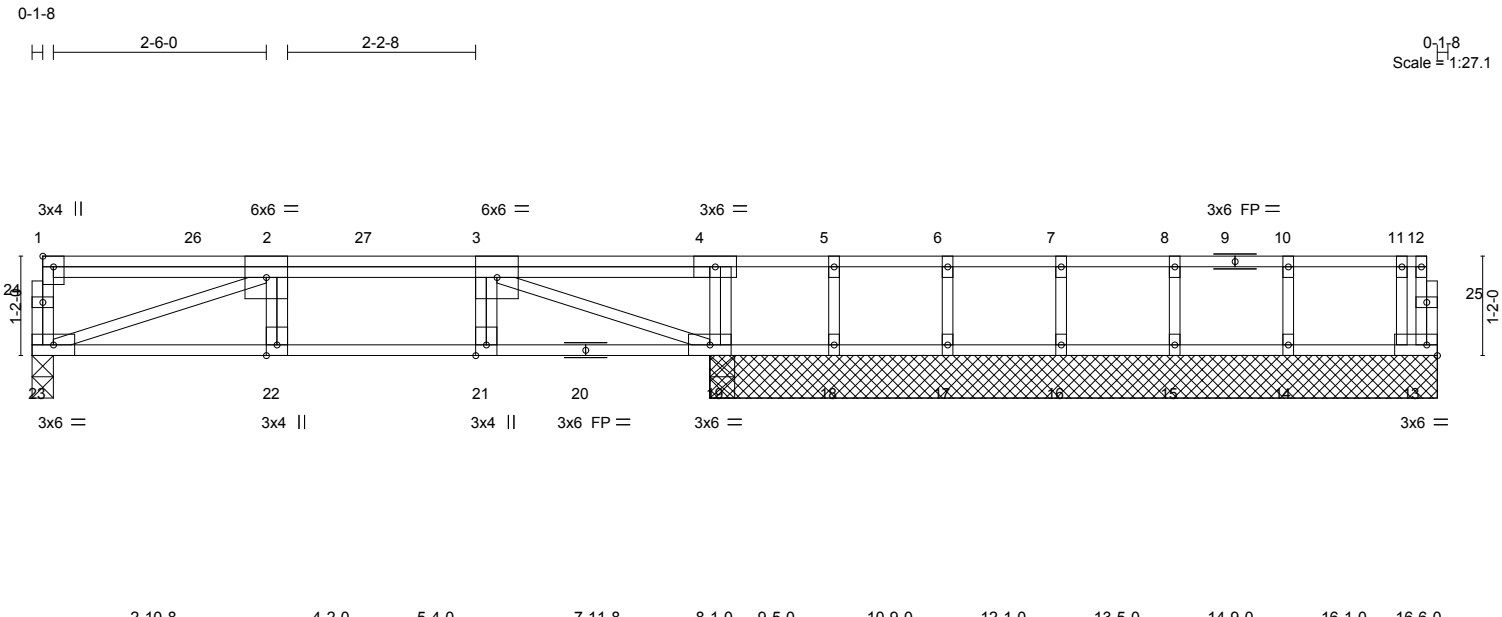

Plate Offsets (X,Y)-- [1:Edge,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	40.0	Plate Grip DOL	1.00	TC	0.21	Vert(LL)	-0.03	21-22	>999	480	MT20	244/190
TCDL	10.0	Lumber DOL	1.00	BC	0.30	Vert(CT)	-0.05	21-22	>999	360		
BCLL	0.0	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.01	13	n/a	n/a		
BCDL	5.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 89 lb	FT = 20%F, 11%E

LUMBER-
TOP CHORD 2x4 SP No.1(flat)
BOT CHORD 2x4 SP No.1(flat)
WEBS 2x4 SP No.3(flat)
OTHERS 2x4 SP No.3(flat)

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 8-6-8 except (jt=length) 23=0-3-0.
(lb) - Max Grav All reactions 250 lb or less at joint(s) 13, 18, 17, 16, 15, 14 except 23=584(LC 1), 19=685(LC 1), 19=685(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1202/0
BOT CHORD 22-23=0/1202, 21-22=0/1202, 19-21=0/1202
WEBS 2-23=-1267/0, 3-19=-1235/0

NOTES-
1) All plates are 1.5x3 MT20 unless otherwise indicated.
2) Plates checked for a plus or minus 1 degree rotation about its center.
3) Gable studs spaced at 1-4-0 oc.
4) Recommend 2x6 strongbacks, on edge, spaced at 10-0-0 oc and fastened to each truss with 3-10d (0.131" X 3") nails. Strongbacks to be attached to walls at their outer ends or restrained by other means.
5) CAUTION, Do not erect truss backwards.
6) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 97 lb down at 1-11-8, and 97 lb down at 3-11-8, and 97 lb down at 5-5-14 on top chord. The design/selection of such connection device(s) is the responsibility of others.
7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

LOAD CASE(S) Standard
1) Dead + Floor Live (balanced): Lumber Increase=1.00, Plate Increase=1.00
Uniform Loads (plf)
Vert: 13-23=-10, 1-12=-100
Concentrated Loads (lb)
Vert: 3=-97(F) 26=-97(F) 27=-97(F)

July 20,2020

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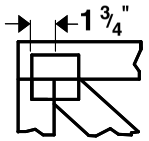
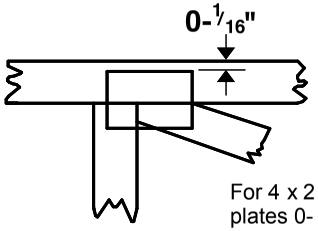
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

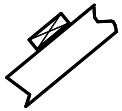
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

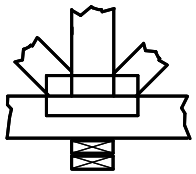
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

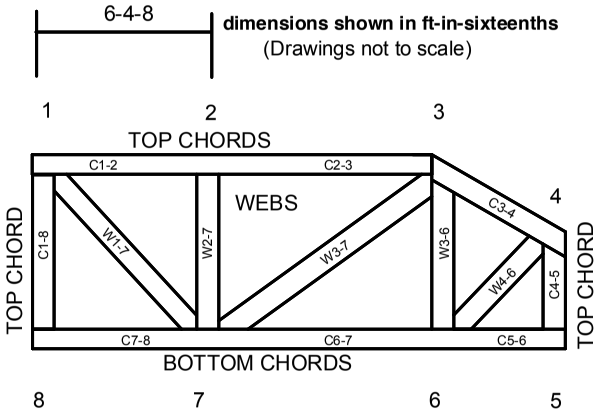


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek

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A MiTek Affiliate

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.

ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: J1120-5407
Precision/Lot 57 Summerlin/Harnett

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

Pages or sheets covered by this seal: E15271453 thru E15271474

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

North Carolina COA: C-0844

January 5,2021

Gilbert, Eric

IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to MiTek or TRENCO. Any project specific information included is for MiTek's or TRENCO's customers file reference purpose only, and was not taken into account in the preparation of these designs. MiTek or TRENCO has not independently verified the applicability of the design parameters or the designs for any particular building. Before use, the building designer should verify applicability of design parameters and properly incorporate these designs into the overall building design per ANSI/TPI 1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	A1GE	GABLE	1	1	E15271453
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:27 2021 Page 1
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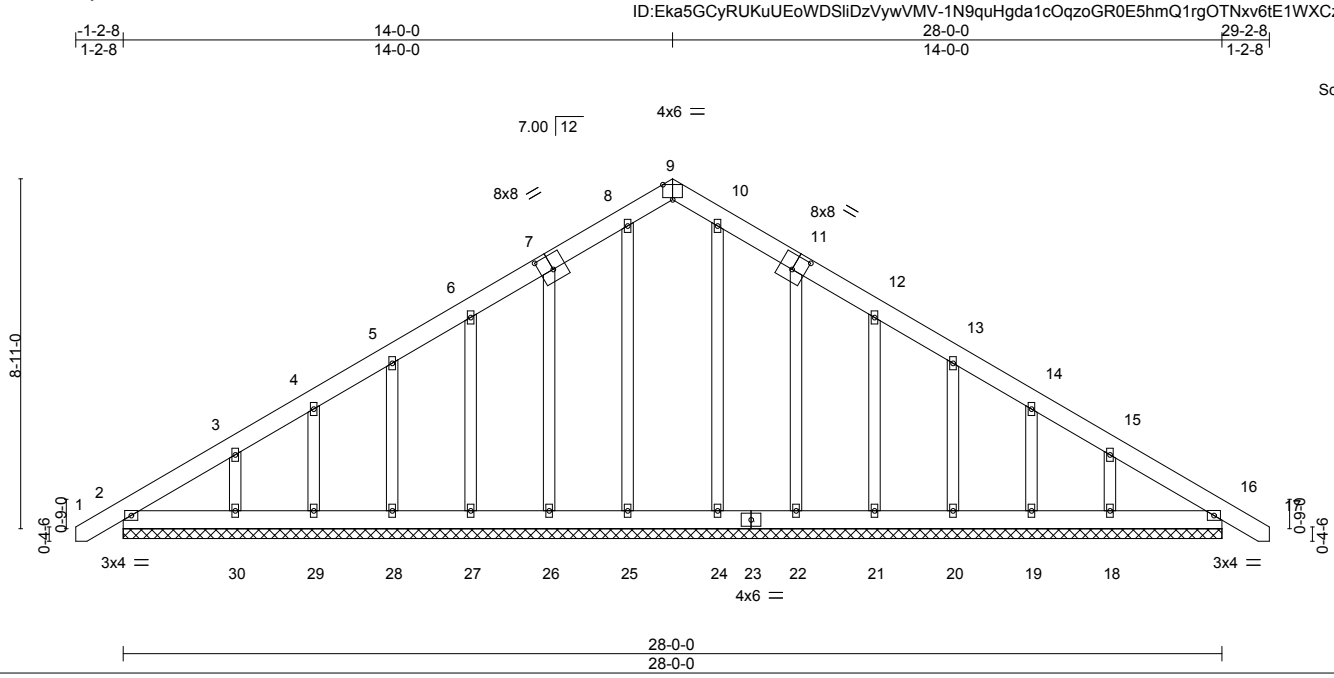

Plate Offsets (X,Y)-- [7:0-4-0,0-4-8], [9:0-3-0,Edge], [11:0-4-0,0-4-8]

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	16	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	0.00	16	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.01	16	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 228 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 28-0-0.
(lb) - Max Horz 2=-263(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 26, 27, 28, 29, 22, 21, 20, 19 except 30=-125(LC 12), 18=-120(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 16, 25, 26, 27, 28, 29, 30, 24, 22, 21, 20, 19, 18

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-255/189

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) 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 30.0psf 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.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 26, 27, 28, 29, 22, 21, 20, 19 except (jt=lb) 30=125, 18=120.

January 5,2021

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	A2	COMMON	3	1	E15271454
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:29 2021 Page 1
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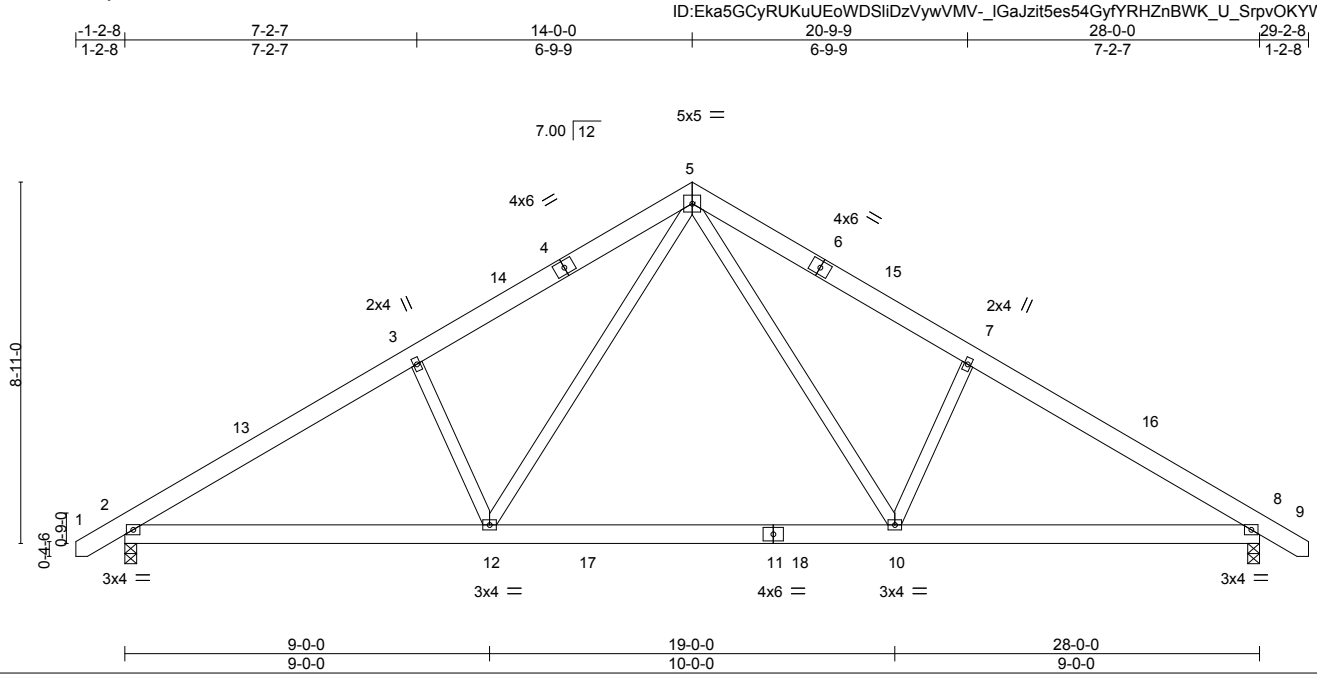

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	-0.17	10-12	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.24	10-12	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.23	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	12	>999	240	Weight: 189 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 5-8-8 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=211(LC 11)
Max Uplift 2=-79(LC 12), 8=-79(LC 13)
Max Grav 2=1222(LC 19), 8=1222(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1811/341, 3-5=-1677/417, 5-7=-1677/417, 7-8=-1811/341
BOT CHORD 2-12=-169/1596, 10-12=-7/1036, 8-10=-179/1438
WEBS 5-10=-138/808, 7-10=-424/256, 5-12=-138/808, 3-12=-424/256

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) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13, Interior(1) 18-4-13 to 29-0-13 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

January 5,2021

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	A3	ROOF SPECIAL	5	1	E15271455
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:30 2021 Page 1
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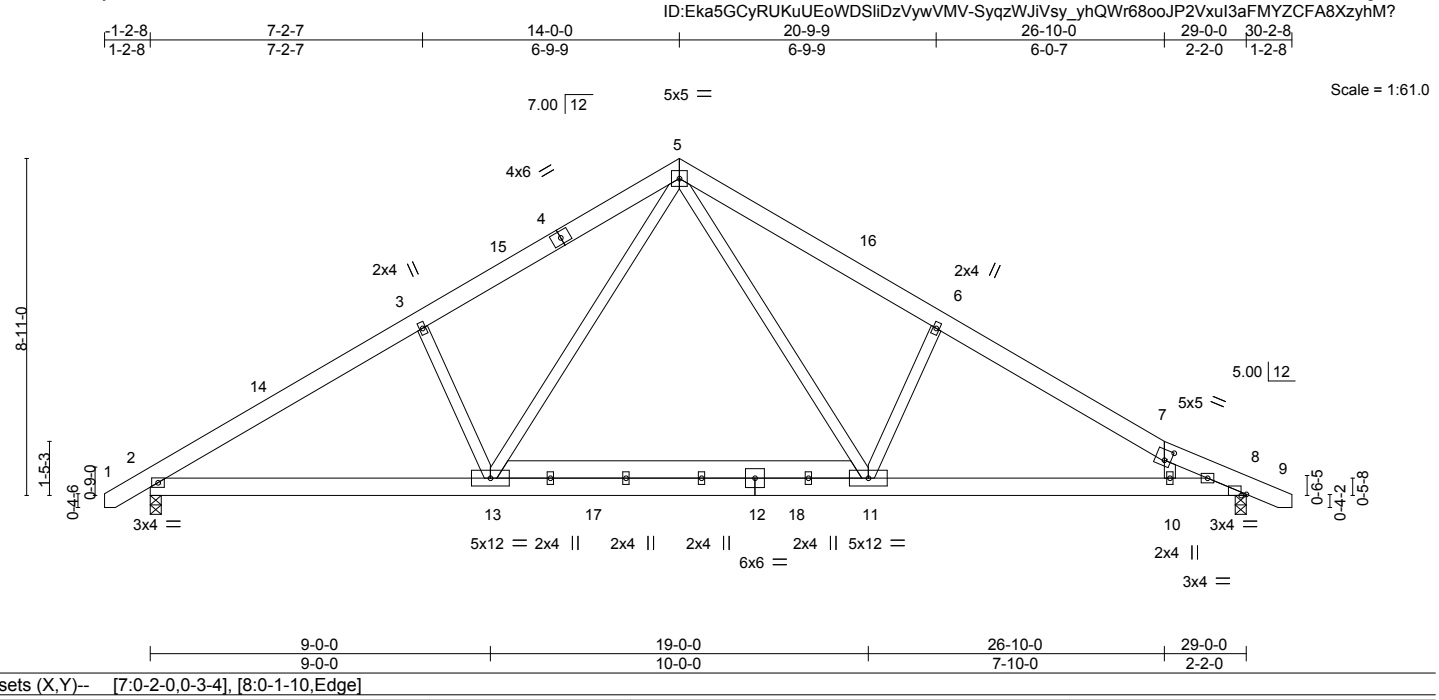

Plate Offsets (X,Y)-- [7:0-2-0,0-3-4], [8:0-1-10,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.15	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.54	Vert(CT)	-0.22	11-13	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.28	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.08	10-11	>999	240	Weight: 218 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 5-4-15 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=0-3-8
Max Horz 2=-213(LC 10)
Max Uplift 2=-80(LC 12), 8=-85(LC 13)
Max Grav 2=1248(LC 19), 8=1218(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1850/353, 3-5=-1716/428, 5-6=-1845/446, 6-7=-1922/374, 7-8=-1811/247
BOT CHORD 2-13=-176/1631, 11-13=-20/1087, 10-11=-210/1643, 8-10=-189/1602
WEBS 5-11=-169/978, 6-11=-511/265, 5-13=-132/775, 7-10=-266/153, 3-13=-424/256

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) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13, Interior(1) 18-4-13 to 30-0-5 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

January 5,2021

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	A4	COMMON	9	1	E15271456
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:31 2021 Page 1
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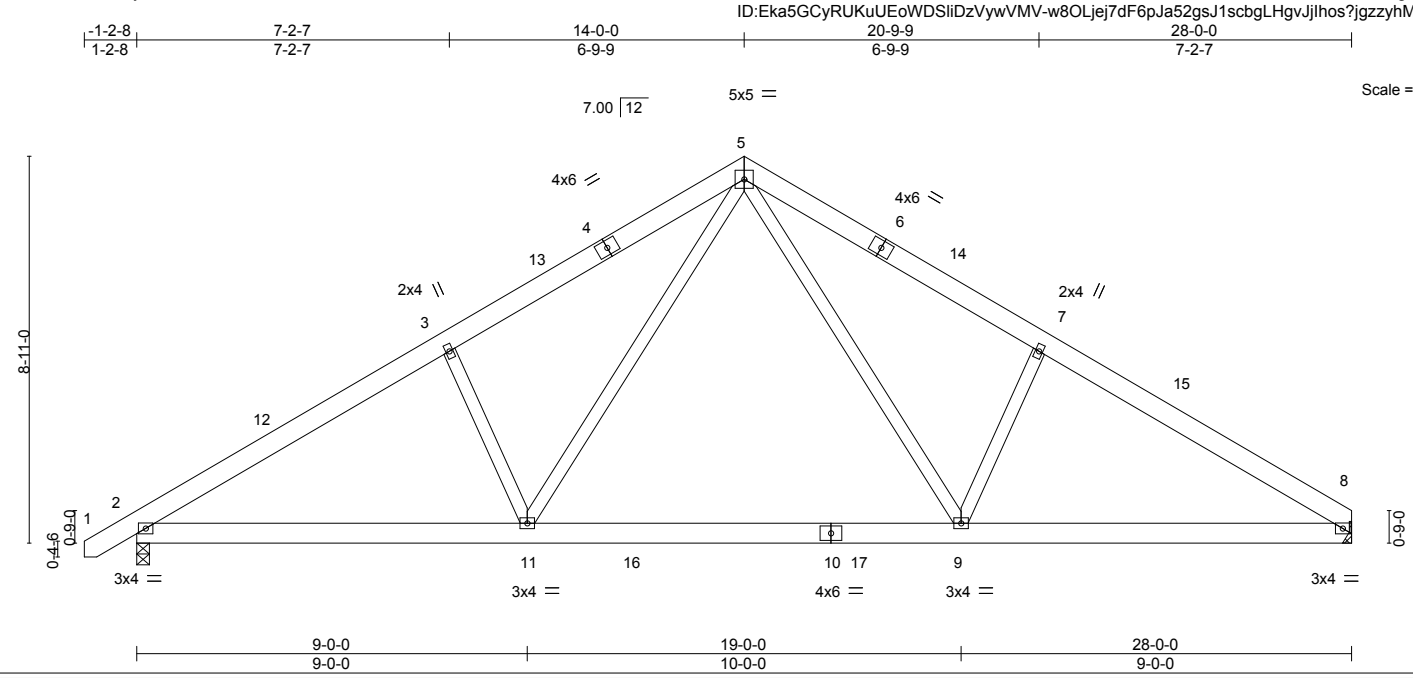

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.21	Vert(LL)	-0.17	9-11	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.44	Vert(CT)	-0.24	9-11	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.24	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S		Wind(LL)	0.03	11	>999	240	Weight: 186 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 5-7-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 8=Mechanical
Max Horz 2=208(LC 11)
Max Uplift 2=-79(LC 12), 8=-62(LC 13)
Max Grav 2=1225(LC 19), 8=1155(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1816/343, 3-5=-1682/419, 5-7=-1693/436, 7-8=-1826/358
BOT CHORD 2-11=-194/1595, 9-11=-22/1036, 8-9=-198/1458
WEBS 5-9=-143/823, 7-9=-430/262, 5-11=-139/808, 3-11=-424/256

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) -1-0-13 to 3-4-0, Interior(1) 3-4-0 to 14-0-0, Exterior(2) 14-0-0 to 18-4-13, Interior(1) 18-4-13 to 27-10-12 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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8.

January 5,2021

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	A5-GE	GABLE	1	1	E15271457
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:32 2021 Page 1
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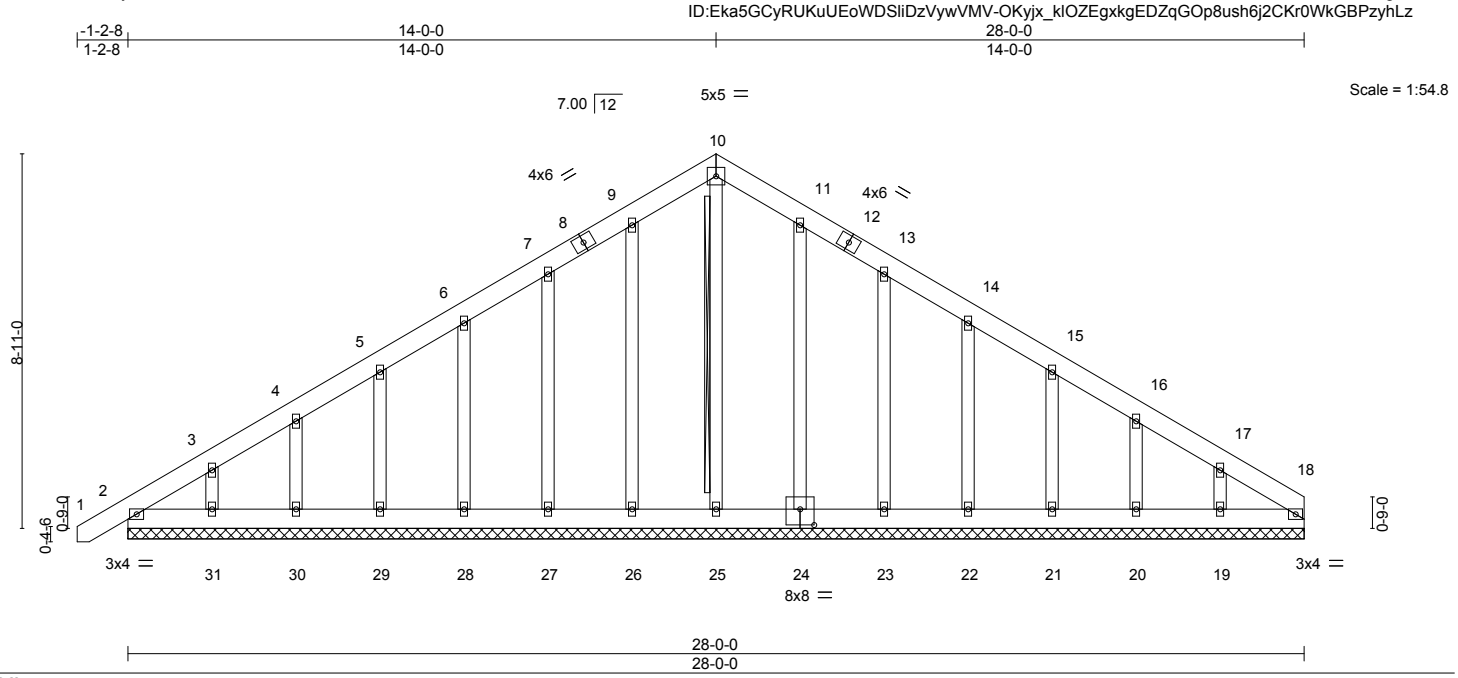

Plate Offsets (X,Y)-- [24:0-4-0,0-4-8]

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	0.04	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.02	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.00	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 227 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.
WEBS T-Brace: 2x4 SPF No.2 - 10-25
Fasten (2X) T and I braces to narrow edge of web with 10d (0.131"x3") nails, 6in o.c.,with 3in minimum end distance.
Brace must cover 90% of web length.

REACTIONS. All bearings 28-0-0.
(lb) - Max Horz 2=260(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 18, 26, 27, 28, 29, 30, 24, 23, 22, 21, 20 except 31=-102(LC 12), 19=-110(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 25, 26, 27, 28, 29, 30, 31, 24, 23, 22, 21, 20, 19

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) 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 30.0psf 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, 18, 26, 27, 28, 29, 30, 24, 23, 22, 21, 20 except (jt=lb) 31=102, 19=110.
10) Warning: Additional permanent and stability bracing for truss system (not part of this component design) is always required.

January 5,2021

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	B1	GABLE	4	1	E15271458
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:33 2021 Page 1
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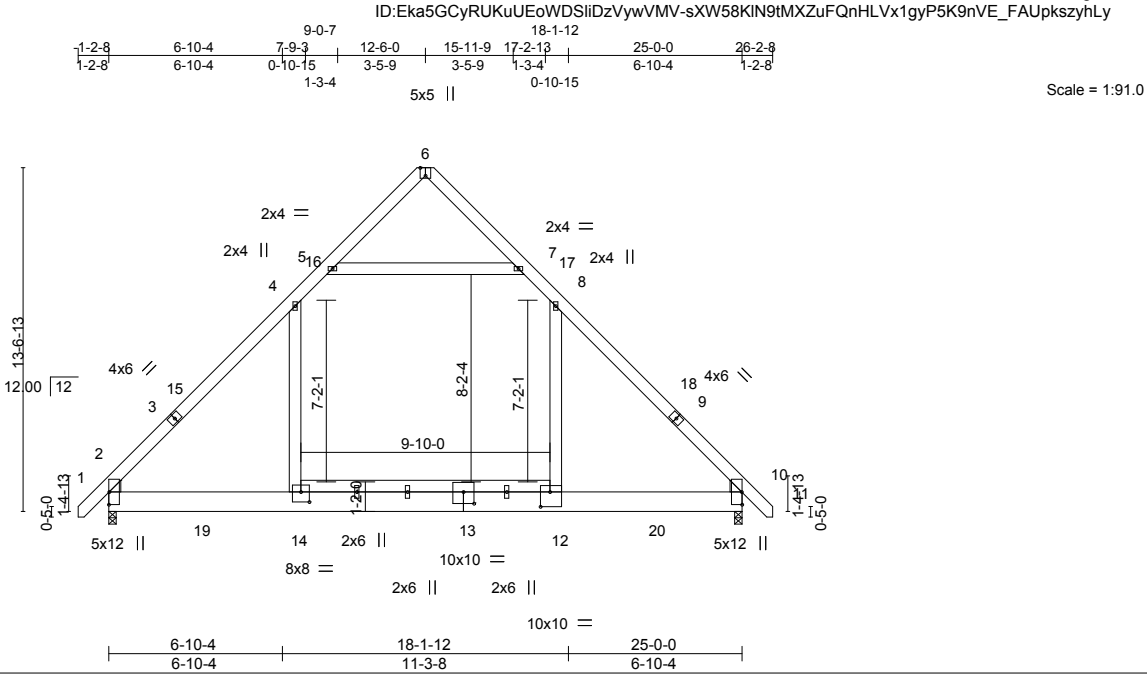

Plate Offsets (X,Y)-- [2:0-0-2,0-0-2], [2:0-0-3,0-3-14], [6:0-3-12,Edge], [10:0-0-3,0-3-14], [10:0-0-2,0-0-2], [12:0-4-8,0-7-0], [13:0-5-0,0-5-8], [14:0-4-0,0-4-12]

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	0.50	Vert(LL)	-0.11	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.19	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.09	2-14	>999	240	Weight: 268 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x6 SP No.1 , Right: 2x6 SP No.1

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-322(LC 10)
Max Grav 2=1720(LC 20), 10=1720(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2119/0, 4-5=-1156/153, 7-8=-1156/153, 8-10=-2119/0
BOT CHORD 2-14=0/1332, 12-14=0/1332, 10-12=0/1332
WEBS 8-12=0/934, 4-14=0/934, 5-7=-1306/205

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) -1-1-2 to 3-3-11, Interior(1) 3-3-11 to 12-6-0, Exterior(2) 12-6-0 to 16-10-13, Interior(1) 16-10-13 to 26-1-2 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 30.0psf 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) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).8-12, 4-14
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
7) Attic room checked for L/360 deflection.

January 5,2021

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	B1GE	GABLE	1	1	E15271459
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:35 2021 Page 1
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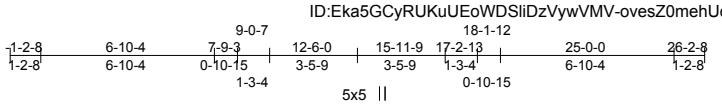

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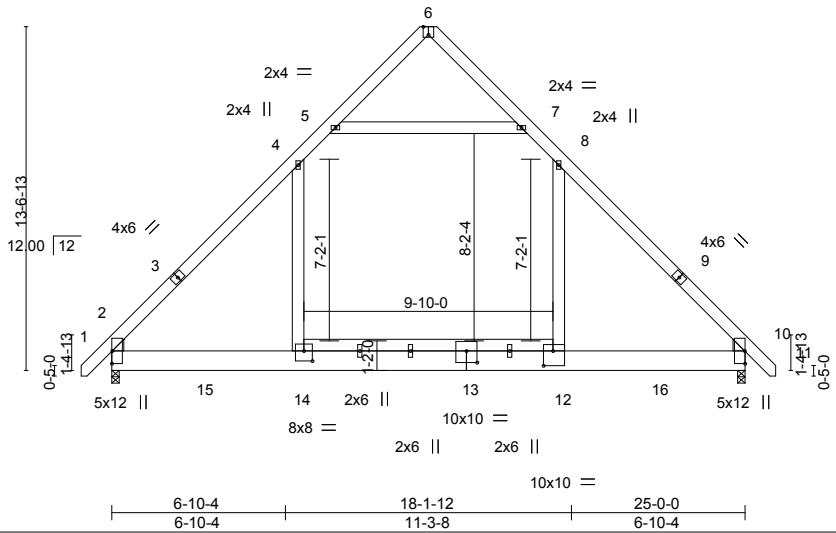

Plate Offsets (X,Y)-- [2:0-0-2,0-0-2], [2:0-0-3,0-3-14], [6:0-3-12,Edge], [10:0-0-3,0-3-14], [10:0-0-2,0-0-2], [12:0-4-8,0-7-0], [13:0-5-0,0-5-8], [14:0-4-0,0-4-12]

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	0.50	Vert(LL)	-0.11	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.19	12-14	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.72	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.11	2-14	>999	240	Weight: 268 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x6 SP No.1 , Right: 2x6 SP No.1

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-402(LC 10)
Max Grav 2=1714(LC 20), 10=1714(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2139/66, 4-5=-1157/205, 7-8=-1156/205, 8-10=-2138/66
BOT CHORD 2-14=0/1360, 12-14=0/1360, 10-12=0/1360
WEBS 8-12=-29/934, 4-14=-29/934, 5-7=-1297/300

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) 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 30.0psf 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) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).8-12, 4-14
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
7) Attic room checked for L/360 deflection.

January 5,2021

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	B2-GRD	ATTIC	2	3	E15271460
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:36 2021 Page 1
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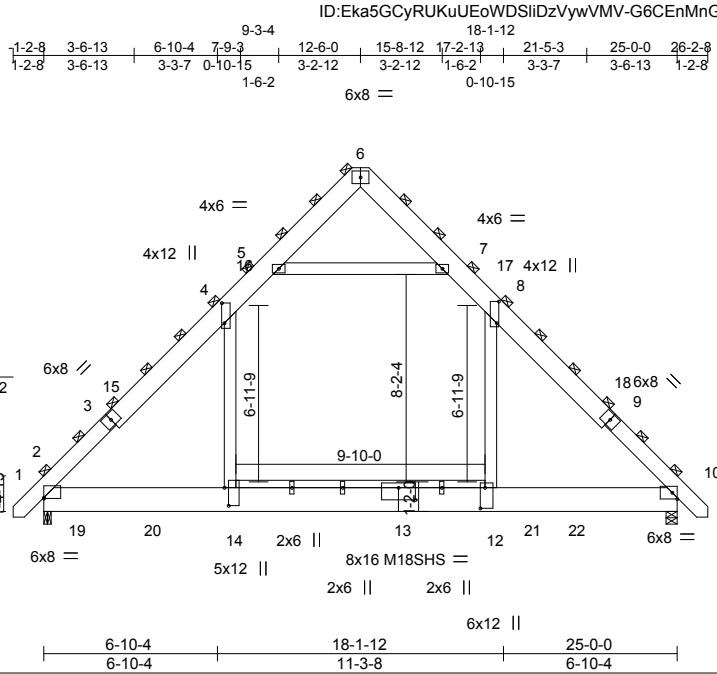

Plate Offsets (X,Y)-- [2:0-0-0,0-0-6], [4:0-9-8,0-1-4], [8:0-10-4,0-1-0], [12:0-9-12,0-2-4], [13:0-8-0,0-5-12], [14:0-8-8,0-2-0]

LOADING (psf)		SPACING- 4-6-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.91	Vert(LL)	-0.11	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.67	Vert(CT)	-0.22	12-14	>999	240	M18SHS	244/190
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.36	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.04	12-14	>999	240	Weight: 979 lb	FT = 20%

LUMBER-
TOP CHORD 2x8 SP No.1 *Except*
3-6,6-9: 2x10 SP No.1
BOT CHORD 2x12 SP No.1 *Except*
2-13: 2x12 SP 2400F 2.0E
WEBS 2x6 SP No.1 *Except*
12-14: 2x4 SP No.1

BRACING-
TOP CHORD 2-0-0 oc purlins (6-0-0 max.)
(Switched from sheeted: Spacing > 2-8-0).
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 10=0-5-4, 2=0-3-8
Max Horz 2=-712(LC 10)
Max Grav 10=9996(LC 2), 2=11258(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-11191/760, 4-5=-5957/749, 5-6=-74/872, 6-7=-102/1266, 7-8=-5506/719, 8-10=-11655/787
BOT CHORD 2-14=-28/7252, 12-14=-29/7288, 10-12=-28/7245
WEBS 8-12=-347/7818, 4-14=-266/6616, 5-7=-8699/1168

NOTES-
1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x8 - 2 rows staggered at 0-9-0 oc, 2x10 - 2 rows staggered at 0-9-0 oc.
Bottom chords connected as follows: 2x12 - 4 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x6 - 2 rows staggered at 0-8-0 oc, Except member 4-14 2x6 - 2 rows staggered at 0-9-0 oc, member 5-7 2x6 - 2 rows staggered 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) and C-C Exterior(2) -0-11-14 to 3-4-15, Interior(1) 3-4-15 to 12-6-0, Exterior(2) 12-6-0 to 16-10-13, Interior(1) 16-10-13 to 25-11-14 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
5) All plates are MT20 plates unless otherwise indicated.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 30.0psf 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) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).8-12, 4-14
9) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
10) Solid blocking is required on both sides of the truss at joint(s), 10.
11) Load case(s) 2, 3, 8, 9, 12, 13, 14, 15, 18 has/have been modified. Building designer must review loads to verify that they are correct for the intended use of this truss.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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Continued on page 2

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NOTES-

13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 3260 lb down and 467 lb up at 1-1-12, and 3832 lb down and 549 lb up at 17-6-12, and 2600 lb down at 18-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
14) Attic room checked for L/360 deflection.

LOAD CASE(S) Standard Except:

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-135, 4-5=-180, 5-6=-135, 6-7=-135, 7-8=-180, 8-11=-135, 2-19=-45, 14-19=-220(F=-175), 12-14=-265(F=-175), 10-12=-45, 5-7=-45
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=-2175(F) 19=-1850(F)
2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-113, 4-5=-158, 5-6=-112, 6-7=-112, 7-8=-158, 8-11=-112, 2-19=-45, 19-20=-329(F=-284), 14-20=-431(F=-284), 12-14=-509(F=-284), 12-21=-45, 21-22=-146, 10-22=-45, 5-7=-45
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=-3534(F) 19=-3006(F) 21=-2600(F)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-4=-45, 4-5=-90, 5-6=-45, 6-7=-45, 7-8=-90, 8-11=-45, 2-19=-90, 12-19=-221(F=-131), 10-12=-90, 5-7=-45
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=-1631(F) 19=-1388(F) 21=-2600(F)
8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=5, 2-4=-30, 4-5=-57, 5-6=-30, 6-7=24, 7-8=-3, 8-10=24, 10-11=9, 2-19=-27, 14-19=-30(F=-3), 12-14=-57(F=-3), 10-12=-27, 5-7=-27
   Horz: 1-2=-32, 2-6=3, 6-10=51, 10-11=36
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=-31(F) 19=-27(F) 21=-2600(F)
9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=9, 2-4=24, 4-5=-3, 5-6=24, 6-7=-30, 7-8=-57, 8-10=-30, 10-11=5, 2-19=-27, 14-19=-30(F=-3), 12-14=-57(F=-3), 10-12=-27, 5-7=-27
   Horz: 1-2=-36, 2-6=-51, 6-10=-3, 10-11=32
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=-31(F) 19=-27(F) 21=-2600(F)
12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=31, 2-4=46, 4-5=19, 5-6=46, 6-7=19, 7-8=-8, 8-10=19, 10-11=4, 2-19=-27, 14-19=-8(F=19), 12-14=-35(F=19), 10-12=-27, 5-7=-27
   Horz: 1-2=-58, 2-6=-73, 6-10=46, 10-11=31
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=234(F) 19=199(F) 21=-2600(F)
13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=4, 2-4=19, 4-5=-8, 5-6=19, 6-7=46, 7-8=19, 8-10=46, 10-11=31, 2-19=-27, 14-19=-8(F=19), 12-14=-35(F=19), 10-12=-27, 5-7=-27
   Horz: 1-2=-31, 2-6=-46, 6-10=73, 10-11=58
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=234(F) 19=199(F) 21=-2600(F)
14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=31, 2-4=46, 4-5=19, 5-6=46, 6-7=19, 7-8=-8, 8-10=19, 10-11=4, 2-19=-27, 14-19=-8(F=19), 12-14=-35(F=19), 10-12=-27, 5-7=-27
   Horz: 1-2=-58, 2-6=-73, 6-10=46, 10-11=31
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=234(F) 19=199(F) 21=-2600(F)
15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=4, 2-4=19, 4-5=-8, 5-6=19, 6-7=46, 7-8=19, 8-10=46, 10-11=31, 2-19=-27, 14-19=-8(F=19), 12-14=-35(F=19), 10-12=-27, 5-7=-27
   Horz: 1-2=-31, 2-6=-46, 6-10=73, 10-11=58
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=234(F) 19=199(F) 21=-2600(F)
18) Dead + Uninhab. Attic Storage + Attic Floor: Lumber Increase=1.00, Plate Increase=1.00
   Uniform Loads (plf)
   Vert: 1-4=-45, 4-5=-90, 5-6=-45, 6-7=-45, 7-8=-90, 8-11=-45, 2-19=-45, 19-20=-307(F=-262), 14-20=-442(F=-262), 12-14=-532(F=-262), 12-21=-45, 21-22=-180, 10-22=-45, 5-7=-45
   Drag: 8-12=-23, 4-14=-23
   Concentrated Loads (lb)
   Vert: 12=-3263(F) 19=-2775(F) 21=-2600(F)

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	B3	GABLE	2	1	E15271461
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:37 2021 Page 1
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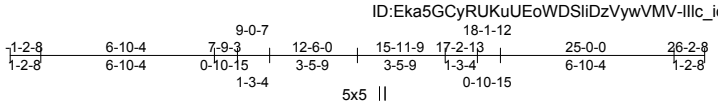

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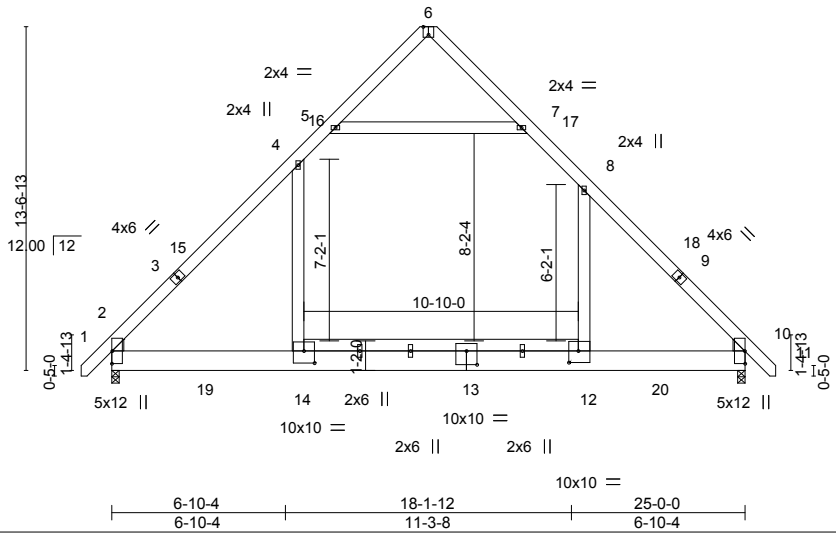

Plate Offsets (X,Y)-- [2:0-0-2,0-0-2], [2:0-0-3,0-3-14], [6:0-3-12,Edge], [10:0-0-3,0-3-14], [10:0-0-2,0-0-2], [12:0-4-8,0-5-8], [13:0-5-0,0-6-8], [14:0-5-0,0-5-12]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.88	Vert(LL)	-0.18	12-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.30	12-14	>987	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.02	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.09	2-14	>999	240	Weight: 268 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x10 SP No.1
WEBS 2x6 SP No.1
WEDGE
Left: 2x6 SP No.1 , Right: 2x6 SP No.1

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-322(LC 10)
Max Grav 2=1730(LC 20), 10=1756(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2143/0, 4-5=-1132/156, 7-8=-1249/145, 8-10=-2190/0
BOT CHORD 2-14=0/1340, 12-14=0/1340, 10-12=0/1340
WEBS 8-12=0/988, 4-14=0/1018, 5-7=-1375/188

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) -1-1-2 to 3-3-11, Interior(1) 3-3-11 to 12-6-0, Exterior(2) 12-6-0 to 16-10-13, Interior(1) 16-10-13 to 26-1-2 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 30.0psf 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) Ceiling dead load (10.0 psf) on member(s). 4-5, 7-8, 5-7; Wall dead load (5.0psf) on member(s).8-12, 4-14
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (10.0 psf) applied only to room. 12-14
7) Attic room checked for L/360 deflection.

January 5,2021

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	C1-GE	GABLE	2	1	E15271462
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:38 2021 Page 1
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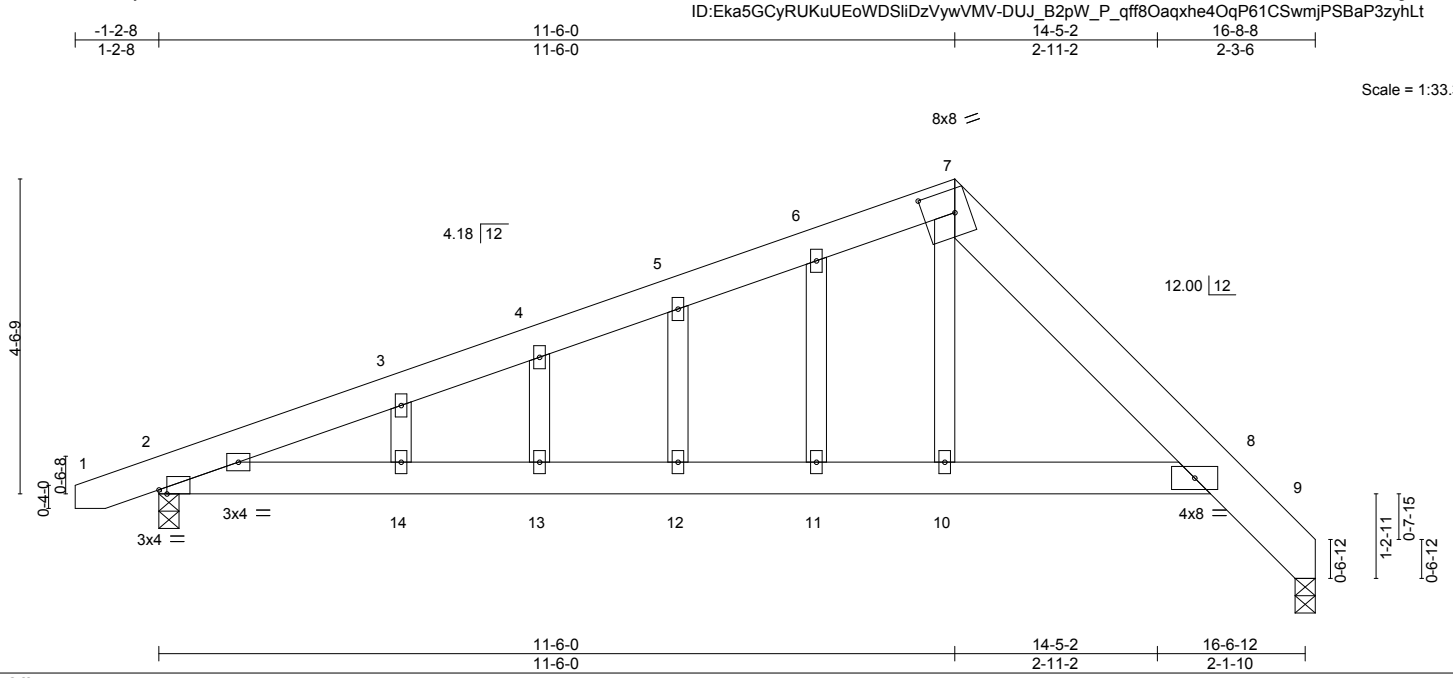

Plate Offsets (X,Y)-- [2:0-1-6,Edge], [7:0-5-6,0-4-0]

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	0.35	Vert(LL)	-0.12	13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.53	Vert(CT)	-0.24	13	>813	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.05	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.16	13	>999	240	Weight: 108 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
7-9: 2x8 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=169(LC 11)
Max Uplift 2=-220(LC 8), 9=-105(LC 12)
Max Grav 2=728(LC 1), 9=663(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-940/256, 3-4=-878/294, 4-5=-855/319, 5-6=-826/348, 6-7=-812/379, 7-8=-1054/397, 8-9=-423/162
BOT CHORD 2-14=-165/808, 13-14=-165/808, 12-13=-165/808, 11-12=-165/808, 10-11=-165/808, 8-10=-158/790
WEBS 7-10=-169/506

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) 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 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 30.0psf 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) Bearing at joint(s) 9 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=220, 9=105.
10) Attic room checked for L/360 deflection.

January 5,2021

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	C2	ROOF SPECIAL	3	1	E15271463
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:39 2021 Page 1
ID:Eka5GCyRUKuUEoWDSliDzVywVMV-hhtMPNp8lj6hHpia8XSwBIw?9WPOBKCtd6x7xVzyhLs

-1-2-8	6-0-0	11-6-0	14-5-2	16-8-8
1-2-8	6-0-0	5-6-0	2-11-2	2-3-6

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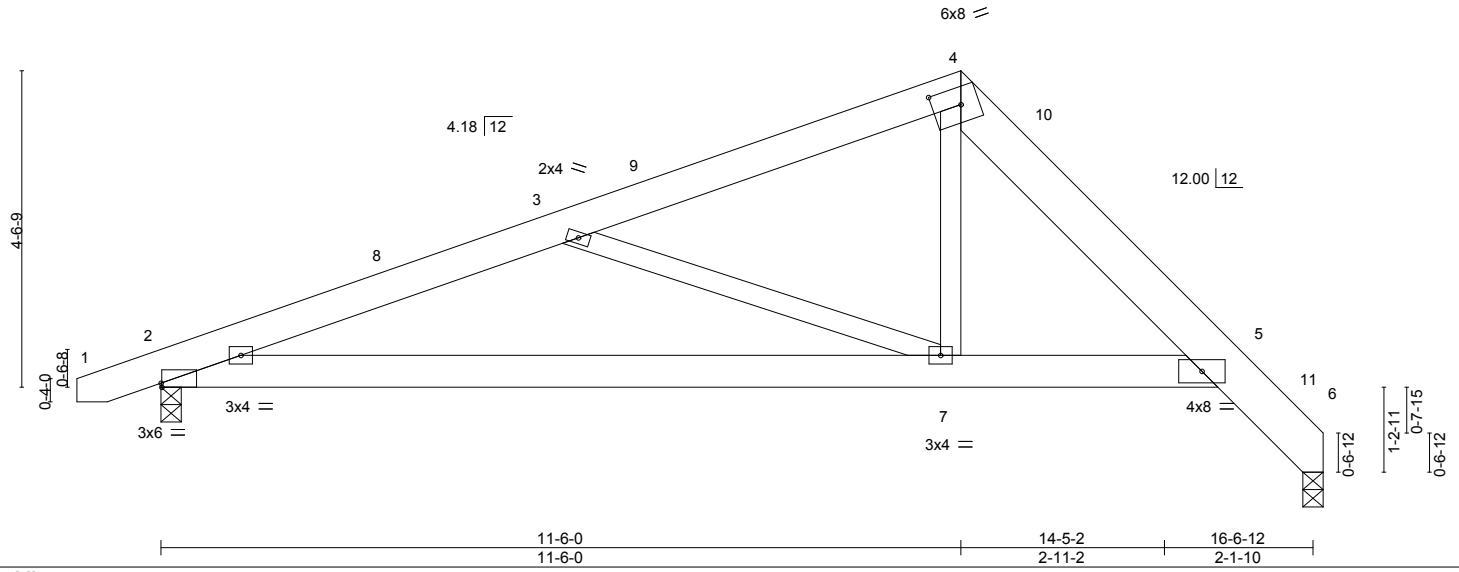

11-6-0	14-5-2	16-6-12
11-6-0	2-11-2	2-1-10

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

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	0.35	Vert(LL)	-0.10	2-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.40	Vert(CT)	-0.21	2-7	>951	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.06	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.03	5-7	>999	240	Weight: 105 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1 *Except*
4-6: 2x8 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.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=124(LC 11)
Max Uplift 2=-100(LC 8), 6=-28(LC 8)
Max Grav 2=728(LC 1), 6=663(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1262/408, 3-4=-768/211, 4-5=-910/199, 5-6=-423/143
BOT CHORD 2-7=-279/1150, 5-7=-13/659
WEBS 3-7=-521/283, 4-7=0/557

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) -0-11-14 to 3-4-15, Interior(1) 3-4-15 to 11-6-0, Exterior(2) 11-6-0 to 15-10-13, Interior(1) 15-10-13 to 16-6-12 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 30.0psf 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) 6 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) 2, 6.
7) Attic room checked for L/360 deflection.

January 5,2021

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	D1-GE	GABLE	1	1	E15271464
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:40 2021 Page 1
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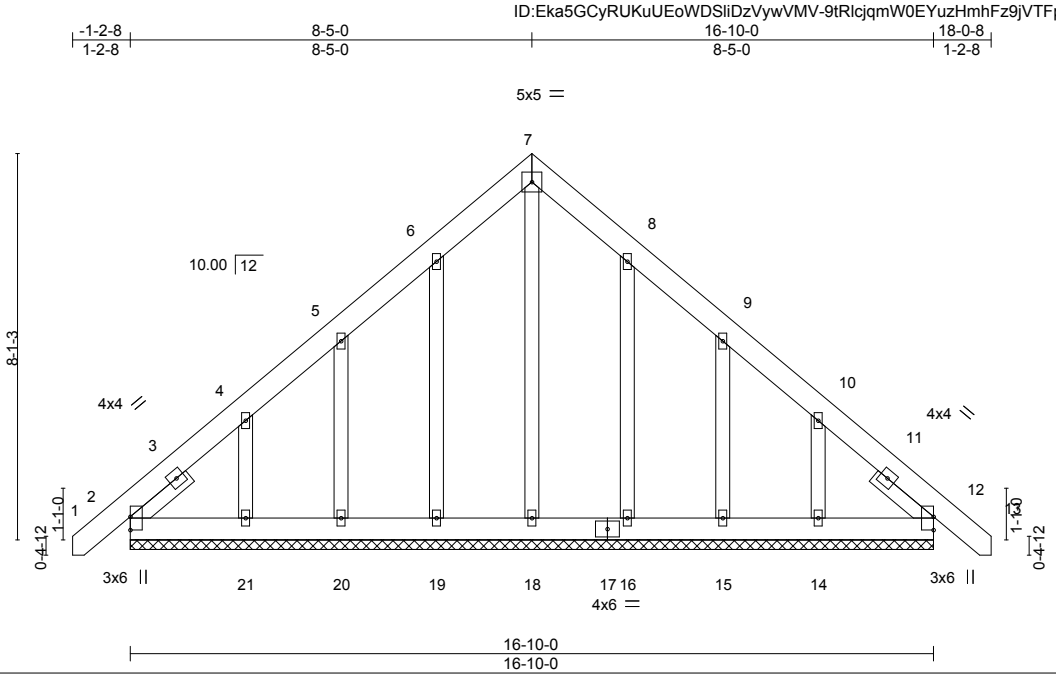

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	-0.00	12	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	12	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 148 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.2 - 1-6-5, Right 2x4 SP No.2 -x 1-6-5

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 16-10-0.
(lb) - Max Horz 2=-237(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 19, 16, 12 except 20=-103(LC 12), 21=-194(LC 12), 15=-107(LC 13), 14=-184(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 18, 19, 20, 21, 16, 15, 12, 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 Exterior(2) 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 30.0psf 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, 19, 16, 12 except (jt=lb) 20=103, 21=194, 15=107, 14=184.

January 5,2021

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	D2	COMMON GIRDER	1	2	E15271465
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:42 2021 Page 1
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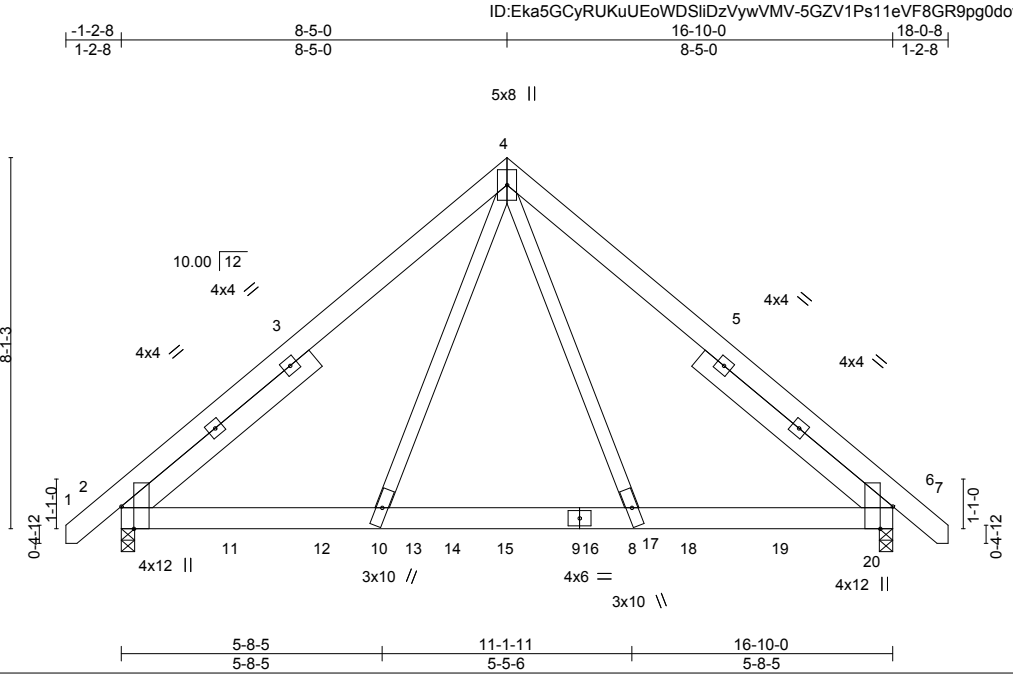

Plate Offsets (X,Y)-- [2:0-5-13,Edge], [6:0-5-13,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.39	Vert(LL)	-0.06	8-10	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.12	8-10	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.44	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Wind(LL)	0.04	8-10	>999	240	Weight: 293 lb	FT = 20%

LUMBER-
TOP CHORD 2x6 SP No.1
BOT CHORD 2x6 SP No.1
WEBS 2x4 SP No.2
SLIDER Left 2x6 SP No.1 -x 5-4-2, Right 2x6 SP No.1 -x 5-4-2

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

REACTIONS. (size) 2=0-3-8, 6=0-3-8
Max Horz 2=190(LC 26)
Max Uplift 2=-306(LC 8), 6=-370(LC 9)
Max Grav 2=4608(LC 1), 6=5582(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-5482/398, 4-6=-5523/401
BOT CHORD 2-10=-222/3984, 8-10=-153/2788, 6-8=-195/4023
WEBS 4-8=-205/3569, 4-10=-198/3457

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: 2x6 - 2 rows staggered at 0-6-0 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 30.0psf 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.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=306, 6=370.
8) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1088 lb down and 82 lb up at 2-4-4, 1088 lb down and 82 lb up at 4-4-4, 1088 lb down and 82 lb up at 6-4-4, 1088 lb down and 82 lb up at 8-4-4, 1088 lb down and 82 lb up at 10-4-4, 1088 lb down and 82 lb up at 12-4-4, and 1088 lb down and 82 lb up at 14-4-4, and 1094 lb down and 77 lb up at 16-4-4 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: 1-4=-60, 4-7=-60, 2-6=-20

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Continued on page 2

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LOAD CASE(S) Standard

Concentrated Loads (lb)

Vert: 11=-1088(B) 12=-1088(B) 13=-1088(B) 15=-1088(B) 17=-1088(B) 18=-1088(B) 19=-1088(B) 20=-1094(B)

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	M1-GE	GABLE	1	1	E15271466
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:42 2021 Page 1
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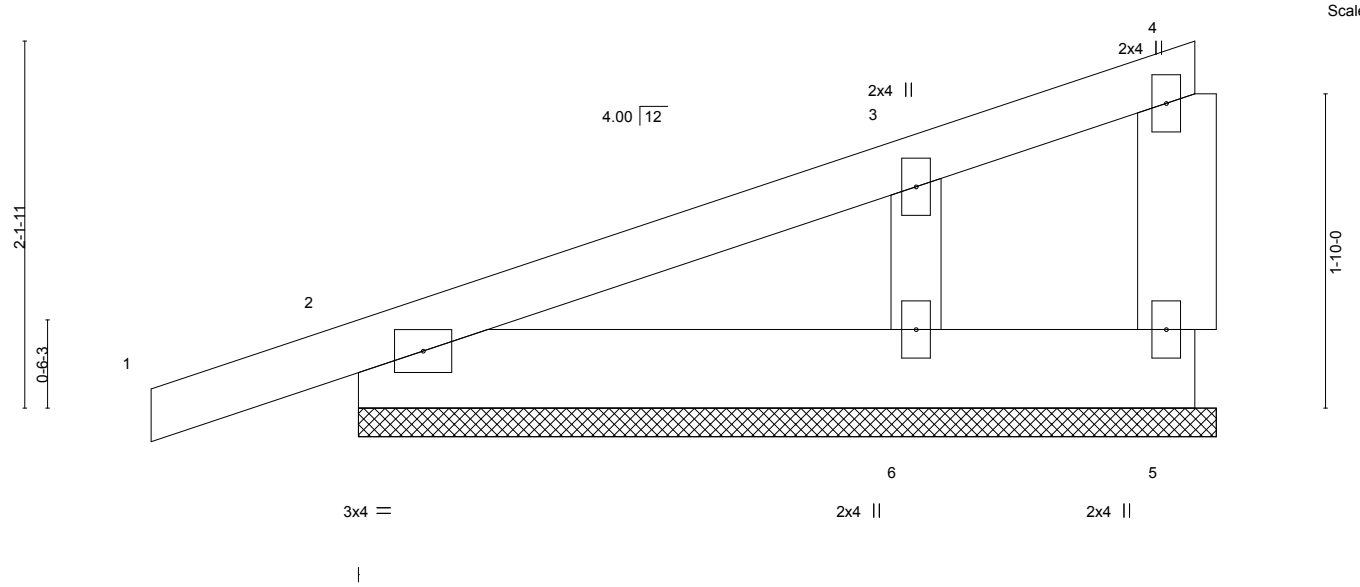
Scale = 1:13.4



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	0.07	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	0.04	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 26 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. (size) 5=5-0-0, 2=5-0-0, 6=5-0-0
Max Horz 2=98(LC 8)
Max Uplift 5=-11(LC 8), 2=-86(LC 8), 6=-83(LC 12)
Max Grav 5=19(LC 1), 2=196(LC 1), 6=239(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 Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	M2	MONOPITCH	4	1	E15271467
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:43 2021 Page 1
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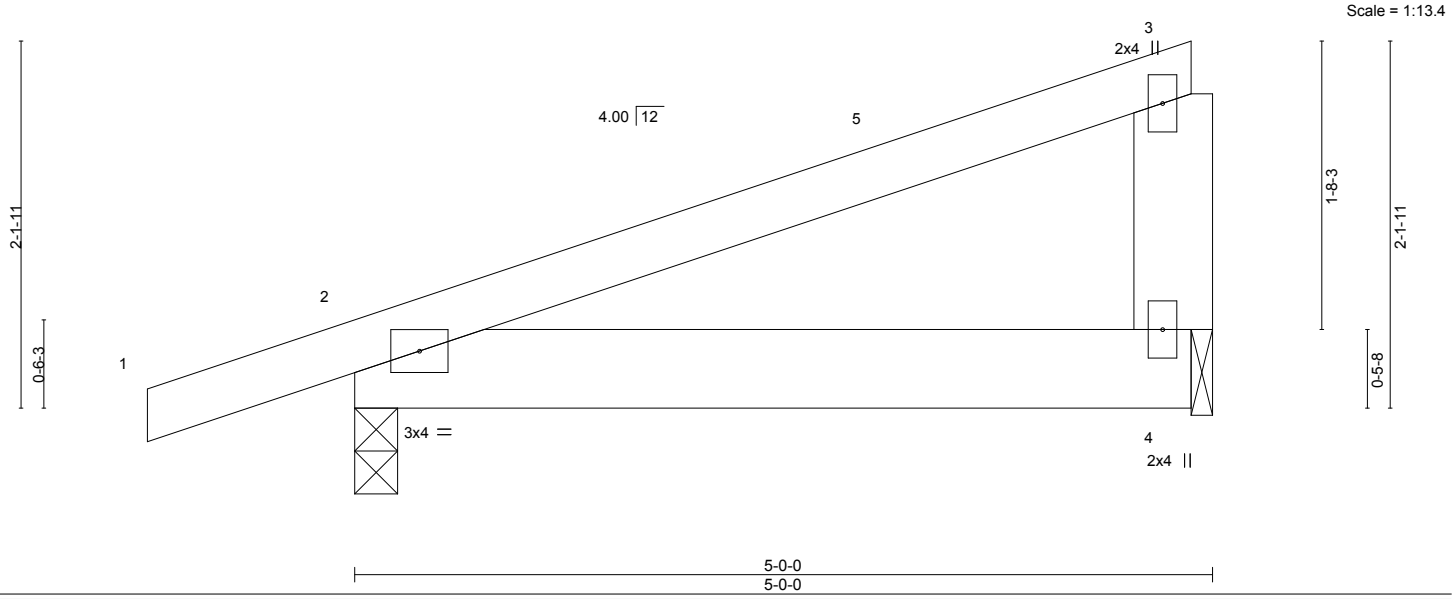

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.26	Vert(LL)	-0.01	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	-0.01	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.00	2	****	240	Weight: 24 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=69(LC 8)
Max Uplift 2=-65(LC 8), 4=-27(LC 12)
Max Grav 2=277(LC 1), 4=174(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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 4-9-4 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 30.0psf 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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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	M3	MONOPITCH	4	1	E15271468
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:44 2021 Page 1
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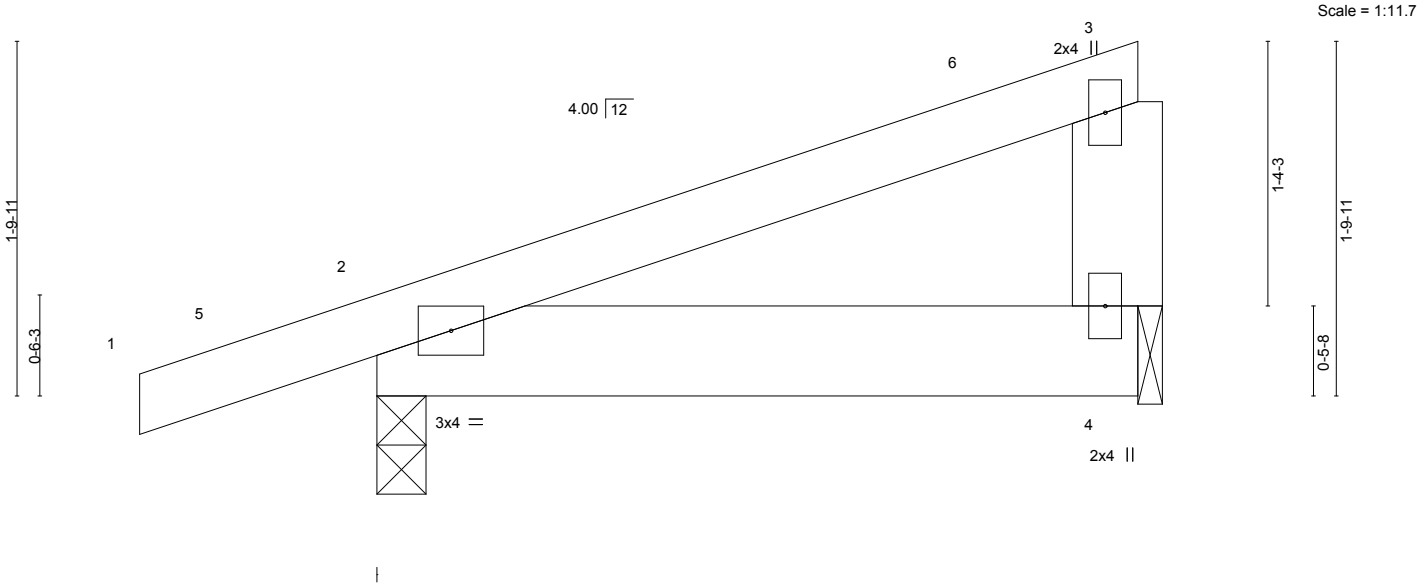

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	-0.00	2-4	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	-0.00	2-4	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P		Wind(LL)	0.01	2-4	>999	240	Weight: 20 lb	FT = 20%

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

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

REACTIONS. (size) 2=0-3-0, 4=0-1-8
Max Horz 2=58(LC 8)
Max Uplift 2=-105(LC 8), 4=-56(LC 8)
Max Grav 2=240(LC 1), 4=131(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) -1-2-8 to 3-2-5, Interior(1) 3-2-5 to 3-9-4 zone; porch 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 30.0psf 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) 4 except (jt=lb) 2=105.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	M4-GE	GABLE	1	1	E15271469
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:44 2021 Page 1
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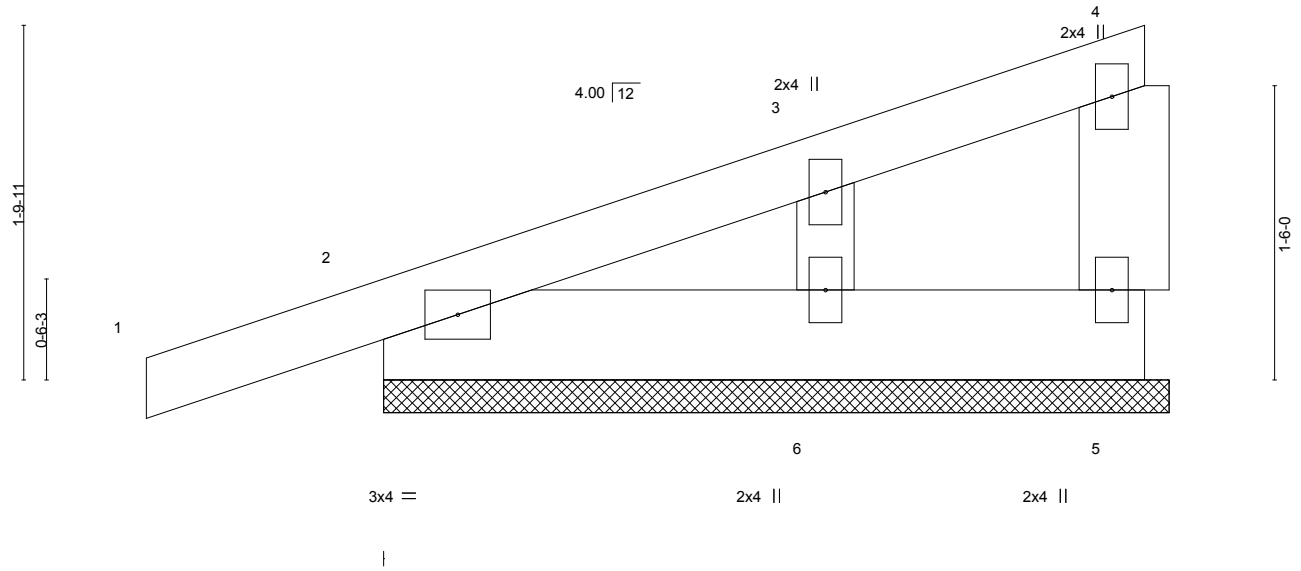

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.01	Vert(CT)	-0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 20 lb	FT = 20%

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

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

REACTIONS. (size) 5=4-0-0, 2=4-0-0, 6=4-0-0
Max Horz 2=82(LC 8)
Max Uplift 5=-20(LC 8), 2=-85(LC 8), 6=-55(LC 12)
Max Grav 5=44(LC 1), 2=170(LC 1), 6=160(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 Exterior(2) zone; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 2-0-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 5, 2, 6.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	VD1	VALLEY	1	1	E15271470
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:45 2021 Page 1
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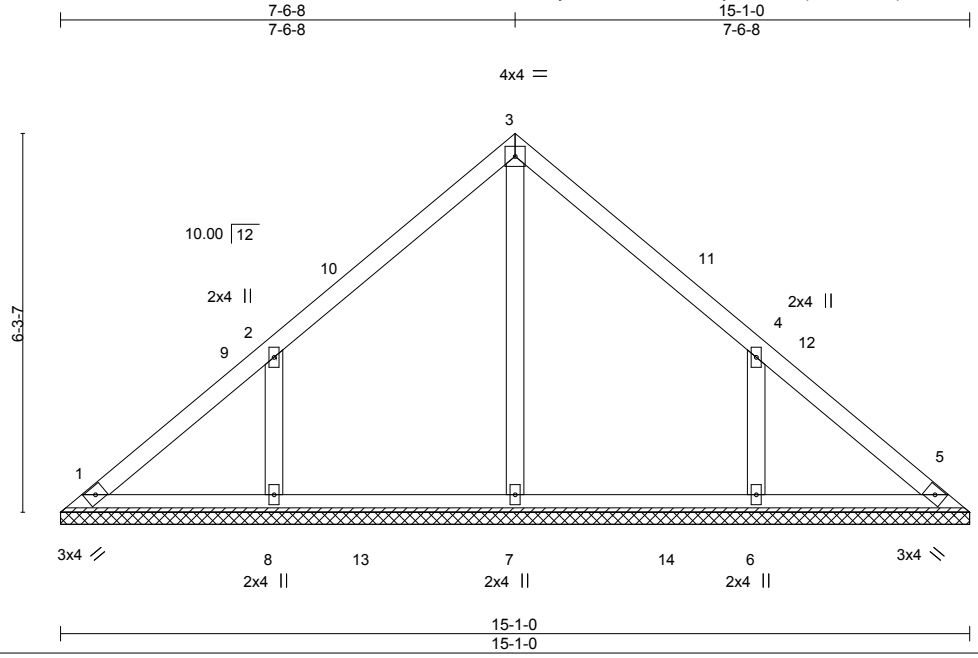

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.14	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 66 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 15-1-0.
(lb) - Max Horz 1=143(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-137(LC 12), 6=-137(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=404(LC 19), 8=403(LC 19), 6=403(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-343/248, 4-6=-343/248

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) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 7-6-8, Exterior(2) 7-6-8 to 11-11-5, Interior(1) 11-11-5 to 14-8-3 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 30.0psf 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) 1 except (jt=lb) 8=137, 6=137.
6) Non Standard bearing condition. Review required.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	VD2	VALLEY	1	1	E15271471
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:46 2021 Page 1
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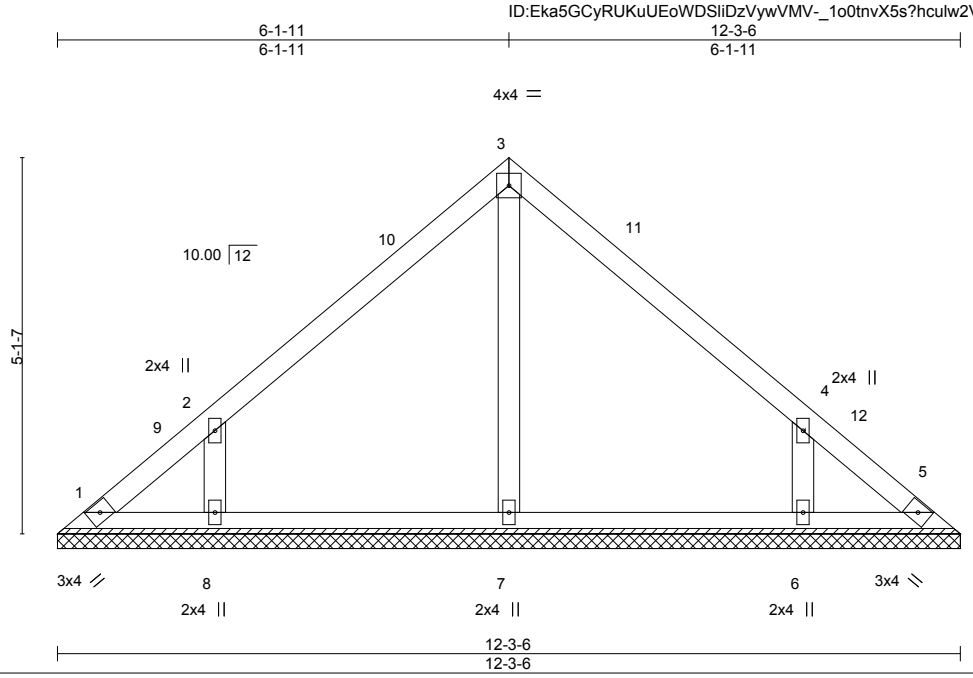

Plate Offsets (X,Y)-- [4:0-0-0,0-0-0]

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	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 51 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 12-3-6.
(lb) - Max Horz 1=115(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-123(LC 12), 6=-123(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=325(LC 19), 6=325(LC 20)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-312/242, 4-6=-312/242

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) 0-4-13 to 4-9-10, Interior(1) 4-9-10 to 6-1-11, Exterior(2) 6-1-11 to 10-6-8, Interior(1) 10-6-8 to 11-10-9 zone;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 30.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=123, 6=123.

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Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	VD3	VALLEY	1	1	E15271472
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:48 2021 Page 1
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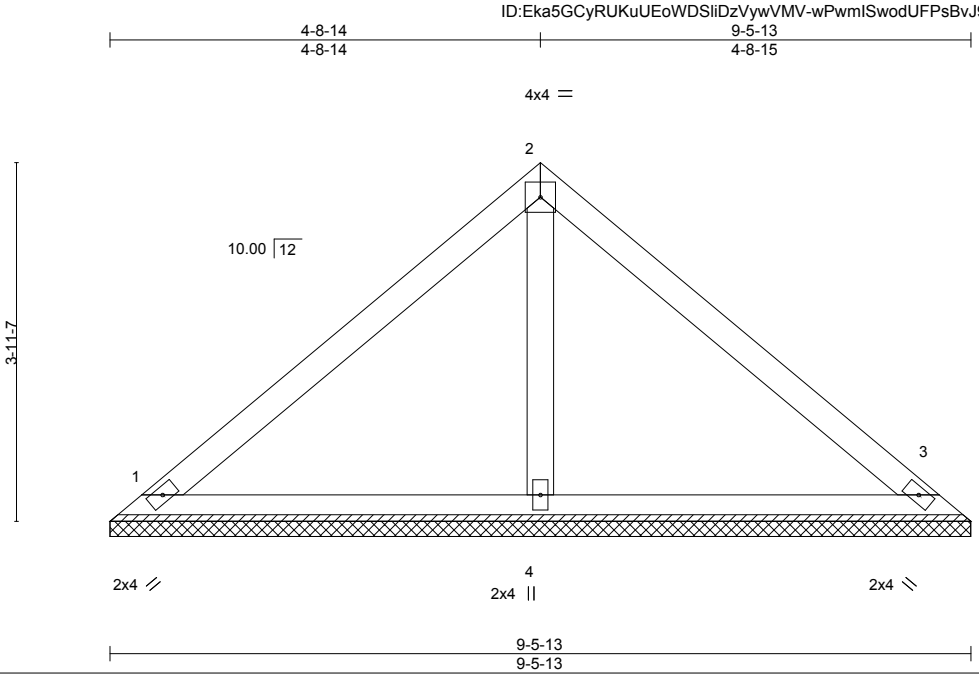


LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.20	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.14	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 36 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.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. (size) 1=9-5-13, 3=9-5-13, 4=9-5-13
Max Horz 1=-87(LC 10)
Max Uplift 1=-20(LC 13), 3=-28(LC 13)
Max Grav 1=185(LC 1), 3=185(LC 1), 4=323(LC 1)

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

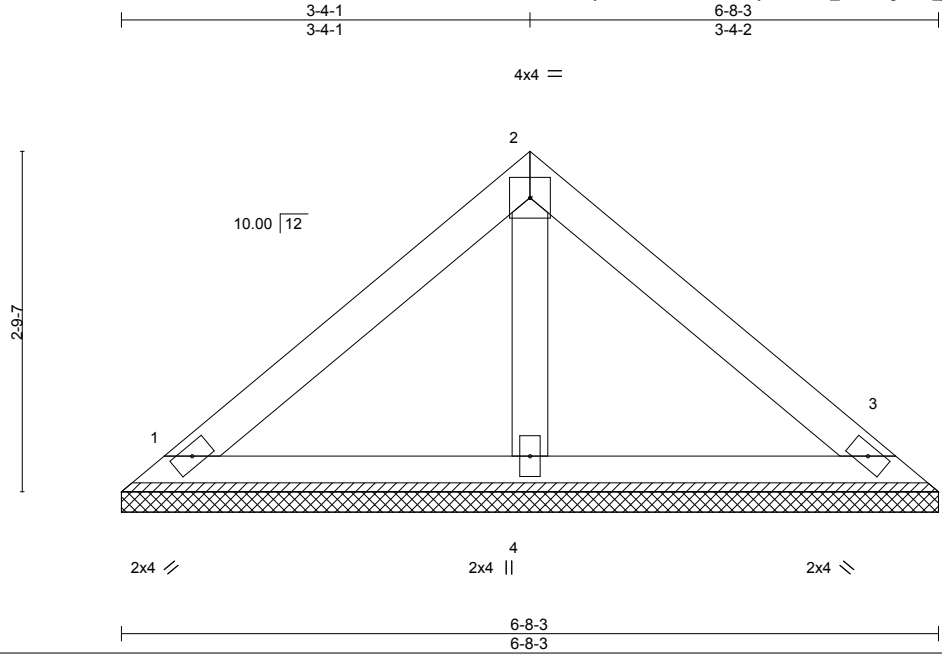
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=15ft; Cat. II; Exp C; Enclosed; MWFRS (envelope) and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
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 30.0psf 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) 1, 3.
6) Non Standard bearing condition. Review required.

January 5,2021

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	VD4	VALLEY	1	1	E15271473
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:51 2021 Page 1
ID:Eka5GCyRUKuUEoWDSliDzVywVMV-K_cvwUzgwOd_jfdur3gkgqQ6hLaT?peeOzrmMpzyhLg



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	0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.06	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 25 lb	FT = 20%

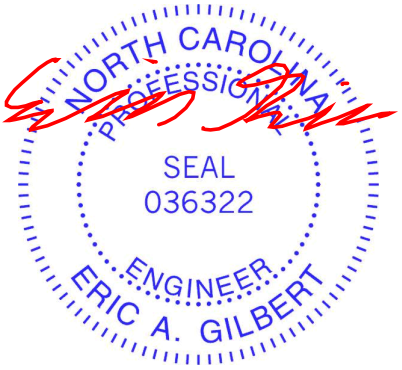
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
OTHERS 2x4 SP No.2

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. (size) 1=6-8-3, 3=6-8-3, 4=6-8-3
Max Horz 1=-59(LC 8)
Max Uplift 1=-20(LC 13), 3=-26(LC 13)
Max Grav 1=136(LC 1), 3=136(LC 1), 4=198(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=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
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 30.0psf 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.



January 5,2021

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

Job	Truss	Truss Type	Qty	Ply	Precision/Lot 57 Summerlin/Harnett
J1120-5407	VD5	VALLEY	1	1	E15271474
					Job Reference (optional)

Comtech, Inc, Fayetteville, NC - 28314, 8.330 s Oct 7 2020 MiTek Industries, Inc. Mon Jan 4 16:00:52 2021 Page 1
ID:Eka5GCyRUKuUEoWDSliDzVywVMV-oB9H7qzIhilrKpC4OmBzC1zltlwPkGAnddaJvFzyhLf

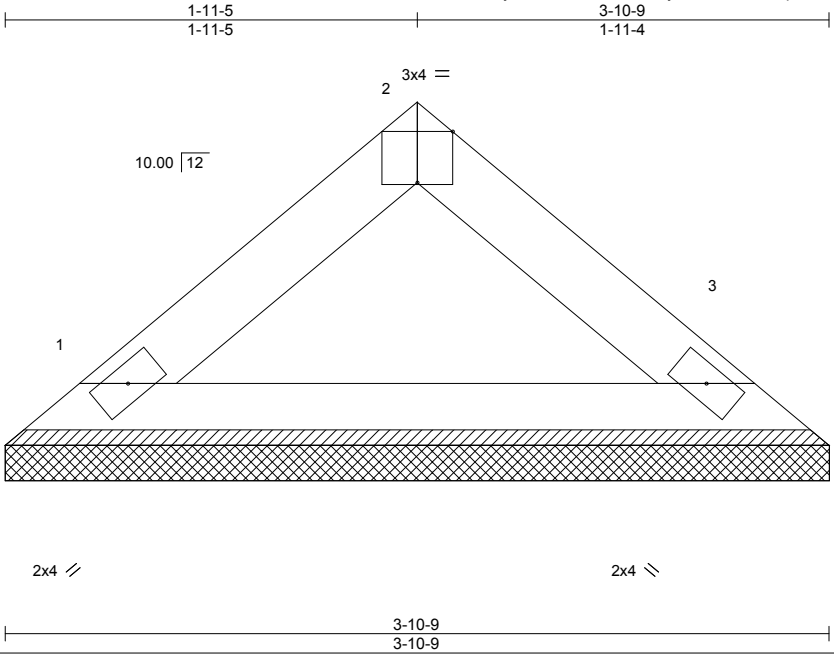


Plate Offsets (X,Y)-- [2:0-2-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 12 lb	FT = 20%

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

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

REACTIONS. (size) 1=3-10-9, 3=3-10-9
Max Horz 1=31(LC 9)
Max Uplift 1=-5(LC 12), 3=-5(LC 13)
Max Grav 1=123(LC 1), 3=123(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=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
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 30.0psf 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.

January 5,2021

ENGINEERING BY TRENCO
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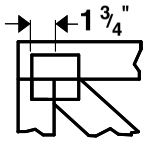
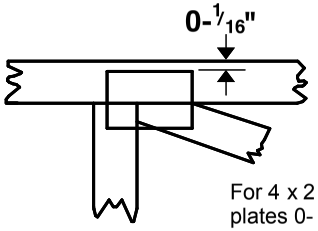
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

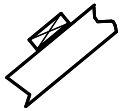
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

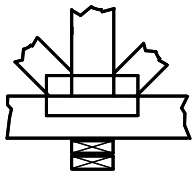
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

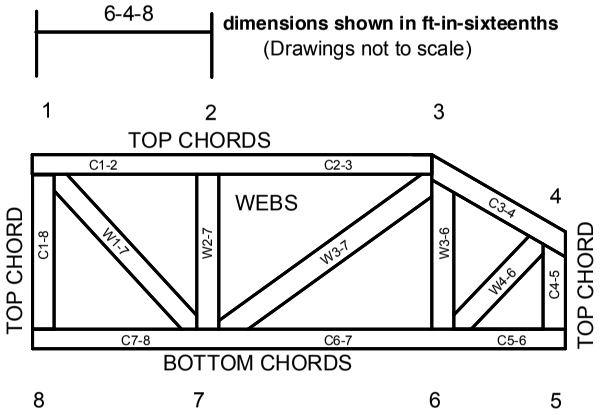


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek

ENGINEERING BY TRENCO
A MiTek Affiliate

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

General Safety Notes

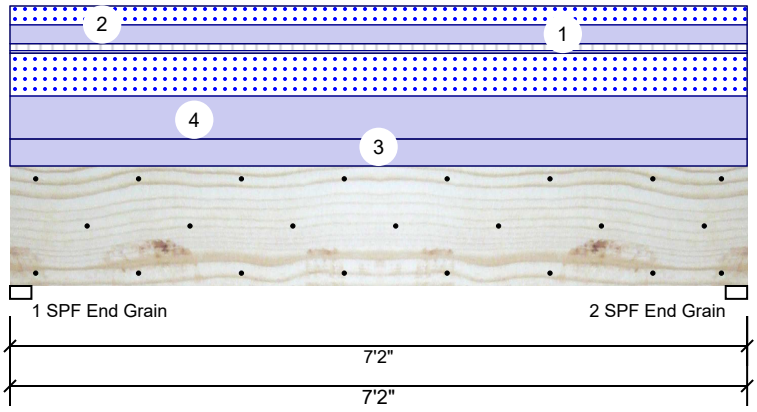
Failure to Follow Could Cause Property Damage or Personal Injury

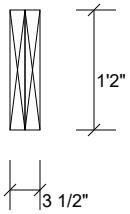
1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed 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.

Client:		Date:	1/4/2021
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

BM3 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	96	1307	856	0	0
2	96	1307	856	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	2.500"	28%	1307 / 856	2163	L	D+S
2 - SPF End Grain	2.500"	28%	1307 / 856	2163	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3567 ft-lb	3'7"	31049 ft-lb	0.115 (11%)	D+S	L
Unbraced	3567 ft-lb	3'7"	14859 ft-lb	0.240 (24%)	D+S	L
Shear	1383 lb	1'3 3/4"	12021 lb	0.115 (12%)	D+S	L
LL Defl inch	0.011 (L/7624)	3'7 1/16"	0.172 (L/480)	0.060 (6%)	S	L
TL Defl inch	0.027 (L/3017)	3'7 1/16"	0.229 (L/360)	0.120 (12%)	D+S	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 7-2-0	0-8-0	Near Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOADING
2	Tie-In	0-0-0 to 7-2-0	3-7-12	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOADING
3	Uniform			Top	105 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
4	Uniform			Top	166 PLF	0 PLF	166 PLF	0 PLF	0 PLF	C2
	Self Weight				11 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/27/2023

Manufacturer Info

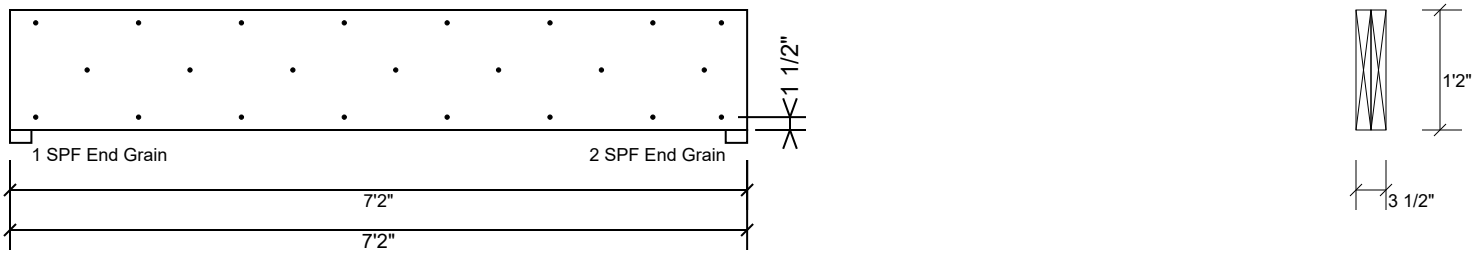
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:		Date:	1/4/2021
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

BM3 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	7.5 %
Load	18.3 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/27/2023

Manufacturer Info

Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

Comtech, Inc.
1001 S. Reilly Road, Suite #639
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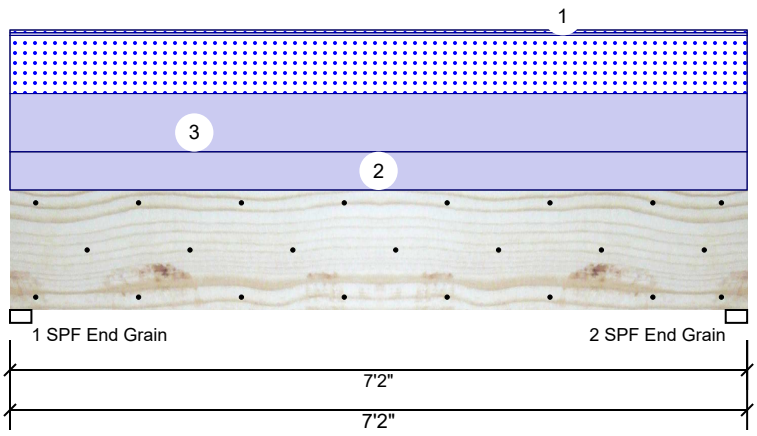
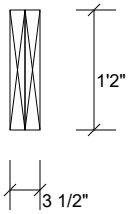
910-864-TRUS

Client:		Date:	1/4/2021
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

BM5 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	1152	683	0	0
2	0	1152	683	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	2.500"	24%	1152 / 683	1835	L	D+S
2 - SPF End Grain	2.500"	24%	1152 / 683	1835	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	3025 ft-lb	3'7"	31049 ft-lb	0.097 (10%)	D+S	L
Unbraced	3025 ft-lb	3'7"	14859 ft-lb	0.204 (20%)	D+S	L
Shear	1163 lb	1'3 3/4"	12021 lb	0.097 (10%)	D+S	L
LL Defl inch	0.009 (L/9559)	3'7 1/16"	0.172 (L/480)	0.050 (5%)	S	L
TL Defl inch	0.023 (L/3558)	3'7 1/16"	0.229 (L/360)	0.100 (10%)	D+S	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 7-2-0	0-5-2	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF LOAD
2	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
3	Uniform			Top	182 PLF	0 PLF	182 PLF	0 PLF	0 PLF	C2
	Self Weight				11 PLF					

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/27/2023

Manufacturer Info

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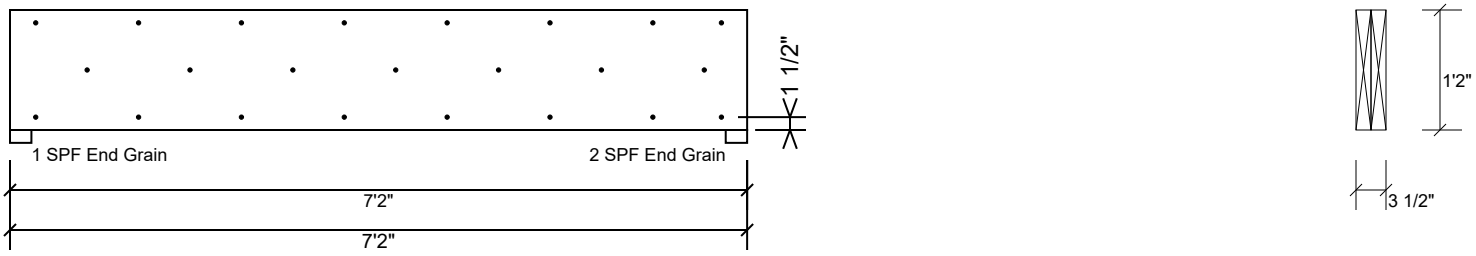
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

BM5 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

Calculated Structured Designs is responsible only of the structural adequacy of this component based on the design criteria and loadings shown. It is the responsibility of the customer and/or the contractor to ensure the component suitability of the intended application, and to verify the dimensions and loads.

Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/27/2023

Manufacturer Info

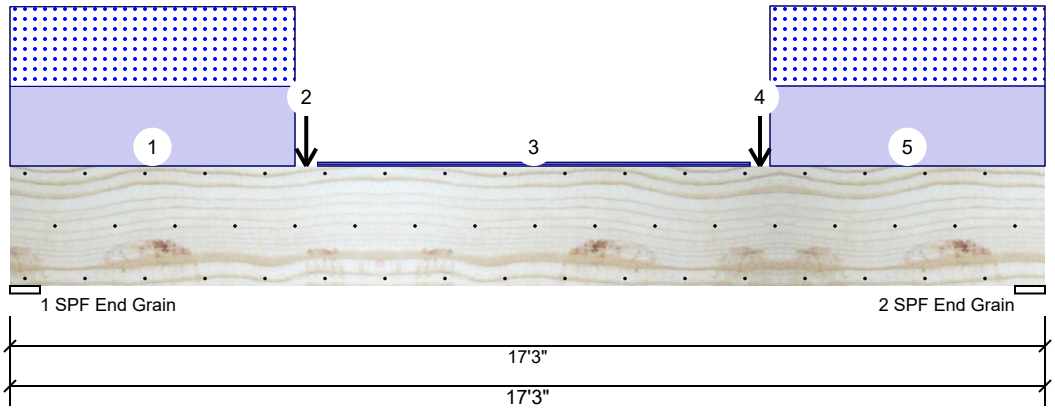
Metsä Wood
301 Merritt 7 Building, 2nd Floor
Norwalk, CT 06851
(800) 622-5850
www.metsawood.com/us
ICC-ES: ESR-3633

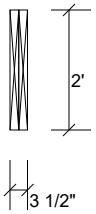
Comtech, Inc.
1001 S. Reilly Road, Suite #639
Fayetteville, NC
USA
28314
910-864-TRUS

Client:		Date:	1/4/2021
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	0	7878	7717	0	0
2	0	7982	7821	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	6.000"	85%	7878 / 7717	15595	L	D+S
2 - SPF End Grain	6.000"	87%	7982 / 7821	15804	L	D+S

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	59726 ft-lb	4'11 1/4"	84163 ft-lb	0.710 (71%)	D+S	L
Unbraced	59726 ft-lb	4'11 1/4"	59947 ft-lb	0.996 (100%)	D+S	L
Shear	13662 lb	14'9 7/8"	20608 lb	0.663 (66%)	D+S	L
LL Defl inch	0.233 (L/846)	8'7 1/4"	0.410 (L/480)	0.570 (57%)	S	L
TL Defl inch	0.470 (L/419)	8'7 1/4"	0.547 (L/360)	0.860 (86%)	D+S	L

Design Notes

1 Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top must be laterally braced at a maximum of 2'8 5/8" o.c.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Part. Uniform	0-0-0 to 4-9-0		Top	430 PLF	0 PLF	430 PLF	0 PLF	0 PLF	B1
2	Point	4-11-4		Top	5722 lb	0 lb	5722 lb	0 lb	0 lb	B2
3	Tie-In	5-1-8 to 12-4-0	0-6-0	Top	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF FRAMING
4	Point	12-6-0		Top	5722 lb	0 lb	5722 lb	0 lb	0 lb	B2
5	Part. Uniform	12-8-0 to 17-3-0		Top	432 PLF	0 PLF	432 PLF	0 PLF	0 PLF	B3
	Self Weight				19 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/27/2023

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Client:		Date:	1/4/2021
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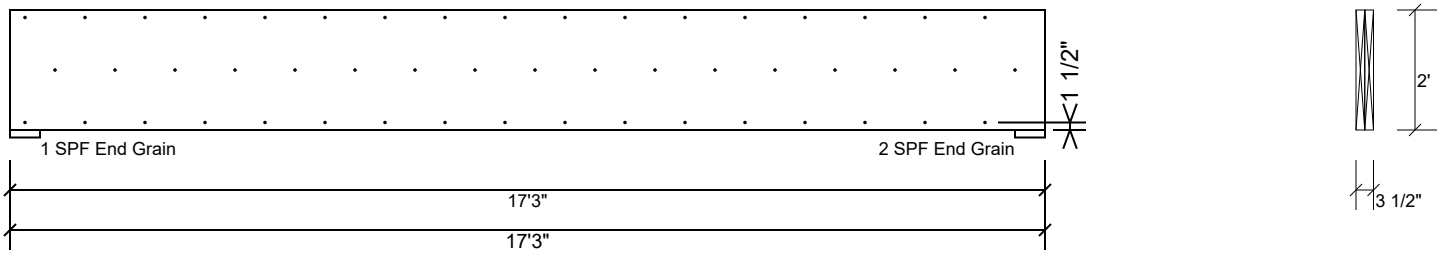
		Project #:	

GDH Kerto-S LVL 1.750" X 24.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
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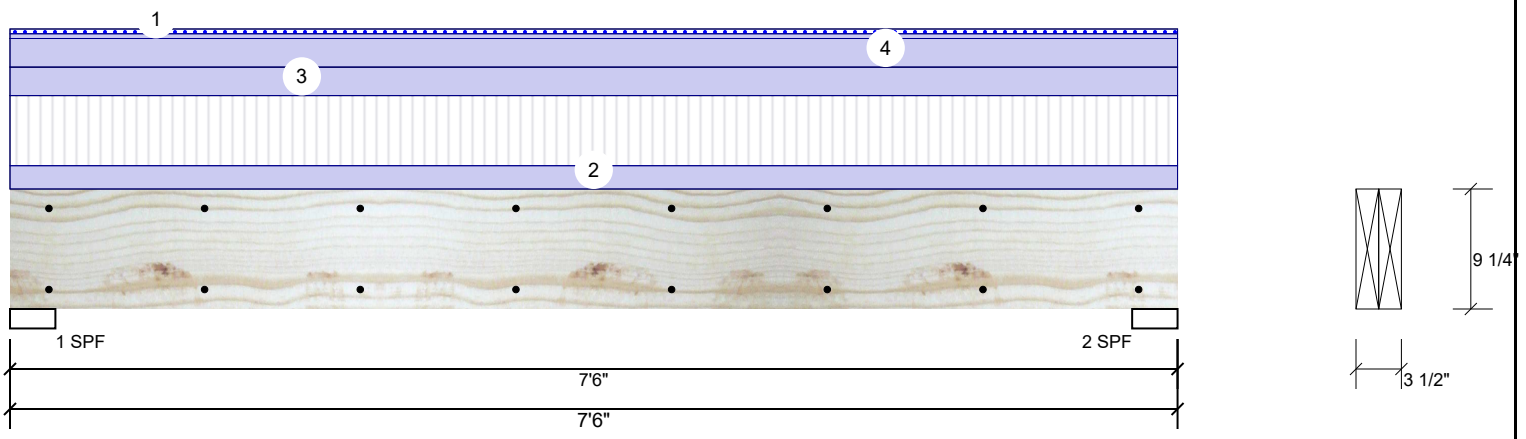
Client:		Date:	1/4/2021
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

BM7 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	1106	1369	75	0	0
2	1106	1369	75	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	48%	1369 / 1106	2476	L	D+L
2 - SPF	3.500"	48%	1369 / 1106	2476	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	4092 ft-lb	3'9"	12542 ft-lb	0.326 (33%)	D+L	L
Unbraced	4092 ft-lb	3'9"	9247 ft-lb	0.443 (44%)	D+L	L
Shear	1831 lb	6'6"	6907 lb	0.265 (27%)	D+L	L
LL Defl inch	0.042 (L/2019)	3'9 1/16"	0.176 (L/480)	0.240 (24%)	L	L
TL Defl inch	0.094 (L/902)	3'9 1/16"	0.235 (L/360)	0.400 (40%)	D+L	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Tie-In	0-0-0 to 7-6-0	1-0-0	Near Face	20 PSF	0 PSF	20 PSF	0 PSF	0 PSF	ROOF FRAMING
2	Uniform			Top	98 PLF	295 PLF	0 PLF	0 PLF	0 PLF	F05
3	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
4	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	D1-GE
	Self Weight				7 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

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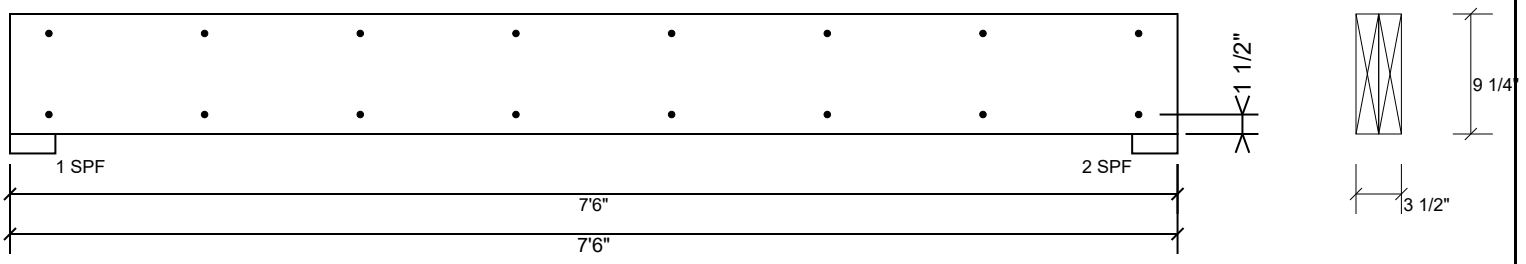
Client:		Date:	1/4/2021
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

BM7 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	10.6 %
Load	20.0 PLF
Yield Limit per Foot	188.3 PLF
Yield Limit per Fastener	94.1 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+S
Duration Factor	1.15

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
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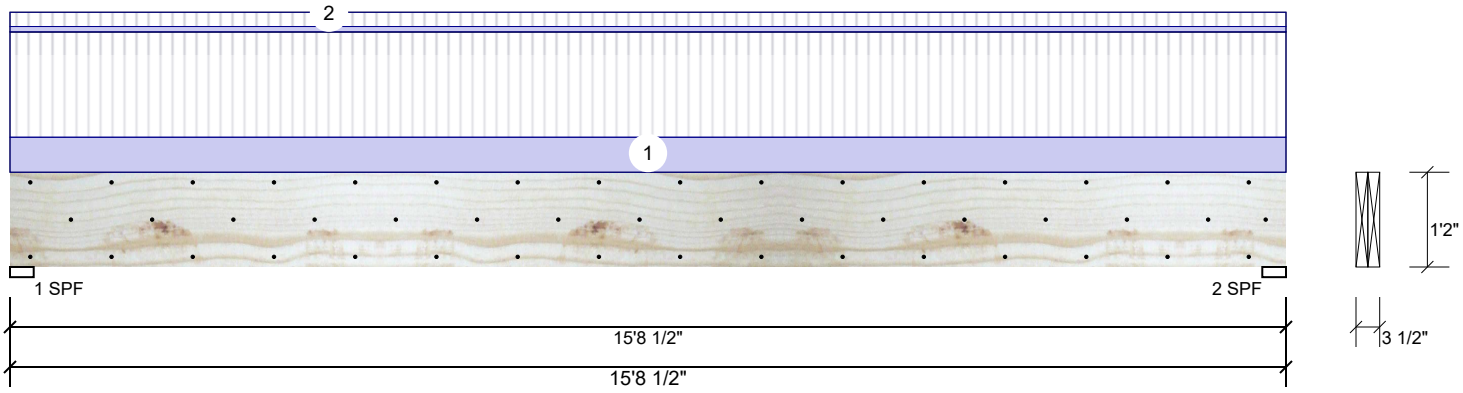
Client:		Date:	1/4/2021
Project:		Input by:	Neal Baggett
Address:		Job Name:	Lot 57 Summerlin
		Project #:	

BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2631	973	0	0	0
2	2631	973	0	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF	3.500"	69%	973 / 2631	3604	L	D+L
2 - SPF	3.500"	69%	973 / 2631	3604	L	D+L

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	13340 ft-lb	7'10 1/4"	26999 ft-lb	0.494 (49%)	D+L	L
Unbraced	13340 ft-lb	7'10 1/4"	13358 ft-lb	0.999 (100%)	D+L	L
Shear	3486 lb	1'4 3/4"	10453 lb	0.334 (33%)	D+L	L
LL Defl inch	0.278 (L/659)	7'10 5/16"	0.381 (L/480)	0.730 (73%)	L	L
TL Defl inch	0.380 (L/481)	7'10 5/16"	0.508 (L/360)	0.750 (75%)	D+L	L

Design Notes

1. Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2. Refer to last page of calculations for fasteners required for specified loads.
3. Girders are designed to be supported on the bottom edge only.
4. Top must be laterally braced at a maximum of 7'7 1/2" o.c.
5. Bottom braced at bearings.
6. Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Near Face	98 PLF	295 PLF	0 PLF	0 PLF	0 PLF	F05
2	Tie-In	0-0-0 to 15-8-8	1-0-0	Far Face	15 PSF	40 PSF	0 PSF	0 PSF	0 PSF	FLOOR LOAD
	Self Weight				11 PLF					

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
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Project:		Input by:	Neal Baggett
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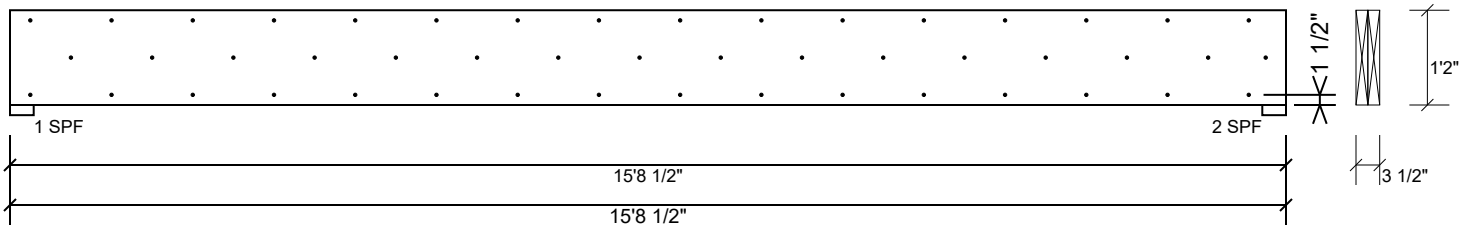
		Project #:	

BM1 Kerto-S LVL 1.750" X 14.000" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 3 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	80.0 %
Load	196.5 PLF
Yield Limit per Foot	245.6 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	D+L
Duration Factor	1.00

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

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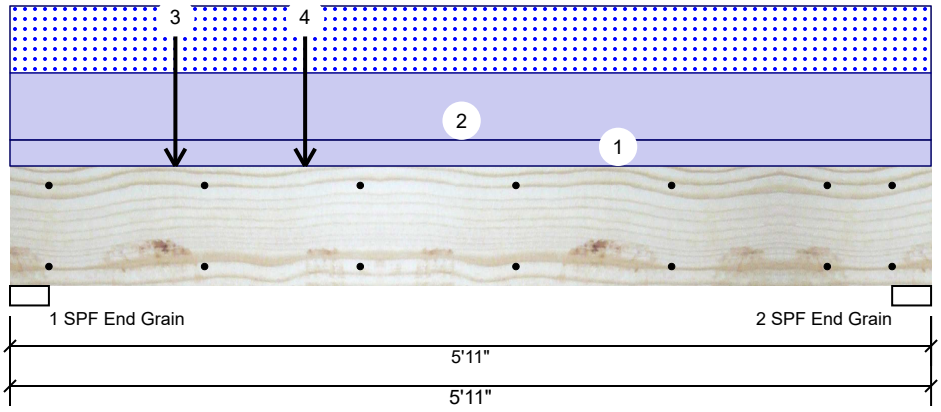
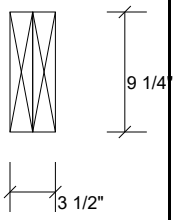
BM6 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level





Member Information

Type:	Girder	Application:	Floor
Plies:	2	Design Method:	ASD
Moisture Condition:	Dry	Building Code:	IBC/IRC 2015
Deflection LL:	480	Load Sharing:	No
Deflection TL:	360	Deck:	Not Checked
Importance:	Normal - II		
Temperature:	Temp <= 100°F		

Reactions UNPATTERNED lb (Uplift)

Brg	Live	Dead	Snow	Wind	Const
1	2212	2021	908	0	0
2	879	1577	908	0	0

Bearings

Bearing	Length	Cap.	React D/L lb	Total	Ld. Case	Ld. Comb.
1 - SPF End Grain	3.000"	48%	2021 / 2340	4361	L	D+0.75(L+S)
2 - SPF End Grain	3.000"	32%	1577 / 1340	2917	L	D+0.75(L+S)

Analysis Results

Analysis	Actual	Location	Allowed	Capacity	Comb.	Case
Moment	5911 ft-lb	1'10 3/4"	12542 ft-lb	0.471 (47%)	D+L	L
Unbraced	5911 ft-lb	1'10 3/4"	10359 ft-lb	0.571 (57%)	D+L	L
Shear	3817 lb	11 1/2"	6907 lb	0.553 (55%)	D+L	L
LL Defl inch	0.044 (L/1504)	2'6 7/8"	0.139 (L/480)	0.320 (32%)	0.75(L+S)	L
TL Defl inch	0.083 (L/798)	2'8 1/8"	0.185 (L/360)	0.450 (45%)	D+0.75(L+S)	L

Design Notes

1 Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c. Maximum end distance not to exceed 6".
2 Refer to last page of calculations for fasteners required for specified loads.
3 Girders are designed to be supported on the bottom edge only.
4 Top loads must be supported equally by all plies.
5 Top braced at bearings.
6 Bottom braced at bearings.
7 Lateral slenderness ratio based on single ply width.

ID	Load Type	Location	Trib Width	Side	Dead 0.9	Live 1	Snow 1.15	Wind 1.6	Const. 1.25	Comments
1	Uniform			Top	120 PLF	0 PLF	0 PLF	0 PLF	0 PLF	WALL
2	Uniform			Top	307 PLF	0 PLF	307 PLF	0 PLF	0 PLF	A2 & A4
3	Point	1-0-12		Top	164 lb	494 lb	0 lb	0 lb	0 lb	F01
4	Point	1-10-12		Top	865 lb	2597 lb	0 lb	0 lb	0 lb	F07G
	Self Weight				7 PLF					

Notes

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Lumber

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Handling & Installation

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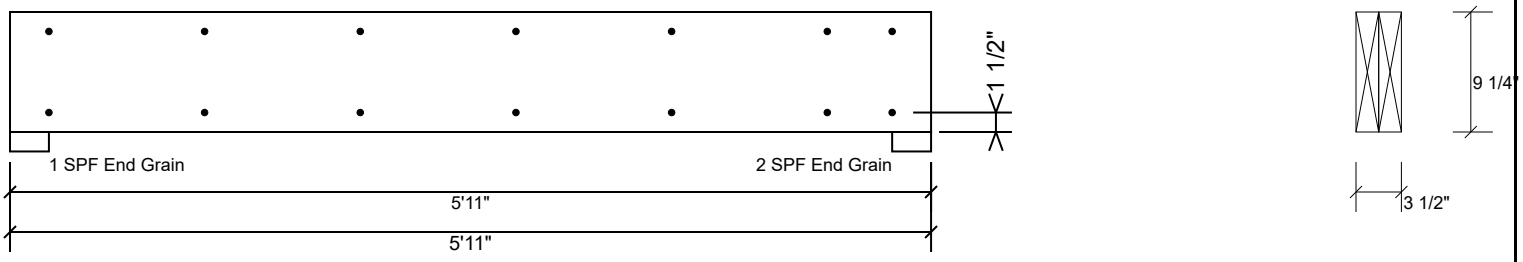
BM6 Kerto-S LVL 1.750" X 9.250" 2-Ply - PASSED

Level: Level



Multi-Ply Analysis

Fasten all plies using 2 rows of 10d Box nails (.128x3") at 12" o.c.. Maximum end distance not to exceed 6"

Capacity	0.0 %
Load	0.0 PLF
Yield Limit per Foot	163.7 PLF
Yield Limit per Fastener	81.9 lb.
Yield Mode	IV
Edge Distance	1 1/2"
Min. End Distance	3"
Load Combination	
Duration Factor	1.00

Notes

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Lumber

1. Dry service conditions, unless noted otherwise
2. LVL not to be treated with fire retardant or corrosive chemicals

Handling & Installation

1. LVL beams must not be cut or drilled
2. Refer to manufacturer's product information regarding installation requirements, multi-ply fastening details, beam strength values, and code approvals
3. Damaged Beams must not be used
4. Design assumes top edge is laterally restrained
5. Provide lateral support at bearing points to avoid lateral displacement and rotation
6. For flat roofs provide proper drainage to prevent ponding

This design is valid until 11/27/2023

Manufacturer Info

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