Job	Truss	Truss Type	Qty	Ply	
Q2000187	A01	Common	14	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:46   Page: 1

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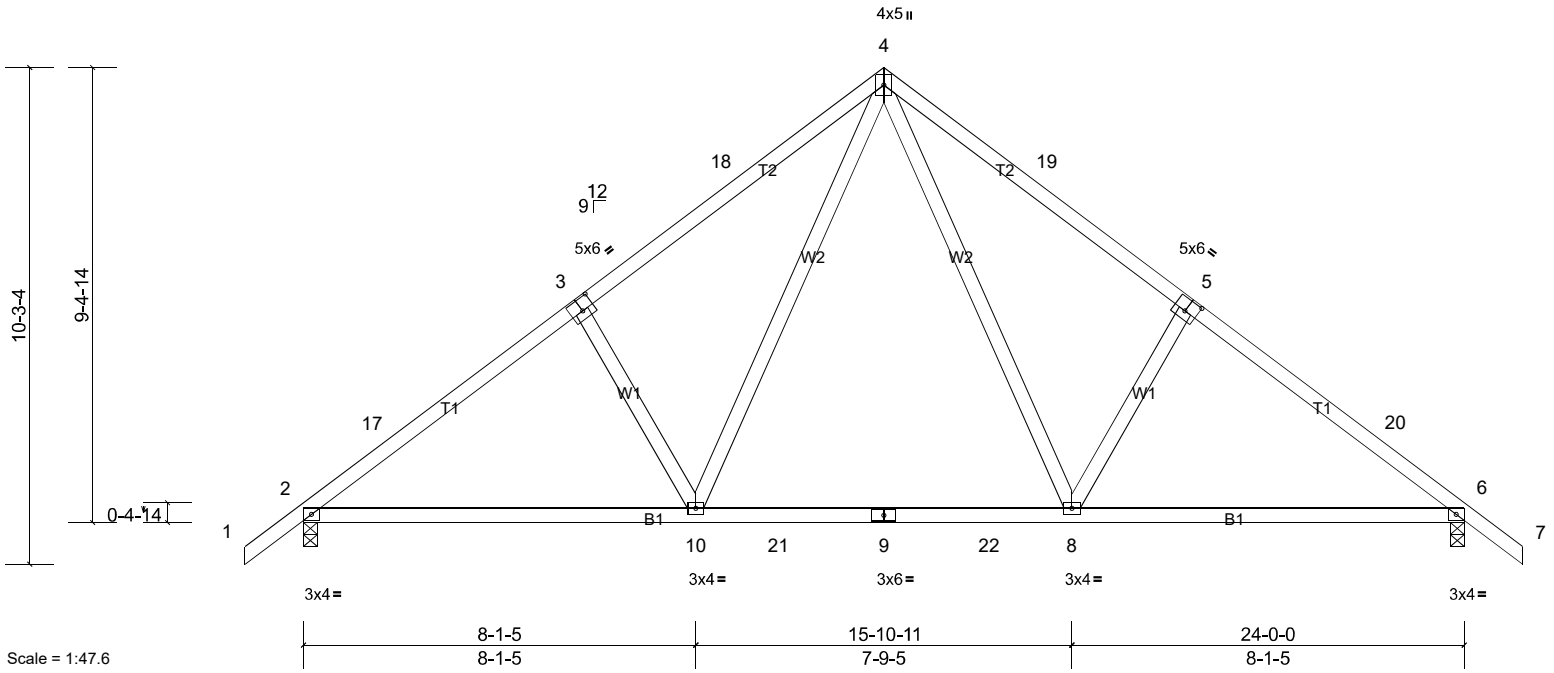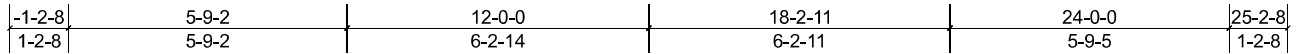
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Plate Offsets (X, Y): [3:0-3-0,0-3-0], [5:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.19	8-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.58	Vert(CT)	-0.25	8-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.27	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 128 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   2=1033/0-3-8, (min. 0-1-8), 6=1032/0-3-8, (min. 0-1-8)
           Max Horiz   2=-269 (LC 9)
           Max Uplift   2=-228 (LC 11), 6=-228 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-17=-1290/296, 3-17=-1259/331, 3-18=-1279/388, 4-18=-1239/410, 4-19=-1239/410, 5-19=-1279/388, 5-20=-1259/331,
              6-20=-1290/296
BOT CHORD   2-10=-116/1147, 10-21=0/734, 9-21=0/734, 9-22=0/734, 8-22=0/734, 6-8=-129/987
WEBS   4-8=-154/620, 5-8=-453/268, 4-10=-154/620, 3-10=-453/268

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 12-0-0, Exterior (2) 12-0-0 to 15-0-0, Interior (1) 15-0-0 to 25-2-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 228 lb uplift at joint 6 and 228 lb uplift at joint 2.
5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	A02	Hip Girder	1	**2**	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:49   Page: 1
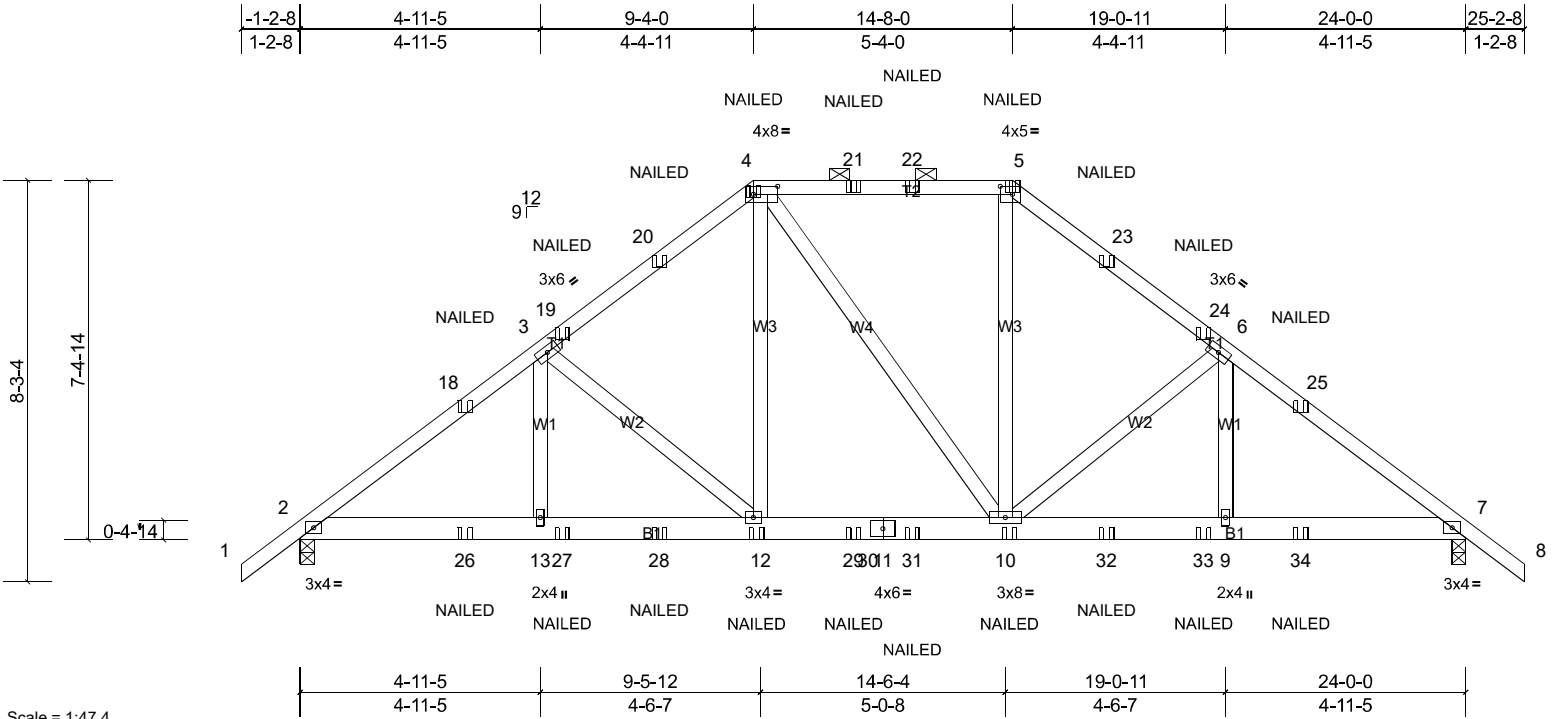ID:LrosetCH7_x6MEnmgd?H5Nzgzym-vVDGL8gvfDoVwMB6jstHE2Ek1sqC8o3zP4E2RszgWEL

Scale = 1:47.4

Plate Offsets (X, Y): [4:0-6-0,0-2-0], [5:0-3-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	0.05	10-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	10-12	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.10	Horz(CT)	0.03	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 324 lb	FT = 20%

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

REACTIONS (lb/size)   2=1930/0-3-8, (min. 0-1-8), 7=1930/0-3-8, (min. 0-1-8)
        Max Horiz 2=216 (LC 23)
        Max Uplift 2=-873 (LC 7), 7=-873 (LC 7)
        Max Grav   2=1935 (LC 28), 7=1930 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-18=-2835/1304, 3-18=-2692/1271, 3-19=-2293/1156, 19-20=-2243/1130, 4-20=-2122/1164, 4-21=-1761/986,
            21-22=-1761/986, 5-22=-1761/986, 5-23=-2112/1165, 23-24=-2233/1132, 6-24=-2283/1158, 6-25=-2678/1270,
            7-25=-2820/1303
BOT CHORD   2-26=-954/2338, 13-26=-954/2338, 13-27=-954/2338, 27-28=-954/2338, 12-28=-954/2338, 12-29=-757/1852,
            29-30=-757/1852, 11-30=-757/1852, 11-31=-757/1852, 10-31=-757/1852, 10-32=-896/2199, 32-33=-896/2199,
            9-33=-896/2199, 9-34=-896/2199, 7-34=-896/2199
WEBS   3-13=-74/355, 3-12=-666/312, 4-12=-362/888, 5-10=-364/846, 6-10=-660/310, 6-9=-72/348

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except
            2-0-0 oc purlins (6-0-0 max.): 4-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 873 lb uplift at joint 7 and 873 lb uplift at joint 2.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
        Vert: 1-4=-60, 4-5=-60, 5-8=-60, 2-7=-20
   Concentrated Loads (lb)

Job	Truss	Truss Type	Qty	Ply	
Q2000187	A02	Hip Girder	1	2	Job Reference (optional)

Vert: 4=-76, 5=-76, 12=-94, 10=-94, 18=-118, 19=-76, 20=-26, 21=-76, 22=-76, 23=-26, 24=-76, 25=-118, 26=-93, 27=-94, 28=-151, 29=-94, 31=-94, 32=-151, 33=-94, 34=-93
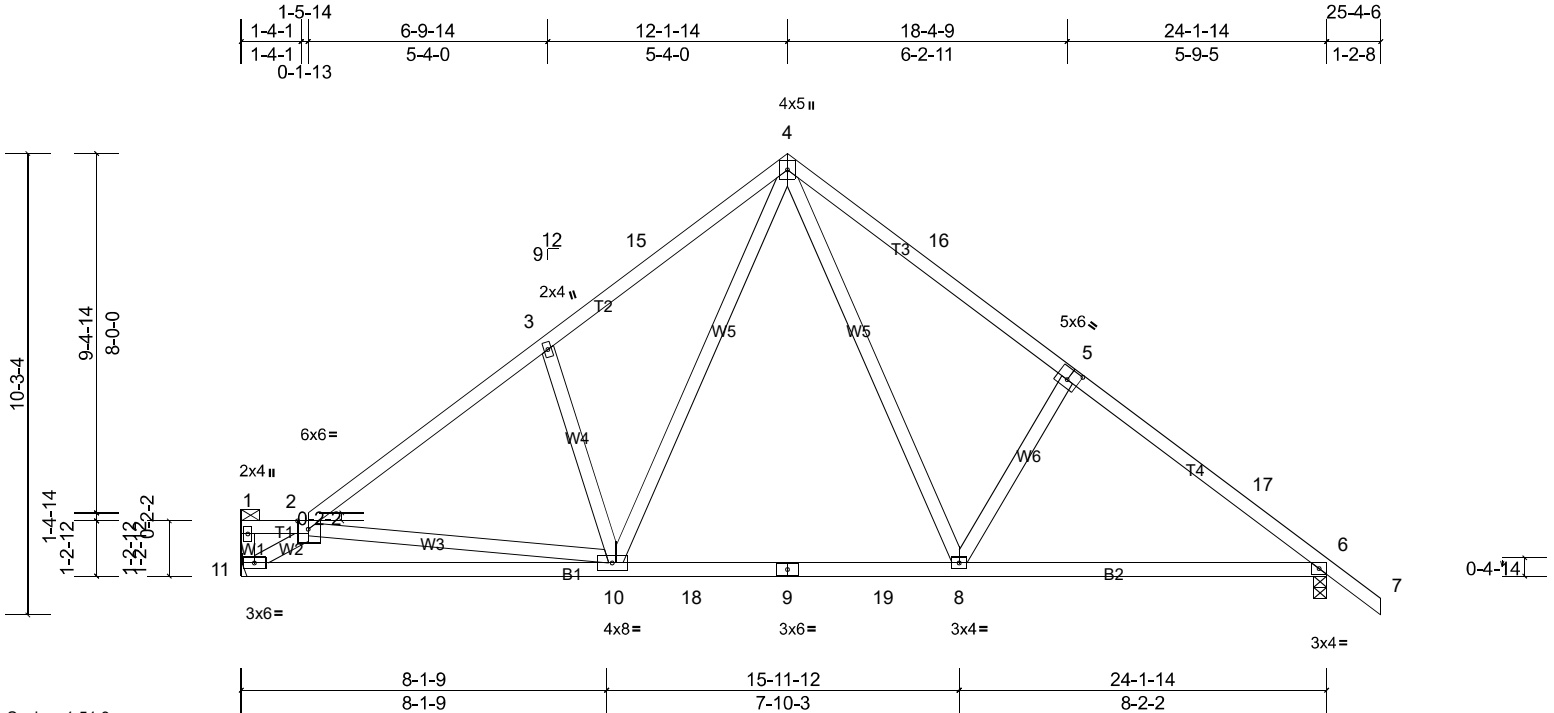
Job	Truss	Truss Type	Qty	Ply	
Q2000187	B01	Roof Special	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:49   Page: 1
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Scale = 1:51.3

Plate Offsets (X, Y): [2:0-2-13,Edge], [5:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.40	Vert(LL)	-0.18	8-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.24	8-10	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.34	Horz(CT)	0.03	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 139 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   6=1035/0-3-8, (min. 0-1-8), 11=959/ Mechanical, (min. 0-1-8)
Max Horiz   11=-281 (LC 9)
Max Uplift   6=-230 (LC 11), 11=-171 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-1254/317, 3-15=-1302/413, 4-15=-1268/441, 4-16=-1236/412, 5-16=-1277/390, 5-17=-1262/335, 6-17=-1293/300
BOT CHORD   10-11=-256/1398, 10-18=0/733, 9-18=0/733, 9-19=0/733, 8-19=0/733, 6-8=-132/991
WEBS   2-11=-1466/511, 2-10=-404/193, 3-10=-400/260, 4-10=-193/655, 4-8=-157/621, 5-8=-458/271

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-1-12 to 1-5-14, Interior (1) 1-5-14 to 12-1-14, Exterior (2) 12-1-14 to 15-1-14, Interior (1) 15-1-14 to 25-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 171 lb uplift at joint 11 and 230 lb uplift at joint 6.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
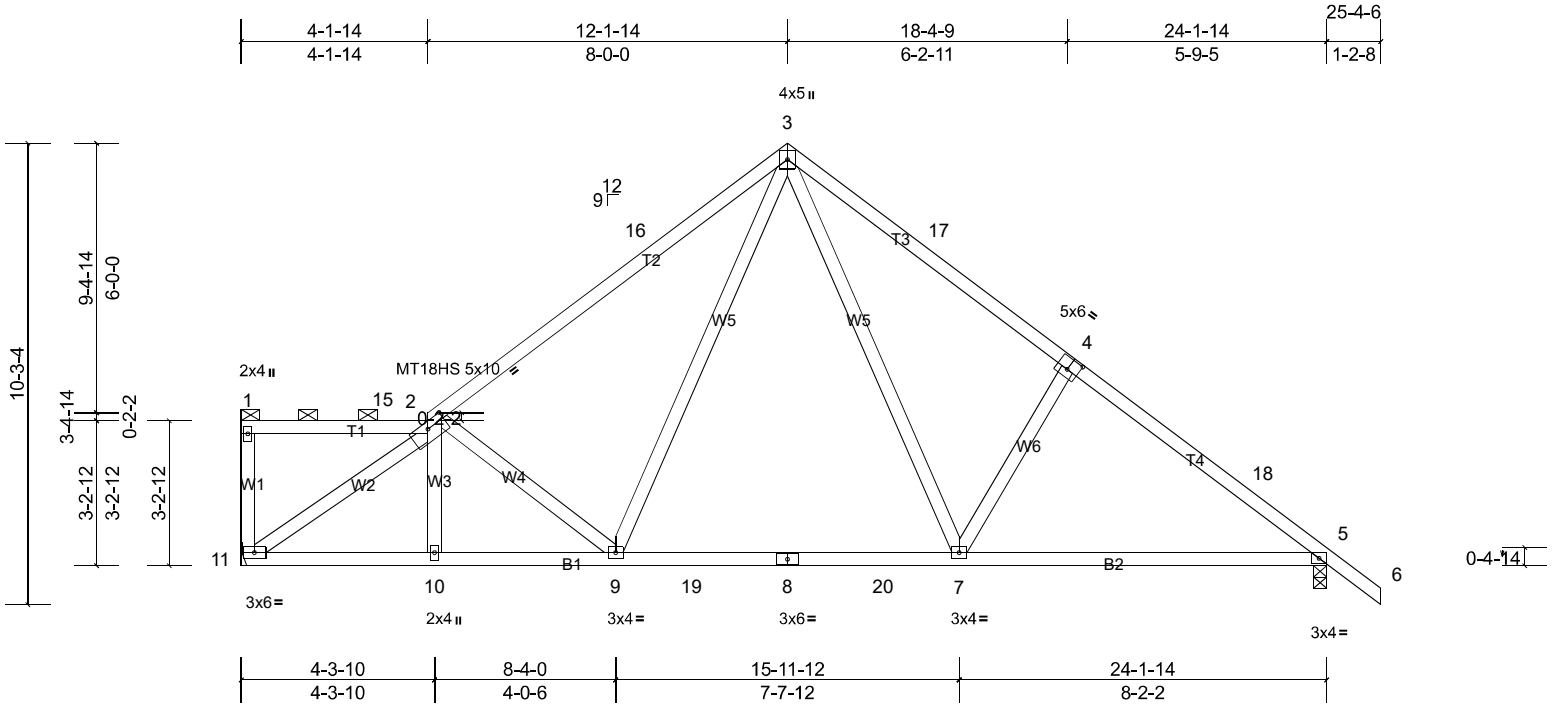
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	B02	Roof Special	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356
Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:50   Page: 1
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Scale = 1:51.3

Plate Offsets (X, Y): [2:0-5-0,0-1-13], [4:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	-0.16	7-9	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.62	Vert(CT)	-0.24	7-9	>999	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 140 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals,
             and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   5=1035/0-3-8, (min. 0-1-8), 11=959/ Mechanical, (min. 0-1-8)
             Max Horiz 11=-320 (LC 9)
             Max Uplift 5=-229 (LC 11), 11=-172 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-16=-1159/322, 3-16=-1098/350, 3-17=-1190/408, 4-17=-1258/384, 4-18=-1245/333, 5-18=-1291/298
BOT CHORD   10-11=-176/1276, 9-10=-174/1277, 9-19=0/743, 8-19=0/743, 8-20=0/743, 7-20=0/743, 5-7=-116/986
WEBS   2-11=-1389/408, 2-9=-495/270, 3-9=-90/504, 3-7=-138/606, 4-7=-431/256

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 12-1-14, Exterior (2) 12-1-14 to 15-1-14, Interior (1) 15-1-14 to 25-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 172 lb uplift at joint 11 and 229 lb uplift at joint 5.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	B03	Roof Special	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:50   Page: 1
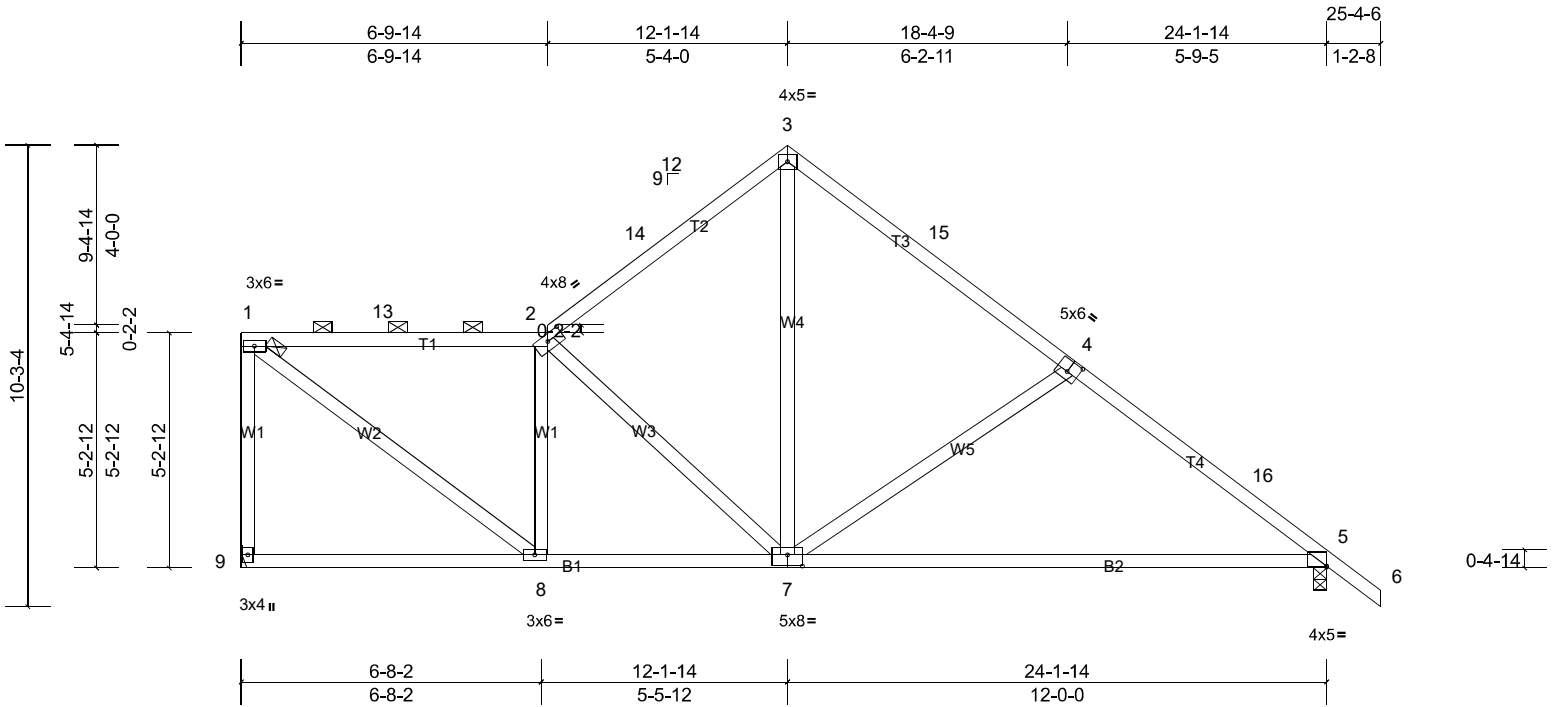ID:aUkYFiUG0sWUnAmRikRRCxzgzzh-ruK1mqiAAq2D9gLVrHvlJTJ1DfNBca?GtOj9WlzgWEJ

Scale = 1:51.3

Plate Offsets (X, Y): [2:0-4-4,0-1-12], [4:0-3-0,0-3-0], [5:Edge,0-0-4], [7:0-4-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.66	Vert(LL)	-0.07	7-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.78	Vert(CT)	-0.51	7-12	>564	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.52	Horz(CT)	0.02	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 141 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals,
              and 2-0-0 oc purlins (4-5-4 max.): 1-2.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   5=1035/0-3-8, (min. 0-1-8), 9=959/ Mechanical, (min. 0-1-8)
            Max Horiz 9=-359 (LC 9)
            Max Uplift 5=-226 (LC 11), 9=-175 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-9=-886/323, 1-13=-964/326, 2-13=-964/326, 2-14=-972/304, 3-14=-941/326, 3-15=-934/332, 4-15=-976/309,
              4-16=-1214/366, 5-16=-1251/332
BOT CHORD   8-9=-271/294, 7-8=-76/1005, 5-7=-108/971
WEBS   1-8=-338/1131, 2-8=-602/271, 2-7=-430/240, 3-7=-188/794, 4-7=-509/267

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
     and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 12-1-14, Exterior (2) 12-1-14 to 15-1-14, Interior (1) 15-1-14 to 25-4-6 zone; cantilever left and right exposed ; end
     vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
     any other members.
5)   Refer to girder(s) for truss to truss connections.
6)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 175 lb uplift at joint 9 and 226 lb uplift at joint 5.
7)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom
     chord.
9)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
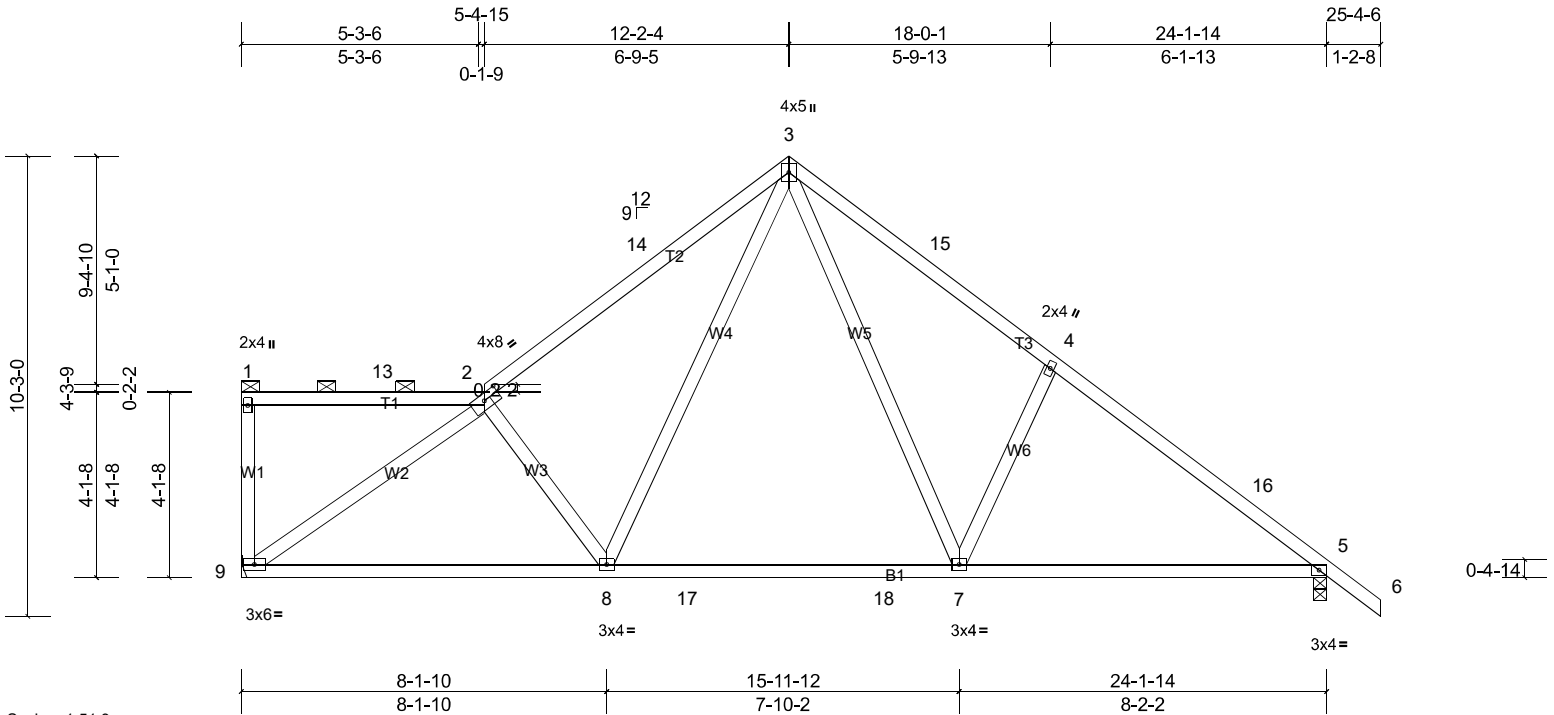
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	B04	Roof Special	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:50   Page: 1

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Scale = 1:51.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.60	Vert(LL)	-0.19	7-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.60	Vert(CT)	-0.26	7-8	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.93	Horz(CT)	0.03	5	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 139 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals,
                and 2-0-0 oc purlins (6-0-0 max.): 1-2.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   5=1035/0-3-8, (min. 0-1-8), 9=959/ Mechanical, (min. 0-1-8)
           Max Horiz 9=-337 (LC 9)
           Max Uplift 5=-228 (LC 11), 9=-173 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-14=-1213/370, 3-14=-1167/394, 3-15=-1233/428, 4-15=-1270/406, 4-16=-1214/331, 5-16=-1277/300
BOT CHORD   8-9=-135/1191, 8-17=0/739, 17-18=0/739, 7-18=0/739, 5-7=-95/975
WEBS   2-9=-1246/392, 2-8=-391/280, 3-8=-142/591, 3-7=-169/639, 4-7=-445/265

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 12-2-4, Exterior (2) 12-2-4 to 15-2-4, Interior (1) 15-2-4 to 25-4-6 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5)   Refer to girder(s) for truss to truss connections.
6)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 173 lb uplift at joint 9 and 228 lb uplift at joint 5.
7)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
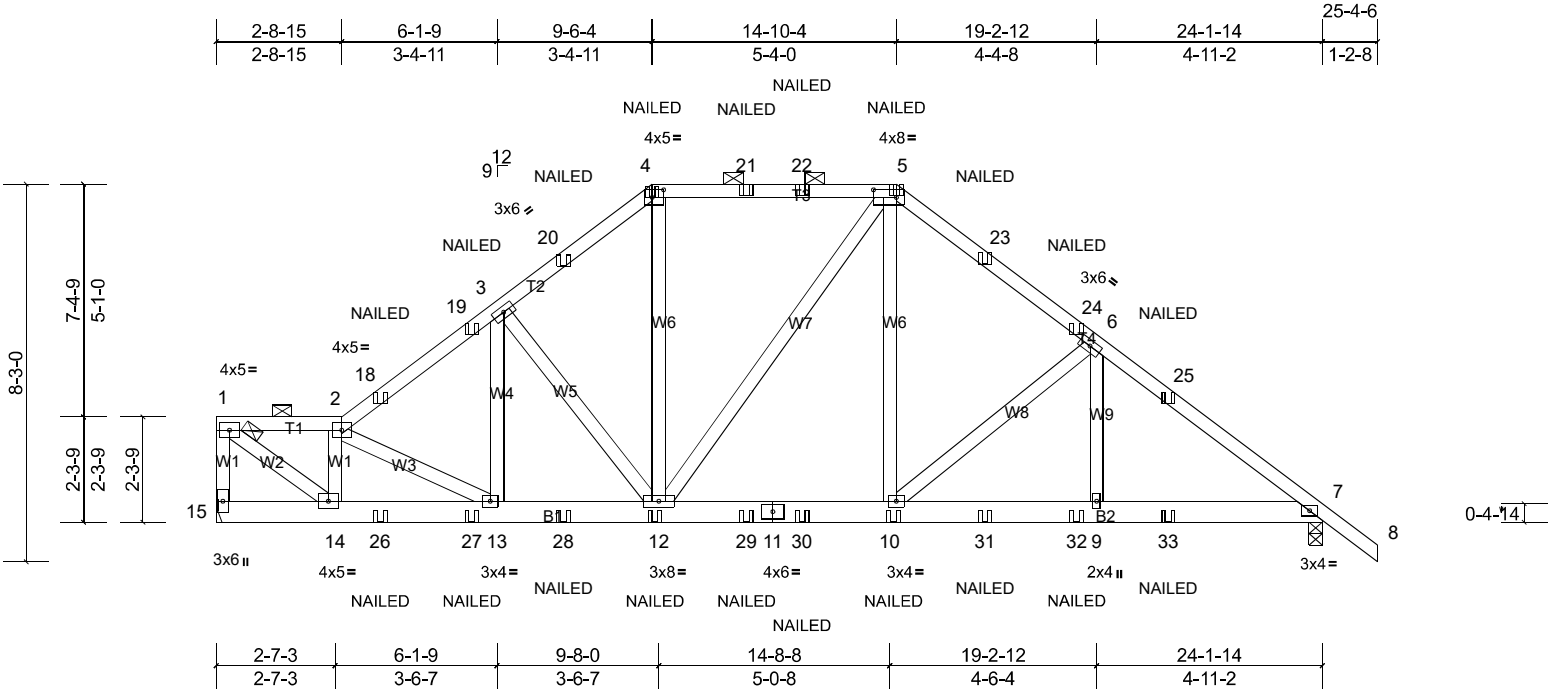
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	B05	Roof Special Girder	1	**2**	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

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ID:T3ZLoW9m3mRhtcT?RoxLwXzgzyq-J4uPzAjox8A4nqvhP_Q_sgsF53rlL42P52Si2BzgWEI

Scale = 1:50.3

Plate Offsets (X, Y): [4:0-3-0,0-2-0], [5:0-6-0,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.46	Vert(LL)	0.06	10-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.08	10-12	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.34	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 348 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 1-2, 4-5.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   7=1953/0-3-8, (min. 0-1-8), 15=1872/ Mechanical, (min. 0-1-8)
Max Horiz   15=-246 (LC 5)
Max Uplift   7=-898 (LC 7), 15=-835 (LC 7)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-15=-1777/807, 1-2=-2205/1035, 2-18=-2700/1340, 18-19=-2619/1299, 3-19=-2540/1288, 3-20=-2257/1189, 4-20=-2151/1216, 4-21=-1786/1019, 21-22=-1786/1019, 5-22=-1786/1019, 5-23=-2148/1205, 23-24=-2270/1172, 6-24=-2319/1194, 6-25=-2720/1312, 7-25=-2859/1345
BOT CHORD   14-26=-1013/2464, 26-27=-1013/2464, 13-27=-1013/2464, 13-28=-943/2232, 12-28=-943/2232, 12-29=-771/1839, 11-29=-771/1839, 11-30=-771/1839, 10-30=-771/1839, 10-31=-929/2231, 31-32=-929/2231, 9-32=-929/2231, 9-33=-929/2231, 7-33=-929/2231
WEBS   1-14=-1256/2746, 2-14=-1675/866, 2-13=-277/106, 3-13=-153/424, 3-12=-625/309, 4-12=-403/877, 5-10=-383/899, 6-10=-662/311, 6-9=-75/352

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Refer to girder(s) for truss to truss connections.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 835 lb uplift at joint 15 and 898 lb uplift at joint 7.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
       Vert: 1-2=-60, 2-4=-60, 4-5=-60, 5-8=-60, 7-15=-20

Job	Truss	Truss Type	Qty	Ply	
Q2000187	B05	Roof Special Girder	1	2	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:51   Page: 2

ID:T3ZLoW9m3mRhtcT?RoxLwXzgzyq-J4uPzAjox8A4nqvhP_Q_sgsF53rlL42P52Si2BzgWEl

Concentrated Loads (lb)

Vert: 4=-78, 5=-78, 12=-99, 10=-99, 18=-117, 19=-75, 20=-26, 21=-78, 22=-78, 23=-26, 24=-75, 25=-117, 26=-92, 27=-93, 28=-157, 29=-99, 30=-99, 31=-157, 32=-93, 33=-92
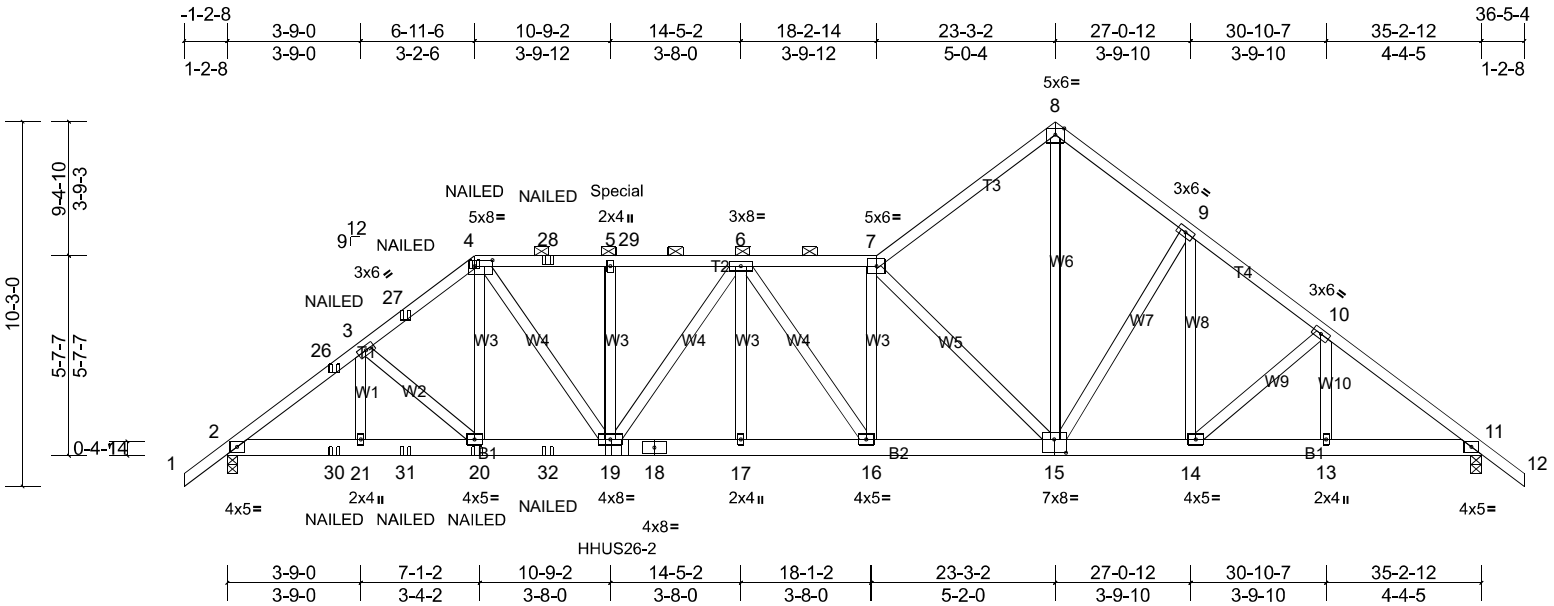
Job	Truss	Truss Type	Qty	Ply	
Q2000187	C01	Roof Special Girder	1	**2**	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:51   Page: 1
ID:IDwc2ZDXfbCqbYx9n21lAozgzyk-J4uPzAjox8A4nqvhP_Q_sgsI33ptL09P52Si2BzgWEI

Scale = 1:64.7

Plate Offsets (X, Y): [4:0-6-0,0-2-0], [15:0-4-0,0-4-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	0.14	16-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.22	16-17	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 534 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except
                       2-0-0 oc purlins (5-10-1 max.): 4-7.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   2=2807/0-3-8, (min. 0-1-10), 11=1986/0-3-8, (min. 0-1-8)
                Max Horiz   2=288 (LC 6)
                Max Uplift   2=-988 (LC 7), 11=-546 (LC 7)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-26=-4292/1482, 3-26=-4172/1469, 3-27=-4021/1448, 4-27=-3962/1459, 4-28=-4351/1555,
                5-28=-4351/1555, 5-29=-4351/1555, 6-29=-4351/1555, 6-7=-4002/1286, 7-8=-2493/814, 8-9=-2467/830, 9-10=-2717/807, 10-11=-2961/775
BOT CHORD   2-30=-1066/3382, 21-30=-1066/3382, 21-31=-1066/3382, 20-31=-1066/3382, 20-32=-950/3165, 19-32=-950/3165,
                18-19=-1190/4299, 17-18=-1190/4299, 16-17=-1190/4299, 15-16=-1028/3989, 14-15=-401/2117, 13-14=-487/2317,
                11-13=-487/2317
WEBS   3-20=-330/157, 4-20=-149/477, 4-19=-598/2017, 5-19=-370/285, 6-19=-703/608, 6-16=-613/463, 7-16=-287/552,
                7-15=-2983/1034, 8-15=-844/2596, 9-15=-427/176, 9-14=-35/263, 10-14=-309/124

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
    Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
    Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-8-0 oc.
    Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 988 lb uplift at joint 2 and 546 lb uplift at joint 11.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie HHUS26-2 (14-10d Girder, 4-10d Truss) or equivalent at 10-11-6 from the left end to connect truss(es) J11 (2 ply 2x6 SP) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 167 lb down and 159 lb up at 10-11-6 on top chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C01	Roof Special Girder	1	**2**	Job Reference (optional)

1)   Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
     Uniform Loads (lb/ft)
          Vert: 1-4=-60, 4-7=-60, 7-8=-60, 8-12=-60, 2-11=-20
     Concentrated Loads (lb)
          Vert: 4=-61, 20=-34, 19=-1327, 5=-110, 26=-54, 27=-16, 28=-61, 30=-53, 31=-80, 32=-34
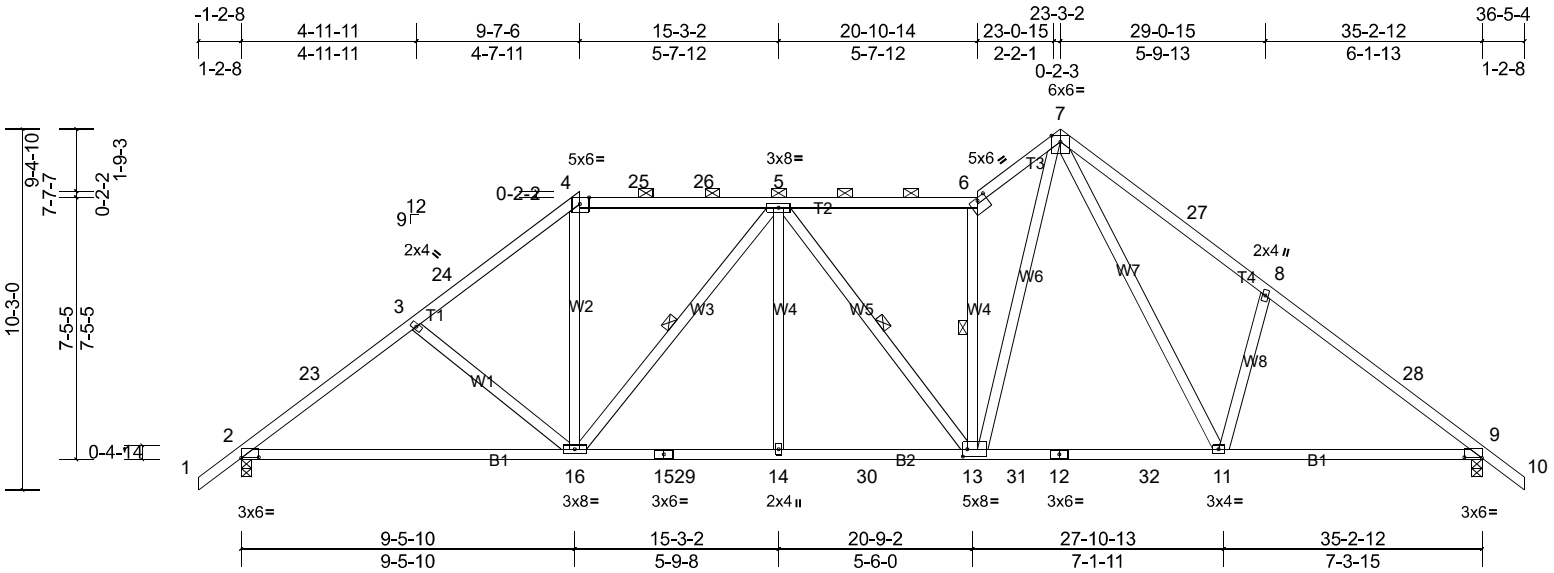
Job	Truss	Truss Type	Qty	Ply	
Q2000187	C02	Roof Special	1	1	Job Reference (optional)

Scale = 1:65.4

Plate Offsets (X, Y): [2:0-6-0,0-0-4], [4:0-3-3,Edge], [6:0-3-0,0-0-14], [9:0-6-0,0-0-4], [13:0-1-8,0-2-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	-0.19	11-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.33	11-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.09	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 219 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except
             2-0-0 oc purlins (4-0-10 max.): 4-6.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   5-16, 5-13, 6-13

REACTIONS (lb/size)   2=1482/0-3-8, (min. 0-1-12), 9=1482/0-3-8, (min. 0-1-13)
         Max Horiz 2=288 (LC 10)
         Max Uplift 2=-309 (LC 11), 9=-309 (LC 11)
         Max Grav   2=1498 (LC 16), 9=1518 (LC 17)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-23=-2045/534, 3-23=-2000/564, 3-24=-1854/521, 4-24=-1779/551, 4-25=-1440/496, 25-26=-1440/496, 5-26=-1441/496,
             5-6=-1780/573, 6-7=-2290/780, 7-27=-1972/673, 8-27=-2066/648, 8-28=-2022/522, 9-28=-2100/495
BOT CHORD   2-16=-305/1793, 15-16=-266/1917, 15-29=-266/1917, 14-29=-266/1917, 14-30=-266/1917, 13-30=-266/1917,
             13-31=-103/1339, 12-31=-103/1339, 12-32=-103/1339, 11-32=-103/1339, 9-11=-281/1585
WEBS   3-16=-364/205, 4-16=-150/807, 5-16=-704/171, 6-13=-1517/568, 7-13=-555/1929, 7-11=-226/707, 8-11=-473/292

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
     and C-C Exterior (2) -1-2-8 to 2-3-12, Interior (1) 2-3-12 to 9-7-6, Exterior (2) 9-7-6 to 13-1-10, Interior (1) 13-1-10 to 23-3-2, Exterior (2) 23-3-2 to 26-9-6, Interior (1) 26-9-6 to
     36-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
     DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 309 lb uplift at joint 2 and 309 lb uplift at joint 9.
6)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom
     chord.
8)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
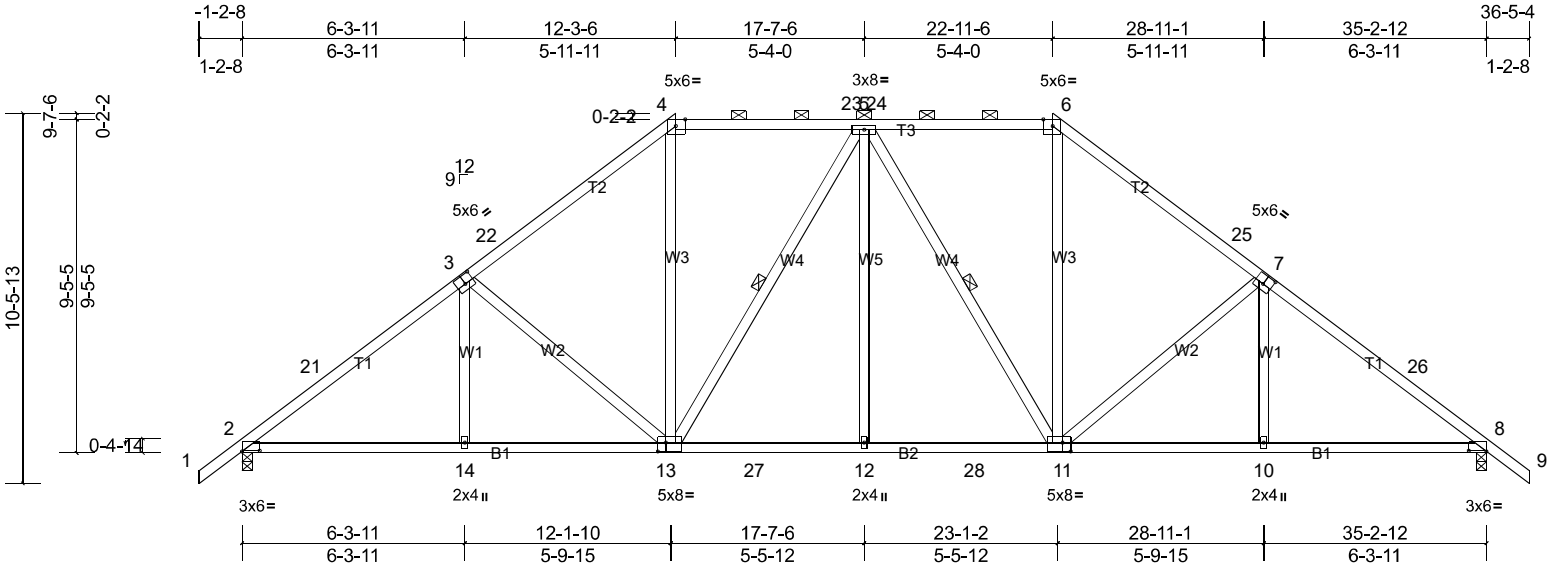
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C03	Hip	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:52   Page: 1
ID:WtsJgOWWYTmC0Twpq9UvHMzgzzf-nGSnAWkQiRIxP_UtyixDPuORyT7j4UsZKiCFadzgWEH

Scale = 1:65.2

Plate Offsets (X, Y): [2:0-6-0,0-0-4], [3:0-3-0,0-3-0], [4:0-3-3,Edge], [6:0-3-3,Edge], [7:0-3-0,0-3-0], [8:0-6-0,0-0-4], [11:0-2-12,0-3-0], [13:0-2-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.39	Vert(LL)	-0.09	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.52	Vert(CT)	-0.18	12-13	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.56	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 224 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except
             2-0-0 oc purlins (5-0-6 max.): 4-6.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   5-13, 5-11

REACTIONS (lb/size) 2=1482/0-3-8, (min. 0-1-12), 8=1482/0-3-8, (min. 0-1-12)
                Max Horiz 2=292 (LC 10)
                Max Uplift 2=-309 (LC 11), 8=-309 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-21=-2051/519, 3-21=-1956/547, 3-22=-1666/533, 4-22=-1568/572, 4-23=-1270/534, 5-23=-1270/534, 5-24=-1270/534,
             6-24=-1270/534, 6-25=-1568/572, 7-25=-1666/533, 7-26=-1956/547, 8-26=-2051/519
BOT CHORD   2-14=-280/1747, 13-14=-279/1749, 13-27=-141/1497, 12-27=-141/1497, 12-28=-141/1497, 11-28=-141/1497,
             10-11=-300/1567, 8-10=-301/1565
WEBS   3-13=-575/244, 4-13=-144/659, 5-13=-419/95, 5-12=0/315, 5-11=-418/95, 6-11=-144/659, 7-11=-575/244

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 2-3-12, Interior (1) 2-3-12 to 12-3-6, Exterior (2) 12-3-6 to 17-3-3, Interior (1) 17-3-3 to 22-11-6, Exterior (2) 22-11-6 to 27-11-3, Interior (1) 27-11-3 to 36-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 309 lb uplift at joint 2 and 309 lb uplift at joint 8.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
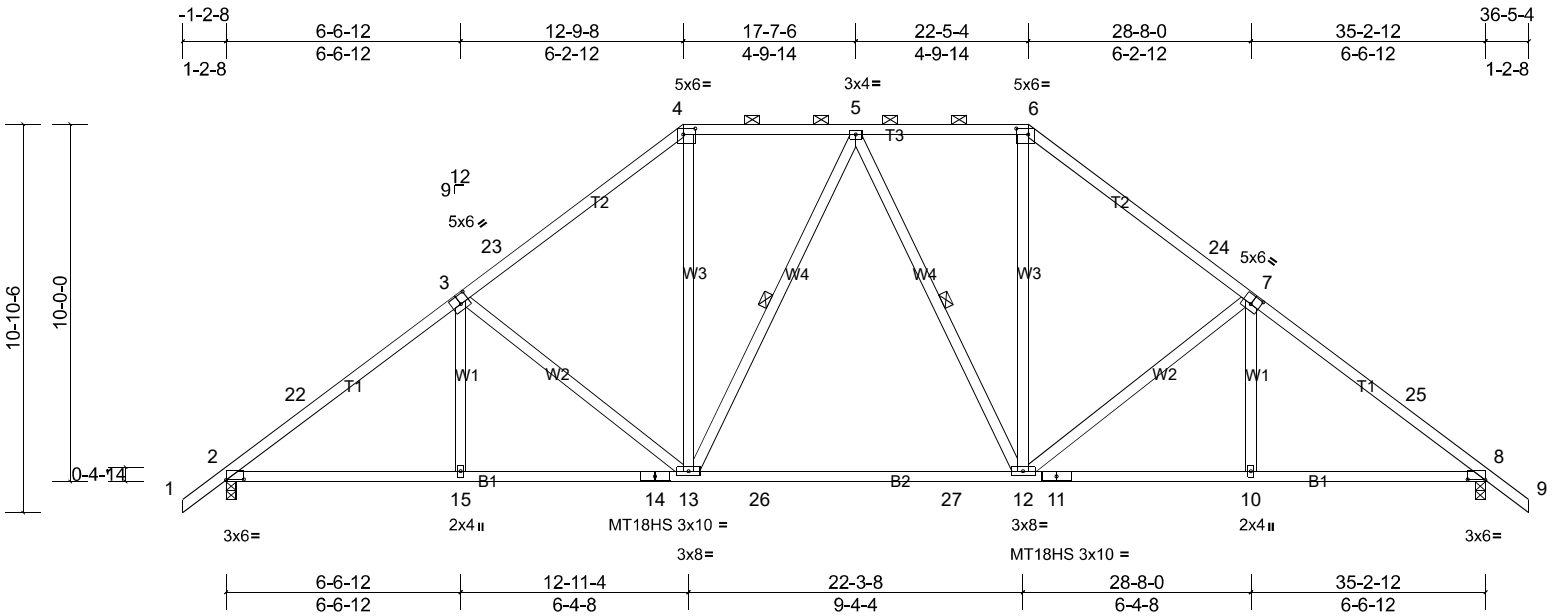
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C04	Piggyback Base	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:52   Page: 1

ID:WtsJgOWWYTmC0Twpq9UvHMzgzzf-nGSnAWkQiRIxP_UtyixDPuORJT0M4ShZKiCFadzgWEH

Scale = 1:64.4

Plate Offsets (X, Y): [2:0-6-0,0-0-4], [3:0-3-0,0-3-0], [4:0-4-0,0-2-0], [6:0-4-0,0-2-0], [7:0-3-0,0-3-0], [8:0-6-0,0-0-4]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.43	Vert(LL)	-0.34	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.56	12-13	>751	180	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.70	Horz(CT)	0.08	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 216 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except
                  2-0-0 oc purlins (5-1-4 max.): 4-6.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   5-13, 5-12

REACTIONS (lb/size)   2=1482/0-3-8, (min. 0-1-12), 8=1482/0-3-8, (min. 0-1-12)
           Max Horiz   2=307 (LC 10)
           Max Uplift   2=-309 (LC 11), 8=-309 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-22=-2042/514, 3-22=-1945/544, 3-23=-1625/517, 4-23=-1509/558, 4-5=-1254/530, 5-6=-1254/530, 6-24=-1509/558,
                7-24=-1625/517, 7-25=-1945/543, 8-25=-2042/514
BOT CHORD   2-15=-274/1724, 14-15=-273/1726, 13-14=-273/1726, 13-26=-112/1363, 26-27=-112/1363, 12-27=-112/1363,
                11-12=-293/1558, 10-11=-293/1558, 8-10=-294/1556
WEBS   3-13=-622/270, 4-13=-136/644, 5-13=-274/123, 5-12=-274/123, 6-12=-136/644, 7-12=-621/270

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 2-3-12, Interior (1) 2-3-12 to 12-9-8, Exterior (2) 12-9-8 to 17-7-6, Interior (1) 17-7-6 to 22-5-4, Exterior (2) 22-5-4 to 27-5-1, Interior (1) 27-5-1 to 36-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) All plates are MT20 plates unless otherwise indicated.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 309 lb uplift at joint 2 and 309 lb uplift at joint 8.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
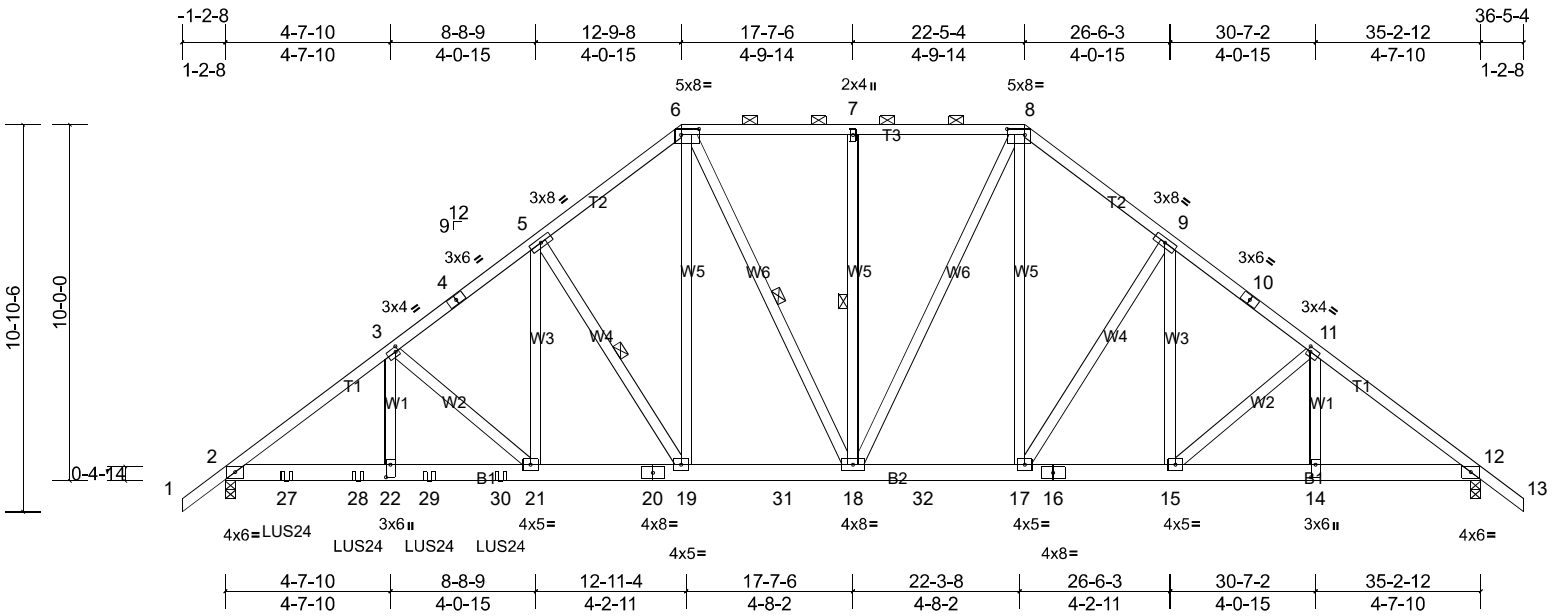
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C05	Piggyback Base Girder	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356
Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:53   Page: 1
ID:IDwc2ZDXfbCqbYx9n21lAozgzyk-GT09Ork2TlQn0833WPSSx5xZytOypx6iZMxp64zgWEG

Scale = 1:64.7

Plate Offsets (X, Y): [3:0-1-0,0-1-8], [6:0-6-0,0-2-0], [8:0-6-0,0-2-0], [11:0-1-0,0-1-8], [14:0-4-4,0-1-8], [22:0-4-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	-0.11	21-22	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.22	21-22	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.56	Horz(CT)	0.07	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 286 lb FT = 20%	

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x6 SP No.1 *Except* B2:2x6 SP No.2
WEBS   2x4 SP No.2

REACTIONS (lb/size)   2=2916/0-3-8, (min. 0-3-7), 12=1704/0-3-8, (min. 0-2-0)
Max Horiz 2=307 (LC 23)
Max Uplift 2=-530 (LC 7), 12=-343 (LC 7)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-3=-4063/687, 3-4=-2999/564, 4-5=-2925/591, 5-6=-2208/537, 6-7=-1711/477, 7-8=-1711/477, 8-9=-1944/497,
9-10=-2147/470, 10-11=-2219/454, 11-12=-2489/443
BOT CHORD   2-27=-413/3387, 27-28=-413/3387, 22-28=-413/3387, 22-29=-413/3387, 29-30=-413/3387, 21-30=-413/3387,
20-21=-217/2489, 19-20=-217/2489, 19-31=-78/1841, 18-31=-78/1841, 18-32=-18/1543, 17-32=-18/1543,
16-17=-121/1717, 15-16=-121/1717, 14-15=-216/1935, 12-14=-216/1935
WEBS   3-22=-118/1133, 3-21=-1179/258, 5-21=-175/1222, 5-19=-1225/310, 6-19=-203/1141, 6-18=-284/340, 7-18=-327/139,
8-18=-133/592, 8-17=-113/550, 9-17=-470/193, 9-15=-30/280, 11-15=-328/129

BRACING
TOP CHORD   Structural wood sheathing directly applied or 2-5-8 oc purlins, except
2-0-0 oc purlins (4-3-0 max.): 6-8.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   5-19, 6-18, 7-18

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 530 lb uplift at joint 2 and 343 lb uplift at joint 12.
6)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
8)   Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-8-12 from the left end to 7-8-12 to connect truss(es) E03 (1 ply 2x4 SP) to front face of bottom chord.
9)   Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S)   Standard
1)   Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (lb/ft)
Vert: 1-6=-60, 6-8=-60, 8-13=-60, 2-12=-20
Concentrated Loads (lb)
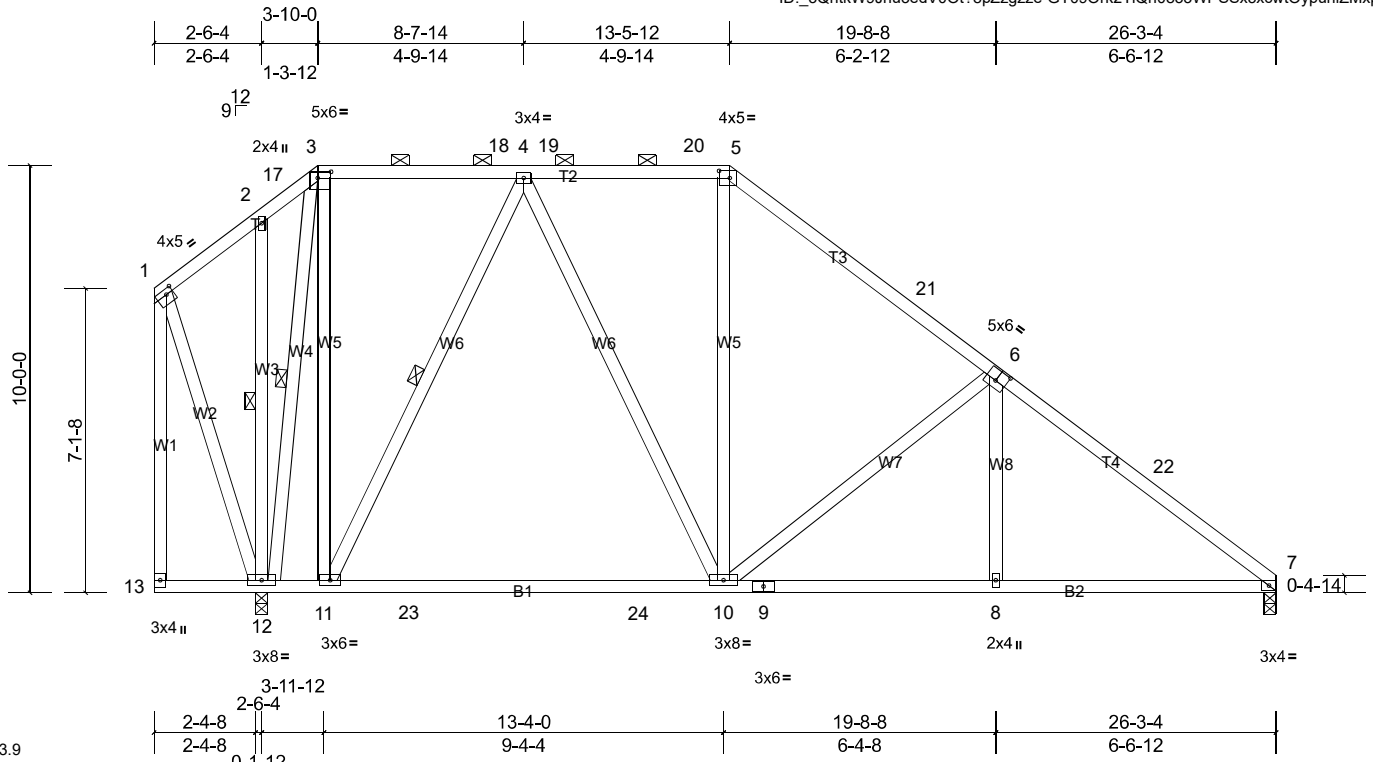Vert: 27=-414, 28=-414, 29=-414, 30=-414

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C06	Piggyback Base	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:53   Page: 1

ID:_3QhtkW9Jnu3edV0Ot?8pZzgzze-GT09Ork2TlQn0833WPSSx5xcwtOypuniZMxp64zgWEG

Scale = 1:53.9

Plate Offsets (X, Y): [1:0-2-0,0-1-8], [3:0-3-12,0-1-12], [5:0-3-0,0-2-0], [6:0-3-0,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.44	Vert(LL)	-0.28	10-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.84	Vert(CT)	-0.45	10-11	>628	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.02	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 210 lb	FT = 20%

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

REACTIONS (lb/size)   7=941/0-3-8, (min. 0-1-8), 12=1150/0-3-8, (min. 0-1-8)
    Max Horiz 12=-397 (LC 9)
    Max Uplift 7=-158 (LC 11), 12=-281 (LC 11)
    Max Grav 7=944 (LC 21), 12=1171 (LC 17)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-18=-296/228, 4-18=-296/228, 4-19=-702/349, 19-20=-702/349, 5-20=-702/349, 5-21=-772/351, 6-21=-864/310,
    6-22=-1197/348, 7-22=-1293/322
BOT CHORD   11-12=-258/342, 11-23=0/557, 23-24=0/557, 10-24=0/557, 9-10=-152/964, 8-9=-152/964, 7-8=-152/961
WEBS   3-11=-143/1016, 4-11=-728/322, 4-10=-133/451, 6-10=-630/273, 3-12=-1184/245

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals,
    and 2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   4-11, 3-12, 2-12

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=26ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 9-1-4 to 12-1-4, Interior (1) 12-1-4 to 12-9-8, Exterior (2) 12-9-8 to 17-0-7, Interior (1) 17-0-7 to 22-5-4, Exterior (2) 22-5-4 to 26-8-3, Interior (1) 26-8-3 to 35-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 158 lb uplift at joint 7 and 281 lb uplift at joint 12.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
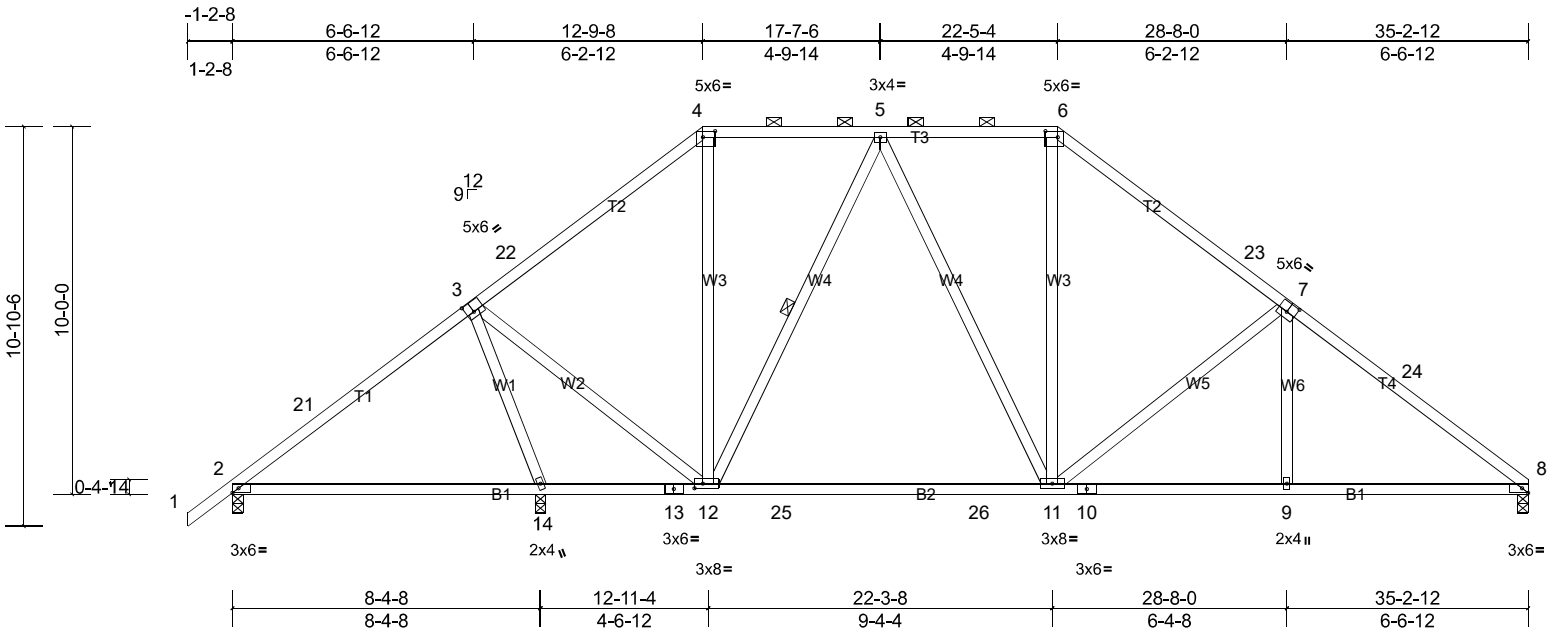
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C07	Piggyback Base	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:54   Page: 1
ID:_3QhtkW9Jnu3edV0Ot?8pZzgzze-GT09Ork2TlQn0833WPSSx5xbItN0puniZMxp64zgWEG

Scale = 1:62.6

Plate Offsets (X, Y): [3:0-2-8,0-3-4], [4:0-4-0,0-2-0], [6:0-4-0,0-2-0], [7:0-3-0,0-3-0], [8:0-2-0,Edge], [12:0-2-12,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.48	Vert(LL)	-0.31	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.90	Vert(CT)	-0.51	11-12	>627	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.71	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 214 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except
             2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   5-12

REACTIONS (lb/size)   2=428/0-3-8, (min. 0-1-8), 8=1076/0-3-8, (min. 0-1-8),
                          14=1387/0-3-8, (min. 0-1-11)
           Max Horiz 2=298 (LC 10)
           Max Uplift 2=-115 (LC 11), 8=-191 (LC 11), 14=-257 (LC 11)
           Max Grav 2=450 (LC 20), 8=1096 (LC 17), 14=1415 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-21=-306/79, 3-21=-256/109, 3-22=-729/275, 4-22=-621/316, 4-5=-561/327, 5-6=-854/417, 6-23=-1023/419,
             7-23=-1129/378, 7-24=-1418/417, 8-24=-1514/392
BOT CHORD   2-14=-117/296, 13-14=-439/221, 12-13=-439/221, 12-25=0/737, 25-26=0/737, 11-26=0/737, 10-11=-217/1135,
             9-10=-217/1135, 8-9=-218/1133
WEBS   3-14=-1401/467, 3-12=-155/1003, 5-12=-574/197, 5-11=-22/288, 6-11=-56/318, 7-11=-623/278

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
    and C-C Exterior (2) -1-2-8 to 2-3-12, Interior (1) 2-3-12 to 12-9-8, Exterior (2) 12-9-8 to 17-7-6, Interior (1) 17-7-6 to 22-5-4, Exterior (2) 22-5-4 to 27-5-1, Interior (1) 27-5-1 to
    35-2-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip
    DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 115 lb uplift at joint 2, 257 lb uplift at joint 14 and 191 lb uplift at joint 8.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom
    chord.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
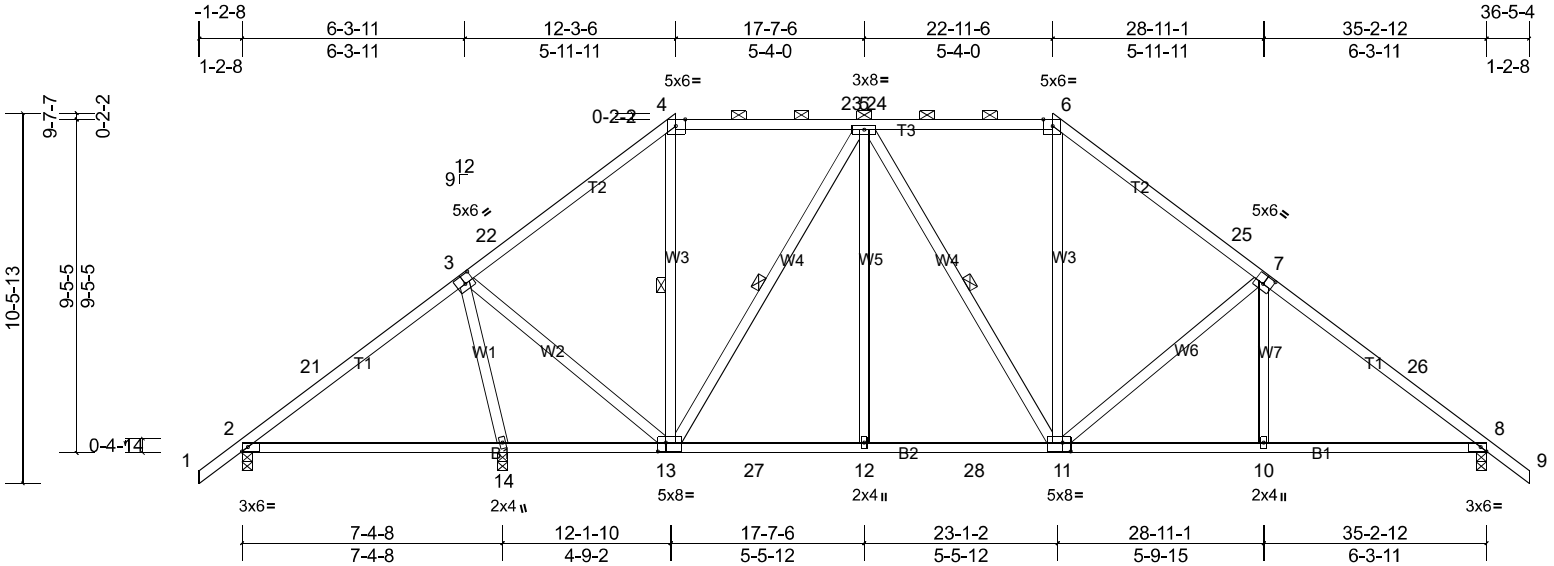
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Q2000187	C08	Hip	1	1	

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:54   Page: 1
ID:SG_354Xn450wFn4CxaWOMnzgzzd-kfaYbBlgE3YeeHeG46zhUJUngHraYNvso0hMfWzgWEF

Scale = 1:65.2

Plate Offsets (X, Y): [3:0-3-0,0-3-0], [4:0-3-3,Edge], [6:0-3-3,Edge], [7:0-3-0,0-3-0], [8:0-2-0,Edge], [11:0-2-12,0-3-0], [13:0-2-12,0-3-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.44	Vert(LL)	-0.05	14-17	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.12	14-17	>729	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.59	Horz(CT)	0.03	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 225 lb	FT = 20%

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

REACTIONS (lb/size)   2=314/0-3-8, (min. 0-1-8), 8=1171/0-3-8, (min. 0-1-8),
14=1479/0-3-8, (min. 0-1-13)
Max Horiz 2=292 (LC 10)
Max Uplift 2=-117 (LC 11), 8=-258 (LC 11), 14=-244 (LC 11)
Max Grav 2=346 (LC 20), 8=1192 (LC 17), 14=1541 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-22=-691/289, 4-22=-596/328, 4-23=-552/339, 5-23=-552/338, 5-24=-898/434, 6-24=-897/434, 6-25=-1096/443,
7-25=-1195/405, 7-26=-1488/422, 8-26=-1565/394
BOT CHORD   13-14=-417/208, 13-27=0/875, 12-27=0/875, 12-28=0/875, 11-28=0/875, 10-11=-200/1163, 8-10=-201/1161
WEBS   3-14=-1425/442, 3-13=-141/981, 5-13=-756/176, 5-12=0/322, 6-11=-68/356, 7-11=-589/248

BRACING
TOP CHORD   Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 4-6.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   4-13, 5-13, 5-11

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 2-3-12, Interior (1) 2-3-12 to 12-3-6, Exterior (2) 12-3-6 to 17-3-3, Interior (1) 17-3-3 to 22-11-6, Exterior (2) 22-11-6 to 27-11-3, Interior (1) 27-11-3 to 36-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 117 lb uplift at joint 2, 244 lb uplift at joint 14 and 258 lb uplift at joint 8.
6)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
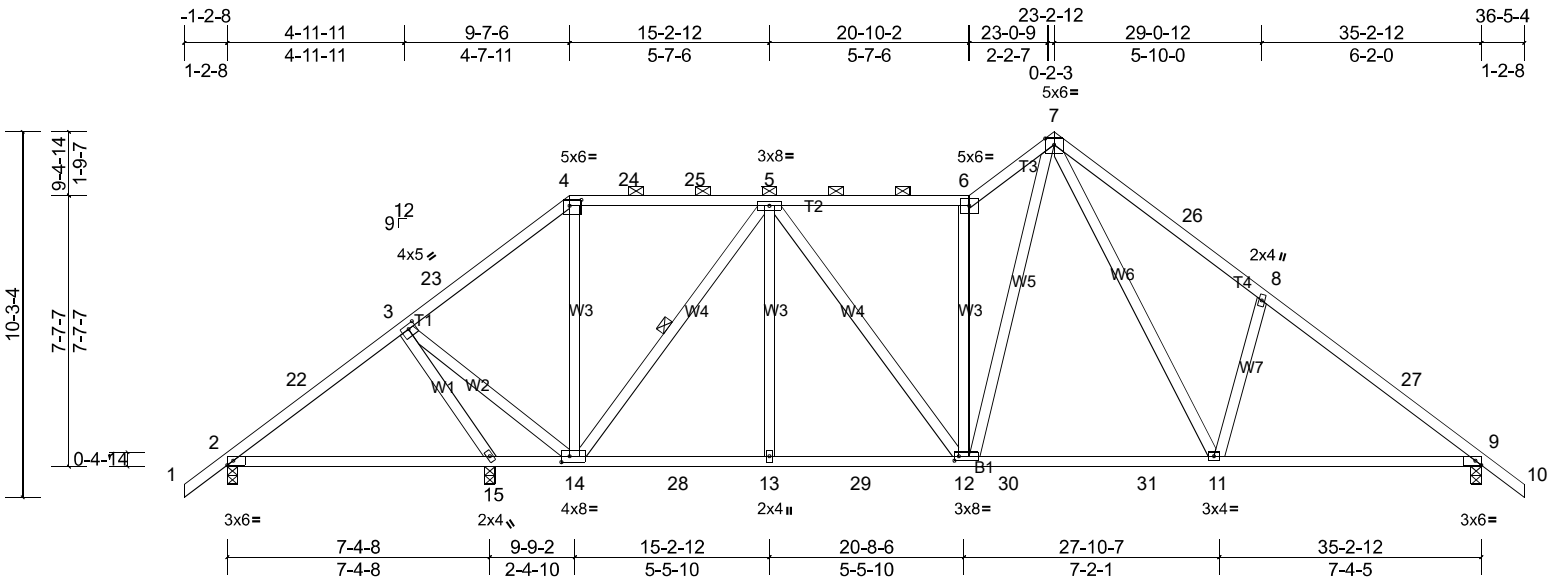
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C09	Roof Special	1	1	Job Reference (optional)

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Scale = 1:64.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.45	Vert(LL)	-0.14	11-12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.23	11-12	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 226 lb	FT = 20%

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

REACTIONS (lb/size)   2=270/0-3-8, (min. 0-1-8), 9=1155/0-3-8, (min. 0-1-8),
                 15=1538/0-3-8, (min. 0-1-15)
         Max Horiz   2=-288 (LC 9)
         Max Uplift   2=-94 (LC 11), 9=-251 (LC 11), 15=-273 (LC 11)
         Max Grav   2=303 (LC 20), 9=1207 (LC 17), 15=1636 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-23=-411/170, 4-23=-311/201, 4-24=-308/217, 24-25=-308/217, 5-25=-308/217, 5-6=-1132/405, 6-7=-1432/548,
                 7-26=-1461/537, 8-26=-1558/512, 8-27=-1514/386, 9-27=-1590/358
BOT CHORD   14-15=-1074/403, 14-28=-23/931, 13-28=-23/931, 13-29=-23/931, 12-29=-23/931, 12-30=0/879, 30-31=0/879,
                 11-31=0/879, 9-11=-172/1179
WEBS   3-15=-1785/537, 3-14=-346/1531, 5-14=-1090/256, 5-13=0/265, 5-12=-64/385, 6-12=-968/421, 7-12=-311/937,
                 7-11=-228/721, 8-11=-482/295

BRACING
TOP CHORD   Structural wood sheathing directly applied, except
                 2-0-0 oc purlins (5-3-9 max.): 4-6.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   5-14

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 2-3-12, Interior (1) 2-3-12 to 9-7-6, Exterior (2) 9-7-6 to 13-1-10, Interior (1) 13-1-10 to 23-2-12, Exterior (2) 23-2-12 to 26-9-0, Interior (1) 26-9-0 to 36-5-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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 94 lb uplift at joint 2, 251 lb uplift at joint 9 and 273 lb uplift at joint 15.
6)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
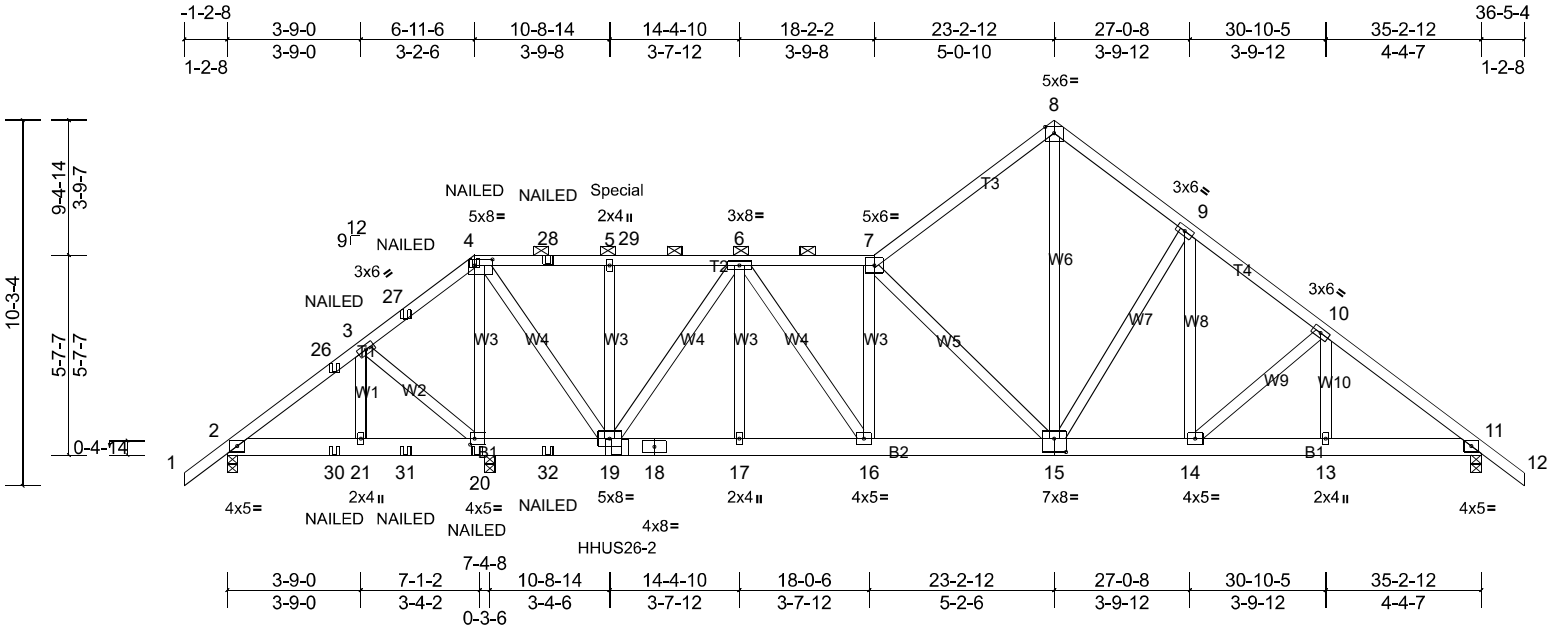
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Q2000187	C10	Roof Special Girder	1	2	

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:55   Page: 1
ID:Ec2NTFFnBDSYqr5YvT4DFDzgzyi-Cr8wpXmI?MgVGRDSeqVw0W0?hgD6HuR?0gQwByzgWEE

Scale = 1:64.7

Plate Offsets (X, Y): [4:0-6-0,0-2-0], [15:0-4-0,0-4-8], [20:0-1-8,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.23	Vert(LL)	0.04	15-16	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.22	Vert(CT)	-0.08	15-16	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.38	Horz(CT)	0.01	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 534 lb	FT = 20%

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

REACTIONS (lb/size)   2=-199/0-3-8, (min. 0-1-8), 11=1257/0-3-8, (min. 0-1-8),
20=3961/0-3-8, (min. 0-2-5)
Max Horiz 2=-288 (LC 5)
Max Uplift 2=-233 (LC 17), 11=-287 (LC 7), 20=-1098 (LC 7)
Max Grav 2=2 (LC 4), 11=1257 (LC 1), 20=3961 (LC 1)

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
except
2-0-0 oc purlins (6-0-0 max.): 4-7.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-26=-205/721, 3-26=-116/798, 3-27=-150/940, 4-27=-141/1055, 4-28=-955/344, 5-28=-955/344, 5-29=-955/344,
6-29=-955/344, 6-7=-1627/443, 7-8=-1270/380, 8-9=-1251/399, 9-10=-1502/376, 10-11=-1759/348
BOT CHORD   2-30=-624/198, 21-30=-624/197, 21-31=-624/197, 20-31=-624/197, 20-32=-896/348, 19-32=-896/348, 18-19=-206/1407,
17-18=-206/1407, 16-17=-206/1407, 15-16=-191/1634, 14-15=-56/1146, 13-14=-146/1356, 11-13=-146/1356
WEBS   3-20=-339/164, 4-20=-3412/929, 4-19=-748/3112, 5-19=-348/268, 6-19=-946/301, 6-16=-252/592, 7-16=-403/258,
7-15=-1000/326, 8-15=-328/1142, 9-15=-430/174, 9-14=-34/264, 10-14=-314/121

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-8-0 oc.
Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=35ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 233 lb uplift at joint 2, 1098 lb uplift at joint 20 and 287 lb uplift at joint 11.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Use Simpson Strong-Tie HHUS26-2 (14-SD10212 Girder, 6-SD10212 Truss) or equivalent at 10-11-6 from the left end to connect truss(es) J17 (2 ply 2x6 SP) to front face of bottom chord.
11) WARNING: The following hangers are manually applied but fail due to geometric considerations: HHUS26-2 on front face at 10-11-6 from the left end.
12) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
13) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 140 lb down and 139 lb up at 10-11-6 on top chord. The design/selection of such connection device(s) is the responsibility of others.

Job	Truss	Truss Type	Qty	Ply	
Q2000187	C10	Roof Special Girder	1	2	Job Reference (optional)

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LOAD CASE(S)   Standard
1)   Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
    Uniform Loads (lb/ft)
        Vert: 1-4=-60, 4-7=-60, 7-8=-60, 8-12=-60, 2-11=-20
    Concentrated Loads (lb)
        Vert: 4=-61, 20=-34, 19=-1585, 5=-78, 26=-54, 27=-16, 28=-61, 30=-53, 31=-80, 32=-34
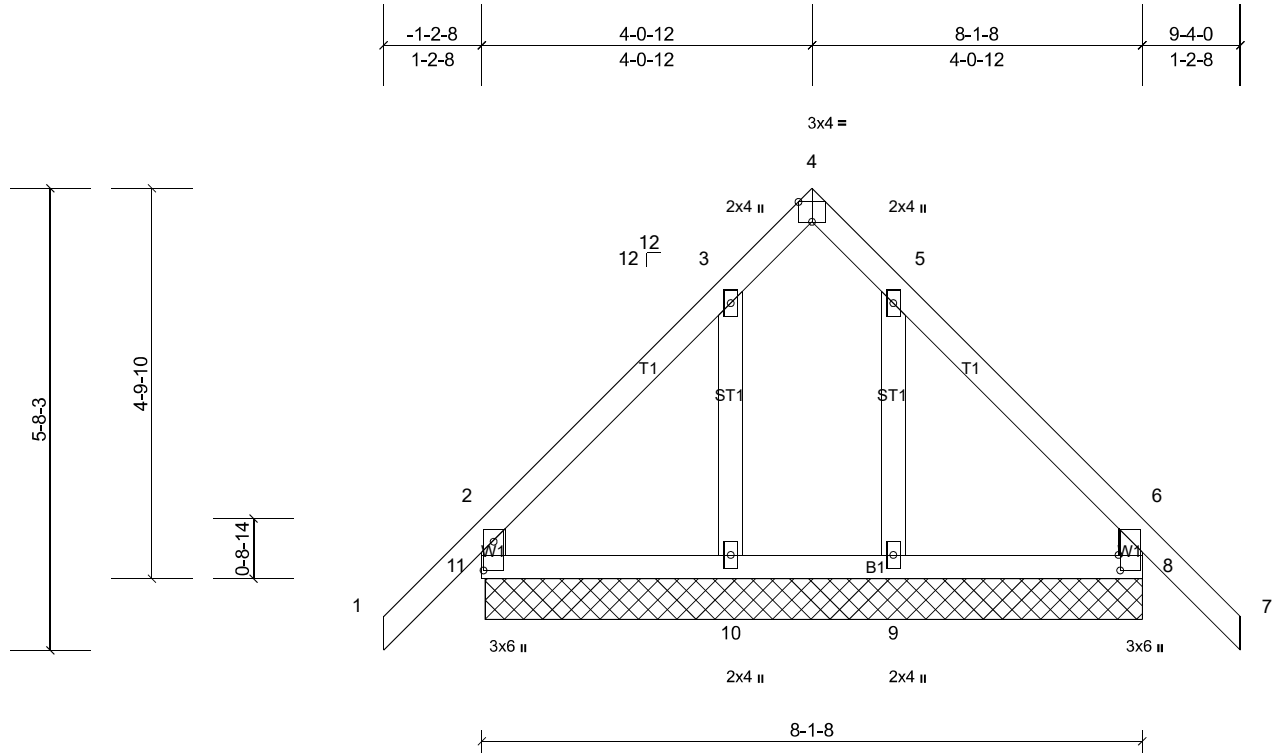
Job	Truss	Truss Type	Qty	Ply	
Q2000187	D02	Common Supported Gable	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:55   Page: 1
ID:Pe5qWmZ1ciGeV5Eb3?YsRCzgzzb-Cr8wpXmI?MgVGRDSeqVw0W0?sgELHzl?0gQwByzgWEE

Scale = 1:28.3

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.22	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	0.04	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 46 lb	FT = 20%

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

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

REACTIONS All bearings 8-1-0.
     (lb) - Max Horiz   11=-181 (LC 9)
           Max Uplift   All uplift 100 (lb) or less at joint(s) 8, 9, 10, 11
           Max Grav   All reactions 250 (lb) or less at joint(s) 8, 9, 11 except 10=254
                  (LC 16)

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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) -1-2-8 to 1-9-8, Exterior (2) 1-9-8 to 4-0-12, Corner (3) 4-0-12 to 7-0-12, Exterior (2) 7-0-12 to 9-4-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4)   Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
5)   Gable studs spaced at 2-0-0 oc.
6)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 11, 8, 10, 9.
8)   Non Standard bearing condition. Review required.
9)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
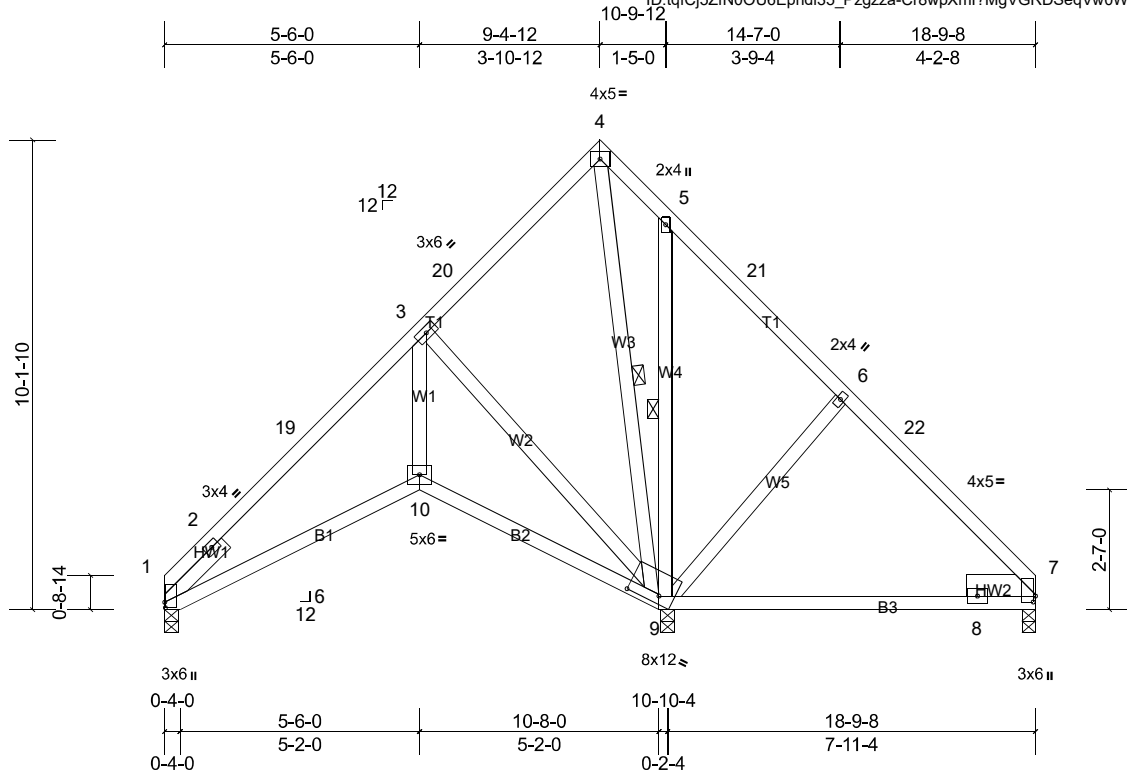
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	E01	Roof Special	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:55 Page: 1

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Plate Offsets (X, Y): [1:0-1-7,0-0-3], [7:0-1-9,0-0-9], [9:0-8-4,0-2-0]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	0.05	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(CT)	-0.14	9-17	>717	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.69	Horz(CT)	0.03	9	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 127 lb FT = 20%	

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2
WEBS   2x4 SP No.2
SLIDER   Left 2x4 SP No.2 -- 1-10-2, Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS   1 Row at midpt   4-9, 5-9

REACTIONS (lb/size)   1=406/0-3-8, (min. 0-1-8), 7=298/0-3-8, (min. 0-1-8),
                           9=799/0-3-8, (min. 0-1-8)
    Max Horiz 1=281 (LC 10)
    Max Uplift 1=-113 (LC 11), 7=-107 (LC 11), 9=-51 (LC 11)
    Max Grav   1=412 (LC 17), 7=325 (LC 21), 9=799 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-19=-603/203, 3-19=-600/227, 3-20=-298/254, 4-20=-264/284, 4-5=-385/400, 6-21=-276/235, 6-22=-261/204,
             7-22=-303/187
BOT CHORD   1-10=-221/643, 9-10=-167/637, 7-8=-259/70
WEBS   3-10=-96/662, 3-9=-741/256, 4-9=-419/327, 6-9=-345/213

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
     and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 9-4-12, Exterior (2) 9-4-12 to 12-4-12, Interior (1) 12-4-12 to 18-9-8 zone; cantilever left and right exposed ; end vertical
     left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
     any other members.
4)   Bearing at joint(s) 1 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 113 lb uplift at joint 1, 107 lb uplift at joint 7 and 51 lb uplift at joint 9.
6)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
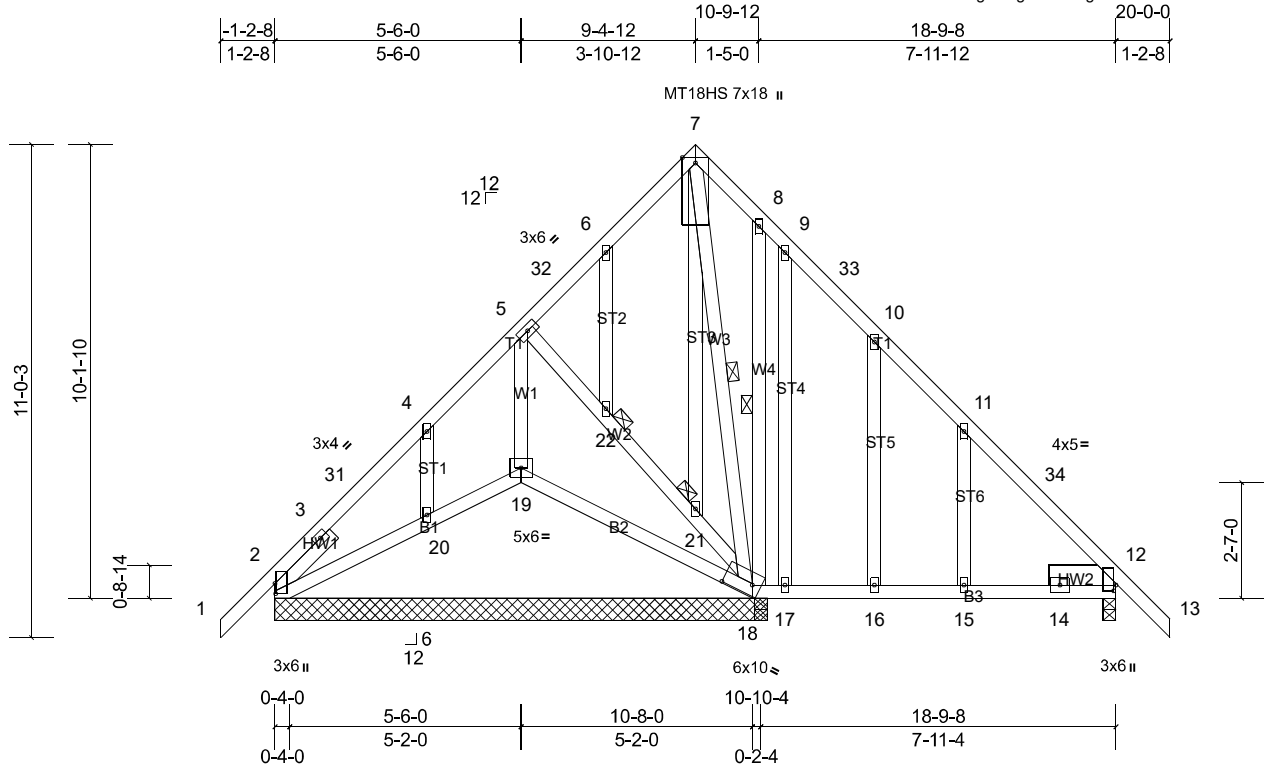
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	E02	Roof Special	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:56 Page: 1

ID:L1DaxRaH8JWLkOOzAQbKWdzgzzZ-g2iI0tnxmgoMtboeBX09ZkZ2c4Ql0Ml9FKATjOzgWED

Scale = 1:51.5

Plate Offsets (X, Y): [2:0-2-11,0-0-3], [12:0-1-9,0-0-9], [18:0-7-12,0-2-12]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	0.29	15-16	>336	240	MT18HS	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.77	Vert(CT)	-0.37	15-16	>261	180	MT20	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.31	Horz(CT)	-0.05	12	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 169 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2
WEBS   2x4 SP No.2
OTHERS   2x4 SP No.2
SLIDER   Left 2x4 SP No.2 -- 1-10-2, Right 2x6 SP No.2 -- 1-6-0

BRACING
TOP CHORD   Structural wood sheathing directly applied or 3-10-0 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   7-18, 8-18
JOINTS   1 Brace at Jt(s): 21, 22

REACTIONS All bearings 11-0-0. except 12=0-3-8
        (lb) - Max Horiz 2=-317 (LC 9), 23=-317 (LC 9)
            Max Uplift All uplift 100 (lb) or less at joint(s) except 2=-186 (LC 11),
                12=-294 (LC 11), 18=-236 (LC 10), 20=-160 (LC 11), 23=-186
                (LC 11)
            Max Grav All reactions 250 (lb) or less at joint(s) 18 except 2=397 (LC
                17), 12=705 (LC 17), 19=563 (LC 1), 20=273 (LC 16), 23=397
                (LC 17)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   3-31=-351/144, 4-31=-315/157, 4-5=-482/300, 5-32=-660/361, 6-32=-640/374, 6-7=-711/447, 7-8=-1176/703,
             8-9=-540/359, 9-33=-743/441, 10-33=-769/426, 10-11=-718/358, 11-34=-645/261, 12-34=-679/250
BOT CHORD   2-20=-114/314, 19-20=-100/298, 18-19=-126/310, 17-18=-22/384, 16-17=-22/384, 15-16=-22/384, 14-15=-22/384,
             12-14=-203/608
WEBS   5-19=-421/105, 18-21=-84/282, 7-18=-728/1200, 8-18=-927/511, 4-20=-268/177, 9-17=-123/283

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
     and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 9-4-12, Exterior (2) 9-4-12 to 12-4-12, Interior (1) 12-4-12 to 20-0-0 zone; cantilever left and right exposed ; end vertical
     left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   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 MT20 plates unless otherwise indicated.
5)   All plates are 2x4 MT20 unless otherwise indicated.
6)   Gable studs spaced at 2-0-0 oc.
7)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
     any other members.
8)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 186 lb uplift at joint 2, 235 lb uplift at joint 18, 293 lb uplift at joint 12, 159 lb uplift at
     joint 20 and 186 lb uplift at joint 2.
9)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
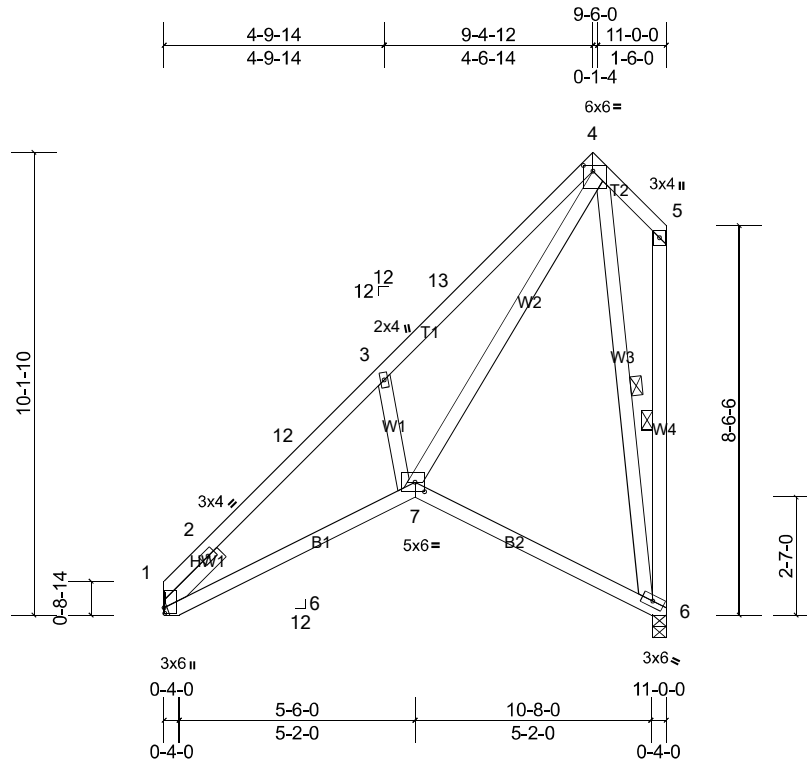
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	E03	Scissor	4	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:56   Page: 1
ID:pDny8nbvudeCMYy9k76Z3qzgzzY-g2iI0tnxmgoMtboeBX09ZkZ2m4Y40CN9FKATjOzgWED

Scale = 1:50.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	0.03	7-10	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.30	Vert(CT)	-0.07	6-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.91	Horz(CT)	0.05	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 87 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x4 SP No.2
WEBS   2x4 SP No.2
SLIDER   Left 2x4 SP No.2 -- 1-9-0

BRACING
TOP CHORD   Structural wood sheathing directly applied or 5-11-10 oc purlins,
             except end verticals.
BOT CHORD   Rigid ceiling directly applied or 6-7-5 oc bracing.
WEBS   1 Row at midpt   5-6, 4-6

REACTIONS (lb/size)   1=434/ Mechanical, (min. 0-1-8), 6=434/0-3-8, (min. 0-1-8)
              Max Horiz 1=428 (LC 10)
              Max Uplift 1=-52 (LC 11), 6=-167 (LC 8)
              Max Grav 1=472 (LC 17), 6=512 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-334/58, 2-12=-706/248, 3-12=-678/269, 3-13=-879/434, 4-13=-843/469, 4-5=-366/405, 5-6=-325/350
BOT CHORD   1-7=-778/1157, 6-7=-250/331
WEBS   3-7=-430/333, 4-7=-785/1301, 4-6=-963/690

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
    and C-C Exterior (2) 0-0-8 to 3-0-8, Interior (1) 3-0-8 to 9-5-4, Exterior (2) 9-5-4 to 10-10-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for
    members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
    any other members.
4) Refer to girder(s) for truss to truss connections.
5) Bearing at joint(s) 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 52 lb uplift at joint 1 and 167 lb uplift at joint 6.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
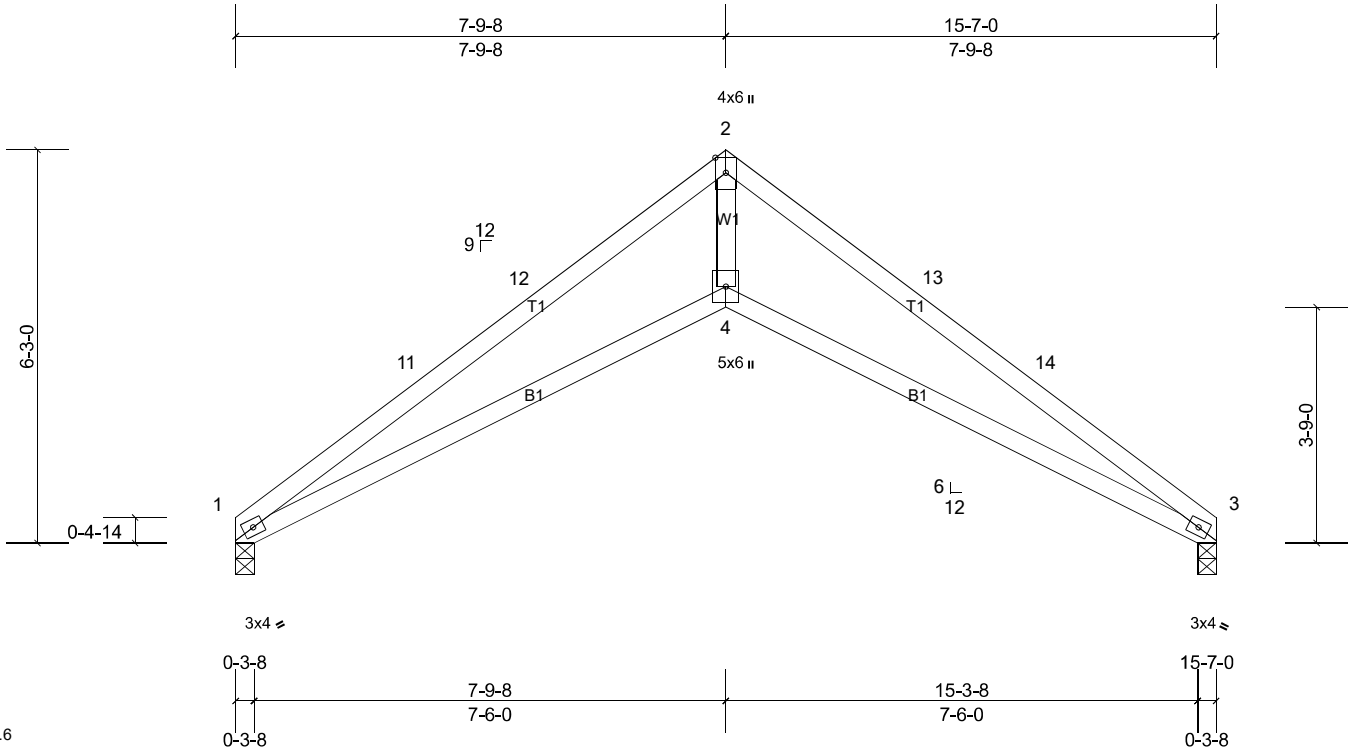
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	H01	Scissor	10	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356 — Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:56 — Page: 1
ID:ioclhbGPyWaPS?gkSBbSoRzgzyh-g2iI0tnxmgoMtboeBX09ZkZ2I4TE0L89FKATjOzgWED

Scale = 1:36.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.75	Vert(LL)	-0.12	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.61	Vert(CT)	-0.26	4-10	>726	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.17	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 58 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS (lb/size)   1=623/0-3-8, (min. 0-1-8), 3=623/0-3-8, (min. 0-1-8)
        Max Horiz 1=-159 (LC 9)
        Max Uplift 1=-112 (LC 11), 3=-112 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-11=-1706/223, 11-12=-1582/229, 2-12=-1553/257, 2-13=-1553/257, 13-14=-1582/229, 3-14=-1706/223
BOT CHORD   1-4=-85/1466, 3-4=-85/1458
WEBS   2-4=-17/1443

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 7-9-8, Exterior (2) 7-9-8 to 10-9-8, Interior (1) 10-9-8 to 15-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4)   Bearing at joint(s) 1, 3 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 capable of withstanding 112 lb uplift at joint 1 and 112 lb uplift at joint 3.
6)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
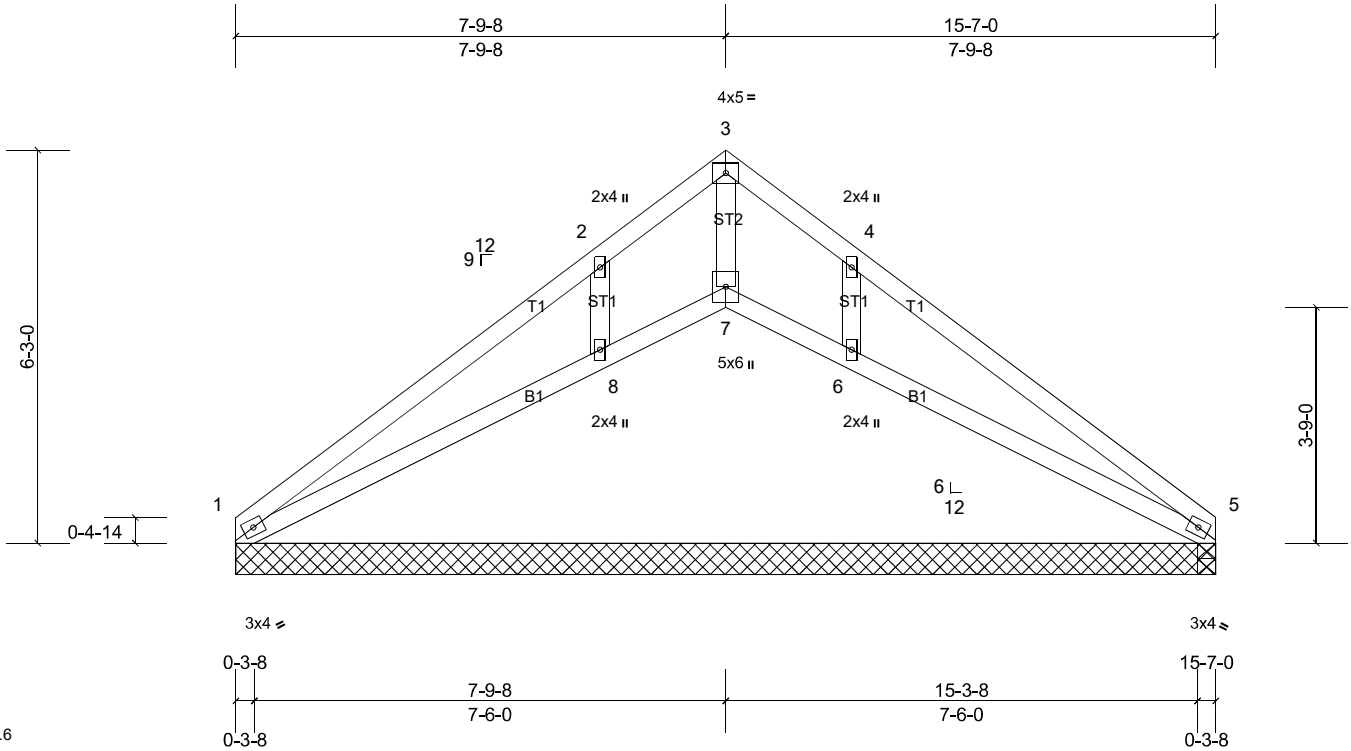
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	H02	Scissor	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:56   Page: 1
ID:AjeiK73NjcZgXYRfWqJi83zgzyx-g2iI0tnxmgoMtboeBX09ZkZ8Z4YO0Pk9FKATjOzgWED

Scale = 1:36.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.35	Vert(LL)	0.04	8-11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(CT)	-0.06	6-14	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.12	Horz(CT)	0.01	1	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 63 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 15-7-0.
         (lb) - Max Horiz 1=159 (LC 10), 9=159 (LC 10)
            Max Uplift All uplift 100 (lb) or less at joint(s) 1, 5, 9, 12 except 6=-228 (LC 11), 7=-277 (LC 17), 8=-228 (LC 11)
            Max Grav All reactions 250 (lb) or less at joint(s) 5, 12 except 1=259 (LC 17), 6=540 (LC 17), 7=404 (LC 11), 8=545 (LC 16), 9=259 (LC 17)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-322/185, 2-3=-540/401, 3-4=-540/401, 4-5=-319/185
BOT CHORD   1-8=-56/261, 5-6=-52/253
WEBS   3-7=-507/672, 2-8=-463/337, 4-6=-463/337

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-0 to 3-0-0, Exterior (2) 3-0-0 to 7-9-8, Corner (3) 7-9-8 to 10-9-8, Exterior (2) 10-9-8 to 15-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4)   Gable studs spaced at 2-0-0 oc.
5)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 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, 1, 5 except (jt=lb) 7=276, 8=227, 6=227.
7)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
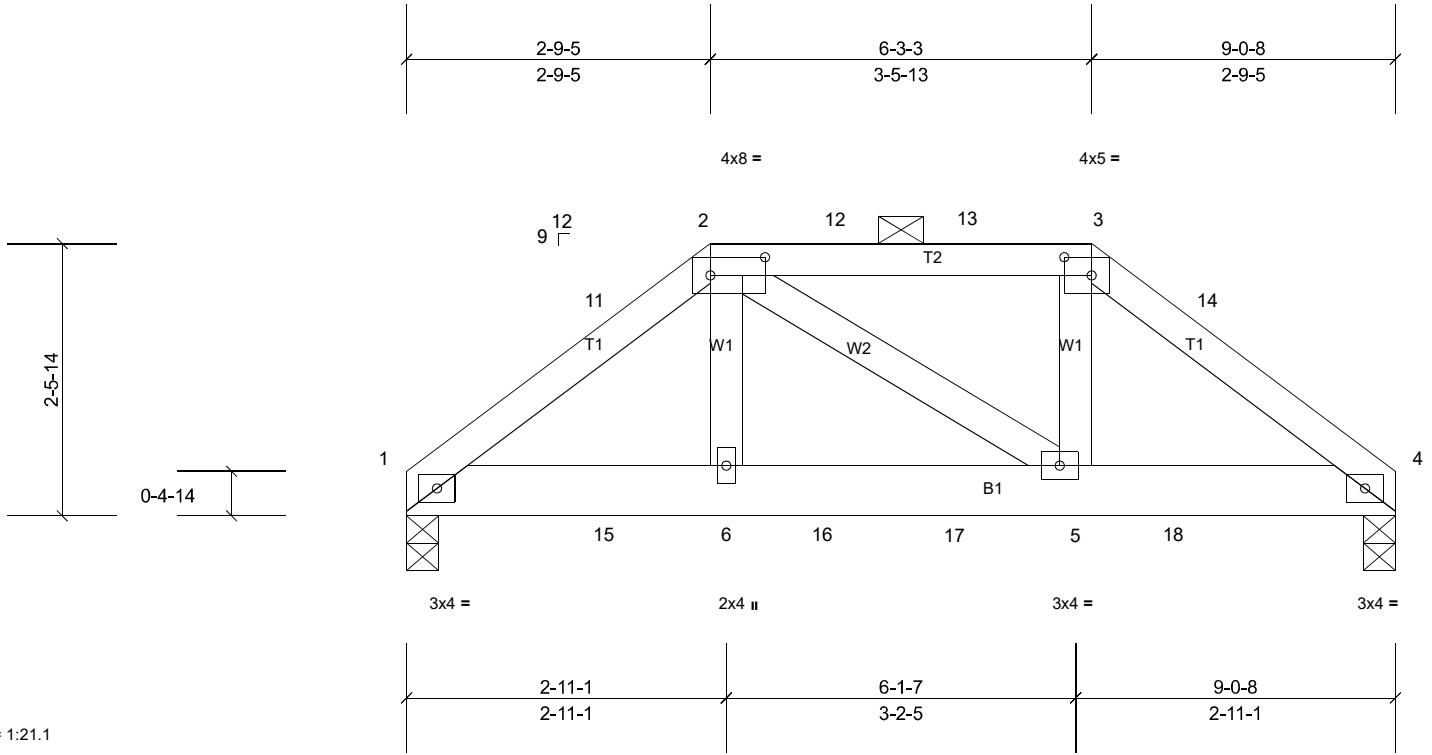
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Q2000187	I01	Hip Girder	1	**2**	

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ID:ioclhbGPyWaPS?gkSBbSoRzgzyh-g2il0tnxmgoMtboeBX09ZkZCc4aH0Qg9FKATjOzgWED

Scale = 1:21.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.09	Vert(LL)	-0.01	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.01	5-6	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MS							Weight: 95 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except
2-0-0 oc purlins (6-0-0 max.): 2-3.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   1=845/0-3-8, (min. 0-1-8), 4=821/0-3-8, (min. 0-1-8)
Max Horiz 1=58 (LC 23)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-11=-1171/0, 2-11=-1129/0, 2-12=-937/0, 12-13=-937/0, 3-13=-937/0, 3-14=-1118/0, 4-14=-1160/0
BOT CHORD   1-15=0/912, 6-15=0/912, 6-16=0/947, 16-17=0/947, 5-17=0/947, 5-18=0/902, 4-18=0/902
WEBS   2-6=0/520, 3-5=0/507

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
   Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) Provide adequate drainage to prevent water ponding.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-9-10 from the left end to 7-0-2 to connect truss(es) J06 (1 ply 2x4 SP) to back face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
        Vert: 1-2=-60, 2-3=-60, 3-4=-60, 1-4=-20
   Concentrated Loads (lb)
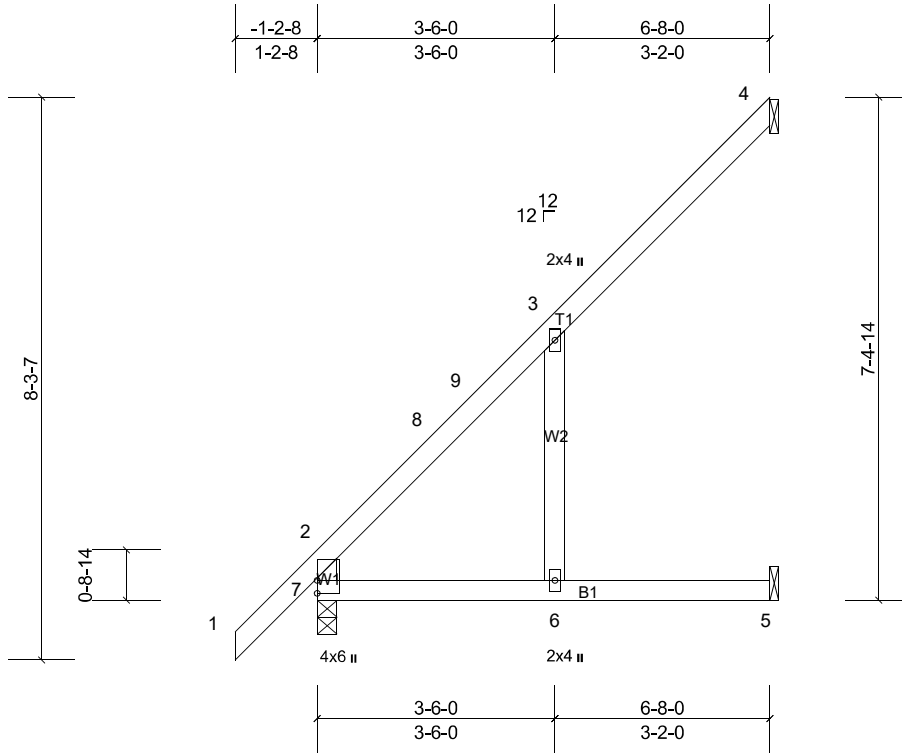   Vert: 15=-238, 16=-233, 17=-233, 18=-238

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J01	Jack-Open	4	1	Job Reference (optional)

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ID:2yqM1siZnOnxxx8umWmgwkzgzzP-8EGgEDnZX_wDVlNrlFXO6x6FEUknlt3IU_v0GrzgWEC

Scale = 1:33.9

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	0.26	6-7	>295	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.91	Vert(CT)	-0.35	6-7	>223	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.10	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 33 lb	FT = 20%

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

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

REACTIONS (lb/size)   4=136/ Mechanical, (min. 0-1-8), 5=114/ Mechanical, (min. 0-1-8), 7=348/0-3-8, (min. 0-1-8)
    Max Horiz 7=343 (LC 11)
    Max Uplift 4=-128 (LC 11), 5=-55 (LC 11)
    Max Grav 4=171 (LC 16), 5=137 (LC 16), 7=348 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-8=-352/251, 8-9=-336/259, 3-9=-336/271

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 6-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3) Refer to girder(s) for truss to truss connections.
4) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 128 lb uplift at joint 4 and 55 lb uplift at joint 5.
5) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
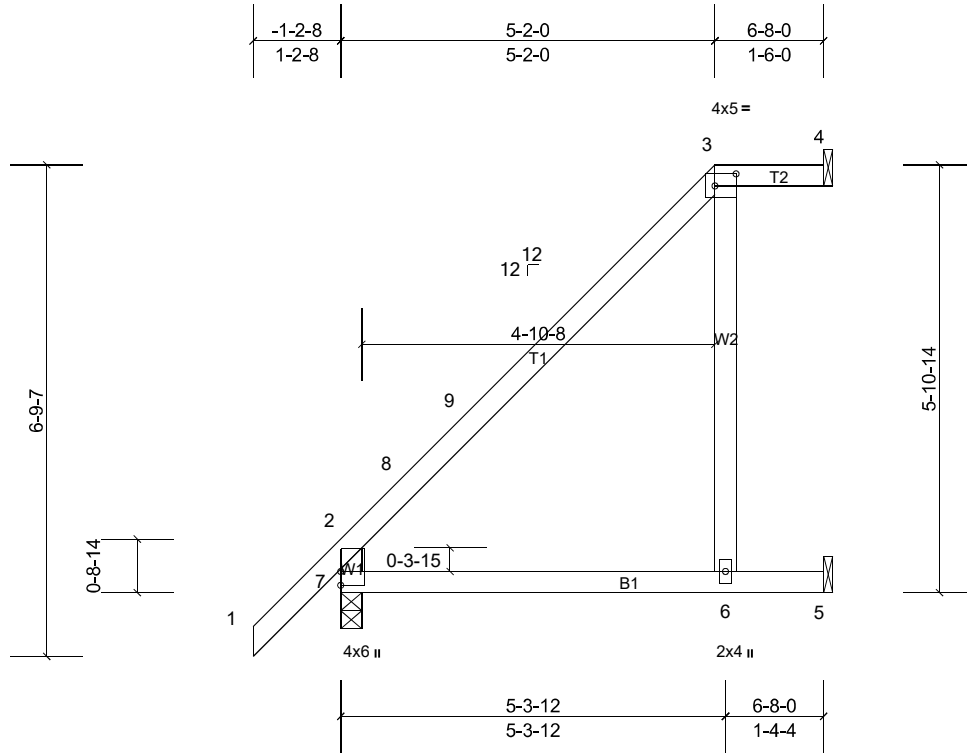
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J02	Jack-Open	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:57   Page: 1

ID:xj3ttEl3rdHMPYSf?Mrc5azgzzL-8EGgEDnZX_wDVlNrlFXO6x6DhUnHlrqIU_v0GrzgWEC

Scale = 1:31.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.71	Vert(LL)	0.23	6-7	>337	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.75	Vert(CT)	-0.30	6-7	>255	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.28	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 34 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=79/ Mechanical, (min. 0-1-8), 5=171/ Mechanical, (min. 0-1-8), 7=348/0-3-8, (min. 0-1-8)
                Max Horiz 7=290 (LC 11)
                Max Uplift 4=-18 (LC 8), 5=-125 (LC 11), 7=-23 (LC 11)
                Max Grav 4=82 (LC 21), 5=204 (LC 16), 7=348 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   2-7=-260/94
WEBS   3-6=-242/281

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 5-2-0, Exterior (2) 5-2-0 to 6-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 23 lb uplift at joint 7, 18 lb uplift at joint 4 and 125 lb uplift at joint 5.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
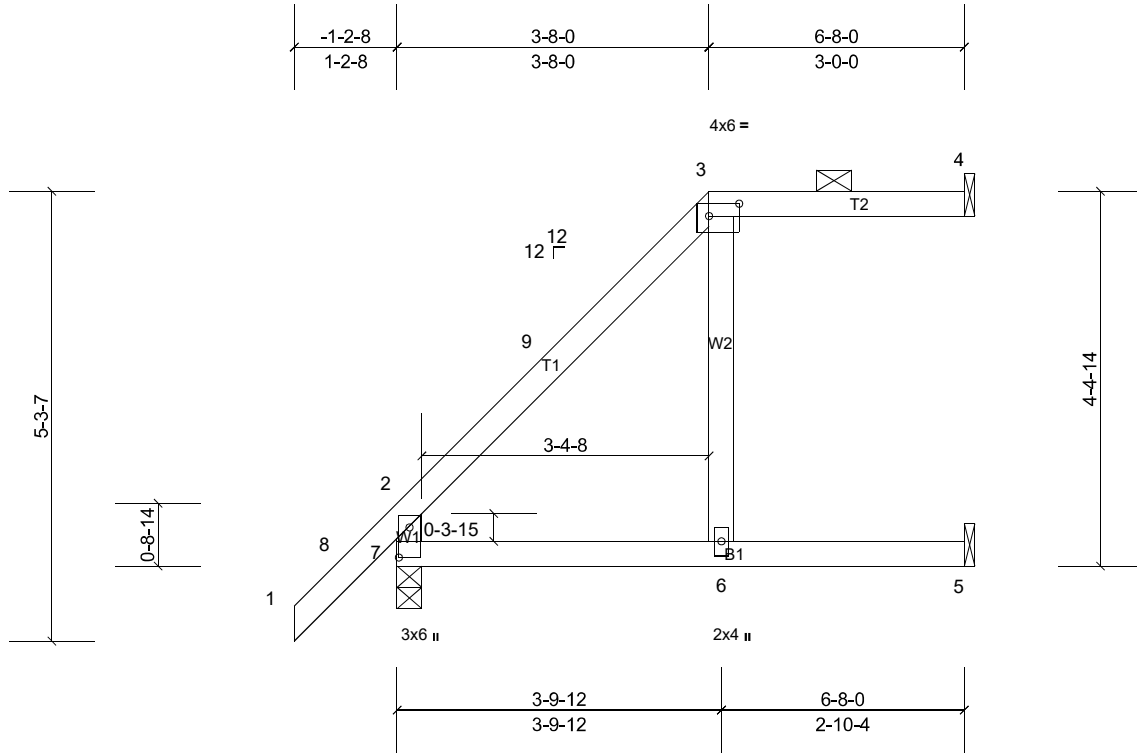
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J03	Jack-Open	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

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ID:eegfzftLUhYxc4DaaS0yVhzgzzB-8EGgEDnZX_wDVlNrlFXO6x6GfUp0ltElU_v0GrzgWEC

Scale = 1:27.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	0.21	6-7	>366	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.64	Vert(CT)	-0.26	6-7	>298	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.32	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
              except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=136/ Mechanical, (min. 0-1-8), 5=114/ Mechanical, (min.
                            0-1-8), 7=348/0-3-8, (min. 0-1-8)
              Max Horiz 7=232 (LC 11)
              Max Uplift 4=-69 (LC 8), 5=-33 (LC 11), 7=-67 (LC 11)
              Max Grav 4=136 (LC 1), 5=122 (LC 16), 7=348 (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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
     and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-8-0, Exterior (2) 3-8-0 to 6-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for
     members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
     any other members.
5)   Refer to girder(s) for truss to truss connections.
6)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 7, 69 lb uplift at joint 4 and 33 lb uplift at joint 5.
7)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
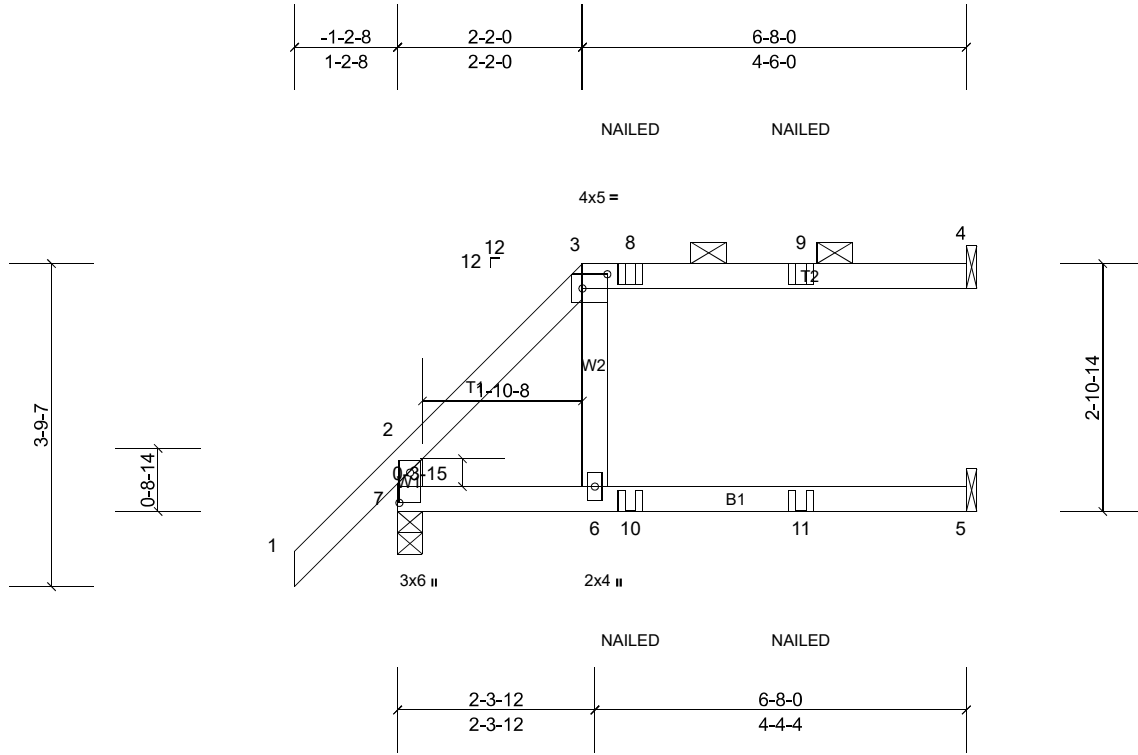
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J04	Jack-Open Girder	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:57   Page: 1
ID:xG7j?s9Oq3ZYUm2C_VSaTlzgzyp-8EGgEDnZX_wDVlNrIFXO6x6DMUnbltOIU_v0GrzgWEC

Scale = 1:27

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	0.16	5-6	>478	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.73	Vert(CT)	-0.24	5-6	>328	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.03	Horz(CT)	0.26	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
              except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=178/ Mechanical, (min. 0-1-8), 5=113/ Mechanical, (min.
                        0-1-8), 7=381/0-3-8, (min. 0-1-8)
          Max Horiz 7=175 (LC 7)
          Max Uplift 4=-101 (LC 4), 5=-2 (LC 4), 7=-117 (LC 7)
          Max Grav   4=178 (LC 1), 5=117 (LC 28), 7=381 (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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional);
    cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
    any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 7, 101 lb uplift at joint 4 and 2 lb uplift at joint 5.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
    Uniform Loads (lb/ft)
            Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20
    Concentrated Loads (lb)
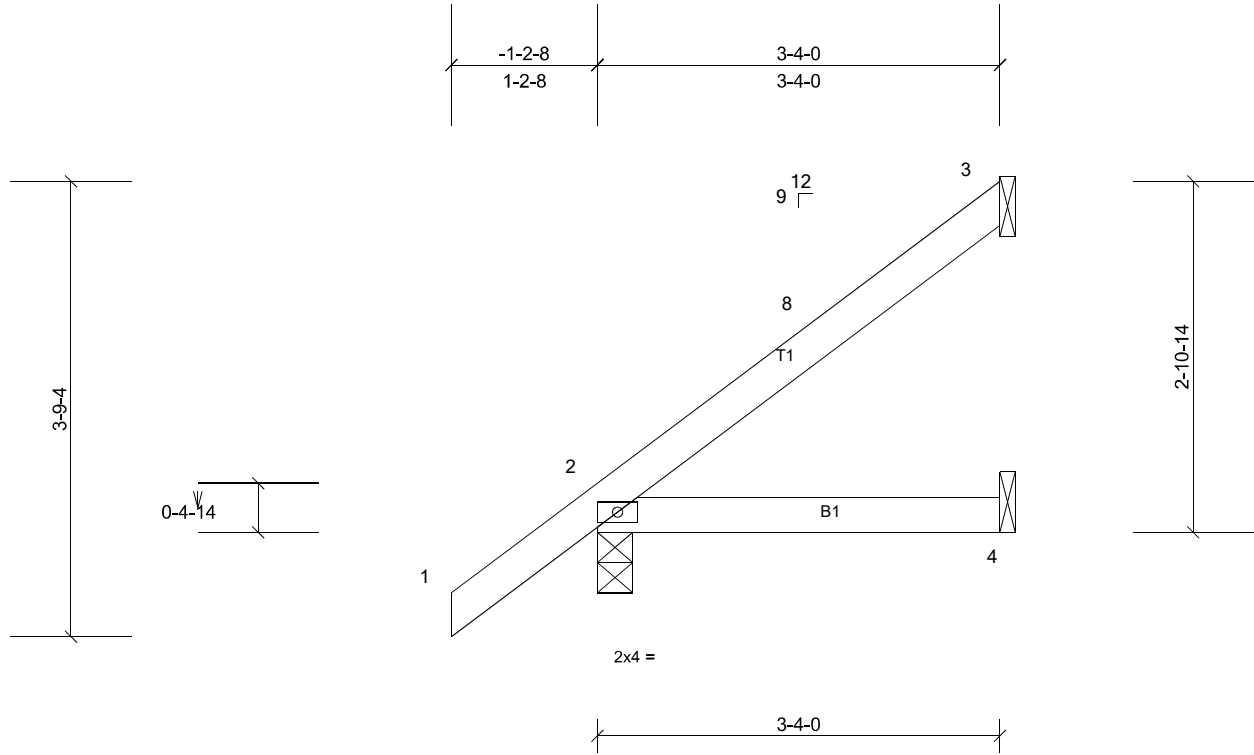   Vert: 8=-20, 9=-20, 10=-18, 11=-18

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J05	Jack-Open	4	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:58   Page: 1
ID:eegfzftLUhYxc4DaaS0yVhzgzzB-cQp2RZoBIH247vy1Jy2de9eXiuGlUK5RiefaoHzgWEB

-1-2-8 3-4-0
1-2-8 3-4-0

9 12

3

8

T1

2

1

B1

4

2x4 =

3-9-4

0-4-14

2-10-14

Scale = 1:19.1

3-4-0

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.18	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.02	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

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

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

REACTIONS (lb/size)   2=217/0-3-8, (min. 0-1-8), 3=80/ Mechanical, (min. 0-1-8),
4=38/ Mechanical, (min. 0-1-8)
Max Horiz 2=147 (LC 11)
Max Uplift 2=-58 (LC 11), 3=-56 (LC 11)
Max Grav 2=217 (LC 1), 3=89 (LC 16), 4=40 (LC 16)

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

NOTES
1)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-3-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3)   Refer to girder(s) for truss to truss connections.
4)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 56 lb uplift at joint 3 and 58 lb uplift at joint 2.
5)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
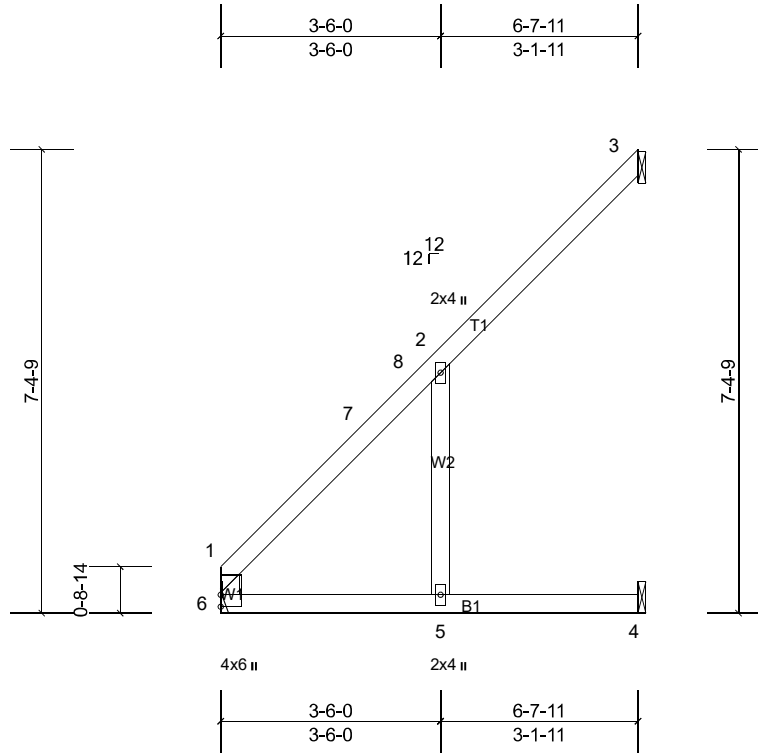
LOAD CASE(S)   Standard

Carolina Structural Systems, Star, NC 27356

Scale = 1:36.7

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.61	Vert(LL)	0.28	5-6	>278	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.89	Vert(CT)	-0.34	5-6	>225	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.10	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 30 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 3-1-8 oc bracing.

REACTIONS (lb/size)   3=138/ Mechanical, (min. 0-1-8), 4=119/ Mechanical, (min. 0-1-8), 6=257/ Mechanical, (min. 0-1-8)
Max Horiz 6=263 (LC 11)
Max Uplift 3=-130 (LC 11), 4=-61 (LC 11)
Max Grav 3=173 (LC 16), 4=142 (LC 16), 6=257 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-7=-353/256, 7-8=-338/257, 2-8=-331/268

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 6-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3) Refer to girder(s) for truss to truss connections.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 130 lb uplift at joint 3 and 61 lb uplift at joint 4.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
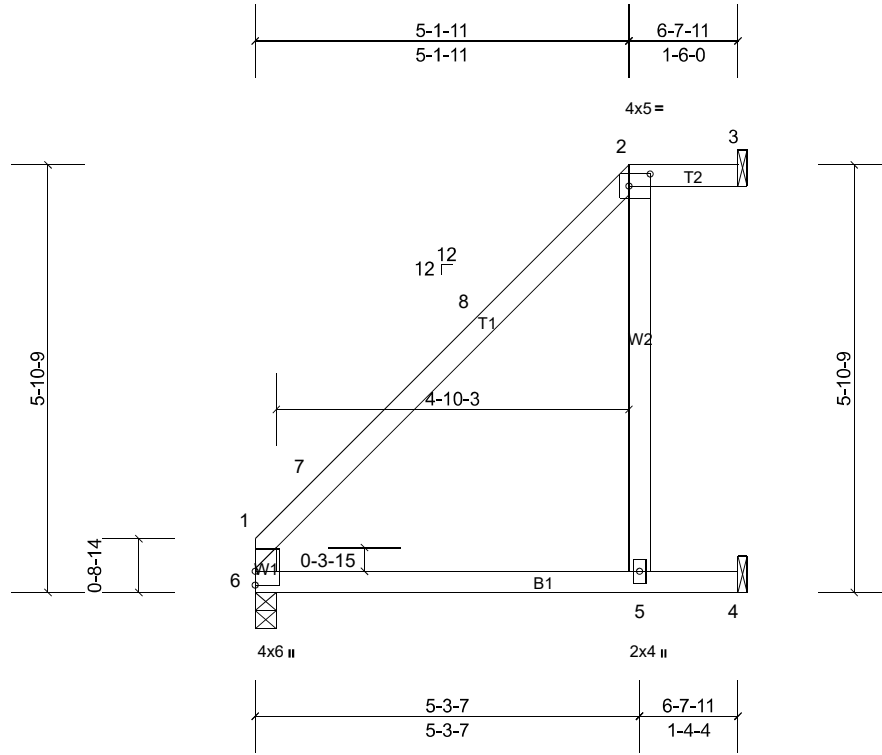
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J07	Jack-Open	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:58 Page: 1

ID:?cTY0MxTIEAEjr5YN0c7Ckzgzz6-cQp2RZoBIH247vy1Jy2de9ePbu7gUI4RiefaoHzgWEB

Scale = 1:31.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.70	Vert(LL)	0.24	5-6	>326	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.74	Vert(CT)	-0.30	5-6	>257	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.28	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 32 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins: 2-3.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   3=80/ Mechanical, (min. 0-1-8), 4=177/ Mechanical, (min. 0-1-8), 6=257/0-3-8, (min. 0-1-8)
Max Horiz 6=210 (LC 11)
Max Uplift 3=-18 (LC 8), 4=-132 (LC 11)
Max Grav 3=82 (LC 21), 4=210 (LC 16), 6=257 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS   2-5=-238/283

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-1-12 to 3-1-12, Interior (1) 3-1-12 to 5-1-11, Exterior (2) 5-1-11 to 6-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5)   Refer to girder(s) for truss to truss connections.
6)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 18 lb uplift at joint 3 and 132 lb uplift at joint 4.
7)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J08	Jack-Open	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:58   Page: 1

ID:iX4K6n2lylRpvOsTz6nTcrzgzyy-cQp2RZoBlH247vy1Jy2de9eRPu9PUKURiefaoHzgWEB
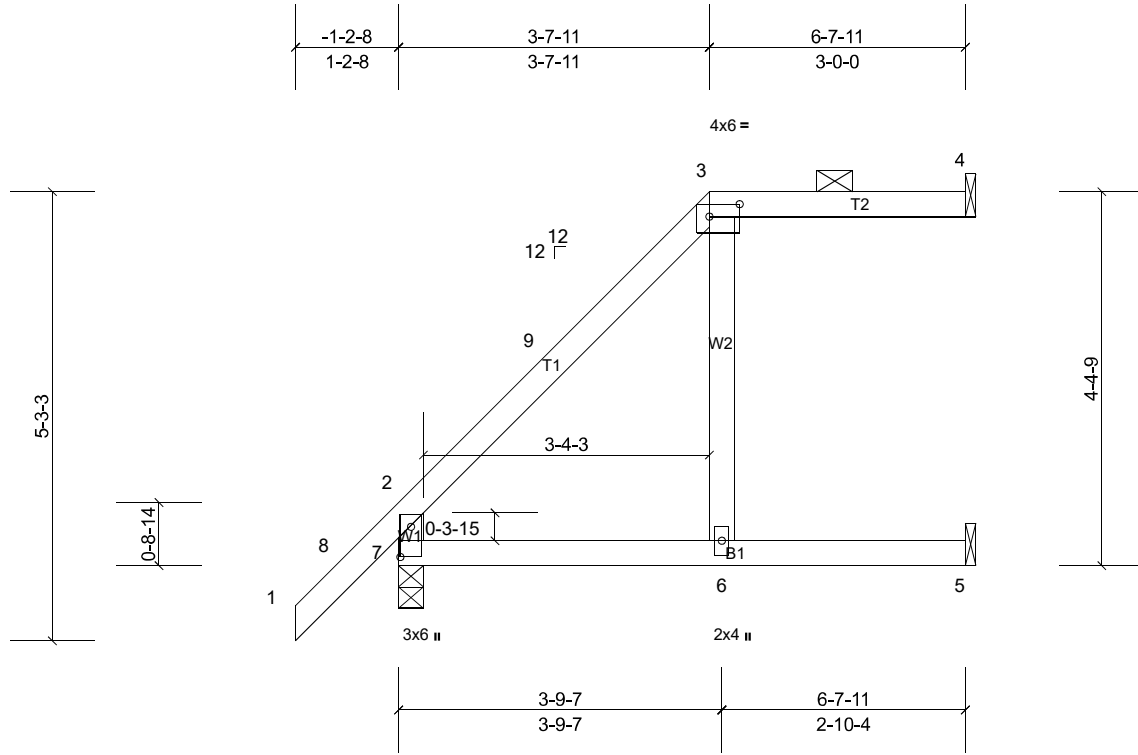
Scale = 1:27

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.52	Vert(LL)	0.21	6-7	>369	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.63	Vert(CT)	-0.26	6-7	>302	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.32	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 31 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
                 except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=135/ Mechanical, (min. 0-1-8), 5=113/ Mechanical, (min.
                   0-1-8), 7=347/0-3-8, (min. 0-1-8)
       Max Horiz 7=231 (LC 11)
       Max Uplift 4=-69 (LC 8), 5=-33 (LC 11), 7=-67 (LC 11)
       Max Grav 4=135 (LC 1), 5=122 (LC 16), 7=347 (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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-7-11, Exterior (2) 3-7-11 to 6-6-15 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 67 lb uplift at joint 7, 69 lb uplift at joint 4 and 33 lb uplift at joint 5.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
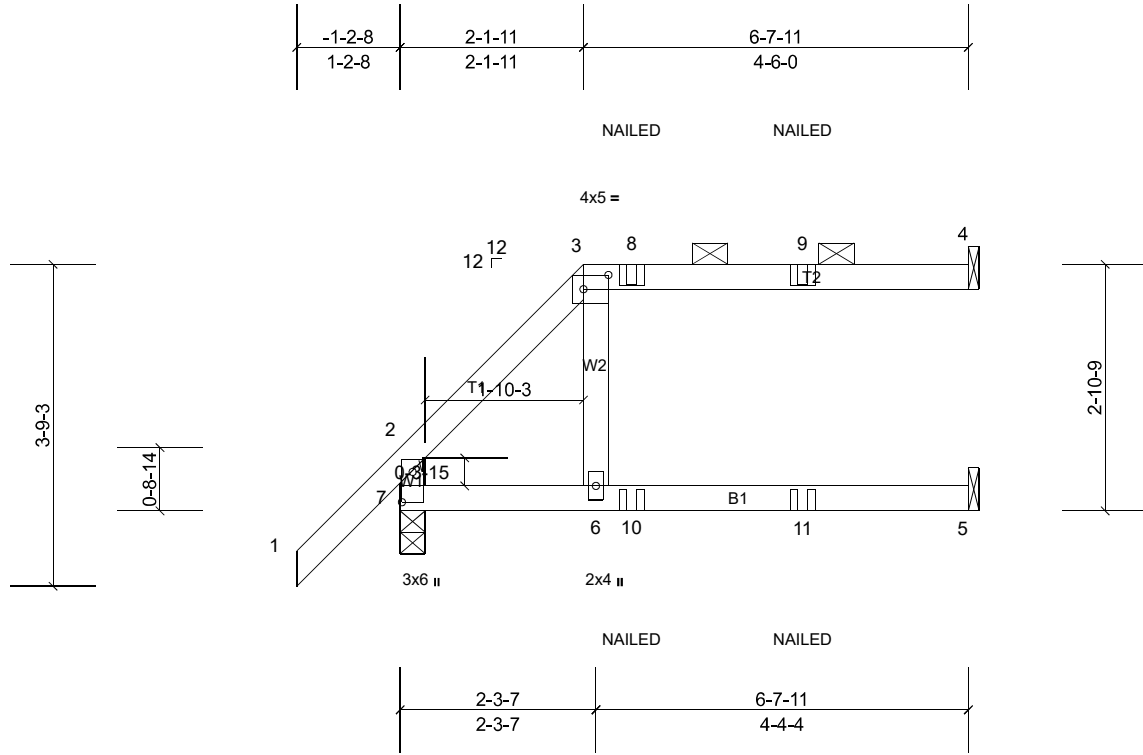
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J09	Jack-Open Girder	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:22:58   Page: 1
ID:XhRbNq7WX8BzdJKdJNutr6zgzys-cQp2RZoBIH247vy1Jy2de9eOGu7_UKoRiefaoHzgWEB

Scale = 1:26.9

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	0.16	5-6	>489	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.23	5-6	>334	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.02	Horz(CT)	0.25	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 28 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 6-0-0 oc purlins,
              except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=177/ Mechanical, (min. 0-1-8), 5=112/ Mechanical, (min.
                          0-1-8), 7=379/0-3-8, (min. 0-1-8)
            Max Horiz 7=174 (LC 24)
            Max Uplift 4=-101 (LC 4), 5=-2 (LC 4), 7=-117 (LC 7)
            Max Grav 4=177 (LC 1), 5=116 (LC 28), 7=379 (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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional);
    cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
    any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 117 lb uplift at joint 7, 101 lb uplift at joint 4 and 2 lb uplift at joint 5.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
    Uniform Loads (lb/ft)
            Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20
    Concentrated Loads (lb)
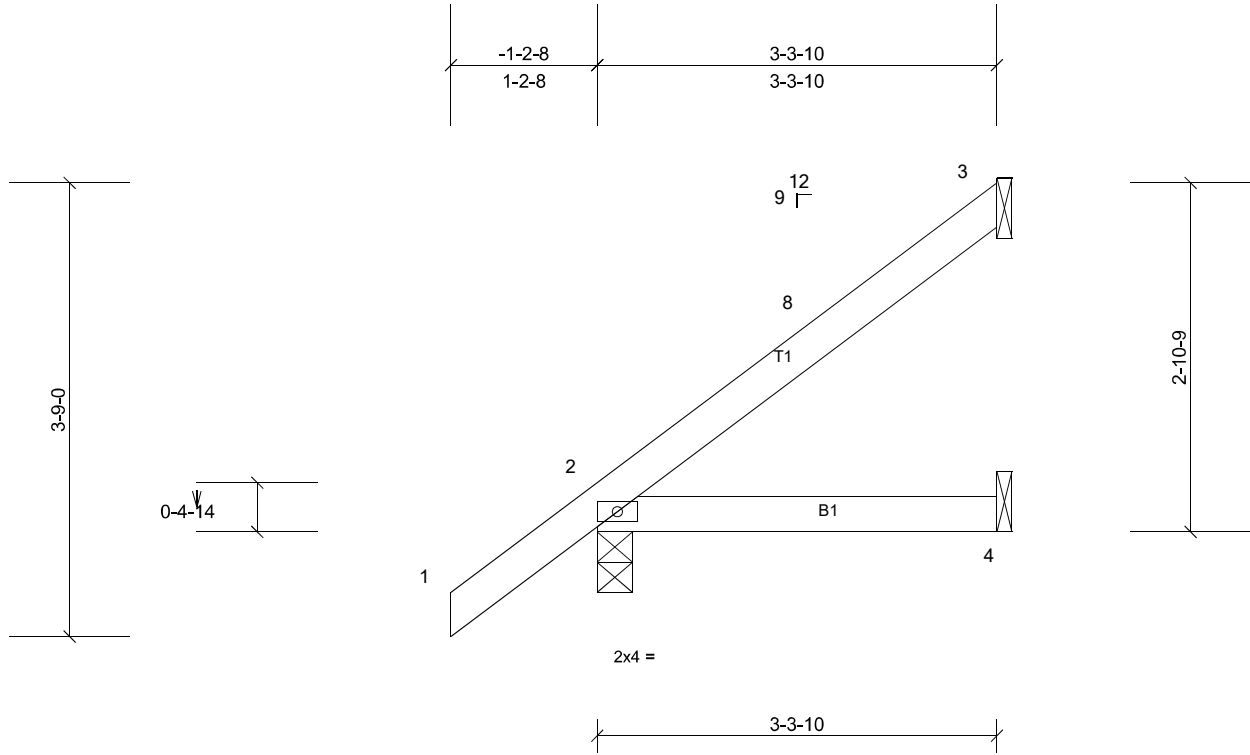   Vert: 8=-19, 9=-19, 10=-17, 11=-17

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J10	Jack-Open	4	1	Job Reference (optional)

Scale = 1:19

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.17	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 14 lb	FT = 20%

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

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

REACTIONS (lb/size)   2=216/0-3-8, (min. 0-1-8), 3=79/ Mechanical, (min. 0-1-8),
                  4=37/ Mechanical, (min. 0-1-8)
          Max Horiz 2=146 (LC 11)
          Max Uplift 2=-58 (LC 11), 3=-55 (LC 11)
          Max Grav 2=216 (LC 1), 3=88 (LC 16), 4=40 (LC 16)

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

NOTES
1)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-2-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3)   Refer to girder(s) for truss to truss connections.
4)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 55 lb uplift at joint 3 and 58 lb uplift at joint 2.
5)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
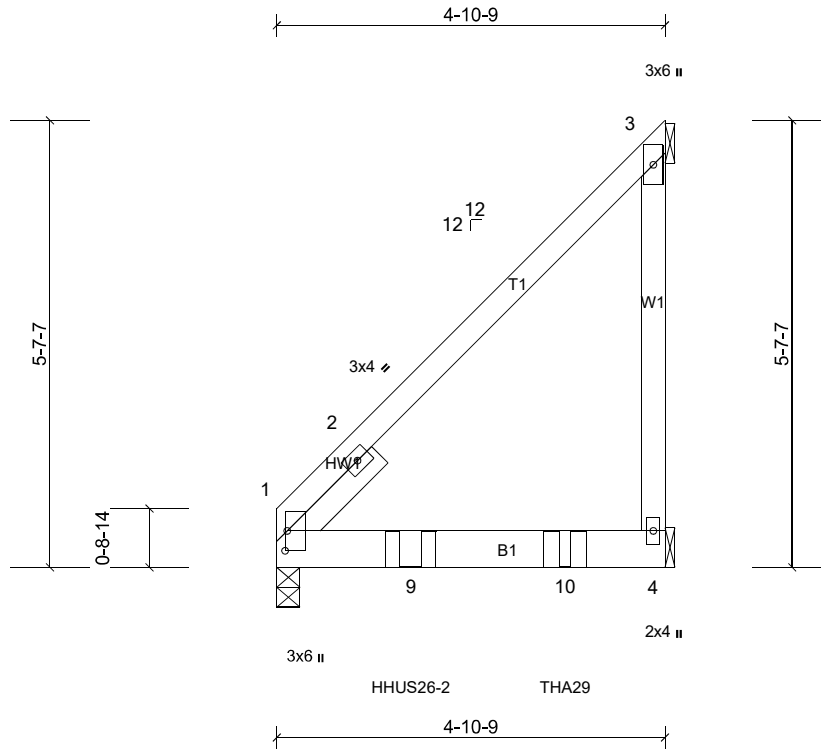
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J11	Jack-Open Girder	1	**2**	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

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ID:zWROfP0HFyYg2fpkx45vU?zgdOF-4dNQevpp3bAxk3XDtgZsBMBfUIWtDnLbxIO7KjzgWEA

Scale = 1:29

Plate Offsets (X, Y): [1:0-3-0,0-0-5]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.37	Vert(LL)	0.07	4-7	>809	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(CT)	-0.10	4-7	>573	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.03	1	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 63 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x6 SP DSS
WEBS   2x4 SP No.2
SLIDER   Left 2x4 SP No.2 -- 1-6-0

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

REACTIONS (lb/size)   1=1641/0-3-8, (min. 0-1-8), 3=170/ Mechanical, (min. 0-1-8),
4=1347/ Mechanical, (min. 0-1-8)
Max Horiz 1=176 (LC 19)
Max Uplift 1=-541 (LC 8), 3=-138 (LC 7), 4=-425 (LC 7)
Max Grav 1=1641 (LC 1), 3=190 (LC 23), 4=1347 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-1006/614

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
   Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
   Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-5-0 oc.
   Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 541 lb uplift at joint 1, 138 lb uplift at joint 3 and 425 lb uplift at joint 4.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
9) Use Simpson Strong-Tie HHUS26-2 (14-16d Girder, 4-16d Truss) or equivalent at 1-8-3 from the left end to connect truss(es) B05 (2 ply 2x6 SP) to back face of bottom chord.
10) Use Simpson Strong-Tie THA29 (10-10d Girder, 4-10d Truss) or equivalent at 3-7-7 from the left end to connect truss(es) B04 (1 ply 2x4 SP) to back face of bottom chord.
11) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
   Uniform Loads (lb/ft)
           Vert: 1-3=-60, 4-5=-20
   Concentrated Loads (lb)
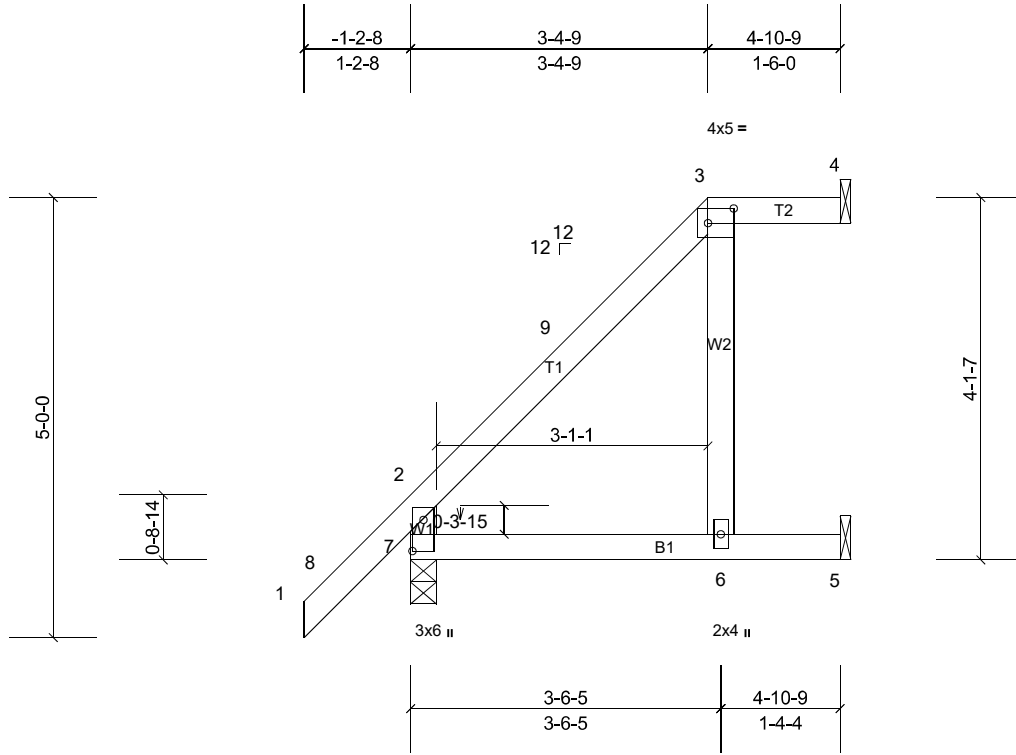   Vert: 9=-1852, 10=-939

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Q2000187	J12	Jack-Open	4	1	

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ID:iX4K6n2lyIRpvOsTz6nTcrzgzyy-4dNQevpp3bAxk3XDtgZsBMBc?IYlDnLbxIO7KjzgWEA

Scale = 1:26.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.53	Vert(LL)	0.05	4-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.43	Vert(CT)	-0.07	4-5	>757	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.04	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 21 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-10-9 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   3=121/ Mechanical, (min. 0-1-8), 4=54/ Mechanical, (min. 0-1-8), 5=280/0-3-8, (min. 0-1-8)
           Max Horiz   5=274 (LC 11)
           Max Uplift   3=-132 (LC 11), 4=-1 (LC 11)
           Max Grav   3=155 (LC 16), 4=64 (LC 16), 5=280 (LC 1)

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

NOTES
1)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 4-9-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3)   Refer to girder(s) for truss to truss connections.
4)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 132 lb uplift at joint 3 and 1 lb uplift at joint 4.
5)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J13	Jack-Open	2	1	Job Reference (optional)

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ID:iX4K6n2lyIRpvOsTz6nTcrzgzyy-4dNQevpp3bAxk3XDtgZsBMBfyIYODnkbxIO7KjzgWEA

Scale = 1:26.2

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.34	Vert(LL)	0.06	6-7	>862	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.08	6-7	>667	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.10	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 25 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-10-9 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=75/ Mechanical, (min. 0-1-8), 5=100/ Mechanical, (min. 0-1-8), 7=280/0-3-8, (min. 0-1-8)
           Max Horiz 7=221 (LC 11)
           Max Uplift 4=-32 (LC 8), 5=-57 (LC 11), 7=-47 (LC 11)
           Max Grav 4=75 (LC 1), 5=117 (LC 16), 7=280 (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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 3-4-9, Exterior (2) 3-4-9 to 4-9-13 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 7, 32 lb uplift at joint 4 and 57 lb uplift at joint 5.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
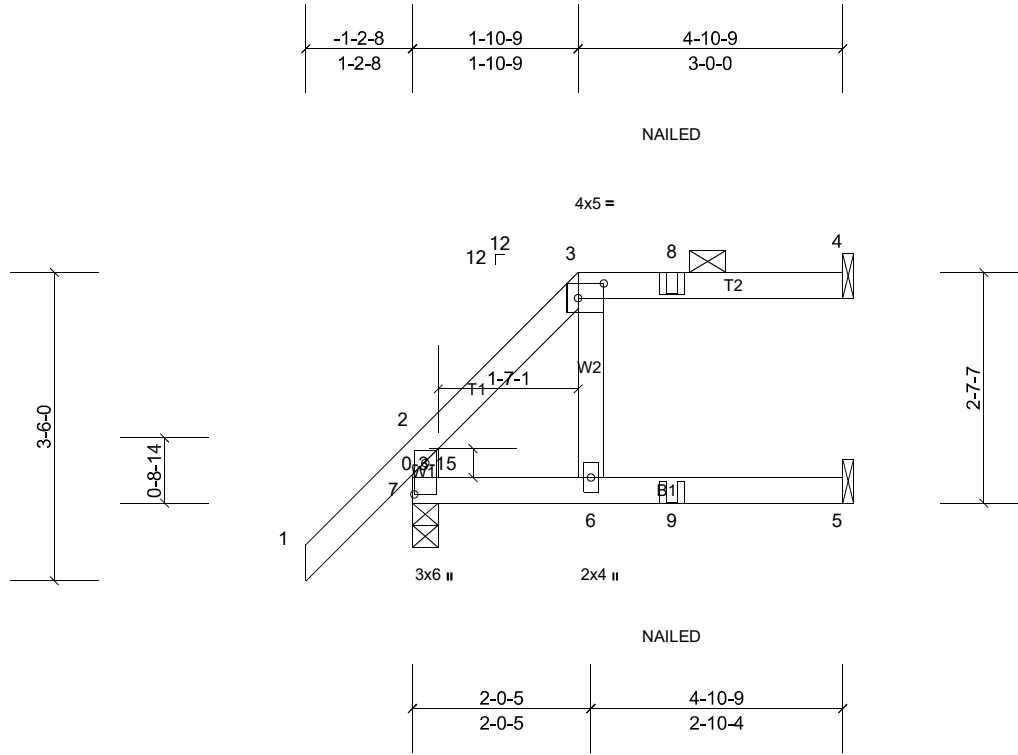
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J14	Jack-Open Girder	2	1	Job Reference (optional)

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ID:xG7j?s9Oq3ZYUm2C_VSaTlzgzyp-4dNQevpp3bAxk3XDtgZsBMBgaIadDnCbxIO7KjzgWEA

Scale = 1:26.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	0.04	5-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.31	Vert(CT)	-0.05	5-6	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.01	Horz(CT)	0.07	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 22 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 4-10-9 oc purlins, except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=114/ Mechanical, (min. 0-1-8), 5=73/ Mechanical, (min. 0-1-8), 7=288/0-3-8, (min. 0-1-8)
Max Horiz 7=163 (LC 7)
Max Uplift 4=-64 (LC 4), 5=-5 (LC 4), 7=-92 (LC 7)
Max Grav 4=114 (LC 1), 5=79 (LC 28), 7=288 (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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
3)   Provide adequate drainage to prevent water ponding.
4)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5)   Refer to girder(s) for truss to truss connections.
6)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 92 lb uplift at joint 7, 64 lb uplift at joint 4 and 5 lb uplift at joint 5.
7)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8)   Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
9)   "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.

LOAD CASE(S)   Standard
1)   Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
     Uniform Loads (lb/ft)
              Vert: 1-2=-60, 2-3=-60, 3-4=-60, 5-7=-20
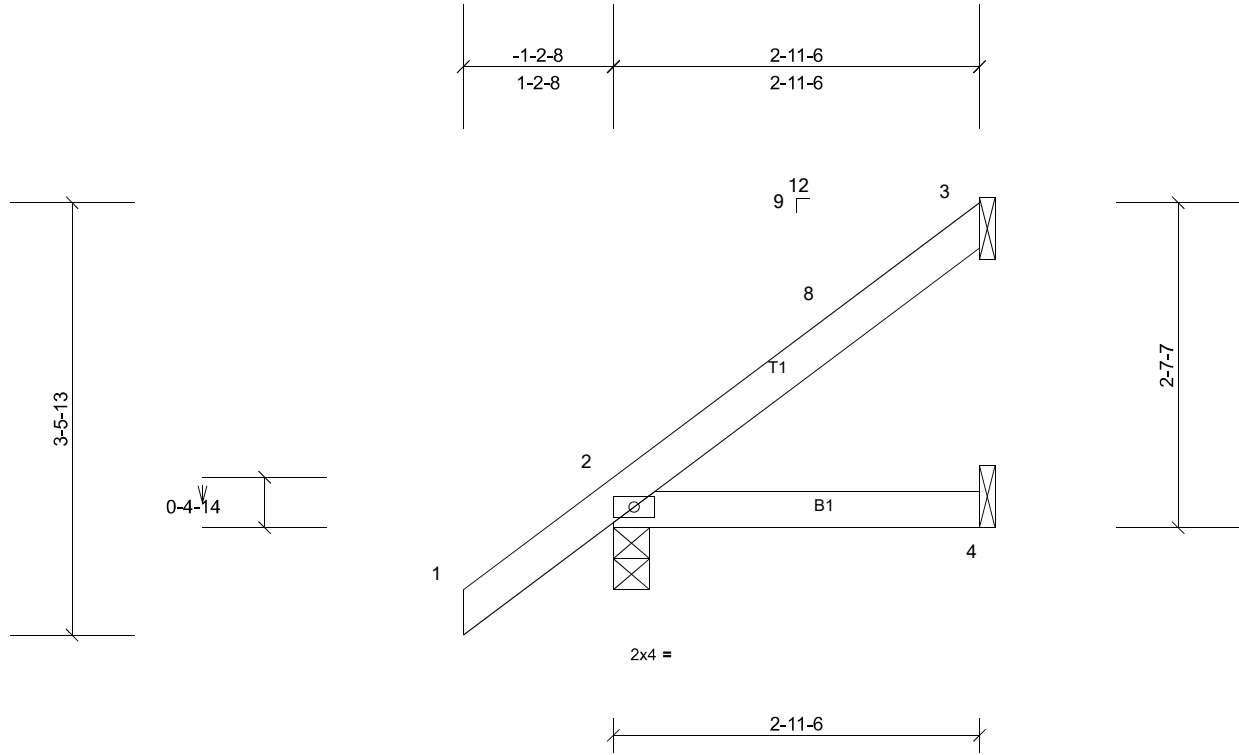   Concentrated Loads (lb)
              Vert: 8=-8, 9=-12

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J15	Jack-Open	2	1	Job Reference (optional)

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ID:iX4K6n2lyIRpvOsTz6nTcrzgzyy-4dNQevpp3bAxk3XDtgZsBMBi4IcSDnLbxIO7KjzgWEA

Scale = 1:18.6

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.14	Vert(LL)	-0.01	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	-0.01	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 12 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 2-11-6 oc purlins.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   2=203/0-3-8, (min. 0-1-8), 3=68/ Mechanical, (min. 0-1-8),
                           4=32/ Mechanical, (min. 0-1-8)
          Max Horiz 2=136 (LC 11)
          Max Uplift 2=-61 (LC 11), 3=-47 (LC 11)
          Max Grav 2=203 (LC 1), 3=77 (LC 16), 4=34 (LC 16)

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

NOTES
1)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-9-8, Interior (1) 1-9-8 to 2-10-10 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3)   Refer to girder(s) for truss to truss connections.
4)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 47 lb uplift at joint 3 and 61 lb uplift at joint 2.
5)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
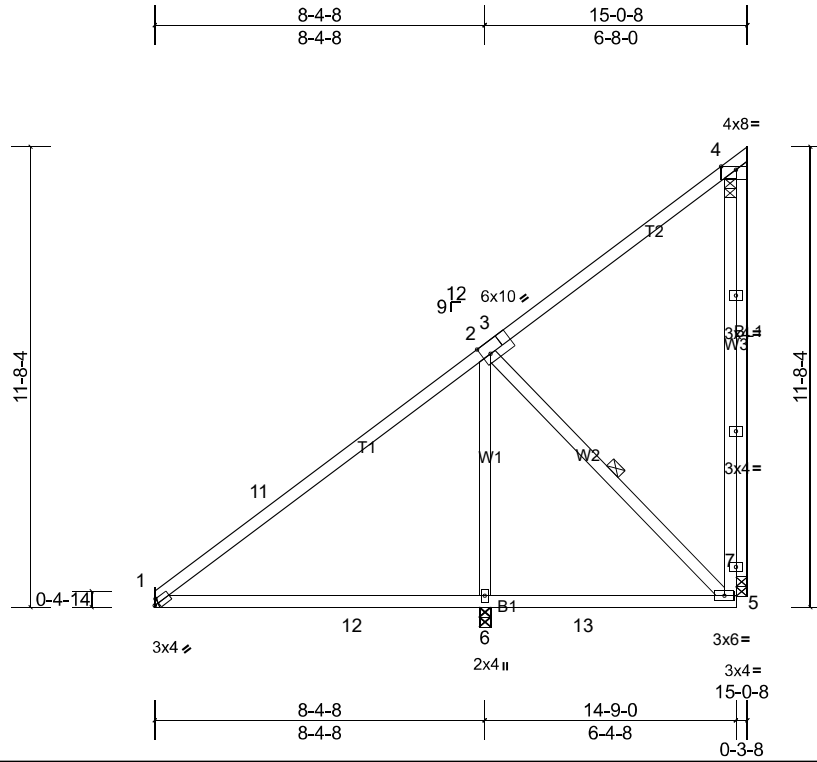
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J16	Jack-Closed	4	1	Job Reference (optional)

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ID:AjeiK73NjcZgXYRfWqJi83zgzyx-4dNQevpp3bAxk3XDtgZsBMBZ1IVDDlqbxIO7KjzgWEA

Scale = 1:58.5

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.72	Vert(LL)	0.14	6-10	>720	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.27	6-10	>379	180		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.16	Horz(CT)	-0.05	7	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 104 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   2-5

REACTIONS All bearings 0-3-8. except 1= Mechanical
(lb) - Max Horiz 1=512 (LC 10)
        Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6 except 4=-141 (LC 8),
                    7=-114 (LC 11)
        Max Grav All reactions 250 (lb) or less at joint(s) 4 except 1=453 (LC 17),
                  6=571 (LC 16), 7=262 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-11=-464/226, 2-11=-390/291, 2-3=-311/235, 3-4=-300/303, 5-7=-184/371
BOT CHORD   1-12=-355/496, 6-12=-355/496, 6-13=-355/496, 5-13=-355/496
WEBS   2-5=-448/287

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-0 to 3-0-0, Interior (1) 3-0-0 to 14-7-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
3) Refer to girder(s) for truss connections.
4) Bearing at joint(s) 7 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 capable of withstanding 100 lb uplift at joint(s) 1, 6 except (jt=lb) 4=140, 7=114.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
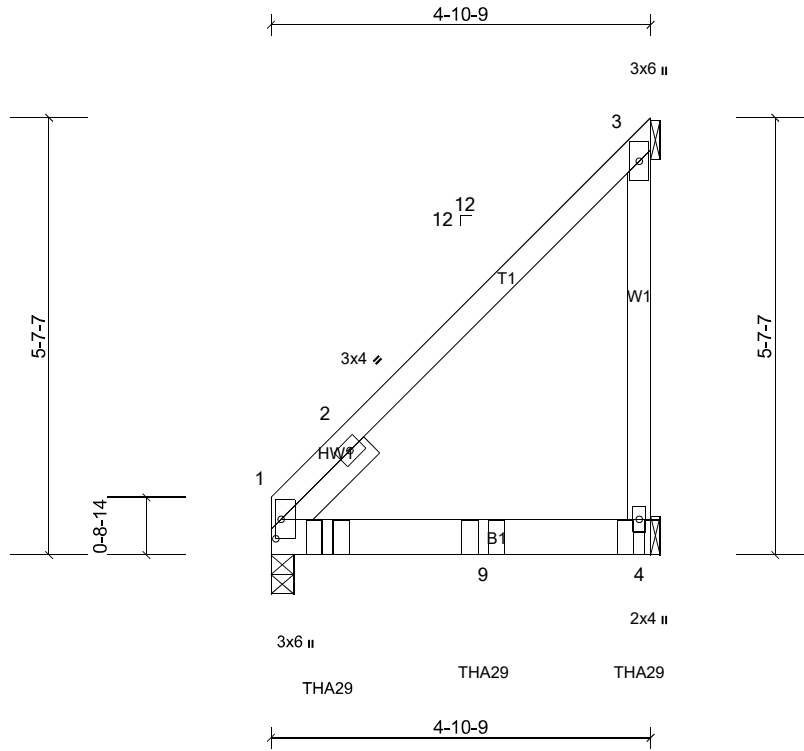
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J17	Jack-Closed Girder	1	**2**	Job Reference (optional)

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ID:xG7j?s9Oq3ZYUm2C_VSaTlzgzyp-YpxpsFqRqvIoMC5QQN45jaksHhwjyEbkAy8hsAzgWE9

Scale = 1:29.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.24	Vert(LL)	0.03	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.05	4-7	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.02	1	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 63 lb	FT = 20%

LUMBER
TOP CHORD   2x4 SP No.2
BOT CHORD   2x6 SP DSS
WEBS   2x4 SP No.2
SLIDER   Left 2x4 SP No.2 -- 1-6-0

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

REACTIONS (lb/size)   1=1454/0-3-8, (min. 0-1-8), 3=138/ Mechanical, (min. 0-1-8),
                         4=1605/ Mechanical, (min. 0-1-8)
         Max Horiz 1=176 (LC 7)
         Max Uplift 1=-179 (LC 8), 3=-118 (LC 7), 4=-321 (LC 7)
         Max Grav 1=1454 (LC 1), 3=160 (LC 23), 4=1605 (LC 1)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-709/430

NOTES
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
    Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
    Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
    Web connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 179 lb uplift at joint 1, 118 lb uplift at joint 3 and 321 lb uplift at joint 4.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
9) Use Simpson Strong-Tie THA29 (10-10d Girder, 4-10d Truss) or equivalent spaced at 2-0-1 oc max. starting at 0-8-12 from the left end to 4-8-13 to connect truss(es) B01 (1 ply 2x4 SP), B02 (1 ply 2x4 SP), B03 (1 ply 2x4 SP) to front face of bottom chord.
10) Fill all nail holes where hanger is in contact with lumber.

LOAD CASE(S)   Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
    Uniform Loads (lb/ft)
             Vert: 1-3=-60, 4-5=-20
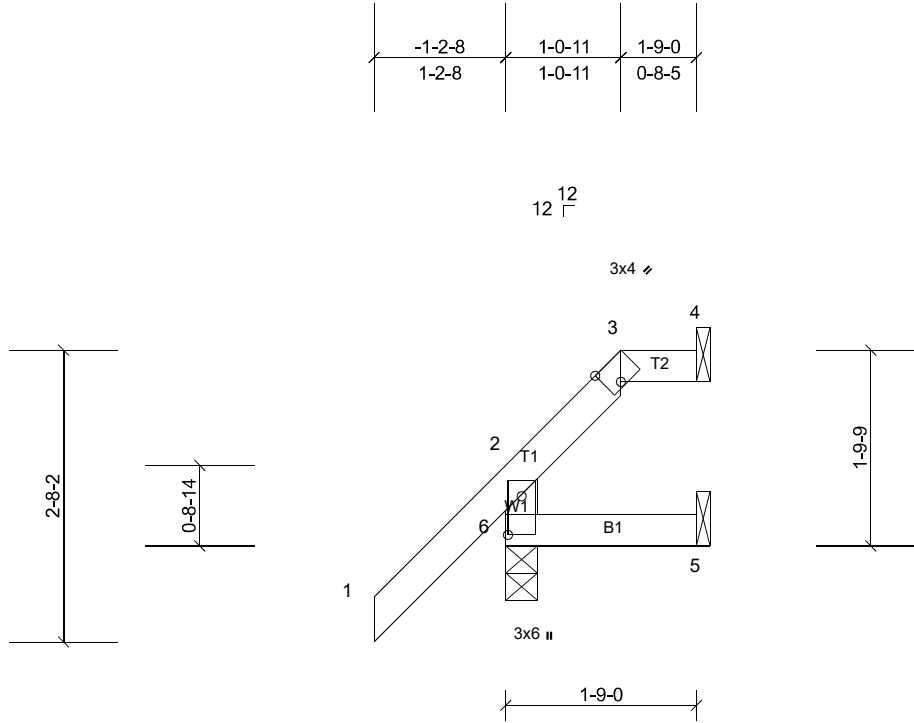   Concentrated Loads (lb)
             Vert: 4=-949, 7=-943, 9=-939

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J18	Jack-Open	2	1	Job Reference (optional)

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Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:23:00   Page: 1
ID:AjeiK73NjcZgXYRfWqJi83zgzyx-YpxpsFqRqvIoMC5QQN45jaksbh_5yEbkAy8hsAzgWE9

Scale = 1:21.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 9 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 1-9-0 oc purlins,
              except end verticals, and 2-0-0 oc purlins: 3-4.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   4=24/ Mechanical, (min. 0-1-8), 5=5/ Mechanical, (min. 0-1-8),
                             6=179/0-3-8, (min. 0-1-8)
              Max Horiz 6=132 (LC 11)
              Max Uplift 4=-27 (LC 8), 6=-81 (LC 11)
              Max Grav 4=29 (LC 21), 5=16 (LC 9), 6=179 (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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) -1-2-8 to 1-8-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 81 lb uplift at joint 6 and 27 lb uplift at joint 4.
7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
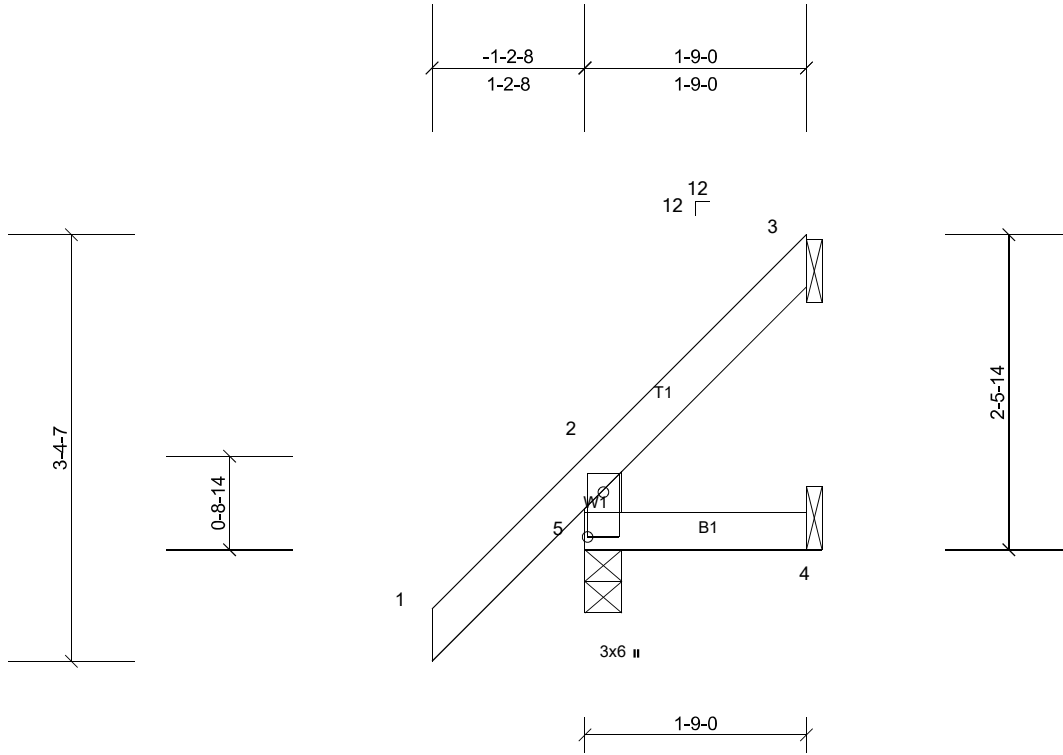
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J19	Jack-Open	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:23:00   Page: 1

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Scale = 1:18.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.22	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	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MR							Weight: 10 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 1-9-0 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS (lb/size)   3=24/ Mechanical, (min. 0-1-8), 4=5/ Mechanical, (min. 0-1-8),
5=179/0-3-8, (min. 0-1-8)
Max Horiz 5=156 (LC 11)
Max Uplift 3=-32 (LC 11), 4=-2 (LC 8), 5=-53 (LC 11)
Max Grav 3=39 (LC 16), 4=19 (LC 9), 5=179 (LC 1)

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

NOTES
1)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3)   Refer to girder(s) for truss to truss connections.
4)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 53 lb uplift at joint 5, 32 lb uplift at joint 3 and 2 lb uplift at joint 4.
5)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
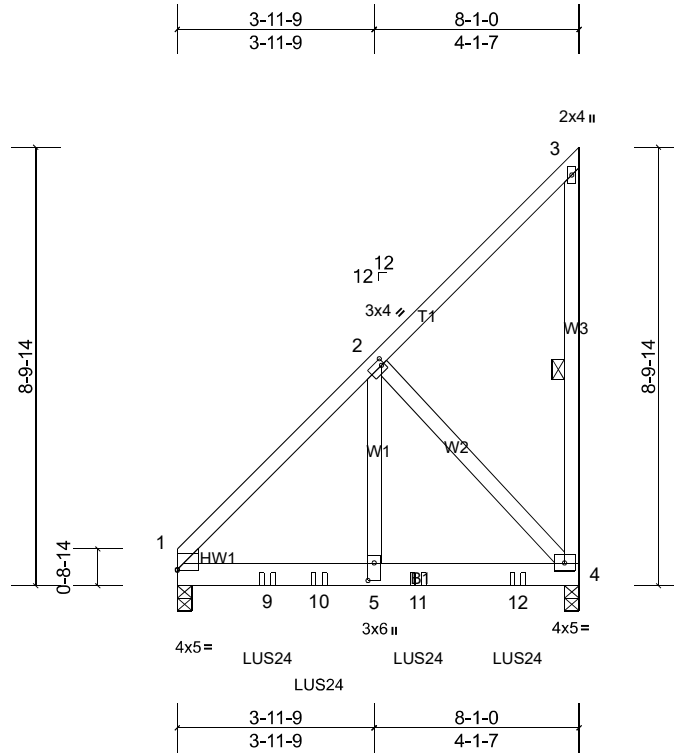
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	J20	Monopitch Girder	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356
Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:23:00   Page: 1
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Scale = 1:46.4

Plate Offsets (X, Y): [1:Edge,0-0-3], [2:0-0-12,0-1-8], [5:0-4-4,0-1-8]

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.68	Vert(LL)	-0.02	5-8	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.56	Vert(CT)	-0.03	5-8	>999	180		
BCLL	0.0*	Rep Stress Incr	NO	WB	0.59	Horz(CT)	0.01	4	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 63 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied or 5-6-14 oc purlins, except end verticals.
BOT CHORD   Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS   1 Row at midpt   3-4

REACTIONS (lb/size)   1=1059/0-3-8, (min. 0-1-8), 4=1107/0-3-8, (min. 0-1-8)
              Max Horiz 1=379 (LC 6)
              Max Uplift 1=-160 (LC 8), 4=-352 (LC 4)
              Max Grav   1=1143 (LC 25), 4=1216 (LC 24)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-1119/191, 2-3=-258/133
BOT CHORD   1-9=-432/746, 9-10=-252/746, 5-10=-252/746, 5-11=-252/746, 11-12=-252/746, 4-12=-252/746
WEBS   2-5=-159/1130, 2-4=-1051/317

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
2) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
3) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 160 lb uplift at joint 1 and 352 lb uplift at joint 4.
4) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
5) Use Simpson Strong-Tie LUS24 (4-10d Girder, 2-10d Truss, Single Ply Girder) or equivalent spaced at 2-0-0 oc max. starting at 1-9-12 from the left end to 6-10-4 to connect truss(es) J16 (1 ply 2x4 SP) to front face of bottom chord.
6) Fill all nail holes where hanger is in contact with lumber.
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 + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
    Uniform Loads (lb/ft)
            Vert: 1-3=-60, 4-6=-20
    Concentrated Loads (lb)
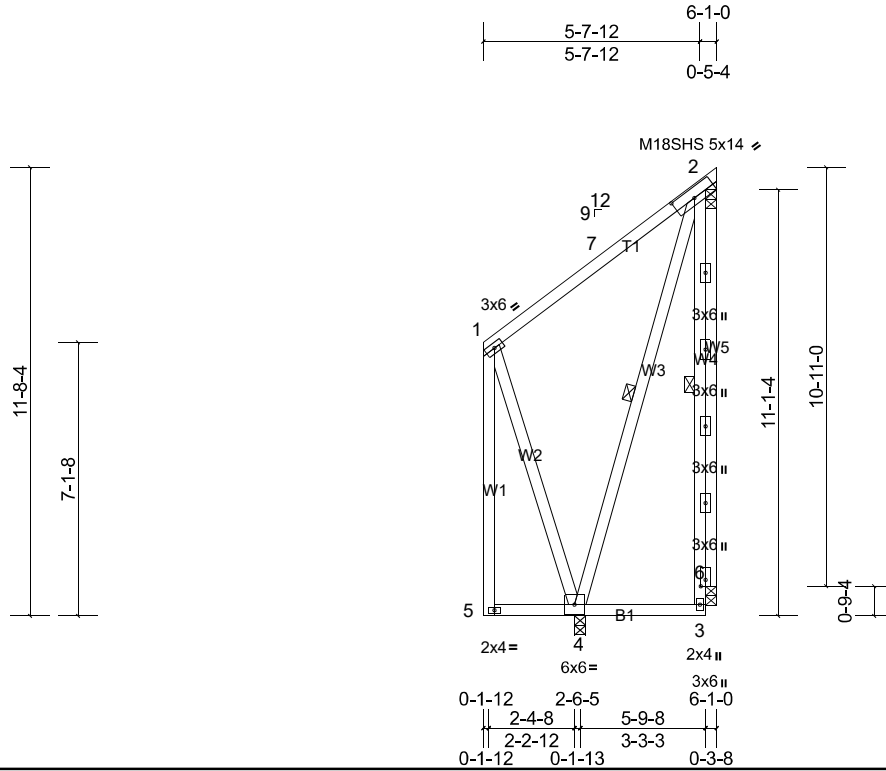   Vert: 9=-383 (F), 10=-383 (F), 11=-383 (F), 12=-383 (F)

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Q2000187	M01	Monopitch	4	1	

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ID:AjeiK73NjcZgXYRfWqJi83zgzyx-YpxpsFqRqvIoMC5QQN45jakkShz?y0wkAy8hsAzgWE9

Scale = 1:60

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.74	Vert(LL)	0.00	3-4	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	-0.01	3-4	>999	180	M18SHS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.94	Horz(CT)	0.08	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 89 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   2-3, 2-4

REACTIONS (lb/size)   2=7/0-3-8, (min. 0-1-8), 4=383/0-3-8, (min. 0-1-8), 6=59/0-3-8,
                           (min. 0-1-8)
           Max Horiz 4=495 (LC 8)
           Max Uplift 2=-900 (LC 8), 4=-470 (LC 7)
           Max Grav 2=648 (LC 9), 4=978 (LC 10), 6=91 (LC 11)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
BOT CHORD   3-4=-225/251
WEBS   1-4=-315/322, 2-4=-1617/1583

NOTES
1) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 9-1-4 to 12-1-4, Interior (1) 12-1-4 to 14-9-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) All plates are MT20 plates unless otherwise indicated.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
4) 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.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 470 lb uplift at joint 4 and 900 lb uplift at joint 2.
6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
8) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
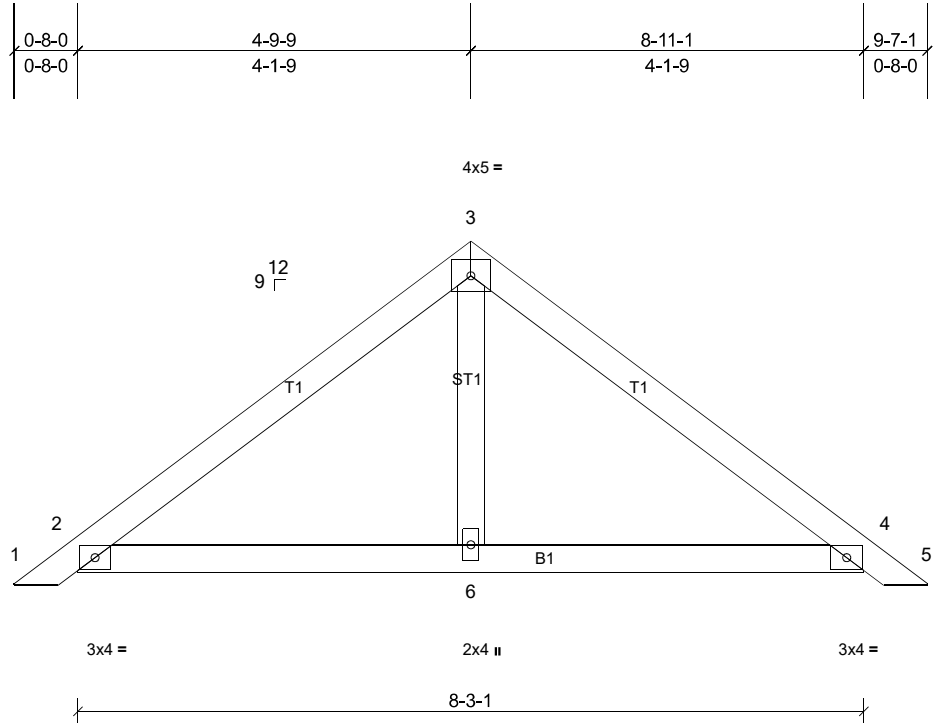
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Q2000187	PB01	Piggyback	2	1	

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Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.02	Horz(CT)	0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 34 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 8-3-1.
　　　(lb) - Max Horiz 2=93 (LC 10), 7=93 (LC 10)
　　　　　　Max Uplift All uplift 100 (lb) or less at joint(s) 2, 4, 7, 11
　　　　　　Max Grav All reactions 250 (lb) or less at joint(s) 2, 4, 7, 11 except 6=253
　　　　　　　　　(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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-3-1 to 3-3-1, Exterior (2) 3-3-1 to 4-9-14, Corner (3) 4-9-14 to 7-9-14, Exterior (2) 7-9-14 to 9-4-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4)   Gable requires continuous bottom chord bearing.
5)   Gable studs spaced at 4-0-0 oc.
6)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
7)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4, 2, 4.
8)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
10)   See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
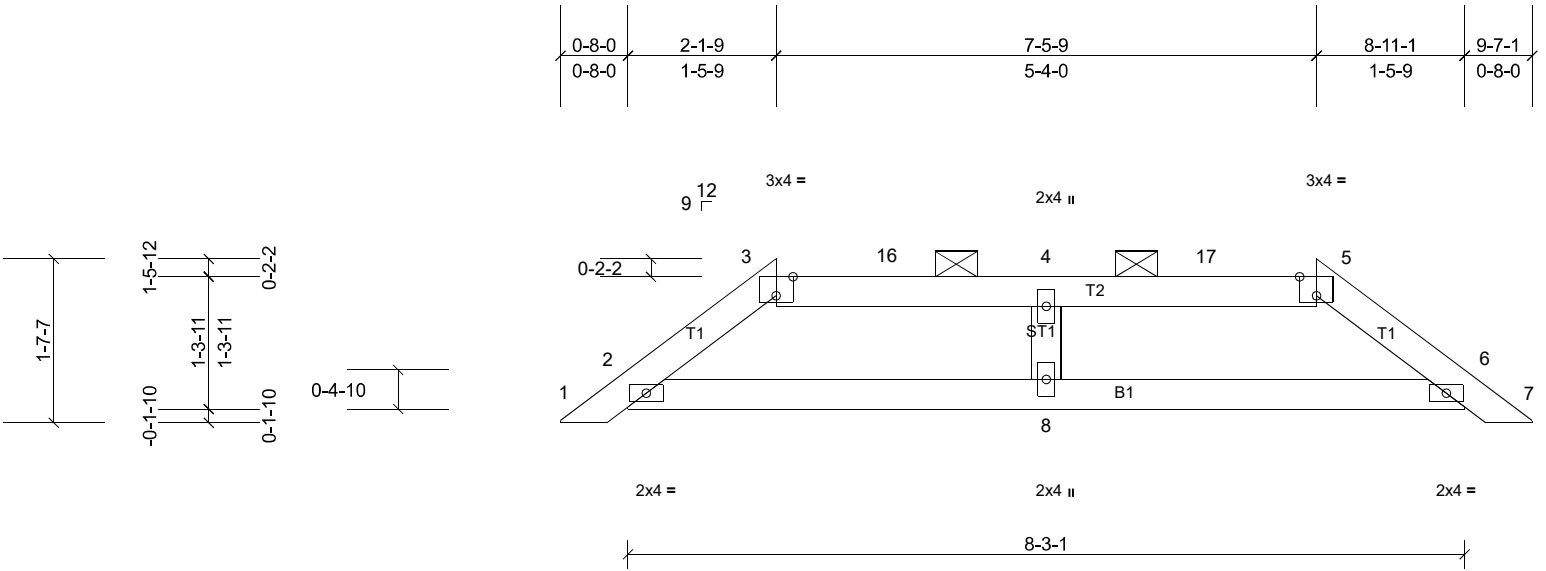
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	PB02	Piggyback	2	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356
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Scale = 1:22.7

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.10	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 29 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except
2-0-0 oc purlins (6-0-0 max.): 3-5.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 8-3-1.
(lb) - Max Horiz 2=-36 (LC 9), 9=-36 (LC 9)
Max Uplift All uplift 100 (lb) or less at joint(s) 2, 6, 8, 9, 13
Max Grav All reactions 250 (lb) or less at joint(s) 2, 6, 9, 13 except 8=300
(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=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-3-1 to 6-4-13, Interior (1) 6-4-13 to 7-5-14, Exterior (2) 7-5-14 to 9-4-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4)   Provide adequate drainage to prevent water ponding.
5)   Gable requires continuous bottom chord bearing.
6)   Gable studs spaced at 4-0-0 oc.
7)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members.
8)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 8, 2, 6.
9)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
11) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
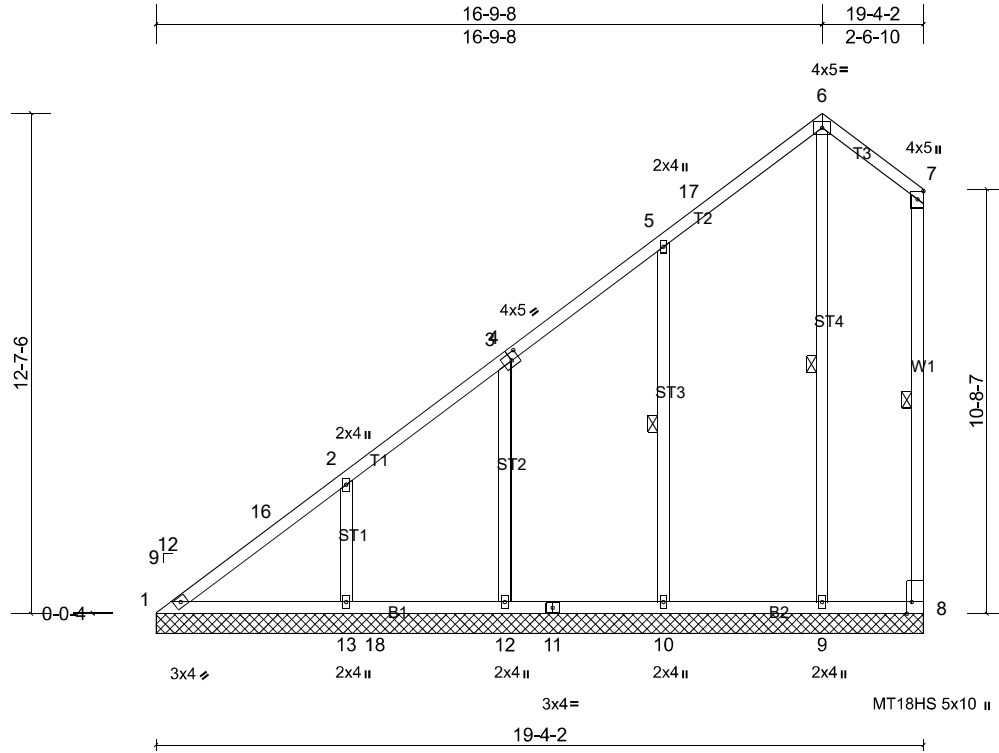
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	V01	Valley	1	1	Job Reference (optional)

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Scale = 1:58.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.85	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.55	Vert(TL)	n/a	-	n/a	999	MT18HS	244/190
BCLL	0.0*	Rep Stress Incr	YES	WB	0.33	Horiz(TL)	0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 124 lb FT = 20%	

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   7-8, 6-9, 5-10

REACTIONS All bearings 19-4-2.
(lb) - Max Horiz 1=538 (LC 10)
        Max Uplift All uplift 100 (lb) or less at joint(s) 1, 12 except 8=-136 (LC 11),
                    10=-144 (LC 11), 13=-162 (LC 11)
        Max Grav All reactions 250 (lb) or less at joint(s) 8 except 1=302 (LC 10),
                    9=429 (LC 16), 10=499 (LC 16), 12=440 (LC 16), 13=474 (LC
                    16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-16=-627/646, 2-16=-612/675, 2-3=-470/497, 3-4=-346/308, 4-5=-345/356, 5-17=-317/322, 6-17=-289/348,
             6-7=-377/417, 7-8=-347/360
BOT CHORD   1-13=-250/396
WEBS   6-9=-485/358, 5-10=-361/226, 3-12=-316/197, 2-13=-378/227

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 16-9-14, Exterior (2) 16-9-14 to 19-2-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are MT20 plates unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 4-0-0 oc.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 12 except (jt=lb) 8=136, 10=143, 13=161.
9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
10) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
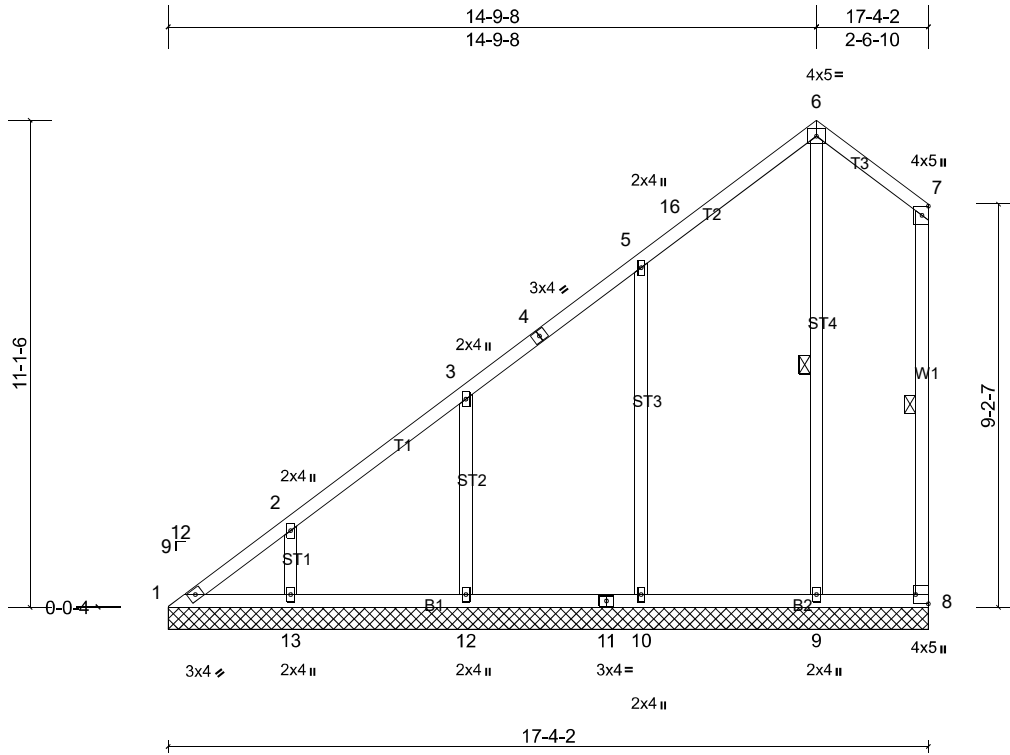
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	V02	Valley	1	1	Job Reference (optional)

Scale = 1:52.6

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.63	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.37	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 107 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   7-8, 6-9

REACTIONS All bearings 17-4-2.
    (lb) - Max Horiz 1=469 (LC 10)
          Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=-123 (LC 11),
                      9=-116 (LC 10), 10=-143 (LC 11), 12=-152 (LC 11), 13=-107
                      (LC 11)
          Max Grav   All reactions 250 (lb) or less at joint(s) 1, 8 except 9=421 (LC
                      16), 10=499 (LC 16), 12=409 (LC 16), 13=308 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-568/606, 2-3=-455/484, 3-4=-316/285, 4-5=-295/328, 5-16=-281/283, 6-16=-254/309, 6-7=-325/359, 7-8=-296/302
BOT CHORD   1-13=-197/268
WEBS   6-9=-432/313, 5-10=-353/225, 3-12=-339/208, 2-13=-286/183

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-5 to 2-9-14, Interior (1) 2-9-14 to 14-9-14, Exterior (2) 14-9-14 to 17-2-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=123, 9=115, 10=143, 12=152, 13=107.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
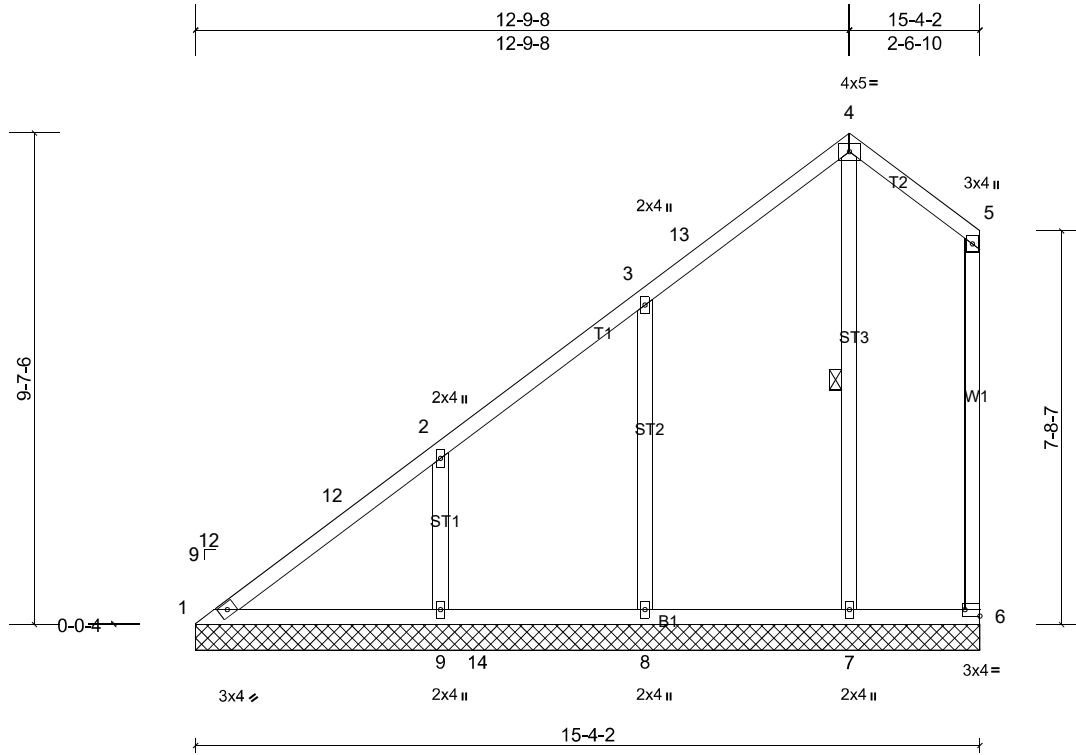
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	V03	Valley	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:23:02   Page: 1
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Scale = 1:45.1

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.28	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.23	Horiz(TL)	0.01	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 89 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   4-7

REACTIONS All bearings 15-4-2.
     (lb) - Max Horiz 1=399 (LC 10)
            Max Uplift All uplift 100 (lb) or less at joint(s) 1, 7 except 6=-109 (LC 11),
                 8=-140 (LC 11), 9=-169 (LC 11)
            Max Grav All reactions 250 (lb) or less at joint(s) 6 except 1=253 (LC 17),
                 7=423 (LC 16), 8=471 (LC 16), 9=469 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-12=-442/449, 2-12=-426/478, 2-3=-287/299, 4-13=-223/269, 4-5=-274/305, 5-6=-248/251
BOT CHORD   1-9=-210/347
WEBS   4-7=-386/272, 3-8=-342/230, 2-9=-379/232

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 12-9-13, Exterior (2) 12-9-13 to 15-2-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4)   Gable requires continuous bottom chord bearing.
5)   Gable studs spaced at 4-0-0 oc.
6)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 6=109, 8=140, 9=168.
8)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
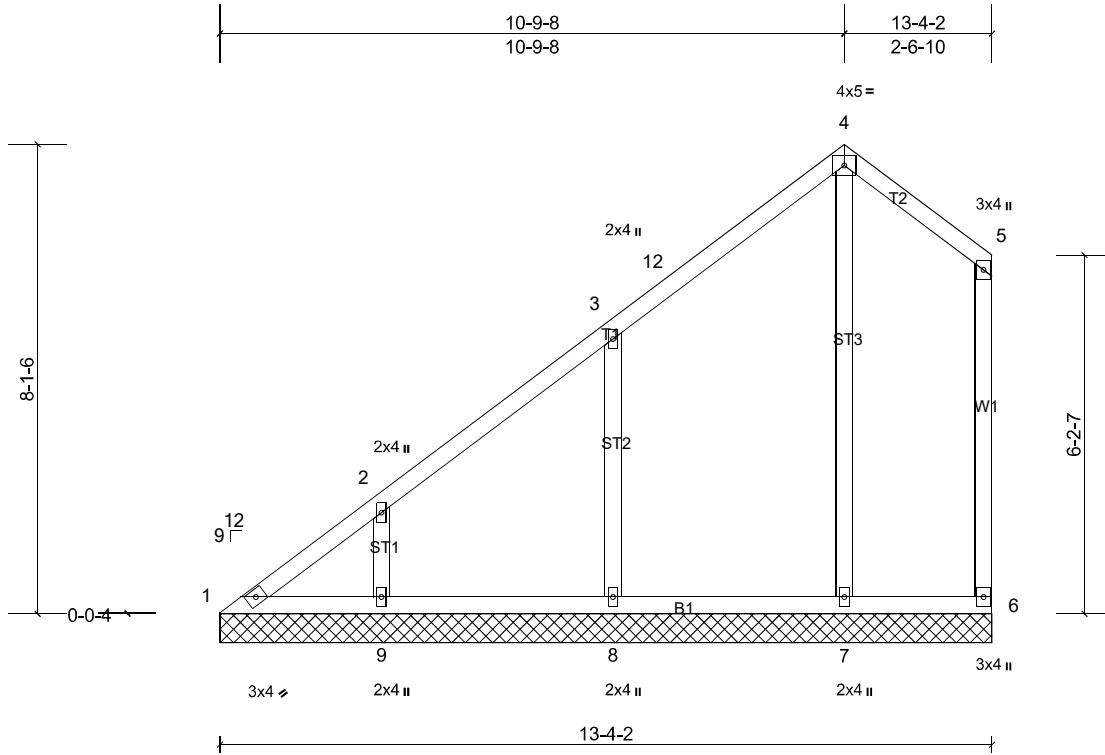
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	V04	Valley	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:23:02   Page: 1
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Scale = 1:39.8

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.30	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.18	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.35	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 73 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 13-4-2.
   (lb) - Max Horiz 1=329 (LC 10)
          Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6, 7 except 8=-156 (LC 11), 9=-116 (LC 11)
          Max Grav All reactions 250 (lb) or less at joint(s) 1, 6 except 7=415 (LC 16), 8=439 (LC 16), 9=302 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-386/410, 2-3=-269/285, 4-5=-228/253
WEBS   4-7=-329/229, 3-8=-369/250, 2-9=-287/192

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-5 to 2-9-13, Interior (1) 2-9-13 to 10-9-13, Exterior (2) 10-9-13 to 13-2-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 1, 7 except (jt=lb) 8=155, 9=115.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
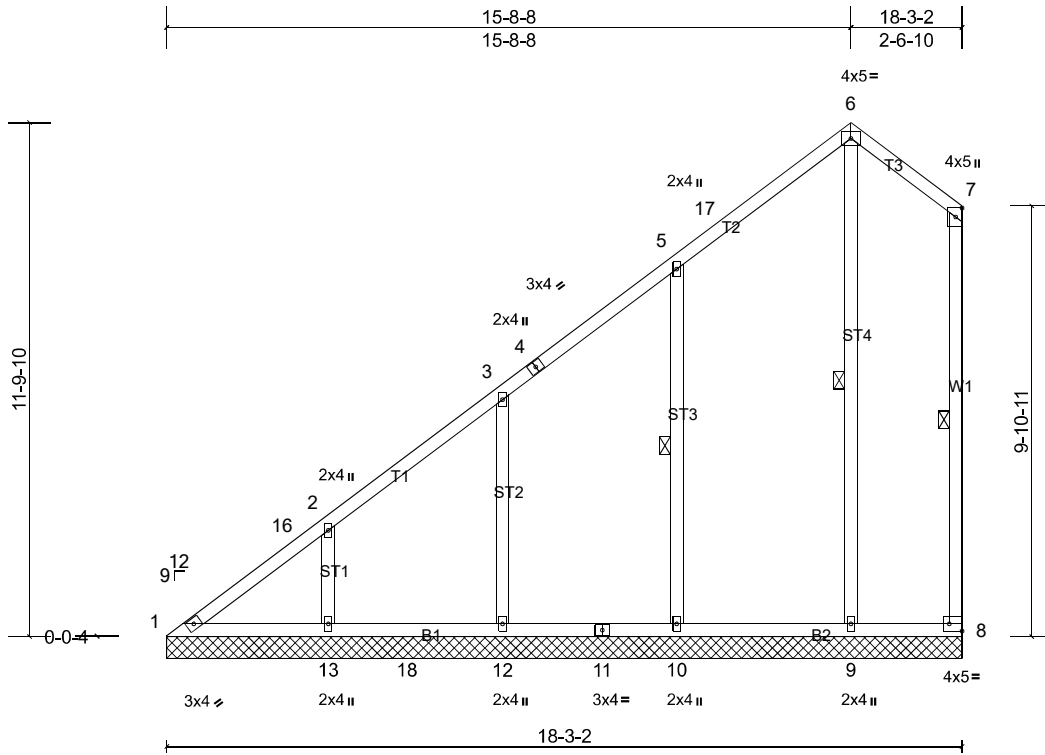
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	Job Reference (optional)
Q2000187	V05	Valley	1	1	

Carolina Structural Systems, Star, NC 27356

Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:23:02   Page: 1
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Scale = 1:52.9

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

Loading	(psf)	Spacing		CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.73	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.47	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.27	Horiz(TL)	-0.01	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 115 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   7-8, 6-9, 5-10

REACTIONS All bearings 18-3-2.
    (lb) - Max Horiz 1=501 (LC 10)
          Max Uplift All uplift 100 (lb) or less at joint(s) 1 except 8=-129 (LC 11),
                      9=-130 (LC 10), 10=-143 (LC 11), 12=-149 (LC 11), 13=-131
                      (LC 11)
          Max Grav All reactions 250 (lb) or less at joint(s) 8 except 1=273 (LC 10),
                      9=425 (LC 16), 10=495 (LC 16), 12=451 (LC 16), 13=380 (LC
                      16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-16=-594/613, 2-16=-575/635, 2-3=-463/491, 3-4=-330/297, 4-5=-320/340, 5-17=-297/301, 6-17=-270/327,
             6-7=-349/385, 7-8=-319/328
BOT CHORD   1-13=-222/329
WEBS   6-9=-456/334, 5-10=-356/225, 3-12=-332/204, 2-13=-322/200

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
      and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 15-8-14, Exterior (2) 15-8-14 to 18-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C
      for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult
      qualified building designer as per ANSI/TPI 1.
4)   Gable requires continuous bottom chord bearing.
5)   Gable studs spaced at 4-0-0 oc.
6)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
      any other members, with BCDL = 10.0psf.
7)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=129, 9=129, 10=143, 12=148, 13=130.
8)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom
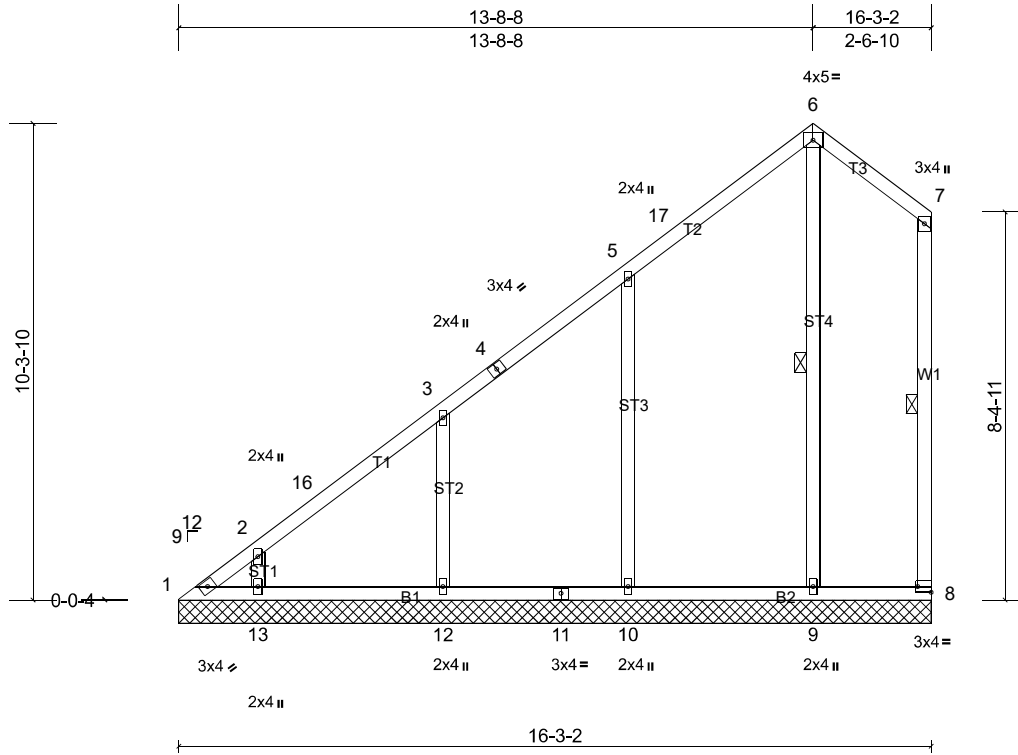   chord.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	V06	Valley	1	1	Job Reference (optional)

Scale = 1:49.8

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

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.53	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.34	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.30	Horiz(TL)	0.00	8	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 97 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   7-8, 6-9

REACTIONS All bearings 16-3-2.
     (lb) - Max Horiz   1=431 (LC 10)
            Max Uplift   All uplift 100 (lb) or less at joint(s) 13 except 1=-122 (LC 9),
                   8=-116 (LC 11), 9=-101 (LC 8), 10=-145 (LC 11), 12=-153 (LC 11)
            Max Grav   All reactions 250 (lb) or less at joint(s) 1, 8 except 9=417 (LC 16), 10=431 (LC 18), 12=414 (LC 16), 13=269 (LC 20)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-555/590, 2-16=-446/440, 3-16=-433/472, 3-4=-299/272, 4-5=-266/315, 5-17=-262/262, 6-17=-235/287, 6-7=-298/330, 7-8=-271/274
WEBS   6-9=-404/290, 5-10=-353/229, 3-12=-341/213, 2-13=-282/205

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 13-8-14, Exterior (2) 13-8-14 to 16-1-11 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13 except (jt=lb) 1=122, 8=116, 9=101, 10=144, 12=152.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.
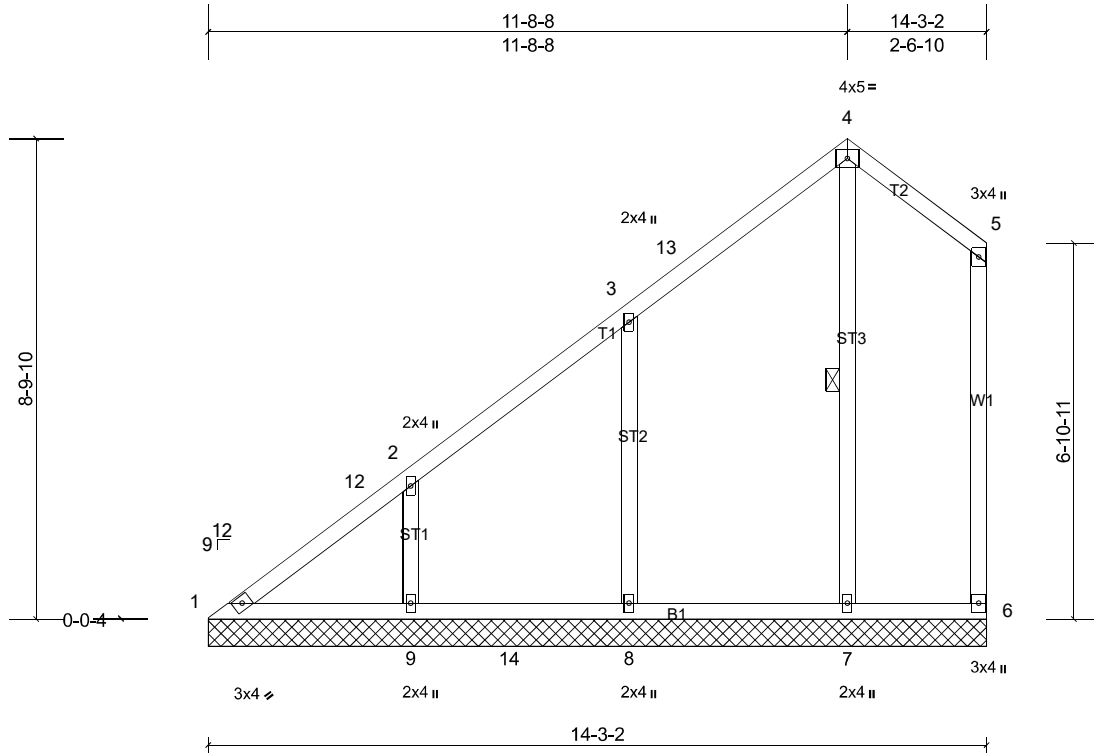
LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	V07	Valley	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356

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Scale = 1:42.2

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.36	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.23	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.18	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 80 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.
WEBS   1 Row at midpt   4-7

REACTIONS All bearings 14-3-2.
    (lb) - Max Horiz 1=361 (LC 10)
         Max Uplift All uplift 100 (lb) or less at joint(s) 1, 7 except 6=-103 (LC 11),
                     8=-150 (LC 11), 9=-138 (LC 11)
         Max Grav   All reactions 250 (lb) or less at joint(s) 1, 6 except 7=415 (LC
                    16), 8=482 (LC 16), 9=374 (LC 16)

FORCES   (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-12=-410/416, 2-12=-392/439, 2-3=-276/293, 4-5=-249/277
BOT CHORD   1-9=-180/279
WEBS   4-7=-354/248, 3-8=-360/243, 2-9=-323/207

NOTES
1)   Unbalanced roof live loads have been considered for this design.
2)   Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional)
     and C-C Exterior (2) 0-0-5 to 3-0-5, Interior (1) 3-0-5 to 11-8-14, Exterior (2) 11-8-14 to 14-1-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C
     for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3)   Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult
     qualified building designer as per ANSI/TPI 1.
4)   Gable requires continuous bottom chord bearing.
5)   Gable studs spaced at 4-0-0 oc.
6)   * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and
     any other members, with BCDL = 10.0psf.
7)   Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7 except (jt=lb) 6=102, 8=150, 9=138.
8)   This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9)   This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom
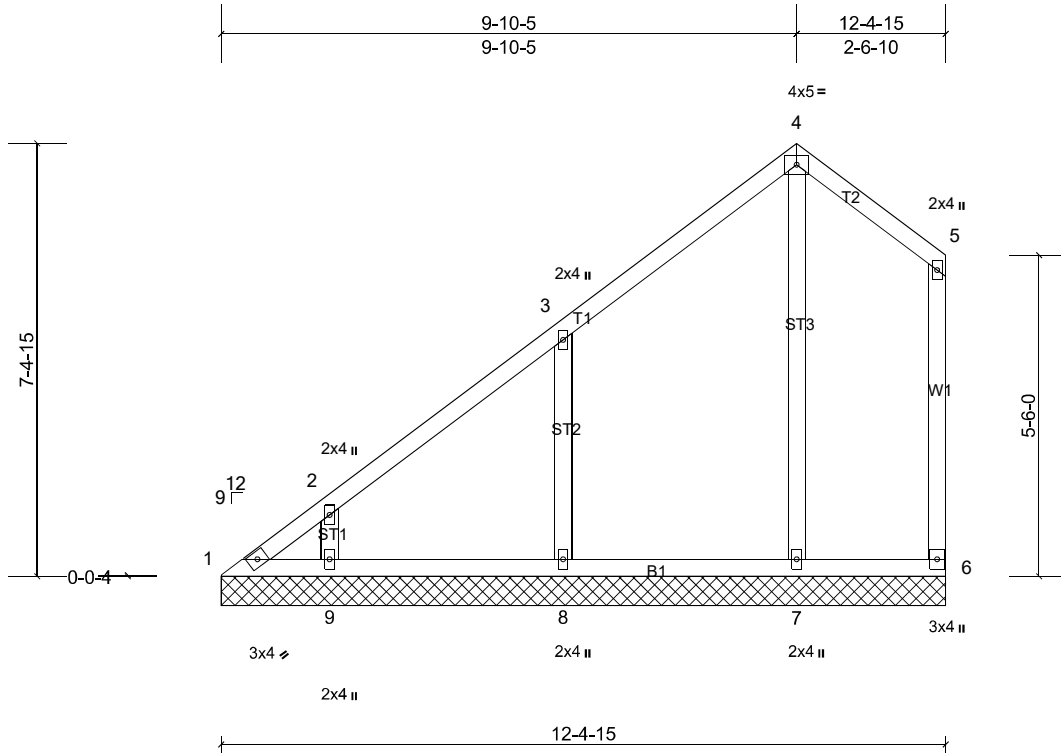   chord.

LOAD CASE(S)   Standard

Job	Truss	Truss Type	Qty	Ply	
Q2000187	V08	Valley	1	1	Job Reference (optional)

Carolina Structural Systems, Star, NC 27356   Run: 8.32 S Jan 21 2020 Print: 8.320 S Jan 21 2020 MiTek Industries, Inc. Fri Feb 28 20:23:03   Page: 1
ID:A?A7uxG2iqiG49Ew0u6hKezgzyg-zOdxUGsK6qhNDgq?6VeoLCML1vzw9XpBswMLTUzgWE6

Scale = 1:39.5

Loading	(psf)	Spacing	2-0-0	CSI		DEFL	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL (roof)	20.0	Plate Grip DOL	1.00	TC	0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.16	Vert(TL)	n/a	-	n/a	999		
BCLL	0.0*	Rep Stress Incr	YES	WB	0.29	Horiz(TL)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-AS							Weight: 66 lb	FT = 20%

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

BRACING
TOP CHORD   Structural wood sheathing directly applied, except end verticals.
BOT CHORD   Rigid ceiling directly applied.

REACTIONS All bearings 12-4-15.
    (lb) - Max Horiz 1=296 (LC 10)
        Max Uplift All uplift 100 (lb) or less at joint(s) 1, 6, 7, 9 except 8=-158 (LC 11)
        Max Grav All reactions 250 (lb) or less at joint(s) 1, 6 except 7=410 (LC 16), 8=445 (LC 16), 9=264 (LC 1)

FORCES (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD   1-2=-421/415, 2-3=-282/297, 4-5=-207/253
WEBS   4-7=-339/209, 3-8=-372/296, 2-9=-277/221

NOTES
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=150mph (3-second gust) Vasd=119mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner (3) 0-0-5 to 3-0-5, Exterior (2) 3-0-5 to 9-10-10, Corner (3) 9-10-10 to 12-3-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 4-0-0 oc.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-06-00 tall by 2-00-00 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 6, 1, 7, 9 except (jt=lb) 8=157.
8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
9) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

LOAD CASE(S)   Standard