ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 20705A
140.1582.B

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by 84 Components - #2383.

Pages or sheets covered by this seal: I36979461 thru I36979480

My license renewal date for the state of North Carolina is December 31, 2019.

North Carolina COA: C-0844

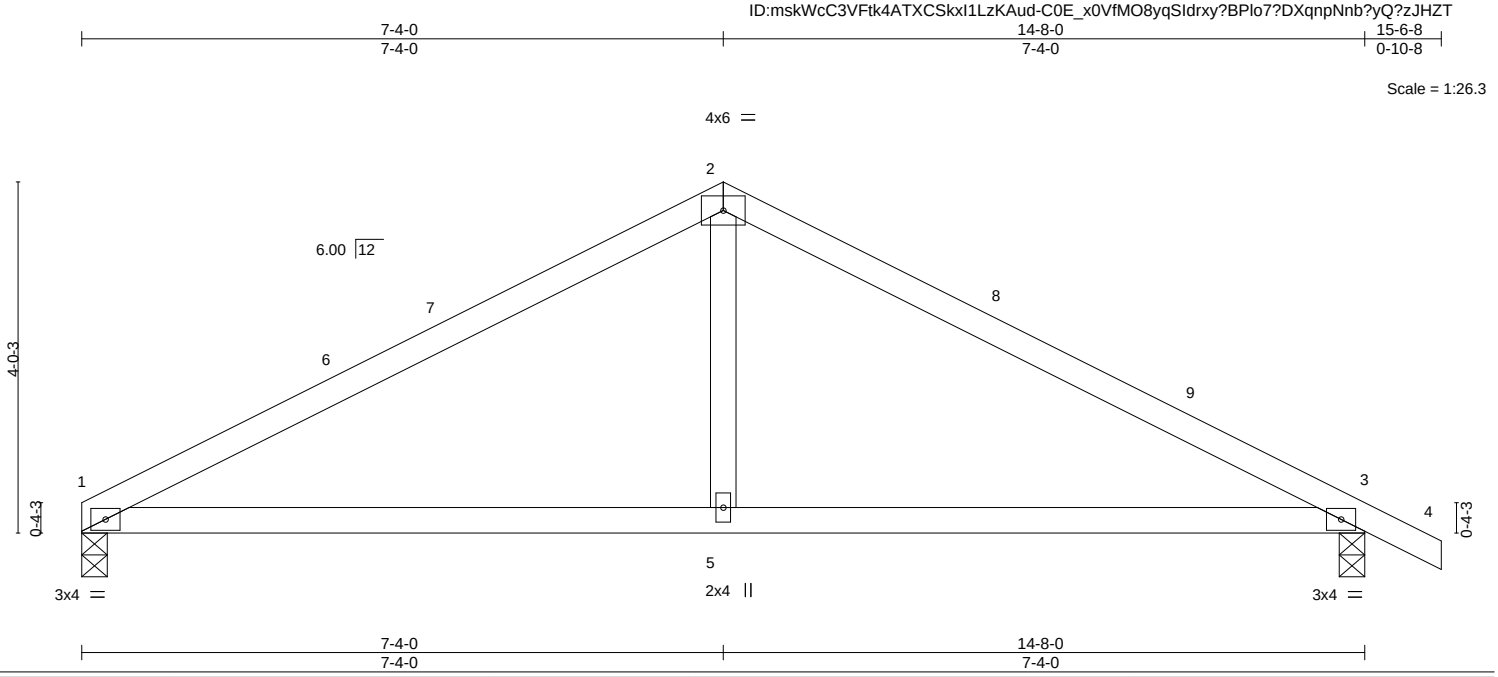
May 6,2019

Sevier, Scott

IMPORTANT NOTE: Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	A1	Common	4	1	I36979461
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:48 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-C0E_x0VfMO8yqSIdrxy?BPlo7?DXqnpNnb?yQ?zJHZT



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.07	1-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.59	Vert(CT)	-0.15	1-5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.13	Horz(CT)	0.02	3	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 53 lb	FT = 20%

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

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

REACTIONS. (lb/size) 1=573/0-3-8, 3=638/0-3-8
Max Horz 1=-75(LC 13)
Max Uplift 1=-67(LC 12), 3=-90(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-820/141, 2-3=-823/132
BOT CHORD 1-5=-25/648, 3-5=-25/648
WEBS 2-5=0/352

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 7-4-0, Exterior(2) 7-4-0 to 10-4-0, Interior(1) 10-4-0 to 15-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 3. This connection is for uplift only and does not consider lateral forces.

May 6,2019

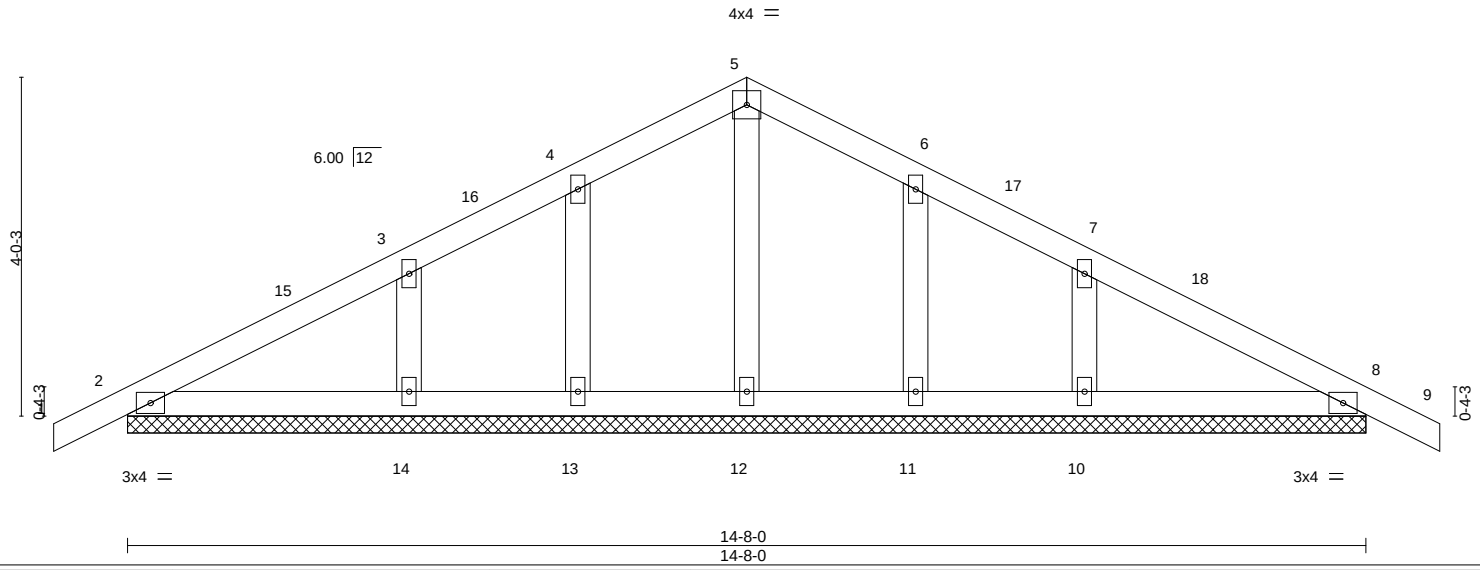
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	AE	Common Supported Gable	1	1	I36979462
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:49 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-gCoM8MWH7iHpRctpPeTFjcI9?OhpZGRW0FkWzRzJHZS

-0-10-8 0-10-8 | 7-4-0 7-4-0 | 14-8-0 7-4-0 | 15-6-8 0-10-8

Scale = 1:27.3



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.12	Vert(LL)	0.00	9	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.08	Vert(CT)	0.01	9	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 66 lb	FT = 20%

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

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

REACTIONS. All bearings 14-8-0.
(lb) - Max Horz 2=-69(LC 17)
Max Uplift All uplift 100 lb or less at joint(s) 2, 8, 13, 14, 11, 10
Max Grav All reactions 250 lb or less at joint(s) 2, 8, 12, 13, 11 except 14=257(LC 1), 10=257(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 7-4-0, Corner(3) 7-4-0 to 10-4-0, Exterior(2) 10-4-0 to 15-6-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 8, 13, 14, 11, 10.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.

May 6,2019

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

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	H3	Hip	1	1	I36979463
					Job Reference (optional)

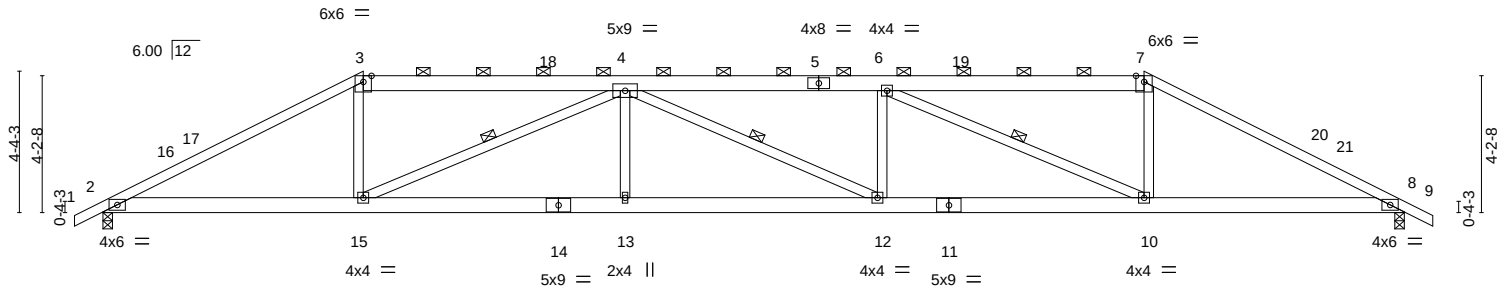
84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:52 2019 Page 1

ID:mskWcC3VFtk4ATXCSkxI1LzKAud-4nTUmOYAPdfOJ3bO4n1yLFwXBcY9mSlyiDzAZmzJHZP

-0-10-8 8-0-0 16-0-9 23-11-7 32-0-0 40-0-0 40-10-8

0-10-8 8-0-0 8-0-9 7-10-13 8-0-9 8-0-0 0-10-8

Scale = 1:70.8



8-0-0 16-0-9 23-11-7 32-0-0 40-0-0

8-0-0 8-0-9 7-10-13 8-0-9 8-0-0

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.69	Vert(LL)	-0.28	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.81	Vert(CT)	-0.57	12-13	>841	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.15	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 238 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP DSS *Except* 3-5,5-7: 2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins, except 2-0-0 oc purlins (3-4-6 max.): 3-7.
BOT CHORD	Rigid ceiling directly applied or 9-8-11 oc bracing.
WEBS	1 Row at midpt 4-15, 4-12, 6-10

REACTIONS. (lb/size) 2=1650/0-3-8, 8=1650/0-3-8
Max Horz 2=72(LC 12)
Max Uplift 2=-167(LC 9), 8=-167(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3095/451, 3-4=-2654/462, 4-6=-4114/630, 6-7=-2653/463, 7-8=-3095/451
BOT CHORD 2-15=-317/2684, 13-15=-574/4113, 12-13=-574/4113, 10-12=-553/4114, 8-10=-301/2684
WEBS 3-15=-44/907, 4-15=-1722/358, 4-13=0/311, 6-12=0/311, 6-10=-1723/357, 7-10=-44/907

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 8-0-0, Exterior(2) 8-0-0 to 13-7-14, Interior(1) 13-7-14 to 32-0-0, Exterior(2) 32-0-0 to 37-7-14, Interior(1) 37-7-14 to 40-10-8 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

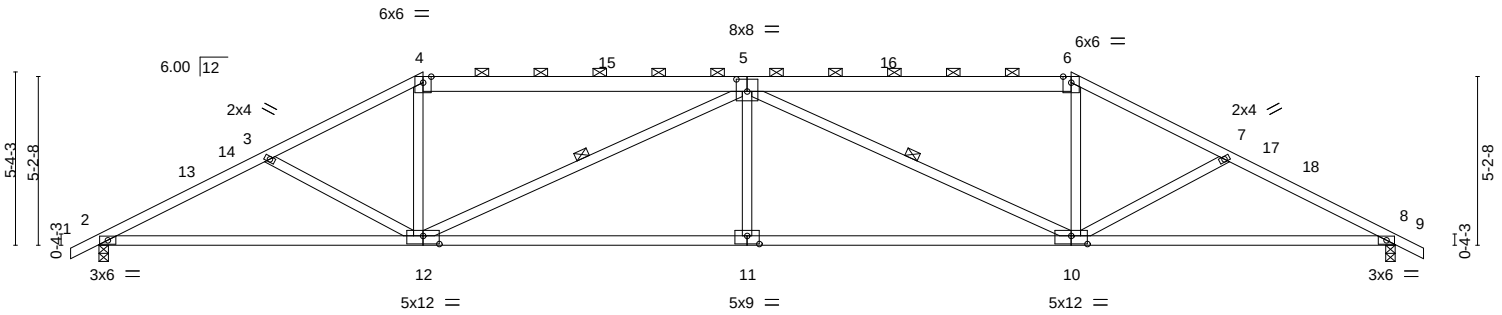
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	H4	Hip	1	1	I36979464
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:53 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-Yz1t_kZoAwnFwDAaeUYBuSSju0sXVvE6xsij6CzJHZO

-0-10-8	5-3-4	10-0-0	16-8-0	20-0-0	23-4-0	30-0-0	34-8-12	40-0-0	40-10-8
0-10-8	5-3-4	4-8-12	6-8-0	3-4-0	3-4-0	6-8-0	4-8-12	5-3-4	0-10-8

Scale = 1:71.1



10-0-0	20-0-0	30-0-0	40-0-0
10-0-0	10-0-0	10-0-0	10-0-0

Plate Offsets (X,Y)-- [5:0-4-0,0-4-8], [10:0-6-0,0-3-0], [11:0-4-8,0-3-0], [12:0-6-0,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.63	Vert(LL)	-0.25	11	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.92	Vert(CT)	-0.54	10-11	>875	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.76	Horz(CT)	0.17	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 211 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 4-5,5-6: 2x6 SP No.2
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-8-9 oc purlins, except 2-0-0 oc purlins (3-9-1 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-12, 5-10

REACTIONS. (lb/size) 2=1650/0-3-8, 8=1650/0-3-8
Max Horz 2=89(LC 12)
Max Uplift 2=-131(LC 9), 8=-131(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3026/512, 3-4=-2771/434, 4-5=-2446/428, 5-6=-2446/428, 6-7=-2771/434, 7-8=-3026/512
BOT CHORD 2-12=-391/2643, 11-12=-404/3410, 10-11=-404/3410, 8-10=-393/2643
WEBS 4-12=-25/794, 5-12=-1187/281, 5-11=0/383, 5-10=-1187/280, 6-10=-25/794

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 10-0-0, Exterior(2) 10-0-0 to 15-7-14, Interior(1) 15-7-14 to 30-0-0, Exterior(2) 30-0-0 to 35-7-14, Interior(1) 35-7-14 to 40-10-8 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

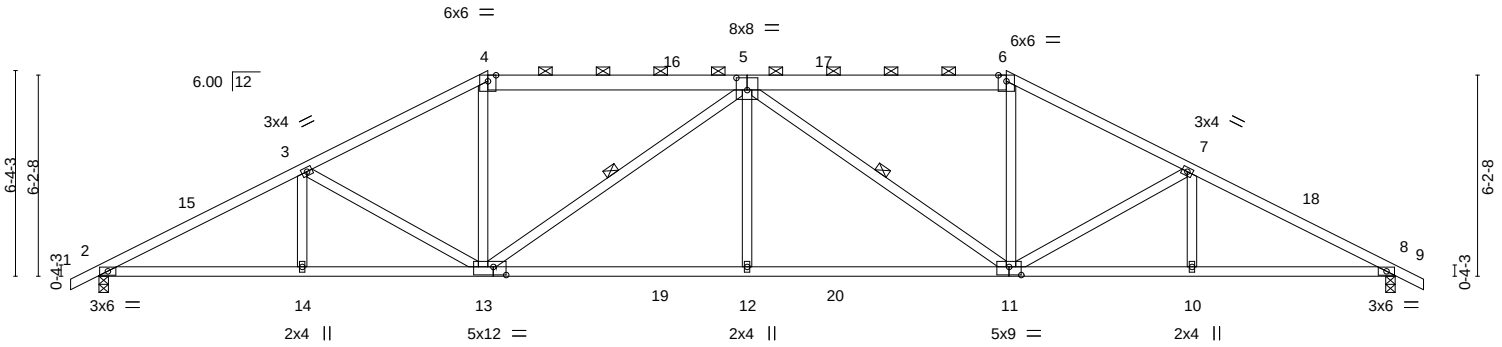
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	H5	Hip	1	1	I36979465
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:54 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxl1LzKAud-09bFB4ZQxEv6YNlnBC3QQg?tvPAmERwFAWSHefzJHZN

-0-10-8	6-3-4	12-0-0	20-0-0	28-0-0	33-8-12	40-0-0	40-10-8
0-10-8	6-3-4	5-8-12	8-0-0	8-0-0	5-8-12	6-3-4	0-10-8

Scale = 1:71.1



6-3-4	12-0-0	20-0-0	28-0-0	33-8-12	40-0-0
6-3-4	5-8-12	8-0-0	8-0-0	5-8-12	6-3-4

Plate Offsets (X,Y)-- [5:0-4-0,0-4-8], [11:0-4-8,0-3-0], [13:0-4-12,0-3-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.21	12	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-0.47	12-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.41	Horz(CT)	0.18	8	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 220 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 4-5,5-6: 2x6 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-5-1 oc purlins, except 2-0-0 oc purlins (4-5-15 max.): 4-6.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 5-13, 5-11

REACTIONS. (lb/size) 2=1650/0-3-8, 8=1650/0-3-8
Max Horz 2=106(LC 12)
Max Uplift 2=-142(LC 12), 8=-142(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3067/461, 3-4=-2589/439, 4-5=-2244/435, 5-6=-2249/436, 6-7=-2586/439, 7-8=-3067/461
BOT CHORD 2-14=-339/2656, 13-14=-339/2656, 12-13=-276/2779, 11-12=-276/2779, 10-11=-341/2657, 8-10=-341/2657
WEBS 3-13=-464/187, 4-13=-41/755, 5-13=-802/181, 5-12=0/370, 5-11=-797/180, 6-11=-41/753, 7-11=-467/187

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 12-0-0, Exterior(2) 12-0-0 to 17-7-14, Interior(1) 17-7-14 to 28-0-0, Exterior(2) 28-0-0 to 33-8-12, Interior(1) 33-8-12 to 40-10-8 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 8. This connection is for uplift only and does not consider lateral forces.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

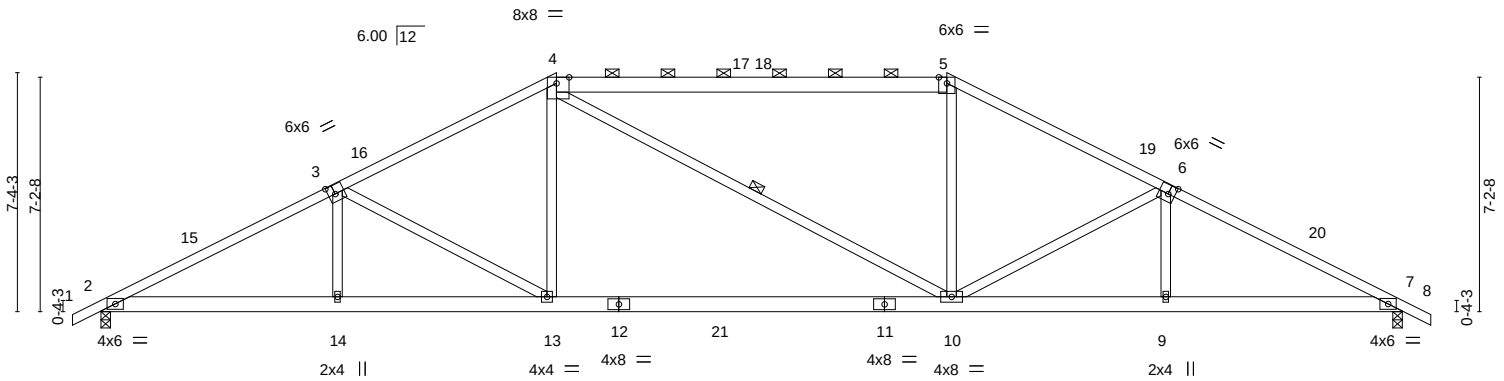
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	H6	Hip	1	1	I36979466
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:56 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-zYj?clbgTr9pngv9Jd5uW54CkDwOiIJYdqxNiXzJHZL

-0-10-8	7-3-4	14-0-0	20-0-0	26-0-0	32-8-12	40-0-0	40-10-8
0-10-8	7-3-4	6-8-12	6-0-0	6-0-0	6-8-12	7-3-4	0-10-8

Scale = 1:70.8



7-3-4	14-0-0	20-0-0	26-0-0	32-8-12	40-0-0
7-3-4	6-8-12	6-0-0	6-0-0	6-8-12	7-3-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.72	Vert(LL)	-0.21	10-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.72	Vert(CT)	-0.47	10-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.61	Horz(CT)	0.10	7	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 242 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 4-5: 2x6 SP DSS
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3 *Except* 4-10: 2x4 SP No.2

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-5-12 oc purlins, except 2-0-0 oc purlins (4-0-8 max.): 4-5.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 4-10

REACTIONS. (lb/size) 2=1650/0-3-8, 7=1650/0-3-8
Max Horz 2=122(LC 12)
Max Uplift 2=-162(LC 12), 7=-162(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3064/453, 3-4=-2486/416, 4-5=-2147/429, 5-6=-2488/416, 6-7=-3063/454
BOT CHORD 2-14=-321/2657, 13-14=-319/2662, 10-13=-169/2145, 9-10=-324/2661, 7-9=-327/2656
WEBS 3-13=-578/232, 4-13=0/609, 5-10=0/610, 6-10=-576/234

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 14-0-0, Exterior(2) 14-0-0 to 19-7-14, Interior(1) 19-7-14 to 26-0-0, Exterior(2) 26-0-0 to 31-7-14, Interior(1) 31-7-14 to 40-10-8 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

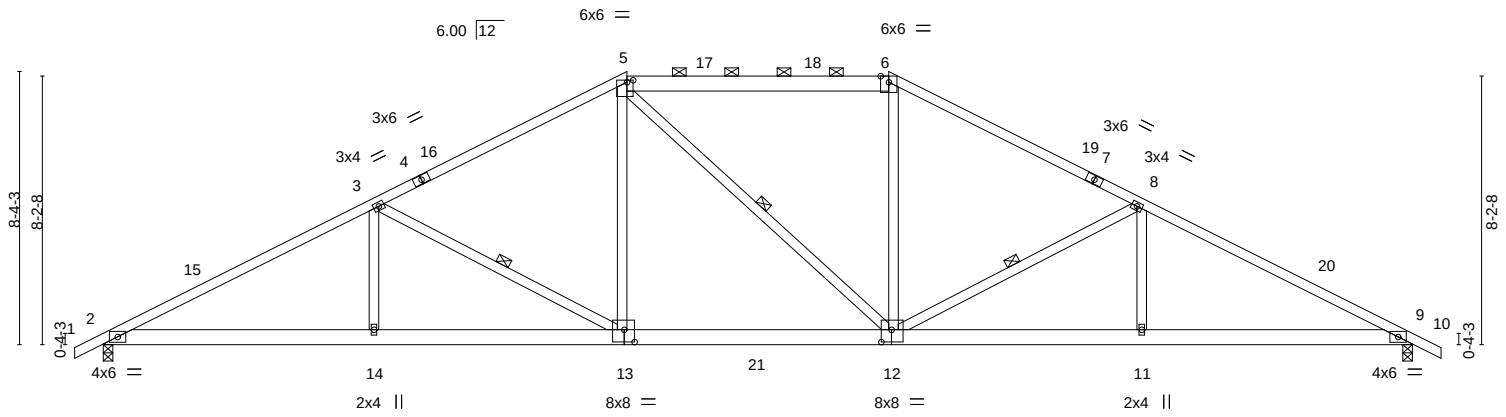
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	H7	Hip	1	1	I36979467
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:57 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-RkHNq5cIE9HgPqUMtKd72IdJQdGrRqRisUgxFzzJHZK

-0-10-8	8-3-4	16-0-0	24-0-0	31-8-12	40-0-0	40-10-8
0-10-8	8-3-4	7-8-12	8-0-0	7-8-12	8-3-4	0-10-8

Scale = 1:70.4



8-3-4	16-0-0	24-0-0	31-8-12	40-0-0
8-3-4	7-8-12	8-0-0	7-8-12	8-3-4

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.98	Vert(LL)	-0.15	12-13	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.32	12-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.30	Horz(CT)	0.10	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 243 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2 *Except* 5-6: 2x6 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied, except 2-0-0 oc purlins (4-5-1 max.): 5-6.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 3-13, 5-12, 8-12

REACTIONS. (lb/size) 2=1650/0-3-8, 9=1650/0-3-8
Max Horz 2=139(LC 16)
Max Uplift 2=-180(LC 12), 9=-180(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3025/428, 3-5=-2293/407, 5-6=-1955/422, 6-8=-2294/407, 8-9=-3024/428
BOT CHORD 2-14=-288/2610, 13-14=-288/2610, 12-13=-133/1953, 11-12=-293/2609, 9-11=-293/2609
WEBS 3-14=0/347, 3-13=-745/251, 5-13=-21/569, 6-12=-1/570, 8-12=-744/252, 8-11=0/346

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 16-0-0, Exterior(2) 16-0-0 to 21-7-14, Interior(1) 21-7-14 to 24-0-0, Exterior(2) 24-0-0 to 29-7-14, Interior(1) 29-7-14 to 40-10-8 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 9. This connection is for uplift only and does not consider lateral forces.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

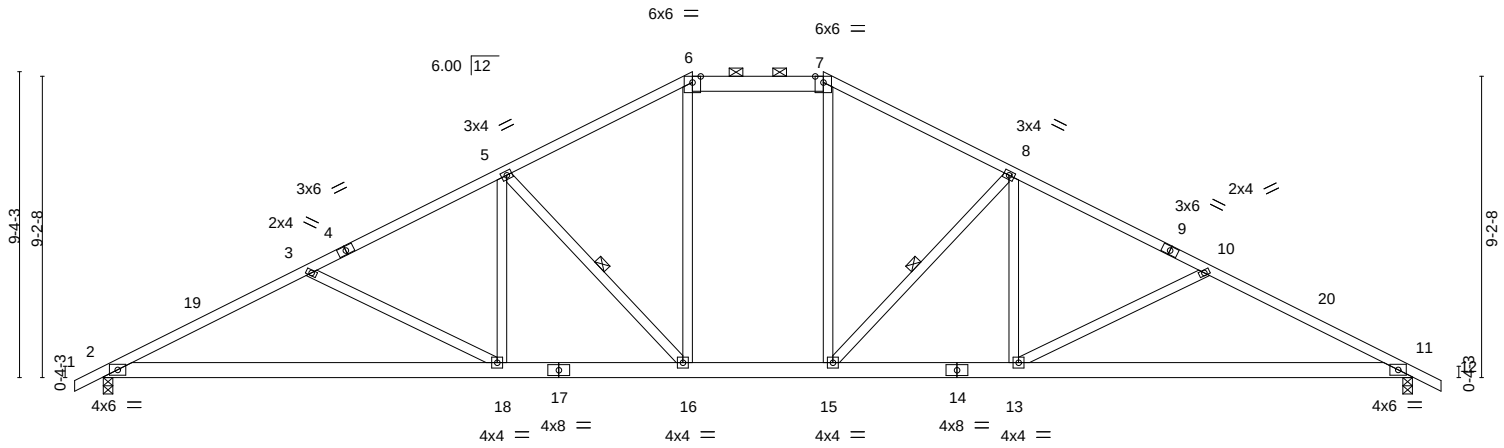
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	H8	Hip	1	1	I36979468
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:52:59 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-N7O8EndZmmXOe8dk_lfb7jilyQxeviA_Jo91JszJHZI

-0-10-8	6-4-5	12-2-3	18-0-0	22-0-0	27-9-13	33-7-11	40-0-0	40-10-8
0-10-8	6-4-5	5-9-13	5-9-13	4-0-0	5-9-13	5-9-13	6-4-5	0-10-8

Scale = 1:70.4



9-3-4	12-2-3	18-0-0	22-0-0	27-9-13	30-8-12	40-0-0
9-3-4	2-10-15	5-9-13	4-0-0	5-9-13	2-10-15	9-3-4

LOADING (psf)		**SPACING-**	2-0-0	**CSI.**		**DEFL.**	in	(loc)	l/defl	L/d	**PLATES**	**GRIP**
TCLL	20.0	Plate Grip DOL	1.15	TC	0.60	Vert(LL)	-0.20	13-15	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-0.46	2-18	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.35	Horz(CT)	0.10	11	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 251 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 6-7: 2x6 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

REACTIONS. (lb/size) 2=1650/0-3-8, 11=1650/0-3-8
Max Horz 2=156(LC 12)
Max Uplift 2=-196(LC 12), 11=-196(LC 13)

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-7-13 oc purlins, except
2-0-0 oc purlins (5-6-9 max.): 6-7.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 5-16, 8-15

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3020/442, 3-5=-2613/382, 5-6=-2057/407, 6-7=-1768/393, 7-8=-2057/407, 8-10=-2613/382, 10-11=-3020/442
BOT CHORD 2-18=-403/2632, 16-18=-194/2265, 15-16=-78/1768, 13-15=-181/2265, 11-13=-320/2632
WEBS 3-18=-412/234, 5-18=-8/540, 5-16=-796/225, 6-16=-67/582, 7-15=-67/582, 8-15=-796/225, 8-13=-9/540, 10-13=-412/235

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 18-0-0, Exterior(2) 18-0-0 to 27-9-13, Interior(1) 27-9-13 to 40-10-8 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 11. This connection is for uplift only and does not consider lateral forces.
7) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

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

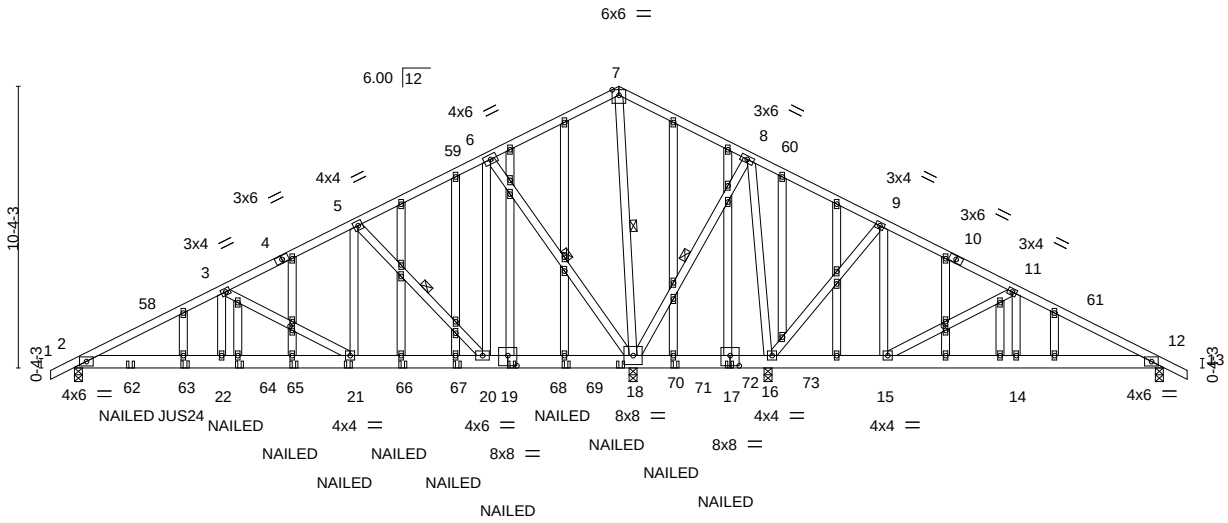
Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	HG1	GABLE	1	1	I36979469
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:04 2019 Page 1

ID:mskWcC3VFtk4ATXCSkxI1LzKAud-k5C1IUhhbI9hlvWinIFmqnPbrReGasokT4to?3zJHZD

-0-10-8	5-4-14	10-3-4	15-1-10	20-0-0	24-10-6	29-8-12	34-7-2	40-0-0	40-10-8
0-10-8	5-4-14	4-10-6	4-10-6	4-10-6	4-10-6	4-10-6	4-10-6	5-4-14	0-10-8

Scale = 1:84.6



5-4-14	10-3-4	15-1-10	20-6-4	25-5-12	29-8-12	34-7-2	40-0-0
5-4-14	4-10-6	4-10-6	5-4-10	4-11-8	4-3-0	4-10-6	5-4-14

Plate Offsets (X,Y)-- [17:0-4-0,0-4-8], [19:0-4-0,0-4-8], [34:0-1-15,0-1-0], [53:0-1-15,0-1-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.08	21-22	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.79	Vert(CT)	-0.13	21-22	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.77	Horz(CT)	0.03	18	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S							Weight: 384 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 3-5-8 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 5-20, 6-18, 7-18, 8-18

REACTIONS. All bearings 0-3-8 except (jt=length) 18=0-4-6 (input: 0-3-8).
(lb) - Max Horz 2=-174(LC 36)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-356(LC 12), 18=-1111(LC 12), 16=-252(LC 36), 12=-155(LC 36)
Max Grav All reactions 250 lb or less at joint(s) except 2=1401(LC 23), 18=3696(LC 1), 16=685(LC 20), 12=405(LC 20)

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

TOP CHORD	2-3=-2299/597, 3-5=-1242/370, 6-7=-206/1067, 7-8=-203/1138, 8-9=-133/881, 9-11=-178/556, 11-12=-501/305
BOT CHORD	2-22=-628/1993, 21-22=-628/1993, 20-21=-317/1050, 18-20=-133/283, 16-18=-743/346, 15-16=-479/268, 14-15=-250/399, 12-14=-250/399
WEBS	3-22=-137/676, 3-21=-1076/355, 5-21=-324/1120, 5-20=-1308/461, 6-20=-480/1566, 6-18=-1709/609, 7-18=-1194/250, 8-18=-461/237, 8-16=-232/434, 9-16=-520/178, 9-15=-23/328, 11-15=-498/152

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 20-0-0, Exterior(2) 20-0-0 to 25-7-14, Interior(1) 25-7-14 to 40-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
8) WARNING: Required bearing size at joint(s) 18 greater than input bearing size.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1111 lb uplift at joint 18.
10) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2, 16, and 12. This connection is for uplift only and does not consider lateral forces.
11) Use USP JUS24 (With 10d nails into Girder & 10d nails into Truss) or equivalent at 4-0-12 from the left end to connect truss(es) to front face of bottom chord, skewed 0.0 deg.to the left, sloping 0.0 deg. down.
12) Fill all nail holes where hanger is in contact with lumber.

Continued on page 2

NORTH CAROLINA PROFESSIONAL SEAL 044925 ENGINEER SCOTT M. SEVIER

May 6,2019

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

NOTES-

13) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
14) 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

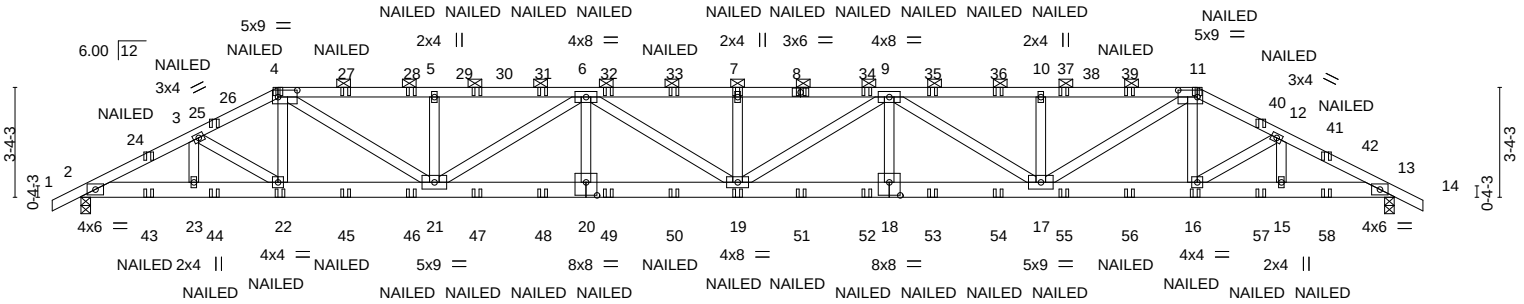
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-7=-60, 7-13=-60, 2-12=-20
   Concentrated Loads (lb)
   Vert: 21=-210(F) 19=-210(F) 17=-210(F) 62=-209(F) 63=-210(F) 64=-210(F) 65=-210(F) 66=-210(F) 67=-210(F) 69=-210(F) 70=-210(F) 71=-210(F)

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	HG2	Hip Girder	1	2	I36979470
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:11 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-1R7gmun4xS2h4_Y2hGtPdFCmGG_wj3Dl4g3gkAzJHZ6

-0-10-8	3-5-4	6-0-0	10-9-3	15-4-9	20-0-0	24-7-7	29-2-13	34-0-0	36-6-12	40-0-0	40-10-8
0-10-8	3-5-4	2-6-12	4-9-3	4-7-7	4-7-7	4-7-7	4-7-7	4-9-3	2-6-12	3-5-4	0-10-8

Scale = 1:70.2



3-5-4	6-0-0	10-9-3	15-4-9	20-0-0	24-7-7	29-2-13	34-0-0	36-6-12	40-0-0
3-5-4	2-6-12	4-9-3	4-7-7	4-7-7	4-7-7	4-7-7	4-9-3	2-6-12	3-5-4

Plate Offsets (X,Y)-- [4:0-7-0,0-2-8], [11:0-7-0,0-2-8], [18:0-4-0,0-4-12], [20:0-4-0,0-4-12]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.77	Vert(LL)	0.49	19	>977	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.98	Vert(CT)	-0.88	19	>541	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.66	Horz(CT)	0.15	13	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 485 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x6 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-9 oc purlins, except
2-0-0 oc purlins (3-3-10 max.): 4-11.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=3012/0-3-8, 13=3012/0-3-8
Max Horz 2=-58(LC 40)
Max Uplift 2=-650(LC 9), 13=-650(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5911/1381, 3-4=-5761/1406, 4-5=-7874/1963, 5-6=-7873/1963, 6-7=-10042/2511, 7-9=-10042/2511, 9-10=-7873/1963, 10-11=-7873/1963, 11-12=-5761/1406, 12-13=-5911/1381
BOT CHORD 2-23=-1194/5203, 22-23=-1194/5203, 21-22=-1212/5162, 20-21=-2350/9568, 19-20=-2350/9568, 18-19=-2337/9567, 17-18=-2337/9567, 16-17=-1179/5162, 15-16=-1173/5203, 13-15=-1173/5203
WEBS 4-22=-0/537, 4-21=-846/3212, 5-21=-520/312, 6-21=-2029/530, 6-20=0/430, 6-19=-151/580, 7-19=-501/296, 9-19=-152/581, 9-18=0/430, 9-17=-2029/529, 10-17=-520/312, 11-17=-847/3211, 11-16=-0/537

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 6-0-0, Exterior(2) 6-0-0 to 11-7-14, Interior(1) 11-7-14 to 34-0-0, Exterior(2) 34-0-0 to 39-10-4, Interior(1) 39-10-4 to 40-10-8 zone;C-C for members and forces & MWFRS for reactions shown; 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 13. This connection is for uplift only and does not consider lateral forces.
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.

May 6,2019

Continued on page 2

LOAD CASE(S) Standard

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

LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-4=-60, 4-11=-60, 11-14=-60, 2-13=-20
   Concentrated Loads (lb)
   Vert: 4=-101(F) 8=-101(F) 11=-101(F) 22=-42(F) 19=-42(F) 7=-101(F) 16=-42(F) 24=-90(F) 27=-101(F) 28=-101(F) 30=-101(F) 31=-101(F) 32=-101(F) 33=-101(F) 34=-101(F) 35=-101(F) 36=-101(F) 38=-101(F) 39=-101(F) 42=-90(F) 43=-53(F) 44=-148(F) 45=-42(F) 46=-42(F) 47=-42(F) 48=-42(F) 49=-42(F) 50=-42(F) 51=-42(F) 52=-42(F) 53=-42(F) 54=-42(F) 55=-42(F) 56=-42(F) 57=-148(F) 58=-53(F)

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	J1	Jack-Open	15	1	I36979471
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:12 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-Vdh2zEnjimAYi87EF_Oe9TlzugTJSgrvJKpEHczJHZ5

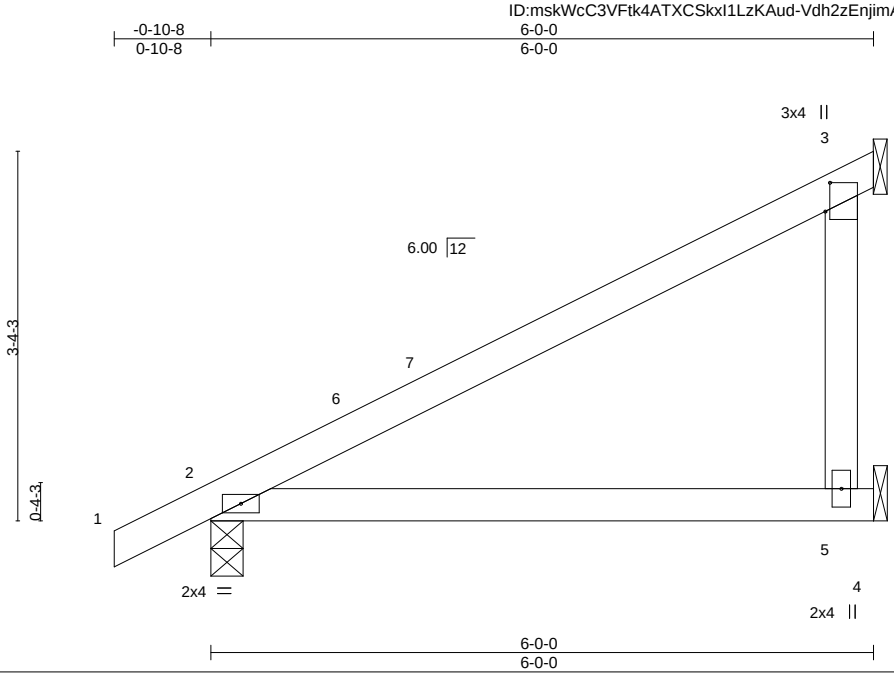


Plate Offsets (X,Y)-- [3:0-3-2,0-0-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.58	Vert(LL)	-0.06	2-5	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.11	2-5	>585	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-P							Weight: 25 lb	FT = 20%

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

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

REACTIONS. (lb/size) 2=289/0-3-8, 3=161/Mechanical, 5=62/Mechanical
Max Horz 2=125(LC 12)
Max Uplift 2=-36(LC 12), 3=-101(LC 12)
Max Grav 2=289(LC 1), 3=161(LC 1), 5=123(LC 3)

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

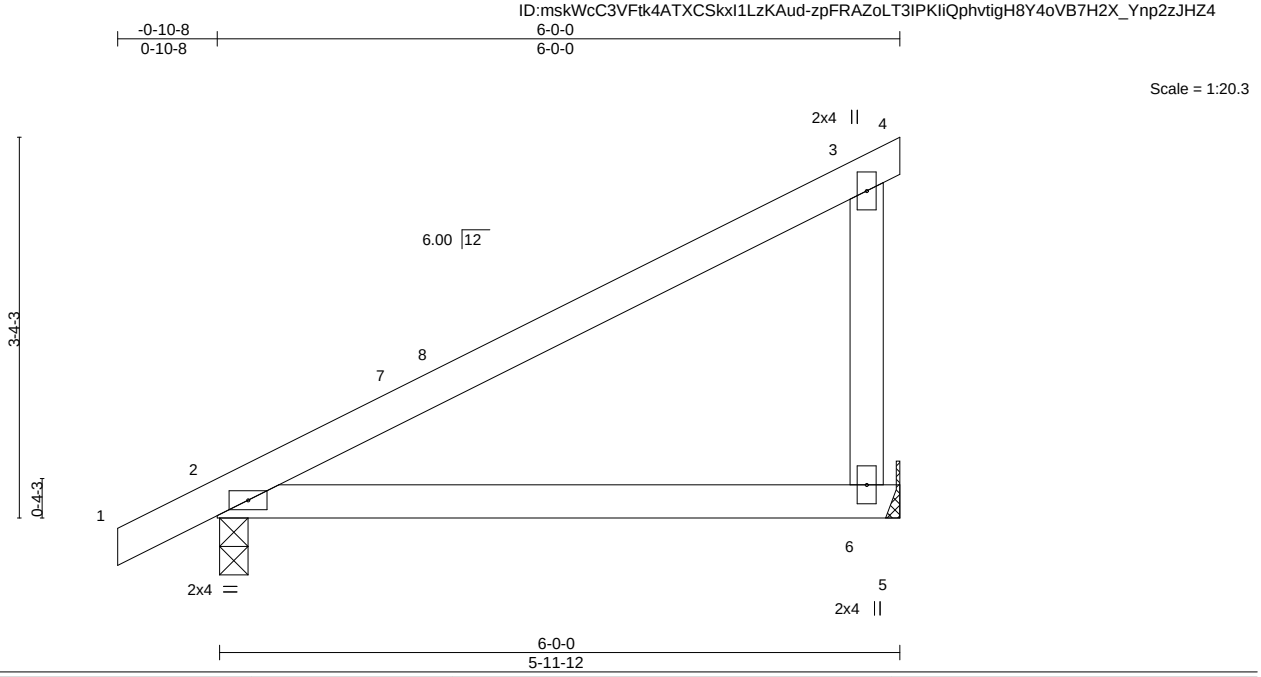
NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 5-8-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 101 lb uplift at joint 3.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
7) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.

May 6,2019

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

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	J1A	JACK-OPEN	10	1	I36979472
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:13 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-zpFRAZoLT3IPKliQphvtigH8Y4oVB7H2X_Ynp2zJHZ4



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.59	Vert(LL)	0.11	2-6	>628	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.39	Vert(CT)	-0.12	2-6	>579	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 25 lb	FT = 20%

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

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

REACTIONS. (lb/size) 2=288/0-3-0, 6=230/Mechanical
Max Horz 2=130(LC 12)
Max Uplift 2=-33(LC 12), 6=-73(LC 12)

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

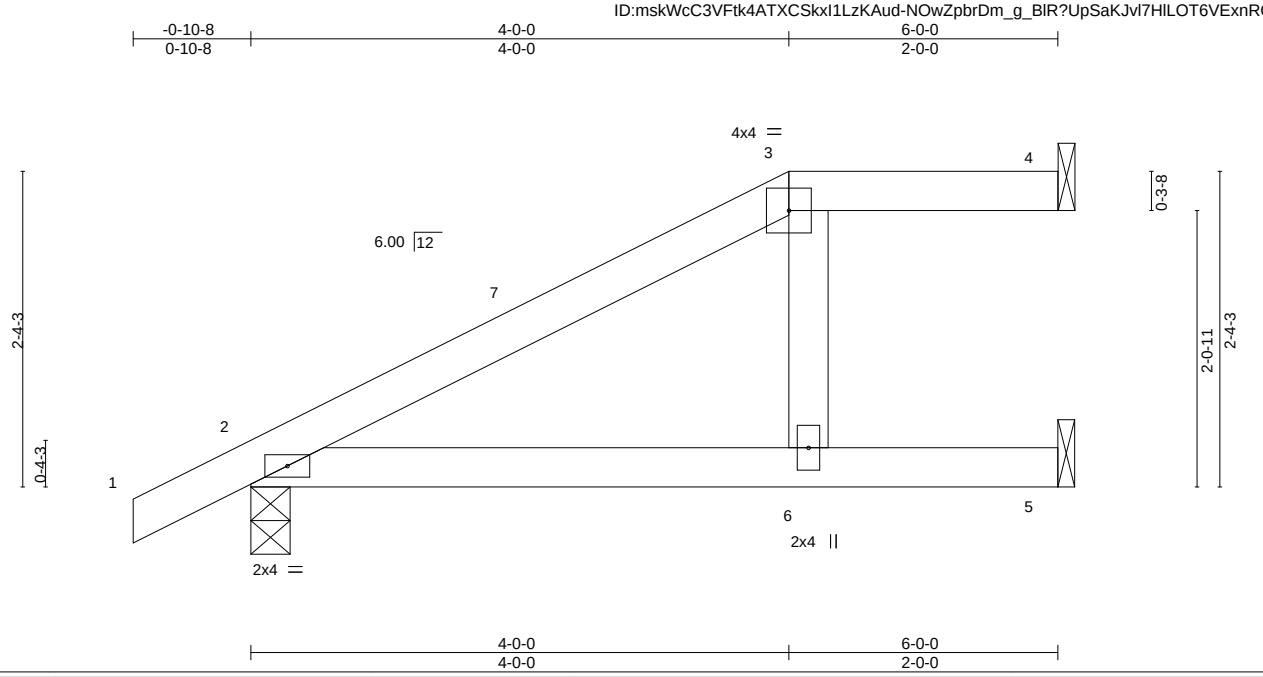
NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0 zone; porch left exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 73 lb uplift at joint 6.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

May 6,2019

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

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	J2	Jack-Open	2	1	I36979473
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:16 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-NOwZpbrDm_g_BlR?UpSaKJvl7HlLOT6VExnRQNzJHZ1



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.25	Vert(LL)	0.10	2-6	>695	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.70	Vert(CT)	-0.19	2-6	>368	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.05	Horz(CT)	0.08	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 23 lb	FT = 20%

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

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

REACTIONS. (lb/size) 4=58/Mechanical, 2=298/0-3-8, 5=168/Mechanical
Max Horz 2=92(LC 12)
Max Uplift 4=-26(LC 8), 2=-47(LC 12), 5=-18(LC 12)

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

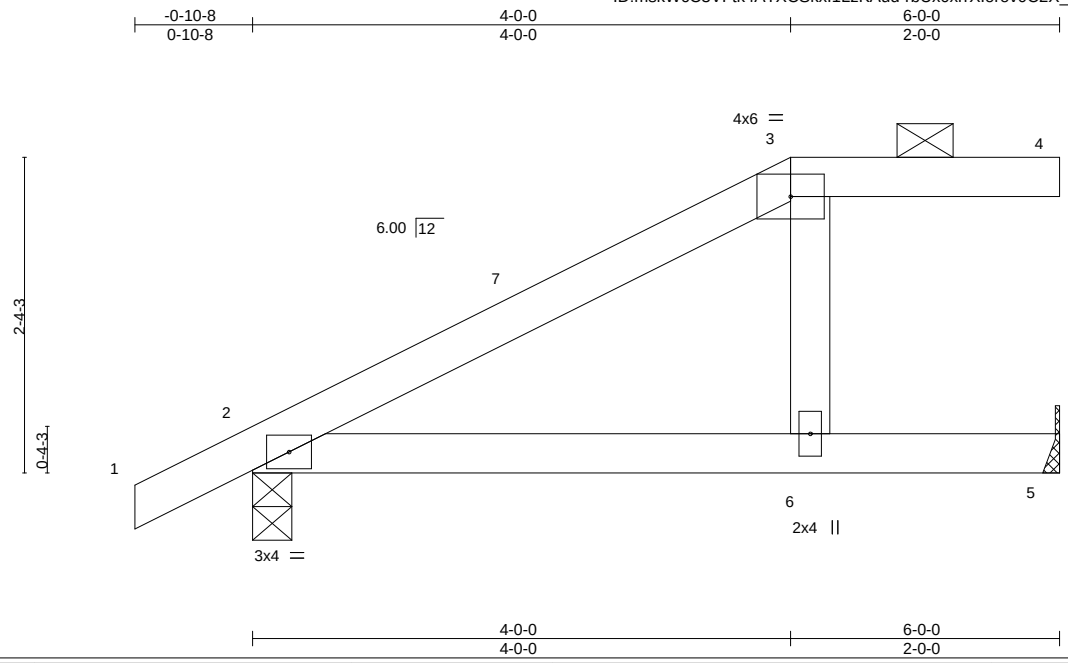
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-0, Exterior(2) 4-0-0 to 5-11-4 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 26 lb uplift at joint 4 and 18 lb uplift at joint 5.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

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

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	J2A	Jack-Open	1	1	I36979474
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:17 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-rbUx0xrrXIorov0C2X_psWSuKh117w6eSbW_ypzJHZ0



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.28	Vert(LL)	0.13	2-6	>533	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.23	2-6	>302	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 23 lb	FT = 20%

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

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

REACTIONS. (lb/size) 2=298/0-3-8, 5=230/Mechanical
Max Horz 2=92(LC 12)
Max Uplift 2=-45(LC 12), 5=-54(LC 9)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-6=-275/211

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 4-0-0, Exterior(2) 4-0-0 to 6-0-0 zone;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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 54 lb uplift at joint 5.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

May 6,2019

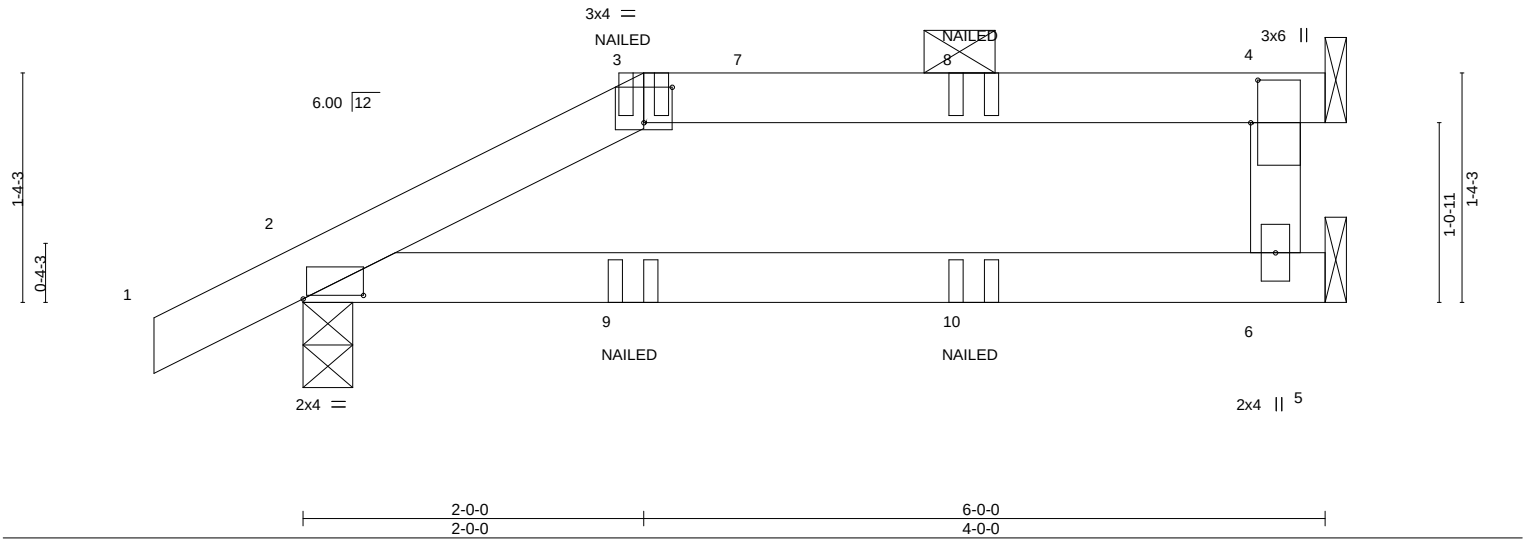
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	J3	Jack-Open Girder	2	1	I36979475
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:18 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-Jn2JEHsTIcwiQ3aObEV2Pk??75XysNKnhFGYUGzJHZ?

-0-10-8 / 0-10-8 | 2-0-0 / 2-0-0 | 6-0-0 / 4-0-0

Scale = 1:13.5



2-0-0 / 2-0-0 | 6-0-0 / 4-0-0

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

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.53	Vert(LL)	-0.04	2-6	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.10	2-6	>691	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.00	Horz(CT)	0.06	4	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 21 lb	FT = 20%

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

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

REACTIONS. (lb/size) 2=289/0-3-8, 4=150/Mechanical, 6=73/Mechanical
Max Horz 2=54(LC 12)
Max Uplift 2=-52(LC 12), 4=-62(LC 9)
Max Grav 2=289(LC 1), 4=150(LC 1), 6=116(LC 3)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 62 lb uplift at joint 4.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
10) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.
11) "NAILED" indicates 3-10d (0.148"x3") or 3-12d (0.148"x3.25") toe-nails per NDS guidlines.
12) 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=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 2-5=-20

NORTH CAROLINA PROFESSIONAL SEAL 044925 ENGINEER SCOTT M. SEVIER

May 6,2019

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

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	J3A	Jack-Open Girder	1	1	I36979476
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:20 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-GAA4ezukpDAQgNknjfXWU94LpuBwKHF48ZlfY8zJHYz

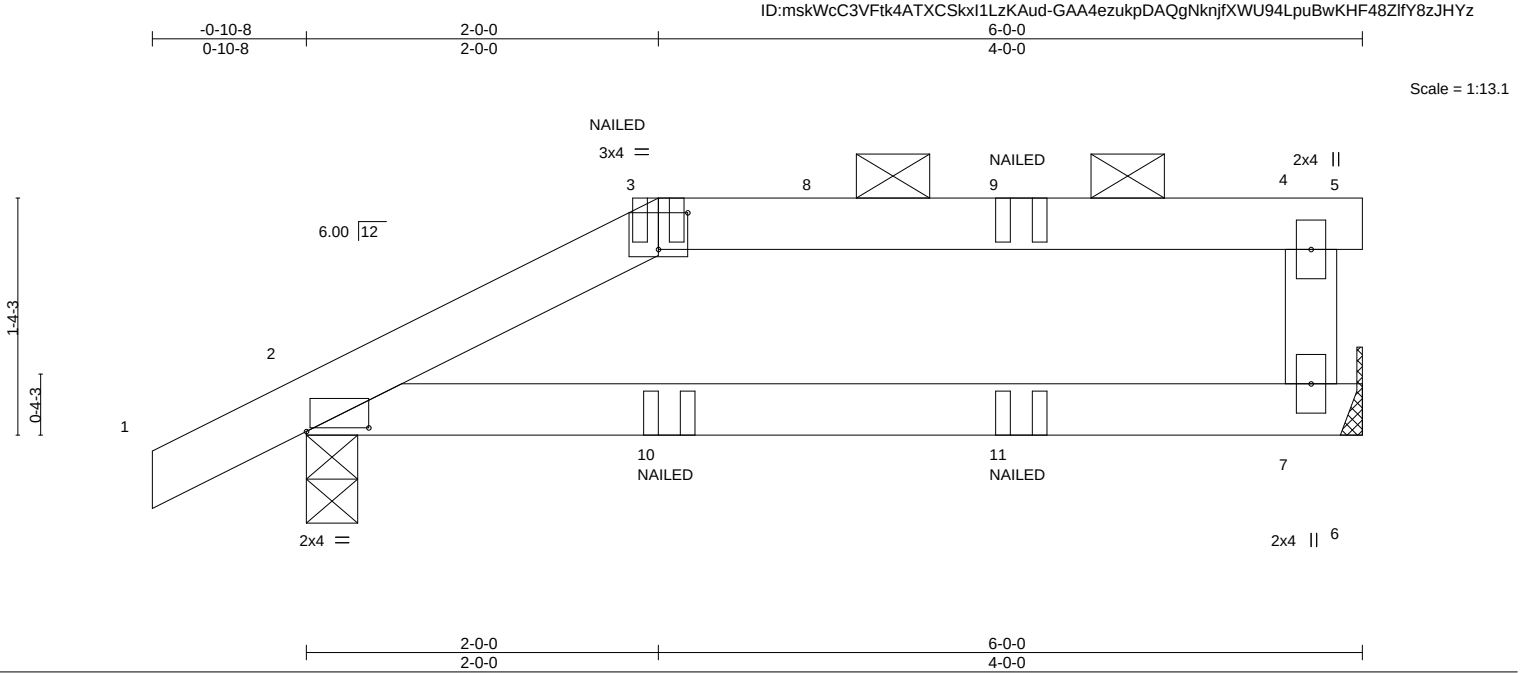


Plate Offsets (X,Y)-- [2:0-4-4,0-0-4], [3:0-2-0,0-2-8]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.52	Vert(LL)	-0.05	2-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.41	Vert(CT)	-0.11	2-7	>624	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.04	Horz(CT)	0.00		n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 21 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except 2-0-0 oc purlins: 3-5.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=289/0-3-8, 7=229/Mechanical
Max Horz 2=54(LC 12)
Max Uplift 2=-53(LC 12), 7=-44(LC 9)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Provide adequate drainage to prevent water ponding.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 44 lb uplift at joint 7.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
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.
11) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

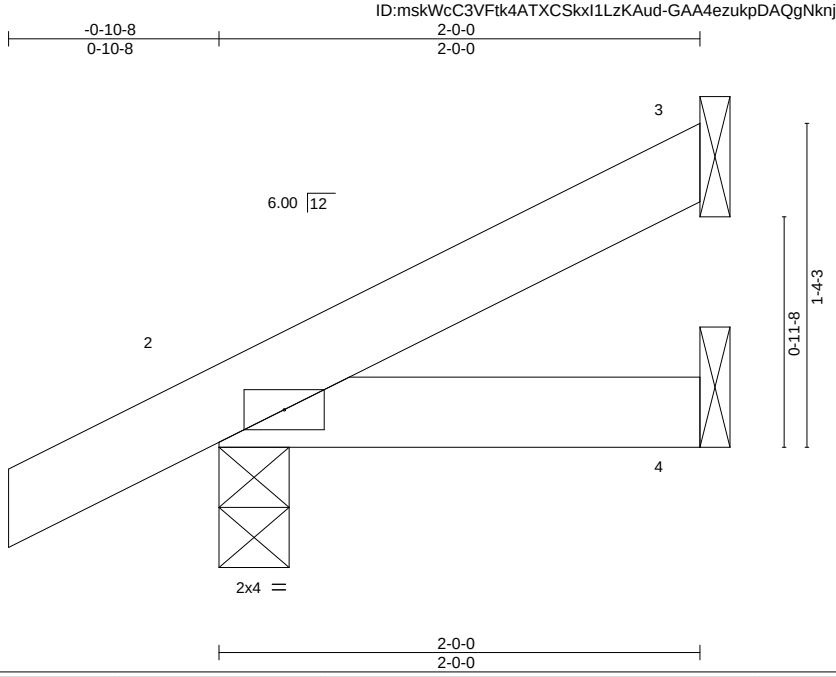
LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-4=-60, 4-5=-20, 2-6=-20

May 6,2019

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

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	J4	Jack-Open	6	1	I36979477
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:20 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-GAA4ezukpDAQgNknjfXWU94T6uHfKHq48ZlfY8zJHYz



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.06	Vert(LL)	-0.00	2	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	2-4	>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-P							Weight: 8 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 2-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 3=46/Mechanical, 2=145/0-3-8, 4=20/Mechanical
Max Horz 2=53(LC 12)
Max Uplift 3=-31(LC 12), 2=-29(LC 12)
Max Grav 3=46(LC 1), 2=145(LC 1), 4=39(LC 3)

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

NOTES-
1) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
3) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
4) Refer to girder(s) for truss to truss connections.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 31 lb uplift at joint 3.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.

May 6,2019

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

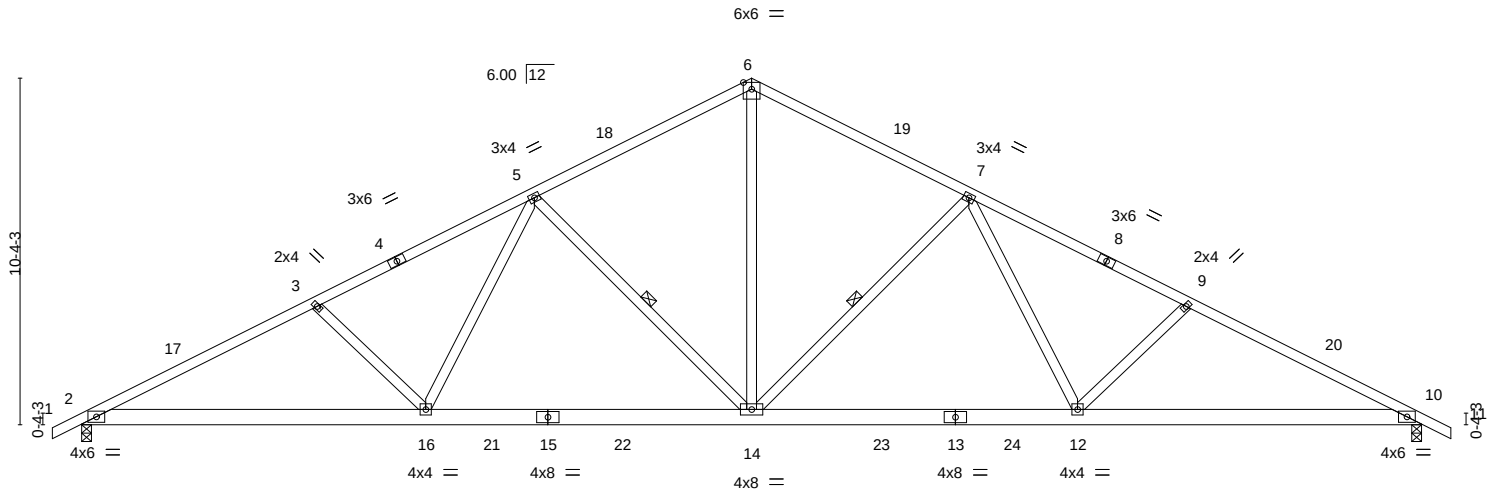
Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	T1	Common	5	1	I36979478
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:21 2019 Page 1

ID:mskWcC3VFtk4ATXCSkxI1LzKAud-kMjSsJuMaXJGHWJzHN2l1McU5ISM3ckENDUC4azJHYy

-0-10-8	7-0-5	13-6-3	20-0-0	26-5-13	32-11-11	40-0-0	40-10-8
0-10-8	7-0-5	6-5-13	6-5-13	6-5-13	6-5-13	7-0-5	0-10-8

Scale = 1:68.8



10-3-4	20-0-0	29-8-12	40-0-0
10-3-4	9-8-12	9-8-12	10-3-4

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.68	Vert(LL)	-0.19	12-14	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.71	Vert(CT)	-0.37	12-14	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.53	Horz(CT)	0.10	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 239 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP No.2
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-5-2 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 7-14, 5-14

REACTIONS. (lb/size) 2=1650/0-3-8, 10=1650/0-3-8
Max Horz 2=174(LC 16)
Max Uplift 2=-209(LC 12), 10=-209(LC 13)

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

TOP CHORD	2-3=-3028/372, 3-5=-2729/344, 5-6=-1890/333, 6-7=-1890/333, 7-9=-2729/344, 9-10=-3028/372
BOT CHORD	2-16=-409/2629, 14-16=-230/2120, 12-14=-117/2120, 10-12=-235/2629
WEBS	6-14=-133/1290, 7-14=-749/267, 7-12=-45/595, 9-12=-381/228, 5-14=-749/267, 5-16=-45/595, 3-16=-381/228

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 20-0-0, Exterior(2) 20-0-0 to 24-0-0, Interior(1) 24-0-0 to 40-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.

May 6,2019

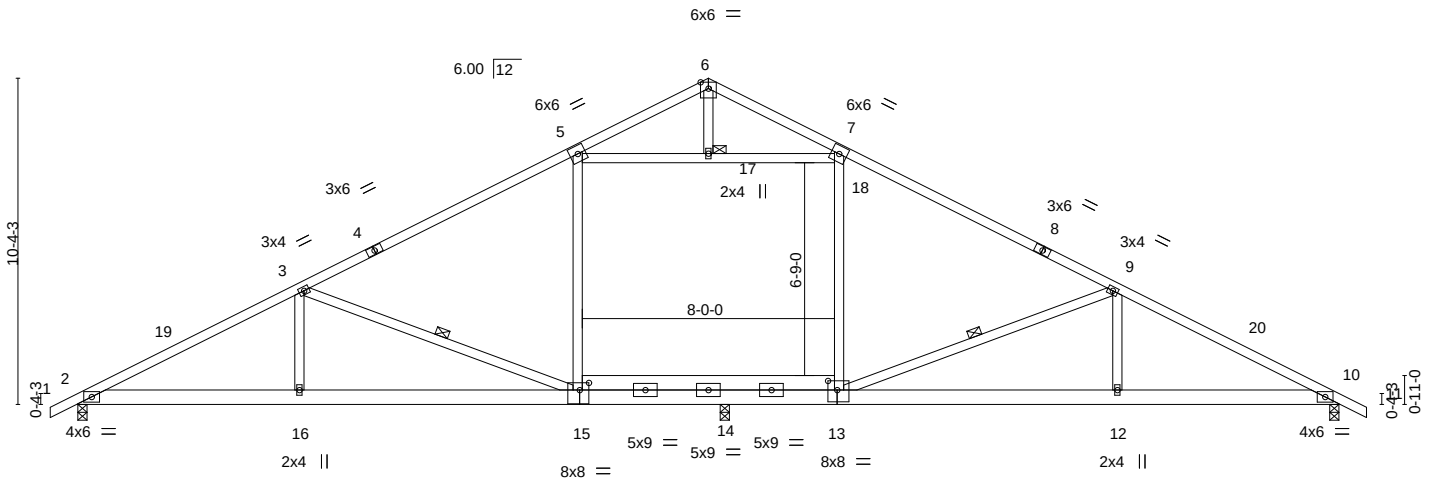
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	T2	ROOF TRUSS	6	1	I36979479
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:23 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-glrCH_wc68Z_XqTLOn4D6nimA670XP3XrXzJ9TzJHYw

-0-10-8	7-0-5	13-6-3	20-0-0	26-5-13	32-11-11	40-0-0	40-10-8
0-10-8	7-0-5	6-5-13	6-5-13	6-5-13	6-5-13	7-0-5	0-10-8

Scale = 1:73.1



7-0-5	13-6-3	20-6-4	26-5-13	29-11-14	32-11-11	40-0-0
7-0-5	6-5-13	7-0-1	5-11-9	3-6-1	2-11-13	7-0-5

Plate Offsets (X,Y)-- [13:0-3-8,0-3-8], [15:0-3-8,0-2-12], [18:0-0-13,0-1-9]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.90	Vert(LL)	-0.39	15-16	>628	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.83	Vert(CT)	-0.56	15-16	>436	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.99	Horz(CT)	0.04	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S		Attic	-0.25	13-14	338	360	Weight: 256 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x6 SP DSS *Except*
	13-15: 2x6 SP No.2
WEBS	2x4 SP No.3

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD	Rigid ceiling directly applied or 4-7-15 oc bracing.
WEBS	1 Row at midpt 3-15, 9-13
JOINTS	1 Brace at Jt(s): 17

REACTIONS. (lb/size) 2=1058/0-3-8, 10=1024/0-3-8, 14=1299/0-3-8
Max Horz 2=174(LC 12)
Max Uplift 2=-178(LC 12), 10=-77(LC 13), 14=-208(LC 13)
Max Grav 2=1112(LC 24), 10=1024(LC 1), 14=1536(LC 2)

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

TOP CHORD	2-3=-2020/318, 3-5=-999/159, 5-6=-303/55, 6-7=-308/57, 7-9=-936/221, 9-10=-1755/149
BOT CHORD	2-16=-366/1735, 15-16=-367/1734, 14-15=-55/845, 13-14=-55/845, 12-13=-22/1498, 10-12=-20/1497
WEBS	3-16=0/387, 3-15=-1015/329, 13-18=-356/229, 7-18=-345/241, 9-13=-1002/359, 9-12=0/349, 5-17=-623/255, 17-18=-620/254

NOTES-

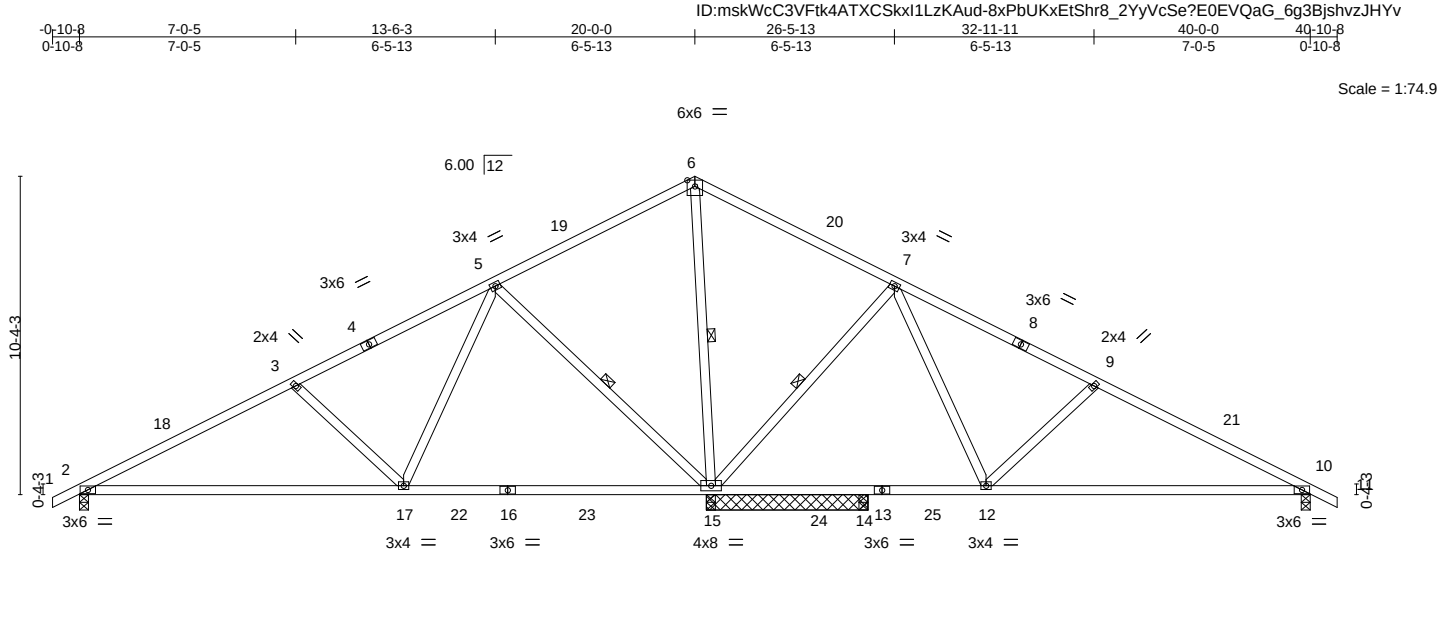
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 20-0-0, Exterior(2) 20-0-0 to 24-1-12, Interior(1) 24-1-12 to 40-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) Ceiling dead load (5.0 psf) on member(s). 5-17, 17-18
6) Bottom chord live load (40.0 psf) and additional bottom chord dead load (0.0 psf) applied only to room. 14-15, 13-14
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 208 lb uplift at joint 14.
8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
9) ATTIC SPACE SHOWN IS DESIGNED AS UNINHABITABLE.

May 6,2019

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

Job	Truss	Truss Type	Qty	Ply	140.1582.B
20705A	T3	Common	1	1	I36979480
					Job Reference (optional)

84 Components (Dunn), Dunn, NC - 28334, 8.220 s Nov 16 2018 MiTek Industries, Inc. Mon May 6 07:53:24 2019 Page 1
ID:mskWcC3VFtk4ATXCSkxI1LzKAud-8xPbUKxEtShr8_2YyVcSe?E0EVQaG_6g3BjshvzJHYv



LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.62	Vert(LL)	-0.32	15-17	>758	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	1.00	Vert(CT)	-0.64	10-12	>268	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.49	Horz(CT)	0.01	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 206 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-13 oc purlins.
BOT CHORD Rigid ceiling directly applied or 1-4-12 oc bracing.
WEBS 1 Row at midpt 5-15, 6-15, 7-15

REACTIONS. All bearings 0-3-8 except (jt=length) 15=5-3-0, 15=5-3-0.
(lb) - Max Horz 2=174(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) except 2=-103(LC 12), 15=-222(LC 12), 10=-131(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 14 except 2=657(LC 23), 15=2176(LC 1), 15=2176(LC 1), 10=605(LC 24)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-810/141, 3-5=-509/99, 5-6=-17/687, 6-7=0/742, 7-9=-388/164, 9-10=-690/206
BOT CHORD 2-17=-205/668, 10-12=-88/562
WEBS 3-17=-413/236, 5-17=-36/620, 5-15=-775/264, 6-15=-924/97, 7-15=-739/268, 7-12=-51/573, 9-12=-416/235

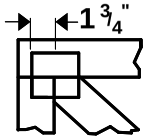
NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 3-1-8, Interior(1) 3-1-8 to 20-0-0, Exterior(2) 20-0-0 to 24-0-0, Interior(1) 24-0-0 to 40-10-8 zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 222 lb uplift at joint 15.
6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.

May 6,2019

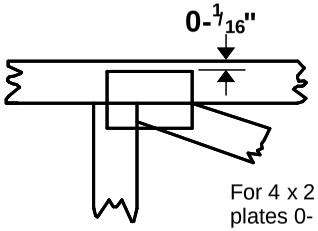
ENGINEERING BY TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

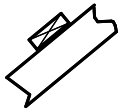
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

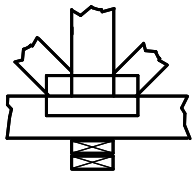
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

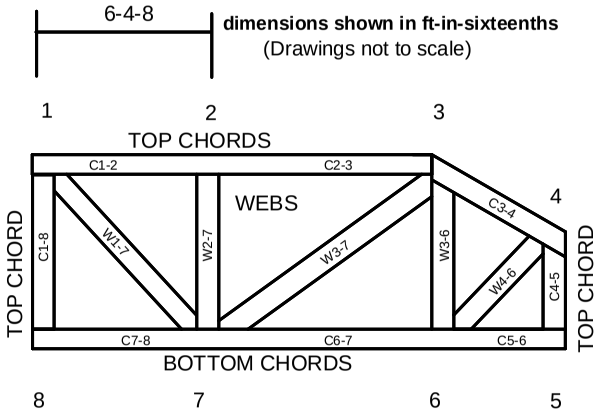


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek®

ENGINEERING BY TRENCO
A MiTek Affiliate

MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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