ENGINEERING BY
TRENCO
A MiTek Affiliate

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 3685977
DR HORTON; COLUMBIA; A; MASTER.RT

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Builders FirstSource-Apex,NC.

Pages or sheets covered by this seal: I62516902 thru I62516917

My license renewal date for the state of North Carolina is December 31, 2023.

North Carolina COA: C-0844

December 12,2023

Gilbert, Eric

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

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A01G	GABLE	1	1	I62516902
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:19 2023 Page 1
ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-11-0 19-3-0 41-9-0 42-5-0
0-11-0 19-3-0 22-6-0 0-8-0

Scale = 1:78.0

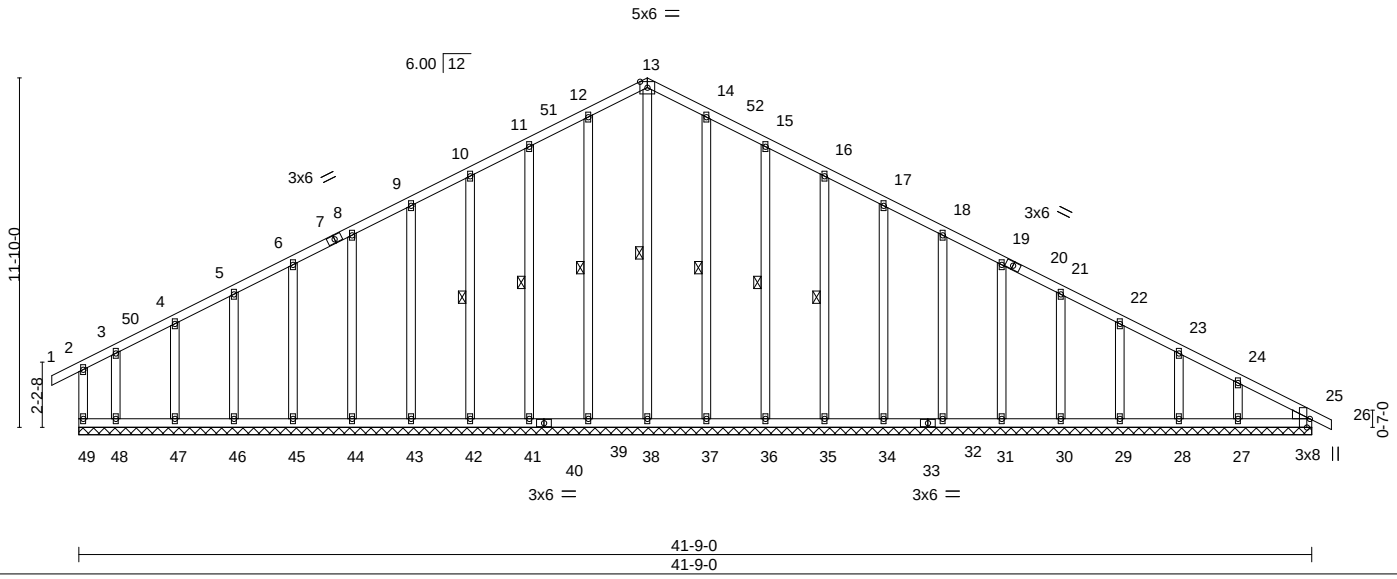

Plate Offsets (X,Y)-- [25:0-3-8,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.14	Vert(LL)	0.00	25	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	26	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.19	Horz(CT)	0.01	25	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 325 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
OTHERS	2x4 SP No.3
WEDGE	
Right: 2x4 SP No.3	

BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 13-38, 12-39, 11-41, 10-42, 14-37, 15-36, 16-35

REACTIONS. All bearings 41-9-0.
(lb) - Max Horz 49=-167(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 49, 39, 41, 42, 43, 44, 45, 46, 47, 37, 36, 35, 34, 32, 31, 30, 29, 28, 27, 25 except 48=-106(LC 12)
Max Grav All reactions 250 lb or less at joint(s) 49, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 37, 36, 35, 34, 32, 31, 30, 29, 28, 27, 25

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 9-10=-112/272, 10-11=-126/313, 11-12=-142/357, 12-13=-154/412, 13-14=-154/422, 14-15=-142/389, 15-16=-126/345, 16-17=-112/304, 17-18=-97/263
WEBS 13-38=-277/60

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-11-0 to 2-1-0, Exterior(2) 2-1-0 to 19-3-0, Corner(3) 19-3-0 to 22-3-0, Exterior(2) 22-3-0 to 42-5-0 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 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) 49, 39, 41, 42, 43, 44, 45, 46, 47, 37, 36, 35, 34, 32, 31, 30, 29, 28, 27, 25 except (jt=lb) 48=106.

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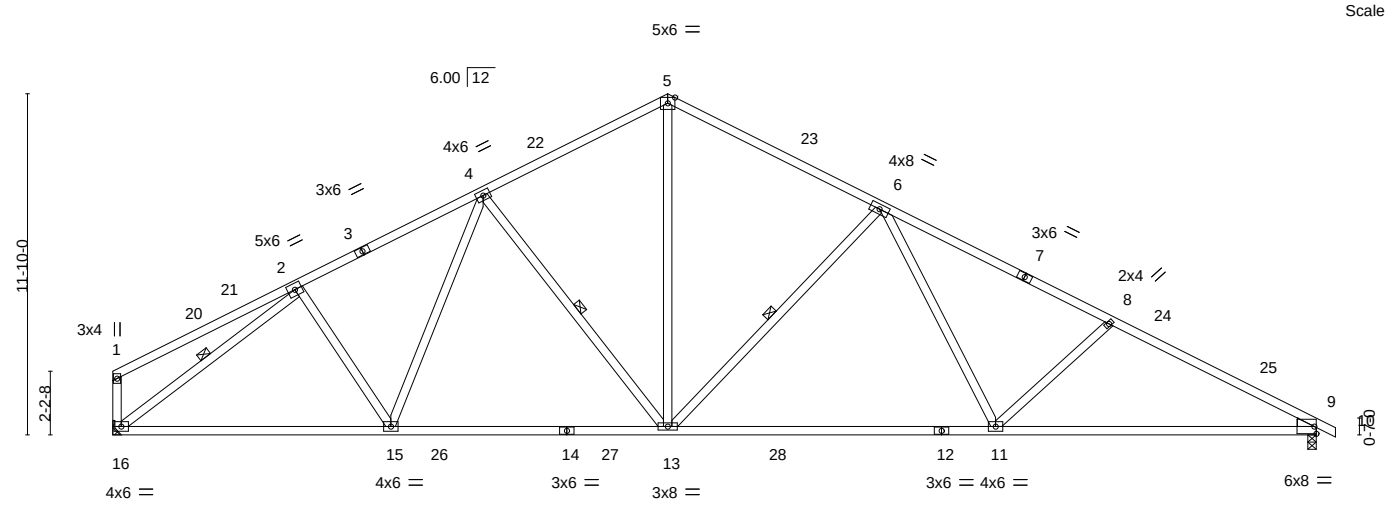
Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A02	COMMON	6	1	I62516903
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:21 2023 Page 1
ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

6-5-5	12-10-3	19-3-0	26-9-13	34-6-11	41-9-0	42-5-0
6-5-5	6-4-13	6-4-13	7-6-13	7-8-14	7-2-5	0-8-0

Scale = 1:79.9



9-7-12	19-3-0	30-7-8	41-9-0
9-7-12	9-7-4	11-4-8	11-1-8

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.89	Vert(LL)	-0.51	11-13	>973	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.88	Vert(CT)	-0.87	11-13	>575	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.78	Horz(CT)	0.12	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.08	11-13	>999	240	Weight: 237 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except* 7-10: 2x4 SP No.1
BOT CHORD 2x4 SP No.1 *Except* 12-14: 2x4 SP SS
WEBS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 2-16, 4-13, 6-13

REACTIONS. (size) 16=Mechanical, 9=0-3-8
Max Horz 16=-171(LC 10)
Max Uplift 9=-2(LC 13)
Max Grav 16=1664(LC 1), 9=1704(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2133/199, 4-5=-1818/236, 5-6=-1836/235, 6-8=-2708/198, 8-9=-2997/204
BOT CHORD 15-16=-31/1764, 13-15=0/1797, 11-13=-16/2087, 9-11=-88/2600
WEBS 2-16=-2151/123, 4-13=-498/126, 5-13=-71/1248, 6-11=0/610, 8-11=-398/150, 6-13=-822/151

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-12 to 3-4-12, Interior(1) 3-4-12 to 19-6-0, Exterior(2) 19-6-0 to 23-8-15, Interior(1) 23-8-15 to 42-8-0 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) Refer to girder(s) for truss to truss connections.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 9.

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Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A03BV	SPECIAL	3	1	I62516904
					Job Reference (optional)

Builders FirstSource, Apex, NC 27523 — 8.630 s Mar 9 2023 MiTek Industries, Inc. Tue Dec 12 14:48:12 2023 Page 1
ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-KENmm6GDFJ6pqMnRzRFgInEocZ3hWZY6iKQKEZy9ghn

-0-8-0	8-5-5	14-2-3	19-6-0	26-0-0	34-0-0	42-0-0	42-8-0
0-8-0	8-5-5	5-8-14	5-3-13	6-6-0	8-0-0	8-0-0	0-8-0

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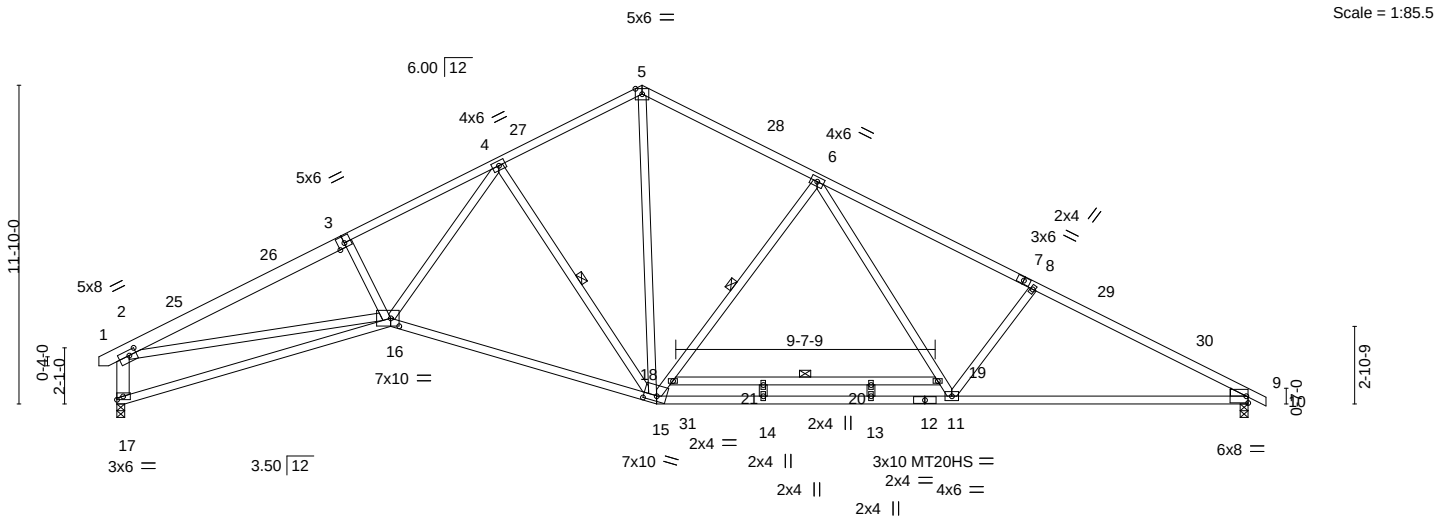

10-2-0	20-0-8	24-0-0	28-0-0	31-0-0	42-0-0
10-2-0	9-10-8	3-11-8	4-0-0	3-0-0	11-0-0

Plate Offsets (X,Y)-- [2:0-3-4,0-2-4], [15:0-5-12,0-2-4], [16:0-3-12,0-3-8]

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	0.93	Vert(LL)	-0.75	13-14	>669	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-1.08	13-14	>466	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.93	Horz(CT)	0.23	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.12	15-16	>999	240	Weight: 263 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
5-7: 2x4 SP SS, 1-3: 2x6 SP No.2
BOT CHORD 2x4 SP SS *Except*
16-17: 2x4 SP No.2, 15-16: 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
2-17: 2x6 SP No.2, 2-16: 2x4 SP No.2, 18-19: 2x4 SP No.1
WEDGE
Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-15, 6-15, 18-19

REACTIONS. (lb/size) 17=1714/0-3-8 (min. 0-2-0), 9=1711/0-3-8 (min. 0-2-0)
Max Horz 17=-165(LC 10)
Max Uplift 9=-1(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-17=-1701/186, 2-25=-3878/151, 25-26=-3749/161, 3-26=-3720/183, 3-4=-3638/207, 4-27=-1753/217, 5-27=-1676/243, 5-28=-1740/247, 6-28=-1842/216, 6-7=-2734/219, 7-8=-2744/176, 8-29=-2814/200, 29-30=-2883/180, 9-30=-2982/165
BOT CHORD 16-17=-141/428, 15-16=0/2290, 15-31=0/1994, 14-31=0/1994, 13-14=0/1994, 12-13=0/1994, 11-12=0/1994, 9-11=-78/2579
WEBS 2-16=-42/3045, 3-16=-314/134, 4-16=0/1819, 5-15=-100/1304, 6-19=0/867, 11-19=-8/779, 8-11=-418/151, 4-15=-1220/123, 15-18=-824/139, 6-18=-788/157

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-5-14 to 2-6-2, Interior(1) 2-6-2 to 19-6-0, Exterior(2) 19-6-0 to 23-8-15, Interior(1) 23-8-15 to 42-8-0 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 9.
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) N/A
10) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

NORTH CAROLINA PROFESSIONAL SEAL 036322 ENGINEER ERIC A. GILBERT

December 12,2023

LOAD CASE(S)
Continued on page 2

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

LOAD CASE(S)

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-5=-60, 5-10=-60, 16-17=-20, 15-16=-20, 15-22=-20
2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-50, 2-5=-50, 5-10=-50, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-50(F=-30), 12-22=-20
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-2=-20, 2-5=-20, 5-10=-20, 16-17=-40, 15-16=-40, 15-31=-40, 12-31=-80(F=-40), 12-22=-40
4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=47, 2-25=25, 5-25=14, 5-28=25, 9-28=14, 9-10=9, 16-17=-12, 15-16=-12, 15-22=-12
   Horz: 2-17=14, 1-2=-59, 2-25=-37, 5-25=-26, 5-28=37, 9-28=26, 9-10=21
5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=9, 2-27=14, 5-27=25, 5-30=14, 9-30=25, 9-10=47, 16-17=-12, 15-16=-12, 15-22=-12
   Horz: 2-17=-26, 1-2=-21, 2-27=-26, 5-27=-37, 5-30=26, 9-30=37, 9-10=59
6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-12, 2-5=-33, 5-9=-33, 9-10=-28, 16-17=-20, 15-16=-20, 15-22=-20
   Horz: 2-17=-17, 1-2=-8, 2-5=13, 5-9=-13, 9-10=-8
7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-28, 2-5=-33, 5-9=-33, 9-10=-12, 16-17=-20, 15-16=-20, 15-22=-20
   Horz: 2-17=24, 1-2=8, 2-5=13, 5-9=-13, 9-10=8
8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=9, 2-5=-2, 5-9=9, 9-10=4, 16-17=-12, 15-16=-12, 15-22=-12
   Horz: 2-17=14, 1-2=-21, 2-5=-10, 5-9=21, 9-10=16
9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=4, 2-5=9, 5-9=-2, 9-10=9, 16-17=-12, 15-16=-12, 15-22=-12
   Horz: 2-17=-18, 1-2=-16, 2-5=-21, 5-9=10, 9-10=21
10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-15, 2-5=-20, 5-9=-9, 9-10=-4, 16-17=-20, 15-16=-20, 15-22=-20
    Horz: 2-17=23, 1-2=-5, 2-5=-0, 5-9=11, 9-10=16
11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-4, 2-5=-9, 5-9=-20, 9-10=-15, 16-17=-20, 15-16=-20, 15-22=-20
    Horz: 2-17=-8, 1-2=-16, 2-5=-11, 5-9=0, 9-10=5
12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=17, 2-26=22, 5-26=11, 5-9=3, 9-10=-2, 16-17=-12, 15-16=-12, 15-22=-12
    Horz: 2-17=12, 1-2=-29, 2-26=-34, 5-26=-23, 5-9=15, 9-10=10
13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-2, 2-5=3, 5-29=11, 9-29=22, 9-10=17, 16-17=-12, 15-16=-12, 15-22=-12
    Horz: 2-17=-13, 1-2=-10, 2-5=-15, 5-29=23, 9-29=34, 9-10=29
14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=7, 2-5=11, 5-9=3, 9-10=-2, 16-17=-12, 15-16=-12, 15-22=-12
    Horz: 2-17=6, 1-2=-19, 2-5=-23, 5-9=15, 9-10=10
15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-2, 2-5=3, 5-9=11, 9-10=7, 16-17=-12, 15-16=-12, 15-22=-12
    Horz: 2-17=-13, 1-2=-10, 2-5=-15, 5-9=23, 9-10=19
16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=9, 2-26=4, 5-26=-6, 5-9=-15, 9-10=-10, 16-17=-20, 15-16=-20, 15-22=-20
    Horz: 2-17=21, 1-2=-29, 2-26=-24, 5-26=-14, 5-9=5, 9-10=10
17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-10, 2-5=-15, 5-29=-6, 9-29=4, 9-10=9, 16-17=-20, 15-16=-20, 15-22=-20
    Horz: 2-17=-3, 1-2=-10, 2-5=-5, 5-29=14, 9-29=24, 9-10=29
18) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
    Uniform Loads (plf)
    Vert: 1-2=-20, 2-5=-20, 5-10=-20, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-60(F=-40), 12-22=-20
19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-46, 2-5=-50, 5-9=-42, 9-10=-38, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-50(F=-30), 12-22=-20
    Horz: 2-17=18, 1-2=-4, 2-5=-0, 5-9=8, 9-10=12
20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

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LOAD CASE(S)

Uniform Loads (plf)
Vert: 1-2=-38, 2-5=-42, 5-9=-50, 9-10=-46, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-50(F=-30), 12-22=-20
Horz: 2-17=-6, 1-2=-12, 2-5=-8, 5-9=0, 9-10=4

21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 2-26=-32, 5-26=-40, 5-9=-46, 9-10=-43, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-50(F=-30), 12-22=-20
Horz: 2-17=16, 1-2=-22, 2-26=-18, 5-26=-10, 5-9=4, 9-10=7

22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-43, 2-5=-46, 5-29=-40, 9-29=-32, 9-10=-28, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-50(F=-30), 12-22=-20
Horz: 2-17=-2, 1-2=-7, 2-5=-4, 5-29=10, 9-29=18, 9-10=22

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-5=-60, 5-10=-20, 16-17=-20, 15-16=-20, 15-22=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-20, 2-5=-20, 5-10=-60, 16-17=-20, 15-16=-20, 15-22=-20

25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-50, 2-5=-50, 5-10=-20, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-50(F=-30), 12-22=-20

26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-20, 2-5=-20, 5-10=-50, 16-17=-20, 15-16=-20, 15-31=-20, 12-31=-50(F=-30), 12-22=-20

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A04SGV	GABLE	1	1	I62516905
					Job Reference (optional)

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ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-RkfhVZQNBJkztMHxDg_jKWH0KpVk3Qw1is4XCIy9gha

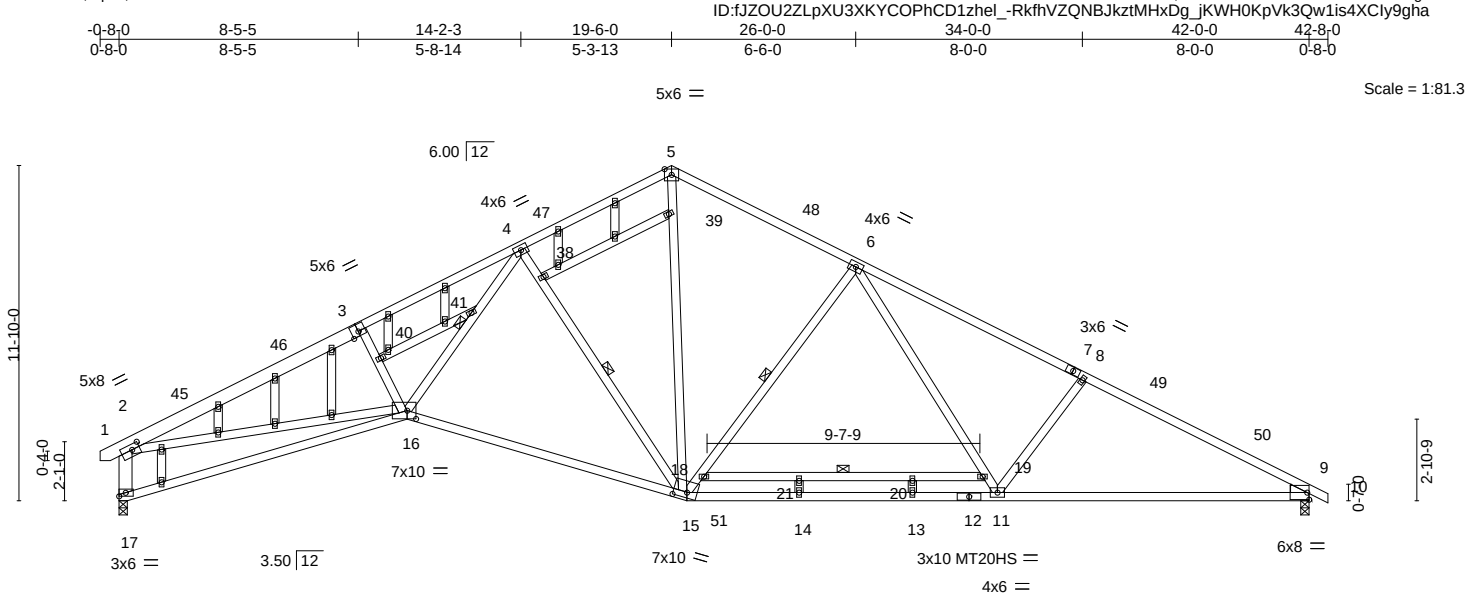

Plate Offsets (X,Y)-- [2:0-3-4,0-2-4], [15:0-5-12,0-2-4], [16:0-3-12,0-3-8]

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	0.93	Vert(LL)	-0.75	13-14	>670	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.93	Vert(CT)	-1.08	13-14	>466	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.98	Horz(CT)	0.23	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.12	15-16	>999	240	Weight: 293 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.2 *Except*
5-7: 2x4 SP SS, 1-3: 2x6 SP No.2
BOT CHORD 2x4 SP SS *Except*
16-17: 2x4 SP No.2, 15-16: 2x4 SP No.1
WEBS 2x4 SP No.3 *Except*
2-17: 2x6 SP No.2, 2-16: 2x4 SP No.2, 18-19: 2x4 SP No.1
OTHERS 2x4 SP No.3
WEDGE
Right: 2x4 SP No.3

BRACING-

TOP CHORD Structural wood sheathing directly applied, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-15, 6-15, 18-19
JOINTS 1 Brace at Jt(s): 41

REACTIONS. (lb/size) 17=1714/0-3-8 (min. 0-2-0), 9=1711/0-3-8 (min. 0-2-0)
Max Horz 17=-165(LC 10)
Max Uplift 9=-1(LC 13)

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

TOP CHORD 2-17=-1700/186, 2-45=-3878/151, 45-46=-3750/161, 3-46=-3721/183, 3-4=-3587/204, 4-47=-1799/220, 5-47=-1722/246, 5-48=-1740/247, 6-48=-1842/216, 6-7=-2734/219, 7-8=-2744/176, 8-49=-2814/200, 49-50=-2883/180, 9-50=-2982/165
BOT CHORD 16-17=-141/428, 15-16=0/2289, 15-51=0/1994, 14-51=0/1994, 13-14=0/1994, 12-13=0/1994, 11-12=0/1994, 9-11=-78/2579
WEBS 2-16=-42/3046, 3-40=-319/134, 16-40=-314/134, 16-41=0/1847, 4-41=0/1776, 5-39=-102/1319, 15-39=-100/1301, 6-19=0/867, 11-19=-8/779, 8-11=-418/151, 4-38=-1214/122, 15-38=-1220/123, 15-18=-824/139, 6-18=-788/157

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-5-14 to 2-6-2, Interior(1) 2-6-2 to 19-6-0, Exterior(2) 19-6-0 to 23-8-15, Interior(1) 23-8-15 to 42-8-0 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 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) Bearing at joint(s) 17 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 1 lb uplift at joint 9.

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NOTES-

11) 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.
12) N/A
13) 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)

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-60, 2-5=-60, 5-10=-60, 16-17=-20, 15-16=-20, 15-42=-20
2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-2=-50, 2-5=-50, 5-10=-50, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-50(F=-30), 12-42=-20
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-2=-20, 2-5=-20, 5-10=-20, 16-17=-40, 15-16=-40, 15-51=-40, 12-51=-80(F=-40), 12-42=-40
4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=47, 2-45=25, 5-45=14, 5-48=25, 9-48=14, 9-10=9, 16-17=-12, 15-16=-12, 15-42=-12
   Horz: 2-17=14, 1-2=-59, 2-45=-37, 5-45=-26, 5-48=37, 9-48=26, 9-10=21
5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=9, 2-47=14, 5-47=25, 5-50=14, 9-50=25, 9-10=47, 16-17=-12, 15-16=-12, 15-42=-12
   Horz: 2-17=-26, 1-2=-21, 2-47=-26, 5-47=-37, 5-50=26, 9-50=37, 9-10=59
6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-12, 2-5=-33, 5-9=-33, 9-10=-28, 16-17=-20, 15-16=-20, 15-42=-20
   Horz: 2-17=-17, 1-2=-8, 2-5=13, 5-9=-13, 9-10=-8
7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-28, 2-5=-33, 5-9=-33, 9-10=-12, 16-17=-20, 15-16=-20, 15-42=-20
   Horz: 2-17=24, 1-2=8, 2-5=13, 5-9=-13, 9-10=8
8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=9, 2-5=-2, 5-9=9, 9-10=4, 16-17=-12, 15-16=-12, 15-42=-12
   Horz: 2-17=14, 1-2=-21, 2-5=-10, 5-9=21, 9-10=16
9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=4, 2-5=9, 5-9=-2, 9-10=9, 16-17=-12, 15-16=-12, 15-42=-12
   Horz: 2-17=-18, 1-2=-16, 2-5=-21, 5-9=10, 9-10=21
10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-15, 2-5=-20, 5-9=-9, 9-10=-4, 16-17=-20, 15-16=-20, 15-42=-20
    Horz: 2-17=23, 1-2=-5, 2-5=-0, 5-9=11, 9-10=16
11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-4, 2-5=-9, 5-9=-20, 9-10=-15, 16-17=-20, 15-16=-20, 15-42=-20
    Horz: 2-17=-8, 1-2=-16, 2-5=-11, 5-9=0, 9-10=5
12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=17, 2-46=22, 5-46=11, 5-9=3, 9-10=-2, 16-17=-12, 15-16=-12, 15-42=-12
    Horz: 2-17=12, 1-2=-29, 2-46=-34, 5-46=-23, 5-9=15, 9-10=10
13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-2, 2-5=3, 5-49=11, 9-49=22, 9-10=17, 16-17=-12, 15-16=-12, 15-42=-12
    Horz: 2-17=-13, 1-2=-10, 2-5=-15, 5-49=23, 9-49=34, 9-10=29
14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=7, 2-5=11, 5-9=3, 9-10=-2, 16-17=-12, 15-16=-12, 15-42=-12
    Horz: 2-17=6, 1-2=-19, 2-5=-23, 5-9=15, 9-10=10
15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-2, 2-5=3, 5-9=11, 9-10=7, 16-17=-12, 15-16=-12, 15-42=-12
    Horz: 2-17=-13, 1-2=-10, 2-5=-15, 5-9=23, 9-10=19
16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=9, 2-46=4, 5-46=-6, 5-9=-15, 9-10=-10, 16-17=-20, 15-16=-20, 15-42=-20
    Horz: 2-17=21, 1-2=-29, 2-46=-24, 5-46=-14, 5-9=5, 9-10=10
17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-10, 2-5=-15, 5-49=-6, 9-49=4, 9-10=9, 16-17=-20, 15-16=-20, 15-42=-20
    Horz: 2-17=-3, 1-2=-10, 2-5=-5, 5-49=14, 9-49=24, 9-10=29
18) Dead + Uninhabitable Attic Storage: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
    Uniform Loads (plf)
    Vert: 1-2=-20, 2-5=-20, 5-10=-20, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-60(F=-40), 12-42=-20
19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60

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LOAD CASE(S)

Uniform Loads (plf)
Vert: 1-2=-46, 2-5=-50, 5-9=-42, 9-10=-38, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-50(F=-30), 12-42=-20
Horz: 2-17=18, 1-2=-4, 2-5=-0, 5-9=8, 9-10=12

20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 2-5=-42, 5-9=-50, 9-10=-46, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-50(F=-30), 12-42=-20
Horz: 2-17=-6, 1-2=-12, 2-5=-8, 5-9=0, 9-10=4

21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 2-46=-32, 5-46=-40, 5-9=-46, 9-10=-43, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-50(F=-30), 12-42=-20
Horz: 2-17=16, 1-2=-22, 2-46=-18, 5-46=-10, 5-9=4, 9-10=7

22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-43, 2-5=-46, 5-49=-40, 9-49=-32, 9-10=-28, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-50(F=-30), 12-42=-20
Horz: 2-17=-2, 1-2=-7, 2-5=-4, 5-49=10, 9-49=18, 9-10=22

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-60, 2-5=-60, 5-10=-20, 16-17=-20, 15-16=-20, 15-42=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-20, 2-5=-20, 5-10=-60, 16-17=-20, 15-16=-20, 15-42=-20

25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-50, 2-5=-50, 5-10=-20, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-50(F=-30), 12-42=-20

26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-2=-20, 2-5=-20, 5-10=-50, 16-17=-20, 15-16=-20, 15-51=-20, 12-51=-50(F=-30), 12-42=-20

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Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A05	COMMON	5	1	I62516906
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:27 2023 Page 1
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-0-8-0	7-2-5	14-1-3	21-0-0	27-10-13	34-9-11	42-0-0	42-8-0
0-8-0	7-2-5	6-10-13	6-10-13	6-10-13	6-10-13	7-2-5	0-8-0

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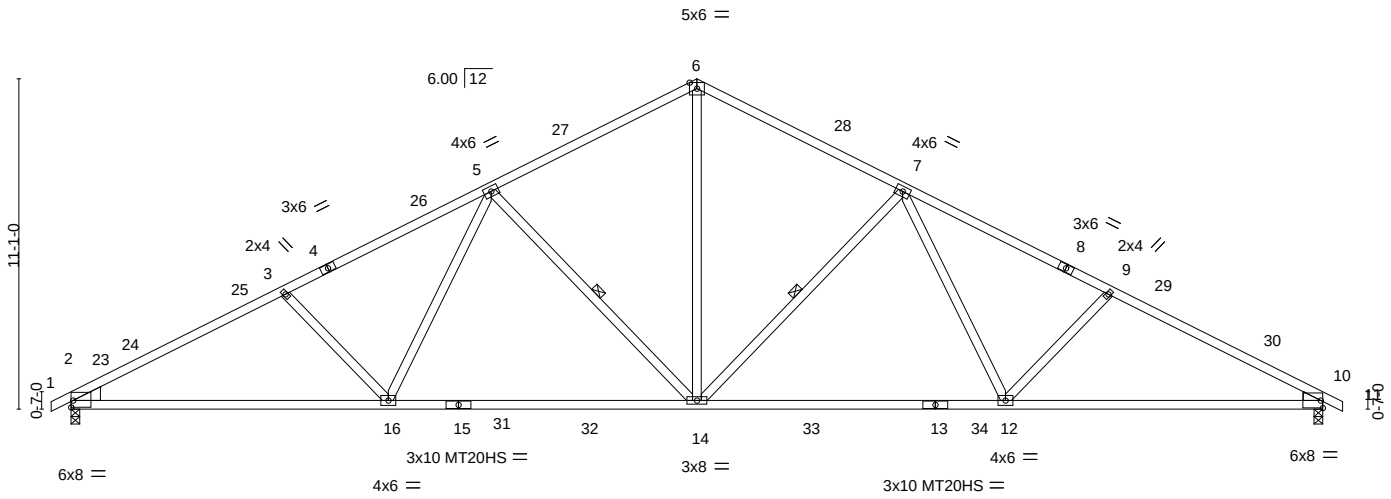

10-7-12	21-0-0	31-4-4	42-0-0
10-7-12	10-4-4	10-4-4	10-7-12

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

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	0.90	Vert(LL)	-0.39	14-16	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.95	Vert(CT)	-0.69	12-14	>731	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.61	Horz(CT)	0.15	10	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.09	12-14	>999	240	Weight: 221 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2 *Except*
1-4: 2x4 SP No.1, 8-11: 2x4 SP SS
BOT CHORD 2x4 SP No.1 *Except*
13-15: 2x4 SP SS
WEBS 2x4 SP No.3
WEDGE
Left: 2x6 SP No.2 , Right: 2x4 SP No.3

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

REACTIONS. (size) 2=0-3-8, 10=0-3-8
Max Horz 2=-127(LC 17)
Max Grav 2=2045(LC 1), 10=1768(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3543/0, 3-5=-3089/0, 5-6=-2070/129, 6-7=-2069/129, 7-9=-2851/104, 9-10=-3121/104
BOT CHORD 2-16=0/3035, 14-16=0/2358, 12-14=0/2265, 10-12=-1/2707
WEBS 6-14=0/1461, 7-14=-754/142, 7-12=0/547, 9-12=-356/144, 5-14=-890/7, 5-16=0/740, 3-16=-582/0

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 2-4-0, Interior(1) 2-4-0 to 21-0-0, Exterior(2) 21-0-0 to 25-2-15, Interior(1) 25-2-15 to 42-8-0 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) N/A

7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-23=-60, 6-26=-60, 6-11=-60, 17-20=-20

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LOAD CASE(S) Standard

Trapezoidal Loads (plf)
Vert: 23=-120-to-26=-70

2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-23=-50, 6-26=-50, 6-11=-50, 17-31=-20, 31-32=-50, 32-33=-20, 33-34=-50, 20-34=-20
Trapezoidal Loads (plf)
Vert: 23=-110-to-26=-60

3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-23=-20, 6-26=-20, 6-11=-20, 17-20=-40
Trapezoidal Loads (plf)
Vert: 23=-80-to-26=-30

4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=47, 2-23=25, 6-26=14, 6-28=25, 10-28=14, 10-11=9, 17-20=-12
Horz: 1-2=-59, 2-24=-37, 6-24=-26, 6-28=37, 10-28=26, 10-11=21
Trapezoidal Loads (plf)
Vert: 23=-35-to-24=-30, 24=-41-to-26=4

5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-23=14, 26-27=14, 6-27=25, 6-30=14, 10-30=25, 10-11=47, 17-20=-12
Horz: 1-2=-21, 2-27=-26, 6-27=-37, 6-30=26, 10-30=37, 10-11=59
Trapezoidal Loads (plf)
Vert: 23=-46-to-26=4

6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-12, 2-23=-33, 6-26=-33, 6-10=-33, 10-11=-28, 17-20=-20
Horz: 1-2=-8, 2-6=13, 6-10=-13, 10-11=-8
Trapezoidal Loads (plf)
Vert: 23=-93-to-26=-43

7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 2-23=-33, 6-26=-33, 6-10=-33, 10-11=-12, 17-20=-20
Horz: 1-2=8, 2-6=13, 6-10=-13, 10-11=8
Trapezoidal Loads (plf)
Vert: 23=-93-to-26=-43

8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-23=-2, 6-26=-2, 6-10=9, 10-11=4, 17-20=-12
Horz: 1-2=-21, 2-6=-10, 6-10=21, 10-11=16
Trapezoidal Loads (plf)
Vert: 23=-62-to-26=-12

9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=4, 2-23=9, 6-26=9, 6-10=-2, 10-11=9, 17-20=-12
Horz: 1-2=-16, 2-6=-21, 6-10=10, 10-11=21
Trapezoidal Loads (plf)
Vert: 23=-51-to-26=-1

10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-15, 2-23=-20, 6-26=-20, 6-10=-9, 10-11=-4, 17-20=-20
Horz: 1-2=-5, 2-6=-0, 6-10=11, 10-11=16
Trapezoidal Loads (plf)
Vert: 23=-80-to-26=-30

11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-4, 2-23=-9, 6-26=-9, 6-10=-20, 10-11=-15, 17-20=-20
Horz: 1-2=-16, 2-6=-11, 6-10=0, 10-11=5
Trapezoidal Loads (plf)
Vert: 23=-69-to-26=-19

12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=17, 2-23=22, 6-26=11, 6-10=3, 10-11=-2, 17-20=-12
Horz: 1-2=-29, 2-25=-34, 6-25=-23, 6-10=15, 10-11=10
Trapezoidal Loads (plf)
Vert: 23=-38-to-25=-17, 25=-27-to-26=1

13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-2, 2-23=3, 6-26=3, 6-29=11, 10-29=22, 10-11=17, 17-20=-12
Horz: 1-2=-10, 2-6=-15, 6-29=23, 10-29=34, 10-11=29
Trapezoidal Loads (plf)
Vert: 23=-57-to-26=-7

14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60

Continued on page 3

LOAD CASE(S) Standard

Uniform Loads (plf)
Vert: 1-2=7, 2-23=11, 6-26=11, 6-10=3, 10-11=-2, 17-20=-12
Horz: 1-2=-19, 2-6=-23, 6-10=15, 10-11=10
Trapezoidal Loads (plf)
Vert: 23=-49-to-26=1

15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-2, 2-23=3, 6-26=3, 6-10=11, 10-11=7, 17-20=-12
Horz: 1-2=-10, 2-6=-15, 6-10=23, 10-11=19
Trapezoidal Loads (plf)
Vert: 23=-57-to-26=-7

16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=9, 2-23=4, 6-26=-6, 6-10=-15, 10-11=-10, 17-20=-20
Horz: 1-2=-29, 2-25=-24, 6-25=-14, 6-10=5, 10-11=10
Trapezoidal Loads (plf)
Vert: 23=-56-to-25=-34, 25=-44-to-26=-16

17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-10, 2-23=-15, 6-26=-15, 6-29=-6, 10-29=4, 10-11=9, 17-20=-20
Horz: 1-2=-10, 2-6=-5, 6-29=14, 10-29=24, 10-11=29
Trapezoidal Loads (plf)
Vert: 23=-75-to-26=-25

18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25
Uniform Loads (plf)
Vert: 1-23=-20, 6-26=-20, 6-11=-20, 17-31=-20, 31-32=-60, 32-33=-20, 33-34=-60, 20-34=-20
Trapezoidal Loads (plf)
Vert: 23=-80-to-26=-30

19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-46, 2-23=-50, 6-26=-50, 6-10=-42, 10-11=-38, 17-31=-20, 31-32=-50, 32-33=-20, 33-34=-50, 20-34=-20
Horz: 1-2=-4, 2-6=-0, 6-10=8, 10-11=12
Trapezoidal Loads (plf)
Vert: 23=-110-to-26=-60

20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-38, 2-23=-42, 6-26=-42, 6-10=-50, 10-11=-46, 17-31=-20, 31-32=-50, 32-33=-20, 33-34=-50, 20-34=-20
Horz: 1-2=-12, 2-6=-8, 6-10=0, 10-11=4
Trapezoidal Loads (plf)
Vert: 23=-102-to-26=-52

21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 2-23=-32, 6-26=-40, 6-10=-46, 10-11=-43, 17-31=-20, 31-32=-50, 32-33=-20, 33-34=-50, 20-34=-20
Horz: 1-2=-22, 2-25=-18, 6-25=-10, 6-10=4, 10-11=7
Trapezoidal Loads (plf)
Vert: 23=-92-to-25=-70, 25=-78-to-26=-50

22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-43, 2-23=-46, 6-26=-46, 6-29=-40, 10-29=-32, 10-11=-28, 17-31=-20, 31-32=-50, 32-33=-20, 33-34=-50, 20-34=-20
Horz: 1-2=-7, 2-6=-4, 6-29=10, 10-29=18, 10-11=22
Trapezoidal Loads (plf)
Vert: 23=-106-to-26=-56

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-23=-60, 6-26=-60, 6-11=-20, 17-20=-20
Trapezoidal Loads (plf)
Vert: 23=-120-to-26=-70

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-23=-20, 6-26=-20, 6-11=-60, 17-20=-20
Trapezoidal Loads (plf)
Vert: 23=-80-to-26=-30

25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-23=-50, 6-26=-50, 6-11=-20, 17-31=-20, 31-32=-50, 32-33=-20, 33-34=-50, 20-34=-20
Trapezoidal Loads (plf)
Vert: 23=-110-to-26=-60

26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage: Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-23=-20, 6-26=-20, 6-11=-50, 17-31=-20, 31-32=-50, 32-33=-20, 33-34=-50, 20-34=-20
Trapezoidal Loads (plf)
Vert: 23=-80-to-26=-30

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A05BV	SPECIAL	2	1	I62516907
					Job Reference (optional)

Builders FirstSource, Apex, NC 27523 — 8.630 s Mar 9 2023 MiTek Industries, Inc. Tue Dec 12 14:48:51 2023 Page 1
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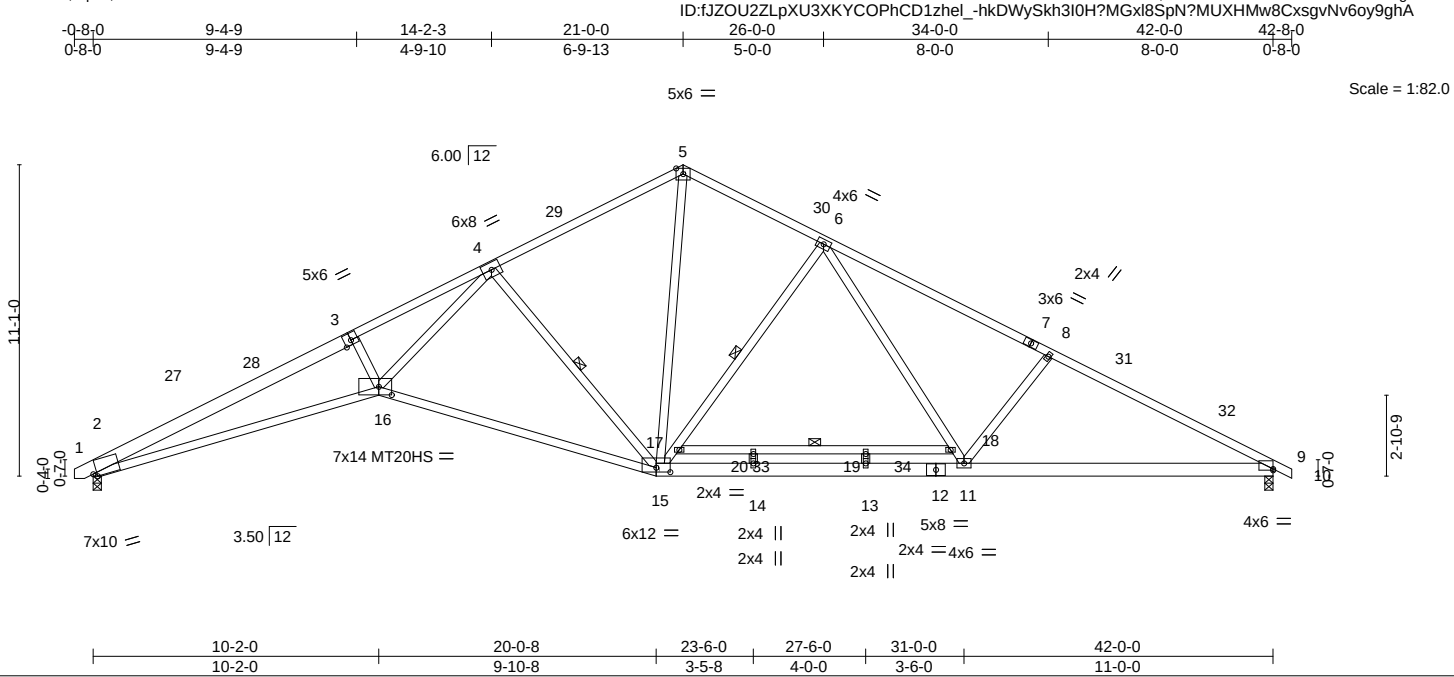

Plate Offsets (X,Y)-- [2:0-1-10,Edge], [9:Edge,0-0-9], [15:0-6-0,0-1-14], [16:0-5-8,0-3-8]

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	0.89	Vert(LL)	-0.46	13-14	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.99	Vert(CT)	-1.05	15-16	>478	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.88	Horz(CT)	0.43	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.21	16	>999	240	Weight: 256 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP SS *Except*
1-3: 2x6 SP DSS, 7-10: 2x4 SP No.2
BOT CHORD 2x4 SP SS *Except*
12-15,9-12: 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
4-16: 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-15, 6-15, 17-18

REACTIONS. (lb/size) 2=1709/0-3-8 (min. 0-2-0), 9=1720/0-3-8 (min. 0-2-0)
Max Horz 2=-127(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-27=-6069/216, 27-28=-5925/230, 3-28=-5910/252, 3-4=-5822/275, 4-29=-2024/217, 5-29=-1922/240, 5-30=-1847/242, 6-30=-1868/218, 6-7=-2769/220, 7-8=-2788/177, 8-31=-2885/204, 31-32=-2968/183, 9-32=-3066/168
BOT CHORD 2-16=-133/5502, 15-16=-53/2945, 14-15=-14/2092, 13-14=-13/2093, 12-13=-13/2093, 11-12=-13/2093, 9-11=-87/2655
WEBS 5-15=-98/1364, 4-15=-1749/161, 4-16=-47/3562, 6-18=0/868, 11-18=0/807, 8-11=-438/154, 15-17=-816/141, 6-17=-763/144

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-5-14 to 2-6-2, Interior(1) 2-6-2 to 21-0-0, Exterior(2) 21-0-0 to 25-2-15, Interior(1) 25-2-15 to 42-8-0 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
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) N/A
9) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.
10) 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)

December 12,2023

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A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

LOAD CASE(S)

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-60, 5-10=-60, 16-21=-20, 15-16=-20, 15-24=-20
2) Dead + 0.75 Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
   Uniform Loads (plf)
   Vert: 1-5=-50, 5-10=-50, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-30(F)
3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25
   Uniform Loads (plf)
   Vert: 1-5=-20, 5-10=-20, 16-21=-40, 15-16=-40, 15-24=-40, 33-34=-40(F)
4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=47, 2-27=25, 5-27=14, 5-30=25, 9-30=14, 9-10=9, 16-21=-12, 15-16=-12, 15-24=-12
   Horz: 1-2=-59, 2-27=-37, 5-27=-26, 5-30=37, 9-30=26, 9-10=21
5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=9, 2-29=14, 5-29=25, 5-32=14, 9-32=25, 9-10=47, 16-21=-12, 15-16=-12, 15-24=-12
   Horz: 1-2=-21, 2-29=-26, 5-29=-37, 5-32=26, 9-32=37, 9-10=59
6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-12, 2-5=-33, 5-9=-33, 9-10=-28, 16-21=-20, 15-16=-20, 15-24=-20
   Horz: 1-2=-8, 2-5=13, 5-9=-13, 9-10=-8
7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=-28, 2-5=-33, 5-9=-33, 9-10=-12, 16-21=-20, 15-16=-20, 15-24=-20
   Horz: 1-2=8, 2-5=13, 5-9=-13, 9-10=8
8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=9, 2-5=-2, 5-9=9, 9-10=4, 16-21=-12, 15-16=-12, 15-24=-12
   Horz: 1-2=-21, 2-5=-10, 5-9=21, 9-10=16
9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
   Uniform Loads (plf)
   Vert: 1-2=4, 2-5=9, 5-9=-2, 9-10=9, 16-21=-12, 15-16=-12, 15-24=-12
   Horz: 1-2=-16, 2-5=-21, 5-9=10, 9-10=21
10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-15, 2-5=-20, 5-9=-9, 9-10=-4, 16-21=-20, 15-16=-20, 15-24=-20
    Horz: 1-2=-5, 2-5=-0, 5-9=11, 9-10=16
11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-4, 2-5=-9, 5-9=-20, 9-10=-15, 16-21=-20, 15-16=-20, 15-24=-20
    Horz: 1-2=-16, 2-5=-11, 5-9=0, 9-10=5
12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=17, 2-28=22, 5-28=11, 5-9=3, 9-10=-2, 16-21=-12, 15-16=-12, 15-24=-12
    Horz: 1-2=-29, 2-28=-34, 5-28=-23, 5-9=15, 9-10=10
13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-2, 2-5=3, 5-31=11, 9-31=22, 9-10=17, 16-21=-12, 15-16=-12, 15-24=-12
    Horz: 1-2=-10, 2-5=-15, 5-31=23, 9-31=34, 9-10=29
14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=7, 2-5=11, 5-9=3, 9-10=-2, 16-21=-12, 15-16=-12, 15-24=-12
    Horz: 1-2=-19, 2-5=-23, 5-9=15, 9-10=10
15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-2, 2-5=3, 5-9=11, 9-10=7, 16-21=-12, 15-16=-12, 15-24=-12
    Horz: 1-2=-10, 2-5=-15, 5-9=23, 9-10=19
16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=9, 2-28=4, 5-28=-6, 5-9=-15, 9-10=-10, 16-21=-20, 15-16=-20, 15-24=-20
    Horz: 1-2=-29, 2-28=-24, 5-28=-14, 5-9=5, 9-10=10
17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-10, 2-5=-15, 5-31=-6, 9-31=4, 9-10=9, 16-21=-20, 15-16=-20, 15-24=-20
    Horz: 1-2=-10, 2-5=-5, 5-31=14, 9-31=24, 9-10=29
18) Dead: Lumber Increase=0.90, Plate Increase=0.90 Plt. metal=0.90
    Uniform Loads (plf)
    Vert: 1-5=-20, 5-10=-20, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-40(F)
19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60
    Uniform Loads (plf)
    Vert: 1-2=-46, 2-5=-50, 5-9=-42, 9-10=-38, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-30(F)
    Horz: 1-2=-4, 2-5=-0, 5-9=8, 9-10=12
20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60

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LOAD CASE(S)

Uniform Loads (plf)
Vert: 1-2=-38, 2-5=-42, 5-9=-50, 9-10=-46, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-30(F)
Horz: 1-2=-12, 2-5=-8, 5-9=0, 9-10=4

21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-28, 2-28=-32, 5-28=-40, 5-9=-46, 9-10=-43, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-30(F)
Horz: 1-2=-22, 2-28=-18, 5-28=-10, 5-9=4, 9-10=7

22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60
Uniform Loads (plf)
Vert: 1-2=-43, 2-5=-46, 5-31=-40, 9-31=-32, 9-10=-28, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-30(F)
Horz: 1-2=-7, 2-5=-4, 5-31=10, 9-31=18, 9-10=22

23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-60, 5-10=-20, 16-21=-20, 15-16=-20, 15-24=-20

24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-20, 5-10=-60, 16-21=-20, 15-16=-20, 15-24=-20

25) 3rd Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-50, 5-10=-20, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-30(F)

26) 4th Dead + 0.75 Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-5=-20, 5-10=-50, 16-21=-20, 15-16=-20, 15-24=-20, 33-34=-30(F)

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A05V	SPECIAL	3	1	I62516908 Job Reference (optional)

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0-8-0 9-4-9 4-9-10 6-9-13 5-0-0 8-0-0 8-0-0 0-8-0

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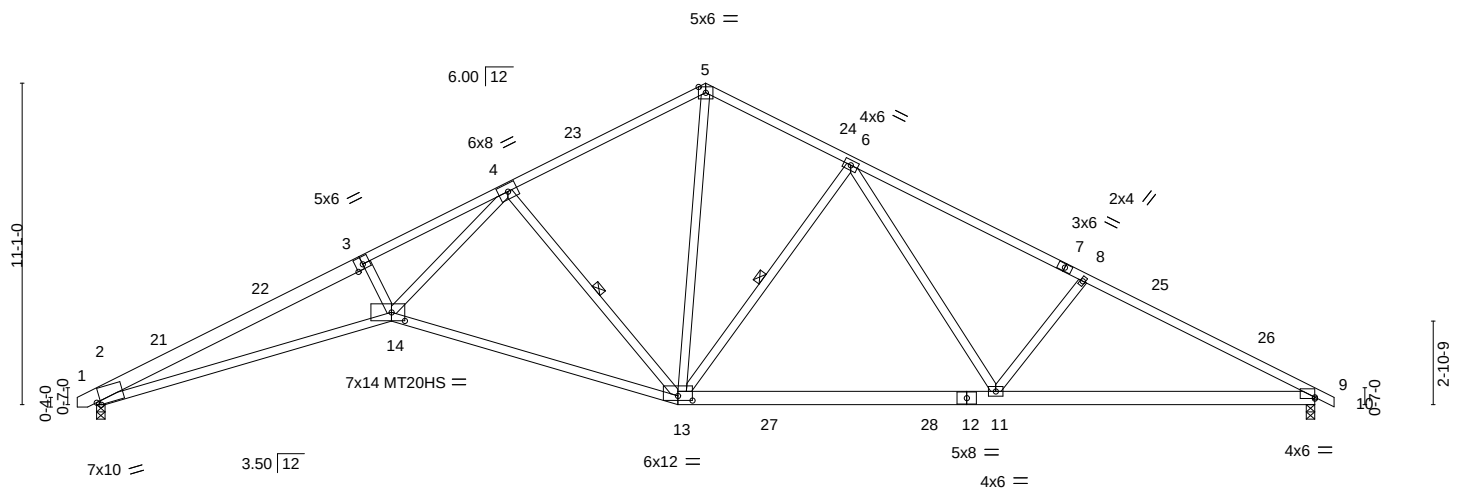

10-2-0 20-0-8 31-0-0 42-0-0
10-2-0 9-10-8 10-11-8 11-0-0

Plate Offsets (X,Y)-- [2:0-1-10,Edge], [9:Edge,0-0-9], [13:0-6-0,0-1-14], [14:0-5-8,0-3-8]

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	0.77	Vert(LL)	-0.42	11-13	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.82	Vert(CT)	-1.04	13-14	>483	240	MT20HS	187/143
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.84	Horz(CT)	0.43	9	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.21	14	>999	240	Weight: 240 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP SS *Except*
1-3: 2x6 SP DSS, 7-10: 2x4 SP No.2
BOT CHORD 2x4 SP SS *Except*
12-13,9-12: 2x6 SP No.2
WEBS 2x4 SP No.3 *Except*
4-14: 2x4 SP No.1

BRACING-
TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 4-13, 6-13

REACTIONS. (size) 2=0-3-8, 9=0-3-8
Max Horz 2=-127(LC 17)
Max Grav 2=1709(LC 1), 9=1720(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-6070/252, 3-4=-5823/275, 4-5=-2022/240, 5-6=-1866/242, 6-8=-2787/219, 8-9=-3066/203
BOT CHORD 2-14=-133/5503, 13-14=-53/2944, 11-13=-11/2035, 9-11=-86/2654
WEBS 5-13=-98/1362, 4-13=-1750/161, 4-14=-47/3565, 6-11=0/752, 8-11=-438/154, 6-13=-767/143

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-5-14 to 2-6-2, Interior(1) 2-6-2 to 21-0-0, Exterior(2) 21-0-0 to 25-2-15, Interior(1) 25-2-15 to 42-8-0 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) All plates are MT20 plates unless otherwise indicated.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
6) Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
7) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

December 12,2023

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

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	A06G	GABLE	1	1	I62516909
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:32 2023 Page 1
ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-8-0 21-8-0 42-8-0 43-4-0
0-8-0 21-0-0 21-0-0 0-8-0

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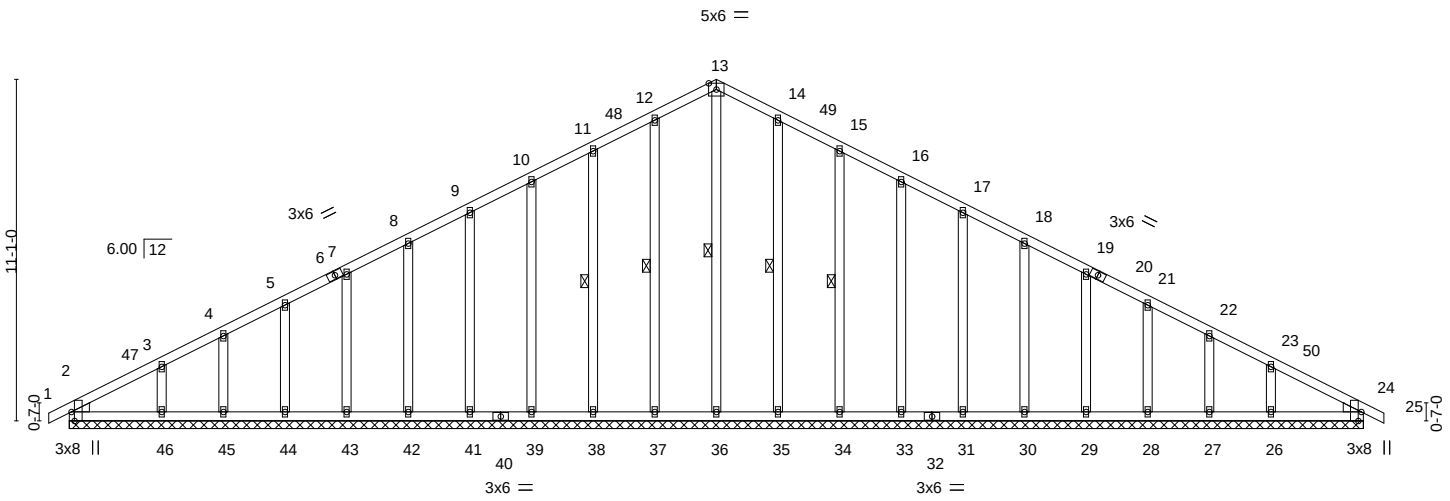

-0-8-0 42-8-0 43-4-0
0-8-0 42-0-0 0-8-0

Plate Offsets (X,Y)-- [2:0-3-8,Edge], [24:0-3-8,Edge]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.11	Vert(LL)	0.00	25	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.07	Vert(CT)	0.00	25	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.14	Horz(CT)	0.01	24	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-S							Weight: 300 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 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.
WEBS 1 Row at midpt 13-36, 12-37, 11-38, 14-35, 15-34

REACTIONS. All bearings 42-0-0.
(lb) - Max Horz 2=157(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26, 2
Max Grav All reactions 250 lb or less at joint(s) 24, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26, 2

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-95/264, 12-13=-109/299, 13-14=-109/299, 14-15=-95/264

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-8-0 to 2-4-0, Exterior(2) 2-4-0 to 21-0-0, Corner(3) 21-0-0 to 24-0-0, Exterior(2) 24-0-0 to 42-8-0 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 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) 37, 38, 39, 41, 42, 43, 44, 45, 46, 35, 34, 33, 31, 30, 29, 28, 27, 26, 2.
10) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.

December 12,2023

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

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	B01G	GABLE	1	1	I62516910

Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:34 2023 Page 1
ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

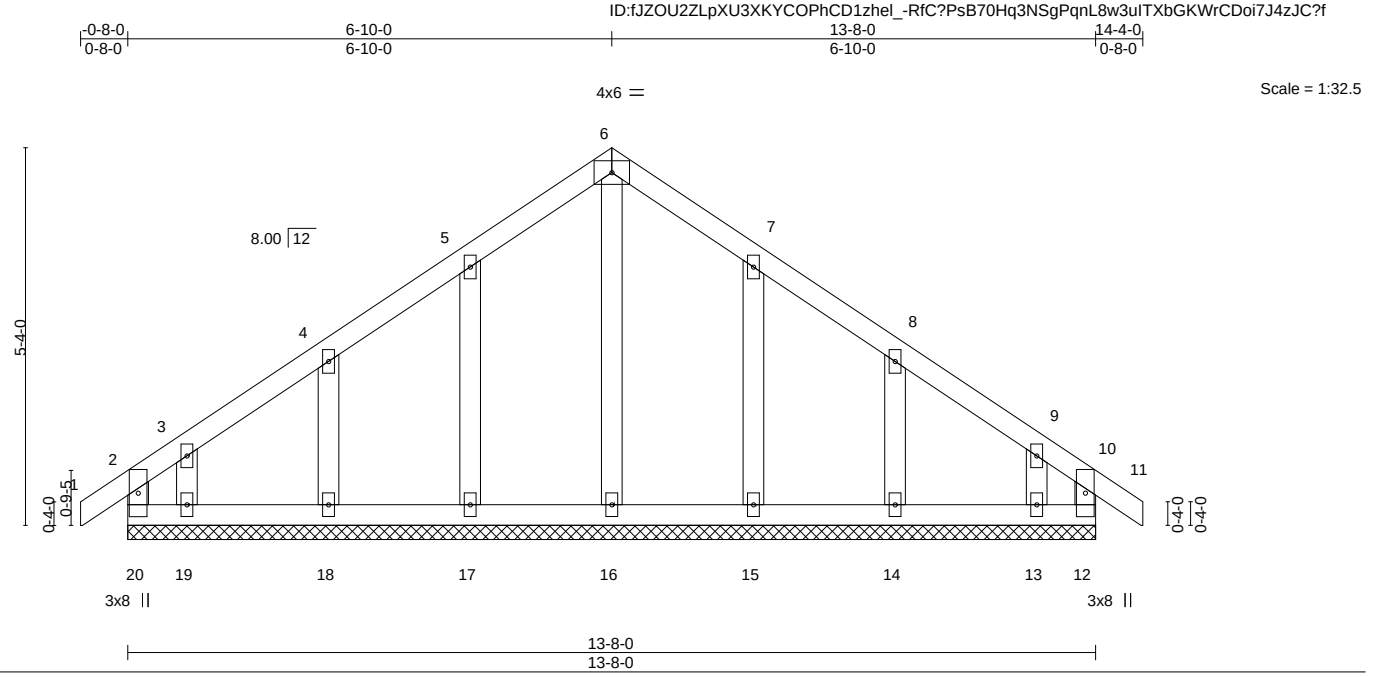

Plate Offsets (X,Y)-- [12:0-0-0,0-0-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.07	Vert(LL)	-0.00	10	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.04	Vert(CT)	-0.00	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.06	Horz(CT)	0.00	12	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-R							Weight: 75 lb	FT = 20%

LUMBER-

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

BRACING-

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

REACTIONS. All bearings 13-8-0.
(lb) - Max Horz 20=125(LC 11)
Max Uplift All uplift 100 lb or less at joint(s) 20, 12, 17, 18, 19, 15, 14, 13
Max Grav All reactions 250 lb or less at joint(s) 20, 12, 16, 17, 18, 19, 15, 14, 13

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

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-7-14 to 2-4-2, Exterior(2) 2-4-2 to 6-10-0, Corner(3) 6-10-0 to 9-10-0, Exterior(2) 9-10-0 to 14-3-14 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
7) Gable studs spaced at 2-0-0 oc.
8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
9) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 12, 17, 18, 19, 15, 14, 13.

December 12,2023

ENGINEERING BY
TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	B02-2PL	COMMON	1	2	I62516911

Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:37 2023 Page 1
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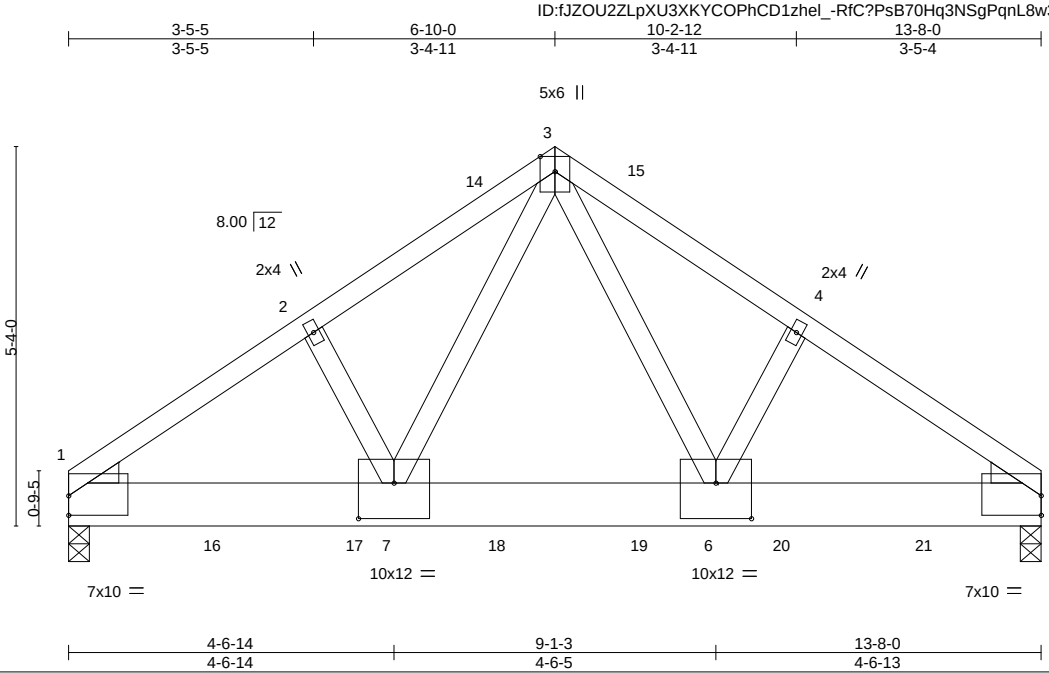

Plate Offsets (X,Y)-- [1:0-0-0,0-3-5], [5:Edge,0-3-5], [6:0-6-0,0-6-0], [7:0-6-0,0-6-0]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.41	Vert(LL)	-0.07	6-7	>999	360	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.32	Vert(CT)	-0.14	6-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.85	Horz(CT)	0.01	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-MS		Wind(LL)	0.01	7	>999	240	Weight: 180 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x8 SP DSS
WEBS 2x4 SP No.3
WEDGE
Left: 2x4 SP No.3 , Right: 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=0-3-8, 5=0-3-8
Max Horz 1=98(LC 24)
Max Grav 1=5312(LC 1), 5=5644(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-6992/0, 2-3=-6885/0, 3-4=-6947/0, 4-5=-7052/0
BOT CHORD 1-7=0/5736, 6-7=0/4028, 5-6=0/5790
WEBS 3-6=0/4118, 3-7=0/3999

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: 2x8 - 2 rows staggered at 0-6-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1644 lb down at 2-0-12, 1644 lb down at 4-0-12, 1644 lb down at 6-0-12, 1644 lb down at 8-0-12, and 1644 lb down at 10-0-12, and 1644 lb down at 12-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15
Uniform Loads (plf)
Vert: 1-3=-60, 3-5=-60, 8-11=-20
Concentrated Loads (lb)
Vert: 16=-1644(F) 17=-1644(F) 18=-1644(F) 19=-1644(F) 20=-1644(F) 21=-1644(F)

December 12,2023

ENGINEERING BY TRENCO
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818 Soundside Road
Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	P01G	GABLE	1	1	I62516912
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:38 2023 Page 1
ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-8-0 4-0-0
0-8-0 4-0-0

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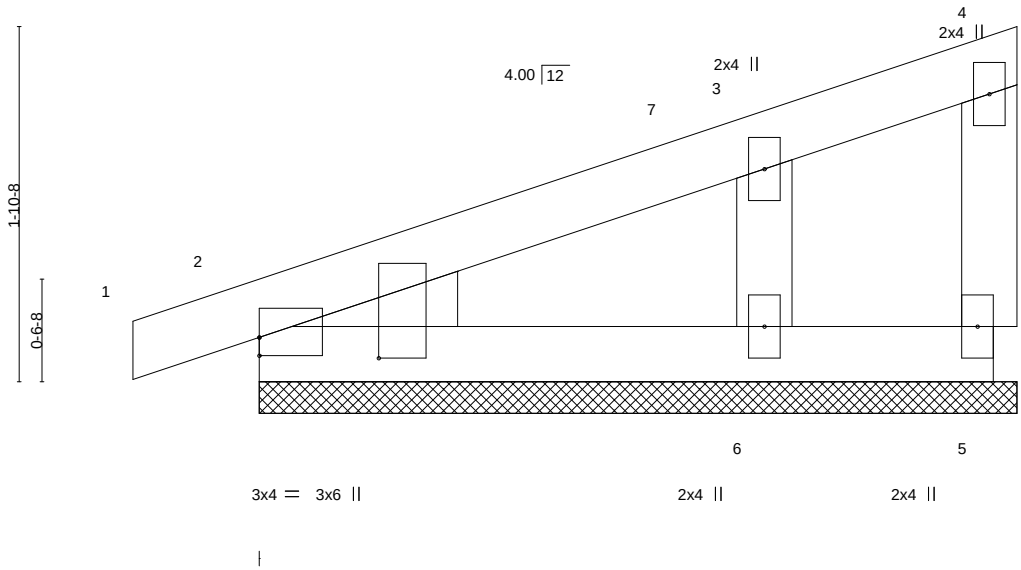

Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [2:0-1-5,0-7-9]

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	0.08	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.05	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	5	n/a	n/a		
BCDL	10.0	Code IRC2015/TPI2014		Matrix-P							Weight: 18 lb	FT = 20%

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

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

REACTIONS. (size) 2=4-0-0, 5=4-0-0, 6=4-0-0
Max Horz 2=55(LC 9)
Max Uplift 2=-27(LC 8), 5=-5(LC 11), 6=-38(LC 12)
Max Grav 2=134(LC 1), 5=7(LC 1), 6=208(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 2-4-0, Interior(1) 2-4-0 to 3-10-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 5, 6.

December 12,2023

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Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	P02	MONO TRUSS	6	1	I62516913
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:39 2023 Page 1
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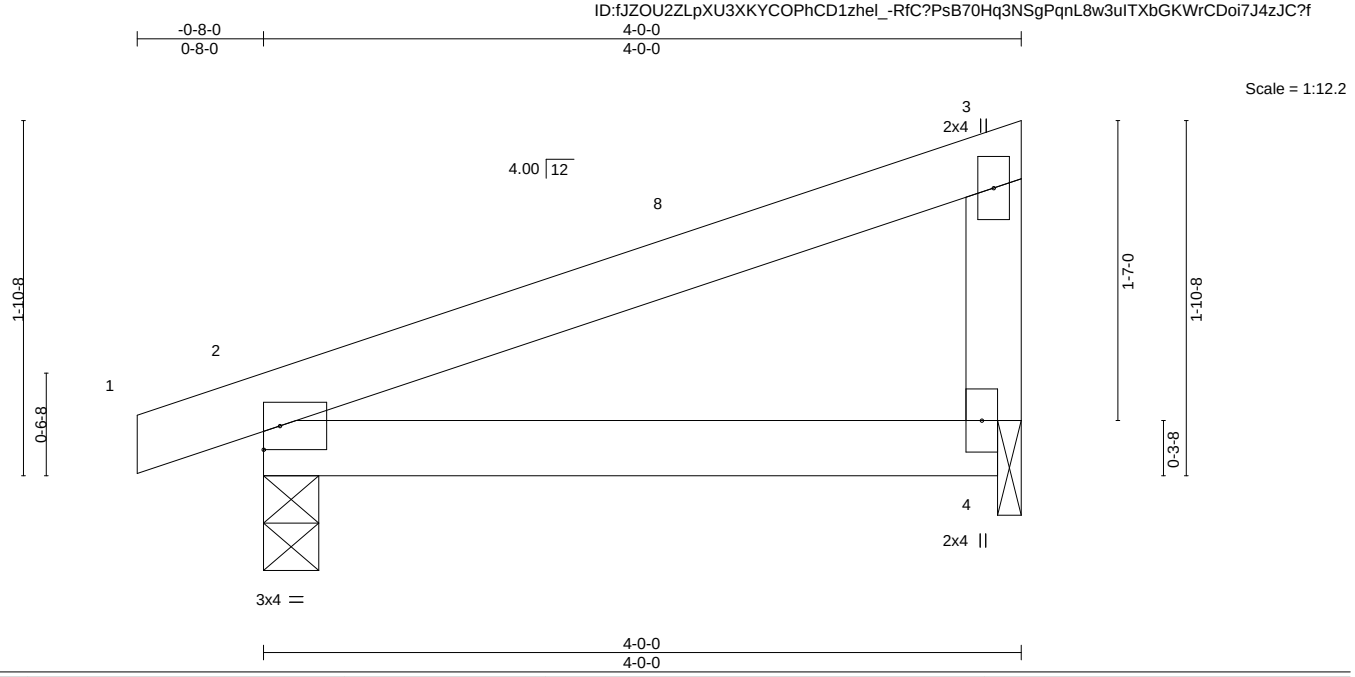

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	0.02	4-7	>999	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.15	Vert(CT)	-0.02	4-7	>999	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	2	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-MP							Weight: 15 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 4-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=53(LC 8)
Max Uplift 2=-63(LC 8), 4=-57(LC 8)
Max Grav 2=198(LC 1), 4=151(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 2-4-0, Interior(1) 2-4-0 to 3-10-4 zone; cantilever left and right exposed ; end vertical left exposed; 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

December 12,2023

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Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	P03	MONO TRUSS	3	1	I62516914
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:40 2023 Page 1
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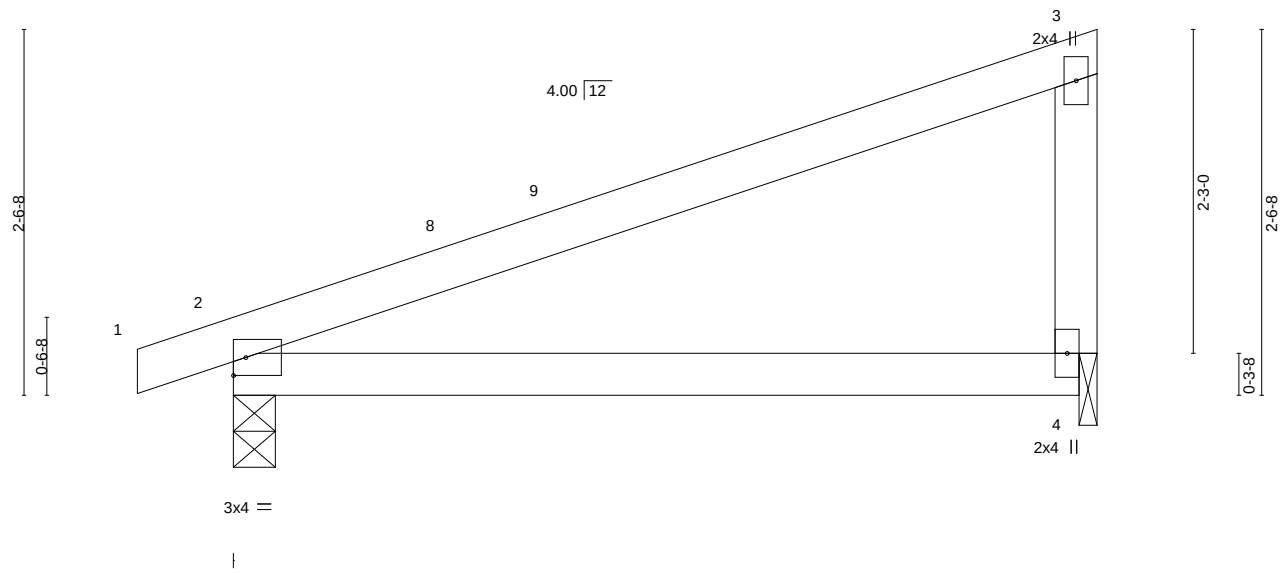
-0-8-0 6-0-0
0-8-0 6-0-0

Scale: 3/4"=1'



LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.56	Vert(LL)	0.12	4-7	>584	240	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.38	Vert(CT)	-0.12	4-7	>589	240		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.02	2	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.3

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

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=75(LC 8)
Max Uplift 2=-84(LC 8), 4=-87(LC 8)
Max Grav 2=276(LC 1), 4=232(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 2-4-0, Interior(1) 2-4-0 to 5-10-4 zone; cantilever left and right exposed ; end vertical left exposed; 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) Bearing at joint(s) 4 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
5) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.

December 12,2023

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

Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	P04G	GABLE	1	1	I62516915
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:41 2023 Page 1
ID:fJZOU2ZLpXU3XKYCOPhCD1zhel_-RfC?PsB70Hq3NSgPqnL8w3uITXbGKWrCDoi7J4zJC?f

-0-8-0 6-0-0
0-8-0 6-0-0

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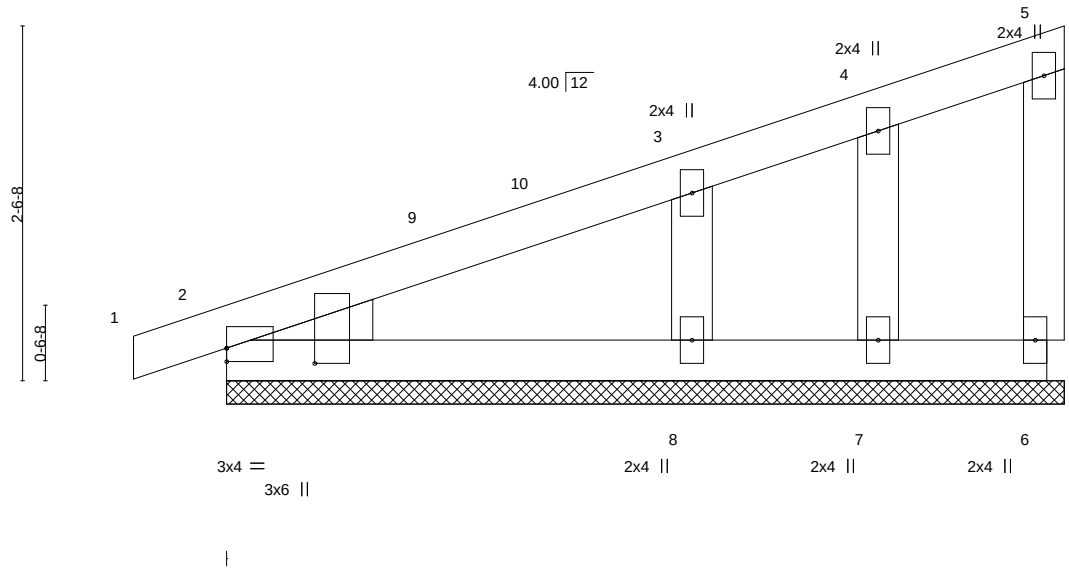

Plate Offsets (X,Y)-- [2:0-0-0,0-1-2], [2:0-1-5,0-7-9]

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	0.13	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.09	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	6	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 27 lb	FT = 20%

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

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

REACTIONS. All bearings 6-0-0.
(lb) - Max Horz 2=80(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 2, 6, 7, 8
Max Grav All reactions 250 lb or less at joint(s) 2, 6, 7 except 8=268(LC 1)

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

NOTES-
1) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-0 to 2-4-0, Interior(1) 2-4-0 to 5-10-4 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) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
3) Gable requires continuous bottom chord bearing.
4) Gable studs spaced at 1-4-0 oc.
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 6, 7, 8.

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Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	V01	GABLE	1	1	I62516916
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:42 2023 Page 1
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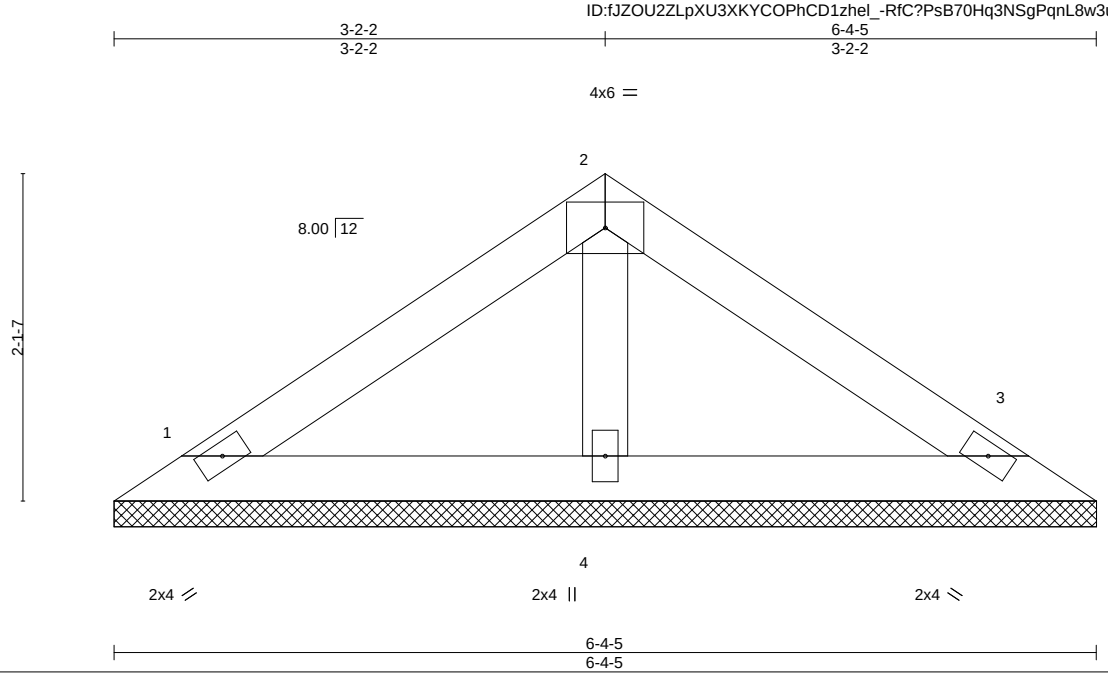

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.22	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.13	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 21 lb	FT = 20%

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

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

REACTIONS. (size) 1=6-4-5, 3=6-4-5, 4=6-4-5
Max Horz 1=-39(LC 8)
Max Uplift 1=-18(LC 12), 3=-23(LC 13)
Max Grav 1=116(LC 1), 3=116(LC 1), 4=200(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

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Job	Truss	Truss Type	Qty	Ply	DR HORTON; COLUMBIA; A; MASTER.RT
3685977	V02	GABLE	1	1	I62516917
					Job Reference (optional)

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.630 s Aug 30 2023 MiTek Industries, Inc. Tue Dec 12 13:18:43 2023 Page 1
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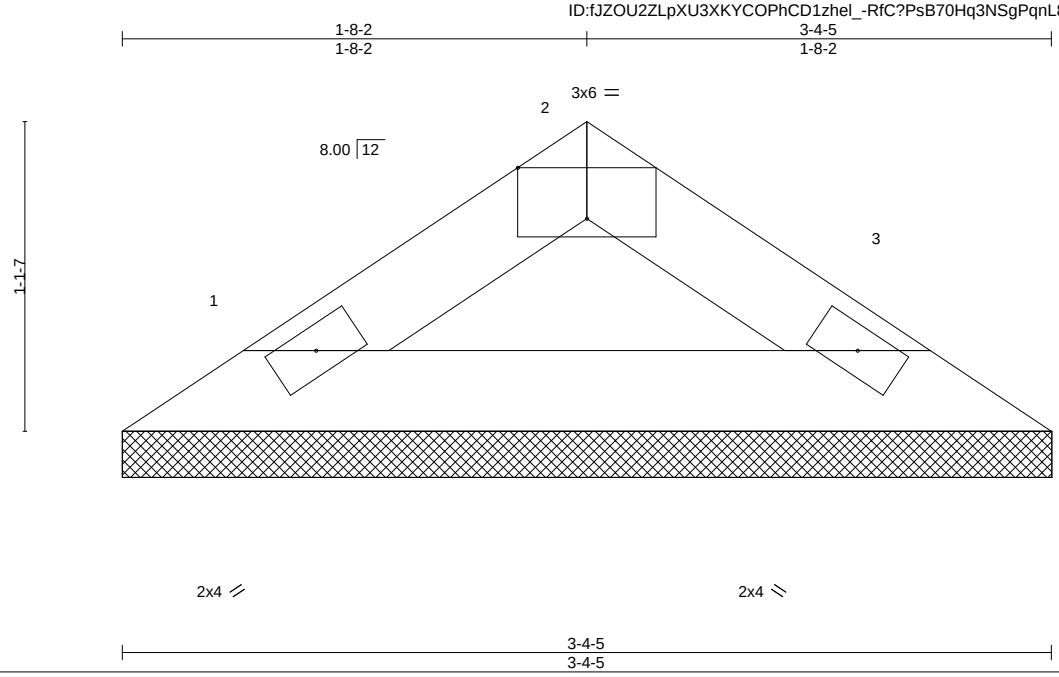

Plate Offsets (X,Y)-- [2:0-3-0,Edge]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.15	TC	0.04	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL	10.0	Lumber DOL	1.15	BC	0.11	Vert(CT)	n/a	-	n/a	999		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-P							Weight: 9 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-4-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-4-5, 3=3-4-5
Max Horz 1=-17(LC 8)
Max Uplift 1=-5(LC 12), 3=-5(LC 13)
Max Grav 1=96(LC 1), 3=96(LC 1)

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Gable requires continuous bottom chord bearing.
4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
5) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.

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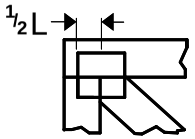
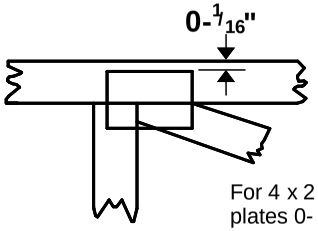
Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

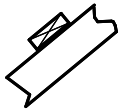
* Plate location details available in MiTek software or upon request.

PLATE SIZE

4 x 4

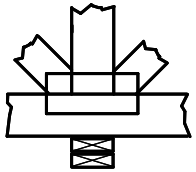
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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

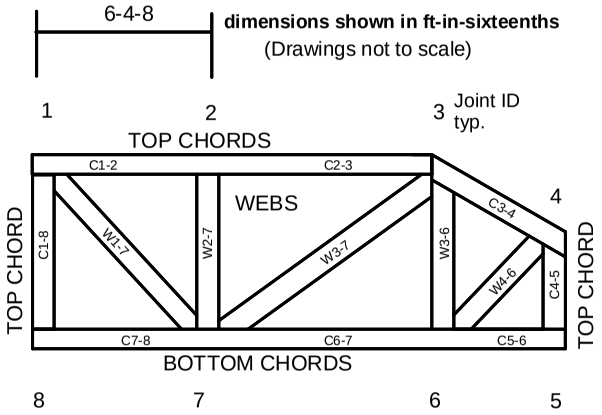


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number/letter where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-22: Design Standard for Bracing.
BCSI: Building Component Safety Information, Guide to Good Practice for Handling, Installing, Restraining & 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-1988, ESR-2362, ESR-2685, ESR-3282
ESR-4722, ESL-1388

Design General Notes

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
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MiTek Engineering Reference Sheet: MII-7473 rev. 1/2/2023

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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