

Trenco
818 Soundside Rd
Edenton, NC 27932

Re: 21062473
WAG-3

The truss drawing(s) referenced below have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by The Building Center.

Pages or sheets covered by this seal: I46708231 thru I46708262

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

North Carolina COA: C-0844



June 24, 2021

Johnson, Andrew

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 21062473	Truss A	Truss Type COMMON TRUSS	Qty 1	Ply 1	WAG-3	146708231
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:36 2021 Page 1
ID:jDjrkf9uQ9gpEzEXERZa3Lz02qd-wrhRrm4GFnlrdzBDAla?kKjvcoHzU22pdLBeUz3OH5

-0-10.8	7-1-14	14-0-15	21-0-0	27-11-1	34-10-2	42-0-0	42-10.8
0-10.8	7-1-14	6-11-1	6-11-1	6-11-1	6-11-1	7-1-14	0-10.8

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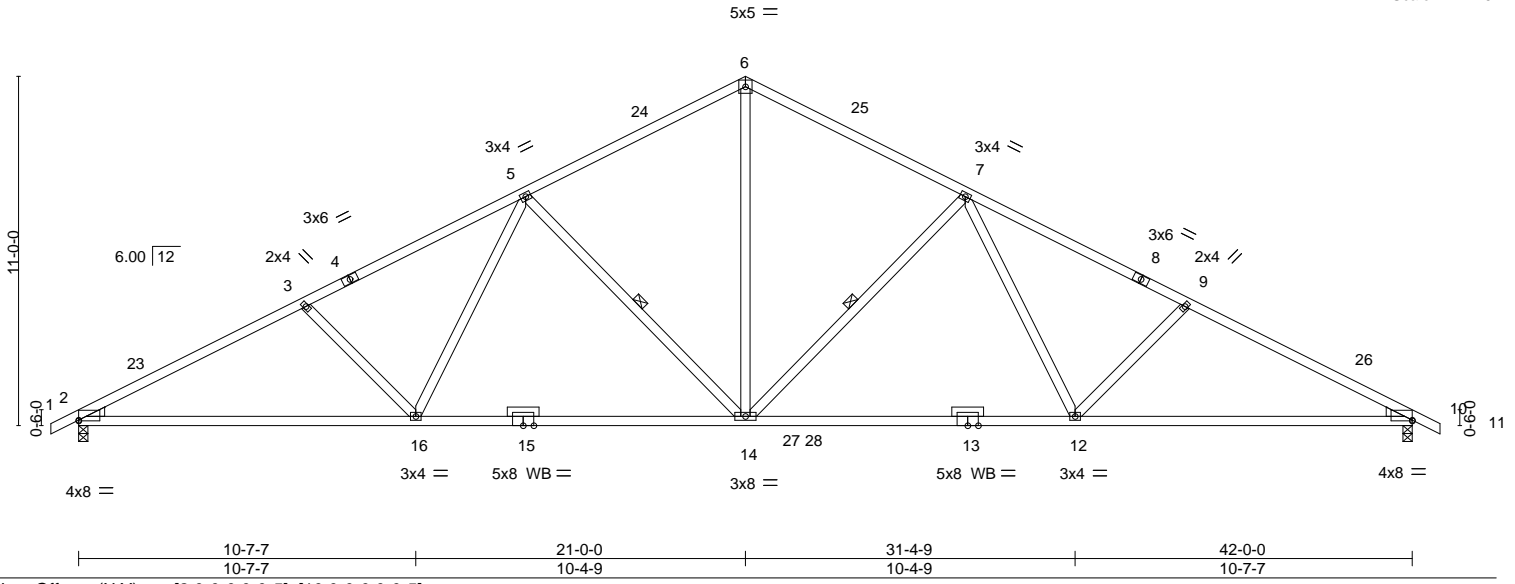


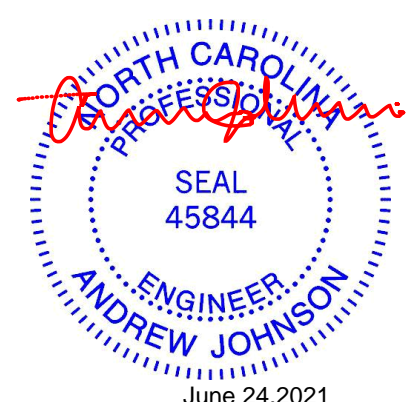
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LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.62	Vert(LL) -0.49 14-16 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.67	Vert(CT) -0.76 14-16 >664 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.67	Horz(CT) 0.13 10 n/a n/a		
BCDL 10.0	Code IRC2015/TP12014	Matrix-AS			
				Weight: 222 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-14, 5-14
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS.	(size) 10=0-3-8, 2=0-3-8
	Max Horz 2=163(LC 10)
	Max Uplift 10=-222(LC 11), 2=-222(LC 10)
	Max Grav 10=1815(LC 2), 2=1815(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3353/391, 3-5=-3116/376, 5-6=-2257/359, 6-7=-2257/359, 7-9=-3116/376, 9-10=-3353/391
BOT CHORD	2-16=-423/2920, 14-16=-256/2458, 12-14=-145/2458, 10-12=-260/2920
WEBS	6-14=-144/1623, 7-14=-763/264, 7-12=-50/620, 9-12=-380/209, 5-14=-763/264, 5-16=-50/620, 3-16=-380/209

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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 18-0-0, Exterior(2) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 39-10-8, Exterior(2) 39-10-8 to 42-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - 5) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=222, 2=222.
 - 6) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

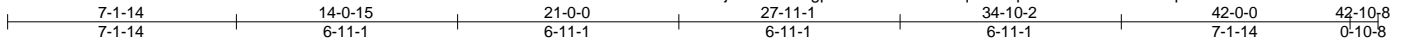


Job 21062473	Truss A1	Truss Type COMMON TRUSS	Qty 1	Ply 1	WAG-3	146708232
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:37 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-O1Fp365u04QiEoYOnuGpYxtuf08WixlC2H4IBwz3OH4



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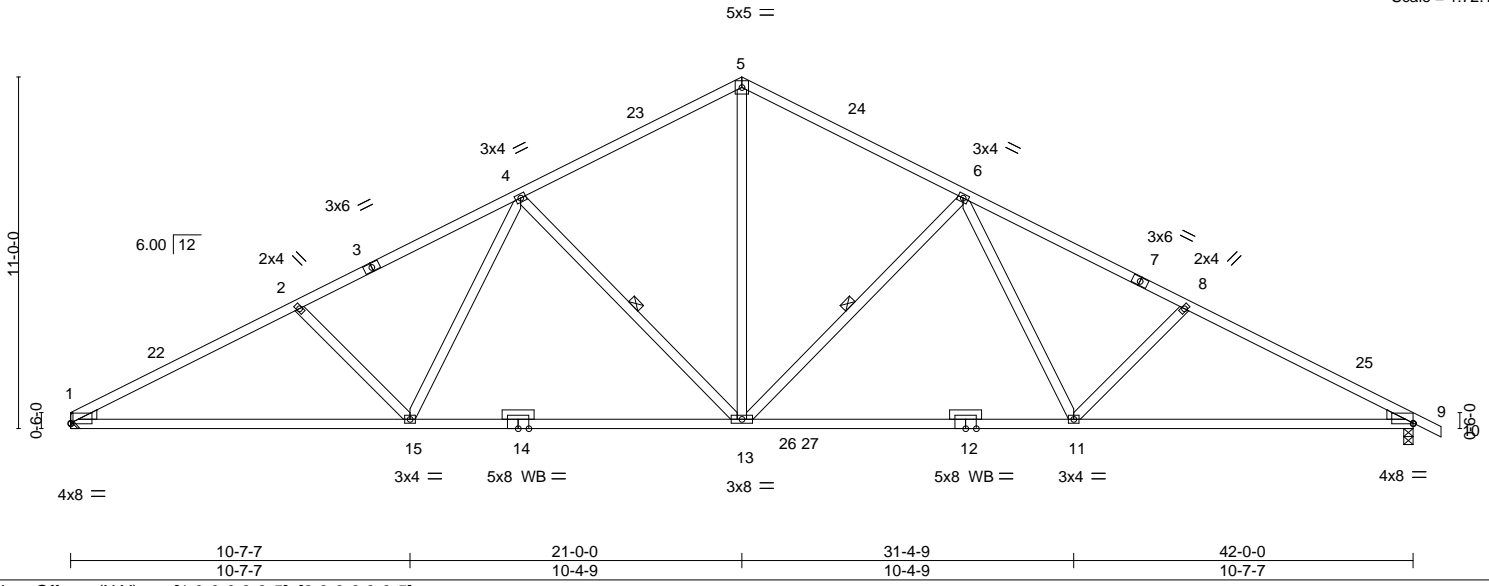


Plate Offsets (X,Y)--	[1:0-0-0,0-0-5], [9:0-0-0,0-0-5]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.62	Vert(LL)	-0.49 11-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.67	Vert(CT)	-0.76 11-13	>664	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.67	Horz(CT)	0.13 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 221 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP DSS	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-13, 4-13
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3 , Right: 2x4 SP No.3	

REACTIONS. (size) 1=Mechanical, 9=0-3-8
 Max Horz 1=-169(LC 11)
 Max Uplift 1=-204(LC 10), 9=-222(LC 11)
 Max Grav 1=1771(LC 2), 9=1815(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-3358/401, 2-4=-3119/386, 4-5=-2258/361, 5-6=-2258/361, 6-8=-3117/379, 8-9=-3354/391
 BOT CHORD 1-15=-425/2925, 13-15=-257/2460, 11-13=-147/2459, 9-11=-261/2921
 WEBS 5-13=-146/1624, 6-13=-763/264, 6-11=-50/620, 8-11=-380/209, 4-13=-765/264, 4-15=-51/623, 2-15=-382/210

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-0-0, Exterior(2) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 39-10-8, Exterior(2) 39-10-8 to 42-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 with a clearance greater than 6-0-0 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) except (jt=lb) 1=204, 9=222.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

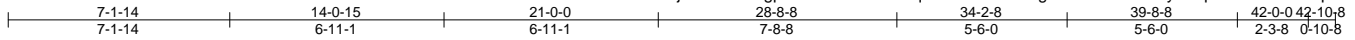


Job 21062473	Truss A1T	Truss Type ROOF SPECIAL	Qty 3	Ply 1	WAG-3	146708233
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:39 2021 Page 1

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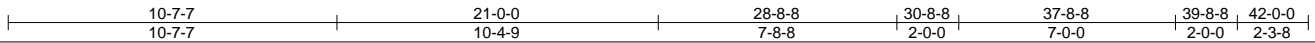
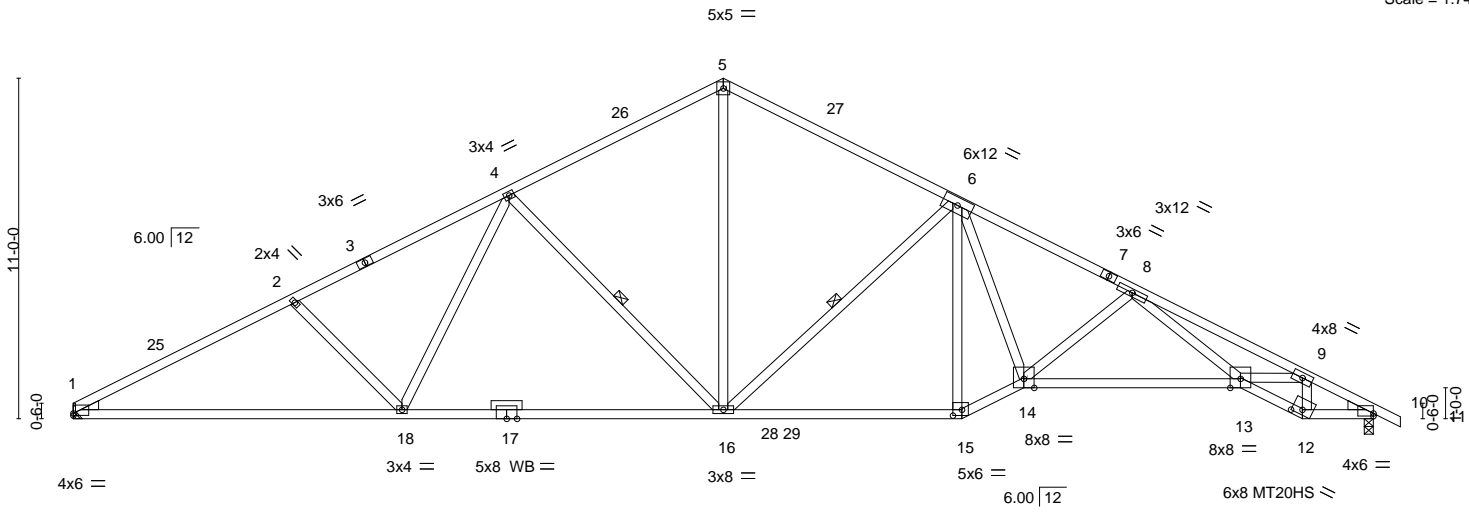


Plate Offsets (X, Y)--	[1:0-0-0,0-0-13], [10:0-0-0,0-1-1], [12:0-4-0,0-1-15], [15:0-3-8,0-2-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.99	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.86	Vert(LL) -0.61 16-18 >832 240	MT20HS	187/143
BCLL 0.0 *	Lumber DOL 1.15	WB 0.98	Vert(CT) -0.96 16-18 >524 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.25 10 n/a n/a		
	Code IRC2015/TPI2014			Weight: 238 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.1 *Except*	BOT CHORD Rigid ceiling directly applied.
15-17: 2x4 SP DSS, 14-15, 12-13: 2x4 SP No.2	WEBS 1 Row at midpt 4-16, 6-16
WEBS 2x4 SP No.3	
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS. (size) 1=Mechanical, 10=0-3-8

Max Horz 1=-169(LC 15)

Max Uplift 1=-204(LC 10), 10=-222(LC 11)

Max Grav 1=1747(LC 2), 10=1758(LC 2)

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

TOP CHORD 1-2=-3311/401, 2-4=-3073/386, 4-5=-2198/362, 5-6=-2204/359, 6-8=-3494/426, 8-9=-5470/564, 9-10=-3082/395

BOT CHORD 1-18=-425/2883, 16-18=-257/2412, 15-16=-150/2455, 14-15=-167/2713, 13-14=-305/3629, 12-13=-335/2838, 10-12=-322/2682

WEBS 2-18=-383/210, 4-18=-51/637, 4-16=-766/263, 5-16=-135/1544, 6-16=-800/256, 6-15=-1027/109, 6-14=-147/1880, 8-14=-785/206, 8-13=-122/1640, 9-13=-110/2356, 9-12=-1406/185

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-0-0, Exterior(2) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 39-10-4, Exterior(2) 39-10-4 to 42-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=204, 10=222.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

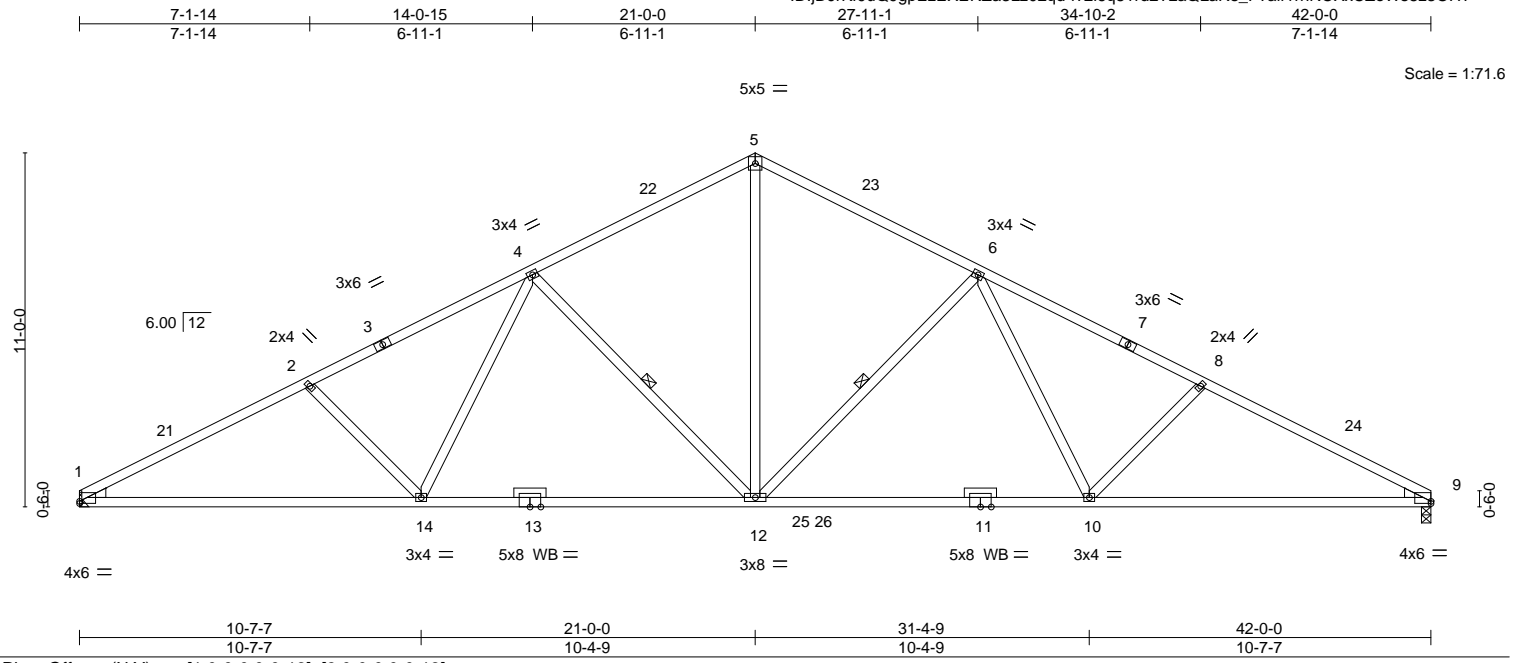
ENGINEERING BY
TRENCO
 A MiTek Affiliate

818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss A2	Truss Type COMMON TRUSS	Qty 1	Ply 1	WAG-3	146708234
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:42 2021 Page 1
ID:JDrKf9uQ9gpEzEXERZa3Lz02qd-l?2i6q81rd2?LaQLaRs_F?alf1rhNCxXCZoWs8z3OH?



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.61	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.67	Vert(LL) -0.49 12-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.67	Vert(CT) -0.76 12-14 >666 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.13 9 n/a n/a		
	Code IRC2015/TPI2014			Weight: 219 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied.
WEBS 1 Row at midpt 6-12, 4-12

REACTIONS. (size) 1=Mechanical, 9=0-3-8
Max Horz 1=-156(LC 15)
Max Uplift 1=-204(LC 10), 9=-204(LC 11)
Max Grav 1=1771(LC 2), 9=1771(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-3359/403, 2-4=-3120/389, 4-5=-2259/364, 5-6=-2259/364, 6-8=-3120/389, 8-9=-3359/403
BOT CHORD 1-14=-431/2926, 12-14=-263/2461, 10-12=-173/2461, 9-10=-283/2926
WEBS 5-12=-148/1624, 6-12=-765/264, 6-10=-52/623, 8-10=-382/210, 4-12=-765/264, 4-14=-51/623, 2-14=-382/210

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-0-0, Exterior(2) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 39-0-0 , Exterior(2) 39-0-0 to 42-0-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 with a clearance greater than 6-0-0 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) except (jt=lb) 1=204, 9=204.
 - 7) This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



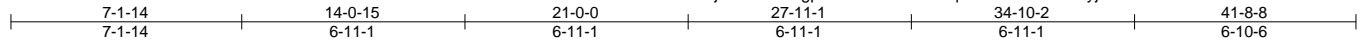
June 24, 2021

Job 21062473	Truss A3	Truss Type COMMON TRUSS	Qty 5	Ply 1	WAG-3	146708235
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:43 2021 Page 1

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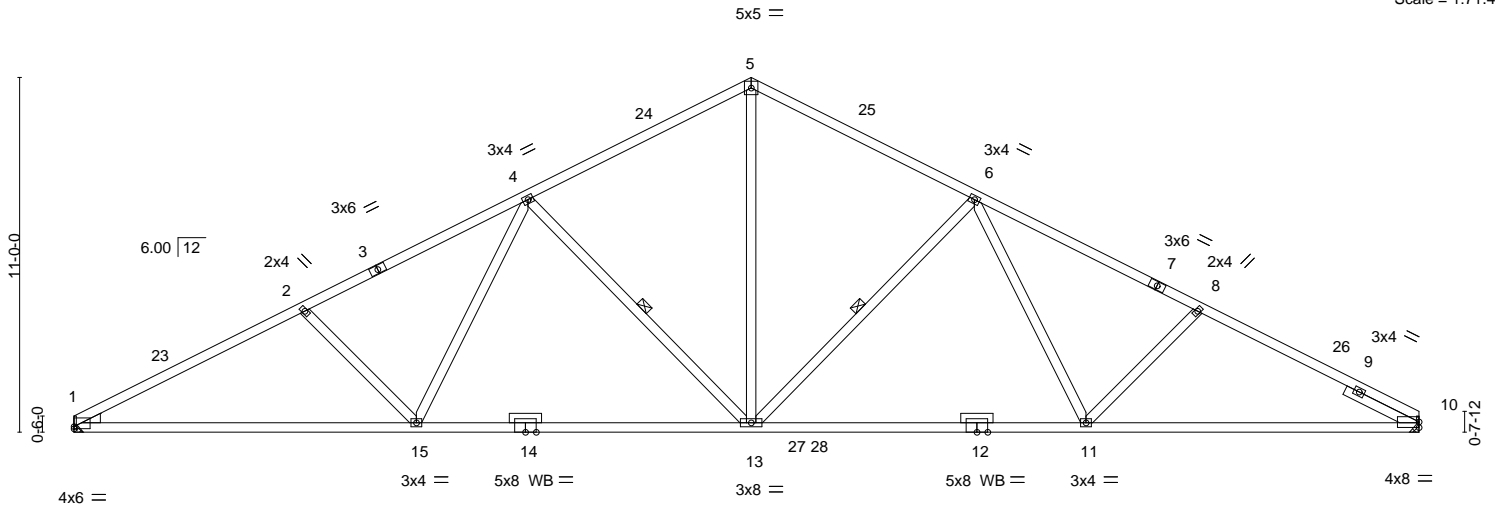


Plate Offsets (X,Y)--	[1:0-0-0,0-0-13], [10:0-0-0,0-2-1]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.88	Vert(LL)	-0.50 11-13	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.78 11-13	>639	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.66	Horz(CT)	0.14 10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 221 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP DSS *Except* 10-12: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 6-13, 4-13
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3	
SLIDER Right 2x4 SP No.2 2-6-0	

REACTIONS.	(size) 1=Mechanical, 10=Mechanical
	Max Horz 1=159(LC 10)
	Max Uplift 1=-204(LC 10), 10=-202(LC 11)
	Max Grav 1=1759(LC 2), 10=1763(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	1-2=-3332/401, 2-4=-3094/387, 4-5=-2233/361, 5-6=-2234/361, 6-8=-3008/381, 8-10=-3191/391
BOT CHORD	1-15=-433/2902, 13-15=-265/2437, 11-13=-174/2415, 10-11=-271/2789
WEBS	5-13=-146/1605, 6-13=-737/263, 6-11=-44/550, 8-11=-319/195, 4-13=-765/265, 4-15=-52/622, 2-15=-383/210

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-0-0, Exterior(2) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 38-8-8, Exterior(2) 38-8-8 to 41-8-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=204, 10=202.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss A4	Truss Type COMMON TRUSS	Qty 5	Ply 1	WAG-3	146708236
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The Building Center, Gastonia, NC - 28052,

8,430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:44 2021 Page 1
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Scale = 1:71.9

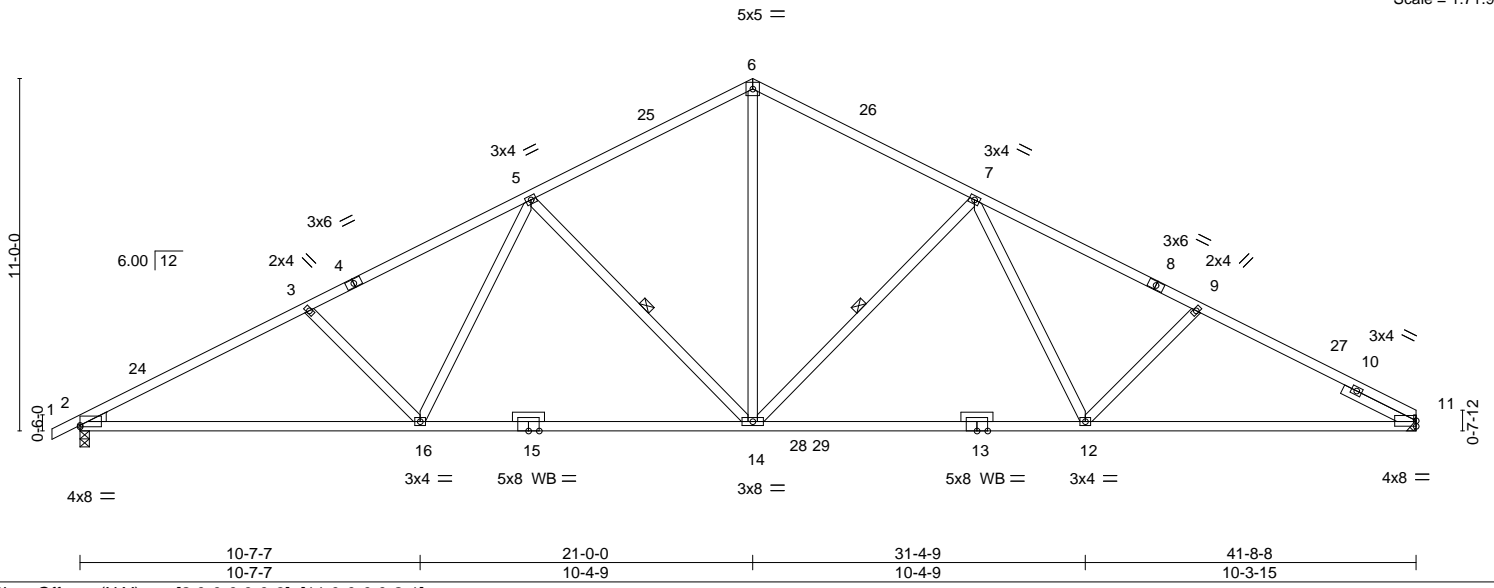


Plate Offsets (X,Y)--	[2:0-0-0,0-0-9], [11:0-0-0,0-2-1]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.88	Vert(LL) -0.50 12-14 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.78	Vert(CT) -0.78 12-14 >639 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.66	Horz(CT) 0.14 11 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-AS			
				Weight: 223 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP DSS *Except* 11-13: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 7-14, 5-14
OTHERS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3	
SLIDER Right 2x4 SP No.2 2-6-0	

REACTIONS. (size) 11=Mechanical, 2=0-3-8
 Max Horz 2=172(LC 10)
 Max Uplift 11=-202(LC 11), 2=-221(LC 10)
 Max Grav 11=1762(LC 2), 2=1803(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-3328/390, 3-5=-3090/377, 5-6=-2232/358, 6-7=-2233/358, 7-9=-3007/378,
 9-11=-3190/388
 BOT CHORD 2-16=-431/2898, 14-16=-264/2435, 12-14=-171/2414, 11-12=-269/2788
 WEBS 6-14=-144/1605, 7-14=-737/263, 7-12=-44/550, 9-12=-319/195, 5-14=-763/264,
 5-16=-51/619, 3-16=-380/209

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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 18-0-0, Exterior(2) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 38-8-8, Exterior(2) 38-8-8 to 41-8-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Refer to girder(s) for truss to truss connections.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=202, 2=221.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



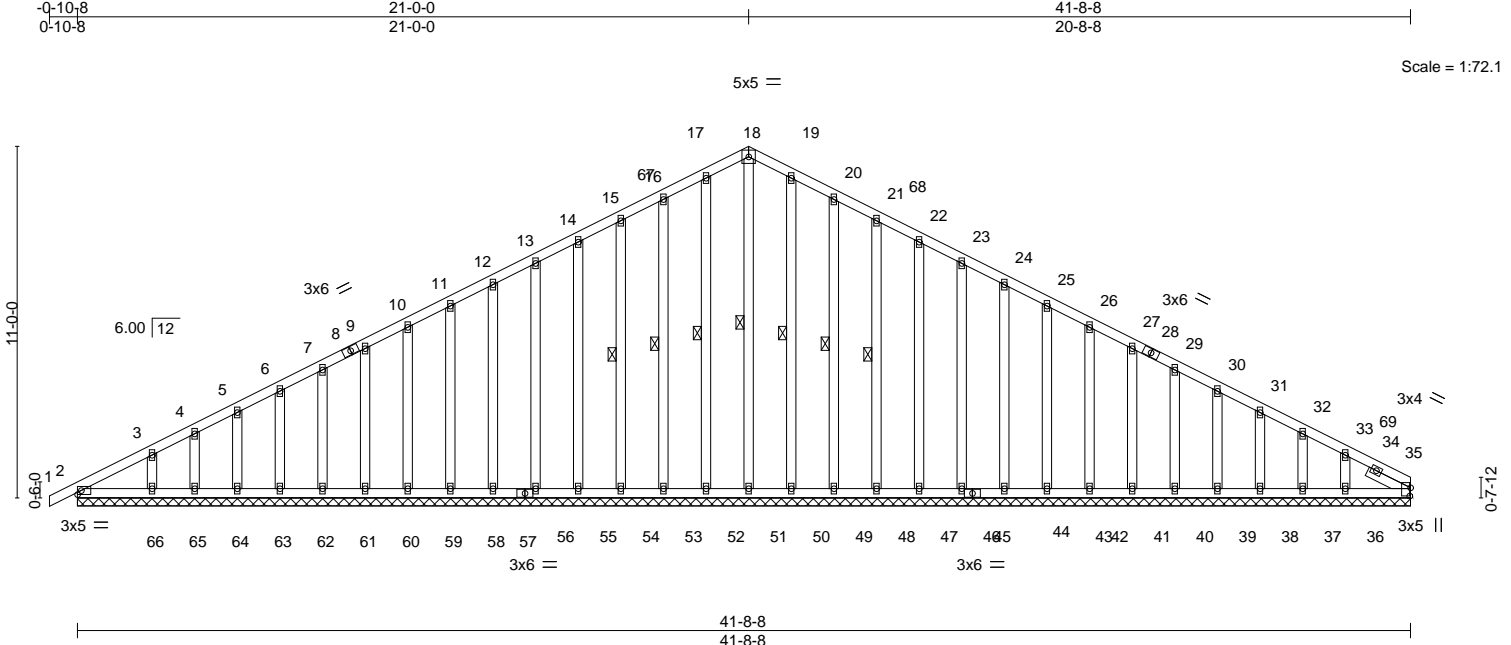
June 24, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

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

Job 21062473	Truss A4GE	Truss Type GABLE	Qty 1	Ply 1	WAG-3	146708237
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The Building Center, Gastonia, NC - 28052, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:48 2021 Page 1
 ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-a9PzMtDnRTP83VtVwizOUGqusS2on2tpaVFq3nz3OGv



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.11	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.05	Vert(LL) -0.00 1 n/r 120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.11	Vert(CT) 0.00 1 n/r 120		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.01 35 n/a n/a		
	Code IRC2015/TPI2014			Weight: 378 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 18-51, 17-52, 16-53, 15-54, 19-50, 20-49, 21-48
SLIDER Right 2x4 SP No.2 1-5-6	

REACTIONS. All bearings 41-8-8.
 (lb) - Max Horz 2=166(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36
 Max Grav All reactions 250 lb or less at joint(s) 35, 2, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 15-16=-90/250, 16-17=-101/295, 17-18=-105/324, 18-19=-105/324, 19-20=-101/295, 20-21=-90/250

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-4-0, Exterior(2) 2-4-0 to 18-0-0, Corner(3) 18-0-0 to 24-0-0, Exterior(2) 24-0-0 to 38-8-8, Corner(3) 38-8-8 to 41-8-8 zone; cantilever left and right exposed ;C-C for members and bracing & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 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.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable requires continuous bottom chord bearing.
 - Gable studs spaced at 1-4-0 oc.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36.



Job 21062473	Truss AGE	Truss Type GABLE	Qty 1	Ply 1	WAG-3	146708238
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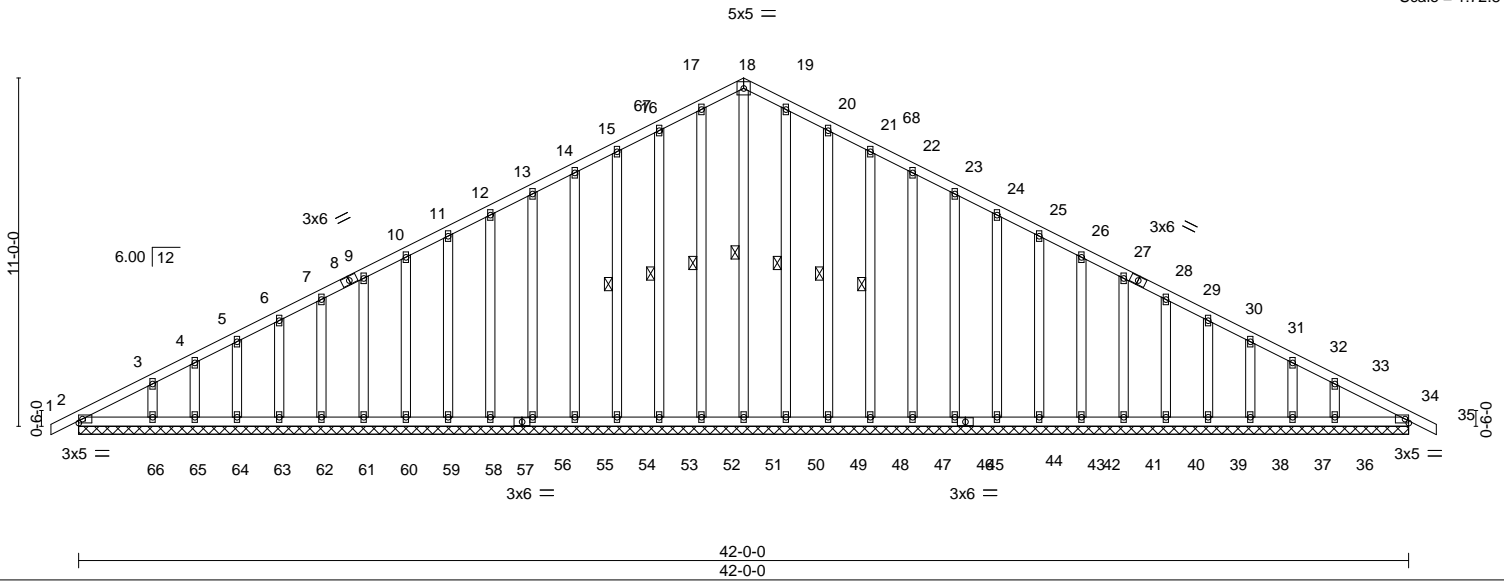
The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:51 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd_k56?uFgjOBjwyc4bqW56uSP6f4Y_PcGGSTUf6z3OGs

-0-10-8	21-0-0	42-0-0	42-10-8
0-10-8	21-0-0	21-0-0	0-10-8

Scale = 1:72.8



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 0.11	Vert(LL)	0.00	34	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	34	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.01	34	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 378 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.
 WEBS 1 Row at midpt 18-51, 17-52, 16-53, 15-54, 19-50, 20-49, 21-48

REACTIONS. All bearings 42-0-0.
 (lb) - Max Horz 2=163(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36, 2
 Max Grav All reactions 250 lb or less at joint(s) 34, 51, 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36, 2

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 15-16=-88/252, 16-17=-99/296, 17-18=-103/325, 18-19=-103/325, 19-20=-99/296, 20-21=-88/252

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-4-0, Exterior(2) 2-4-0 to 18-0-0, Corner(3) 18-0-0 to 24-0-0, Exterior(2) 24-0-0 to 39-8-0, Corner(3) 39-8-0 to 42-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 52, 53, 54, 55, 56, 58, 59, 60, 61, 62, 63, 64, 65, 66, 50, 49, 48, 47, 46, 44, 43, 42, 41, 40, 39, 38, 37, 36, 2.



June 24, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



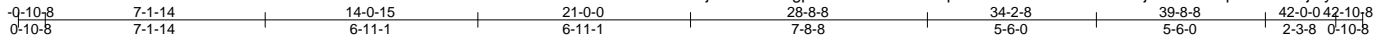
818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss AT	Truss Type ROOF SPECIAL	Qty 4	Ply 1	WAG-3	146708239
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:53 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-w6DsQaHwF?RR9GmTjFZZBJXqTZLS5WYjmybk?z3OGq



Scale = 1:75.0

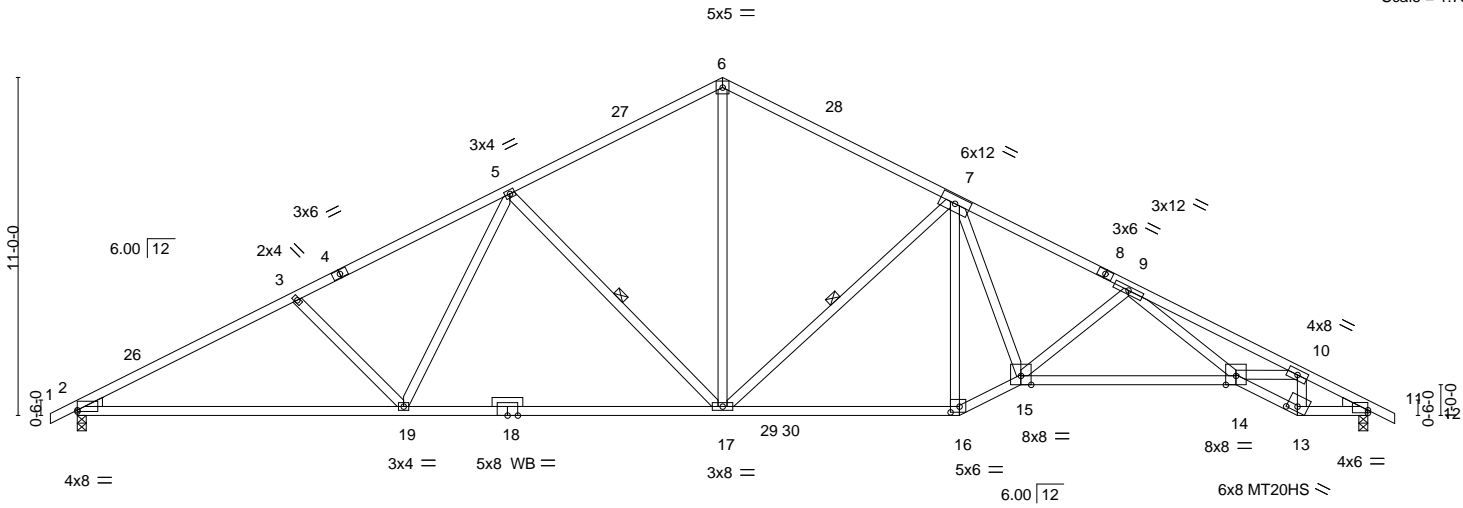


Plate Offsets (X, Y)--	[2:0-0-0,0-0-9], [11:0-0-0,0-1-1], [13:0-4-0,0-1-15], [16:0-3-8,0-2-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.61 17-19	>830	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.86	Vert(CT)	-0.96 17-19	>523	180	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.25 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-AS						
								Weight: 240 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.1 *Except* 16-18: 2x4 SP DSS, 15-16,13-14: 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 5-17, 7-17
OTHERS 2x4 SP No.3	
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.3	

REACTIONS.	(size)
Max Horz	2=163(LC 10)
Max Uplift	11=-222(LC 11), 2=-222(LC 10)
Max Grav	11=1757(LC 2), 2=1792(LC 2)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-3=-3306/391, 3-5=-3069/376, 5-6=-2197/360, 6-7=-2203/356, 7-9=-3493/423, 9-10=-5468/564, 10-11=-3081/395
BOT CHORD	2-19=-423/2878, 17-19=-256/2410, 16-17=-148/2454, 15-16=-165/2712, 14-15=-305/3628, 13-14=-335/2837, 11-13=-322/2681
WEBS	3-19=-380/209, 5-19=-50/634, 5-17=-765/262, 6-17=-133/1543, 7-17=-800/256, 7-16=-1027/108, 7-15=-147/1880, 9-15=-784/206, 9-14=-122/1639, 10-14=-108/2355, 10-13=-1406/185

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TC DL=5.0psf; BCDL=5.0psf; h=35ft; 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 18-0-0, Exterior(2) 18-0-0 to 24-0-0, Interior(1) 24-0-0 to 39-10-4, Exterior(2) 39-10-4 to 42-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - All plates are MT20 plates unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=222, 2=222.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.



WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601

ENGINEERING BY
TRENCO
A MiTek Affiliate

818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss BGE	Truss Type FINK	Qty 1	Ply 1	WAG-3	146708240
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:54 2021 Page 1
ID:jDrKf9uQ9gpEzEXERZa3Lz02qd-PjMEdwIY0JZInQLfHy4okX4tU2eBkniyQi8GRz3OGp

0-10-8 2-2-2 | 4-7-4 | 7-0-6 | 10-1-12 | 20-3-8 | 21-2-0
0-10-8 2-2-2 | 2-5-2 | 2-5-2 | 3-1-6 | 10-1-12 | 0-10-8

4x4 =

Scale: 3/16"=1'

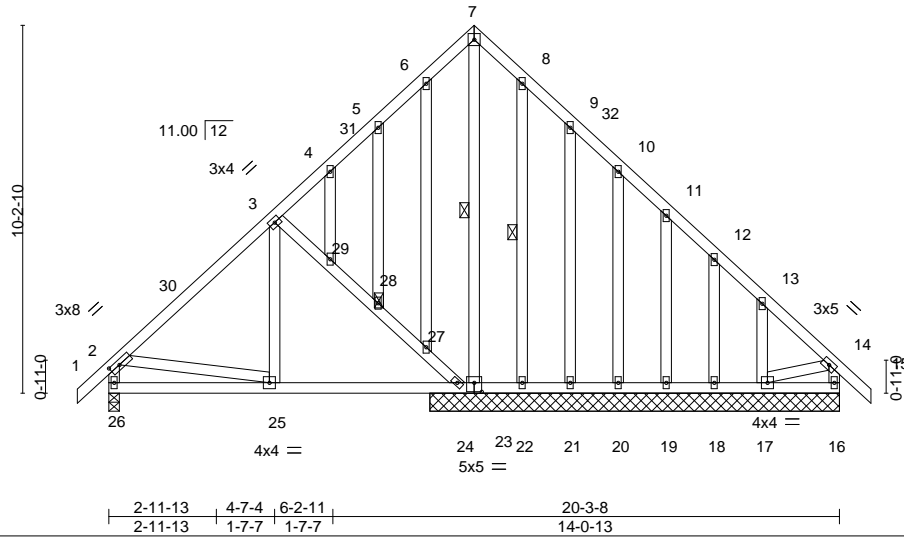


Plate Offsets (X,Y)--	[2:0-3-6,0-1-8], [23:0-2-8,0-3-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.15	TC 0.29	Vert(LL) -0.01 24-25 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.21	Vert(CT) -0.02 24-25 >999 180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.21	Horz(CT) 0.01 16 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 188 lb	FT = 20%

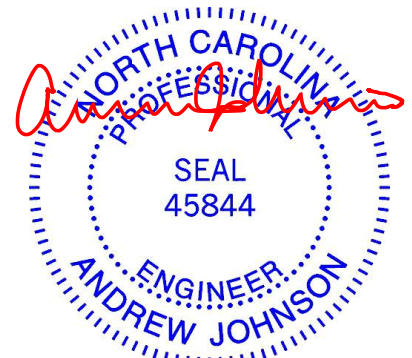
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3 *Except*
3-24,14-16,2-26: 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing, Except:
10-0-0 oc bracing: 25-26,24-25.
WEBS 1 Row at midpt 7-23, 8-22
JOINTS 1 Brace at Jt(s): 28

REACTIONS. All bearings 11-4-8 except (jt=length) 26=0-3-8.
(lb) - Max Horz 26=-222(LC 8)
Max Uplift All uplift 100 lb or less at joint(s) 26, 24, 22, 21, 20, 19, 18, 16 except 23=-202(LC 3), 17=-144(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 23, 22, 21, 20, 19, 18, 17, 16 except 26=439(LC 1), 24=591(LC 3)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-372/70, 2-26=-399/92
BOT CHORD 25-26=-212/279, 24-25=-98/309
WEBS 3-29=-341/181, 28-29=-328/171, 27-28=-363/199, 24-27=-394/220

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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 7-1-12, Exterior(2) 7-1-12 to 13-1-12, Interior(1) 13-1-12 to 18-1-12, Exterior(2) 18-1-12 to 21-2-0 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - All plates are 2x4 MT20 unless otherwise indicated.
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 26, 24, 22, 21, 20, 19, 18, 16 except (jt=lb) 23=202, 17=144.



June 24, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss BGE2	Truss Type GABLE	Qty 1	Ply 1	WAG-3	146708241
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The Building Center, Gastonia, NC - 28052,

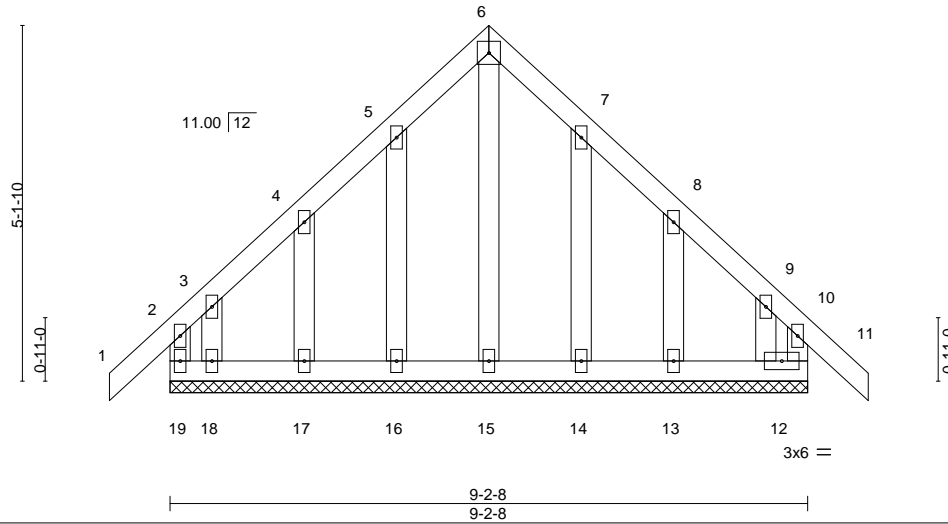
8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:55 2021 Page 1

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4x4 =

Scale = 1:33.3



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 0.08	Vert(LL)	-0.00	11	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	-0.00	11	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	12	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 64 lb	FT = 20%

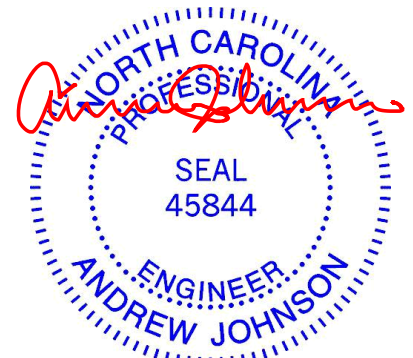
LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 9-2-8.
 (lb) - Max Horz 19=111(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 12, 16, 17, 14 except 19=134(LC 6), 18=134(LC 10), 13=103(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 19, 12, 15, 16, 17, 18, 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=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 1-4-0 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 with a clearance greater than 6-0-0 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) 12, 16, 17, 14 except (jt=lb) 19=134, 18=134, 13=103.



June 24, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



Job 21062473	Truss BGR	Truss Type COMMON GIRDER	Qty 1	Ply 3	WAG-3	146708242
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:57 2021 Page 1

ID:jDjrkf9uQ9gpEzEXERZa3Lz02qd-puSNFyKRJExtet4Ey5dVM9iLM43oOyt8eOwptmz3OGm



4x6 ||

Scale = 1:62.3

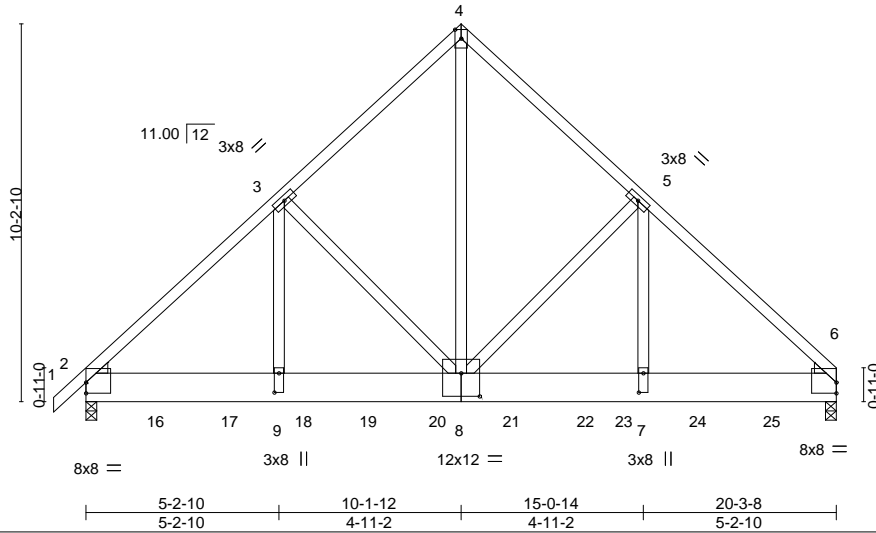


Plate Offsets (X, Y)-- [2:0-0-0,0-3-8], [6:Edge,0-3-8], [7:0-6-4,0-1-8], [8:0-6-0,0-7-8], [9:0-6-4,0-1-8]

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 0.51	Vert(LL)	-0.09	7-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.31	Vert(CT)	-0.17	7-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.82	Horz(CT)	0.02	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 513 lb	FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x10 SP DSS
WEBS 2x4 SP No.3 *Except*
4-8: 2x4 SP No.2

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.

REACTIONS. (size) 6=0-3-8, 2=0-3-8
Max Horz 2=217(LC 5)
Max Uplift 6=-1146(LC 9), 2=-1137(LC 8)
Max Grav 6=9534(LC 2), 2=9357(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-10461/1298, 3-4=-7725/1052, 4-5=-7725/1051, 5-6=-10781/1335
BOT CHORD 2-9=-984/7627, 8-9=-984/7627, 7-8=-921/7863, 6-7=-921/7863
WEBS 4-8=-1298/10077, 5-8=-3191/555, 5-7=-505/4144, 3-8=-2850/511, 3-9=-451/3686

- NOTES-**
- 3-ply truss to be connected together with 16d (0.131"x 3.5") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x10 - 3 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=1146, 2=1137.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1742 lb down and 222 lb up at 1-9-12, 1742 lb down and 222 lb up at 3-9-12, 1742 lb down and 222 lb up at 5-9-12, 1742 lb down and 222 lb up at 7-6-12, 1742 lb down and 222 lb up at 9-5-4, 1743 lb down and 222 lb up at 11-5-4, 1743 lb down and 222 lb up at 13-5-4, 1743 lb down and 222 lb up at 14-5-12, and 1743 lb down and 222 lb up at 16-5-12, and 1743 lb down and 222 lb up at 18-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



LOAD CASE(S) Standard
Continued on page 2

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss BGR	Truss Type COMMON GIRDER	Qty 1	Ply 3	WAG-3 Job Reference (optional)	146708242
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:57 2021 Page 2
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LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15

Uniform Loads (plf)

Vert: 1-4=-60, 4-6=-60, 10-13=-20

Concentrated Loads (lb)

Vert: 16=-1648(B) 17=-1648(B) 18=-1648(B) 19=-1648(B) 20=-1648(B) 21=-1648(B) 22=-1648(B) 23=-1648(B) 24=-1648(B) 25=-1648(B)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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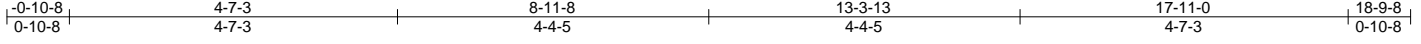
818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss C	Truss Type COMMON	Qty 1	Ply 1	WAG-3	146708243
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The Building Center, Gastonia, NC - 28052,

8,430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:58 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-H40ITIL34X3kF1eQW08kuNEZIUH37YplT2gMPCz3OGI



Scale: 3/8"=1'

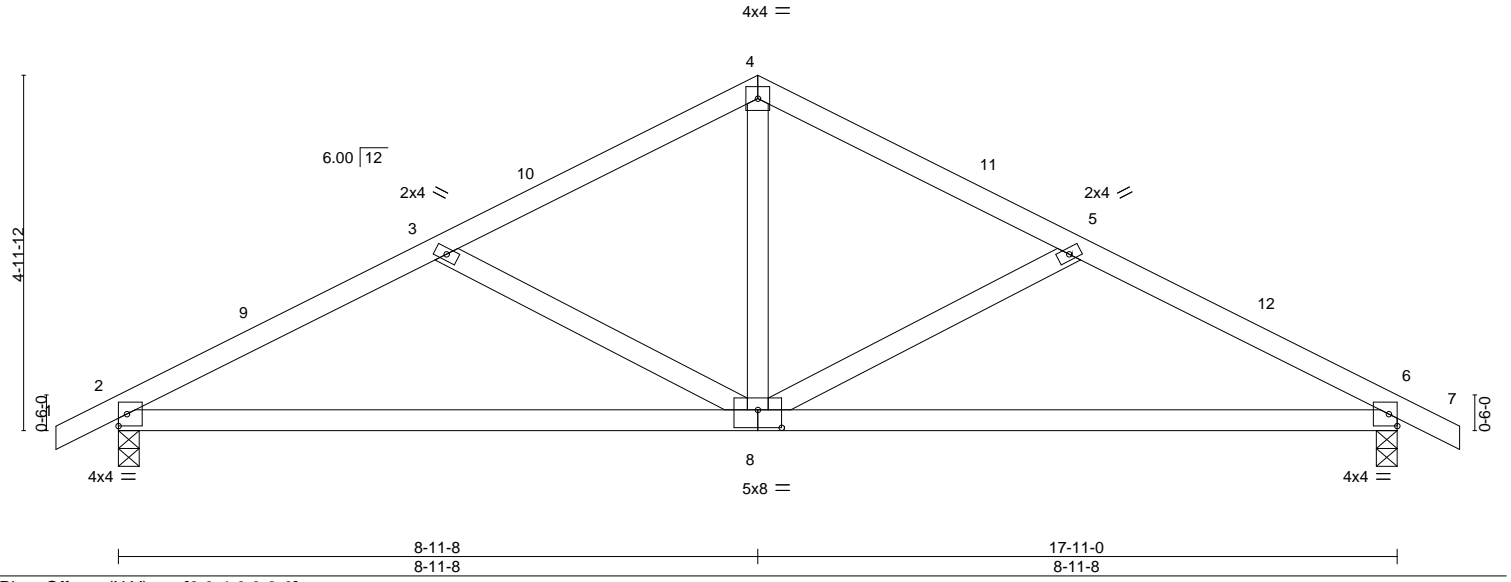


Plate Offsets (X,Y)--	[8:0-4-0,0-3-0]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.31	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.82	Vert(LL) 0.21 2-8 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.20	Vert(CT) -0.27 2-8 >780 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-S	Horz(CT) 0.03 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 81 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-3-4 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-11-6 oc bracing.
WEBS 2x4 SP No.3	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=73(LC 14)
 Max Uplift 2=-129(LC 7), 6=-129(LC 6)
 Max Grav 2=766(LC 1), 6=766(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1122/712, 3-4=-856/655, 4-5=-856/655, 5-6=-1122/712
 BOT CHORD 2-8=-567/946, 6-8=-567/946
 WEBS 4-8=-471/499, 5-8=-291/168, 3-8=-291/167

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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 5-11-8, Exterior(2) 5-11-8 to 11-11-8, Interior(1) 11-11-8 to 15-9-8, Exterior(2) 15-9-8 to 18-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=129, 6=129.

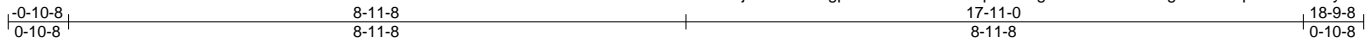


June 24, 2021

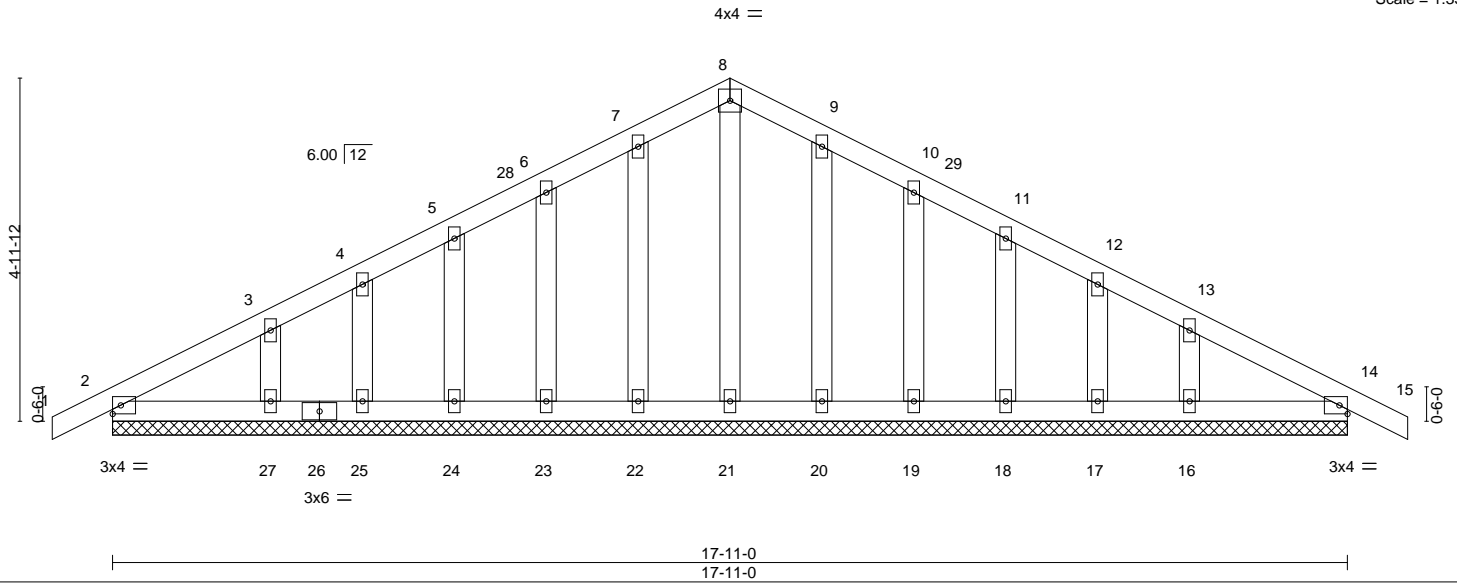
Job 21062473	Truss CGE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	WAG-3	146708244
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8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:19:59 2021 Page 1
ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-lGa7geMhrrBbtBDc3VgzRanozupas2bR6iPvyfz3OGk



Scale = 1:33.4



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 0.06	Vert(LL)	-0.00	14	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.04	Vert(CT)	0.00	14	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 102 lb	FT = 20%

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

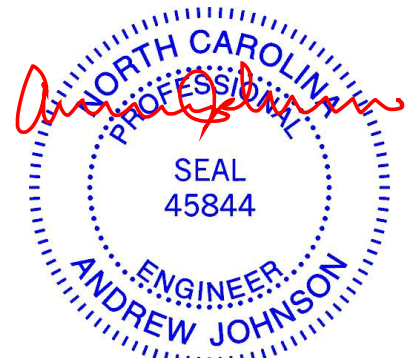
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 17-11-0.
(lb) - Max Horz 2=73(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 22, 23, 24, 25, 27, 20, 19, 18, 17, 16, 14
Max Grav All reactions 250 lb or less at joint(s) 2, 21, 22, 23, 24, 25, 27, 20, 19, 18, 17, 16, 14

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

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-3-8, Exterior(2) 2-3-8 to 5-11-8, Corner(3) 5-11-8 to 11-11-8, Exterior(2) 11-11-8 to 15-7-8, Corner(3) 15-7-8 to 18-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 1-4-0 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 with a clearance greater than 6-0-0 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, 22, 23, 24, 25, 27, 20, 19, 18, 17, 16, 14.
- 10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



June 24, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss CGR	Truss Type COMMON GIRDER	Qty 1	Ply 3	WAG-3	146708245
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:00 2021 Page 1

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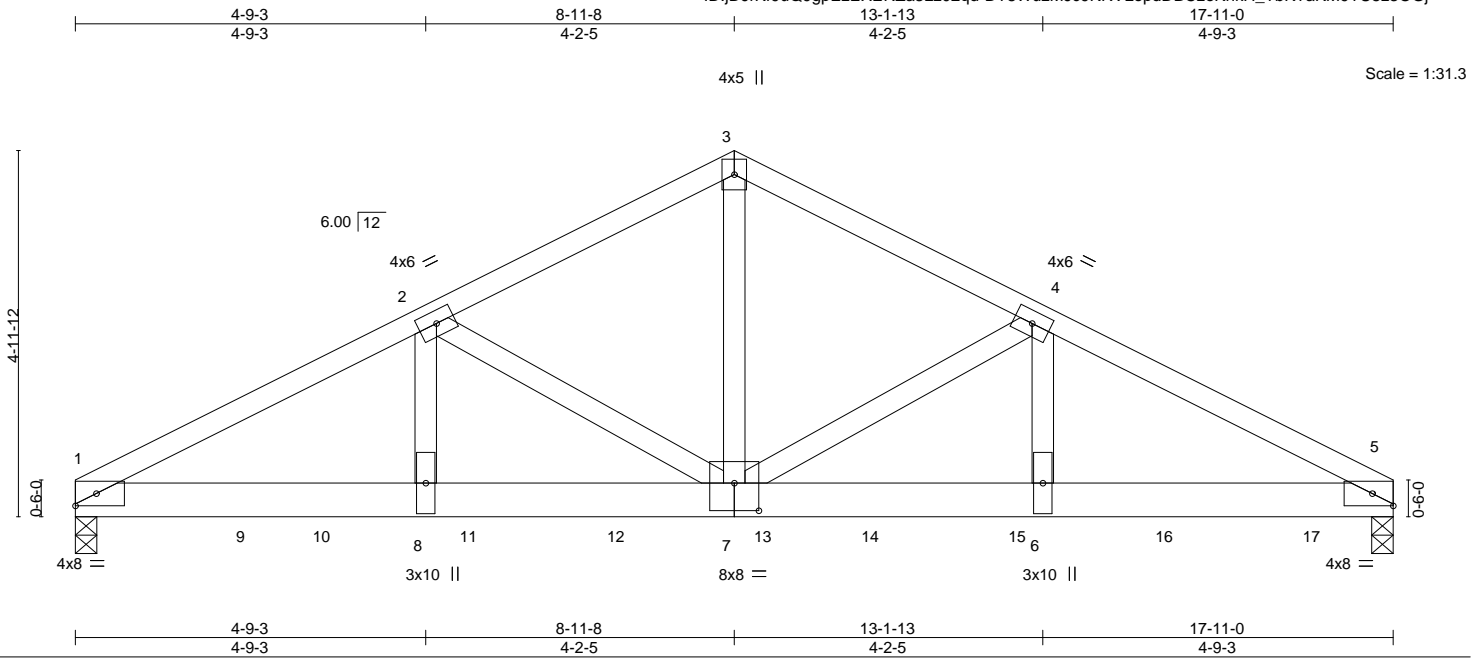


Plate Offsets (X,Y)-- [7:0-4-0,0-4-8]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.82	Vert(LL)	-0.12 6-7	>999 240
TCDL 10.0	Lumber DOL	1.15	BC 0.70	Vert(CT)	-0.23 6-7	>935 180
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.71	Horz(CT)	0.06 5	n/a n/a
BCDL 10.0	Code IRC2015/TP12014		Matrix-S			
						PLATES MT20
						GRIP 244/190
						Weight: 294 lb FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-5 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=68(LC 27)
Max Uplift 1=-1225(LC 8), 5=-1082(LC 9)
Max Grav 1=9924(LC 2), 5=8696(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-14491/1792, 2-3=-9962/1260, 3-4=-9962/1260, 4-5=-14215/1762
BOT CHORD 1-8=-1597/12726, 7-8=-1597/12726, 6-7=-1502/12481, 5-6=-1502/12481
WEBS 3-7=-1046/8628, 4-7=-4194/606, 4-6=-502/4208, 2-7=-4478/636, 2-8=-529/4484

- NOTES-**
- 3-ply truss to be connected together with 16d (0.131"x 3.5") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - 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.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; Lumber DOL=1.33 plate grip DOL=1.33
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=1225, 5=1082.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1747 lb down and 216 lb up at 0-1-12, 1739 lb down and 224 lb up at 2-4-4, 1739 lb down and 224 lb up at 3-4-12, 1739 lb down and 224 lb up at 5-4-12, 1739 lb down and 224 lb up at 7-4-12, 1751 lb down and 224 lb up at 9-4-12, 1751 lb down and 224 lb up at 10-10-4, 1727 lb down and 224 lb up at 12-10-4, and 1727 lb down and 224 lb up at 14-10-4, and 1728 lb down and 224 lb up at 16-10-4 on bottom chord.
The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard



Job 21062473	Truss CGR	Truss Type COMMON GIRDER	Qty 1	Ply 3	WAG-3 Job Reference (optional)	146708245
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:01 2021 Page 2
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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, 1-5=-20

Concentrated Loads (lb)

Vert: 1=-1656(F) 9=-1648(F) 10=-1648(F) 11=-1648(F) 12=-1648(F) 13=-1660(F) 14=-1659(F) 15=-1659(F) 16=-1659(F) 17=-1660(F)

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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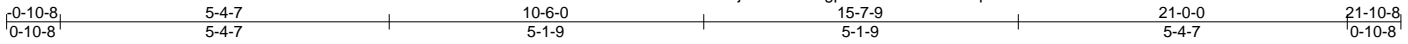
818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss D	Truss Type COMMON	Qty 5	Ply 1	WAG-3	146708246
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:01 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-hfiu5JNxNSSI6UN?BwiRW?s4YhFHKubkZ0u00Xz3OGi



Scale = 1:37.6

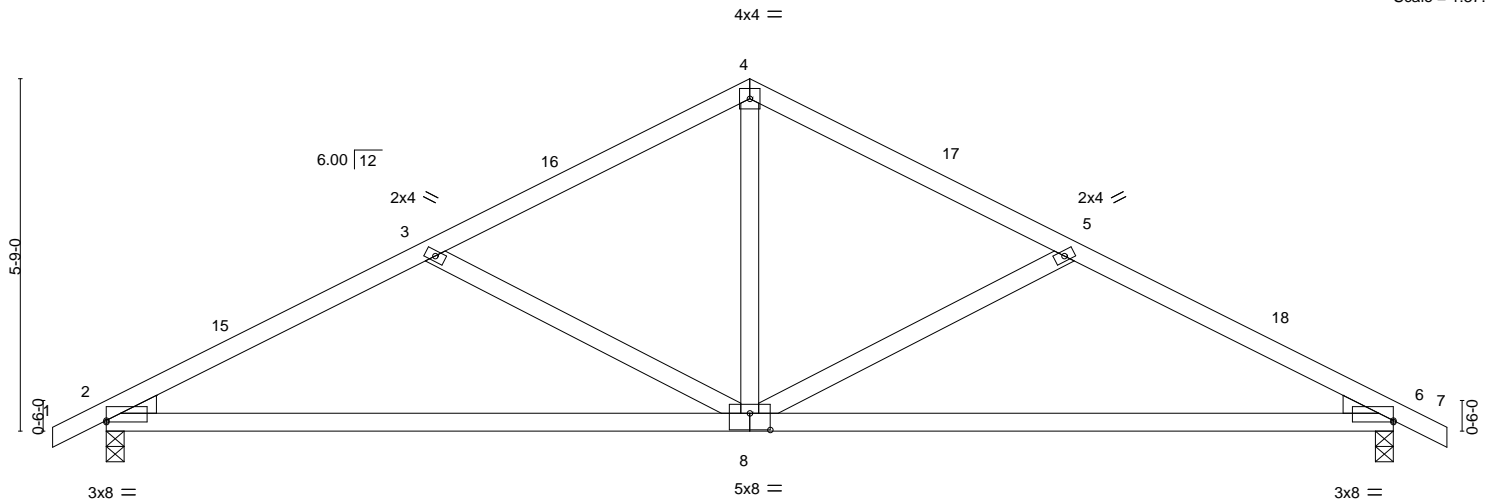


Plate Offsets (X, Y)--	[2:0-0-0,0-0-5], [6:Edge,0-0-5], [8:0-4-0,0-3-4]
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LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.31	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.98	Vert(LL) -0.18 8-14 >999 240		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.27	Vert(CT) -0.38 8-14 >667 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-AS	Horz(CT) 0.03 6 n/a n/a		
	Code IRC2015/TPI2014			Weight: 96 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied.
WEBS 2x4 SP No.3	
WEDGE	
Left: 2x4 SP No.3 , Right: 2x4 SP No.2	

REACTIONS. (size) 2=0-3-8, 6=0-3-8
 Max Horz 2=85(LC 10)
 Max Uplift 2=-119(LC 10), 6=-119(LC 11)
 Max Grav 2=893(LC 1), 6=893(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 2-3=-1382/247, 3-4=-1035/190, 4-5=-1035/190, 5-6=-1382/247
 BOT CHORD 2-8=-189/1183, 6-8=-134/1183
 WEBS 4-8=-18/603, 5-8=-388/187, 3-8=-388/187

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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 7-6-0, Exterior(2) 7-6-0 to 13-6-0, Interior(1) 13-6-0 to 18-10-8, Exterior(2) 18-10-8 to 21-10-8 zone; cantilever left and right exposed ;C:C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
 - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=119, 6=119.
 - This truss design requires that a minimum of 7/16" structural wood sheathing be applied directly to the top chord and 1/2" gypsum sheetrock be applied directly to the bottom chord.

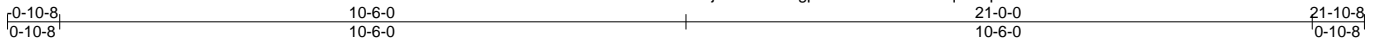


Job 21062473	Truss DGE	Truss Type COMMON SUPPORTED GAB	Qty 1	Ply 1	WAG-3	146708247
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:03 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-e1peW?PCv4i0MoXOILkvbQxTtVAPorR11KN75Qz3OGg



Scale = 1:38.6

Plate Offsets (X, Y)--	[24:0-2-8,0-3-0]								
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 0.06	Vert(LL) 0.00	16	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.04	Vert(CT) 0.00	16	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES		WB 0.05	Horz(CT) 0.00	16	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 128 lb	FT = 20%

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

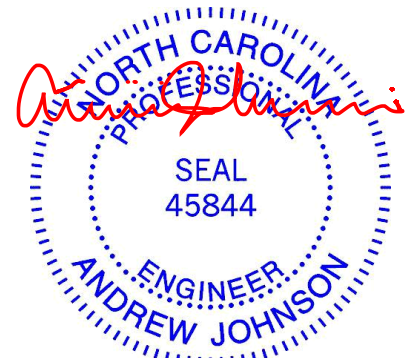
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 21-0-0.
(lb) - Max Horz 2=85(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16
Max Grav All reactions 250 lb or less at joint(s) 2, 24, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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 7-6-0, Corner(3) 7-6-0 to 13-6-0, Exterior(2) 13-6-0 to 18-10-8, Corner(3) 18-10-8 to 21-10-8 zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 1-4-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 25, 26, 27, 28, 29, 30, 23, 22, 21, 20, 19, 18, 16.
- Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 16.



June 24, 2021

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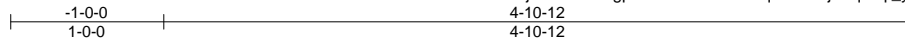
ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss H1	Truss Type MONOPICH	Qty 5	Ply 1	WAG-3	146708248
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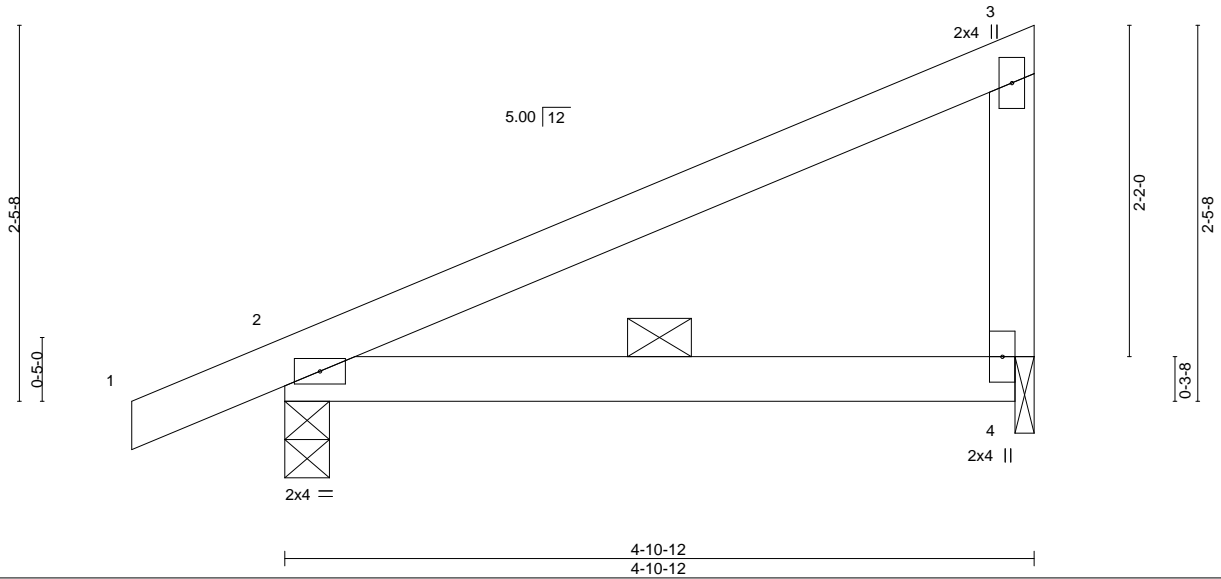
The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:04 2021 Page 1

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Scale = 1:15.1



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.36	Vert(LL)	-0.03	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.29	Vert(CT)	-0.05	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 20 lb	FT = 20%
	Code IRC2015/TPI2014							

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 4-10-12 oc purlins, except end verticals.
 BOT CHORD 3-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
 Max Horz 2=81(LC 10)
 Max Uplift 2=-42(LC 10), 4=-46(LC 10)
 Max Grav 2=261(LC 1), 4=176(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=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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.



June 24, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss H1GE	Truss Type GABLE	Qty 1	Ply 1	WAG-3	146708249
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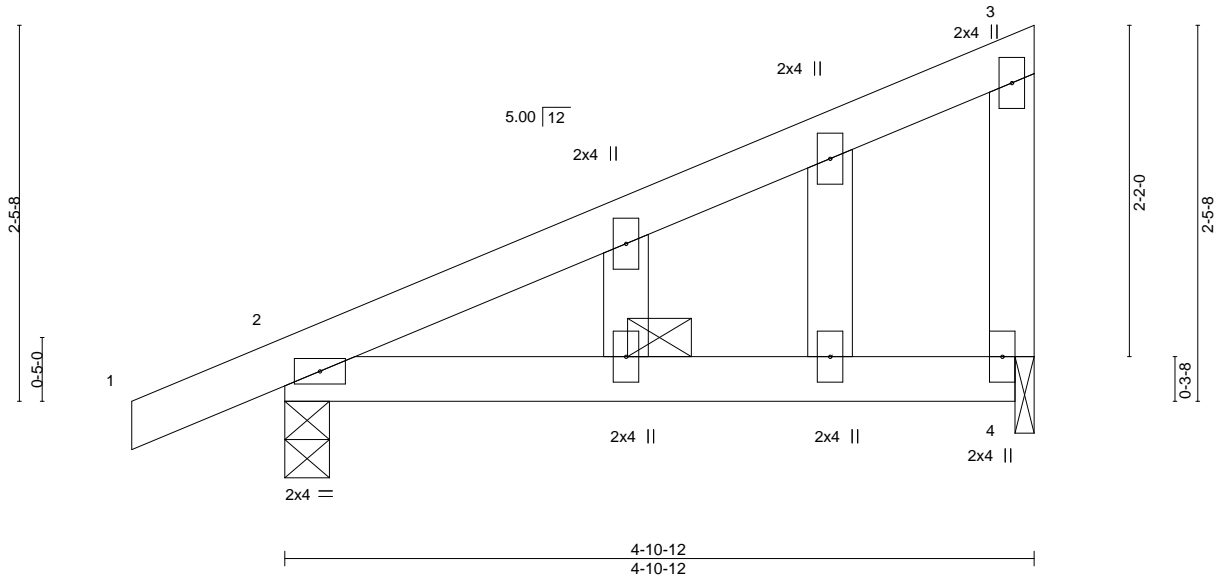
The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:04 2021 Page 1

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Scale = 1:15.1



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 0.36	Vert(LL)	-0.03	2-4	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.29	Vert(CT)	-0.05	2-4	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00		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
OTHERS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-12 oc purlins, except end verticals.
BOT CHORD 3-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
Max Horz 2=81(LC 10)
Max Uplift 2=-42(LC 10), 4=-46(LC 10)
Max Grav 2=261(LC 1), 4=176(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; TC DL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 studs spaced at 1-4-0 oc.
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



June 24, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



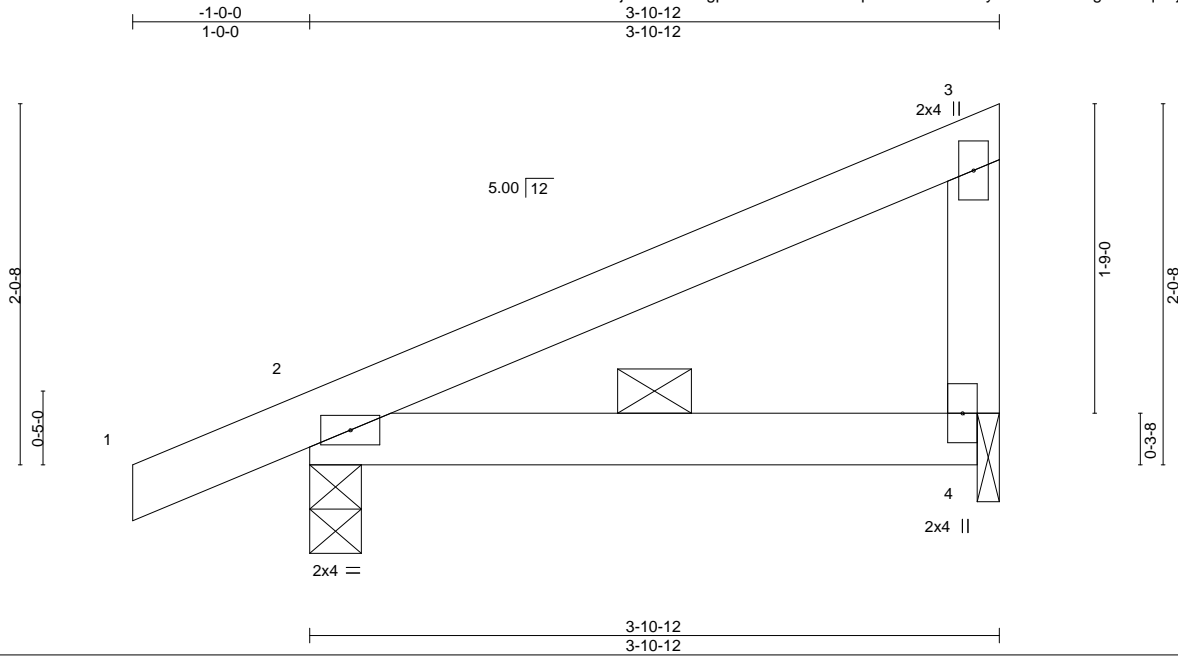
818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss H2	Truss Type MONOPICH	Qty 5	Ply 1	WAG-3	146708250
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:05 2021 Page 1

ID:jDjrkf9uQ9gpEzEXERZa3Lz02qd-aQxPxbQSQShykb6hmQmnNgr1mFlqtGijJUES9Iz3OG6



Scale = 1:13.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	-0.01	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(CT)	-0.02	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 16 lb	FT = 20%
	Code IRC2015/TPI2014							

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

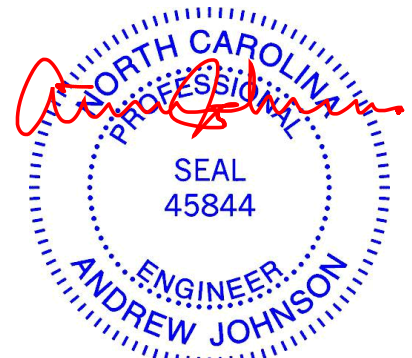
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
 BOT CHORD 3-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
 Max Horz 2=67(LC 10)
 Max Uplift 2=-39(LC 10), 4=-35(LC 10)
 Max Grav 2=224(LC 1), 4=133(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=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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.



June 24, 2021

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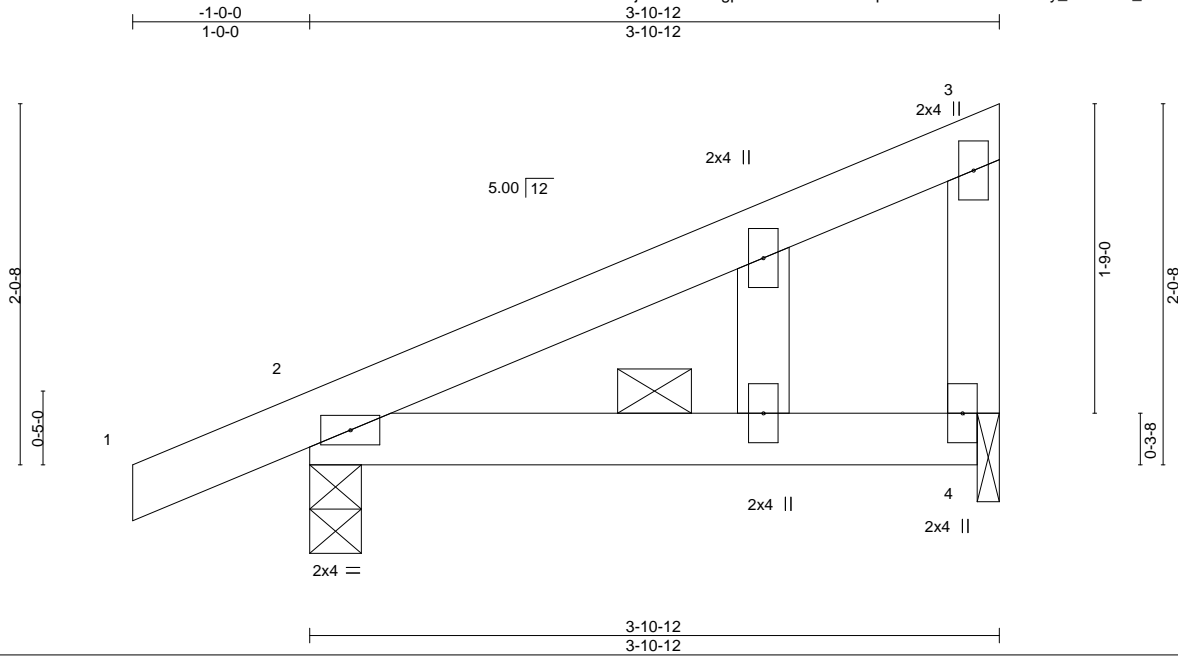


818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss H2GE	Truss Type GABLE	Qty 1	Ply 1	WAG-3	146708251
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:06 2021 Page 1
ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-2cVn81R4B?4bDGGy_UlcD2Zx_iA6?CzTJlcnhlz3OGd



Scale = 1:13.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.20	Vert(LL)	-0.01	2-4	>999	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.17	Vert(CT)	-0.02	2-4	>999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.00	Horz(CT)	0.00		n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 17 lb	FT = 20%
	Code IRC2015/TPI2014							

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

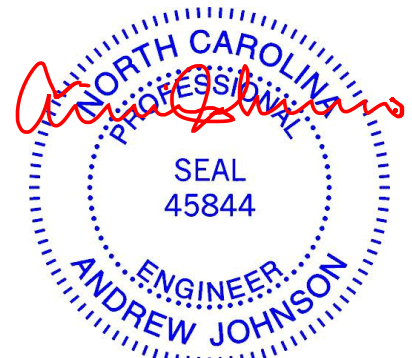
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 3-10-12 oc purlins, except end verticals.
 BOT CHORD 3-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 4=0-1-8
 Max Horz 2=67(LC 10)
 Max Uplift 2=-39(LC 10), 4=-35(LC 10)
 Max Grav 2=224(LC 1), 4=133(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; TCCL=5.0psf; BCCL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 studs spaced at 1-4-0 oc.
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members.
- 6) 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.
- 7) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 4.
- 8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 4.



June 24, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



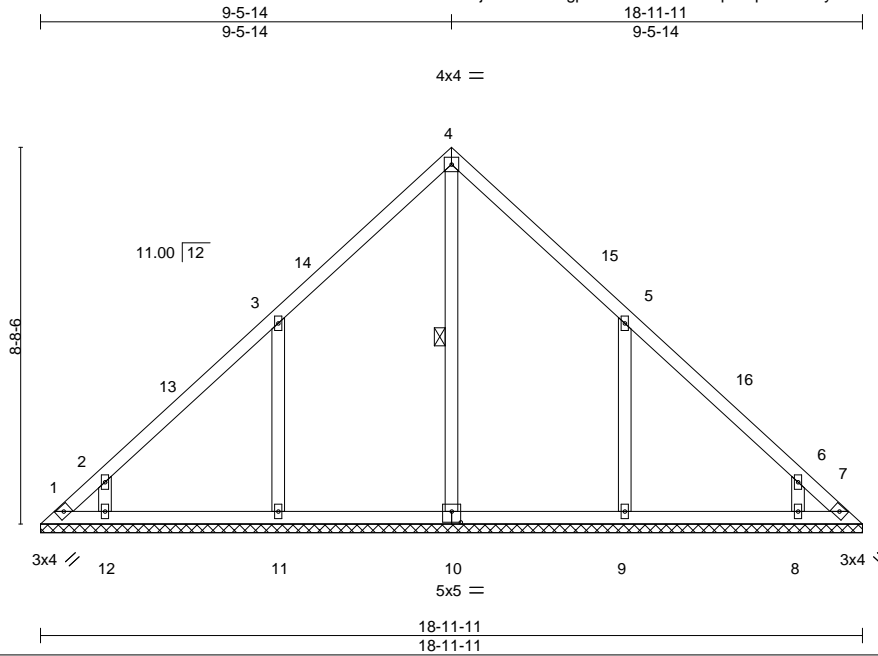
818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss V01	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708252
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:07 2021 Page 1

ID:JDrKf9uQ9gpEzEXERZa3Lz02qd-Wp39MNSiyICsrQq9XBprIG66S6V4kdBcxyLKEBz3OGc



Scale = 1:53.2

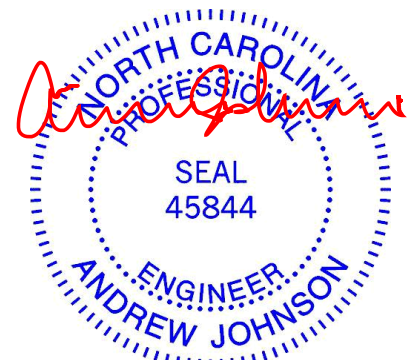
Plate Offsets (X,Y)--	[10:0-2-8,0-3-0]						
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.21	Vert(LL)	n/a	-	n/a 999
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a 999
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.13	Horz(CT)	0.00	7	n/a n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S				
							PLATES
							MT20
							GRIP
							244/190
							Weight: 93 lb
							FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	WEBS 1 Row at midpt 4-10

REACTIONS. All bearings 18-11-11.
 (lb) - Max Horz 1=184(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 7 except 1=114(LC 8), 11=194(LC 10), 12=141(LC 10), 9=194(LC 11), 8=141(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 1, 7 except 10=379(LC 20), 11=439(LC 17), 12=274(LC 17), 9=438(LC 18), 8=274(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=253/163
 WEBS 3-11=303/235, 5-9=303/235

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
 - 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-8 to 3-4-8, Interior(1) 3-4-8 to 6-5-14, Exterior(2) 6-5-14 to 12-5-14, Interior(1) 12-5-14 to 15-7-3, Exterior(2) 15-7-3 to 18-7-3 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 3) All plates are 2x4 MT20 unless otherwise indicated.
 - 4) Gable requires continuous bottom chord bearing.
 - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
 - 6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
 - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 7 except (jt=lb) 1=114, 11=194, 12=141, 9=194, 8=141.



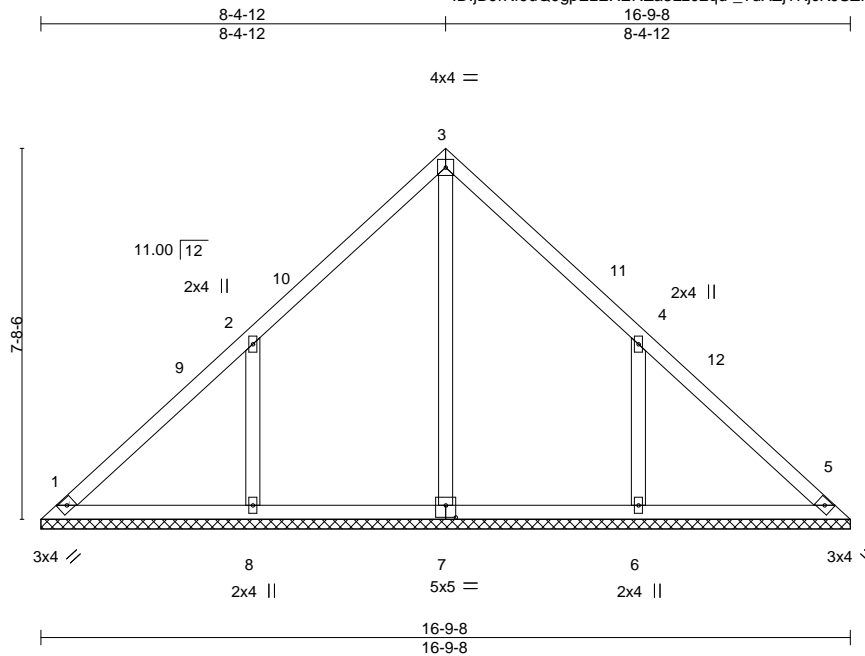
June 24, 2021

Job 21062473	Truss V02	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708253
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:08 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-?dXZjTKjcKJSZPL5uK4ITfHoWrNT42mAc5umdZ3OGb



Scale: 1/4"=1'

Plate Offsets (X,Y)--	[7:0-2-8,0-3-0]				
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 0.24	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.18	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.16	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 78 lb	FT = 20%

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

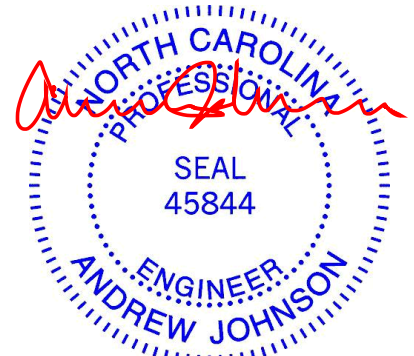
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 16-9-8.
(lb) - Max Horz 1=162(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-212(LC 10), 6=-212(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=360(LC 20), 8=472(LC 17), 6=472(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-324/247, 4-6=-324/247

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-8 to 3-4-8, Interior(1) 3-4-8 to 5-4-12, Exterior(2) 5-4-12 to 11-4-12, Interior(1) 11-4-12 to 13-5-0, Exterior(2) 13-5-0 to 16-5-0 zone; cantilever left and right exposed ; end vertical left and right exposed; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1 except (jt=lb) 8=212, 6=212.



June 24, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



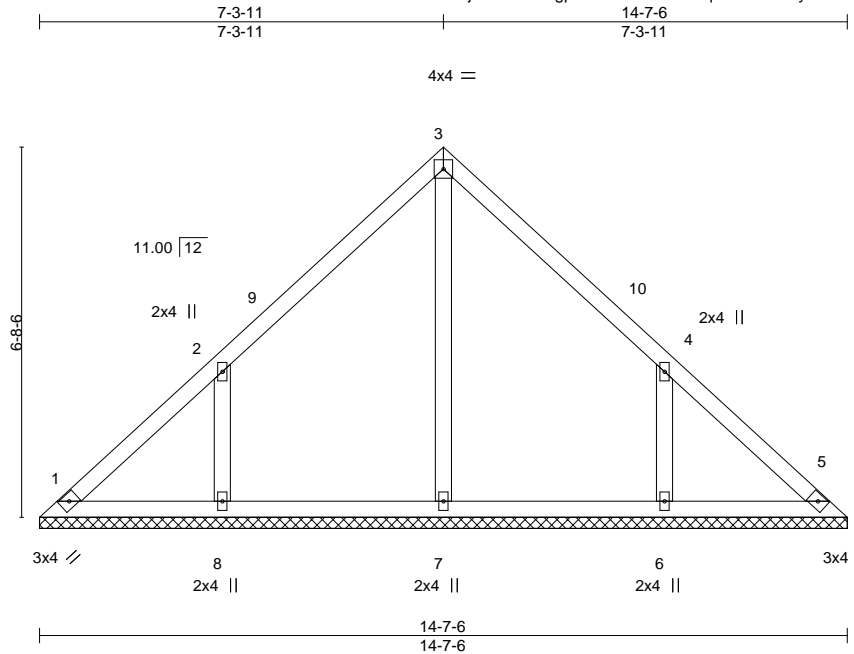
818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss V03	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708254
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:09 2021 Page 1

ID:JDrKf9uQ9gpEzEXERZa3Lz02qd-SBAvn2TyUwSA4j_XfcrJrhBTNwChCYwvPGqRI4z3OGa



Scale = 1:41.7

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.19	Vert(LL)	n/a	-	n/a	999	MT20	244/190
BCDL 10.0	Lumber DOL	1.15	BC 0.11	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 66 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No.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 14-7-6.
 (lb) - Max Horz 1=-140(LC 6)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-184(LC 10), 6=-184(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=356(LC 17), 6=356(LC 18)

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

WEBS 2-8=-284/218, 4-6=-284/218

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-4-8 to 3-3-11, Interior(1) 3-3-11 to 4-3-11, Exterior(2) 4-3-11 to 10-3-11, Interior(1) 10-3-11 to 11-2-14, Exterior(2) 11-2-14 to 14-2-14 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=184, 6=184.



June 24, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



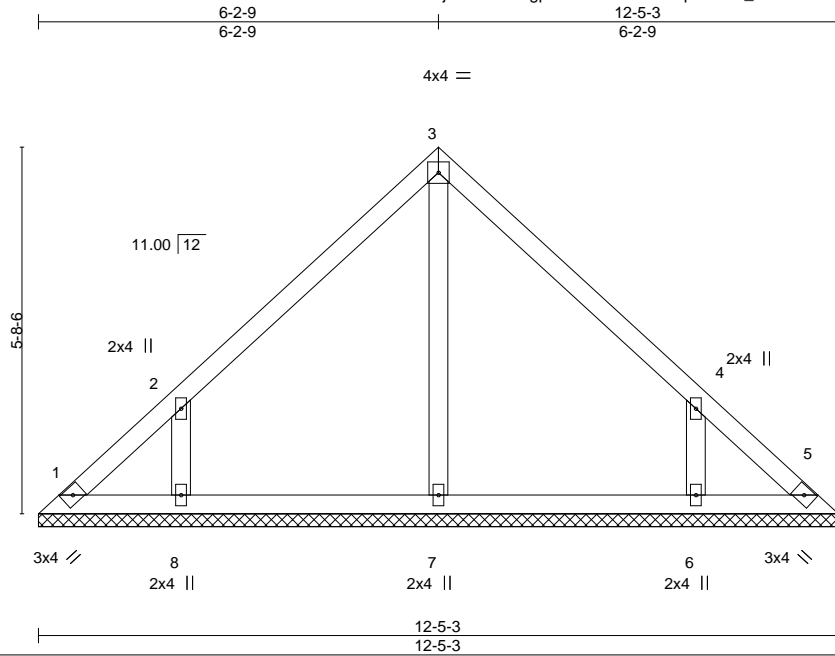
818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss V04	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708255
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:10 2021 Page 1

ID:JDrKf9uQ9gpEzEXERZa3Lz02qd-xOkH_OubFDa1itZkDJMYNukeHJYnx?f3ewa?qWz3OGZ



Scale = 1:35.8

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 0.18	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.08	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 54 lb	FT = 20%

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

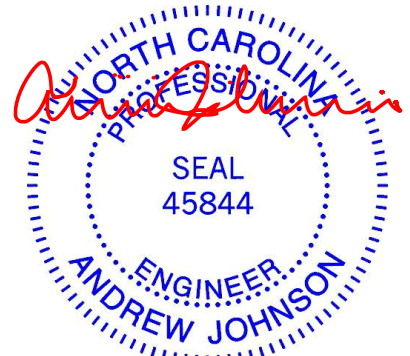
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-5-3.
 (lb) - Max Horz 1=-118(LC 8)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5 except 8=-168(LC 10), 6=-168(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 8=321(LC 17), 6=320(LC 18)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-8=-264/204, 4-6=-264/204

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- Gable requires continuous bottom chord bearing.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas with a clearance greater than 6-0-0 between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5 except (jt=lb) 8=168, 6=168.



June 24, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

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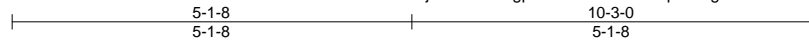
818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss V05	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708256
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The Building Center, Gastonia, NC - 28052,

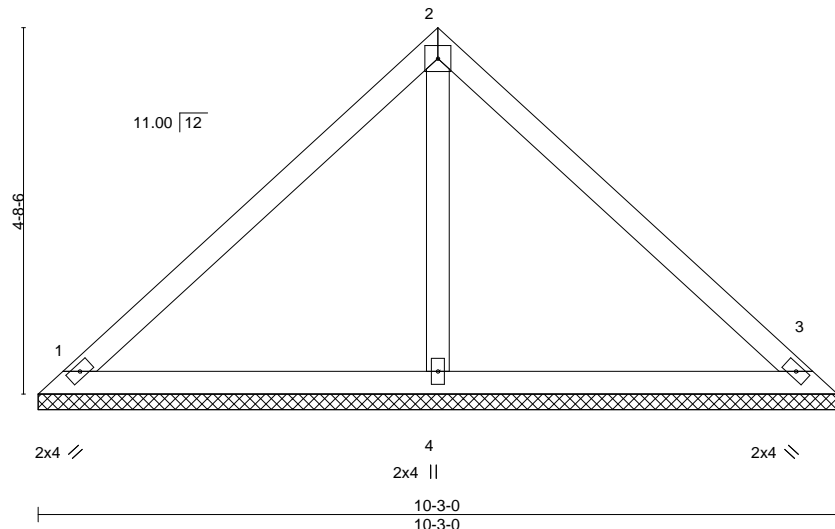
8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:11 2021 Page 1

ID:JDrKf9uQ9gpEzEXERZa3Lz02qd-PalGkVD0XiuJ18wm1tnw6HmkjsNgS?CsaJYNyz3OGY



4x4 =

Scale = 1:29.5



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.32	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.08	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 41 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. (size) 1=10-3-0, 3=10-3-0, 4=10-3-0
 Max Horz 1=-96(LC 6)
 Max Uplift 1=-36(LC 11), 3=-42(LC 11), 4=-11(LC 10)
 Max Grav 1=208(LC 1), 3=208(LC 1), 4=345(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; TC DL=5.0psf; BCDL=5.0psf; h=35ft; 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; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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, 4.



June 24, 2021

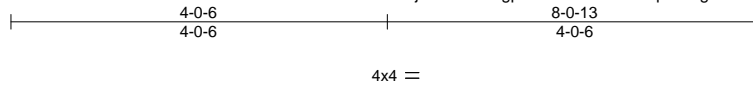
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.
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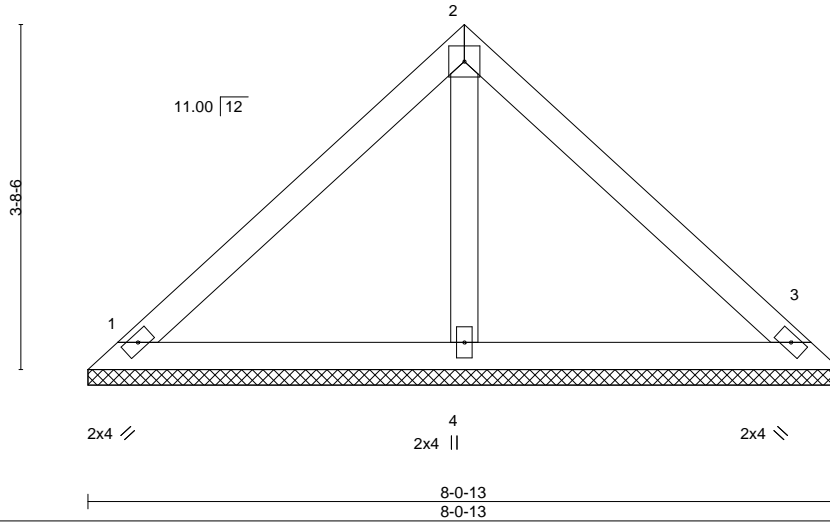
Job 21062473	Truss V06	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708257
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:11 2021 Page 1
ID:JDrKf9uQ9gpEzEXERZa3Lz02qd-PalgBkVD0XiuJ18wm1tnw6HnXjtpgTbCsaJYNyz3OGY



Scale = 1:24.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
BCDL 10.0	Lumber DOL	1.15	BC 0.14	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.04	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P						Weight: 31 lb	FT = 20%

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

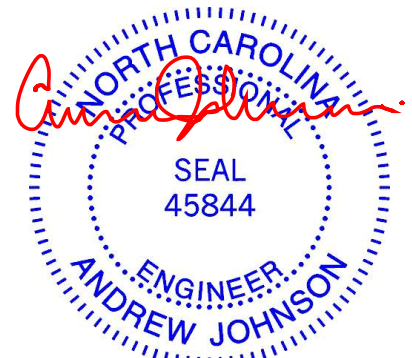
BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=8-0-13, 3=8-0-13, 4=8-0-13
Max Horz 1=74(LC 7)
Max Uplift 1=-38(LC 11), 3=-42(LC 11)
Max Grav 1=173(LC 1), 3=173(LC 1), 4=240(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; TC DL=5.0psf; BCDL=5.0psf; h=35ft; 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; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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.



June 24, 2021

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ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

Job 21062473	Truss V07	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708258
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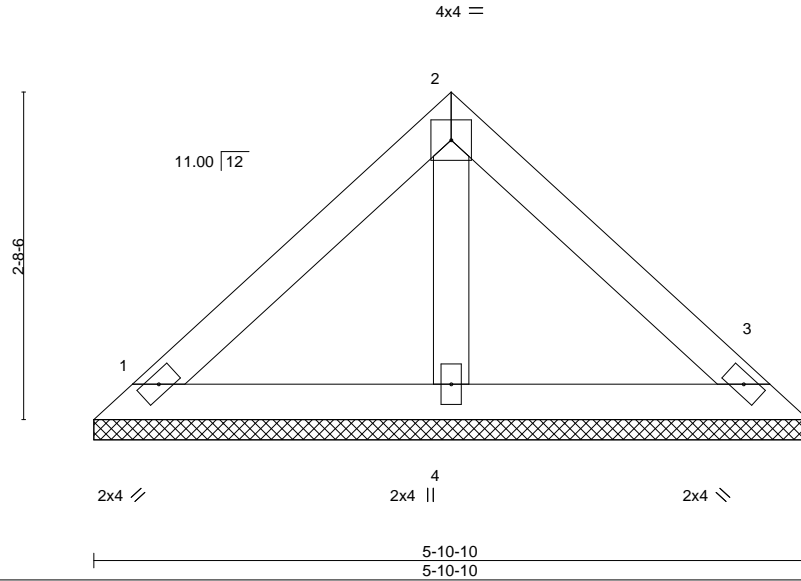
The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:12 2021 Page 1

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Scale = 1:19.0



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.13	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.07	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.02	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-P					Weight: 22 lb	FT = 20%
	Code IRC2015/TPI2014							

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

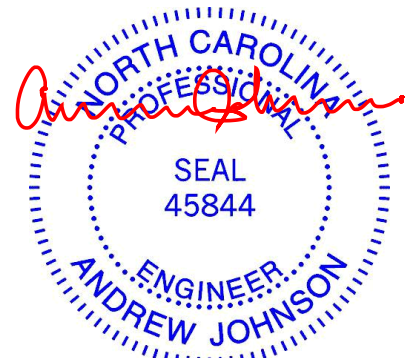
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 5-10-10 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=5-10-10, 3=5-10-10, 4=5-10-10
 Max Horz 1=-52(LC 8)
 Max Uplift 1=-26(LC 11), 3=-29(LC 11)
 Max Grav 1=121(LC 1), 3=121(LC 1), 4=169(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=5.0psf; BCDL=5.0psf; h=35ft; 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; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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.



June 24, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



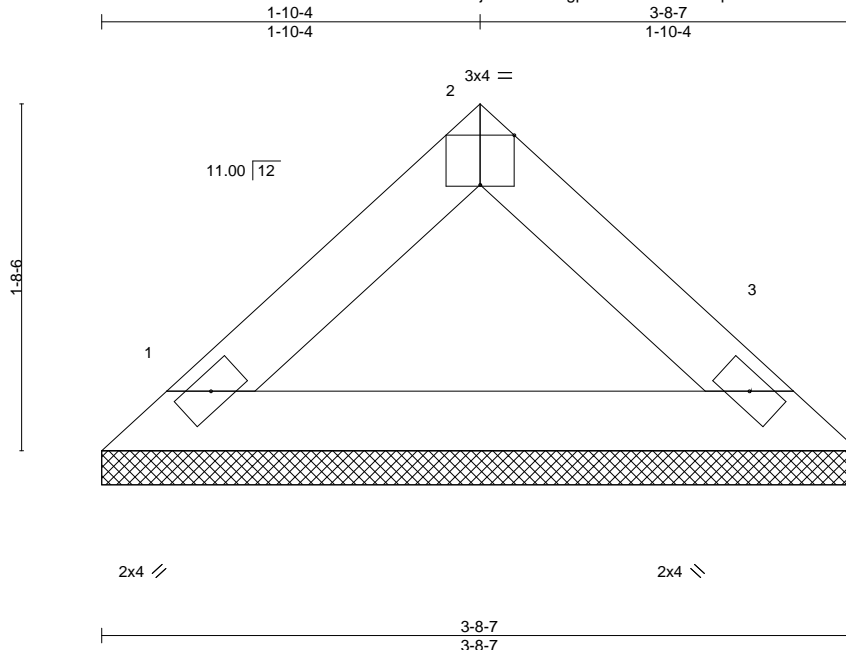
818 Soundside Road
 Edenton, NC 27932

Job 21062473	Truss V08	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708259
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:13 2021 Page 1

ID:jDjrkf9uQ9gpEzEXERZa3Lz02qd-LzQQcQWTY8ybZLIJuSwf?XMBgXZp8NiVKuofRr3OGW



Scale = 1:11.3

Plate Offsets (X,Y)--	[2:0-2-0,Edge]								
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.04	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.10	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-P					Weight: 12 lb	FT = 20%

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

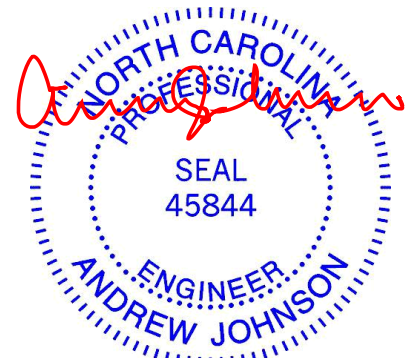
BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-8-7 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=3-8-7, 3=3-8-7
Max Horz 1=30(LC 9)
Max Uplift 1=-11(LC 10), 3=-11(LC 11)
Max Grav 1=118(LC 1), 3=118(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=5.0psf; BCDL=5.0psf; h=35ft; 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; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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.



June 24, 2021

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see **ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information** available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



818 Soundside Road
Edenton, NC 27932

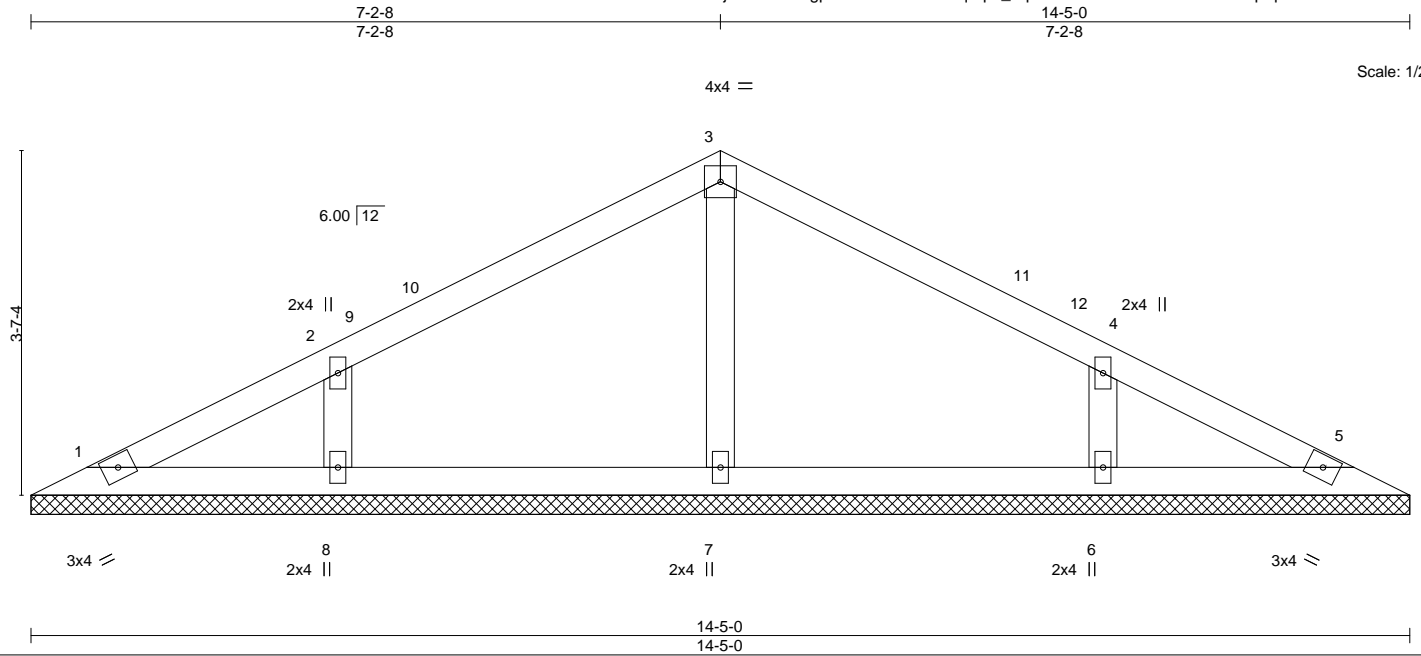
Job 21062473	Truss V09	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708260
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8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:14 2021 Page 1

ID:jDjrkf9uQ9gpEzEXERZa3Lz02qd-p9_oqmX5JS4SAUtVS9RUykvKKxvptq6eYXYCzHz3OGV

Job Reference (optional)



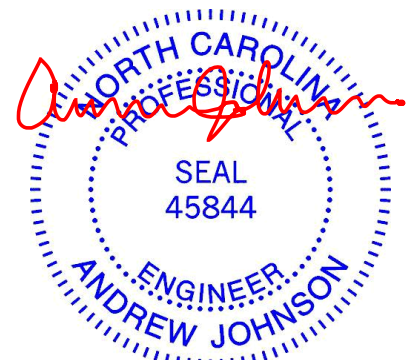
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.17	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.12	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 51 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	

REACTIONS. All bearings 14-5-0.
 (lb) - Max Horz 1=49(LC 14)
 Max Uplift All uplift 100 lb or less at joint(s) 1, 8, 6
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=283(LC 1), 8=316(LC 21), 6=316(LC 22)

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=5.0psf; BCDL=5.0psf; h=35ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-7-7 to 3-7-7, Interior(1) 3-7-7 to 4-2-8, Exterior(2) 4-2-8 to 10-2-8, Interior(1) 10-2-8 to 10-9-9, Exterior(2) 10-9-9 to 13-9-9 zone; cantilever left and right exposed; end vertical left and right exposed; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
 - 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 with a clearance greater than 6-0-0 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, 8, 6.



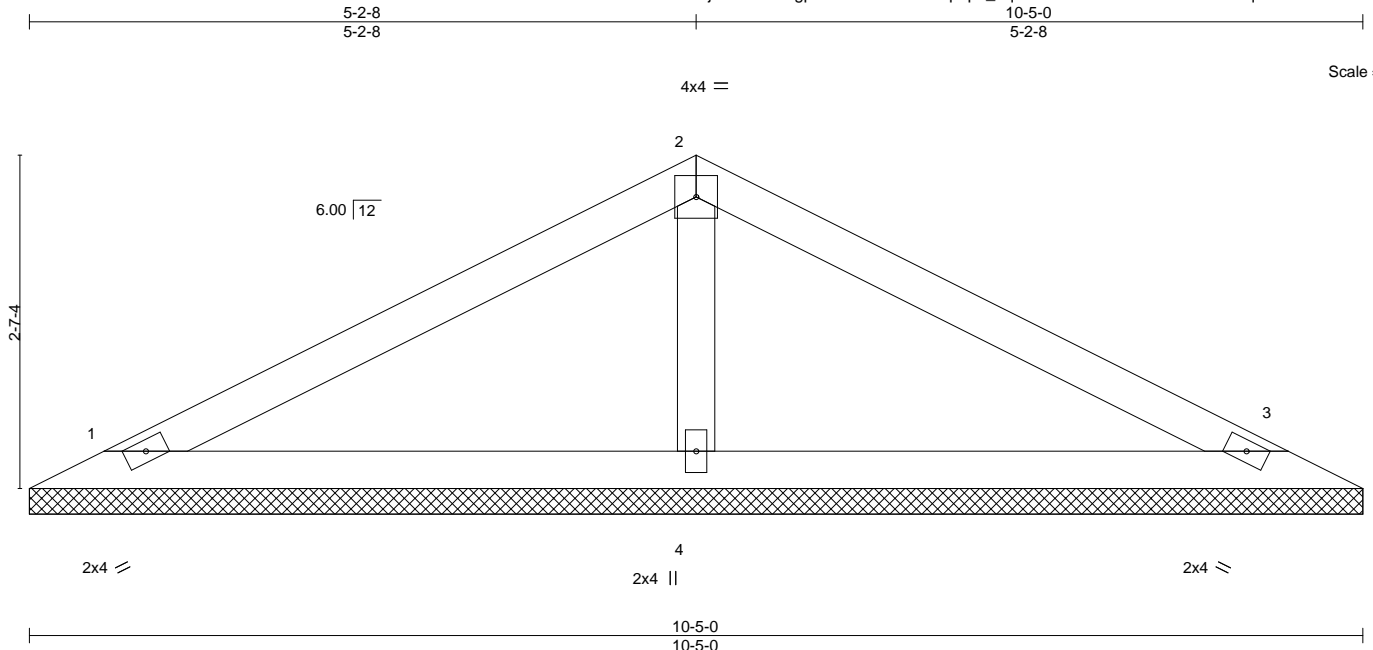
June 24, 2021

Job 21062473	Truss V10	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708261
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:14 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-p9_oqmX5JS4SAUfVS9RUYkviPxtNtq3eYXyCzHz3OGV



Scale = 1:18.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.30	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.21	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.06	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 34 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. (size) 1=10-5-0, 3=10-5-0, 4=10-5-0
 Max Horz 1=34(LC 11)
 Max Uplift 1=33(LC 10), 3=39(LC 11), 4=24(LC 10)
 Max Grav 1=169(LC 21), 3=169(LC 22), 4=400(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-265/130

NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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, 4.



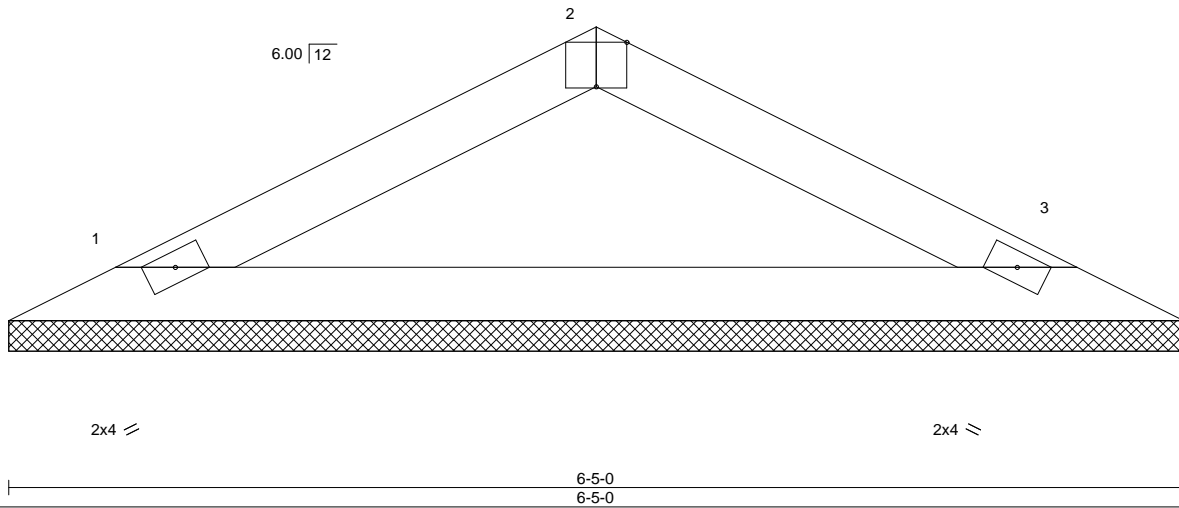
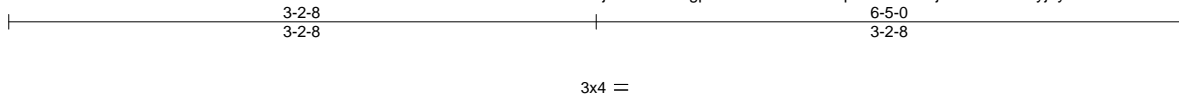
June 24, 2021

Job 21062473	Truss V11	Truss Type Valley	Qty 1	Ply 1	WAG-3	146708262
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The Building Center, Gastonia, NC - 28052,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:20:15 2021 Page 1

ID:jDjRkF9uQ9gpEzEXERZa3Lz02qd-HLYA16Yj4mCJoeSh?tyj4yRWwKBTcHConBHIWjz3OGU



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.12	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.35	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: 18 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=6-5-0, 3=6-5-0
 Max Horz 1=19(LC 10)
 Max Uplift 1=25(LC 10), 3=25(LC 11)
 Max Grav 1=207(LC 1), 3=207(LC 1)

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

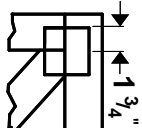
NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=120mph Vasd=95mph; TCDL=5.0psf; BCDL=5.0psf; h=35ft; 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; porch left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 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 with a clearance greater than 6-0-0 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.

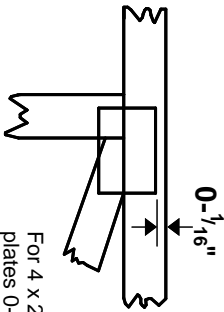


Symbols

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

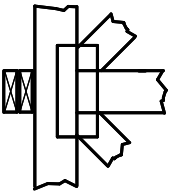
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

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



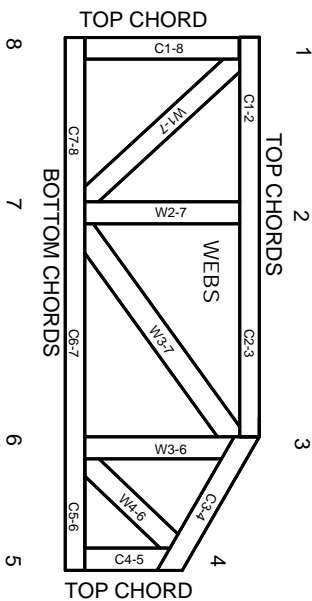
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: Design Standard for Bracing, Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

Numbering System

6-4-8
dimensions shown in ft-in-sixteenths
(Drawings not to scale)



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.

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MITek Engineering Reference Sheet: Mill-7473 rev. 5/19/2020



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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