

Trenco  
818 Soundside Rd  
Edenton, NC 27932

Re: CG997-R  
McKee-Torino20CL;Lot997 CarriageGlenn

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

Pages or sheets covered by this seal: I46710284 thru I46710320

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

North Carolina COA: C-0844



June 24,2021

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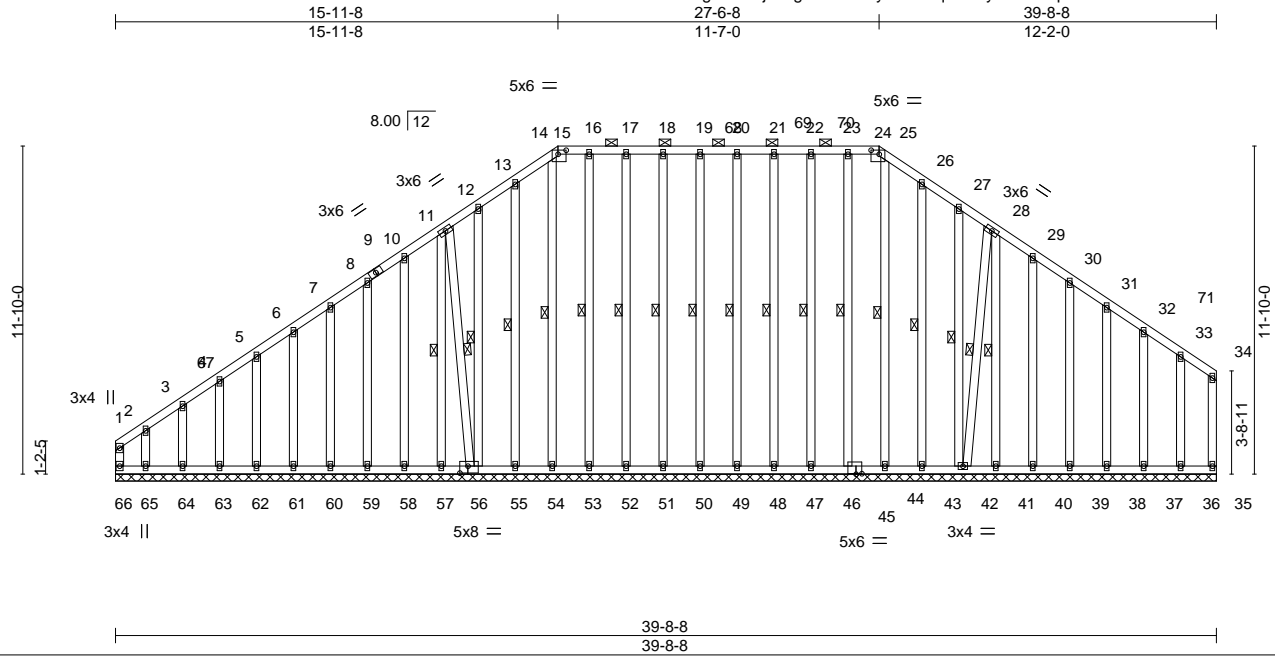
Johnson, Andrew

**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 CG997-R	Truss B08G	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710284
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:38 2021 Page 1  
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Scale = 1:83.1

Plate Offsets (X,Y)--	[15:0-3-8,0-1-12], [24:0-3-8,0-1-12], [45:0-2-8,0-0-4], [56:0-3-8,0-3-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.21	Vert(LL) n/a - n/a 999	MT20	244/190
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 0.09	Horz(CT) -0.01 35 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 506 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals, and 2-0-0 oc purlins (10-0-0 max.): 15-24.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS 2x4 SP No.3 *Except*	10-0-0 oc bracing: 41-42,40-41,39-40,38-39,37-38,36-37,35-36.
1-66: 2x4 SP No.2	WEBS 1 Row at midpt
OTHERS 2x4 SP No.3	11-57, 12-56, 13-55, 14-54, 16-53, 17-52, 18-51, 19-50, 20-49, 21-48, 22-47, 23-46, 25-44, 26-43, 27-42, 28-41, 11-56, 28-42

**REACTIONS.** All bearings 39-8-8.  
(lb) - Max Horz 66=336(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 35, 64, 63, 62, 61, 60, 59, 58, 57, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 44, 43, 40, 39, 38, 37, 36 except 66=376(LC 10), 65=348(LC 9), 56=157(LC 12), 42=170(LC 8), 41=102(LC 9)  
Max Grav All reactions 250 lb or less at joint(s) 35, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 44, 43, 41, 40, 39, 38, 37, 36 except 66=448(LC 9), 65=375(LC 10), 42=259(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-347/308, 11-12=-253/278, 12-13=-287/312, 13-14=-319/342, 14-15=-253/270, 15-16=-277/301, 16-17=-277/301, 17-18=-277/301, 18-19=-277/301, 19-20=-277/301, 20-21=-277/301, 21-22=-277/301, 22-23=-277/301, 23-24=-277/301, 24-25=-253/268, 25-26=-318/338, 26-27=-287/300, 27-28=-257/263, 1-66=-280/237

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-4 to 3-5-4, Interior(1) 3-5-4 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-1-8, Interior(1) 32-1-8 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 8) Gable studs spaced at 1-4-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 11) N/A



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.**  
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 CG997-R	Truss B08G	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710284 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:38 2021 Page 2  
ID:?MdgC82XojFIRgoD?t4wJJyPwGb-q6ndOywQhoQqR0ohZnVobMK2IhEeirxmM?f6rkz3NiV

**NOTES-**

- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

**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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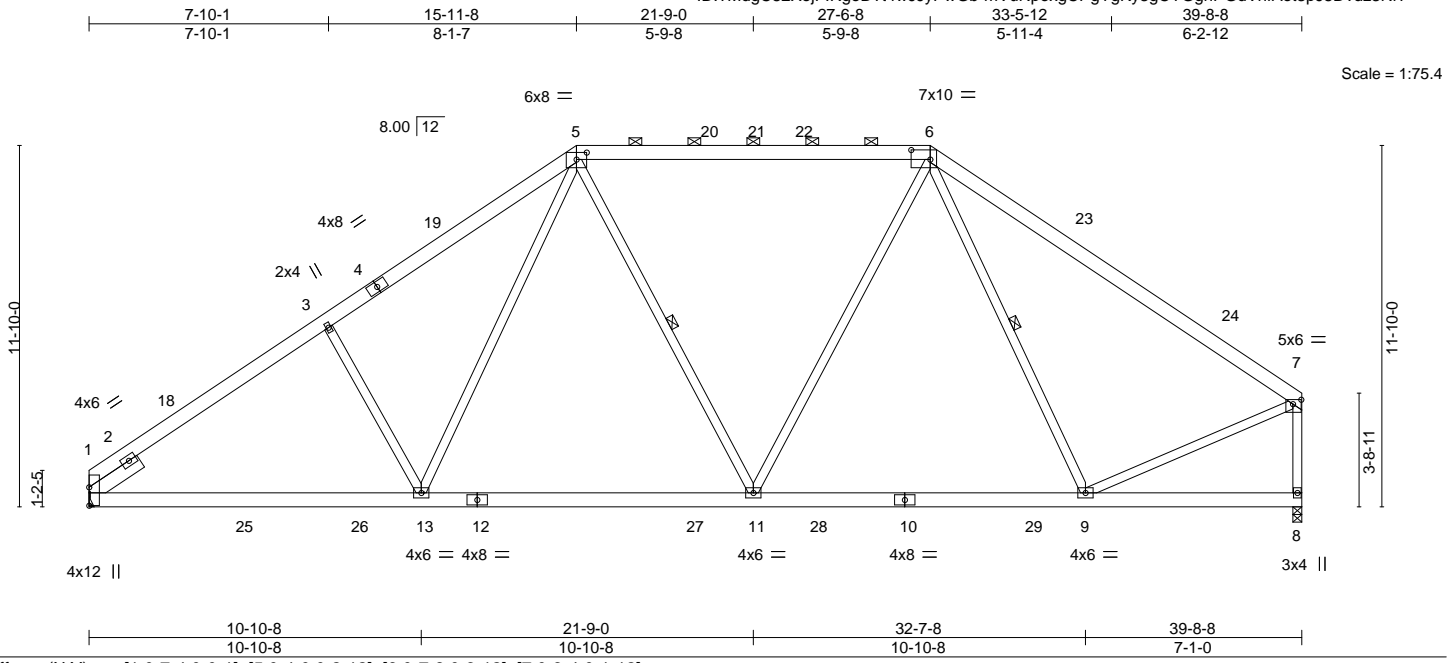


818 Soundside Road  
Edenton, NC 27932

Job CG997-R	Truss B09	Truss Type HIP	Qty 2	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn	146710285
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:40 2021 Page 1

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Scale = 1:75.4

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 0.73	Vert(LL)	-0.16 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.74	Vert(CT)	-0.27 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.06 11-13	>999	240	Weight: 302 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6,6-7: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 3-9-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 7-8,5-11,6-11: 2x4 SP No.2	WEBS 1 Row at midpt 5-11, 6-9
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** (size) 8=0-3-8, 1=Mechanical  
 Max Horz 1=323(LC 11)  
 Max Uplift 8=-182(LC 13), 1=-208(LC 12)  
 Max Grav 8=1637(LC 2), 1=1668(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-2321/333, 3-5=-2166/418, 5-6=-1486/333, 6-7=-1575/254, 7-8=-1601/232  
 BOT CHORD 1-13=-331/1957, 11-13=-194/1452, 9-11=-140/1283  
 WEBS 3-13=-416/313, 5-13=-162/777, 6-11=-44/532, 6-9=-318/142, 7-9=-34/1230

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-3-8 to 3-3-8, Interior(1) 3-3-8 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-0-15, Interior(1) 32-0-15 to 39-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 1=208.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
  - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job CG997-R	Truss B09T	Truss Type SPECIAL	Qty 5	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710286
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:41 2021 Page 1

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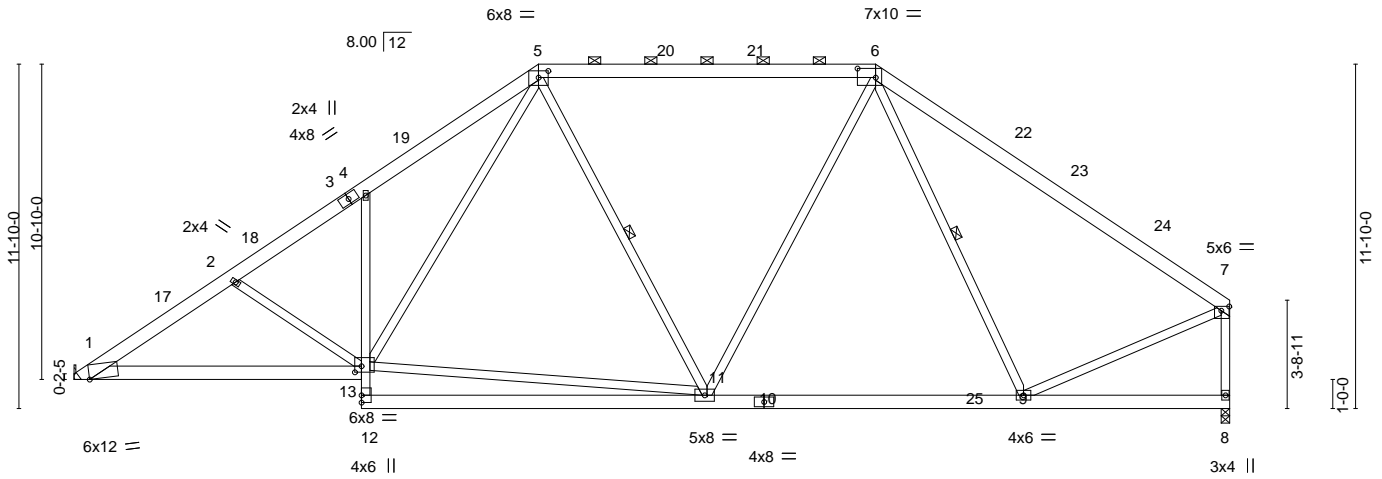


Plate Offsets (X,Y)--	[5:0-4-0,0-2-12], [6:0-7-8,0-3-12], [7:0-3-4,0-1-12], [13:0-2-12,0-2-8]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.73	Vert(LL)	-0.20	9-11	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.75	Vert(CT)	-0.30	11-12	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.49	Horz(CT)	0.06	8	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.05	13-16	>999	Weight: 320 lb	FT = 20%

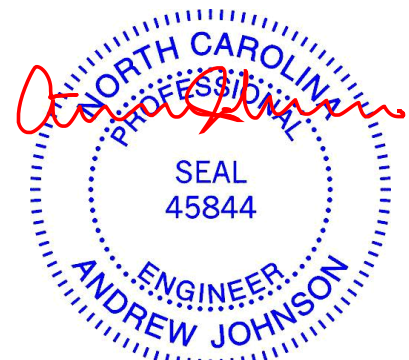
LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6,6-7: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 4-6-3 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.2 *Except* 4-12: 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 7-8,5-11,6-11: 2x4 SP No.2	WEBS 1 Row at midpt 5-11, 6-9

**REACTIONS.** (size) 8=0-3-8, 1=Mechanical  
 Max Horz 1=319(LC 11)  
 Max Uplift 8=-21(LC 13), 1=-44(LC 12)  
 Max Grav 8=1561(LC 1), 1=1561(LC 1)

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

TOP CHORD	1-2=-2437/354, 2-4=-2209/341, 4-5=-2195/476, 5-6=-1299/327, 6-7=-1453/254, 7-8=-1502/228
BOT CHORD	1-13=-336/2006, 4-13=-343/196, 9-11=-133/1178
WEBS	2-13=-299/146, 11-13=-187/1130, 5-13=-184/897, 6-11=-32/375, 6-9=-310/134, 7-9=-28/1119

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-6-7 to 3-6-7, Interior(1) 3-6-7 to 15-11-8, Exterior(2) 15-11-8 to 20-2-7, Interior(1) 20-2-7 to 27-6-8, Exterior(2) 27-6-8 to 31-9-7, Interior(1) 31-9-7 to 39-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8. This connection is for uplift only and does not consider lateral forces.
  - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
  - 11) Gap between inside of top chord bearing and first diagonal or vertical web shall not exceed 0.500in.



June 24, 2021

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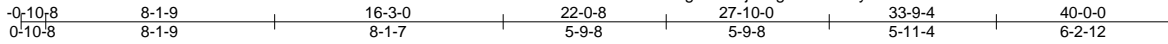
**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932

Job CG997-R	Truss B10	Truss Type HIP	Qty 2	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn	146710287
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:42 2021 Page 1

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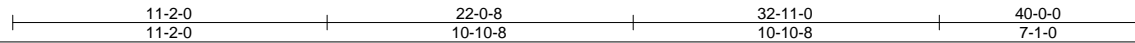
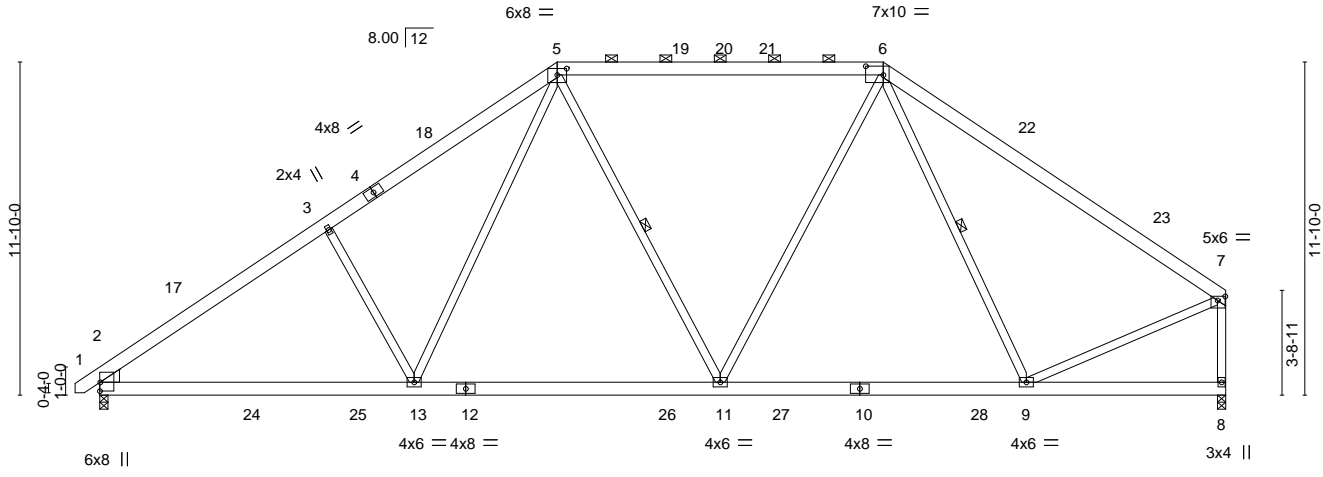


Plate Offsets (X,Y)--	[2:Edge,0-0-3], [5:0-4-0,0-2-12], [6:0-7-8,0-3-12], [7:0-3-4,0-1-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.74	Vert(LL)	-0.15 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.73	Vert(CT)	-0.26 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.06 11-13	>999	240	Weight: 302 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6,6-7: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 4-4-12 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 7-8,5-11,6-11: 2x4 SP No.2	WEBS 1 Row at midpt 5-11, 6-9

WEDGE Left: 2x6 SP No.2

**REACTIONS.** (size) 8=0-3-8, 2=0-3-8  
 Max Horz 2=333(LC 11)  
 Max Uplift 8=182(LC 13), 2=226(LC 12)  
 Max Grav 8=1648(LC 2), 2=1712(LC 2)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=2415/341, 3-5=2234/427, 5-6=1504/334, 6-7=1589/255, 7-8=1613/234  
 BOT CHORD 2-13=343/2031, 11-13=194/1477, 9-11=141/1295  
 WEBS 3-13=455/324, 5-13=171/843, 6-11=44/543, 6-9=322/143, 7-9=34/1242

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-9 to 2-3-7, Interior(1) 2-3-7 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-0-15, Interior(1) 32-0-15 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 2. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job	Truss	Truss Type	Qty	Ply	McKee-Torino20CL;Lot997 CarriageGlenn	146710288
CG997-R	B11T	SPECIAL	1	1		

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:44 2021 Page 1

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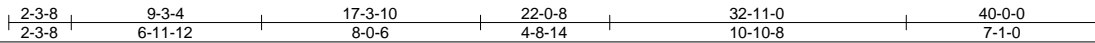
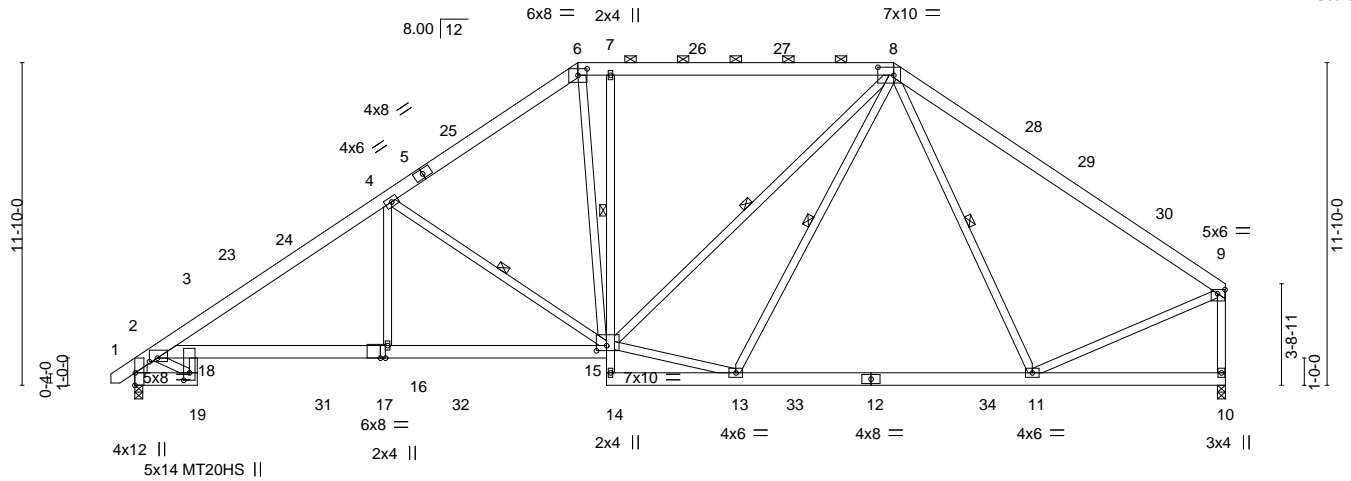


Plate Offsets (X, Y)-- [2:Edge,0-0-3], [3:0-3-8,0-1-9], [6:0-4-0,0-2-13], [8:0-7-0,0-3-8], [9:0-3-4,0-1-12], [15:0-4-8,0-2-4], [17:0-2-3,Edge], [18:0-3-4,0-2-8]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.76	Vert(LL)	-0.18	11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.33	16-18	>999	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.52	Horz(CT)	0.17	10	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.15	16-18	>999	240		
									Weight: 343 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2 *Except* 8-9: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 3-4-0 oc purlins, except end verticals, and 2-0-0 oc purlins (4-7-14 max.): 6-8.
BOT CHORD 2x6 SP No.2 *Except* 18-19,7-14: 2x4 SP No.3, 3-17: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15,13-14.
WEBS 2x4 SP No.3 *Except* 9-10,8-15,8-13: 2x4 SP No.2	WEBS 1 Row at midpt 7-15 1 Row at midpt 4-15, 8-15, 8-13, 8-11
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (size) 10=0-3-8, 2=0-3-8  
 Max Horz 2=333(LC 11)  
 Max Uplift 10=-18(LC 13), 2=-60(LC 12)  
 Max Grav 10=1594(LC 1), 2=1637(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-21=-1670/275, 3-4=-2642/364, 4-6=-1861/364, 6-7=-1539/377, 7-8=-1541/378,  
 8-9=-1516/253, 9-10=-1546/232  
 BOT CHORD 2-19=-280/1061, 18-19=-179/712, 3-18=-272/2028, 16-18=-331/2276, 15-16=-331/2276,  
 7-15=-631/378, 11-13=-139/1208  
 WEBS 4-16=0/530, 4-15=-1052/219, 6-15=-193/962, 13-15=-28/1245, 8-15=-262/603,  
 8-11=-310/147, 9-11=-29/1171, 3-19=-1002/278

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-9 to 2-3-7, Interior(1) 2-3-7 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-0-15, Interior(1) 32-0-15 to 39-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) All plates are MT20 plates unless otherwise indicated.
  - 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 7) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 10 and 2. This connection is for uplift only and does not consider lateral forces.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 24, 2021

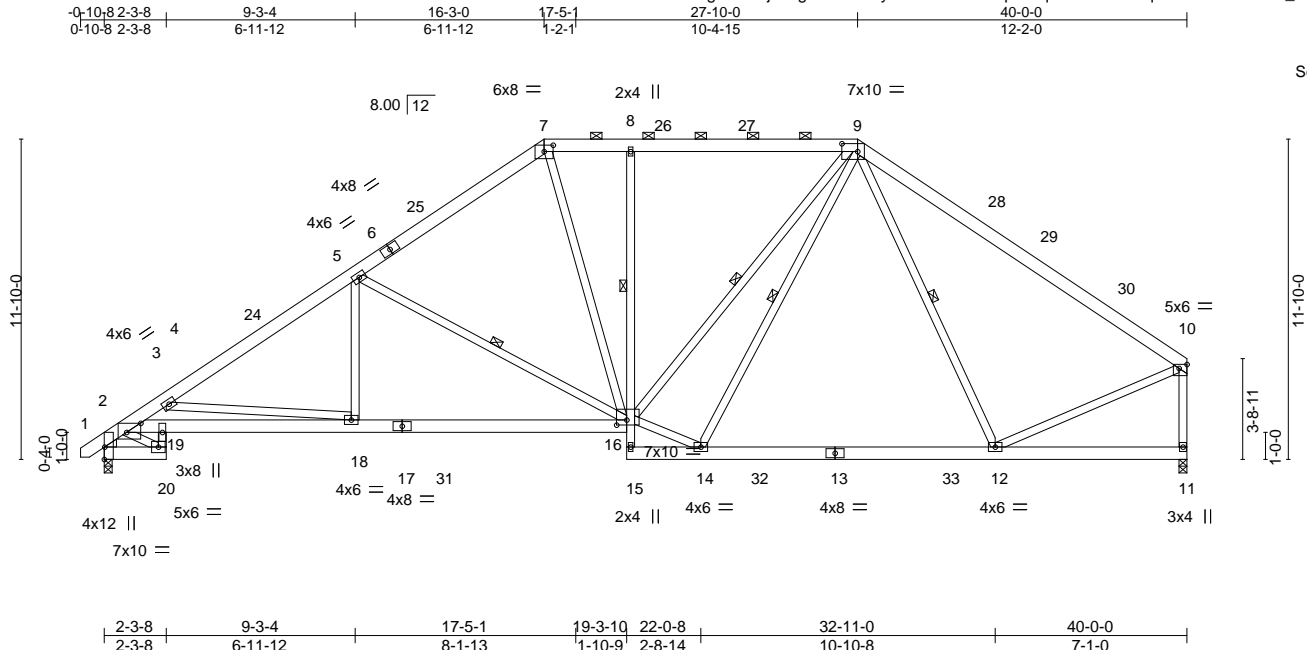
**WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.**  
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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	Truss	Truss Type	Qty	Ply	McKee-Torino20CL;Lot997 CarriageGlenn	146710289
CG997-R	B12T	SPECIAL	1	1		

Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:45 2021 Page 1  
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Scale = 1:85.1

Plate Offsets (X, Y)--	[2:Edge,0-0-3], [3:0-6-4,0-4-0], [7:0-4-0,0-2-13], [9:0-7-0,0-3-8], [10:Edge,0-1-12], [16:0-4-8,0-2-4]
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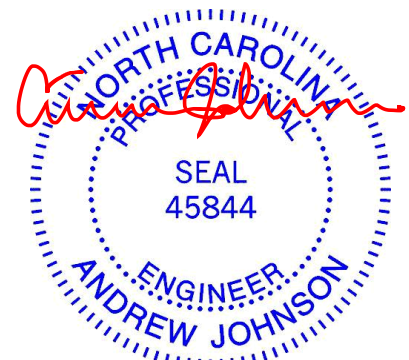
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.77	Vert(LL)	-0.16 12-14	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.63	Vert(CT)	-0.28 12-14	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.92	Horz(CT)	0.14 11	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.10 18-19	>999	240		
								Weight: 351 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 9-10: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 3-2-8 oc purlins, except end verticals, and 2-0-0 oc purlins (5-4-8 max.): 7-9.
BOT CHORD 2x6 SP No.2 *Except* 19-20,8-15: 2x4 SP No.3, 3-17: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 15-16,14-15.
WEBS 2x4 SP No.3 *Except* 10-11,9-16,9-14: 2x4 SP No.2	WEBS 1 Row at midpt 8-16 1 Row at midpt 5-16, 9-16, 9-14, 9-12
WEDGE Left: 2x4 SP No.3	

REACTIONS.	(size)
	11=0-3-8, 2=0-3-8
	Max Horz 2=333(LC 11)
	Max Uplift 11=-18(LC 13), 2=-60(LC 12)
	Max Grav 11=1594(LC 1), 2=1637(LC 1)

FORCES.	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	3-22=-1459/214, 3-4=-3315/517, 4-5=-2599/353, 5-7=-1756/352, 7-8=-1549/370, 8-9=-1548/371, 9-10=-1504/253, 10-11=-1535/232
BOT CHORD	2-20=-208/771, 19-20=-142/559, 3-19=-554/2944, 18-19=-590/3116, 16-18=-311/2186, 8-16=-404/233, 12-14=-139/1202
WEBS	4-18=-938/337, 5-18=0/574, 5-16=-1008/196, 7-16=-86/706, 14-16=-6/1315, 9-16=-266/778, 9-12=-314/145, 10-12=-24/1157, 3-20=-737/212

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-9 to 2-2-0, Interior(1) 2-2-0 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-0-15, Interior(1) 32-0-15 to 39-10-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 2. This connection is for uplift only and does not consider lateral forces.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 24, 2021

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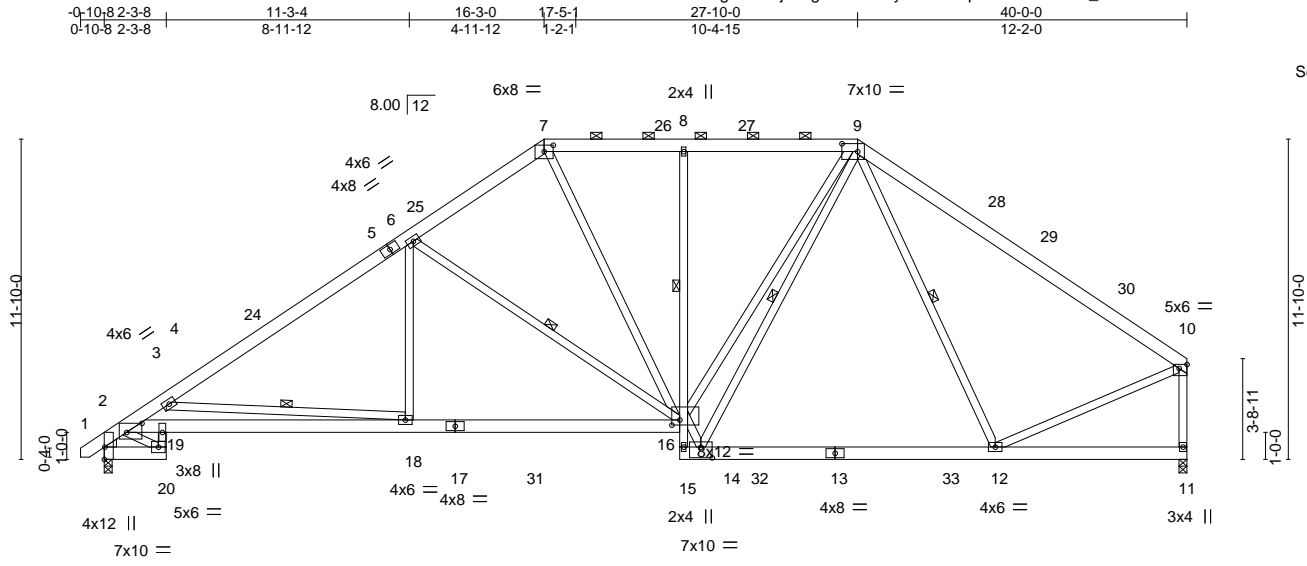
**ENGINEERING BY**  
**TRENCO**  
 A MiTek Affiliate

818 Soundside Road  
 Edenton, NC 27932



Job CG997-R	Truss B13T	Truss Type SPECIAL	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710290
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:47 2021 Page 1  
 ID:?MdgC82XojFIRgoD?14wJyPwGb-3rp0H113ZZY0P\_PaAAvSFCRAJ9bJd5QuL5fz3NiM



Scale = 1:85.1

2-3-8	11-3-4	17-5-1	21-3-2	22-0-8	32-11-0	40-0-0
2-3-8	8-11-12	6-1-13	3-10-1	0-9-6	10-10-8	7-1-0

Plate Offsets (X, Y)-- [2:Edge,0-0-3], [3:0-6-12,0-4-0], [7:0-4-0,0-2-13], [9:0-7-0,0-3-8], [10:Edge,0-1-12], [14:0-5-0,0-4-12], [16:0-3-8,0-2-4]

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 0.78	Vert(LL)	-0.15	12-14	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.78	Vert(CT)	-0.31	18-19	>999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.76	Horz(CT)	0.19	11	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.13	18-19	>999		
								Weight: 354 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 9-10: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 2-11-15 oc purlins, except end verticals, and 2-0-0 oc purlins (5-6-6 max.): 7-9.
BOT CHORD 2x6 SP No.2 *Except* 19-20,8-15: 2x4 SP No.3, 3-17: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 5-7-12 oc bracing: 15-16 6-0-0 oc bracing: 14-15.
WEBS 2x4 SP No.3 *Except* 10-11,9-14: 2x4 SP No.2	WEBS 1 Row at midpt 8-16 1 Row at midpt 4-18, 6-16, 9-14, 9-12
WEDGE Left: 2x4 SP No.3	

**REACTIONS.** (size) 11=0-3-8, 2=0-3-8  
 Max Horz 2=333(LC 11)  
 Max Uplift 11=-18(LC 13), 2=-60(LC 12)  
 Max Grav 11=1594(LC 1), 2=1637(LC 1)

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

TOP CHORD	3-22=-1427/235, 3-4=-3460/586, 4-6=-2475/342, 6-7=-1603/353, 7-8=-1555/364, 8-9=-1550/364, 9-10=-1516/253, 10-11=-1546/231
BOT CHORD	2-20=-227/746, 19-20=-152/545, 3-19=-620/3190, 18-19=-663/3361, 16-18=-271/2047, 15-16=-933/0, 8-16=-366/212, 12-14=-139/1224
WEBS	4-18=-1321/437, 6-18=0/609, 6-16=-1030/193, 7-16=-103/710, 14-16=0/1779, 9-16=-288/1138, 9-14=-626/182, 9-12=-340/147, 10-12=-20/1164, 3-20=-710/229

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-9 to 2-2-0, Interior(1) 2-2-0 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-0-15, Interior(1) 32-0-15 to 39-10-4 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 11 and 2. This connection is for uplift only and does not consider lateral forces.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



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

Job CG997-R	Truss B14T	Truss Type SPECIAL	Qty 2	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710291
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:49 2021 Page 1

0-10-8 2-3-8 9-3-4 16-3-0 17-5-1 27-10-0 32-4-0 39-8-8  
 0-10-8 2-3-8 6-11-12 6-11-12 1-2-1 10-4-15 4-6-0 7-4-8

Scale = 1:91.2

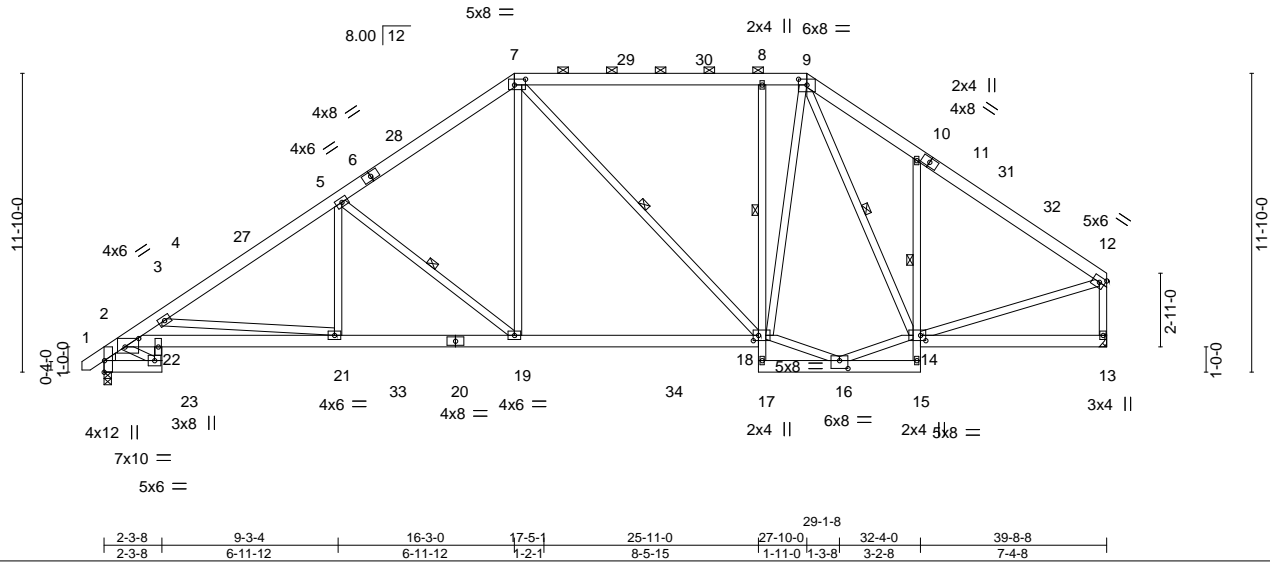


Plate Offsets (X, Y)-- [2:Edge,0-0-3], [3:0-6-8,0-4-0], [7:0-5-4,0-2-12], [9:0-4-0,0-2-12], [14:0-2-8,0-2-8], [16:0-4-0,0-3-12], [18:0-2-8,0-2-8]

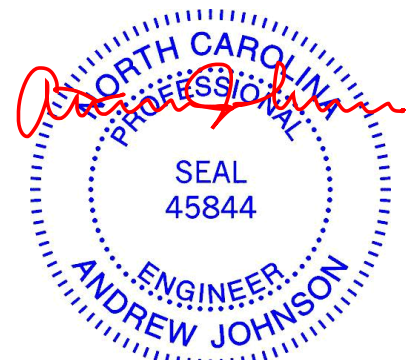
<b>LOADING</b> (psf)	<b>SPACING</b> - 2-0-0	<b>CSI</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.64	Vert(LL) -0.19 18-19 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.65	Vert(CT) -0.38 18-19 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.97	Horz(CT) 0.23 13 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.10 21-22 >999 240	Weight: 357 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-11 oc purlins, except end verticals, and 2-0-0 oc purlins (5-1-10 max.): 7-9.
BOT CHORD 2x6 SP No.2 *Except* 22-23,8-17: 2x4 SP No.3, 3-20,15-17: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 17-18,16-17.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-18 1 Row at midpt 9-14, 10-15, 5-19, 7-18

**REACTIONS.** (size) 13=Mechanical, 2=0-3-8  
 Max Horz 2=314(LC 9)  
 Max Uplift 13=18(LC 13), 2=60(LC 12)  
 Max Grav 13=1580(LC 1), 2=1625(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 3-25=1431/216, 3-4=3302/508, 4-5=2552/362, 5-7=1915/364, 7-8=1393/360,  
 8-9=1381/359, 9-10=1672/456, 10-12=1676/278, 12-13=1499/257  
 BOT CHORD 2-23=214/732, 22-23=143/537, 3-22=527/2966, 21-22=565/3130, 19-21=311/2143,  
 18-19=178/1509, 17-18=323/62, 8-18=614/301  
 WEBS 4-21=995/317, 5-21=0/448, 9-18=255/919, 9-14=241/306, 12-14=140/1312,  
 3-23=700/217, 14-15=298/60, 10-14=476/267, 7-19=19/866, 5-19=835/210,  
 7-18=352/87, 16-18=49/1245, 14-16=114/1262

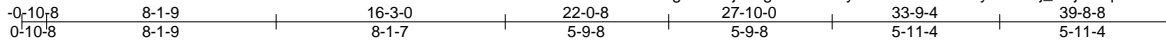
- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-9 to 2-2-0, Interior(1) 2-2-0 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-2-4, Interior(1) 32-2-4 to 39-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Provide adequate drainage to prevent water ponding.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) Refer to girder(s) for truss to truss connections.
  - 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 13.
  - 8) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job CG997-R	Truss B15	Truss Type HIP	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn	146710292
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:50 2021 Page 1

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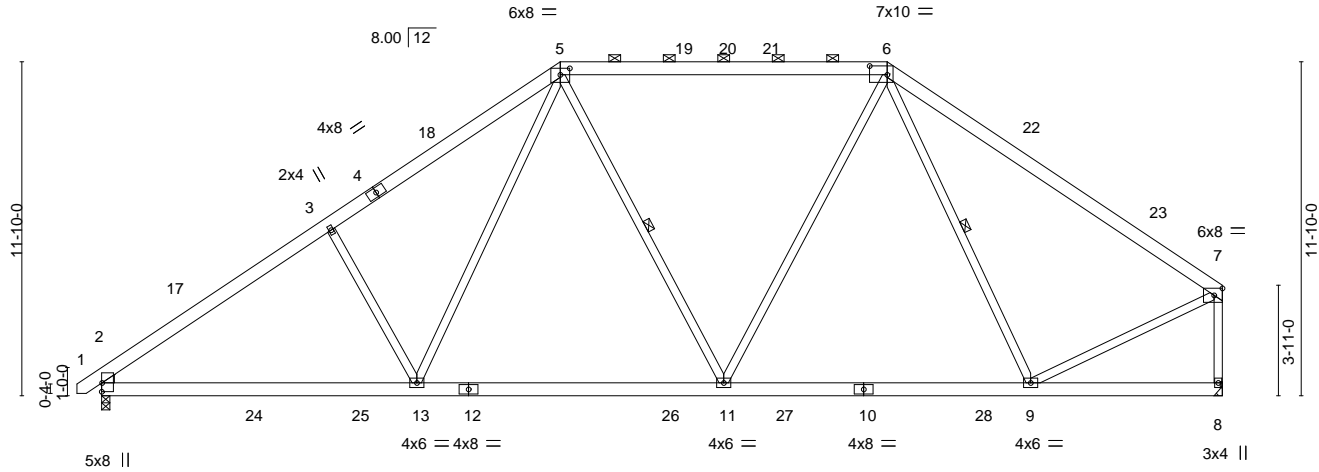


Plate Offsets (X, Y)--	[2:Edge,0-0-3], [5:0-4-0,0-2-12], [6:0-7-8,0-3-12]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.71	Vert(LL)	-0.15 11-13	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.72	Vert(CT)	-0.25 11-13	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.05 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.06 11-13	>999	240	Weight: 300 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2 *Except* 5-6,6-7: 2x6 SP DSS	TOP CHORD Structural wood sheathing directly applied or 4-5-1 oc purlins, except end verticals, and 2-0-0 oc purlins (6-0-0 max.): 5-6.
BOT CHORD 2x6 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 7-8,5-11,6-11: 2x4 SP No.2	WEBS 1 Row at midpt 5-11, 6-9

WEDGE  
Left: 2x4 SP No.3

REACTIONS. (size) 8=Mechanical, 2=0-3-8  
Max Horz 2=335(LC 11)  
Max Uplift 8=180(LC 13), 2=225(LC 12)  
Max Grav 8=1640(LC 2), 2=1700(LC 2)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-2395/340, 3-5=-2214/425, 5-6=-1480/331, 6-7=-1527/254, 7-8=-1610/231  
BOT CHORD 2-13=-342/2016, 11-13=-197/1460, 9-11=-144/1265  
WEBS 3-13=-455/324, 5-13=-171/844, 6-11=-42/556, 6-9=-360/145, 7-9=-34/1225

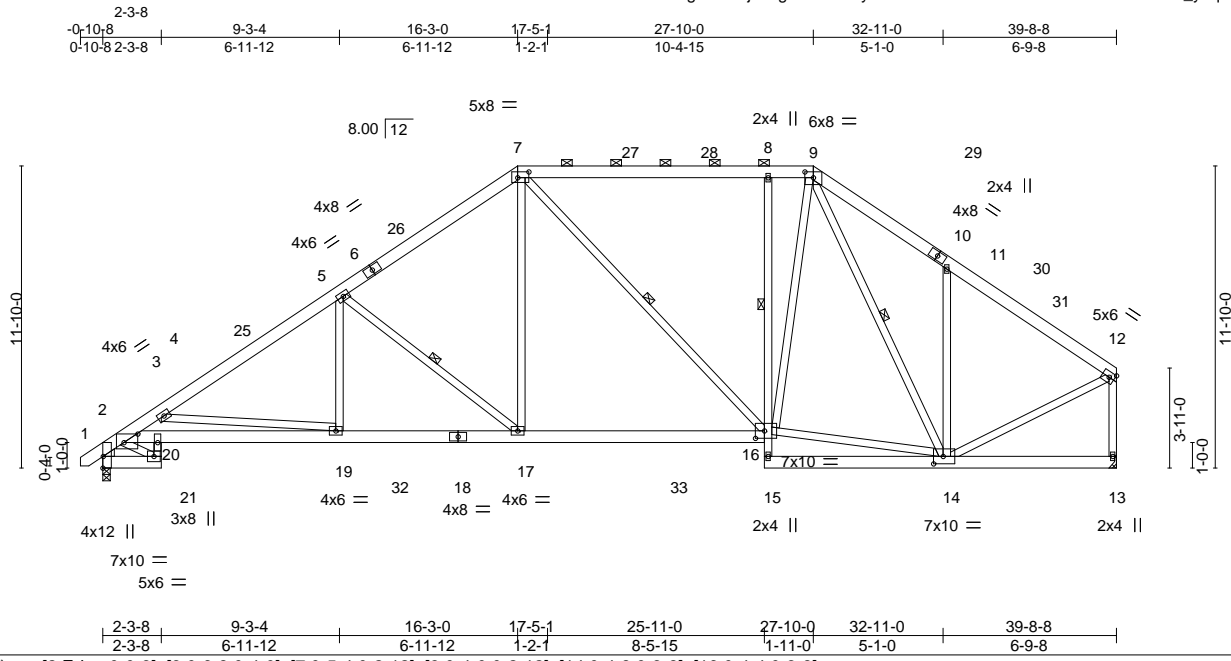
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-9 to 2-3-7, Interior(1) 2-3-7 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-0-15, Interior(1) 32-0-15 to 39-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 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) 8=180.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Job CG997-R	Truss B15T	Truss Type SPECIAL	Qty 5	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710293
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:52 2021 Page 1  
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Scale = 1:90.3

Plate Offsets (X,Y)--	[2:Edge,0-0-3], [3:0-6-8,0-4-0], [7:0-5-4,0-2-12], [9:0-4-0,0-2-12], [14:0-4-8,0-3-8], [16:0-4-4,0-3-8]
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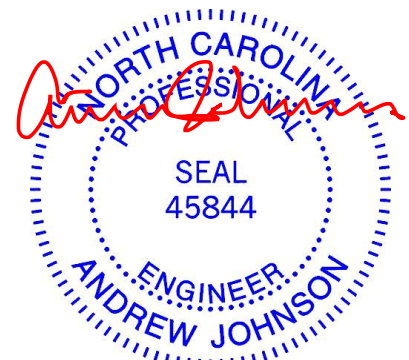
LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.61	Vert(LL) -0.15 16-17 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.97	Vert(CT) -0.30 16-17 >999 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.14 13 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.10 19-20 >999 240		
				Weight: 360 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-1-13 oc purlins, except end verticals, and 2-0-0 oc purlins (5-0-10 max.): 7-9.
BOT CHORD 2x6 SP No.2 *Except* 20-21,8-15: 2x4 SP No.3, 3-18: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except: 6-0-0 oc bracing: 14-15.
WEBS 2x4 SP No.3	WEBS 1 Row at midpt 8-16 1 Row at midpt 9-14, 5-17, 7-16

**REACTIONS.** (size) 13=Mechanical, 2=0-3-8  
Max Horz 2=335(LC 11)  
Max Uplift 13=17(LC 13), 2=60(LC 12)  
Max Grav 13=1582(LC 1), 2=1626(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 3-23=-1433/223, 3-4=-3302/515, 4-5=-2554/365, 5-7=-1913/362, 7-8=-1402/358,  
8-9=-1395/357, 9-11=-1469/419, 11-12=-1455/250, 12-13=-1524/238  
BOT CHORD 2-21=-224/738, 20-21=-151/541, 3-20=-550/2976, 19-20=-590/3141, 17-19=-330/2153,  
16-17=-194/1508, 8-16=-579/297  
WEBS 4-19=-996/311, 5-19=0/451, 14-16=-89/1198, 9-16=-279/1051, 9-14=-379/220,  
12-14=-134/1259, 3-21=-706/227, 11-14=-449/255, 7-17=-17/853, 5-17=-841/213,  
7-16=-337/85

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-8-9 to 2-2-0, Interior(1) 2-2-0 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-0-15, Interior(1) 32-0-15 to 39-6-12 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - Provide adequate drainage to prevent water ponding.
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 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) 13.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



June 24, 2021

Job	Truss	Truss Type	Qty	Ply	McKee-Torino20CL;Lot997 CarriageGlenn	146710294
CG997-R	B16G	GABLE	1	1		

Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:57 2021 Page 1

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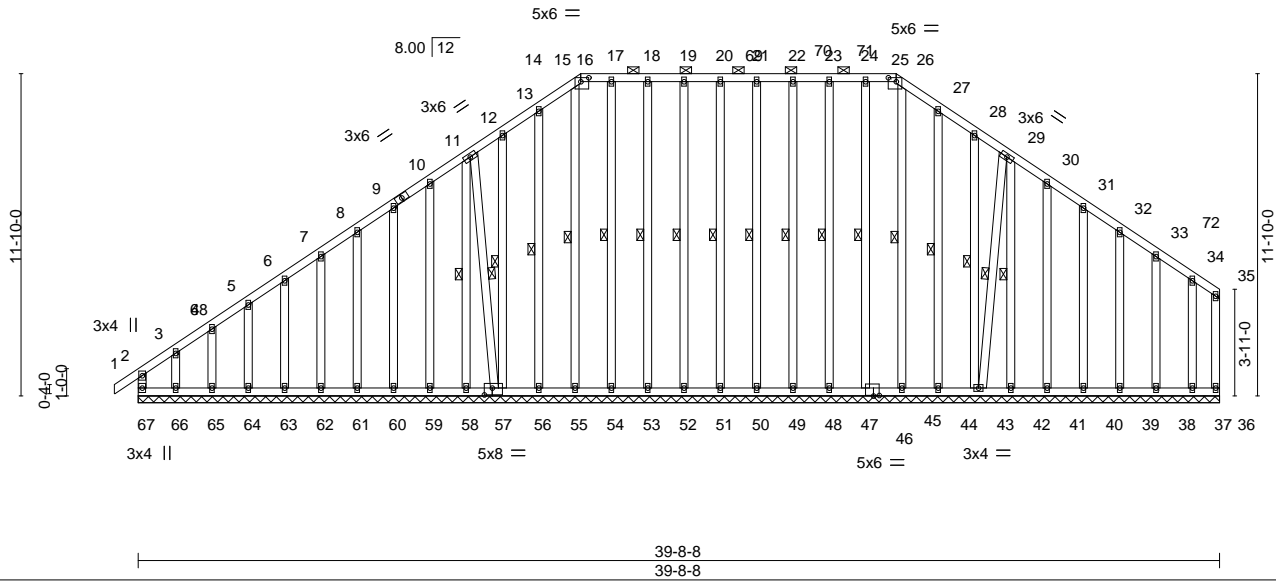


Plate Offsets (X,Y)--	[16:0-3-8,0-1-12], [25:0-3-8,0-1-12], [46:0-2-8,0-0-4], [57:0-3-8,0-3-0]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.15	TC 0.18	Vert(LL)	0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.15	Vert(CT)	-0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	-0.01	36	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						
								Weight: 508 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, and 2-0-0 oc purlins (10-0-0 max.): 16-25.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing. Except:
WEBS 2x4 SP No.3 *Except*	10-0-0 oc bracing: 42-43,41-42,40-41,39-40,38-39,37-38,36-37.
2-67: 2x4 SP No.2	WEBS 1 Row at midpt
OTHERS 2x4 SP No.3	12-58, 13-57, 14-56, 15-55, 17-54, 18-53, 19-52, 20-51, 21-50, 22-49, 23-48, 24-47, 26-45, 27-44, 28-43, 29-42, 12-57, 29-43

**REACTIONS.** All bearings 39-8-8.  
 (lb) - Max Horz 67=350(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 36, 65, 64, 63, 62, 61, 60, 59, 58, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 45, 44, 42, 41, 40, 39, 38, 37 except 67=-275(LC 8), 66=-259(LC 9), 57=-136(LC 12), 43=-155(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 36, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 45, 44, 43, 42, 41, 40, 39, 38, 37 except 67=363(LC 11), 66=287(LC 10)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-355/308, 3-4=-262/237, 4-5=-263/239, 12-13=-248/275, 13-14=-283/309, 14-15=-314/339, 15-16=-250/268, 16-17=-274/299, 17-18=-274/299, 18-19=-274/299, 19-20=-274/299, 20-21=-274/299, 21-22=-274/299, 22-23=-274/299, 23-24=-274/299, 24-25=-274/299, 25-26=-250/266, 26-27=-314/335, 27-28=-282/297, 28-29=-252/260, 2-67=-264/207

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-6 to 2-1-10, Interior(1) 2-1-10 to 16-3-0, Exterior(2) 16-3-0 to 20-5-15, Interior(1) 20-5-15 to 27-10-0, Exterior(2) 27-10-0 to 32-1-8, Interior(1) 32-1-8 to 39-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) Provide adequate drainage to prevent water ponding.
  - 5) All plates are 2x4 MT20 unless otherwise indicated.
  - 6) Gable requires continuous bottom chord bearing.
  - 7) Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 8) Gable studs spaced at 1-4-0 oc.
  - 9) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 10) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.



June 24, 2021

Continued on page 2

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job CG997-R	Truss B16G	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710294 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:57 2021 Page 2  
ID:?MdgC82XojFIRgoD?t4wJyPwGb-mmQoOS8LCdq8DxlKAHLFsMcJxLknfRIZkSmd08z3NiC

**NOTES-**

- 11) N/A
- 12) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 13) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or 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

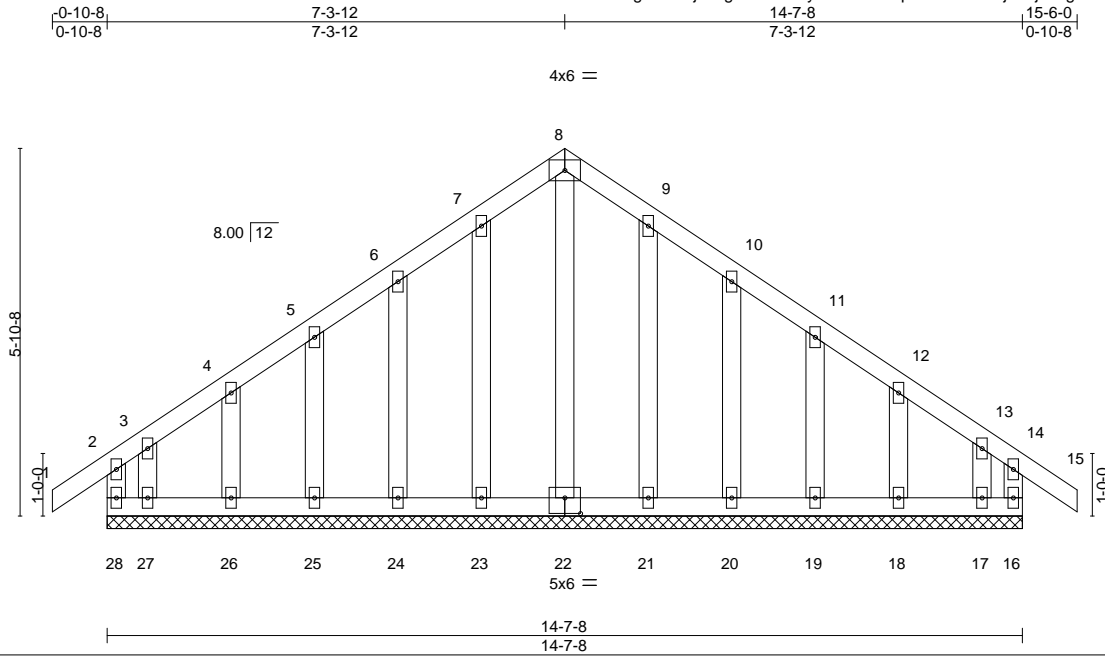


818 Soundside Road  
Edenton, NC 27932

Job CG997-R	Truss D01G	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710295
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:58:59 2021 Page 1  
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Scale = 1:36.8

PLATE OFFSETS (X,Y)--	[22:0-3-0-0-3-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15		TC 0.12	Vert(LL) -0.00	15	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15		BC 0.07	Vert(CT) -0.00	15	n/r	120		
BCLL 0.0 *	Rep Stress Incr NO		WB 0.08	Horz(CT) 0.00	16	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 101 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
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.3	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 14-7-8.  
 (lb) - Max Horz 28=166(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 23, 24, 25, 26, 21, 20, 19, 18 except 28=155(LC 8), 16=106(LC 9), 27=158(LC 9), 17=122(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 28, 16, 22, 23, 24, 25, 26, 27, 21, 20, 19, 18, 17

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 1-11-12, Exterior(2) 1-11-12 to 7-3-12, Corner(3) 7-3-12 to 10-3-12, Exterior(2) 10-3-12 to 15-6-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable requires continuous bottom chord bearing.
  - 6) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 10) N/A
  - 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



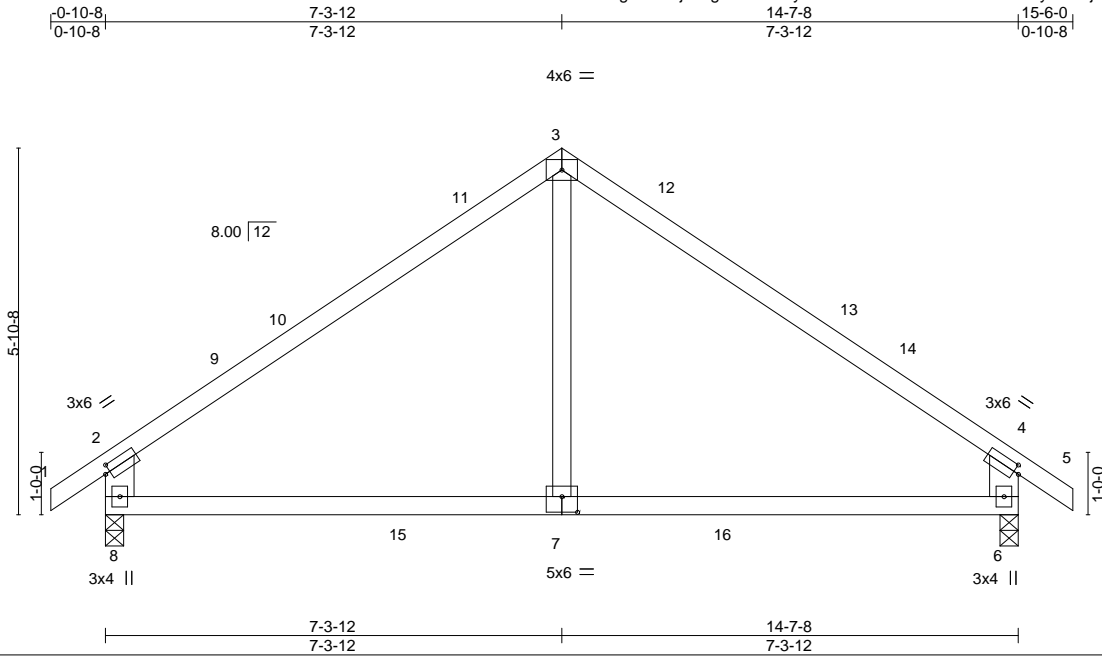
Job CG997-R	Truss D02	Truss Type COMMON	Qty 6	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710296
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:00 2021 Page 1

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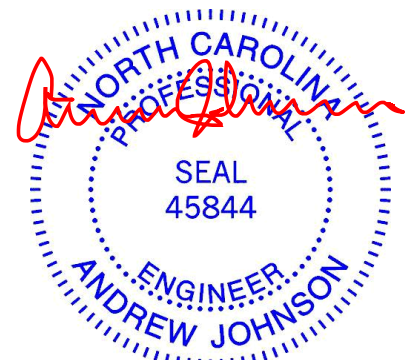
Plate Offsets (X,Y)--	[2:0-1-0,0-1-8], [4:0-1-0,0-1-8], [7:0-3-0,0-3-0]				
<b>LOADING</b> (psf)	<b>SPACING</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.66	Vert(LL) -0.05 6-7 >999 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.42	Vert(CT) -0.11 7-8 >999 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.12	Horz(CT) 0.01 6 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MR	Wind(LL) -0.05 7-8 >999 240	Weight: 62 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
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 10-0-0 oc bracing.
WEBS 2x6 SP No.2 *Except* 3-7: 2x4 SP No.3	

<b>REACTIONS.</b>	(size) 8=0-3-8, 6=0-3-8
	Max Horz 8=168(LC 11)
	Max Uplift 8=-67(LC 12), 6=-67(LC 13)
	Max Grav 8=657(LC 19), 6=657(LC 20)

<b>FORCES.</b>	(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD	2-8=-587/184, 2-3=-669/123, 3-4=-669/123, 4-6=-587/184
BOT CHORD	7-8=0/497, 6-7=0/497
WEBS	3-7=0/324

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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 7-3-12, Exterior(2) 7-3-12 to 11-6-11, Interior(1) 11-6-11 to 15-6-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 8 and 6. This connection is for uplift only and does not consider lateral forces.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 24,2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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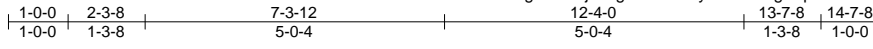


Job CG997-R	Truss D03GR	Truss Type SPECIAL	Qty 1	Ply 3	McKee-Torino20CL;Lot997 CarriageGlenn 146710297
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:01 2021 Page 1

ID:?MdgC82XqjFIRgoD?14wJyPwGb-fXgJDpCrGsKZhY36P7QB1Cnqxy3b1P9e4kq9vz3Ni8



5x6 =

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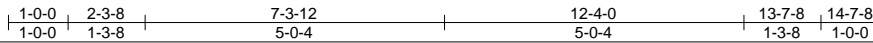
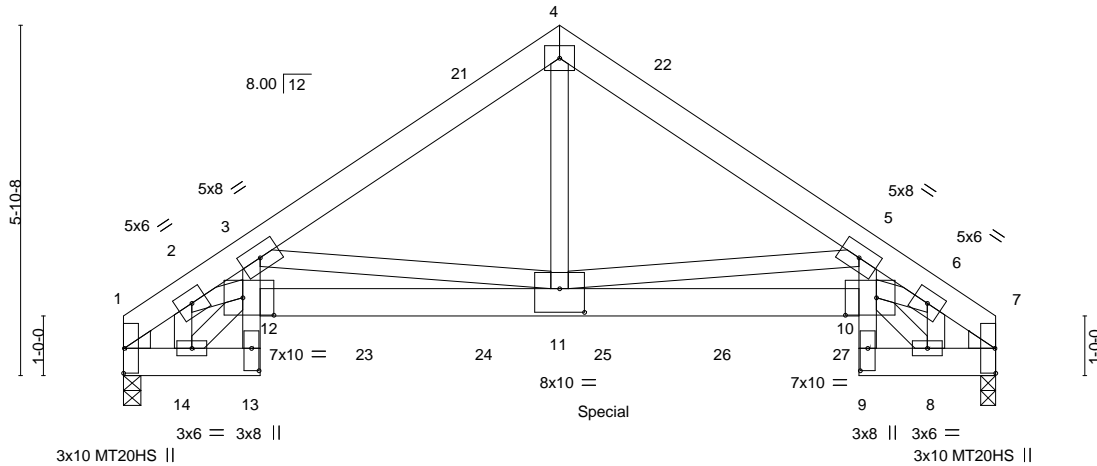


Plate Offsets (X, Y)-- [9:0-4-8,0-1-8], [10:0-6-4,0-3-8], [11:0-5-0,0-4-12], [12:0-6-4,0-3-8], [13:0-4-8,0-1-8]

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 0.82	Vert(LL)	-0.13 10-11	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.83	Vert(CT)	-0.26 10-11	>668	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.94	Horz(CT)	0.24 7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.03 11-12	>999	240		
								Weight: 335 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 5-1-1 oc purlins.
BOT CHORD 2x6 SP No.2 *Except* 3-13,5-9: 2x4 SP No.1, 10-12: 2x6 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.3 *Except* 6-10,2-12: 2x4 SP No.2	
WEDGE Left: 2x4 SP No.3, Right: 2x4 SP No.2	

**REACTIONS.** (size) 1=0-3-8, 7=0-3-0  
 Max Horz 1=-123(LC 6)  
 Max Grav 1=5469(LC 1), 7=6639(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-2=-5543/0, 2-3=-16207/0, 3-4=-7072/0, 4-5=-7076/0, 5-6=-15899/0, 6-7=-5744/0  
 BOT CHORD 1-14=0/3730, 13-14=0/1219, 12-13=0/2395, 3-12=0/7335, 11-12=0/13455, 10-11=0/13396,  
 9-10=0/792, 5-10=0/7114, 8-9=0/1189, 7-8=0/3932  
 WEBS 4-11=0/6786, 5-11=-7370/0, 8-10=0/4097, 6-10=0/8828, 6-8=-4329/0, 3-11=-7490/0,  
 12-14=0/3750, 2-12=0/9273, 2-14=-4540/0

- NOTES-**
- 1) 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 3 rows staggered at 0-4-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
  - 2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
  - 3) Unbalanced roof live loads have been considered for this design.
  - 4) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 5) All plates are MT20 plates unless otherwise indicated.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
  - 9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1686 lb down and 92 lb up at 2-1-12, 1541 lb down at 4-0-12, 1541 lb down at 6-0-12, 1541 lb down at 8-0-12, 1541 lb down at 10-0-12, and 1541 lb down at 12-0-12, and 1692 lb down and 86 lb up at 14-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.



June 24, 2021

**LOAD CASE(S)** Standard

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818 Soundside Road  
 Edenton, NC 27932

Job CG997-R	Truss D03GR	Truss Type SPECIAL	Qty 1	Ply <b>3</b>	McKee-Torino20CL;Lot997 CarriageGlenn 146710297 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:02 2021 Page 2  
ID:?MdgC82XojFIRgoD?t4wJyPwGb-7kDhR9CU1ASQJielzqxQZQJ?hMHIKUfJtkTohLz3Ni7

**LOAD CASE(S)** Standard

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

Uniform Loads (plf)

Vert: 1-4=-60, 4-7=-60, 13-15=-20, 10-12=-20, 9-18=-20

Concentrated Loads (lb)

Vert: 13=-1613 20=-1619 23=-1541(F) 24=-1541(F) 25=-1541(F) 26=-1541(F) 27=-1541(F)

**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

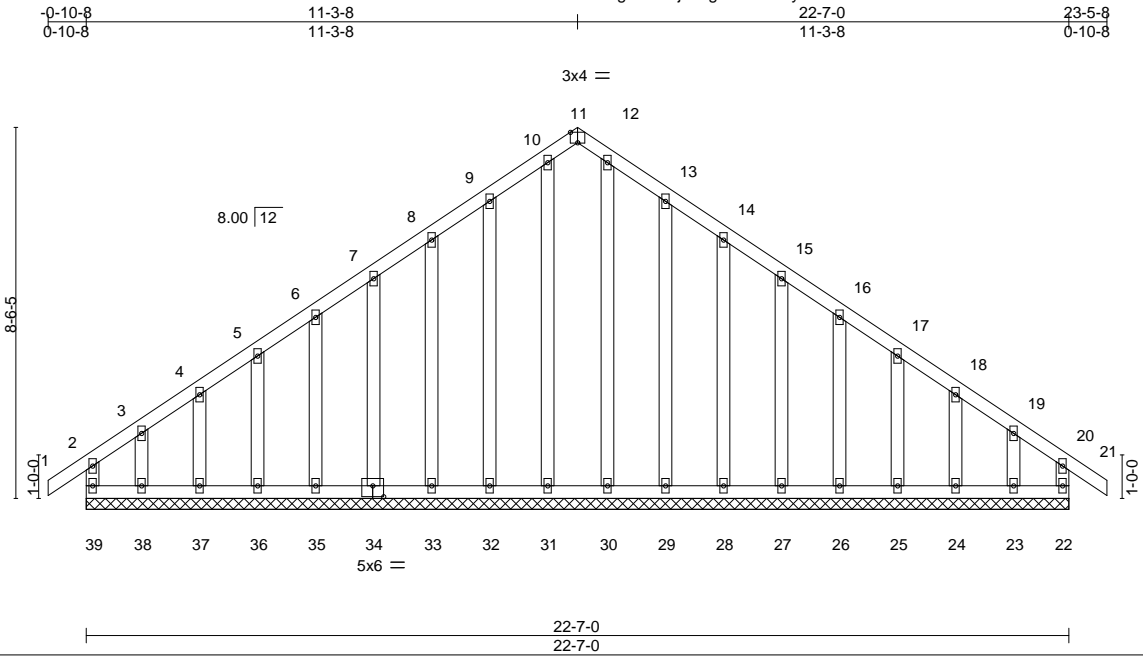


818 Soundside Road  
Edenton, NC 27932

Job CG997-R	Truss G01G	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710298
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:03 2021 Page 1

ID:?MdgC82XojFIRgoD?t4wJjyPwGb-bwn4eVD6oTaHxsDUWYSf6dsK4mo437PS6ODxDnz3Ni6



Scale = 1:53.0

Plate Offsets (X,Y)--	[11:0-2-0,Edge], [34:0-3-0,0-3-0]							
<b>LOADING</b> (psf)	<b>SPACING-</b>	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	2-0-0	TC 0.14	Vert(LL) -0.00	21	n/r	120	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.09	Vert(CT) -0.00	21	n/r	120		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.14	Horz(CT) 0.00	22	n/a	n/a		
BCDL 10.0	Rep Stress Incr NO	Matrix-R					Weight: 184 lb	FT = 20%
	Code IRC2015/TPI2014							

<b>LUMBER-</b>	<b>BRACING-</b>
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 22-7-0.  
 (lb) - Max Horz 39=-233(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 22, 32, 33, 34, 35, 36, 37, 29, 28, 27, 26, 25, 24 except 39=-129(LC 8), 38=-160(LC 12), 23=-144(LC 13)  
 Max Grav All reactions 250 lb or less at joint(s) 39, 22, 31, 32, 33, 34, 35, 36, 37, 38, 30, 29, 28, 27, 26, 25, 24, 23

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

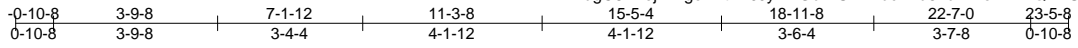
- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) -0-10-8 to 2-1-8, Exterior(2) 2-1-8 to 11-3-8, Corner(3) 11-3-8 to 14-3-8, Exterior(2) 14-3-8 to 23-5-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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.
  - Truss to be fully sheathed from one face or securely braced against lateral movement (i.e. diagonal web).
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - N/A
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 24, 2021

Job CG997-R	Truss G02	Truss Type ROOF TRUSS	Qty 5	Ply 1	McKee-Torino20CL:Lot997 CarriageGlenn Job Reference (optional)	146710299
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8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:45:55 2021 Page 1  
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Scale = 1:53.3

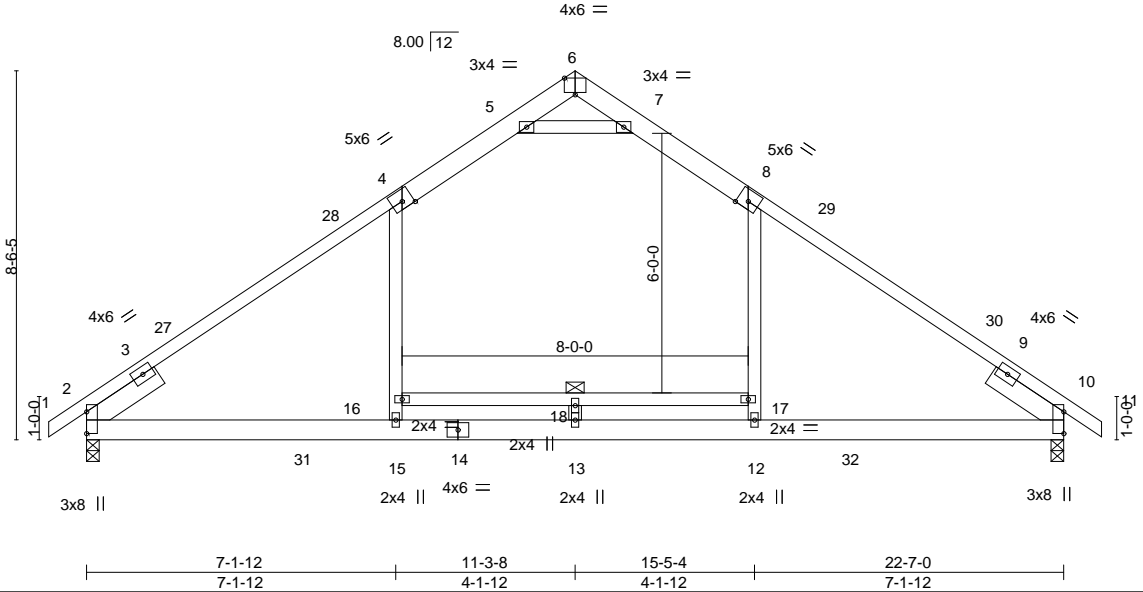


Plate Offsets (X,Y)-- [2:Edge,0-0-0], [6:0-3-0,Edge], [10:Edge,0-0-0]

<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.87	Vert(LL)	-0.35	13	>773	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.88	Vert(CT)	-0.46	13	>589		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.60	Horz(CT)	0.05	2	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.22	15-21	>999		
								Weight: 147 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP DSS \*Except\*  
1-4,8-11: 2x4 SP No.1  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -l 1-11-12, Right 2x6 SP No.2 -l 1-11-12

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-0-7 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 16-17

**REACTIONS.** (lb/size) 2=956/0-3-8 (min. 0-1-8), 10=956/0-3-8 (min. 0-1-8)  
Max Horz 2=-202(LC 10)  
Max Uplift 2=-72(LC 12), 10=-72(LC 13)  
Max Grav 2=1256(LC 19), 10=1256(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 2-3=-419/226, 3-27=-1652/126, 27-28=-1523/145, 4-28=-1511/166, 4-5=-1143/217,  
5-6=-209/1265, 6-7=-209/1265, 7-8=-1143/217, 8-29=-1511/166, 29-30=-1522/145,  
9-30=-1651/126, 9-10=-419/226  
BOT CHORD 2-31=-4/1297, 15-31=-4/1297, 14-15=-22/1371, 13-14=-22/1371, 12-13=-22/1371,  
12-32=-4/1300, 10-32=-4/1300  
WEBS 12-17=0/565, 8-17=0/665, 15-16=0/565, 4-16=0/665, 5-7=-2700/495

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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 11-3-8, Exterior(2) 11-3-8 to 15-3-8, Interior(1) 15-3-8 to 23-5-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - 6) N/A
  - 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)**

- 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-6=-60, 6-11=-60, 19-23=-20
- 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15



Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	McKee-Torino20CL:Lot997 CarriageGlenn	146710299
CG997-R	G02	ROOF TRUSS	5	1	Job Reference (optional)	

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:45:55 2021 Page 2  
 ID:?MdgC82XojFIRgoD?t4wJyPwGb-VSDThdcPnd6LdiXNoYI7KIqWtU0wPzTFYzSEG8z3M7w

**LOAD CASE(S)**

- Uniform Loads (plf)  
 Vert: 1-6=-50, 6-11=-50, 19-31=-20, 15-31=-50, 12-15=-65(F=-45), 12-32=-50, 23-32=-20, 16-17=-30
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-6=-20, 6-11=-20, 19-23=-40, 16-17=-40
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=45, 2-27=25, 6-27=19, 6-8=25, 8-10=19, 10-11=13, 19-23=-12  
 Horz: 1-2=-57, 2-27=-37, 6-27=-31, 6-8=37, 8-10=31, 10-11=25
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=13, 2-4=19, 4-6=25, 6-30=19, 10-30=25, 10-11=45, 19-23=-12  
 Horz: 1-2=-25, 2-4=-31, 4-6=-37, 6-30=31, 10-30=37, 10-11=57
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=5, 2-6=-51, 6-10=-51, 10-11=-45, 19-23=-20  
 Horz: 1-2=-25, 2-6=31, 6-10=-31, 10-11=-25
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-45, 2-6=-51, 6-10=-51, 10-11=5, 19-23=-20  
 Horz: 1-2=25, 2-6=31, 6-10=-31, 10-11=25
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-2, 2-6=-15, 6-10=10, 10-11=5, 19-23=-12  
 Horz: 1-2=-10, 2-6=3, 6-10=22, 10-11=17
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=5, 2-6=10, 6-10=-15, 10-11=-2, 19-23=-12  
 Horz: 1-2=-17, 2-6=-22, 6-10=-3, 10-11=10
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-29, 2-6=-34, 6-10=-9, 10-11=-3, 19-23=-20  
 Horz: 1-2=9, 2-6=14, 6-10=11, 10-11=17
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-3, 2-6=-9, 6-10=-34, 10-11=-29, 19-23=-20  
 Horz: 1-2=-17, 2-6=-11, 6-10=-14, 10-11=-9
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-22, 2-28=27, 6-28=15, 6-10=5, 10-11=-0, 19-23=-12  
 Horz: 1-2=-34, 2-28=-39, 6-28=-27, 6-10=17, 10-11=12
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-0, 2-6=5, 6-29=15, 10-29=27, 10-11=22, 19-23=-12  
 Horz: 1-2=-12, 2-6=-17, 6-29=27, 10-29=39, 10-11=34
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=10, 2-6=15, 6-10=5, 10-11=-0, 19-23=-12  
 Horz: 1-2=-22, 2-6=-27, 6-10=17, 10-11=12
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-0, 2-6=5, 6-10=15, 10-11=10, 19-23=-12  
 Horz: 1-2=-12, 2-6=-17, 6-10=27, 10-11=22
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=14, 2-28=8, 6-28=-4, 6-10=-14, 10-11=-8, 19-23=-20  
 Horz: 1-2=-34, 2-28=-28, 6-28=-16, 6-10=6, 10-11=12
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-8, 2-6=-14, 6-29=-4, 10-29=8, 10-11=14, 19-23=-20  
 Horz: 1-2=-12, 2-6=-6, 6-29=16, 10-29=28, 10-11=34
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-6=-20, 6-11=-20, 19-31=-20, 15-31=-60, 12-15=-80(F=-60), 12-32=-60, 23-32=-20, 16-17=-40
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-56, 2-6=-61, 6-10=-42, 10-11=-37, 19-31=-20, 15-31=-50, 12-15=-65(F=-45), 12-32=-50, 23-32=-20, 16-17=-30  
 Horz: 1-2=6, 2-6=11, 6-10=8, 10-11=13
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-37, 2-6=-42, 6-10=-61, 10-11=-56, 19-31=-20, 15-31=-50, 12-15=-65(F=-45), 12-32=-50, 23-32=-20, 16-17=-30  
 Horz: 1-2=-13, 2-6=-8, 6-10=-11, 10-11=-6

Continued on page 3

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818 Soundside Road  
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	McKee-Torino20CL:Lot997 CarriageGlenn	146710299
CG997-R	G02	ROOF TRUSS	5	1	Job Reference (optional)	

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:45:55 2021 Page 3  
 ID:?MdgC82XojFIRgoD?t4wJyPwGb-VSDThdcPnd6LdiXNoYI7KIQwTU0wPzTFYzSEG8z3M7w

**LOAD CASE(S)**

- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-25, 2-28=-29, 6-28=-38, 6-10=-46, 10-11=-41, 19-31=-20, 15-31=-50, 12-15=-65(F=-45), 12-32=-50, 23-32=-20, 16-17=-30  
 Horz: 1-2=-25, 2-28=-21, 6-28=-12, 6-10=4, 10-11=9
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-41, 2-6=-46, 6-29=-38, 10-29=-29, 10-11=-25, 19-31=-20, 15-31=-50, 12-15=-65(F=-45), 12-32=-50, 23-32=-20, 16-17=-30  
 Horz: 1-2=-9, 2-6=-4, 6-29=12, 10-29=21, 10-11=25
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-60, 6-11=-20, 19-23=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-20, 6-11=-60, 19-23=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-50, 6-11=-20, 19-31=-20, 15-31=-50, 12-15=-65(F=-45), 12-32=-50, 23-32=-20, 16-17=-30
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-20, 6-11=-50, 19-31=-20, 15-31=-50, 12-15=-65(F=-45), 12-32=-50, 23-32=-20, 16-17=-30

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818 Soundside Road  
 Edenton, NC 27932

Job CG997-R	Truss G03	Truss Type ROOF TRUSS	Qty 4	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710300
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8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:46:10 2021 Page 1  
 ID:?MdgC82XojFIRgoD?t4wJjyPwGb-ZLd8qmpoFE?Cw?BFBC4eRSYUfX8RQI9S?oaXImz3M7h



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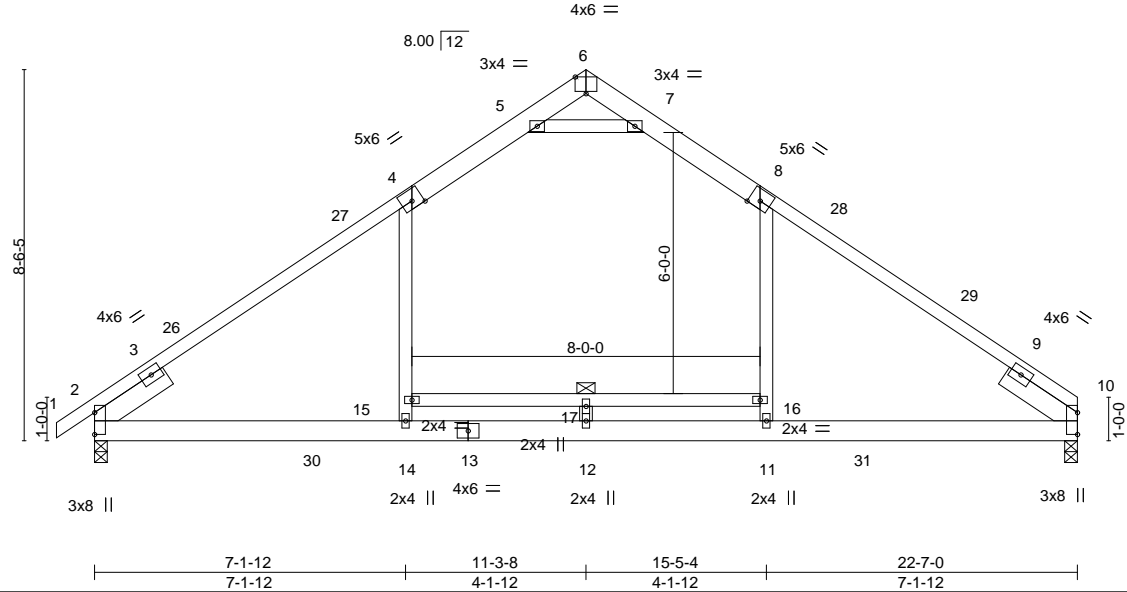


Plate Offsets (X,Y)--	[2:Edge,0-0-0], [6:0-3-0,Edge], [10:Edge,0-0-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.88	Vert(LL) -0.35 12 >773 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.88	Vert(CT) -0.46 12 >590 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.60	Horz(CT) 0.05 2 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.22 14-20 >999 240		
				Weight: 146 lb	FT = 20%

**LUMBER-**  
 TOP CHORD 2x6 SP DSS \*Except\*  
 1-4,8-10: 2x4 SP No.1  
 BOT CHORD 2x6 SP No.2  
 WEBS 2x4 SP No.3  
 SLIDER Left 2x6 SP No.2 -l 1-11-12, Right 2x6 SP No.2 -l 1-11-12

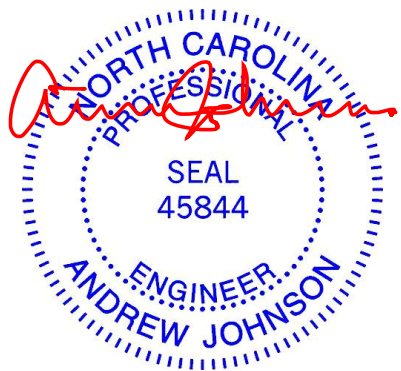
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-0-7 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
 WEBS 1 Row at midpt 15-16

**REACTIONS.** (lb/size) 2=957/0-3-8 (min. 0-1-8), 10=902/0-3-8 (min. 0-1-8)  
 Max Horz 2=197(LC 11)  
 Max Uplift 2=71(LC 12), 10=53(LC 13)  
 Max Grav 2=1257(LC 19), 10=1206(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-419/226, 3-26=-1654/126, 26-27=-1525/145, 4-27=-1514/166, 4-5=-1145/218,  
 5-6=-214/1268, 6-7=-209/1269, 7-8=-1145/220, 8-28=-1513/168, 28-29=-1524/147,  
 9-29=-1653/140, 9-10=-417/214  
 BOT CHORD 2-30=-25/1291, 14-30=-25/1291, 13-14=-44/1366, 12-13=-44/1366, 11-12=-44/1366,  
 11-31=-25/1294, 10-31=-25/1294  
 WEBS 11-16=0/565, 8-16=0/665, 14-15=0/565, 4-15=0/665, 5-7=-2706/505

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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 11-3-8, Exterior(2) 11-3-8 to 15-3-8, Interior(1) 15-3-8 to 22-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 4) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 5) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 10. This connection is for uplift only and does not consider lateral forces.
  - 6) N/A
  - 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)**  
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-6=-60, 6-10=-60, 18-22=-20  
 2) Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15



Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	McKee-Torino20CL:Lot997 CarriageGlenn	146710300
CG997-R	G03	ROOF TRUSS	4	1	Job Reference (optional)	

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:46:10 2021 Page 2  
 ID:?MdgC82XojFIRgoD?t4wJjyPwGb-ZLd8qmpofE?Cw?BFBC4eRSYUfX8RQI9S?oaXImz3M7h

**LOAD CASE(S)**

- Uniform Loads (plf)  
 Vert: 1-6=-50, 6-10=-50, 18-30=-20, 14-30=-50, 11-14=-65(F=-45), 11-31=-50, 22-31=-20, 15-16=-30
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-6=-20, 6-10=-20, 18-22=-40, 15-16=-40
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=45, 2-26=25, 6-26=19, 6-8=25, 8-10=19, 18-22=-12  
 Horz: 1-2=-57, 2-26=-37, 6-26=-31, 6-8=37, 8-10=31
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=13, 2-4=19, 4-6=25, 6-29=19, 10-29=25, 18-22=-12  
 Horz: 1-2=-25, 2-4=-31, 4-6=-37, 6-29=31, 10-29=37
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=5, 2-6=-51, 6-10=-51, 18-22=-20  
 Horz: 1-2=-25, 2-6=31, 6-10=-31
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-45, 2-6=-51, 6-10=-51, 18-22=-20  
 Horz: 1-2=25, 2-6=31, 6-10=-31
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-2, 2-6=-15, 6-10=10, 18-22=-12  
 Horz: 1-2=-10, 2-6=3, 6-10=22
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=5, 2-6=10, 6-10=-15, 18-22=-12  
 Horz: 1-2=-17, 2-6=-22, 6-10=-3
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-29, 2-6=-34, 6-10=-9, 18-22=-20  
 Horz: 1-2=9, 2-6=14, 6-10=11
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-3, 2-6=-9, 6-10=-34, 18-22=-20  
 Horz: 1-2=-17, 2-6=-11, 6-10=-14
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-22, 2-27=27, 6-27=15, 6-10=5, 18-22=-12  
 Horz: 1-2=-34, 2-27=-39, 6-27=-27, 6-10=17
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-0, 2-6=5, 6-28=15, 10-28=27, 18-22=-12  
 Horz: 1-2=-12, 2-6=-17, 6-28=27, 10-28=39
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=10, 2-6=15, 6-10=5, 18-22=-12  
 Horz: 1-2=-22, 2-6=-27, 6-10=17
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-0, 2-6=5, 6-10=15, 18-22=-12  
 Horz: 1-2=-12, 2-6=-17, 6-10=27
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=14, 2-27=8, 6-27=-4, 6-10=-14, 18-22=-20  
 Horz: 1-2=-34, 2-27=-28, 6-27=-16, 6-10=6
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-8, 2-6=-14, 6-28=-4, 10-28=8, 18-22=-20  
 Horz: 1-2=-12, 2-6=-6, 6-28=16, 10-28=28
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-6=-20, 6-10=-20, 18-30=-20, 14-30=-60, 11-14=-80(F=-60), 11-31=-60, 22-31=-20, 15-16=-40
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-56, 2-6=-61, 6-10=-42, 18-30=-20, 14-30=-50, 11-14=-65(F=-45), 11-31=-50, 22-31=-20, 15-16=-30  
 Horz: 1-2=6, 2-6=11, 6-10=8
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-2=-37, 2-6=-42, 6-10=-61, 18-30=-20, 14-30=-50, 11-14=-65(F=-45), 11-31=-50, 22-31=-20, 15-16=-30  
 Horz: 1-2=-13, 2-6=-8, 6-10=-11

Continued on page 3

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818 Soundside Road  
 Edenton, NC 27932



Job	Truss	Truss Type	Qty	Ply	McKee-Torino20CL:Lot997 CarriageGlenn	146710300
CG997-R	G03	ROOF TRUSS	4	1	Job Reference (optional)	

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:46:10 2021 Page 3  
ID:?MdgC82XojFIRgoD?t4wJjPwGb-ZLd8qmopFE?Cw?BFBC4eRSYUfX8RQI9S?oaXImz3M7h

**LOAD CASE(S)**

- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-25, 2-27=-29, 6-27=-38, 6-10=-46, 18-30=-20, 14-30=-50, 11-14=-65(F=-45), 11-31=-50, 22-31=-20, 15-16=-30  
Horz: 1-2=-25, 2-27=-21, 6-27=-12, 6-10=4
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
Uniform Loads (plf)  
Vert: 1-2=-41, 2-6=-46, 6-28=-38, 10-28=-29, 18-30=-20, 14-30=-50, 11-14=-65(F=-45), 11-31=-50, 22-31=-20, 15-16=-30  
Horz: 1-2=-9, 2-6=-4, 6-28=12, 10-28=21
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-6=-60, 6-10=-20, 18-22=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-6=-20, 6-10=-60, 18-22=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-6=-50, 6-10=-20, 18-30=-20, 14-30=-50, 11-14=-65(F=-45), 11-31=-50, 22-31=-20, 15-16=-30
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-6=-20, 6-10=-50, 18-30=-20, 14-30=-50, 11-14=-65(F=-45), 11-31=-50, 22-31=-20, 15-16=-30

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818 Soundside Road  
Edenton, NC 27932

Job CG997-R	Truss G04	Truss Type ROOF TRUSS	Qty 3	Ply 1	McKee-Torino20CL:Lot997 CarriageGlenn Job Reference (optional)	146710301
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8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:47:03 2021 Page 1  
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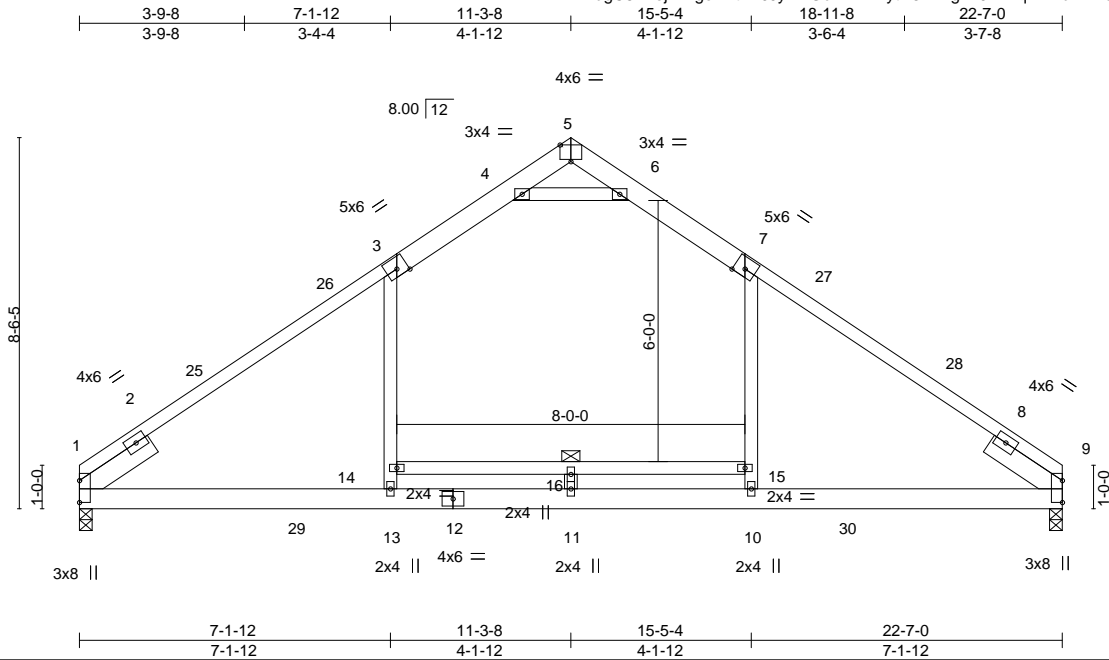


Plate Offsets (X,Y)-- [1:Edge,0-0-0], [5:0-3-0,Edge], [9:Edge,0-0-0]					
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.87	Vert(LL) -0.35 11 >773 360	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.88	Vert(CT) -0.46 11 >590 240		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.61	Horz(CT) 0.05 1 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Wind(LL) 0.22 13-19 >999 240		
				Weight: 144 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x6 SP DSS \*Except\*  
1-3,7-9: 2x4 SP No.1  
BOT CHORD 2x6 SP No.2  
WEBS 2x4 SP No.3  
SLIDER Left 2x6 SP No.2 -l 1-11-12, Right 2x6 SP No.2 -l 1-11-12

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 3-1-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.  
WEBS 1 Row at midpt 14-15

**REACTIONS.** (lb/size) 1=903/0-3-8 (min. 0-1-8), 9=903/0-3-8 (min. 0-1-8)  
Max Horz 1=187(LC 11)  
Max Uplift 1=-52(LC 12), 9=-52(LC 13)  
Max Grav 1=1207(LC 19), 9=1207(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
TOP CHORD 1-2=-417/213, 2-25=-1656/140, 25-26=-1527/147, 3-26=-1516/169, 3-4=-1146/220,  
4-5=-214/1272, 5-6=-214/1272, 6-7=-1146/220, 7-27=-1516/169, 27-28=-1527/147,  
8-28=-1656/140, 8-9=-417/213  
BOT CHORD 1-29=-25/1294, 13-29=-25/1294, 12-13=-44/1368, 11-12=-44/1368, 10-11=-44/1368,  
10-30=-25/1297, 9-30=-25/1297  
WEBS 10-15=0/566, 7-15=0/666, 13-14=0/566, 3-14=0/666, 4-6=-2712/505

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCdL=6.0psf; BCDL=6.0psf; h=32ft; 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 11-3-8, Exterior(2) 11-3-8 to 15-3-8, Interior(1) 15-3-8 to 22-7-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 1 and 9. This connection is for uplift only and does not consider lateral forces.
  - N/A
  - In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

**LOAD CASE(S)**

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.15  
Uniform Loads (plf)  
Vert: 1-5=-60, 5-9=-60, 17-21=-20
- Dead + 0.75 Roof Live (balanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15



June 24, 2021

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.**  
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	Truss	Truss Type	Qty	Ply	McKee-Torino20CL:Lot997 CarriageGlenn	146710301
CG997-R	G04	ROOF TRUSS	3	1	Job Reference (optional)	

8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:47:03 2021 Page 2  
 ID:?MdgC82XojFIRgoD?4wJjyPwGb-WXKAytr3mWghn9kRnqW44dFYRuDqLjGfBYwrfCz3M6s

**LOAD CASE(S)**

- Uniform Loads (plf)  
 Vert: 1-5=-50, 5-9=-50, 17-29=-20, 13-29=-50, 10-13=-65(F=-45), 10-30=-50, 21-30=-20, 14-15=-30
- 3) Dead + Uninhabitable Attic Without Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-9=-20, 17-21=-40, 14-15=-40
- 4) Dead + 0.6 C-C Wind (Pos. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-25=25, 5-25=19, 5-7=25, 7-9=19, 17-21=-12  
 Horz: 1-25=-37, 5-25=-31, 5-7=37, 7-9=31
- 5) Dead + 0.6 C-C Wind (Pos. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-3=19, 3-5=25, 5-28=19, 9-28=25, 17-21=-12  
 Horz: 1-3=-31, 3-5=-37, 5-28=31, 9-28=37
- 6) Dead + 0.6 C-C Wind (Neg. Internal) Case 1: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-51, 5-9=-51, 17-21=-20  
 Horz: 1-5=31, 5-9=-31
- 7) Dead + 0.6 C-C Wind (Neg. Internal) Case 2: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-51, 5-9=-51, 17-21=-20  
 Horz: 1-5=31, 5-9=-31
- 8) Dead + 0.6 MWFRS Wind (Pos. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-15, 5-9=10, 17-21=-12  
 Horz: 1-5=3, 5-9=22
- 9) Dead + 0.6 MWFRS Wind (Pos. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=10, 5-9=-15, 17-21=-12  
 Horz: 1-5=-22, 5-9=-3
- 10) Dead + 0.6 MWFRS Wind (Neg. Internal) Left: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-34, 5-9=-9, 17-21=-20  
 Horz: 1-5=14, 5-9=11
- 11) Dead + 0.6 MWFRS Wind (Neg. Internal) Right: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-9, 5-9=-34, 17-21=-20  
 Horz: 1-5=-11, 5-9=-14
- 12) Dead + 0.6 MWFRS Wind (Pos. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-26=27, 5-26=15, 5-9=5, 17-21=-12  
 Horz: 1-26=-39, 5-26=-27, 5-9=17
- 13) Dead + 0.6 MWFRS Wind (Pos. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=5, 5-27=15, 9-27=27, 17-21=-12  
 Horz: 1-5=-17, 5-27=27, 9-27=39
- 14) Dead + 0.6 MWFRS Wind (Pos. Internal) 3rd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=15, 5-9=5, 17-21=-12  
 Horz: 1-5=-27, 5-9=17
- 15) Dead + 0.6 MWFRS Wind (Pos. Internal) 4th Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=5, 5-9=15, 17-21=-12  
 Horz: 1-5=-17, 5-9=27
- 16) Dead + 0.6 MWFRS Wind (Neg. Internal) 1st Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-26=8, 5-26=-4, 5-9=-14, 17-21=-20  
 Horz: 1-26=-28, 5-26=-16, 5-9=6
- 17) Dead + 0.6 MWFRS Wind (Neg. Internal) 2nd Parallel: Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-14, 5-27=-4, 9-27=8, 17-21=-20  
 Horz: 1-5=-6, 5-27=16, 9-27=28
- 18) Dead + Uninhabitable Attic Storage: Lumber Increase=1.25, Plate Increase=1.25  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-9=-20, 17-29=-20, 13-29=-60, 10-13=-80(F=-60), 10-30=-60, 21-30=-20, 14-15=-40
- 19) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Left): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-61, 5-9=-42, 17-29=-20, 13-29=-50, 10-13=-65(F=-45), 10-30=-50, 21-30=-20, 14-15=-30  
 Horz: 1-5=11, 5-9=8
- 20) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) Right): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-42, 5-9=-61, 17-29=-20, 13-29=-50, 10-13=-65(F=-45), 10-30=-50, 21-30=-20, 14-15=-30  
 Horz: 1-5=-8, 5-9=-11

Continued on page 3

**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/TPI 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 CG997-R	Truss G04	Truss Type ROOF TRUSS	Qty 3	Ply 1	McKee-Torino20CL:Lot997 CarriageGlenn Job Reference (optional)	146710301
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8.430 s Mar 22 2021 MiTek Industries, Inc. Wed Jun 23 15:47:03 2021 Page 3  
 ID:?MdgC82XojFIRgoD?4wJjyPwGb-WXkAytR3mWghn9kRnqW44dFYRuDqLjGfBYwrfCz3M6s

**LOAD CASE(S)**

- 21) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 1st Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-26=-29, 5-26=-38, 5-9=-46, 17-29=-20, 13-29=-50, 10-13=-65(F=-45), 10-30=-50, 21-30=-20, 14-15=-30  
 Horz: 1-26=-21, 5-26=-12, 5-9=4
- 22) Dead + 0.75 Roof Live (bal.) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor + 0.75(0.6 MWFRS Wind (Neg. Int) 2nd Parallel): Lumber Increase=1.60, Plate Increase=1.60  
 Uniform Loads (plf)  
 Vert: 1-5=-46, 5-27=-38, 9-27=-29, 17-29=-20, 13-29=-50, 10-13=-65(F=-45), 10-30=-50, 21-30=-20, 14-15=-30  
 Horz: 1-5=-4, 5-27=12, 9-27=21
- 23) 1st Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-60, 5-9=-20, 17-21=-20
- 24) 2nd Dead + Roof Live (unbalanced): Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-9=-60, 17-21=-20
- 25) 3rd Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-50, 5-9=-20, 17-29=-20, 13-29=-50, 10-13=-65(F=-45), 10-30=-50, 21-30=-20, 14-15=-30
- 26) 4th Dead + 0.75 Roof Live (unbalanced) + 0.75 Uninhab. Attic Storage + 0.75 Attic Floor: Lumber Increase=1.15, Plate Increase=1.15  
 Uniform Loads (plf)  
 Vert: 1-5=-20, 5-9=-50, 17-29=-20, 13-29=-50, 10-13=-65(F=-45), 10-30=-50, 21-30=-20, 14-15=-30

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



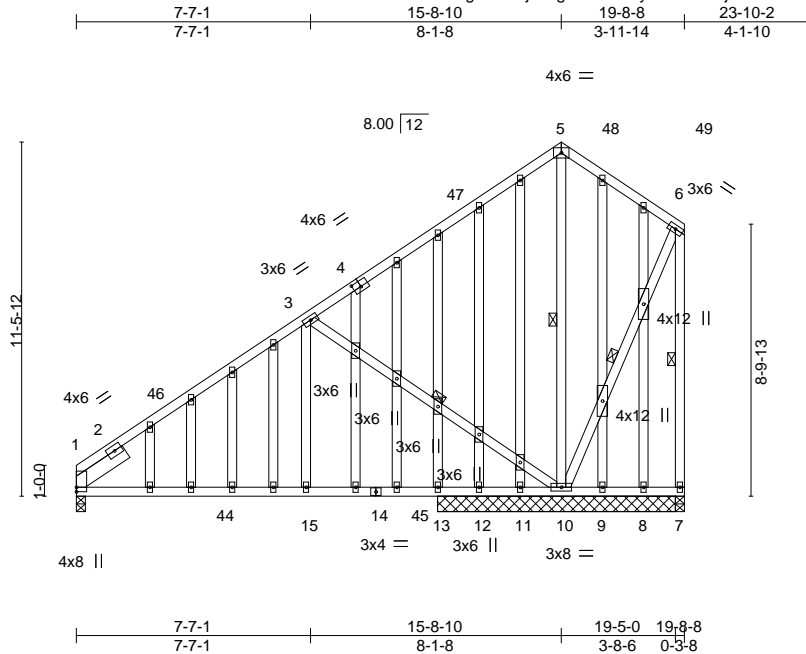
818 Soundside Road  
 Edenton, NC 27932

Job CG997-R	Truss H01G	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710302
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:10 2021 Page 1

ID: ?MdgC82XojFIRgoD?t4wJjyPwGb-uGij6uJV8dSHGxFqRW4lu6fk5b6SCFKUjzPpzuz3Ni?



Scale = 1:74.7

Plate Offsets (X,Y)--	[4:0-3:0,0-2-4]						
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d
TCLL 20.0	Plate Grip DOL	1.15	TC 0.99	Vert(LL)	-0.05 15-42	>999	360
TCDL 10.0	Lumber DOL	1.15	BC 0.43	Vert(CT)	-0.12 15-42	>999	240
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.38	Horz(CT)	-0.03 1	n/a	n/a
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.06 15-42	>999	240
							Weight: 243 lb FT = 20%

<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 3-9-12 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 9-10-4 oc bracing.
WEBS	2x4 SP No.3	WEBS	1 Row at midpt 3-10, 5-10, 6-7, 6-10
OTHERS	2x4 SP No.3		
SLIDER	Left 2x6 SP No.2 1-11-12		

**REACTIONS.** All bearings 7-8-8 except (jt=length) 1=0-3-8.  
 (lb) - Max Horz 1=355(LC 12)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 10, 12 except 7=197(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 7, 7, 11, 12, 13, 9, 8 except 1=644(LC 19), 10=759(LC 19)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-649/94  
 BOT CHORD 1-15=-325/638, 13-15=-325/638, 12-13=-325/638, 11-12=-325/638, 10-11=-325/638  
 WEBS 3-10=-750/315, 5-10=-368/71, 3-15=0/304

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; 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 15-8-10, Exterior(2) 15-8-10 to 18-8-10, Interior(1) 18-8-10 to 19-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
  - 4) All plates are 2x4 MT20 unless otherwise indicated.
  - 5) Gable studs spaced at 1-4-0 oc.
  - 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 8) N/A
  - 9) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



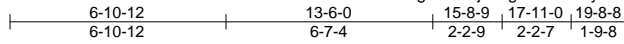
Job CG997-R	Truss H02	Truss Type SPECIAL	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710303
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:11 2021 Page 1

ID: ?MdgC82XojFIRgoD?t4wJjyPwGb-MSG5KEJ7vxa8u5q1\_DbXRJBWY\_JExeqdyd9MWKz3Ni\_



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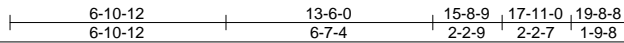
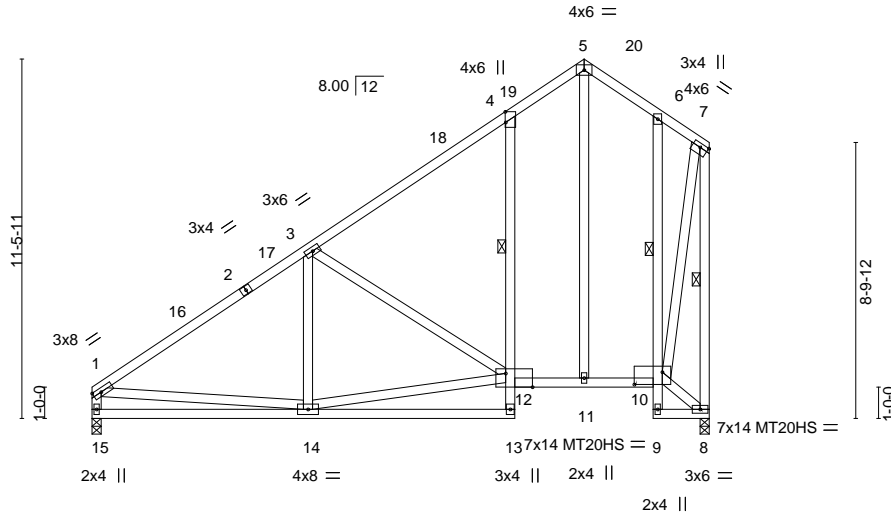


Plate Offsets (X, Y)--	[4:0-4-1,Edge], [7:0-3-0,0-1-8], [10:0-10-12,0-4-12], [12:0-10-4,Edge]
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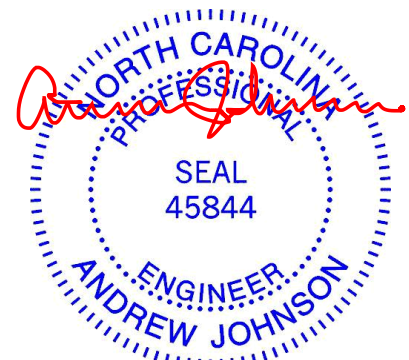
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.92	Vert(LL)	-0.38	13	>609	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.97	Vert(CT)	-0.75	13	>309	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.62	Horz(CT)	0.08	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.36	13	>650	240		
									Weight: 172 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2 *Except* 5-7: 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2 *Except* 4-13,6-9: 2x4 SP No.1, 10-12: 2x4 SP SS	BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except: 1 Row at midpt 4-12, 6-10
WEBS 2x4 SP No.3 *Except* 7-8: 2x4 SP No.2	WEBS 1 Row at midpt 7-8

REACTIONS.
(size) 15=0-3-8, 8=0-3-8 Max Horz 15=393(LC 9) Max Uplift 15=46(LC 12), 8=53(LC 13) Max Grav 15=777(LC 1), 8=889(LC 19)

FORCES.
(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD 1-15=-714/135, 1-3=-964/147, 3-4=-551/163, 4-5=-374/221, 5-6=-552/216, 6-7=-271/219, 7-8=-1218/302 BOT CHORD 14-15=-451/619, 13-14=-180/653, 11-12=-169/364, 10-11=-179/394, 6-10=-848/334, 8-9=-575/152 WEBS 1-14=0/570, 12-14=-143/284, 3-12=-559/172, 8-10=-284/733, 7-10=-453/1490, 5-11=-145/384

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-1-12 to 3-1-12, Interior(1) 3-1-12 to 15-8-9, Exterior(2) 15-8-9 to 19-6-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) All plates are MT20 plates unless otherwise indicated.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - 6) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 15 and 8. This connection is for uplift only and does not consider lateral forces.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

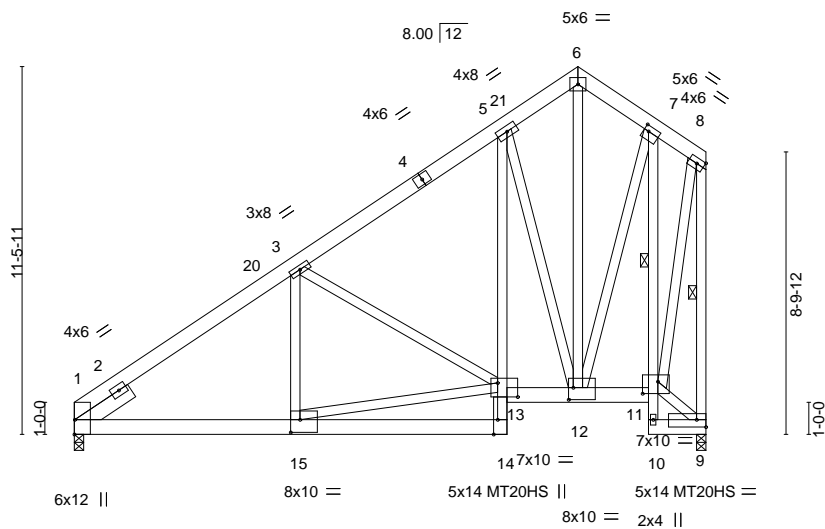
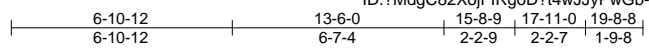


June 24, 2021

<p><b>WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.</b></p> <p>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 <b>ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component Safety Information</b> available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601</p>	<p>818 Soundside Road Edenton, NC 27932</p>
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Job CG997-R	Truss H05GR	Truss Type SPECIAL	Qty 1	Ply 3	McKee-Torino20CL;Lot997 CarriageGlenn 146710304
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Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:12 2021 Page 1



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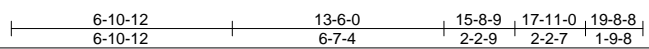


Plate Offsets (X, Y)-- [1:Edge,0-0-3], [7:0-1-12,0-2-0], [9:Edge,0-2-12], [11:0-5-12,0-4-8], [12:0-1-12,0-4-8], [13:0-7-8,0-5-4], [14:0-5-8,Edge], [15:0-3-8,0-4-12]

<b>LOADING</b> (psf)	<b>SPACING</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.67	Vert(LL)	-0.15 14-15	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.29 14-15	>791	240	MT20HS	187/143
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.86	Horz(CT)	0.09 9	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS	Wind(LL)	0.14 14-15	>999	240		
								Weight: 675 lb	FT = 20%

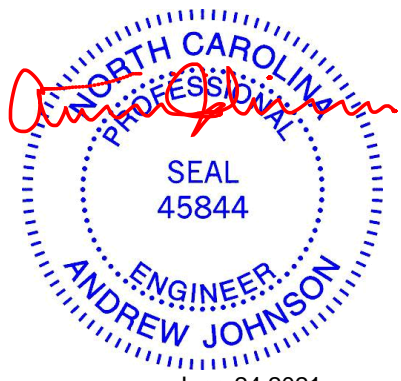
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x6 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x6 SP No.2 *Except* 1-14: 2x6 SP DSS, 5-14,7-10: 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing. Except: 1 Row at midpt 7-11
WEBS 2x4 SP No.3 *Except* 8-9: 2x4 SP No.2	WEBS 1 Row at midpt 8-9
SLIDER Left 2x6 SP No.2 1-11-12	

**REACTIONS.** (size) 9=0-3-8 (req. 0-3-9), 1=0-3-8  
 Max Horz 1=381(LC 7)  
 Max Uplift 9=1525(LC 9), 1=1522(LC 8)  
 Max Grav 9=8989(LC 15), 1=8935(LC 15)

SUPPLEMENTARY BEARING PLATES, SPECIAL ANCHORAGE, OR OTHER MEANS TO ALLOW FOR THE MINIMUM REQUIRED SUPPORT WIDTH (SUCH AS COLUMN CAPS, BEARING BLOCKS, ETC.) ARE THE RESPONSIBILITY OF THE TRUSS MANUFACTURER OR THE BUILDING DESIGNER.

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 1-3=-10082/1717, 3-5=-5446/960, 5-6=-3385/666, 6-7=-3211/637, 7-8=-1974/433, 8-9=-7985/1360  
 BOT CHORD 1-15=-1473/8433, 14-15=-307/1833, 13-14=-407/2523, 5-13=-1176/6759, 12-13=-826/4616, 11-12=-297/1390, 10-11=-140/642, 7-11=-5515/992, 9-10=-91/521  
 WEBS 3-15=-746/4579, 13-15=-1188/6723, 3-13=-4460/884, 9-11=-655/177, 8-11=-1146/6491, 6-12=-600/3004, 5-12=-6012/1098, 7-12=-974/5848

- NOTES-**
- 3-ply truss to be connected together with 10d (0.131"x3") nails as follows:  
 Top chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc, 2x4 - 1 row at 0-9-0 oc.  
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-5-0 oc, 2x4 - 1 row at 0-9-0 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=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone; cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - WARNING: Required bearing size at joint(s) 9 greater than input bearing size.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 9=1525, 1=1522.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**LOAD CASE(S)** Standard

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

Job CG997-R	Truss H05GR	Truss Type SPECIAL	Qty 1	Ply <b>3</b>	McKee-Torino20CL;Lot997 CarriageGlenn I46710304 Job Reference (optional)
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:12 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: 1-6=-60, 6-8=-60, 14-16=-811(F=-791), 11-13=-811(F=-791), 9-10=-811(F=-791)

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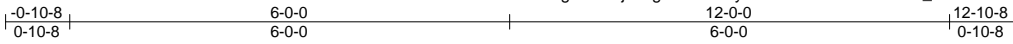
818 Soundside Road  
Edenton, NC 27932



Job CG997-R	Truss K01G	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710305
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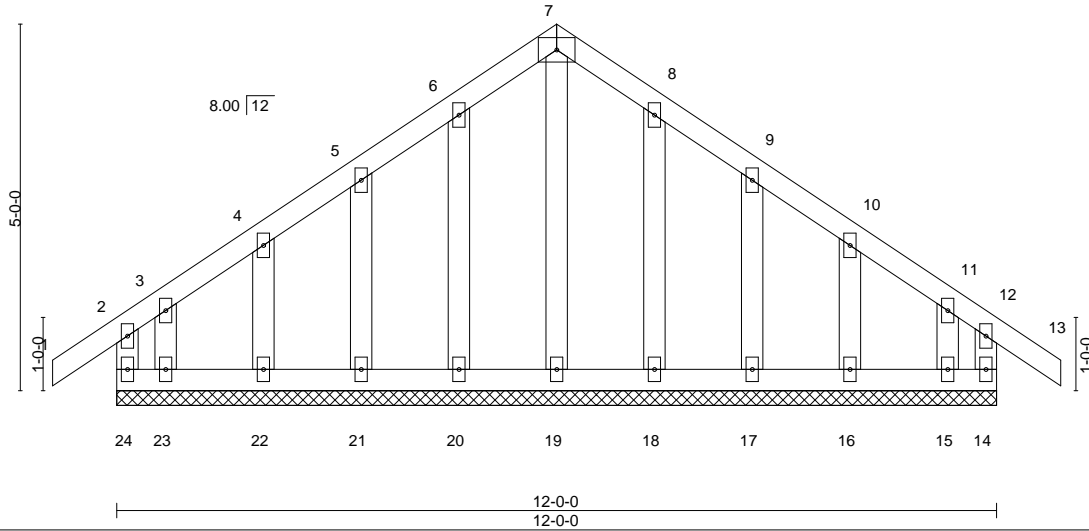
Builders FirstSource (Apex, NC), Apex, NC - 27523, 8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:13 2021 Page 1

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4x6 =

Scale = 1:31.4



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.08	Vert(LL)	-0.00	13	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.06	Vert(CT)	-0.00	13	n/r		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.05	Horz(CT)	0.00	14	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-R						
								Weight: 78 lb	FT = 20%

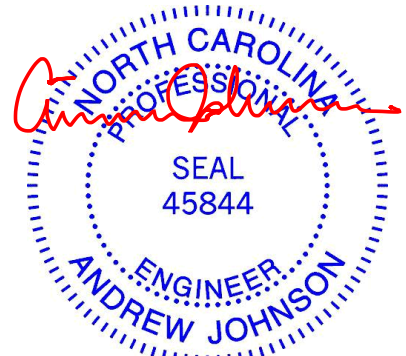
<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 2x4 SP No.2	
OTHERS 2x4 SP No.3	

**REACTIONS.** All bearings 12-0-0.  
 (lb) - Max Horz 24=144(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 14, 20, 21, 22, 18, 17, 16 except 24=126(LC 8), 23=128(LC 9), 15=100(LC 8)  
 Max Grav All reactions 250 lb or less at joint(s) 24, 14, 19, 20, 21, 22, 23, 18, 17, 16, 15

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCWL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-10-8 to 2-0-0, Exterior(2) 2-0-0 to 6-0-0, Corner(3) 6-0-0 to 9-0-0, Exterior(2) 9-0-0 to 12-10-8 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 10) N/A
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 24, 2021

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818 Soundside Road  
Edenton, NC 27932

Job CG997-R	Truss K02	Truss Type COMMON	Qty 5	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710306
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

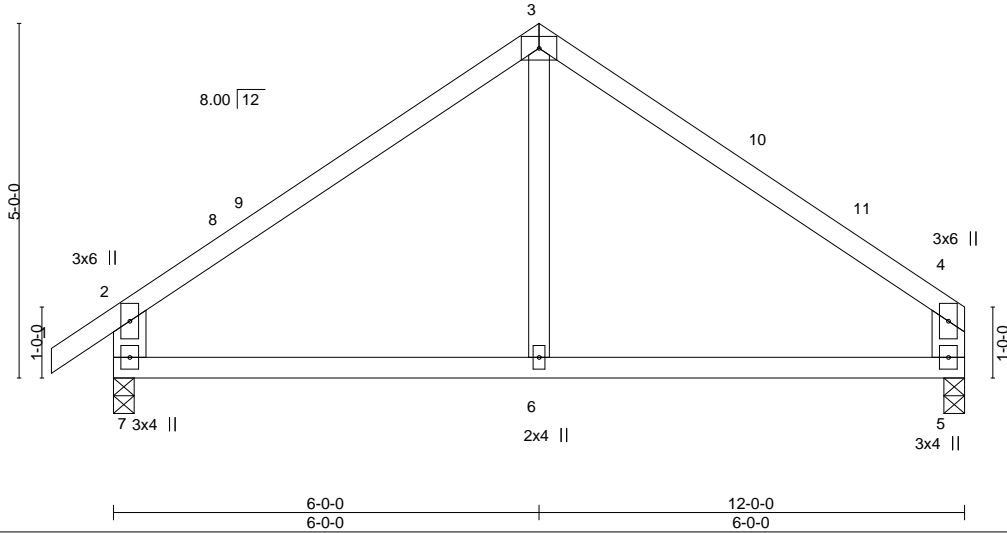
8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:15 2021 Page 1

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4x6 =

Scale = 1:32.5



<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.48	Vert(LL)	-0.03 6-7	>999	360	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.27	Vert(CT)	-0.06 6-7	>999	240		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.09	Horz(CT)	0.01 5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MR	Wind(LL)	0.03 6-7	>999	240		
								Weight: 51 lb	FT = 20%

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

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

**REACTIONS.** (size) 7=0-3-8, 5=0-3-8  
 Max Horz 7=140(LC 9)  
 Max Uplift 7=-62(LC 12), 5=-38(LC 13)  
 Max Grav 7=531(LC 1), 5=458(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-7=-468/170, 2-3=-476/109, 3-4=-469/110, 4-5=-390/121  
 BOT CHORD 6-7=-24/313, 5-6=-24/313

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCCL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) -0-10-8 to 2-1-8, Interior(1) 2-1-8 to 6-0-0, Exterior(2) 6-0-0 to 10-2-15, Interior(1) 10-2-15 to 11-9-4 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 7 and 5. This connection is for uplift only and does not consider lateral forces.
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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 CG997-R	Truss M01	Truss Type MONO TRUSS	Qty 3	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710307
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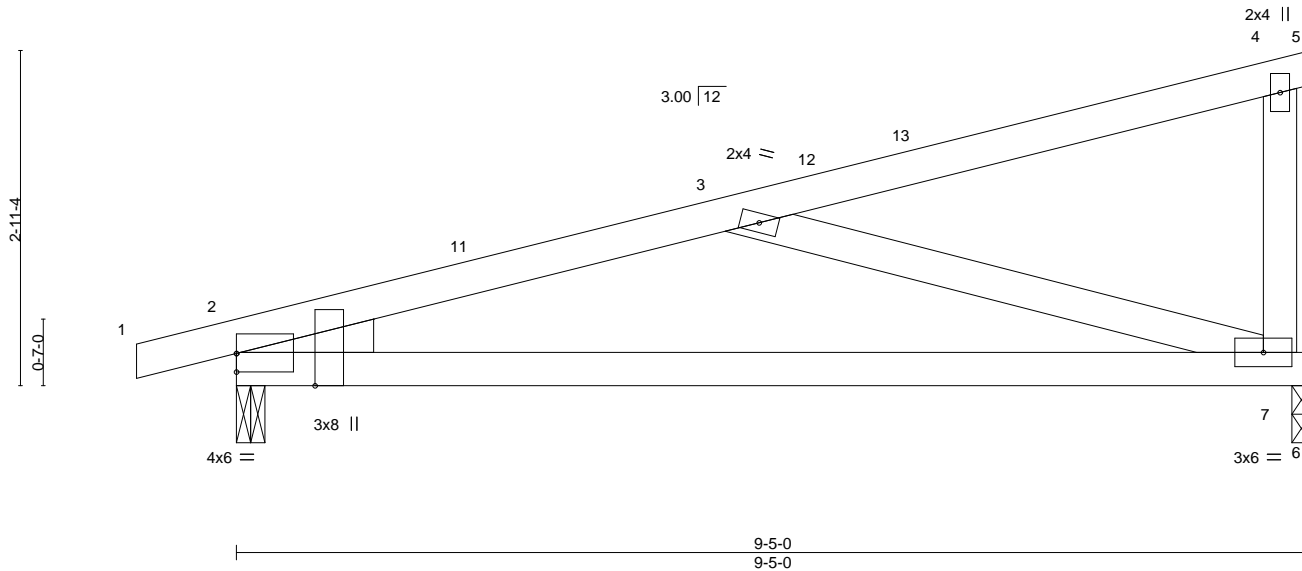
Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:15 2021 Page 1

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Scale = 1:20.2



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.64	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.50	Vert(LL) -0.10 7-10 >999 360		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.29	Vert(CT) -0.21 7-10 >526 240		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.01 2 n/a n/a		
	Code IRC2015/TPI2014		Wind(LL) 0.01 7-10 >999 240	Weight: 42 lb	FT = 20%

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

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

**REACTIONS.** (size) 2=0-3-0, 7=0-2-0  
 Max Horz 2=108(LC 11)  
 Max Uplift 2=-100(LC 8), 7=-79(LC 8)  
 Max Grav 2=421(LC 1), 7=374(LC 1)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
 TOP CHORD 2-3=-663/160  
 BOT CHORD 2-7=-236/639  
 WEBS 3-7=-601/211

- NOTES-**
- 1) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; 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 9-5-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 2) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 3) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 4) Provide mechanical connection (by others) of truss to bearing plate at joint(s) 7.
  - 5) One RT7A USP connectors recommended to connect truss to bearing walls due to UPLIFT at jt(s) 2 and 7. This connection is for uplift only and does not consider lateral forces.
  - 6) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 24, 2021

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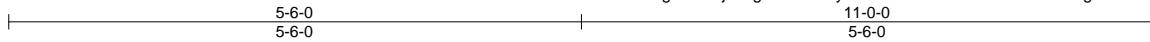
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 Edenton, NC 27932

Job CG997-R	Truss PB06	Truss Type GABLE	Qty 2	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710308
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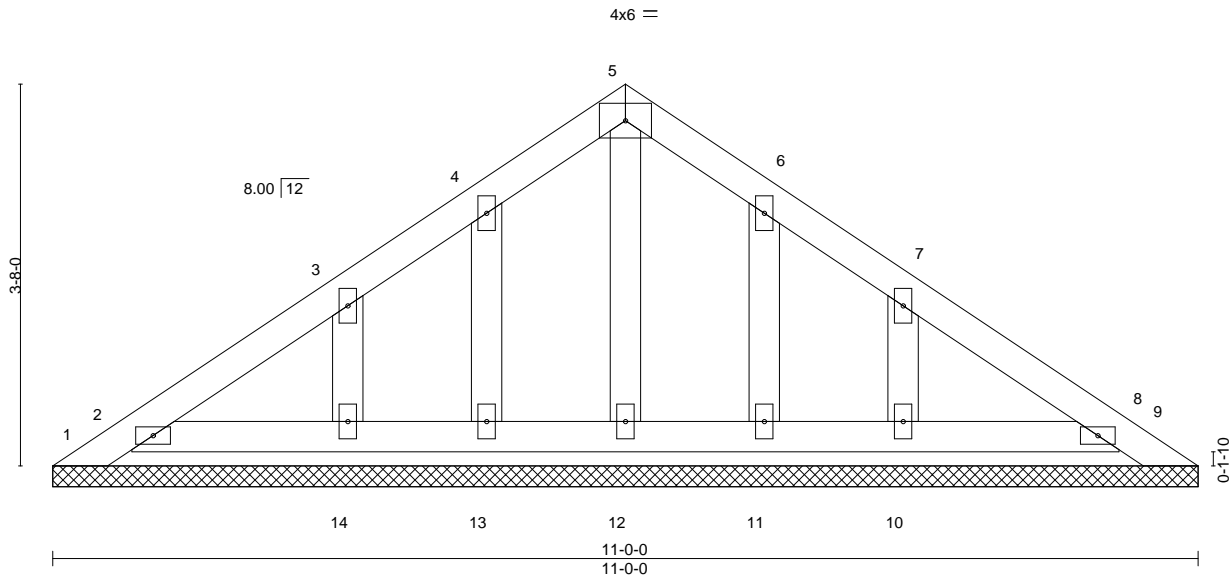
Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:17 2021 Page 1  
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Scale = 1:22.1



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 0.06	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.03	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.03	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 48 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 11-0-0.  
(lb) - Max Horz 1--88(LC 10)  
Max Uplift All uplift 100 lb or less at joint(s) 1, 9, 2, 8, 13, 14, 11, 10  
Max Grav All reactions 250 lb or less at joint(s) 1, 9, 2, 8, 12, 13, 14, 11, 10

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-3-2 to 3-3-2, Exterior(2) 3-3-2 to 5-6-0, Corner(3) 5-6-0 to 8-6-0, Exterior(2) 8-6-0 to 10-8-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 9.
- 10) N/A
- 11) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- 12) See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



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



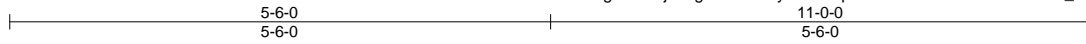
818 Soundside Road  
Edenton, NC 27932

Job CG997-R	Truss PB07	Truss Type GABLE	Qty 20	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710309
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Builders FirstSource (Apex, NC), Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:18 2021 Page 1

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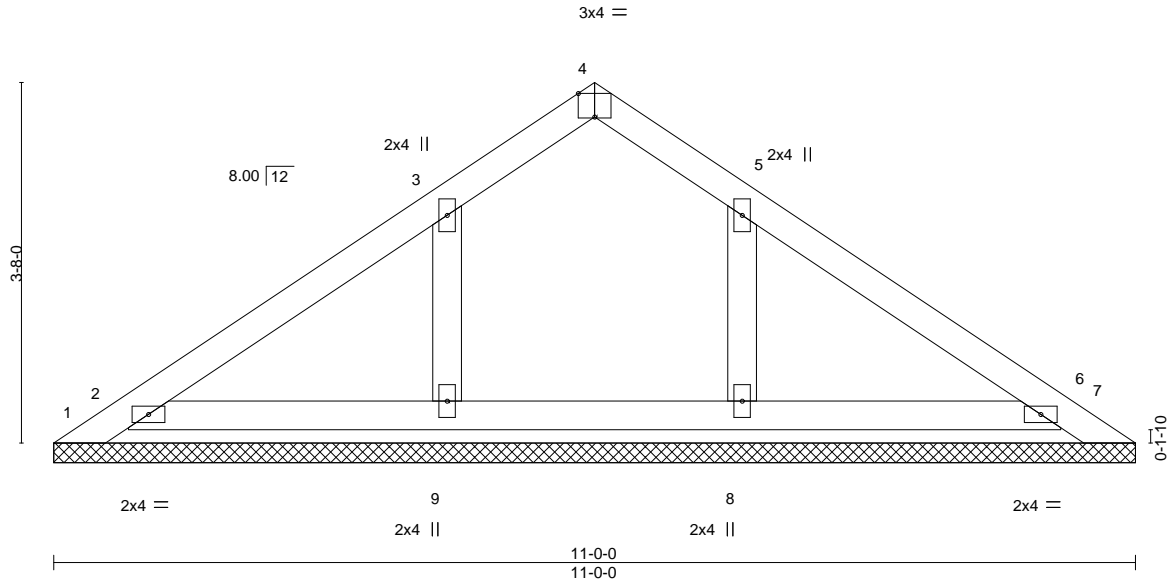


Plate Offsets (X,Y)--	[4:0-2-0,Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.15	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.08	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.04	Horz(CT)	0.00	6	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S					Weight: 40 lb	FT = 20%

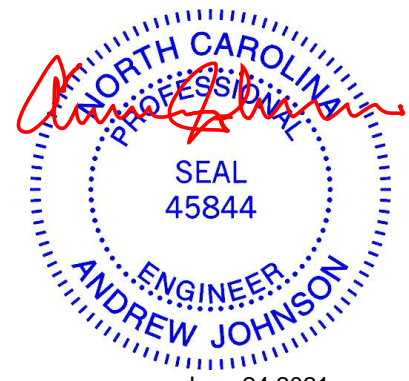
<b>LUMBER-</b>		<b>BRACING-</b>	
TOP CHORD	2x4 SP No.2	TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD	2x4 SP No.2	BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS	2x4 SP No.3		

**REACTIONS.** All bearings 11-0-0.  
 (lb) - Max Horz 1=88(LC 10)  
 Max Uplift All uplift 100 lb or less at joint(s) 7, 2, 6, 8, 9 except 1=134(LC 19)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 8 except 2=301(LC 19), 6=274(LC 1), 9=253(LC 19)

**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=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-3-2 to 3-3-2, Exterior(2) 3-3-2 to 5-6-0, Corner(3) 5-6-0 to 8-6-0, Exterior(2) 8-6-0 to 10-8-14 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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) 7 except (jt=lb) 1=134.
- N/A
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.
- See Standard Industry Piggyback Truss Connection Detail for Connection to base truss as applicable, or consult qualified building designer.



June 24, 2021

Job CG997-R	Truss V19	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710310
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:19 2021 Page 1

ID:?MdgC82XojFIRgoD?t4wJjyPwGb-7?I7zP81Ob0sJRZSvkPI?X1\_DEkpOmpnt5nnsz3Nhs



3x4 =

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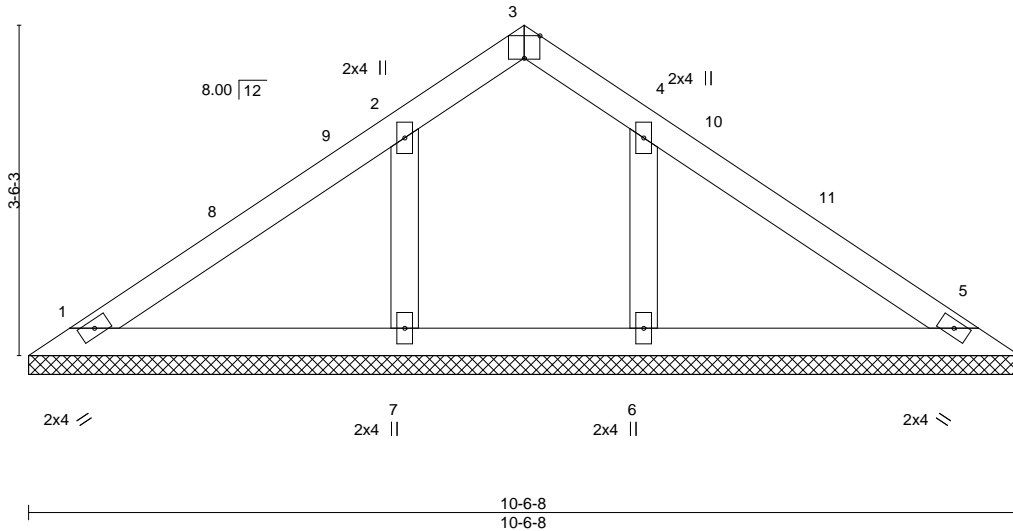


Plate Offsets (X,Y)--	[3:0-2-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in	(loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.27	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.16	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.05	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-S						Weight: 39 lb	FT = 20%

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

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

**REACTIONS.** All bearings 10-6-8.  
 (lb) - Max Horz 1=80(LC 11)  
 Max Uplift All uplift 100 lb or less at joint(s) except 6=-108(LC 13), 7=-111(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 6=301(LC 20), 7=304(LC 19)

**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=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-3-4, Exterior(2) 5-3-4 to 8-3-4, Interior(1) 8-3-4 to 10-0-12 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- N/A
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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



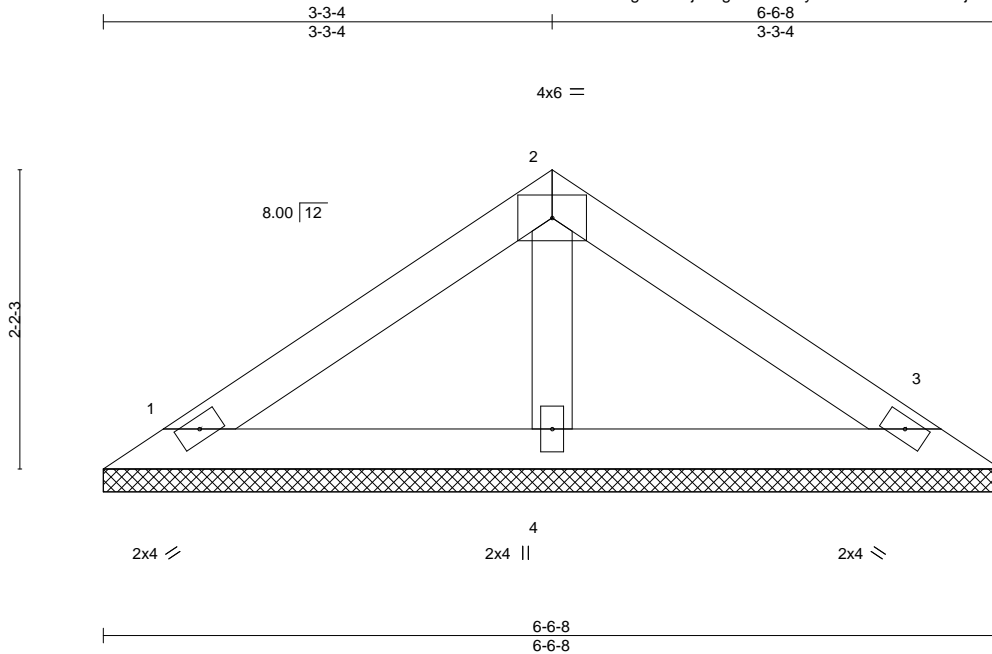
818 Soundside Road  
 Edenton, NC 27932

Job CG997-R	Truss V20	Truss Type VALLEY	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710311
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:20 2021 Page 1  
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Scale = 1:16.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.24	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.13	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	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.3  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3

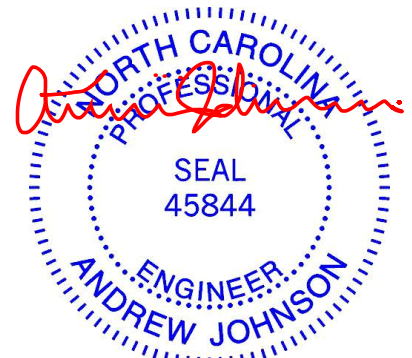
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=6-6-8, 3=6-6-8, 4=6-6-8  
Max Horz 1=-47(LC 10)  
Max Uplift 1=-28(LC 12), 3=-34(LC 13)  
Max Grav 1=119(LC 1), 3=119(LC 1), 4=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=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 28 lb uplift at joint 1 and 34 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

ENGINEERING BY  
**TRENCO**  
A MiTek Affiliate

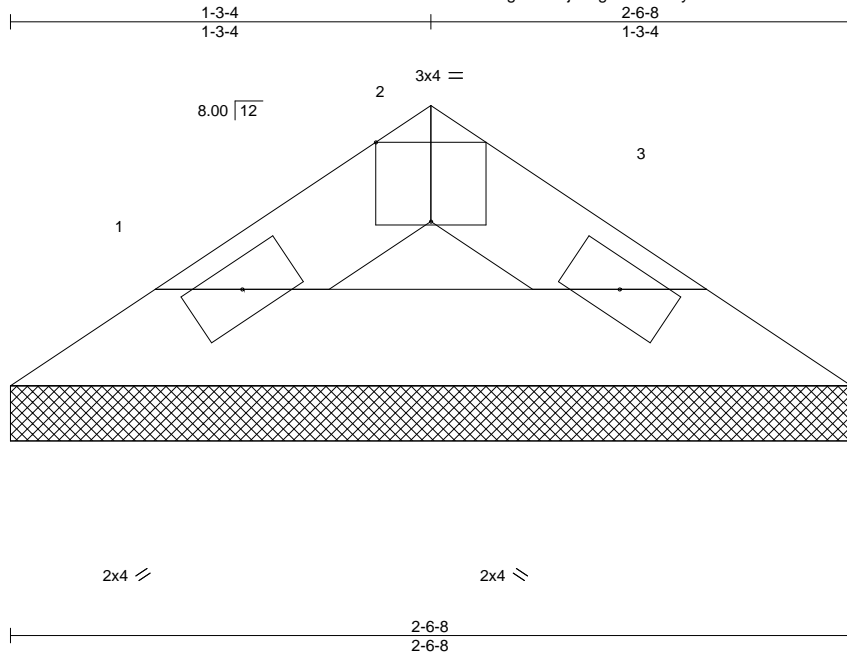
818 Soundside Road  
Edenton, NC 27932

Job CG997-R	Truss V21	Truss Type VALLEY	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710312
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:21 2021 Page 1  
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Scale = 1:7.0

Plate Offsets (X,Y)--	[2:0-2-0,Edge]					PLATES	GRIP
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc)	l/defl	L/d	<b>MT20</b>	<b>244/190</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.02	Vert(LL) n/a	-	n/a		
TCDL 10.0	Lumber DOL 1.15	BC 0.05	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: 7 lb	FT = 20%

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

**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-6-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-6-8, 3=2-6-8  
Max Horz 1=13(LC 10)  
Max Uplift 1=7(LC 12), 3=7(LC 13)  
Max Grav 1=63(LC 1), 3=63(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 7 lb uplift at joint 1 and 7 lb uplift at joint 3.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



June 24,2021

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**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

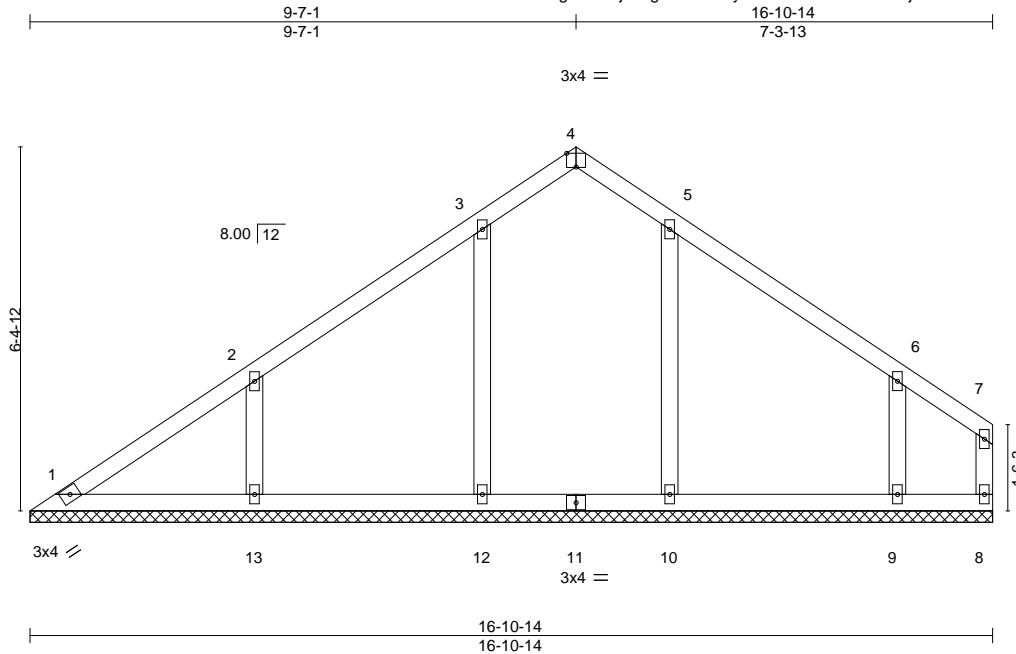


Job CG997-R	Truss V47	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710313
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:22 2021 Page 1  
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Plate Offsets (X,Y)--	[4:0-2-0,Edge]									
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.33	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.21	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.11	Horz(CT)	0.00	8	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						Weight: 77 lb	FT = 20%

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

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

**REACTIONS.** All bearings 16-10-14.  
(lb) - Max Horz 1=170(LC 9)  
Max Uplift All uplift 100 lb or less at joint(s) 8, 1, 12, 10 except 13=151(LC 12), 9=228(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 8, 1 except 12=360(LC 19), 13=356(LC 19), 10=338(LC 20), 9=326(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
WEBS 2-13=285/196, 6-9=283/223

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
  - Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-5-12 to 3-5-12, Exterior(2) 3-5-12 to 9-7-1, Corner(3) 9-7-1 to 12-7-1, Exterior(2) 12-7-1 to 16-9-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 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 4-0-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
  - Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
  - N/A
  - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

Job CG997-R	Truss V48	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710314
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:23 2021 Page 1

ID:?MdgC82XojFIRgoD?t4wJJyPwGb-?m?drLTf4d5RKxIKhkpLwrhJMQb9IBDOIV3?wdz3Nho



4x6 =

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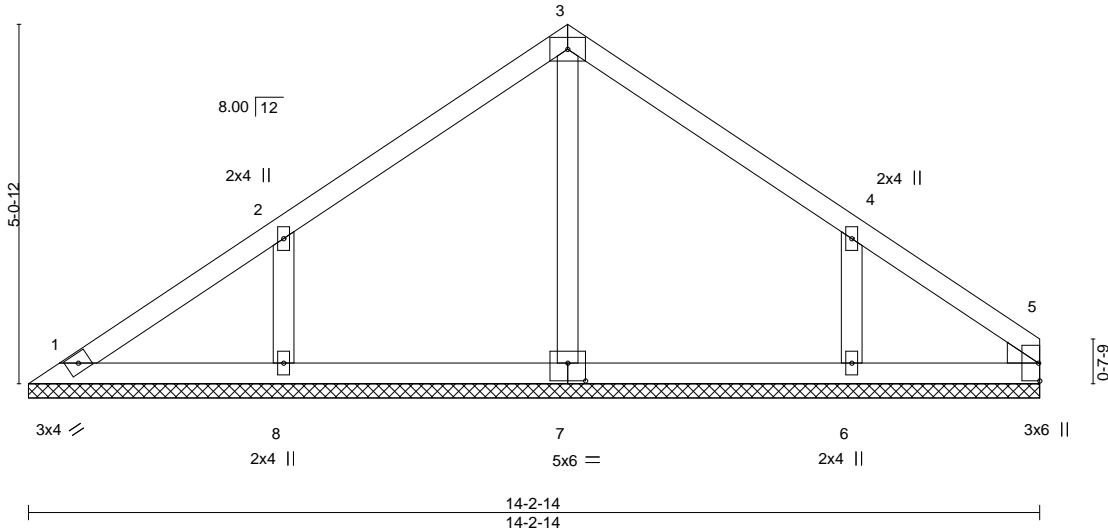


Plate Offsets (X,Y)--	[7:0-3-0,0-3-0]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.31	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.19	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.08	Horz(CT) 0.00 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S		Weight: 59 lb	FT = 20%

**LUMBER-**  
TOP CHORD 2x4 SP No.3  
BOT CHORD 2x4 SP No.3  
OTHERS 2x4 SP No.3  
WEDGE  
Right: 2x4 SP No.3

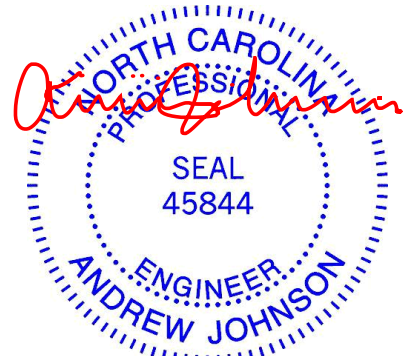
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** All bearings 14-2-14.  
(lb) - Max Horz 1=-119(LC 8)  
Max Uplift All uplift 100 lb or less at joint(s) 1 except 8=-145(LC 12), 6=-146(LC 13)  
Max Grav All reactions 250 lb or less at joint(s) 5, 1 except 7=259(LC 1), 8=357(LC 19), 6=338(LC 20)

**FORCES.** (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.  
**WEBS** 2-8=-275/187, 4-6=-262/187

**NOTES-**

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Corner(3) 0-5-12 to 3-7-2, Exterior(2) 3-7-2 to 7-7-2, Corner(3) 7-7-2 to 10-7-2, Exterior(2) 10-7-2 to 14-2-14 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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.
- Gable requires continuous bottom chord bearing.
- Gable studs spaced at 4-0-0 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit 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.
- N/A
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

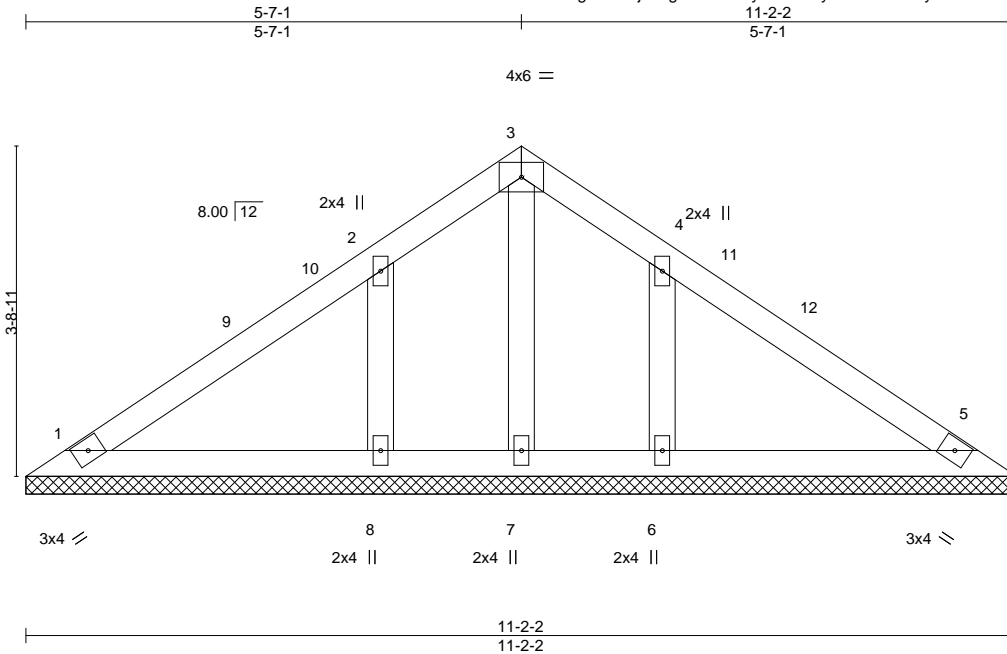
Job CG997-R	Truss V49	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn Job Reference (optional)	146710315
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:24 2021 Page 1

ID:?MdgC82XojFIRgoD?t4wJjyPwGb-TyZ02hTHrwDly5JXFSKaS3EuvEytUf?Yx9oYS4z3Nhn



Scale = 1:26.0

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.26	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.05	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 46 lb	FT = 20%
	Code IRC2015/TPI2014							

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

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

**REACTIONS.** All bearings 11-2-2.  
 (lb) - Max Horz 1=86(LC 9)  
 Max Uplift All uplift 100 lb or less at joint(s) 1, 5, 7 except 6=117(LC 13), 8=118(LC 12)  
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=317(LC 20), 8=317(LC 19)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-5-12 to 3-5-12, Interior(1) 3-5-12 to 5-7-1, Exterior(2) 5-7-1 to 8-7-1, Interior(1) 8-7-1 to 10-8-6 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 5.
- 7) N/A
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

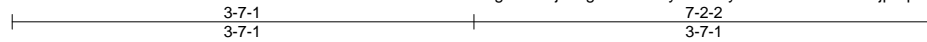
Job CG997-R	Truss V50	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710316
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Builders FirstSource (Apex, NC),

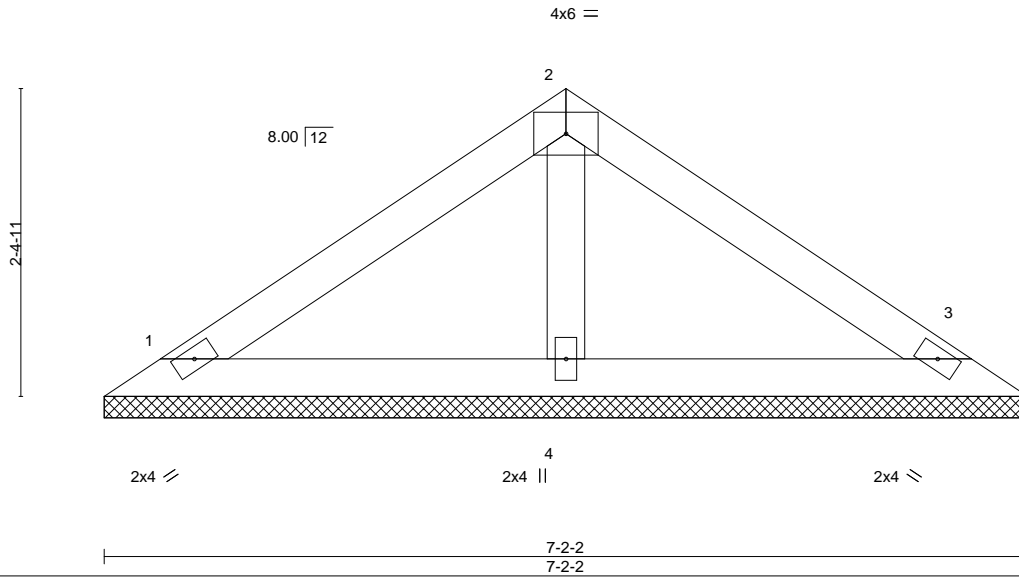
Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:25 2021 Page 1

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Scale = 1:17.9



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.22	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.15	BC 0.16	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.03	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S						
	Code IRC2015/TPI2014						Weight: 25 lb	FT = 20%

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

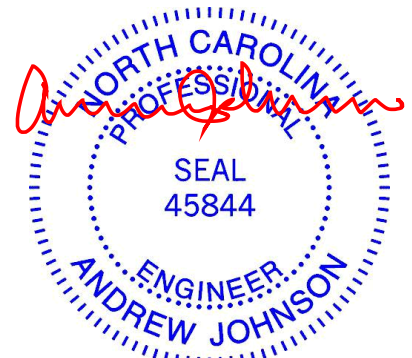
**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=7-2-2, 3=7-2-2, 4=7-2-2  
 Max Horz 1=52(LC 11)  
 Max Uplift 1=23(LC 12), 3=31(LC 13), 4=10(LC 12)  
 Max Grav 1=121(LC 1), 3=121(LC 1), 4=255(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) N/A
- 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

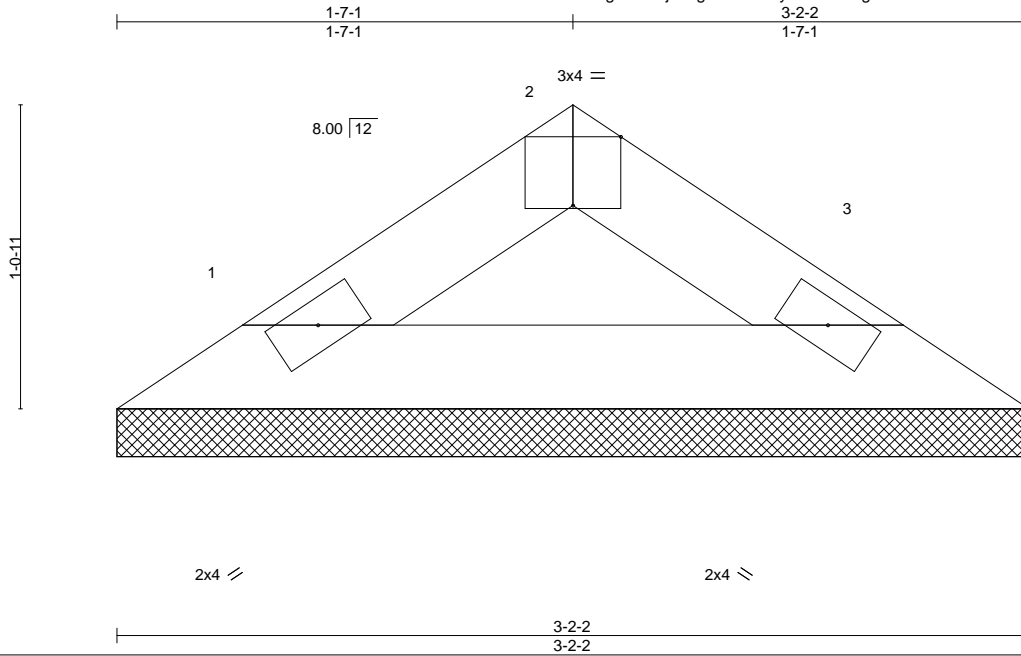
Job CG997-R	Truss V51	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710317
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:26 2021 Page 1

ID:?MdgC82XojFIRgoD?t4wJyPwGb-QLgmTNVXNYT0BOTvNtM2XUJlz1ePyZDrOTHfWyz3Nhl



Scale: 1.5"=1'

Plate Offsets (X,Y)--	[2'-0"-2'-0",Edge]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL	1.15	TC 0.03	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: 9 lb	FT = 20%

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

**BRACING-**  
 TOP CHORD Structural wood sheathing directly applied or 3-2-2 oc purlins.  
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=3-2-2, 3=3-2-2  
 Max Horz 1=-19(LC 8)  
 Max Uplift 1=-10(LC 12), 3=-10(LC 13)  
 Max Grav 1=89(LC 1), 3=89(LC 1)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TC DL=6.0psf; BC DL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
  - 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



**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 CG997-R	Truss V52	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710318
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:27 2021 Page 1

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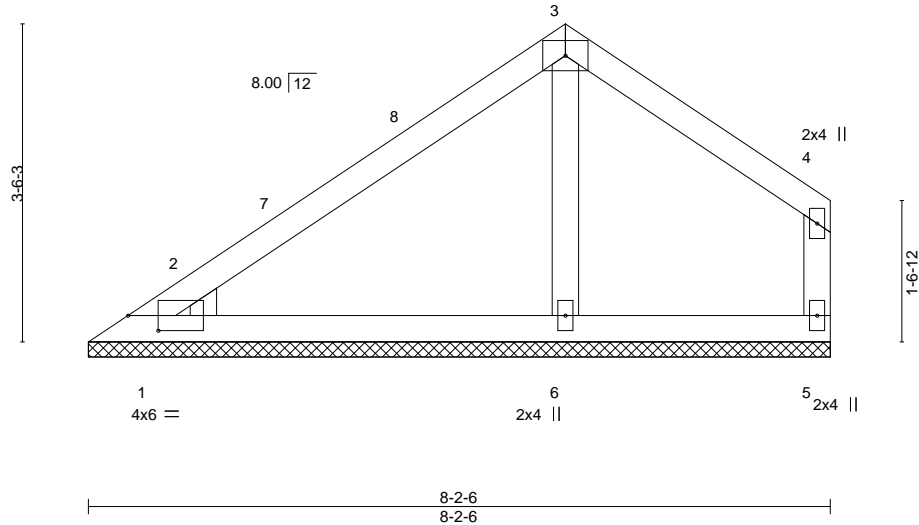


Plate Offsets (X,Y)--		[1:0-4-0,0-2-0]								
<b>LOADING</b> (psf)	<b>SPACING-</b>	2-0-0	<b>CSI.</b>	<b>DEFL.</b>	in (loc)	l/defl	L/d	<b>PLATES</b>	<b>GRIP</b>	
TCLL 20.0	Plate Grip DOL	1.15	TC 0.47	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.28	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.06	Horz(CT)	0.00	5	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						Weight: 33 lb	FT = 20%

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

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

**REACTIONS.** (size) 1=8-2-6, 5=8-2-6, 6=8-2-6  
Max Horz 1=98(LC 9)  
Max Uplift 1=-27(LC 12), 5=-49(LC 13), 6=-22(LC 12)  
Max Grav 1=173(LC 1), 5=118(LC 20), 6=338(LC 19)

**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=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-8-8 to 3-8-8, Interior(1) 3-8-8 to 5-3-4, Exterior(2) 5-3-4 to 8-0-10 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 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 where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- N/A
- This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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 CG997-R	Truss V53	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710319
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:28 2021 Page 1  
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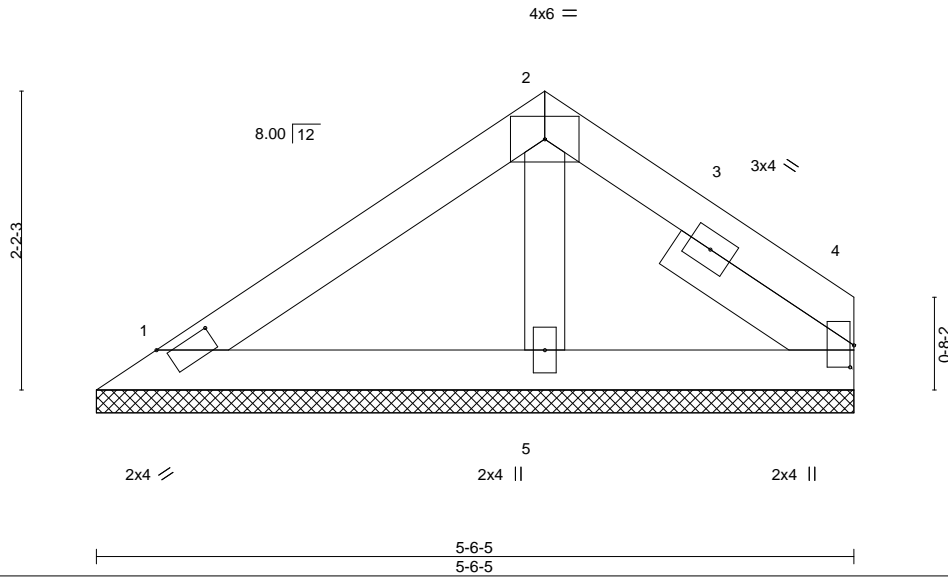


Plate Offsets (X,Y)--	[1:0-4-10,0-0-12], [4:0-1-15,0-0-5]				
<b>LOADING</b> (psf)	<b>SPACING-</b> 2-0-0	<b>CSI.</b>	<b>DEFL.</b> in (loc) l/defl L/d	<b>PLATES</b>	<b>GRIP</b>
TCLL 20.0	Plate Grip DOL 1.15	TC 0.24	Vert(LL) n/a - n/a 999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.12	Vert(CT) n/a - n/a 999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.01	Horz(CT) 0.00 4 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P		Weight: 22 lb	FT = 20%

<b>LUMBER-</b>	<b>BRACING-</b>
TOP CHORD 2x4 SP No.3	TOP CHORD Structural wood sheathing directly applied or 5-6-5 oc purlins.
BOT CHORD 2x4 SP No.3	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.3	
SLIDER Right 2x4 SP No.3 1-6-6	

**REACTIONS.** (size) 1=5-6-5, 4=5-6-5, 5=5-6-5  
 Max Horz 1=-47(LC 8)  
 Max Uplift 1=-36(LC 13), 4=-52(LC 13)  
 Max Grav 1=141(LC 1), 4=127(LC 1), 5=151(LC 3)

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

- NOTES-**
- 1) Unbalanced roof live loads have been considered for this design.
  - 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
  - 3) Gable requires continuous bottom chord bearing.
  - 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
  - 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
  - 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1.
  - 7) N/A
  - 8) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

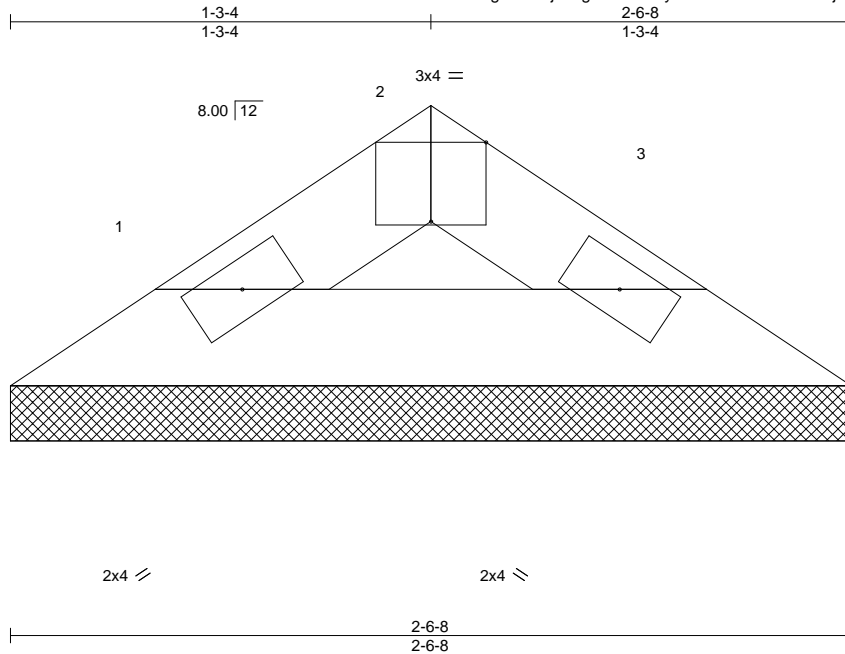


Job CG997-R	Truss V54	Truss Type GABLE	Qty 1	Ply 1	McKee-Torino20CL;Lot997 CarriageGlenn 146710320
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Builders FirstSource (Apex, NC),

Apex, NC - 27523,

8.430 s Jun 2 2021 MiTek Industries, Inc. Wed Jun 23 13:59:28 2021 Page 1  
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Scale = 1:7.0

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 0.02	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	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: 7 lb	FT = 20%

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

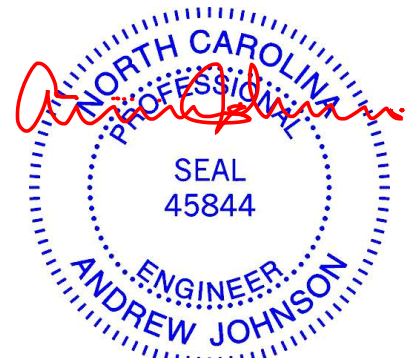
**BRACING-**  
TOP CHORD Structural wood sheathing directly applied or 2-6-8 oc purlins.  
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

**REACTIONS.** (size) 1=2-6-8, 3=2-6-8  
Max Horz 1=13(LC 8)  
Max Uplift 1=7(LC 12), 3=7(LC 13)  
Max Grav 1=63(LC 1), 3=63(LC 1)

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

**NOTES-**

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-10; Vult=130mph Vasd=103mph; TCDL=6.0psf; BCDL=6.0psf; h=32ft; Cat. II; Exp B; Enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Gable requires continuous bottom chord bearing.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3.
- 7) This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.



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

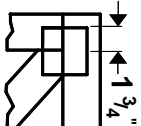


818 Soundside Road  
Edenton, NC 27932

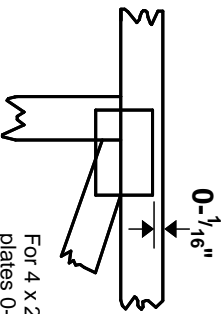


# Symbols

## 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.

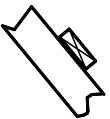
\* Plate location details available in **MITek 20/20 software** or upon request.

## PLATE SIZE

**4 X 4**

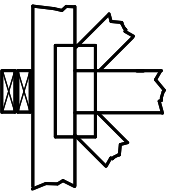
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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



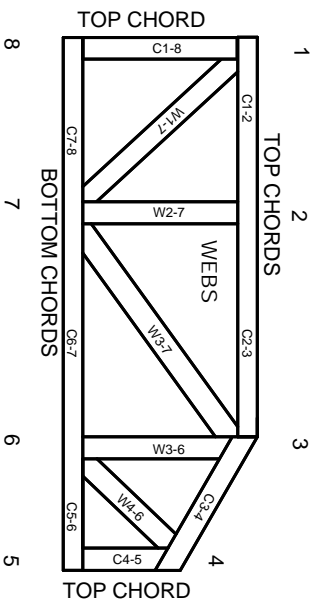
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

ANSI/TP1: 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/TP1 section 6.3 These truss designs rely on lumber values established by others.

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



# General Safety Notes

## Failure to Follow Could Cause Property Damage or Personal Injury

1. Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
2. Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
3. Never exceed the design loading shown and never stack materials on inadequately braced trusses.
4. Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
5. Cut members to bear tightly against each other.
6. Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TP1 1.
7. Design assumes trusses will be suitably protected from the environment in accord with ANSI/TP1 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/TP1 1 Quality Criteria.
21. The design does not take into account any dynamic or other loads other than those expressly stated.