

RE: Q2000845
 FREEDOM FAMILY HOMES

Trenco
 818 Soundside Rd
 Edenton, NC 27932

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

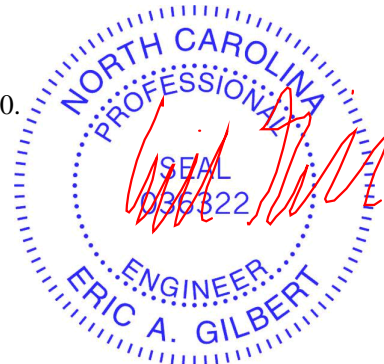
Design Code: IRC2015/TPI2014
 Wind Code: ASCE 7-10
 Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.2
 Wind Speed: 120 mph
 Floor Load: N/A psf

This package includes 25 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E13657129	A01	6/22/2020
2	E13657130	A02	6/22/2020
3	E13657131	A03	6/22/2020
4	E13657132	A04	6/22/2020
5	E13657133	A05	6/22/2020
6	E13657134	A06	6/22/2020
7	E13657135	A07	6/22/2020
8	E13657136	B01	6/22/2020
9	E13657137	B02	6/22/2020
10	E13657138	C01	6/22/2020
11	E13657139	C02	6/22/2020
12	E13657140	C03	6/22/2020
13	E13657141	D01	6/22/2020
14	E13657142	D02	6/22/2020
15	E13657143	D03	6/22/2020
16	E13657144	V01	6/22/2020
17	E13657145	V02	6/22/2020
18	E13657146	V03	6/22/2020
19	E13657147	V04	6/22/2020
20	E13657148	V05	6/22/2020
21	E13657149	V06	6/22/2020
22	E13657150	V07	6/22/2020
23	E13657151	V08	6/22/2020
24	E13657152	V09	6/22/2020
25	E13657153	V10	6/22/2020

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carolina Structural Systems, LLC.
 Truss Design Engineer's Name: Gilbert, Eric
 My license renewal date for the state of North Carolina is December 31, 2020.
 North Carolina COA: C-0844



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 TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

June 22, 2020

RE: Q2000845
 FREEDOM FAMILY HOMES

Trenco
 818 Soundside Rd
 Edenton, NC 27932

General Truss Engineering Criteria & Design Loads (Individual Truss Design Drawings Show Special Loading Conditions):

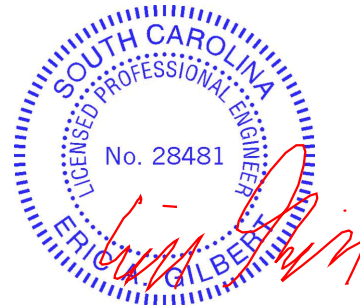
Design Code: IRC2015/TPI2014
 Wind Code: ASCE 7-10
 Roof Load: 40.0 psf

Design Program: MiTek 20/20 8.2
 Wind Speed: 120 mph
 Floor Load: N/A psf

This package includes 25 individual, dated Truss Design Drawings and 0 Additional Drawings.

No.	Seal#	Truss Name	Date
1	E13657129	A01	6/22/2020
2	E13657130	A02	6/22/2020
3	E13657131	A03	6/22/2020
4	E13657132	A04	6/22/2020
5	E13657133	A05	6/22/2020
6	E13657134	A06	6/22/2020
7	E13657135	A07	6/22/2020
8	E13657136	B01	6/22/2020
9	E13657137	B02	6/22/2020
10	E13657138	C01	6/22/2020
11	E13657139	C02	6/22/2020
12	E13657140	C03	6/22/2020
13	E13657141	D01	6/22/2020
14	E13657142	D02	6/22/2020
15	E13657143	D03	6/22/2020
16	E13657144	V01	6/22/2020
17	E13657145	V02	6/22/2020
18	E13657146	V03	6/22/2020
19	E13657147	V04	6/22/2020
20	E13657148	V05	6/22/2020
21	E13657149	V06	6/22/2020
22	E13657150	V07	6/22/2020
23	E13657151	V08	6/22/2020
24	E13657152	V09	6/22/2020
25	E13657153	V10	6/22/2020

The truss drawing(s) referenced above have been prepared by Truss Engineering Co. under my direct supervision based on the parameters provided by Carolina Structural Systems, LLC. Truss Design Engineer's Name: Gilbert, Eric My license renewal date for the state of South Carolina is June 30, 2020. South Carolina COA: C01451



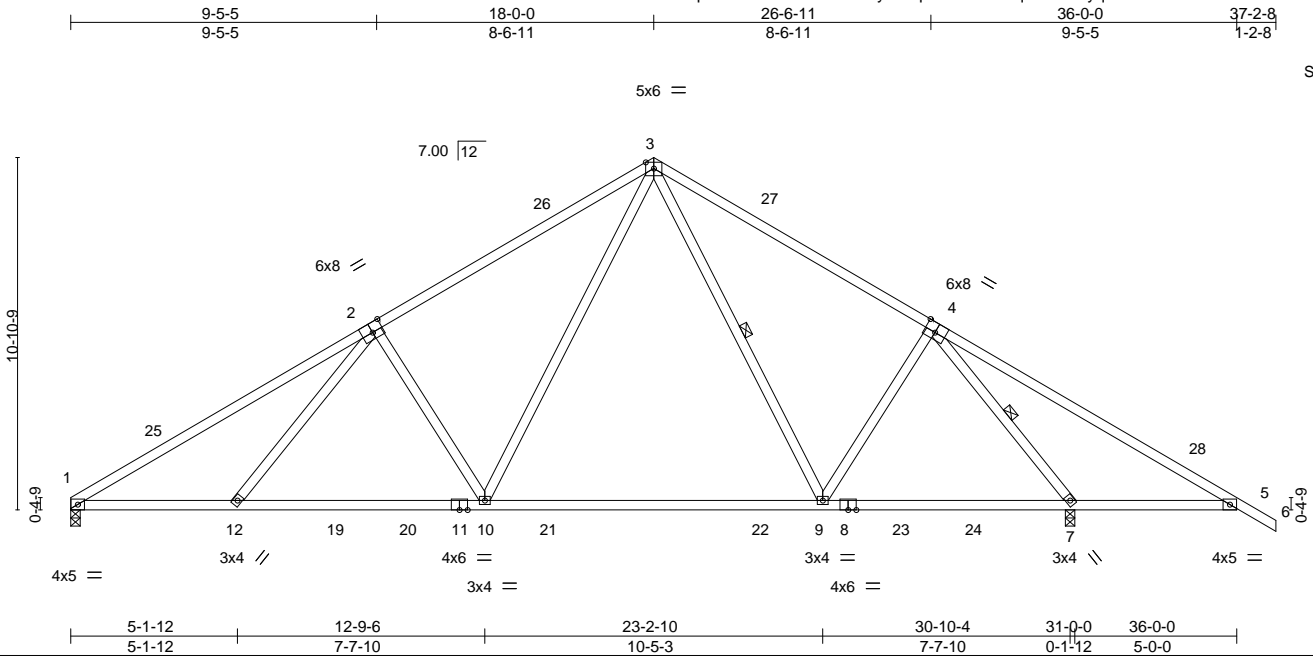
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which were given to TRENCO. Any project specific information included is for TRENCO customers file reference purpose only, and was not taken into account in the preparation of these designs. 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.

June 22, 2020

Job Q2000845	Truss A01	Truss Type FINK	Qty 1	Ply 1	FREEDOM FAMILY HOMES	E13657129
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:32:55 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-sLmYBJXq9TVAD0yqc6ATkASEDQNTuumk6kBUrySEJs



Scale = 1:71.1

LOADING (psf)	SPACING-	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.89	Vert(LL) -0.41	9-10	>915	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.80	Vert(CT) -0.65	9-10	>569	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.47	Horz(CT) 0.05	7	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS						
							Weight: 191 lb	FT = 20%

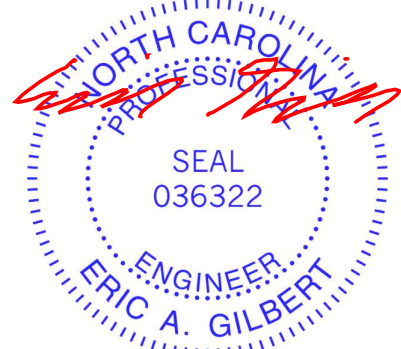
LUMBER-
 TOP CHORD 2x4 SP No.1
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
 6-0-0 oc bracing: 5-7.
 WEBS 1 Row at midpt 3-9, 4-7

REACTIONS. (lb/size) 1=1193/0-3-8, 7=1759/0-3-8
 Max Horz 1=-188(LC 9)
 Max Uplift 1=-3(LC 11), 7=-48(LC 11)
 Max Grav 1=1232(LC 16), 7=1759(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-2076/68, 2-3=-1604/156, 3-4=-1200/114, 4-5=-284/723
 BOT CHORD 1-12=0/1831, 10-12=0/1685, 9-10=0/948, 7-9=0/781, 5-7=-497/329
 WEBS 2-10=-605/175, 3-10=-31/940, 4-9=0/349, 4-7=-1939/295

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-0-0, Exterior(2) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 37-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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, 7.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

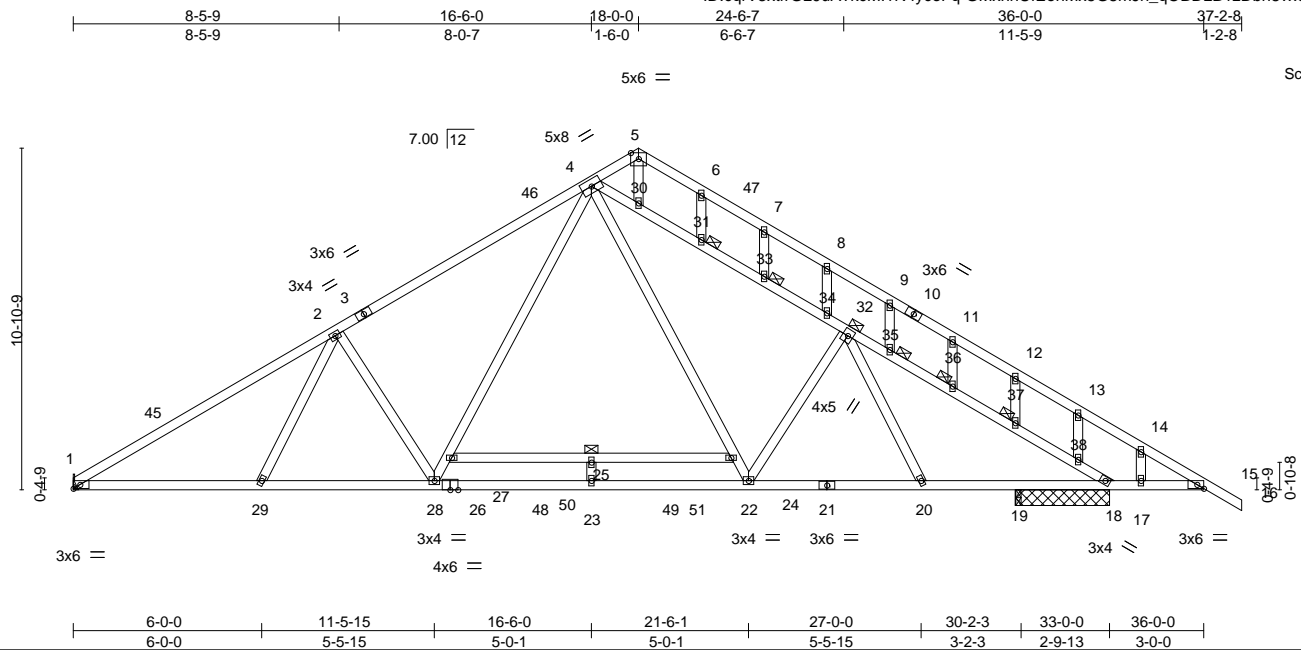
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road
 Edenton, NC 27932

Job	Truss	Truss Type	Qty	Ply	FREEDOM FAMILY HOMES	E13657130
Q2000845	A02	FINK	1	1		

Carolina Structural Systems, Star, NC 27356
 8.240 s Jul 27 2019 MiTek Industries, Inc. Fri Oct 18 09:38:22 2019 Page 1
 ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-GMxnhUFEonMx5G8mJh_qQBDLB1zDbh8vxUSzTOySEEI



LOADING (psf)	SPACING-	CSI.	DEFL.	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 2-0-0	TC 0.86	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Lumber DOL 1.00	BC 0.97	Vert(LL) -0.44 25 >814 240		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.84	Vert(CT) -0.80 25 >452 180		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS	Horz(CT) 0.08 18 n/a n/a		
				Weight: 245 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x4 SP No.1
 WEBS 2x4 SP No.2

BRACING-
 TOP CHORD Structural wood sheathing directly applied.
 BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
 6-0-0 oc bracing: 24-27
 1 Row at midpt 32-36
 1 Brace at Jt(s): 31, 32, 33, 36, 37

REACTIONS. (lb/size) 18=1660/3-0-0 (min. 0-1-15), 1=1391/Mechanical, 19=86/0-2-0 (min. 0-1-8)
 Max Horz 1=-188(LC 9)
 Max Grav 18=1660(LC 1), 1=1419(LC 16), 19=181(LC 22)

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

TOP CHORD 1-45=-2389/0, 2-45=-2298/0, 2-3=-2092/19, 3-46=-1987/42, 4-46=-1910/63, 14-15=-233/273

BOT CHORD 1-29=0/2110, 28-29=0/2068, 26-28=0/1467, 26-48=0/1467, 23-48=0/1467, 23-49=0/1467, 22-49=0/1467, 21-22=0/1871, 20-21=0/1871, 19-20=0/1816, 18-19=0/1816

WEBS 4-30=-2010/45, 30-31=-2031/12, 31-33=-2066/32, 33-34=-2073/35, 32-34=-2169/87, 32-35=-2074/67, 35-36=-2144/94, 36-37=-2173/105, 37-38=-2168/104, 18-38=-2225/134, 2-28=-534/163, 22-32=-463/150, 27-28=-10/808, 4-27=0/967, 4-24=0/921, 22-24=0/760, 8-34=-285/103, 14-17=-489/120

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 18-0-0, Exterior(2) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 37-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - All plates are 2x4 MT20 unless otherwise indicated.
 - * 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 at joint(s) 19.
 - This truss is designed in accordance with the 2015 International Residential Code sections R502.11.1 and R802.10.2 and referenced standard ANSI/TPI 1.

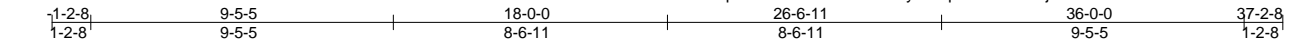
LOAD CASE(S) Standard



Job Q2000845	Truss A03	Truss Type FINK	Qty 5	Ply 1	FREEDOM FAMILY HOMES	E13657131
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:32:57 2019 Page 1
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Scale = 1:71.9

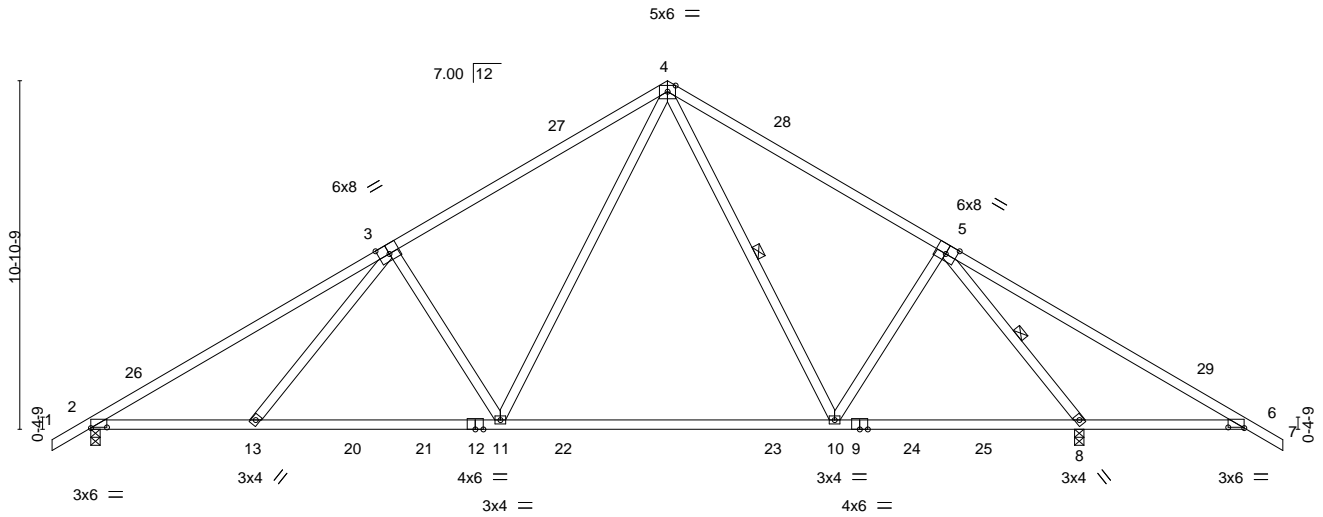


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [3:0-4-0,Edge], [5:0-4-0,Edge], [6:0-6-0,0-0-4]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.89	Vert(LL)	-0.41	10-11	>915	240	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.80	Vert(CT)	-0.65	10-11	>570	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.47	Horz(CT)	0.05	8	n/a	n/a	
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-MS						Weight: 193 lb FT = 20%

LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 6-8.
WEBS 1 Row at midpt 4-10, 5-8

REACTIONS. (lb/size) 2=1267/0-3-8, 8=1758/0-3-8
Max Horz 2=-191(LC 9)
Max Uplift 2=-34(LC 11), 8=-47(LC 11)
Max Grav 2=1297(LC 16), 8=1758(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-2063/51, 3-4=-1600/151, 4-5=-1198/112, 5-6=-284/723
BOT CHORD 2-13=0/1819, 11-13=0/1679, 10-11=0/946, 8-10=0/780, 6-8=-497/329
WEBS 3-11=-599/173, 4-11=-30/936, 5-10=0/349, 5-8=-1937/295

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 18-0-0, Exterior(2) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 37-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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) 2, 8.

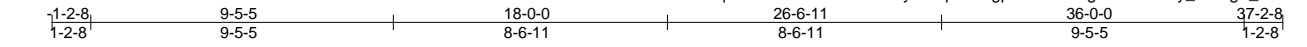


October 18, 2019

Job Q2000845	Truss A04	Truss Type FINK	Qty 2	Ply 1	FREEDOM FAMILY HOMES	E13657132
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:32:58 2019 Page 1
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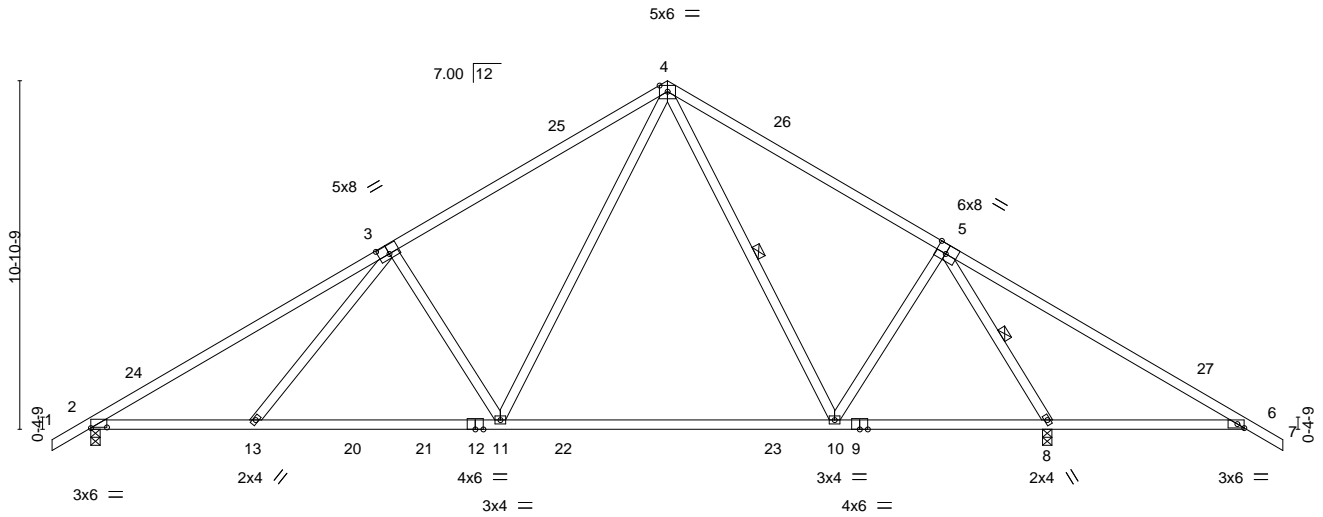


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [3:0-4-0,0-3-4], [5:0-3-12,Edge], [6:0-2-9,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.92	Vert(LL)	-0.44	10-11	>825	240	MT20
TCDL 10.0	Lumber DOL	1.15	BC 0.82	Vert(CT)	-0.68	10-11	>525	180	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.45	Horz(CT)	0.04	8	n/a	n/a	
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-MS						Weight: 192 lb FT = 20%

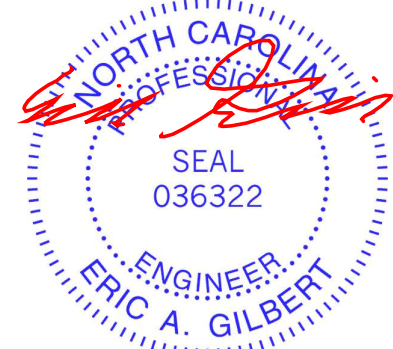
LUMBER-
TOP CHORD 2x4 SP No.1
BOT CHORD 2x4 SP No.1
WEBS 2x4 SP No.2

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 6-8.
WEBS 1 Row at midpt 4-10, 5-8

REACTIONS. (lb/size) 2=1207/0-3-8, 8=1818/0-3-8
Max Horz 2=-191(LC 9)
Max Uplift 2=-32(LC 11), 8=-49(LC 11)
Max Grav 2=1233(LC 16), 8=1818(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1937/35, 3-4=-1475/134, 4-5=-966/108, 5-6=-303/780
BOT CHORD 2-13=0/1711, 11-13=0/1570, 10-11=0/835, 8-10=0/486, 6-8=-544/344
WEBS 3-11=-600/174, 4-11=-30/943, 5-10=0/515, 5-8=-1871/294

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 18-0-0, Exterior(2) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 37-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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) 2, 8.



October 18, 2019

Job Q2000845	Truss A05	Truss Type FINK	Qty 1	Ply 1	FREEDOM FAMILY HOMES	E13657133
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:32:59 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-k6?21gT2uOzweqJ3SA6eaK8eqnHPdlMfkiOdcySEJo

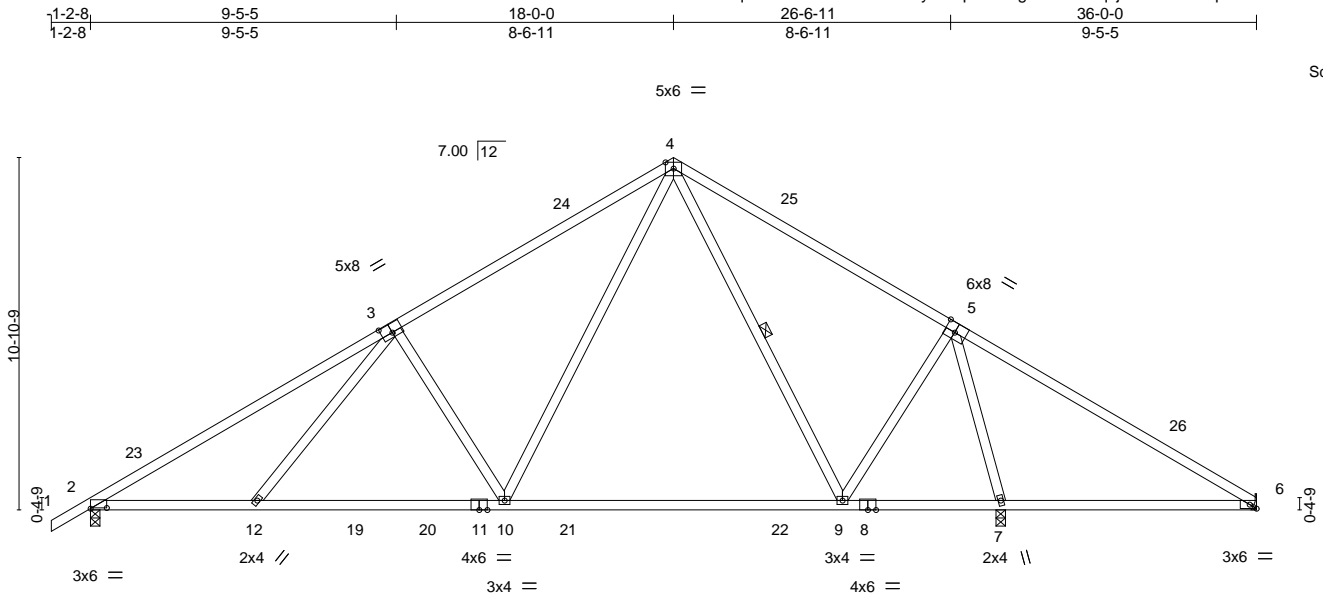


Plate Offsets (X,Y)--	[2:0-6-0,0-0-4], [3:0-4-0,0-3-4], [5:0-3-12,Edge], [6:0-2-9,Edge]
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LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.86	Vert(LL)	-0.41	9-10	>820	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.81	Vert(CT)	-0.66	9-10	>508		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.83	Horz(CT)	0.04	7	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 189 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.1	TOP CHORD Structural wood sheathing directly applied or 2-2-0 oc purlins.
BOT CHORD 2x4 SP No.1	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
WEBS 2x4 SP No.2	WEBS 6-0-0 oc bracing: 6-7. 1 Row at midpt 4-9

REACTIONS. (lb/size) 2=1172/0-3-8, 7=1567/0-3-8, 6=213/Mechanical
Max Horz 2=188(LC 10)
Max Uplift 2=-41(LC 11), 7=-1(LC 11), 6=-9(LC 11)
Max Grav 2=1176(LC 16), 7=1567(LC 1), 6=270(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1828/76, 3-4=-1363/174, 4-5=-786/170, 5-6=-103/323
BOT CHORD 2-12=0/1610, 10-12=-8/1468, 9-10=0/731, 7-9=0/269
WEBS 3-10=-601/174, 4-10=-26/943, 4-9=-326/1, 5-9=0/687, 5-7=-1475/84

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 18-0-0, Exterior(2) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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) 2, 7, 6.

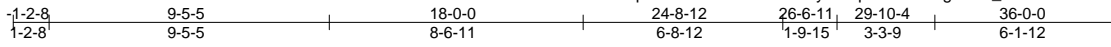


October 18, 2019

Job Q2000845	Truss A06	Truss Type FINK	Qty 9	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657134
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:00 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-CJZRE0Ugfi5nG_uvc9iLAntKoD8C81BWuOSx92ySEJn



5x6 =

Scale = 1:77.7

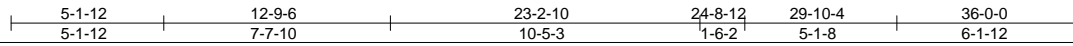
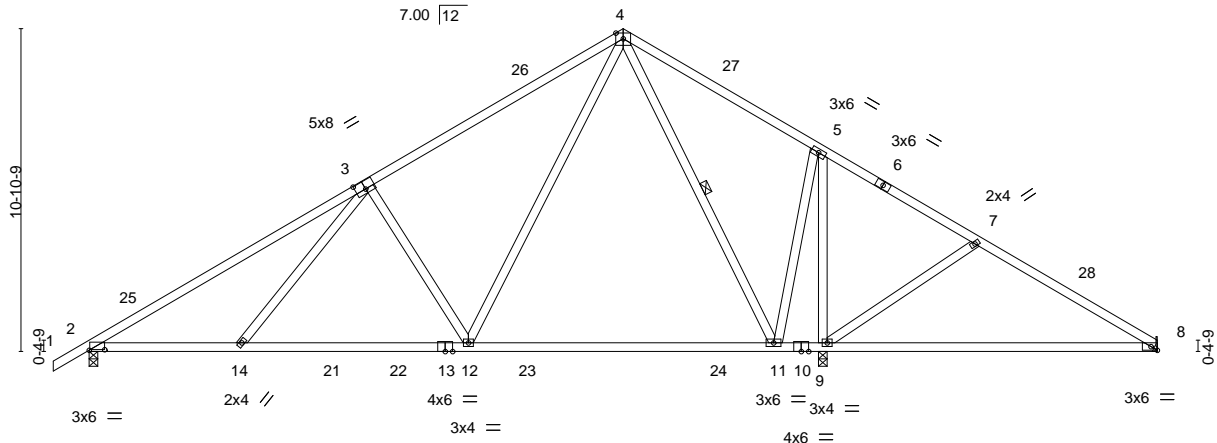


Plate Offsets (X,Y)-- [2:0-6-4,0-0-4], [3:0-4-0,0-3-4], [8:0-2-9,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.77	Vert(LL)	-0.35	11-12	>849	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.76	Vert(CT)	-0.32	9-20	>428		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.98	Horz(CT)	0.03	9	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 200 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-5-2 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing, Except:
6-0-0 oc bracing: 9-11.
WEBS 1 Row at midpt 4-11

REACTIONS. (lb/size) 2=1030/0-3-8, 9=1545/0-3-8, 8=378/Mechanical
Max Horz 2=188(LC 10)
Max Uplift 2=-32(LC 11), 9=-30(LC 11)
Max Grav 2=1043(LC 16), 9=1545(LC 1), 8=400(LC 21)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1575/52, 3-4=-1099/150, 4-5=-286/137, 7-8=-369/51
BOT CHORD 2-14=0/1392, 12-14=0/1243, 11-12=0/507, 8-9=0/284
WEBS 3-12=-602/175, 4-12=-28/934, 4-11=-697/17, 5-11=0/946, 5-9=-1284/93, 7-9=-369/105

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=5ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 18-0-0, Exterior(2) 18-0-0 to 21-0-0, Interior(1) 21-0-0 to 36-0-0 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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) 2, 9.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road
Edenton, NC 27932

Job Q2000845	Truss A07	Truss Type Common Supported Gable	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657135
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:02 2019 Page 1
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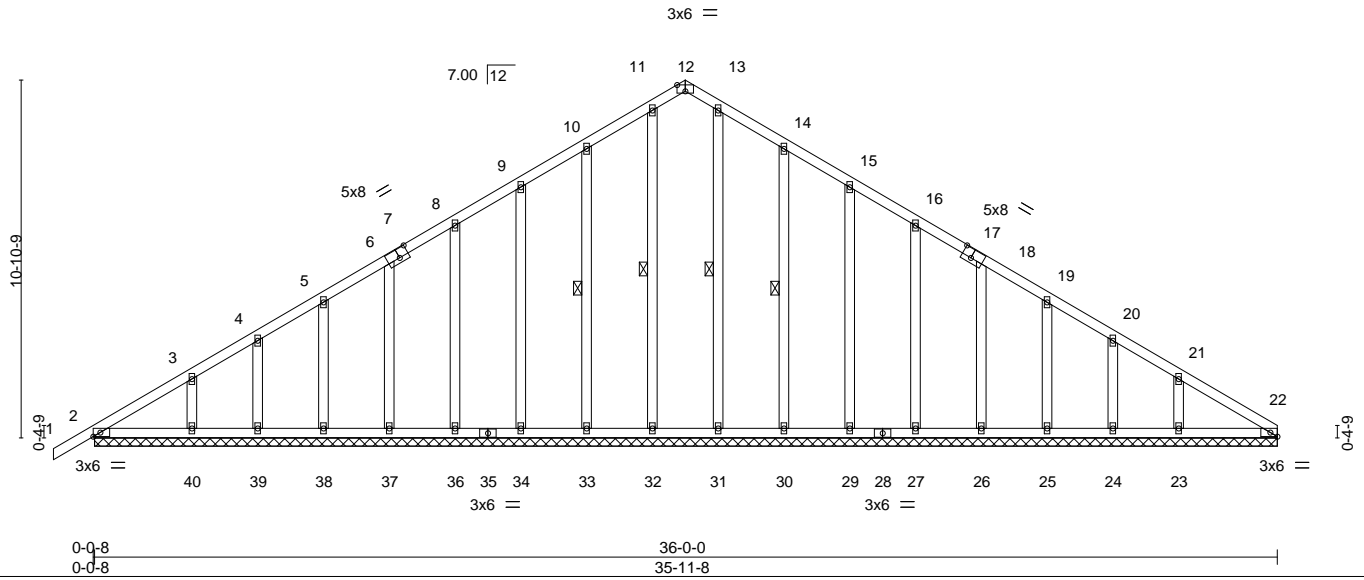


Plate Offsets (X,Y)-- [6:0-2-0,0-0-0], [7:0-3-8,0-3-4], [7:0-0-0,0-1-12], [12:0-3-0,Edge], [17:0-3-8,0-3-4], [17:0-0-0,0-1-12], [18:0-2-0,0-0-0], [22:0-2-9,Edge]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.11	Vert(LL)	-0.00	1	n/r	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	0.00	1	n/r		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.01	22	n/a		
BCDL 10.0	Code	IRC2015/TP12014	Matrix-S						
								Weight: 253 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD 2x4 SP No.2	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
OTHERS 2x4 SP No.2	WEBS 1 Row at midpt 11-32, 10-33, 13-31, 14-30

REACTIONS. All bearings 35-11-8.
 (lb) - Max Horz 2=188(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 33, 34, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23
 Max Grav All reactions 250 lb or less at joint(s) 22, 32, 33, 34, 36, 37, 38, 39, 40, 31, 30, 29, 27, 26, 25, 24, 23, 2

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) -1-2-8 to 1-9-8, Exterior(2) 1-9-8 to 18-0-0, Corner(3) 18-0-0 to 21-0-0, Exterior(2) 21-0-0 to 36-0-0 zone; cantilever left and right exposed ; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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/TP1 1.
 - All plates are 2x4 MT20 unless otherwise indicated.
 - Gable studs spaced at 2-0-0 oc.
 - * 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) 33, 34, 36, 37, 38, 39, 40, 30, 29, 27, 26, 25, 24, 23.
 - Non Standard bearing condition. Review required.

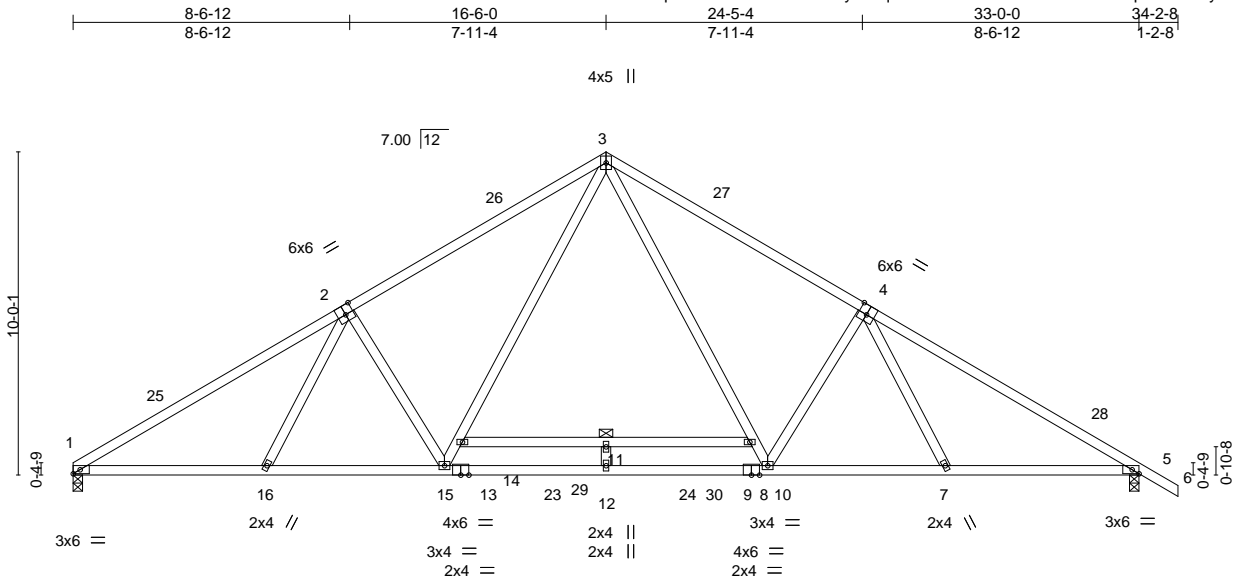


October 18, 2019

Job Q2000845	Truss B01	Truss Type FINK	Qty 6	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657136
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:03 2019 Page 1
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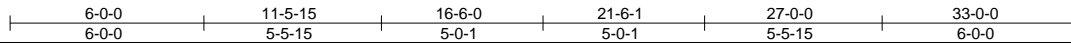


Plate Offsets (X,Y)-- [2:0-3-0,Edge], [4:0-3-0,Edge], [5:0-2-9,Edge]

LOADING (psf)	SPACING-	2-0-0	CSL	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.90	Vert(LL)	-0.45	11	>887	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.98	Vert(CT)	-0.81	11	>490	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.34	Horz(CT)	0.08	5	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS							
									Weight: 187 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing. Except:
6-0-0 oc bracing: 10-14

REACTIONS. (lb/size) 1=1411/0-3-8, 5=1486/0-3-8
Max Horz 1=-173(LC 9)
Max Grav 1=1434(LC 16), 5=1500(LC 17)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-2421/6, 2-3=-2129/70, 3-4=-2126/63, 4-5=-2411/0
BOT CHORD 1-16=0/2130, 15-16=0/2091, 12-15=0/1462, 8-12=0/1462, 7-8=0/1954, 5-7=0/1989
WEBS 2-15=-555/162, 14-15=-9/834, 3-14=0/996, 3-10=0/993, 8-10=-8/830, 4-8=-548/159

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-0-0 to 3-0-0, Interior(1) 3-0-0 to 16-6-0, Exterior(2) 16-6-0 to 19-6-0, Interior(1) 19-6-0 to 34-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



818 Soundside Road
Edenton, NC 27932

Job Q2000845	Truss B02	Truss Type Common Supported Gable	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657137
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:05 2019 Page 1
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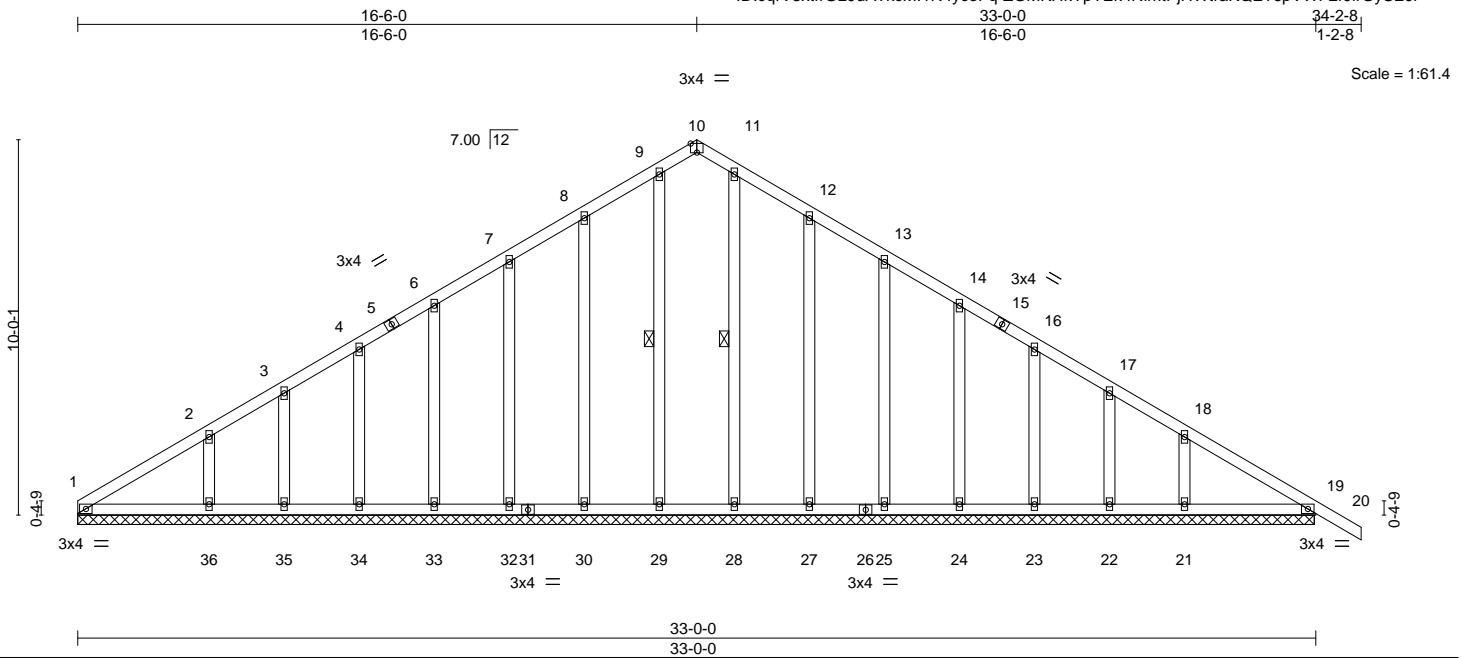


Plate Offsets (X,Y)--		[10:0-2-0,Edge]							
LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.14	Vert(LL)	0.00	19	n/r	120	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.07	Vert(CT)	0.00	20	n/r	120	
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.14	Horz(CT)	0.01	19	n/a	n/a	
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S						
								Weight: 220 lb	FT = 20%

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

BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
 WEBS 1 Row at midpt 9-29, 11-28

REACTIONS. All bearings 32-11-8.
 (lb) - Max Horz 1=-173(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 30, 32, 33, 34, 35, 36, 27, 25, 24, 23, 22, 21
 Max Grav All reactions 250 lb or less at joint(s) 19, 29, 30, 32, 33, 34, 35, 28, 27, 25, 24, 23, 22, 1
 except 36=285(LC 20), 21=259(LC 21)

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCCL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) 0-0-0 to 3-0-0, Exterior(2) 3-0-0 to 16-6-0, Corner(3) 16-6-0 to 19-6-0, Exterior(2) 19-6-0 to 34-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 studs spaced at 2-0-0 oc.
 - * 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) 30, 32, 33, 34, 35, 36, 27, 25, 24, 23, 22, 21.
 - Non Standard bearing condition. Review required.

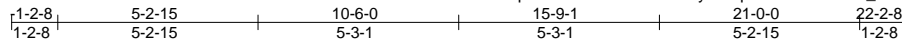


October 18, 2019

Job Q2000845	Truss C01	Truss Type FINK	Qty 5	Ply 1	FREEDOM FAMILY HOMES	E13657138
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:06 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-1TwiV4ZREYsx_vL3zQoIQ27S7eFdYz1OGJvGNiySEJh



4x5 ||

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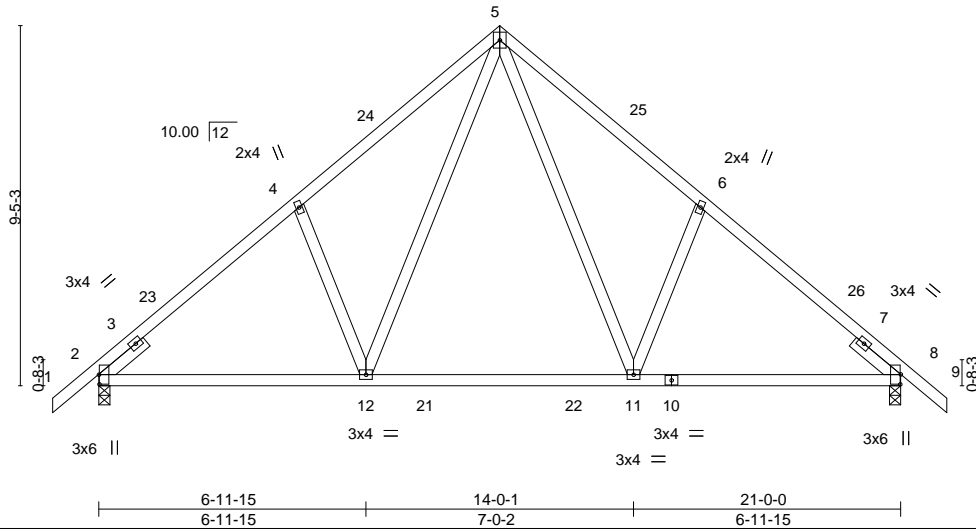


Plate Offsets (X,Y)-- [2:0-3-0,0-0-3], [8:0-3-2,0-0-3]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.33	Vert(LL)	-0.13 11-12	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.50	Vert(CT)	-0.18 11-12	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.02 8	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 124 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-7-12 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=913/0-3-8, 8=913/0-3-8
Max Horz 2=-176(LC 9)
Max Uplift 2=-36(LC 11), 8=-36(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-1006/82, 4-5=-926/168, 5-6=-926/168, 6-8=-1006/82
BOT CHORD 2-12=0/816, 11-12=0/544, 8-11=0/729
WEBS 4-12=-286/150, 5-12=-63/488, 5-11=-63/488, 6-11=-286/150

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 10-6-0, Exterior(2) 10-6-0 to 13-6-0, Interior(1) 13-6-0 to 22-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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) 2, 8.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

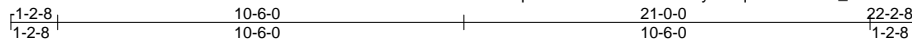


818 Soundside Road
Edenton, NC 27932

Job Q2000845	Truss C02	Truss Type Common Supported Gable	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657139
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:07 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-VfU4iPa3?r_oc3wFX8K_yGgg02hMHQVYVzpev8ySEJg



3x4 =

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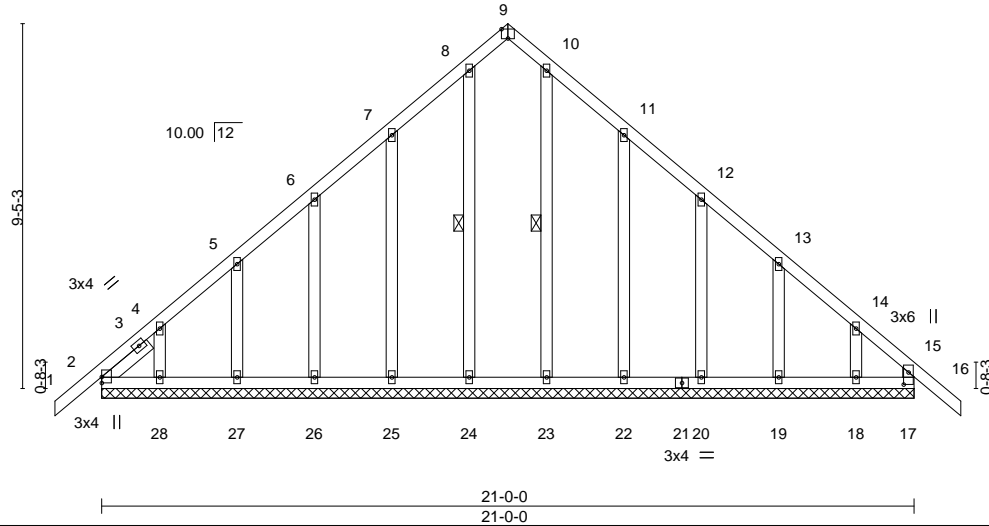


Plate Offsets (X,Y)-- [9:0-2-0,Edge], [15:0-3-12,0-1-8]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.13	Vert(LL) -0.01	16	n/r	120	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) -0.01	16	n/r	120		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.11	Horz(CT) 0.01	17	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S						
							Weight: 150 lb	FT = 20%

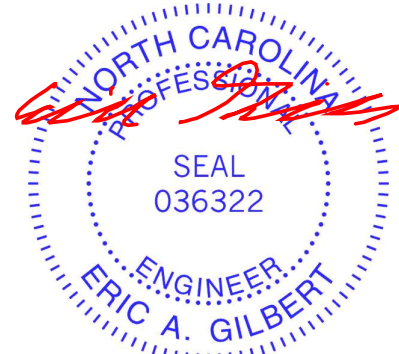
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.2
OTHERS 2x4 SP No.2
SLIDER Left 2x4 SP No.3 1-6-2

BRACING-
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 8-24, 10-23

REACTIONS. All bearings 21-0-0.
(lb) - Max Horz 2=184(LC 10)
Max Uplift All uplift 100 lb or less at joint(s) 25, 26, 27, 28, 22, 20, 19, 18, 2
Max Grav All reactions 250 lb or less at joint(s) 17, 24, 25, 26, 27, 28, 23, 22, 20, 19, 18, 2

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) -1-2-8 to 1-6-0, Exterior(2) 1-6-0 to 10-6-0, Corner(3) 10-6-0 to 13-6-0, Exterior(2) 13-6-0 to 22-2-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 2-0-0 oc.
 - * 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) 25, 26, 27, 28, 22, 20, 19, 18, 2.



October 18, 2019

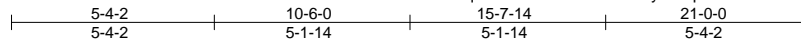
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

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

Job Q2000845	Truss C03	Truss Type HOWE	Qty 1	Ply 2	FREEDOM FAMILY HOMES Job Reference (optional)	E13657140
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:08 2019 Page 1
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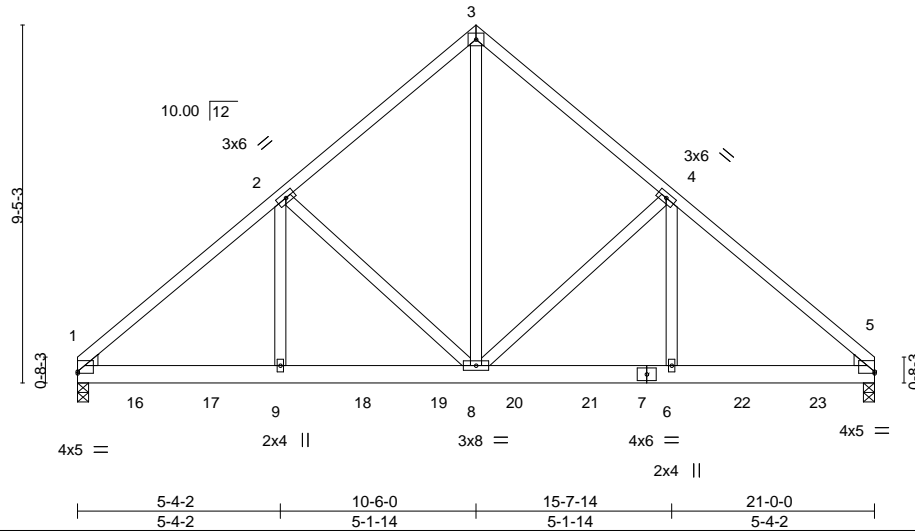


Plate Offsets (X,Y)-- [1:0-0-0,0-0-9], [5:Edge,0-0-9]

LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.20	Vert(LL)	-0.05	6-8	>999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.48	Vert(CT)	-0.09	6-8	>999		
BCLL 0.0 *	Rep Stress Incr	NO	WB 0.31	Horz(CT)	0.02	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014		Matrix-MS						
								Weight: 274 lb	FT = 20%

LUMBER-
 TOP CHORD 2x4 SP No.2
 BOT CHORD 2x6 SP No.2
 WEBS 2x4 SP No.2
 WEDGE
 Left: 2x4 SP No.3, Right: 2x4 SP No.3

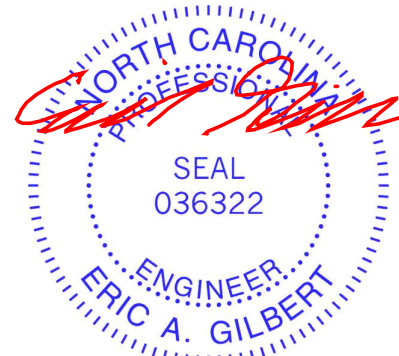
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=2727/0-3-8, 5=2622/0-3-8
 Max Horz 1=-158(LC 5)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 TOP CHORD 1-2=-3334/0, 2-3=-2312/0, 3-4=-2311/0, 4-5=-3299/0
 BOT CHORD 1-9=0/2486, 8-9=0/2486, 6-8=0/2457, 5-6=0/2457
 WEBS 2-9=0/1070, 3-8=0/2532, 4-6=0/1025, 2-8=-1084/0, 4-8=-1046/0

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
 Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
 Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
 Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 380 lb down at 1-6-4, 380 lb down at 3-6-4, 380 lb down at 5-6-4, 380 lb down at 7-6-4, 380 lb down at 9-6-4, 380 lb down at 11-6-4, 380 lb down at 13-6-4, 380 lb down at 15-6-4, and 380 lb down at 17-6-4, and 250 lb down and 29 lb up at 19-6-4 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
 1) Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
 Uniform Loads (plf)
 Vert: 10-13=-20, 1-3=-60, 3-5=-60
 Concentrated Loads (lb)
 Vert: 9=-380(F) 6=-380(F) 16=-380(F) 17=-380(F) 18=-380(F) 19=-380(F) 20=-380(F) 21=-380(F) 22=-380(F) 23=-250(F)



October 18, 2019

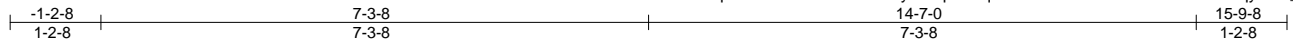
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
 Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

ENGINEERING BY
TRENCO
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 818 Soundside Road
 Edenton, NC 27932

Job Q2000845	Truss D01	Truss Type KINGPOST	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657141
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:09 2019 Page 1
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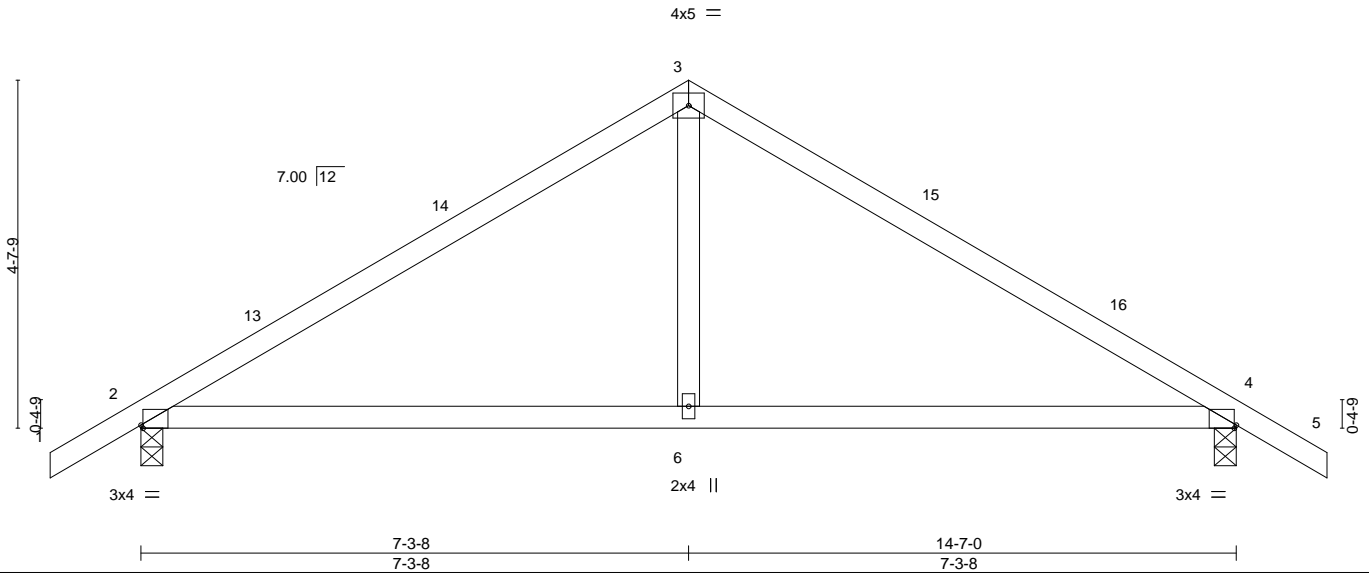


Plate Offsets (X,Y)-- [2:0-0-5,Edge], [4:0-0-5,Edge]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.72	Vert(LL) -0.09	6-9	>999	240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.58	Vert(CT) -0.17	6-9	>999	180		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.01	4	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS						
							Weight: 57 lb	FT = 20%

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

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-10-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 2=656/0-3-8, 4=656/0-3-8
Max Horz 2=-84(LC 9)
Max Uplift 2=-34(LC 11), 4=-34(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-756/67, 3-4=-756/67
BOT CHORD 2-6=0/567, 4-6=0/567

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) -1-2-8 to 1-9-8, Interior(1) 1-9-8 to 7-3-8, Exterior(2) 7-3-8 to 10-3-8, Interior(1) 10-3-8 to 15-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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) 2, 4.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

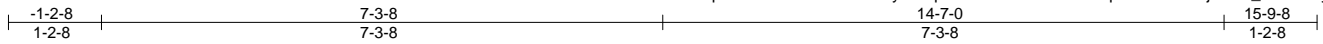


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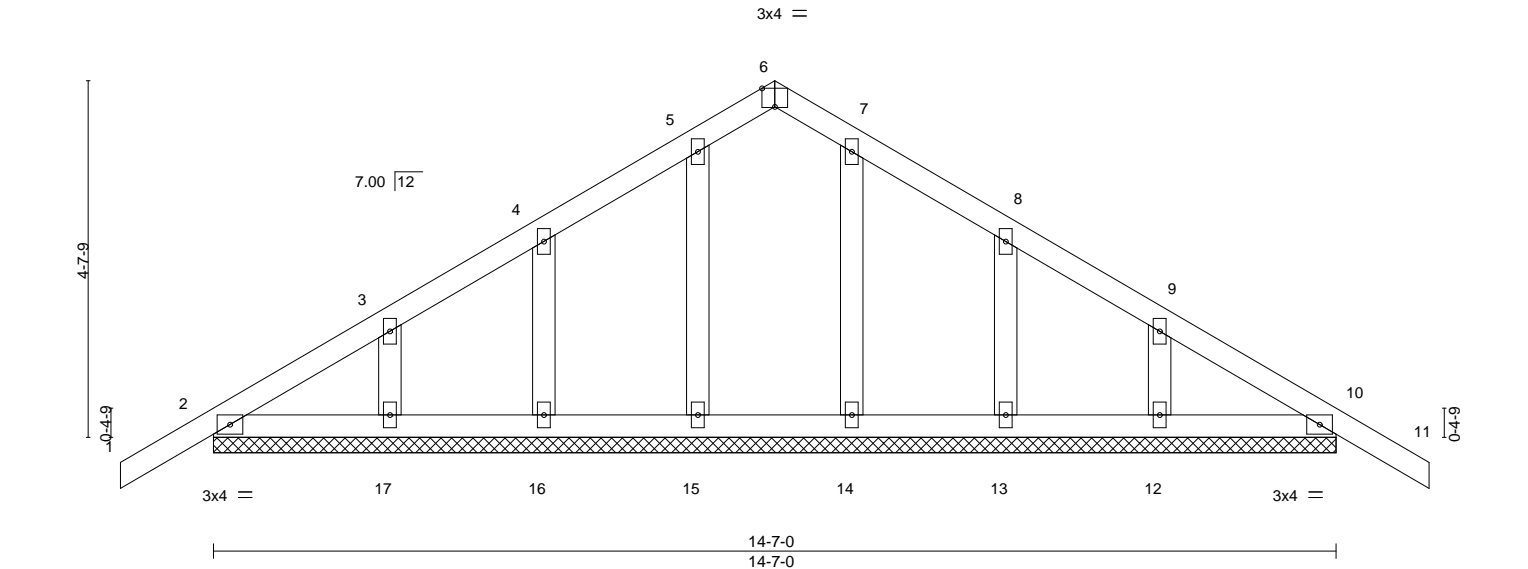
Job Q2000845	Truss D02	Truss Type Common Supported Gable	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657142
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:10 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-vEADKRcxImMMTWfqcGthaulCnFjxUoX_BxtTWTySEJd



Scale = 1:29.9



LOADING (psf)		SPACING-		CSI.		DEFL.				PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.00	TC	0.10	Vert(LL)	-0.00	11	n/r	120	MT20	244/190	
TCDL	10.0	Lumber DOL	1.15	BC	0.03	Vert(CT)	-0.00	11	n/r	120	Weight: 72 lb FT = 20%		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.03	Horz(CT)	0.00	10	n/a	n/a			
BCDL	10.0	Code	IRC2015/TPI2014	Matrix-S									

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

REACTIONS. All bearings 14-7-0.
 (lb) - Max Horz 2=84(LC 10)
 Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 16, 17, 13, 12
 Max Grav All reactions 250 lb or less at joint(s) 2, 10, 15, 16, 17, 14, 13, 12

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

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=2ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Corner(3) -1-2-8 to 1-9-8, Exterior(2) 1-9-8 to 7-3-8, Corner(3) 7-3-8 to 10-3-8, Exterior(2) 10-3-8 to 15-9-8 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - 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 2-0-0 oc.
 - * 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) 2, 10, 16, 17, 13, 12.



October 18, 2019

Job Q2000845	Truss D03	Truss Type FINK	Qty 1	Ply 2	FREEDOM FAMILY HOMES	E13657143
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:12 2019 Page 1
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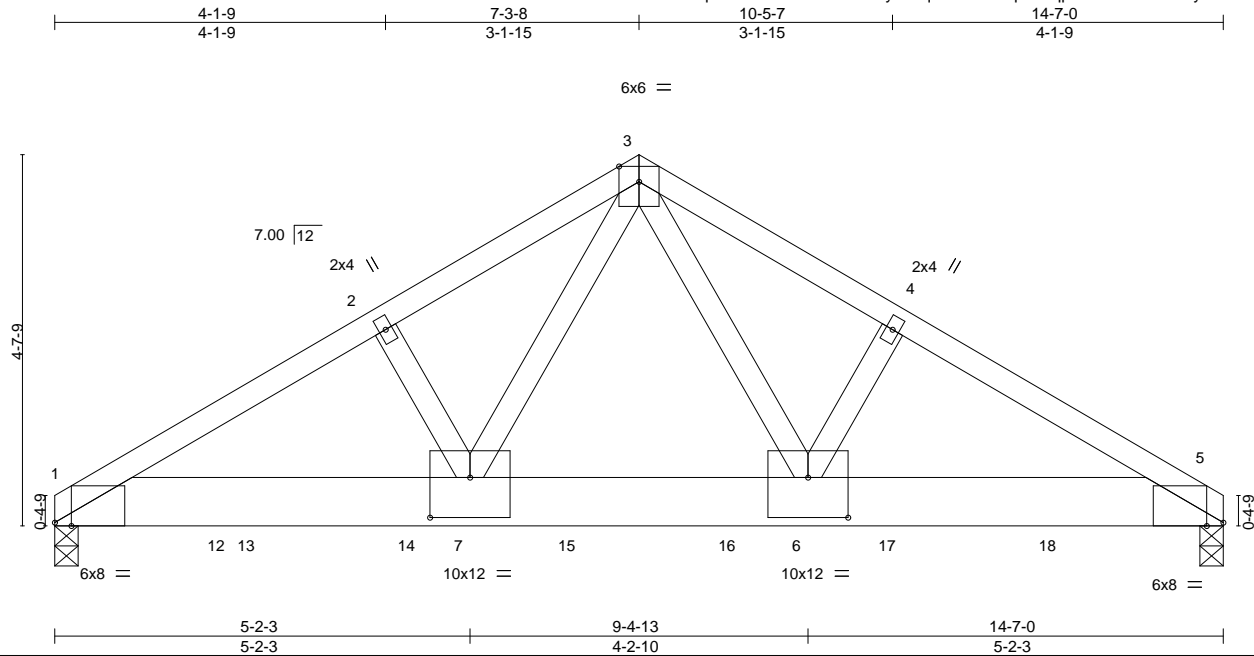


Plate Offsets (X,Y)--	[1:0-2-8,Edge], [5:0-2-8,Edge], [6:0-6-0,0-6-0], [7:0-6-0,0-6-0]				
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) l/defl L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.60	Vert(LL) -0.07 6-7 >999 240	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.64	Vert(CT) -0.15 6-7 >999 180		
BCLL 0.0 *	Rep Stress Incr NO	WB 0.59	Horz(CT) 0.03 5 n/a n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-MS			
				Weight: 179 lb	FT = 20%

LUMBER-	BRACING-
TOP CHORD 2x4 SP No.2	TOP CHORD Structural wood sheathing directly applied or 3-10-3 oc purlins.
BOT CHORD 2x8 SP DSS	BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 2x4 SP No.2	

REACTIONS. (lb/size) 1=5825/0-3-8, 5=5043/0-3-8
Max Horz 1=71(LC 6)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 1-2=-8249/0, 2-3=-8168/0, 3-4=-7690/0, 4-5=-7773/0
BOT CHORD 1-7=0/7118, 6-7=0/4866, 5-6=0/6690
WEBS 3-7=0/4789, 3-6=0/3882

- NOTES-**
- 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-7-0 oc.
Bottom chords connected as follows: 2x8 - 2 rows staggered at 0-3-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
 - All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
 - Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional); cantilever left and right exposed ; end vertical left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
 - * 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.
 - Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 1379 lb down at 2-1-4, 1391 lb down at 2-5-12, 1391 lb down at 4-5-12, 1391 lb down at 6-5-12, 1391 lb down at 8-5-12, and 1391 lb down at 10-5-12, and 1391 lb down at 12-5-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard

- Dead + Roof Live (balanced): Lumber Increase=1.15, Plate Increase=1.00
Uniform Loads (plf)
Vert: 1-5=-20, 1-3=-60, 3-5=-60
Concentrated Loads (lb)
Vert: 12=-1379(B) 13=-1391(B) 14=-1391(B) 15=-1391(B) 16=-1391(B) 17=-1391(B) 18=-1391(B)

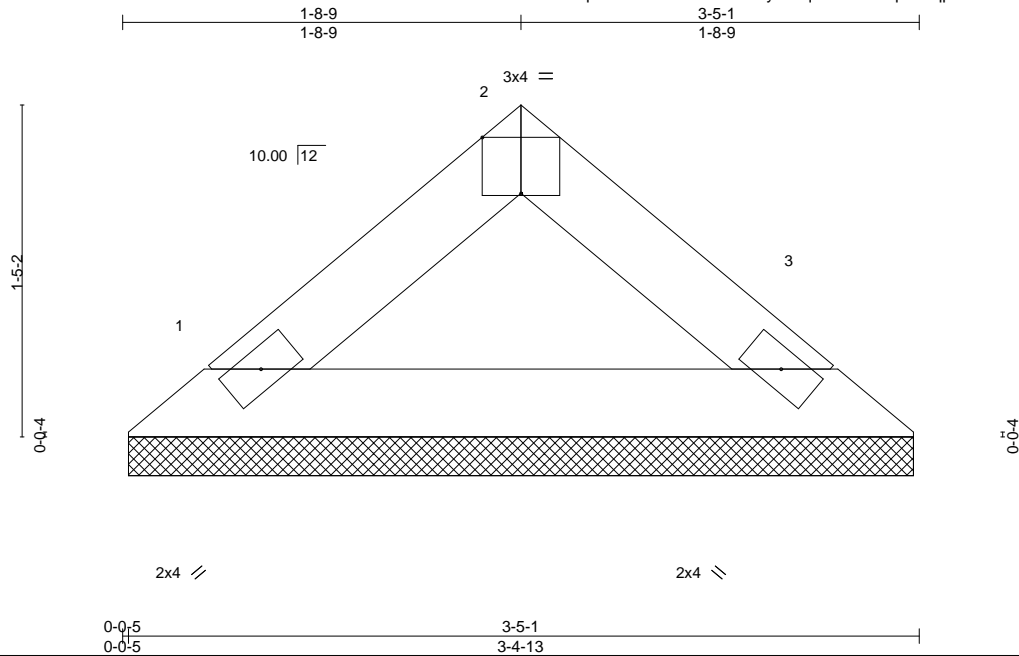


October 18, 2019

Job Q2000845	Truss V01	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657144
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:12 2019 Page 1
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Scale = 1:9.9

Plate Offsets (X,Y)--		[2:0-2-0,Edge]	
LOADING (psf)	SPACING-	2-0-0	CSI.
TCLL 20.0	Plate Grip DOL	1.00	TC 0.03
TCDL 10.0	Lumber DOL	1.15	BC 0.06
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.00
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P
			DEFL.
			in (loc) l/defl L/d
			Vert(LL) n/a - n/a 999
			Vert(CT) n/a - n/a 999
			Horz(CT) 0.00 3 n/a n/a
			PLATES
			MT20
			GRIP
			244/190
			Weight: 10 lb FT = 20%

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

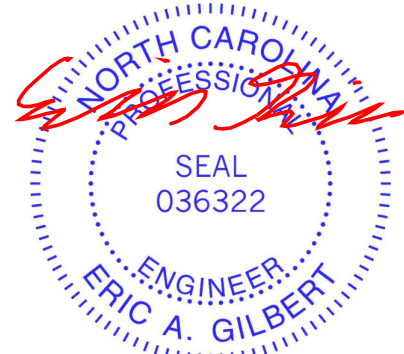
BRACING-
TOP CHORD Structural wood sheathing directly applied or 3-5-1 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=105/3-4-8, 3=105/3-4-8
Max Horz 1=20(LC 10)
Max Uplift 1=-1(LC 11), 3=-1(LC 11)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- * 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, 3.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

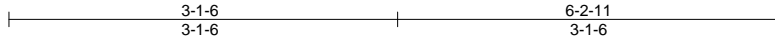


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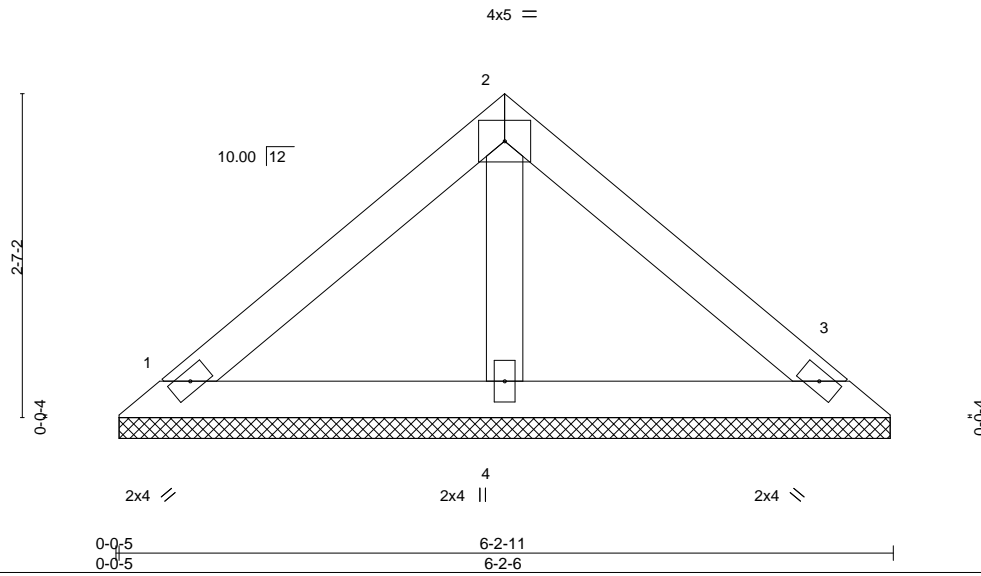
Job Q2000845	Truss V02	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657145
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:13 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-KprLzTeqbhkxK_OPIOQOCwITTIh8SQtv577oySEJa



Scale = 1:18.4



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.13	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.05	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.02	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-P						Weight: 23 lb	FT = 20%

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

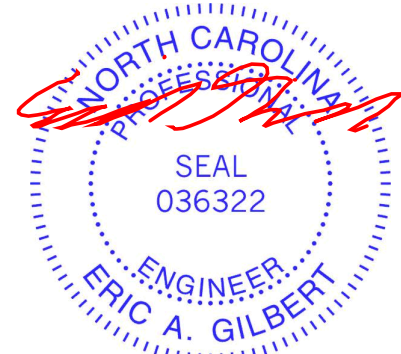
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=123/6-2-1, 3=123/6-2-1, 4=187/6-2-1
 Max Horz 1=41(LC 10)
 Max Uplift 1=-15(LC 11), 3=-15(LC 11)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- * 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, 3.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

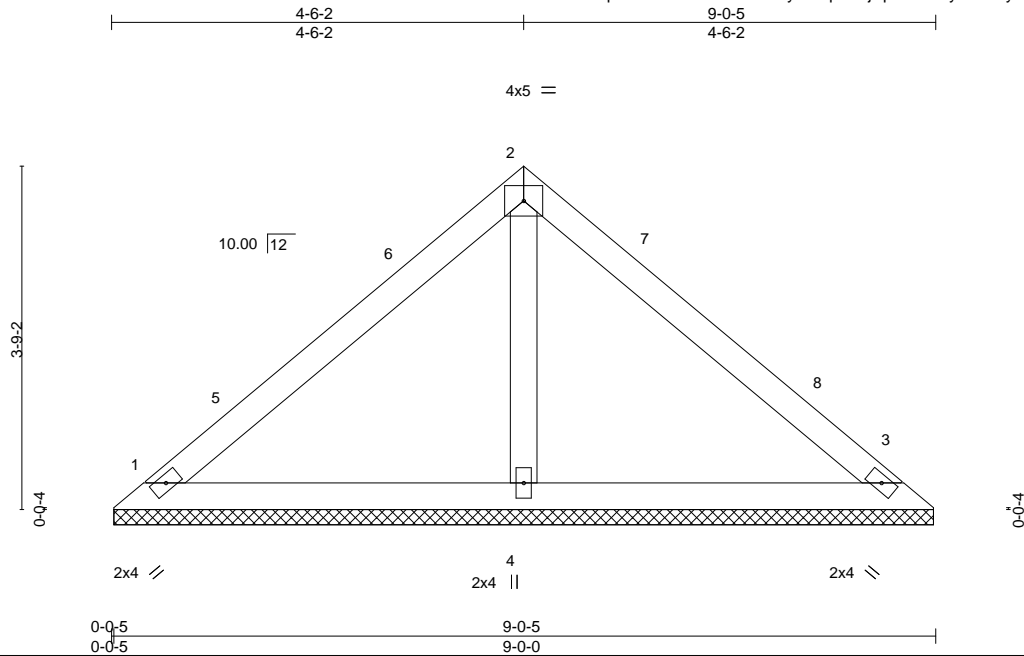


818 Soundside Road
Edenton, NC 27932

Job Q2000845	Truss V03	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657146
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:14 2019 Page 1
ID:cqrV3xfrGL9uA?kcMl1N4yceFq-o?PjApfSM?soy8zbR6ydlkSq6t4UQbLZ6ZrhfFySEJZ



LOADING (psf)	SPACING-	CSL.	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.33	in (loc) l/defl L/d	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.12	Vert(LL) n/a - n/a 999		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.04	Vert(CT) n/a - n/a 999		
BCDL 10.0	Rep Stress Incr YES	Matrix-P	Horz(CT) 0.00 3 n/a n/a	Weight: 34 lb	FT = 20%
	Code IRC2015/TPI2014				

LUMBER-

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

BRACING-

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

REACTIONS. (lb/size) 1=187/8-11-11, 3=187/8-11-11, 4=284/8-11-11
Max Horz 1=62(LC 10)
Max Uplift 1=-22(LC 11), 3=-22(LC 11)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 4-6-2, Exterior(2) 4-6-2 to 7-6-2, Interior(1) 7-6-2 to 8-7-7 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 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, 3.



October 18, 2019

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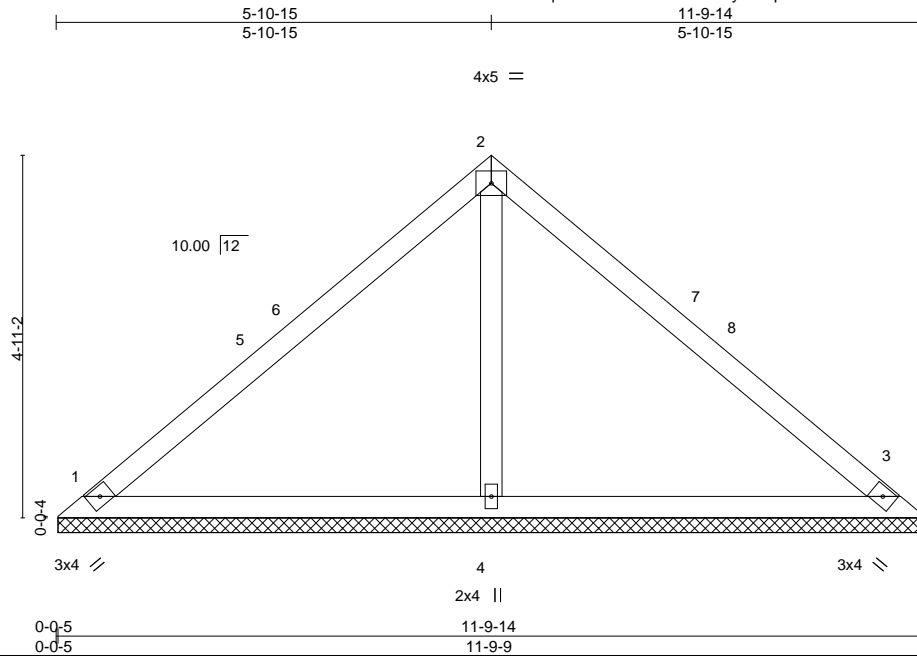


818 Soundside Road
Edenton, NC 27932

Job Q2000845	Truss V04	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657147
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:16 2019 Page 1
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Scale = 1:31.3

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.45	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.23	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.09	Horz(CT)	0.00	3	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 45 lb	FT = 20%
	Code IRC2015/TPI2014							

LUMBER-

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

BRACING-

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

REACTIONS. (lb/size) 1=231/11-9-5, 3=231/11-9-5, 4=420/11-9-5
Max Horz 1=-83(LC 9)
Max Uplift 1=-18(LC 11), 3=-18(LC 11)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-256/53

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 5-10-15, Exterior(2) 5-10-15 to 8-10-15, Interior(1) 8-10-15 to 11-5-1 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 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, 3.



October 18, 2019

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ENGINEERING BY
TRENCO
A MiTek Affiliate

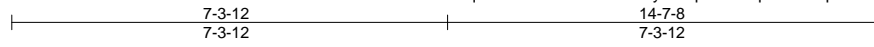
818 Soundside Road
Edenton, NC 27932

Job Q2000845	Truss V05	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES	E13657148
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Carolina Structural Systems, LLC, Ether, NC - 27247,

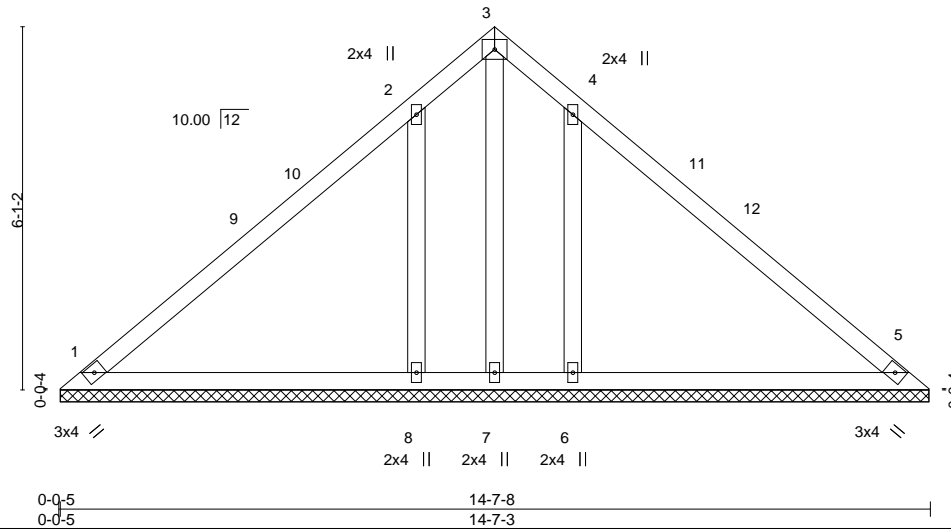
8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:17 2019 Page 1

ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-Ca5soqhKewFNpbhA6EVKMN4Kr431dwM0oX4LGZySEJW



4x5 =

Scale = 1:38.7



LOADING (psf)	SPACING-	2-0-0	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.00	TC 0.43	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL	1.15	BC 0.19	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.15	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code	IRC2015/TPI2014	Matrix-S					Weight: 70 lb	FT = 20%

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

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

REACTIONS. All bearings 14-6-14.
(lb) - Max Horz 1=104(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except 7=322(LC 1), 6=109(LC 11), 8=109(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=578(LC 17), 8=579(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 3-7=-215/289, 4-6=-407/224, 2-8=-407/224

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 7-3-12, Exterior(2) 7-3-12 to 10-3-12, Interior(1) 10-3-12 to 14-2-11 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
 - Gable requires continuous bottom chord bearing.
 - * 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 322 lb uplift at joint 7, 109 lb uplift at joint 6 and 109 lb uplift at joint 8.



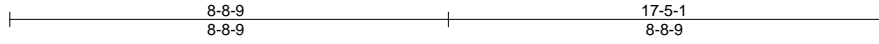
October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
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ENGINEERING BY
TRENCO
A MiTek Affiliate
818 Soundside Road
Edenton, NC 27932

Job Q2000845	Truss V06	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES	E13657149
Carolina Structural Systems, LLC, Ether, NC - 27247,					Job Reference (optional)	

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:18 2019 Page 1
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4x5 =

Scale = 1:45.8

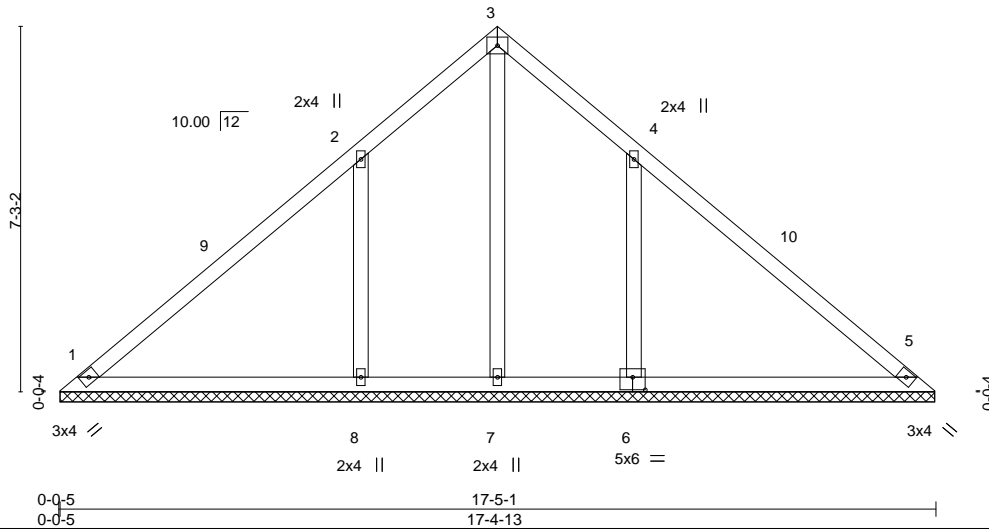


Plate Offsets (X,Y)-- [6:0-3-0,0-3-0]

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.41	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Plate Grip DOL 1.00	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Lumber DOL 1.15	WB 0.13	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Rep Stress Incr YES	Matrix-S					Weight: 81 lb	FT = 20%
	Code IRC2015/TP12014							

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

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

REACTIONS. All bearings 17-4-8.
 (lb) - Max Horz 1=-125(LC 9)
 Max Uplift All uplift 100 lb or less at joint(s) 7 except 6=-101(LC 11), 8=-102(LC 11)
 Max Grav All reactions 250 lb or less at joint(s) 1, 5, 7 except 6=520(LC 17), 8=522(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
 WEBS 4-6=-354/183, 2-8=-356/184

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 8-8-9, Exterior(2) 8-8-9 to 11-5-1, Interior(1) 11-5-1 to 17-0-4 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
 - Gable requires continuous bottom chord bearing.
 - * 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) 7 except (jt=lb) 6=101, 8=102.



October 18, 2019

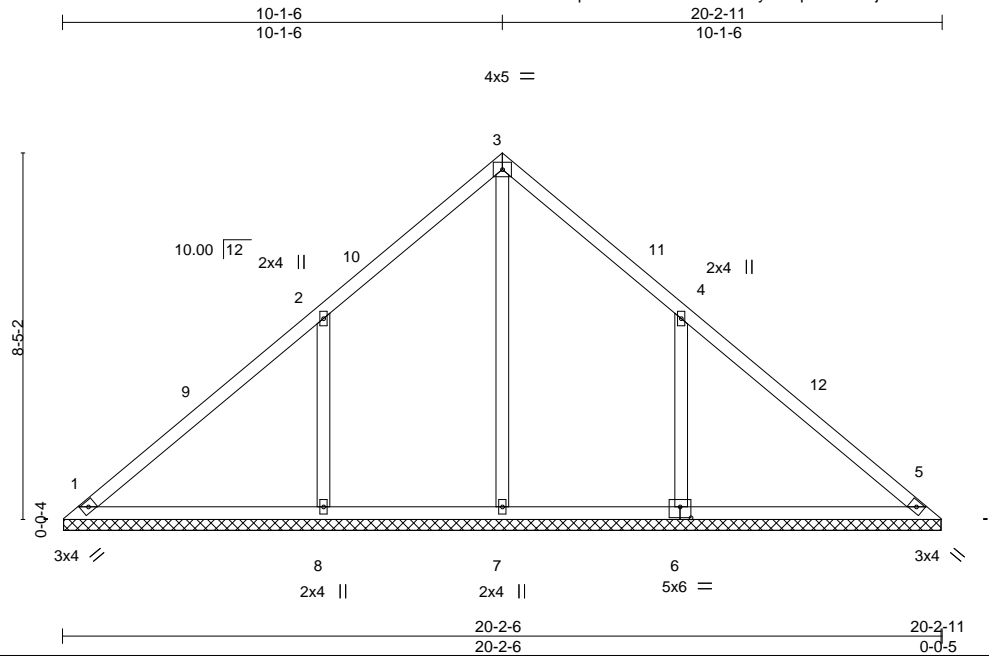
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.
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ENGINEERING BY
TRENCO
 A MiTek Affiliate
 818 Soundside Road
 Edenton, NC 27932

Job Q2000845	Truss V07	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657150
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:19 2019 Page 1
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Scale = 1:53.0

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.42	Vert(LL)	n/a	-	n/a	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.20	Vert(CT)	n/a	-	n/a		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.15	Horz(CT)	0.00	5	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 92 lb	FT = 20%

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

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

REACTIONS. All bearings 20-2-1.
(lb) - Max Horz 1=-146(LC 9)
Max Uplift All uplift 100 lb or less at joint(s) except 6=-107(LC 11), 8=-108(LC 11)
Max Grav All reactions 250 lb or less at joint(s) 1, 5 except 7=320(LC 16), 6=553(LC 17), 8=555(LC 16)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 4-6=-371/191, 2-8=-372/192

- NOTES-**
- Unbalanced roof live loads have been considered for this design.
 - Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCCL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-4-13 to 3-4-13, Interior(1) 3-4-13 to 10-1-6, Exterior(2) 10-1-6 to 13-1-6, Interior(1) 13-1-6 to 19-9-14 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
 - Gable requires continuous bottom chord bearing.
 - * 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 107 lb uplift at joint 6 and 108 lb uplift at joint 8.



October 18, 2019

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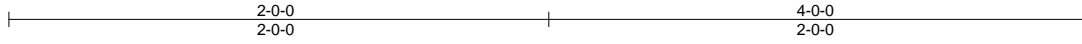


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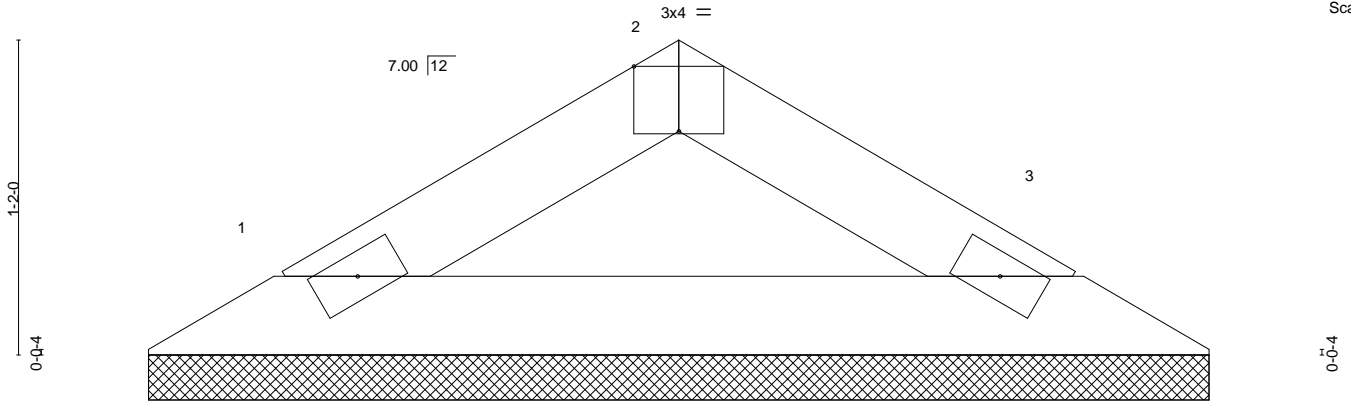
Job Q2000845	Truss V08	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657151
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:20 2019 Page 1
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Scale = 1:8.5



2x4

2x4

0-0-7
0-0-7

4-0-0
3-11-9

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

LOADING (psf)	SPACING-	CSI.	DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.03	Vert(LL)	n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.07	Vert(CT)	n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.00	Horz(CT)	0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P						Weight: 11 lb	FT = 20%

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

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

REACTIONS. (lb/size) 1=117/3-11-2, 3=117/3-11-2
Max Horz 1=14(LC 9)
Max Uplift 1=-1(LC 11), 3=-1(LC 11)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Gable requires continuous bottom chord bearing.
- * 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 1 lb uplift at joint 1 and 1 lb uplift at joint 3.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

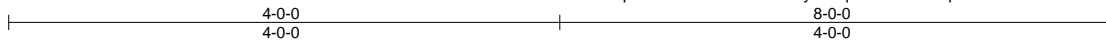


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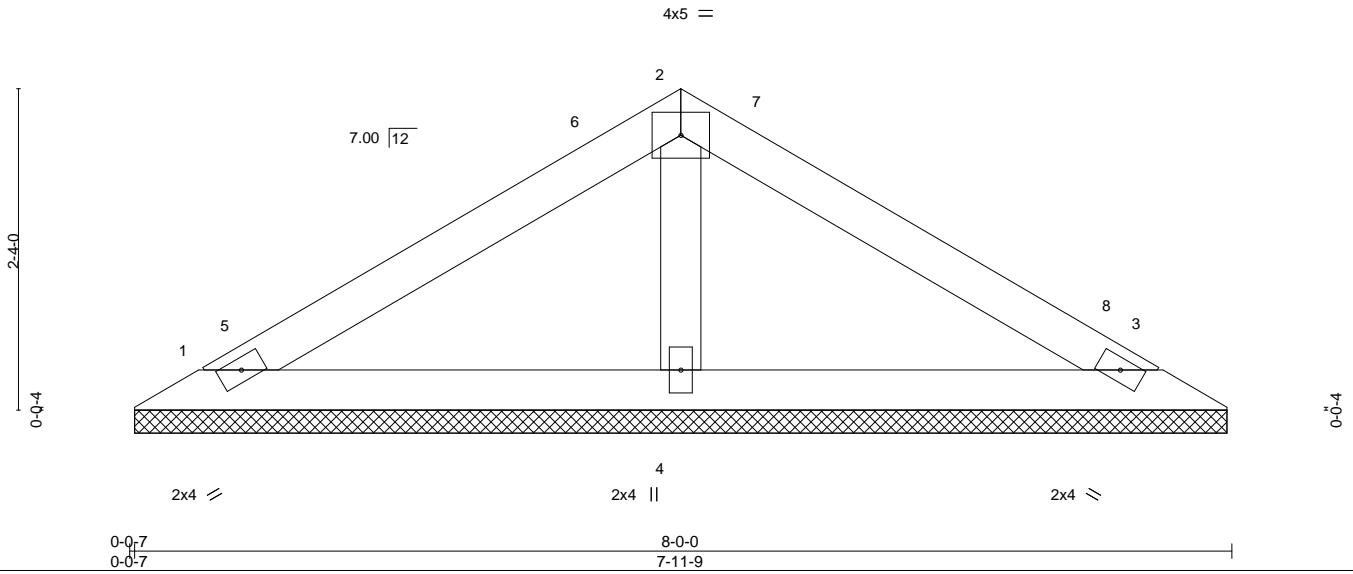
Job Q2000845	Truss V09	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES Job Reference (optional)	E13657152
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:21 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-5LKNeCkri9pHD?xL4aGXDF21hTgZmJb9Z2PLySEJS



Scale = 1:16.7



LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.22	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.09	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.02	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-P					Weight: 26 lb	FT = 20%

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

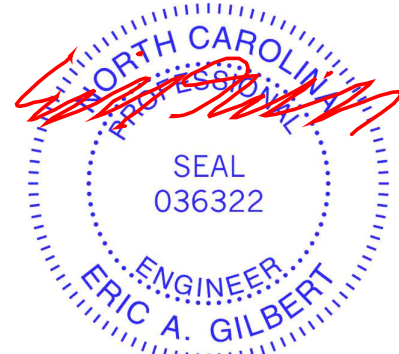
BRACING-
 TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
 BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=144/7-11-2, 3=144/7-11-2, 4=266/7-11-2
 Max Horz 1=-34(LC 9)
 Max Uplift 1=-14(LC 11), 3=-14(LC 11)

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

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TCDL=6.0psf; BCDL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 4-0-0, Exterior(2) 4-0-0 to 7-0-0, Interior(1) 7-0-0 to 7-5-8 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
- Gable requires continuous bottom chord bearing.
- * 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 14 lb uplift at joint 1 and 14 lb uplift at joint 3.



October 18, 2019

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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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

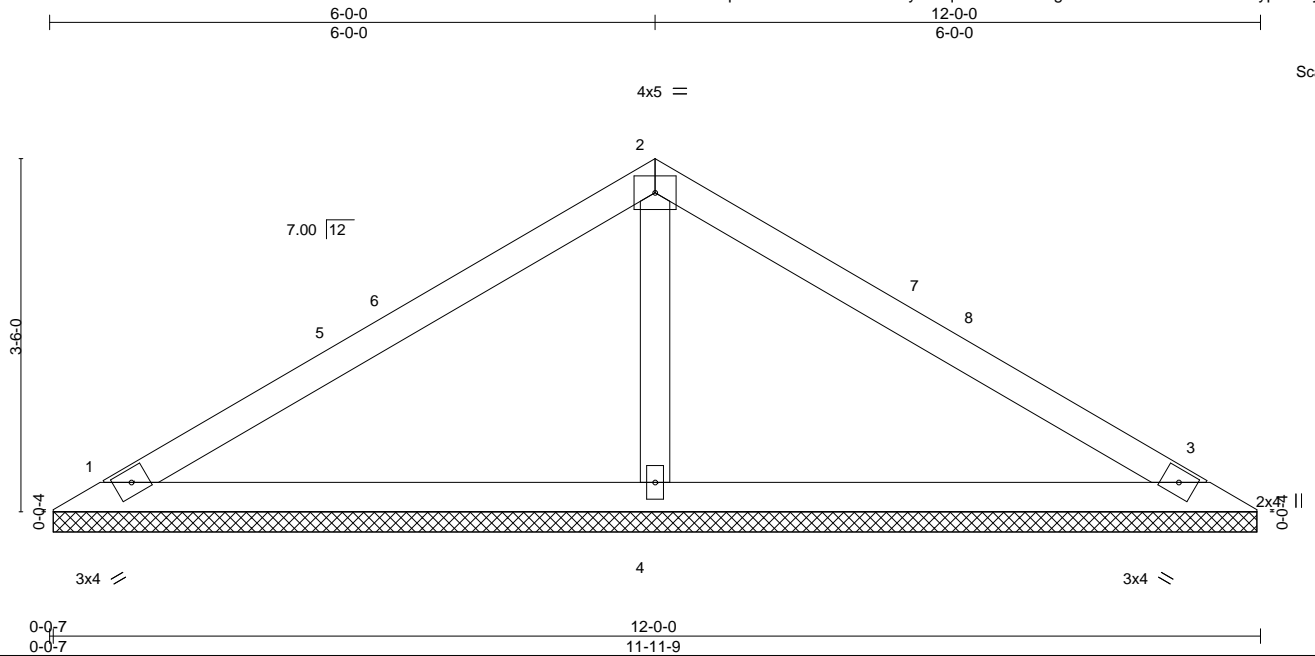


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Job Q2000845	Truss V10	Truss Type Valley	Qty 1	Ply 1	FREEDOM FAMILY HOMES	E13657153
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Carolina Structural Systems, LLC, Ether, NC - 27247,

8.240 s Jul 14 2019 MiTek Industries, Inc. Fri Oct 18 08:33:22 2019 Page 1
ID:cqrV3xtfrGL9uA?kcMI1N4yceFq-ZYulsYITTTStgvMa8vn5V3QnAW5noID?lypn6xnySEJR



Scale = 1:22.8

LOADING (psf)	SPACING-	CSI.	DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.00	TC 0.43	Vert(LL) n/a	-	n/a	999	MT20	244/190
TCDL 10.0	Lumber DOL 1.15	BC 0.22	Vert(CT) n/a	-	n/a	999		
BCLL 0.0 *	Rep Stress Incr YES	WB 0.06	Horz(CT) 0.00	3	n/a	n/a		
BCDL 10.0	Code IRC2015/TPI2014	Matrix-S					Weight: 41 lb	FT = 20%

LUMBER-

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

BRACING-

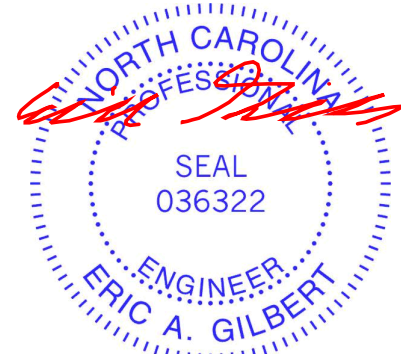
TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 1=205/11-11-2, 3=205/11-11-2, 4=463/11-11-2
Max Horz 1=-54(LC 9)
Max Uplift 1=-14(LC 11), 3=-14(LC 11)
Max Grav 1=205(LC 20), 3=205(LC 21), 4=463(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
WEBS 2-4=-302/73

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-10; Vult=120mph (3-second gust) Vasd=95mph; TC DL=6.0psf; BC DL=6.0psf; h=25ft; B=45ft; L=24ft; eave=4ft; Cat. II; Exp B; Enclosed; MWFRS (directional) and C-C Exterior(2) 0-6-8 to 3-6-8, Interior(1) 3-6-8 to 6-0-0, Exterior(2) 6-0-0 to 9-0-0, Interior(1) 9-0-0 to 11-5-8 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
- Gable requires continuous bottom chord bearing.
- * 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 14 lb uplift at joint 1 and 14 lb uplift at joint 3.



October 18, 2019

WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE.

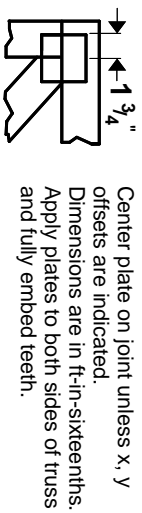
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall 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, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



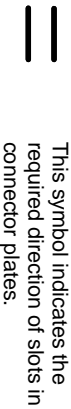
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Symbols

PLATE LOCATION AND ORIENTATION



For 4 x 2 orientation, locate plates 0- $\frac{1}{16}$ " from outside edge of truss.



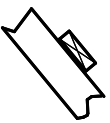
* Plate location details available in **MITrak 20/20 software or upon request.**

PLATE SIZE

4 X 4

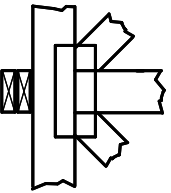
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

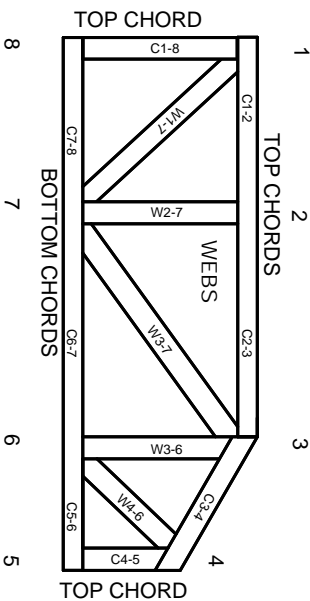


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

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



General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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