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

RE: 2039200 - IC - BARRS DUPLEX

MiTek USA, Inc.
6904 Parke East Blvd.
Tampa, FL 33610-4115

Site Information:

Customer Info: IC Construction Project Name: CRB - Barrs Duplex Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: TBD, TBD
City: Columbia Cty State: FL

Name Address and License # of Structural Engineer of Record, If there is one, for the building.

Name: License #:
Address:
City: State:

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

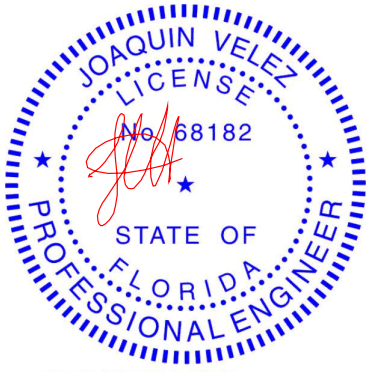
Design Code: FBC2017/TPI2014 Design Program: MiTek 20/20 8.2
Wind Code: ASCE 7-10 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 9 individual, Truss Design Drawings and 0 Additional Drawings.
With my seal affixed to this sheet, I hereby certify that I am the Truss Design Engineer and this index sheet conforms to 61G15-31.003, section 5 of the Florida Board of Professional Engineers Rules.

No.	Seal#	Truss Name	Date
1	T17771508	T01	8/5/19
2	T17771509	T01G	8/5/19
3	T17771510	T02	8/5/19
4	T17771511	T03	8/5/19
5	T17771512	T03G	8/5/19
6	T17771513	T04	8/5/19
7	T17771514	T04G	8/5/19
8	T17771515	T05	8/5/19
9	T17771516	T06	8/5/19

The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Jacksonville.

Truss Design Engineer's Name: Velez, Joaquin
My license renewal date for the state of Florida is February 28, 2021.



Joaquin Velez PE No.68182
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

August 5,2019

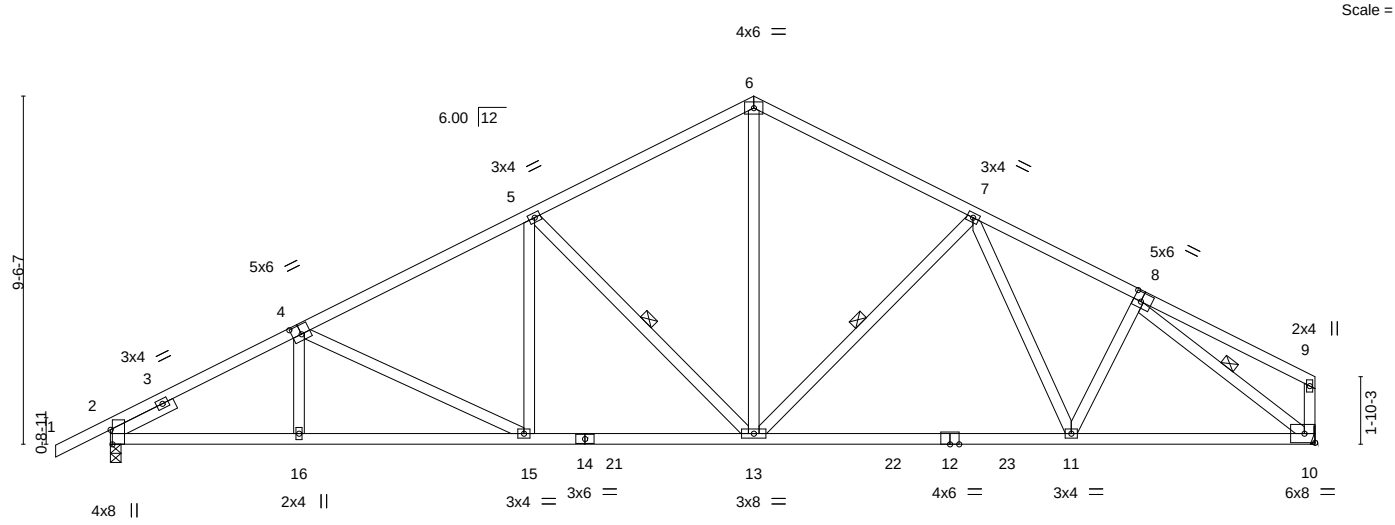
IMPORTANT NOTE: The seal on these truss component designs is a certification that the engineer named is licensed in the jurisdiction(s) identified and that the designs comply with ANSI/TPI 1. These designs are based upon parameters shown (e.g., loads, supports, dimensions, shapes and design codes), which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

Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T01	Common	10	1	T17771508
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:57:55 2019 Page 1
ID:FxdLwMo19GTO04agjVl9TyynJJU-Tq1otMOfIngGzs34HDtRpy6Vr8Hb0k6UJAy5Ysyqzkw

-1-6-0	5-2-0	11-5-11	17-7-8	23-7-9	28-2-0	33-0-0
1-6-0	5-2-0	6-3-11	6-1-13	6-0-1	4-6-7	4-10-0

Scale = 1:63.1



5-2-0	11-5-11	17-7-8	26-3-14	33-0-0
5-2-0	6-3-11	6-1-13	8-8-6	6-8-2

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.64	Vert(LL)	-0.19	11-13	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.94	Vert(CT)	-0.37	11-13	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.81	Horz(CT)	0.08	10	n/a	n/a		
BCDL	10.0	Code	FBC2017/TPI2014	Matrix-MS							Weight: 197 lb	FT = 20%

LUMBER-

TOP CHORD	2x4 SP No.2
BOT CHORD	2x4 SP No.2
WEBS	2x4 SP No.3
SLIDER	Left 2x4 SP No.3 1-11-8

BRACING-

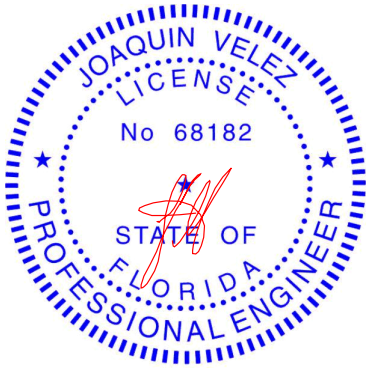
TOP CHORD	Structural wood sheathing directly applied or 3-0-5 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS	1 Row at midpt 5-13, 7-13, 8-10

REACTIONS. (lb/size) 2=1298/0-3-8, 10=1214/Mechanical
Max Horz 2=250(LC 12)
Max Uplift 2=-511(LC 12), 10=-438(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-2026/1089, 4-5=-1743/999, 5-6=-1307/846, 6-7=-1300/844, 7-8=-1520/902
BOT CHORD 2-16=-944/1752, 15-16=-944/1752, 13-15=-732/1516, 11-13=-626/1308, 10-11=-640/1243
WEBS 4-15=-293/235, 5-15=-74/334, 5-13=-613/452, 6-13=-495/811, 7-13=-361/310, 8-10=-1555/797

NOTES-

1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Refer to girder(s) for truss to truss connections.
7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=511, 10=438.



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Date:

August 5,2019

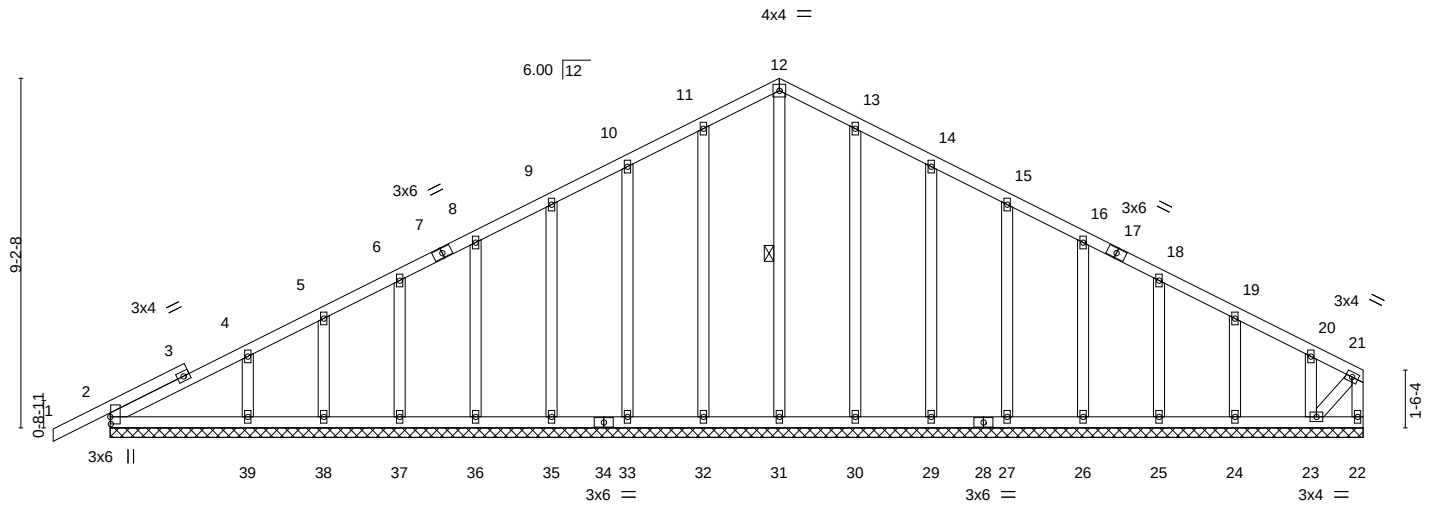
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T01G	GABLE	2	1	T17771509 Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:57:57 2019 Page 1
ID:FxdLwMo19GTO04agjVl9TyynJJU-PD9ZI2QvqOw_DADSOewvuNByAxAQUn6nnURCdkyqzku

-1-6-0 | 17-7-8 | 33-0-0
1-6-0 | 17-7-8 | 15-4-8

Scale = 1:60.7



33-0-0
33-0-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	-0.00	1	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.08	Vert(CT)	0.00	1	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.14	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-S							Weight: 224 lb	FT = 20%

LUMBER-

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

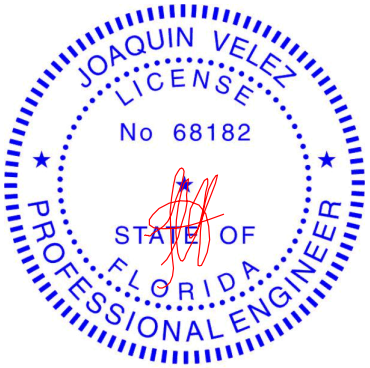
BRACING-

TOP CHORD	Structural wood sheathing directly applied or 6-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS	1 Row at midpt 12-31

REACTIONS. All bearings 33-0-0.
(lb) - Max Horz 2=237(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 22, 2, 32, 33, 35, 36, 37, 38, 30, 29, 27, 26, 25, 24 except 39=-150(LC 12), 23=-223(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 22, 2, 31, 32, 33, 35, 36, 37, 38, 39, 30, 29, 27, 26, 25, 24, 23

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 11-12=-113/294, 12-13=-113/294

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable requires continuous bottom chord bearing.
6) Gable studs spaced at 2-0-0 oc.
7) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
8) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
9) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 22, 2, 32, 33, 35, 36, 37, 38, 30, 29, 27, 26, 25, 24 except (jt=lb) 39=150, 23=223.



Joaquin Velez PE No.68182
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

August 5,2019

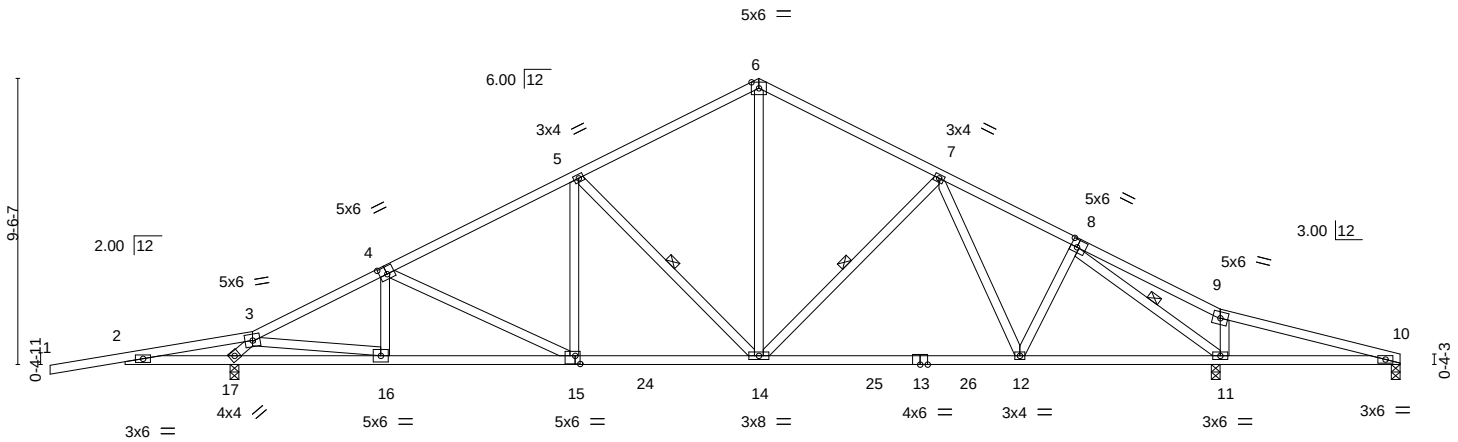
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T02	ROOF SPECIAL	2	1	T17771510 Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:57:58 2019 Page 1
ID:FxdLwMo19GTO04agjVl9TyynJJU-tPjxWORXbi3rqKneyLR8Rbk2nLMaD53w?8Bm9Byqzkt

-2-6-0	4-2-15	8-8-0	14-11-11	21-1-8	27-1-9	31-8-0	36-6-1	42-6-0
2-6-0	4-2-15	4-5-1	6-3-11	6-1-13	6-0-1	4-6-7	4-10-1	5-11-15

Scale = 1:76.8



3-6-0	3-7-12	8-8-0	14-11-11	21-1-8	29-9-14	36-4-4	36-6-1	42-6-0
3-6-0	0-1-12	5-0-4	6-3-11	6-1-13	8-8-6	6-6-6	0-1-13	5-11-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	0.09	11-20	>772	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.73	Vert(CT)	-0.36	12-14	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.73	Horz(CT)	0.06	11	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 232 lb	FT = 20%

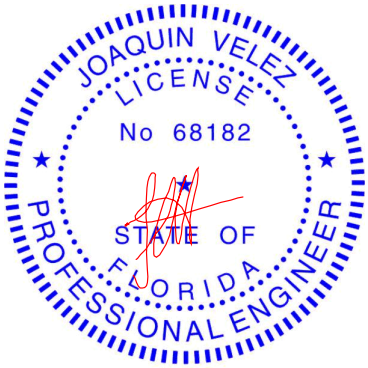
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-2-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-8-2 oc bracing.
WEBS 1 Row at midpt 5-14, 7-14, 8-11

REACTIONS. (lb/size) 10=151/0-3-8, 11=1488/0-3-8, 17=1641/0-3-8
Max Horz 17=209(LC 16)
Max Uplift 10=-152(LC 9), 11=-572(LC 13), 17=-681(LC 12)
Max Grav 10=166(LC 24), 11=1488(LC 1), 17=1641(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1921/1457, 3-4=-1743/809, 4-5=-1640/893, 5-6=-1249/795, 6-7=-1244/793, 7-8=-1465/849
BOT CHORD 2-17=-1422/1950, 16-17=-149/1141, 15-16=-628/1628, 14-15=-550/1415, 12-14=-496/1259, 11-12=-518/1202
WEBS 3-16=-1437/1557, 4-16=-184/328, 4-15=-265/137, 5-15=-27/303, 5-14=-531/379, 6-14=-448/766, 7-14=-362/313, 8-11=-1657/776, 9-11=-290/306, 3-17=-2033/1438

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=152, 11=572, 17=681.



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MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

August 5,2019

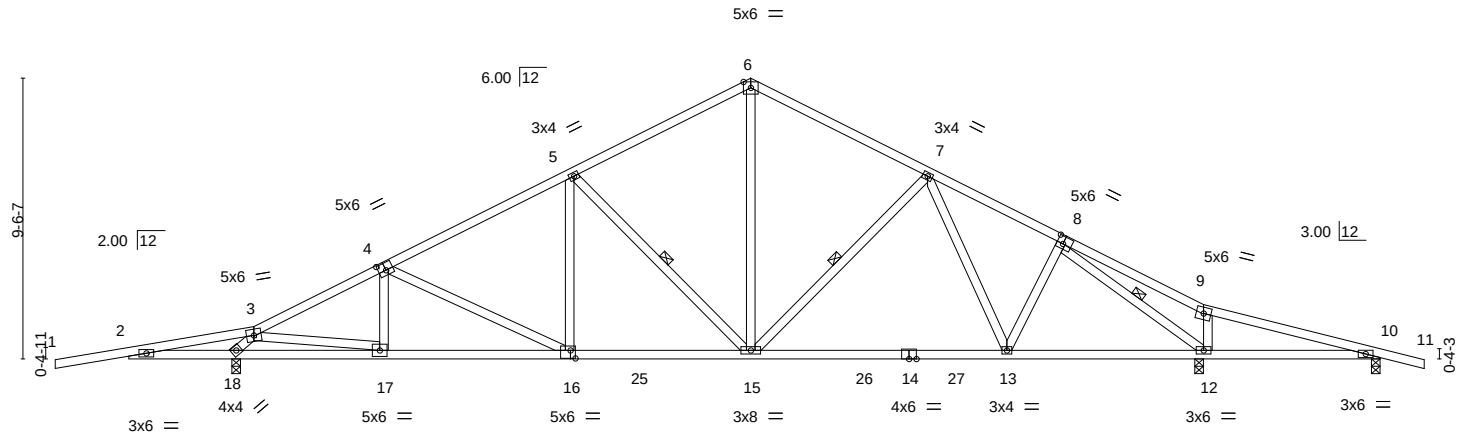
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T03	Roof Special	14	1	T17771511
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:58:00 2019 Page 1
ID:FxdLwMo19GTO04agjVl9TyynJJU-poqhw4Sn7JJZ4dx14mTcW0pOH914h?XDTSgsE3yqzkr

-2-6-0	4-2-15	8-8-0	14-11-11	21-1-8	27-1-9	31-8-0	36-6-1	42-6-0	44-0-0
2-6-0	4-2-15	4-5-1	6-3-11	6-1-13	6-0-1	4-6-7	4-10-1	5-11-15	1-6-0

Scale = 1:78.3



3-6-0	3-7-12	8-8-0	14-11-11	21-1-8	29-9-14	36-4-4	36-6-1	42-6-0
3-6-0	0-1-12	5-0-4	6-3-11	6-1-13	8-8-6	6-6-6	0-1-13	5-11-15

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.47	Vert(LL)	-0.19	13-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.73	Vert(CT)	-0.36	13-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.74	Horz(CT)	0.06	12	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 234 lb	FT = 20%

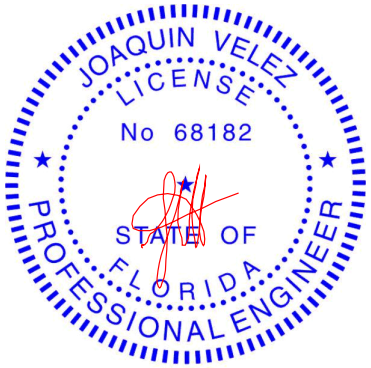
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3

BRACING-
TOP CHORD Structural wood sheathing directly applied or 4-2-9 oc purlins.
BOT CHORD Rigid ceiling directly applied or 4-8-2 oc bracing.
WEBS 1 Row at midpt 5-15, 7-15, 8-12

REACTIONS. (lb/size) 12=1476/0-3-8, 10=244/0-3-8, 18=1641/0-3-8
Max Horz 18=-201(LC 13)
Max Uplift 12=-563(LC 13), 10=-252(LC 9), 18=-681(LC 12)
Max Grav 12=1476(LC 1), 10=259(LC 24), 18=1641(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-1920/1457, 3-4=-1743/810, 4-5=-1640/895, 5-6=-1249/796, 6-7=-1244/794, 7-8=-1467/855
BOT CHORD 2-18=-1422/1950, 17-18=-149/1150, 16-17=-621/1635, 15-16=-519/1422, 13-15=-467/1260, 12-13=-492/1203
WEBS 3-17=-1437/1557, 4-17=-184/328, 4-16=-265/137, 5-16=-27/303, 5-15=-532/379, 6-15=-450/766, 7-15=-362/314, 8-12=-1665/777, 9-12=-282/301, 3-18=-2034/1438

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; cantilever left exposed ; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=563, 10=252, 18=681.



Joaquin Velez PE No.68182
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6904 Parke East Blvd. Tampa FL 33610
Date:

August 5,2019

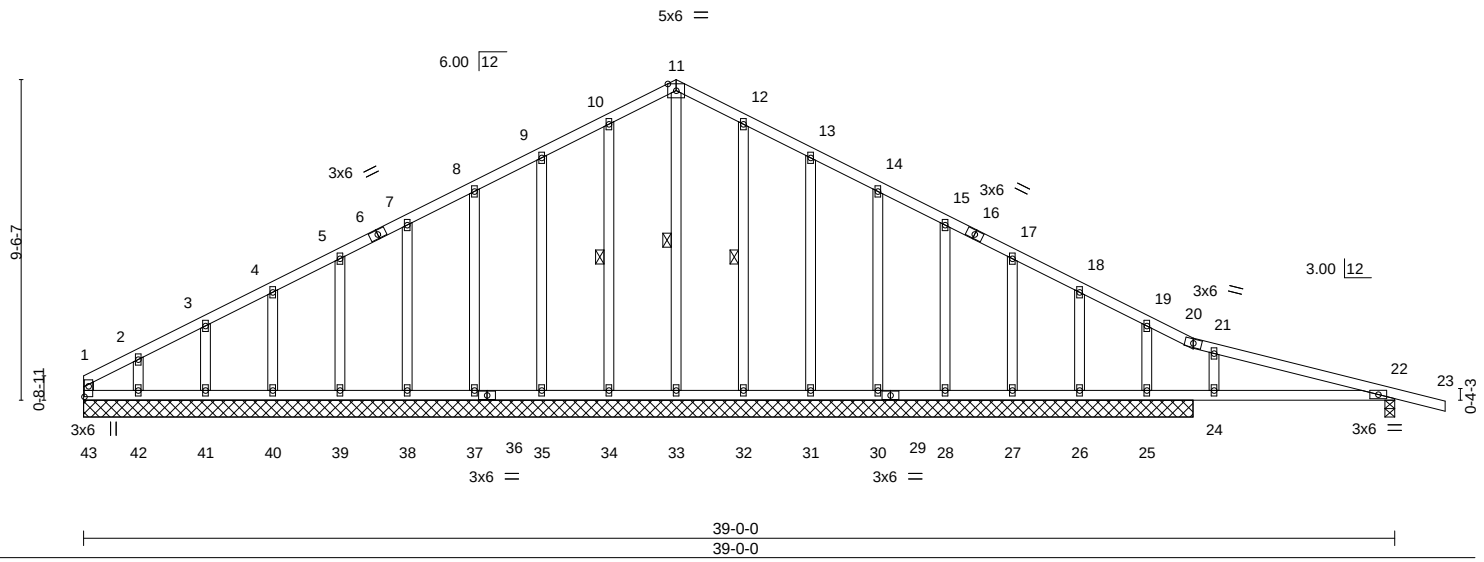
MiTek
6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T03G	GABLE	2	1	T17771512 Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:58:02 2019 Page 1
ID:FxdLwMo19GTO04agjVl9TyynJJU-lBySLmU2fxZGJx5QBBW4bRulvyog93qWwm9zIyyqzkp

17-7-8 33-0-1 39-0-0 40-6-0
17-7-8 15-4-9 5-11-15 1-6-0

Scale = 1:68.5



39-0-0
39-0-0

Plate Offsets (X,Y)-- [43:0-3-12,0-1-8]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.40	Vert(LL)	0.13	22-24	>665	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.40	Vert(CT)	-0.13	22-24	>653	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.11	Horz(CT)	0.01	22	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-S							Weight: 246 lb	FT = 20%

LUMBER-

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

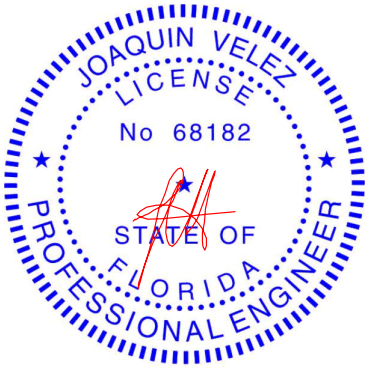
BRACING-

TOP CHORD	Structural wood sheathing directly applied or 10-0-0 oc purlins, except end verticals.
BOT CHORD	Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS	1 Row at midpt 11-33, 10-34, 12-32

REACTIONS. All bearings 33-0-0 except (jt=length) 22=0-3-8.
(lb) - Max Horz 43=-221(LC 13)
Max Uplift All uplift 100 lb or less at joint(s) 43, 34, 35, 37, 38, 39, 40, 41, 32, 31, 30, 28 except 42=-185(LC 12), 27=-122(LC 13), 26=-106(LC 1), 25=-308(LC 9), 22=-261(LC 9)
Max Grav All reactions 250 lb or less at joint(s) 43, 33, 34, 35, 37, 38, 39, 40, 41, 42, 32, 31, 30, 28, 27, 26 except 25=571(LC 1), 22=302(LC 1)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-93/306, 11-12=-93/306
WEBS 19-25=-282/307

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone; porch right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) All plates are 2x4 MT20 unless otherwise indicated.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 43, 34, 35, 37, 38, 39, 40, 41, 32, 31, 30, 28 except (jt=lb) 42=185, 27=122, 26=106, 25=308, 22=261.



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August 5,2019

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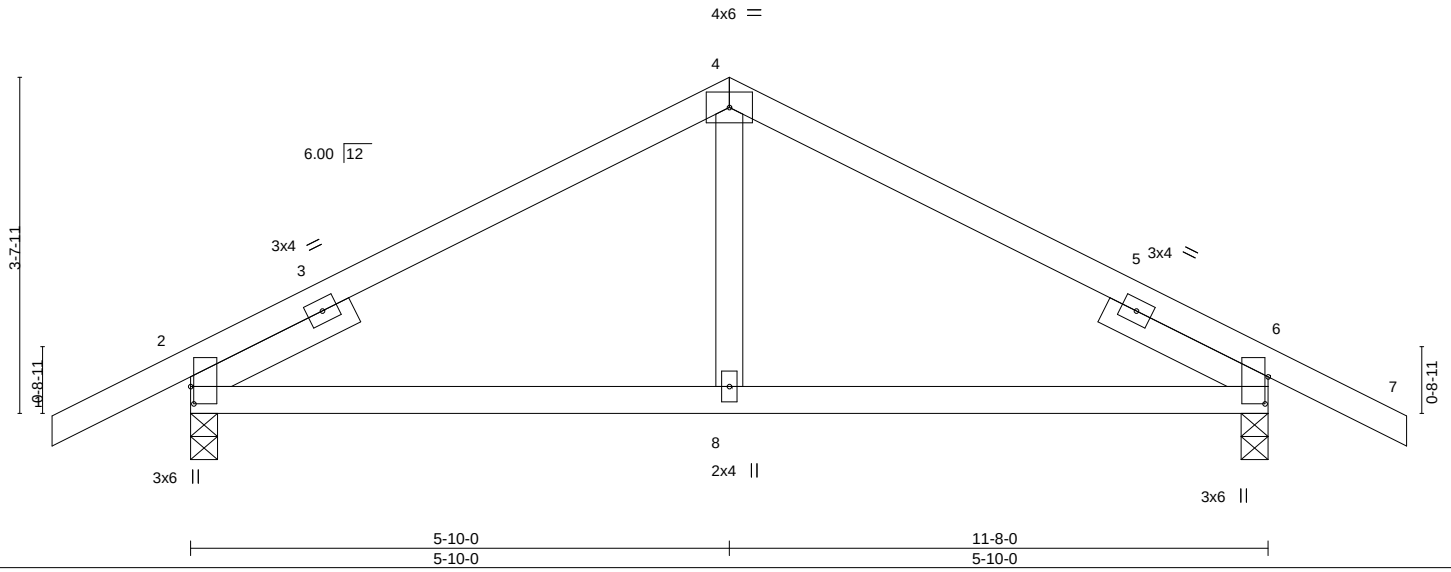
Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T04	Common	4	1	T17771513
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:58:03 2019 Page 1
ID:FxdLwMo19GTO04agjVl9TyynJJU-ENWqZ5UgPEh7x5gclu1J8eRyPMAWuWLf9QuWqOyqzko

-1-6-0 5-10-0 11-8-0 13-2-0
1-6-0 5-10-0 5-10-0 1-6-0

Scale = 1:24.9



5-10-0 11-8-0
5-10-0 5-10-0

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

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.28	Vert(LL)	-0.03	8-15	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.30	Vert(CT)	-0.05	8-15	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 52 lb	FT = 20%

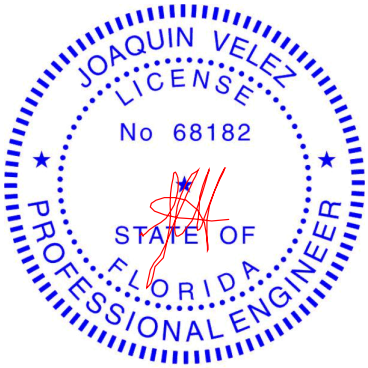
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

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

REACTIONS. (lb/size) 2=513/0-3-8, 6=513/0-3-8
Max Horz 2=77(LC 12)
Max Uplift 2=-211(LC 12), 6=-211(LC 13)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-454/321, 4-6=-454/322
BOT CHORD 2-8=-138/406, 6-8=-138/406

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=211, 6=211.



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Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T04G	Common Supported Gable	2	1	T17771514
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:58:05 2019 Page 1
ID:FxdLwMo19GTO04agjVl9TyynJJU-Amea_nWwxsxrAPq?sJ3nD3WK9AwBMRbyckNdvHyqzkm

-1-6-0 | 5-10-0 | 11-8-0 | 13-2-0
1-6-0 | 5-10-0 | 5-10-0 | 1-6-0

Scale = 1:24.8

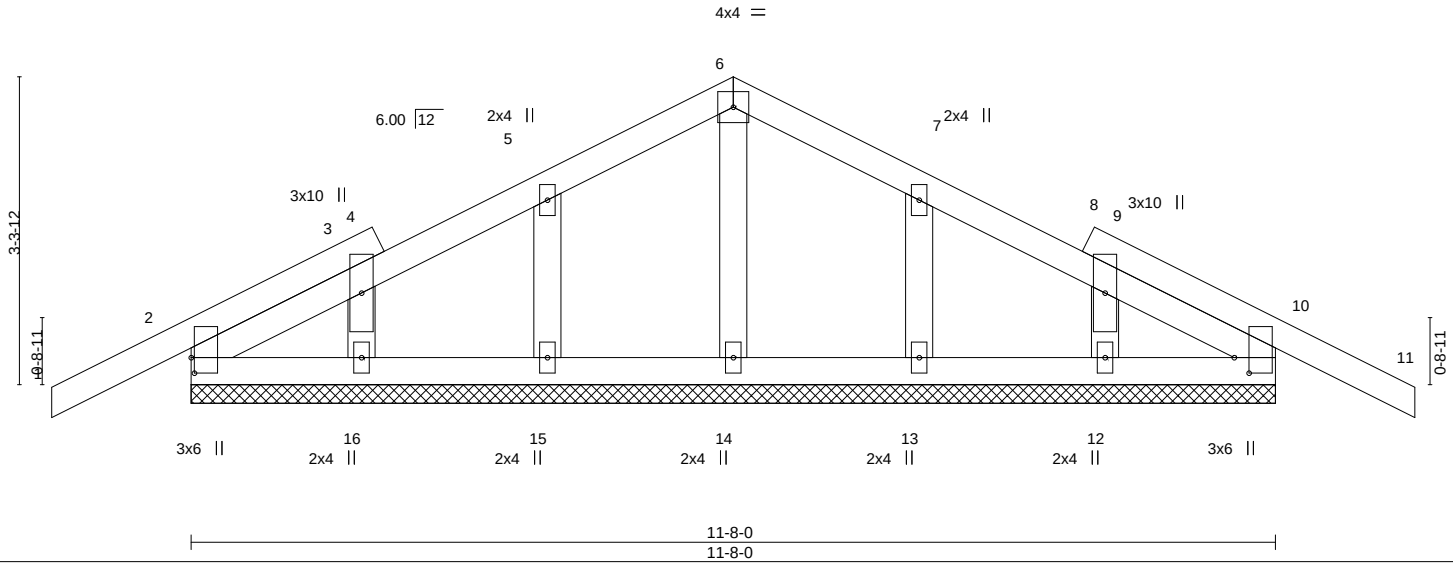


Plate Offsets (X,Y)-- [2:0-2-0,0-0-7], [10:0-2-0,0-1-15]

LOADING (psf)		SPACING- 2-0-0		CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.14	Vert(LL)	-0.01	11	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.03	Vert(CT)	-0.01	11	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.04	Horz(CT)	0.00	10	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-S							Weight: 60 lb	FT = 20%

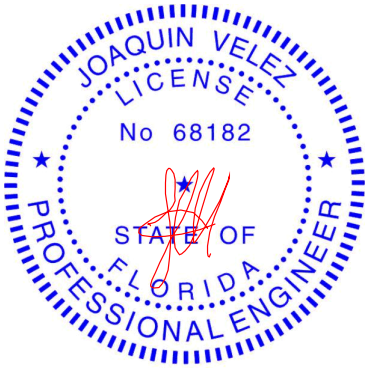
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
OTHERS 2x4 SP No.3

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

REACTIONS. All bearings 11-8-0.
(lb) - Max Horz 2=70(LC 12)
Max Uplift All uplift 100 lb or less at joint(s) 2, 10, 15, 16, 13, 12
Max Grav All reactions 250 lb or less at joint(s) 2, 10, 14, 15, 16, 13, 12

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

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
4) Gable requires continuous bottom chord bearing.
5) Gable studs spaced at 2-0-0 oc.
6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
7) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
8) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 10, 15, 16, 13, 12.
10) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2.



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Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T05	Common	4	1	T17771515
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:58:06 2019 Page 1
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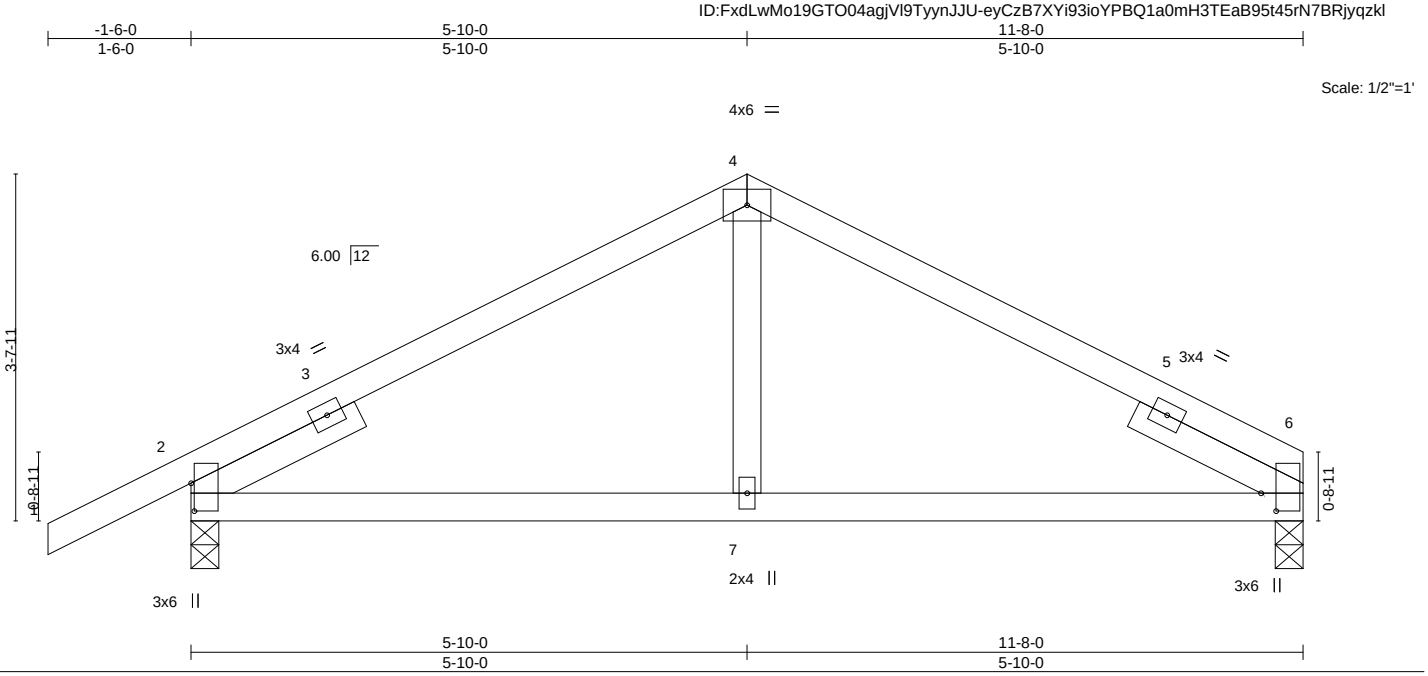


Plate Offsets (X,Y)-- [2:0-3-8,0-0-6], [6:0-2-4,0-1-14]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.31	Vert(LL)	0.04	7-10	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.30	Vert(CT)	-0.05	7-10	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.09	Horz(CT)	-0.01	2	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 50 lb	FT = 20%

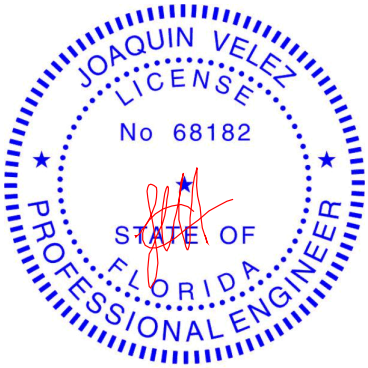
LUMBER-
TOP CHORD 2x4 SP No.2
BOT CHORD 2x4 SP No.2
WEBS 2x4 SP No.3
SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

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) 6=426/0-3-8, 2=518/0-3-8
Max Horz 2=93(LC 12)
Max Uplift 6=-158(LC 13), 2=-212(LC 12)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-4=-468/339, 4-6=-468/337
BOT CHORD 2-7=-195/419, 6-7=-195/419

NOTES-
1) Unbalanced roof live loads have been considered for this design.
2) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2) zone;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
3) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
4) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
5) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=158, 2=212.



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Job	Truss	Truss Type	Qty	Ply	IC - BARRS DUPLEX
2039200	T06	Common Girder	2	2	T17771516
					Job Reference (optional)

Builders FirstSource, Jacksonville, FL - 32244, 8.240 s Jun 8 2019 MiTek Industries, Inc. Mon Aug 5 06:58:07 2019 Page 1
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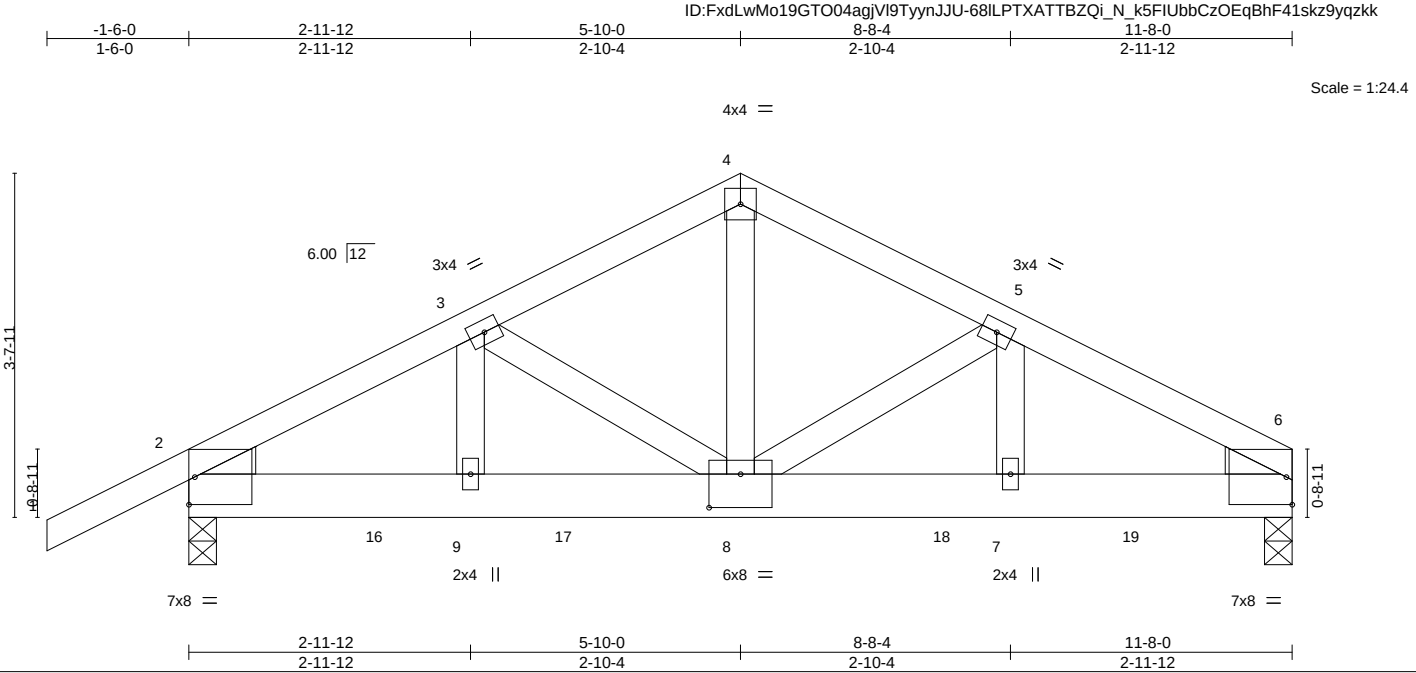


Plate Offsets (X,Y)-- [8:0-4-0,0-4-4]

LOADING (psf)		SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.49	Vert(LL)	-0.05	8-9	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.89	Vert(CT)	-0.10	8-9	>999	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.64	Horz(CT)	0.02	6	n/a	n/a		
BCDL	10.0	Code FBC2017/TPI2014		Matrix-MS							Weight: 138 lb	FT = 20%

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

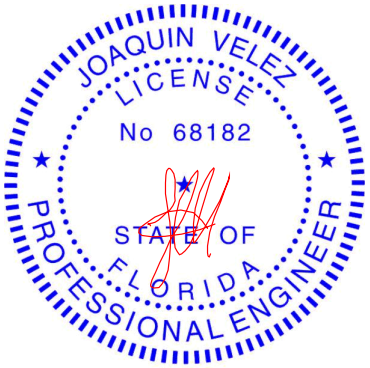
BRACING-
TOP CHORD Structural wood sheathing directly applied or 5-0-6 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (lb/size) 6=3505/0-3-8, 2=3413/0-3-8
Max Horz 2=93(LC 8)
Max Uplift 6=-1302(LC 9), 2=-1303(LC 8)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-5109/1882, 3-4=-4123/1548, 4-5=-4124/1546, 5-6=-5114/1895
BOT CHORD 2-9=-1680/4471, 8-9=-1680/4471, 7-8=-1635/4487, 6-7=-1635/4487
WEBS 4-8=-1250/3381, 5-8=-974/433, 5-7=-353/996, 3-8=-956/417, 3-9=-368/1025

NOTES-
1) 2-ply truss to be connected together with 10d (0.131"x3") nails as follows:
Top chords connected as follows: 2x4 - 1 row at 0-9-0 oc.
Bottom chords connected as follows: 2x6 - 2 rows staggered at 0-9-0 oc.
Webs connected as follows: 2x4 - 1 row at 0-9-0 oc.
2) All loads are considered equally applied to all plies, except if noted as front (F) or back (B) face in the LOAD CASE(S) section. Ply to ply connections have been provided to distribute only loads noted as (F) or (B), unless otherwise indicated.
3) Unbalanced roof live loads have been considered for this design.
4) Wind: ASCE 7-10; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=18ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; Lumber DOL=1.60 plate grip DOL=1.60
5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
6) * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
7) All bearings are assumed to be SP No.2 crushing capacity of 565 psi.
8) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 6=1302, 2=1303.
9) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 236 lb down and 24 lb up at 0-0-12 on top chord, and 1194 lb down and 458 lb up at 2-0-12, 1194 lb down and 458 lb up at 4-0-12, 1194 lb down and 458 lb up at 6-0-12, and 1194 lb down and 458 lb up at 8-0-12, and 1194 lb down and 458 lb up at 10-0-12 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.

LOAD CASE(S) Standard
1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25



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Continued on page 2

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LOAD CASE(S) Standard

Uniform Loads (plf)

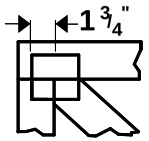
Vert: 1-4=-54, 4-6=-54, 10-13=-20

Concentrated Loads (lb)

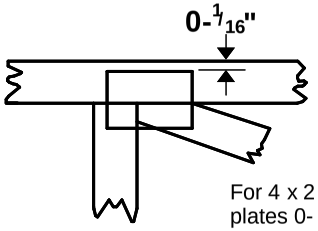
Vert: 2=-4 8=-1194(B) 16=-1194(B) 17=-1194(B) 18=-1194(B) 19=-1194(B)

Symbols

PLATE LOCATION AND ORIENTATION



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



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

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

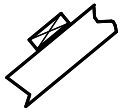
*** Plate location details available in MiTek 20/20 software or upon request.**

PLATE SIZE

4 x 4

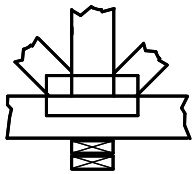
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

LATERAL BRACING LOCATION



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

BEARING

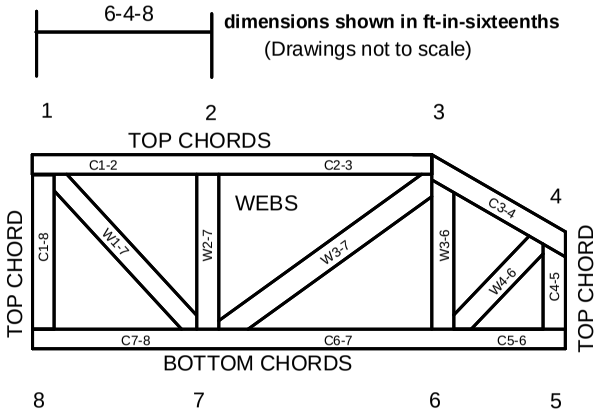


Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

Industry Standards:

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

Numbering System



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

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

PRODUCT CODE APPROVALS

ICC-ES Reports:

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

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

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

MiTek Engineering 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.