



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

RE: 3154702 - WCH - WRIGHTS RES.

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

Site Information:

Customer Info: WADE CUSTOM HOMES Project Name: Wright Res. Model: Custom
Lot/Block: N/A Subdivision: N/A
Address: 319 SW Healan Ct., N/A
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: FBC2020/TPI2014 Design Program: MiTek 20/20 8.5
Wind Code: ASCE 7-16 Wind Speed: 130 mph
Roof Load: 37.0 psf Floor Load: N/A psf

This package includes 7 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.

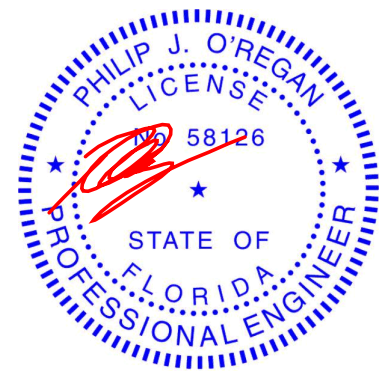
No.	Seal#	Truss Name	Date
1	T27603759	T01	5/4/22
2	T27603760	T01G	5/4/22
3	T27603761	T02	5/4/22
4	T27603762	T03	5/4/22
5	T27603763	T03G	5/4/22
6	T27603764	T04	5/4/22
7	T27603765	T04G	5/4/22



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-Lake City, FL.

Truss Design Engineer's Name: O'Regan, Philip
My license renewal date for the state of Florida is February 28, 2023.

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.



Philip J. O'Regan PE No.58126
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

May 4, 2022

Job	Truss	Truss Type	Qty	Ply	WCH - WRIGHTS RES.	T27603759
3154702	T01	Common	5	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon May 2 14:35:06 2022 Page 1
ID:xlVxulCmNkmDs6DSptupvzKdT2-DmliK?X190CfiQbYrmAm_JmLid9lUO_jM2MwQzKW2J

1-0-0 5-8-8 11-0-15 17-0-0 22-11-1 28-3-8 34-0-0 35-0-0
1-0-0 5-8-8 5-4-8 5-11-1 5-11-1 5-4-8 5-8-8 1-0-0

Scale = 1:60.2

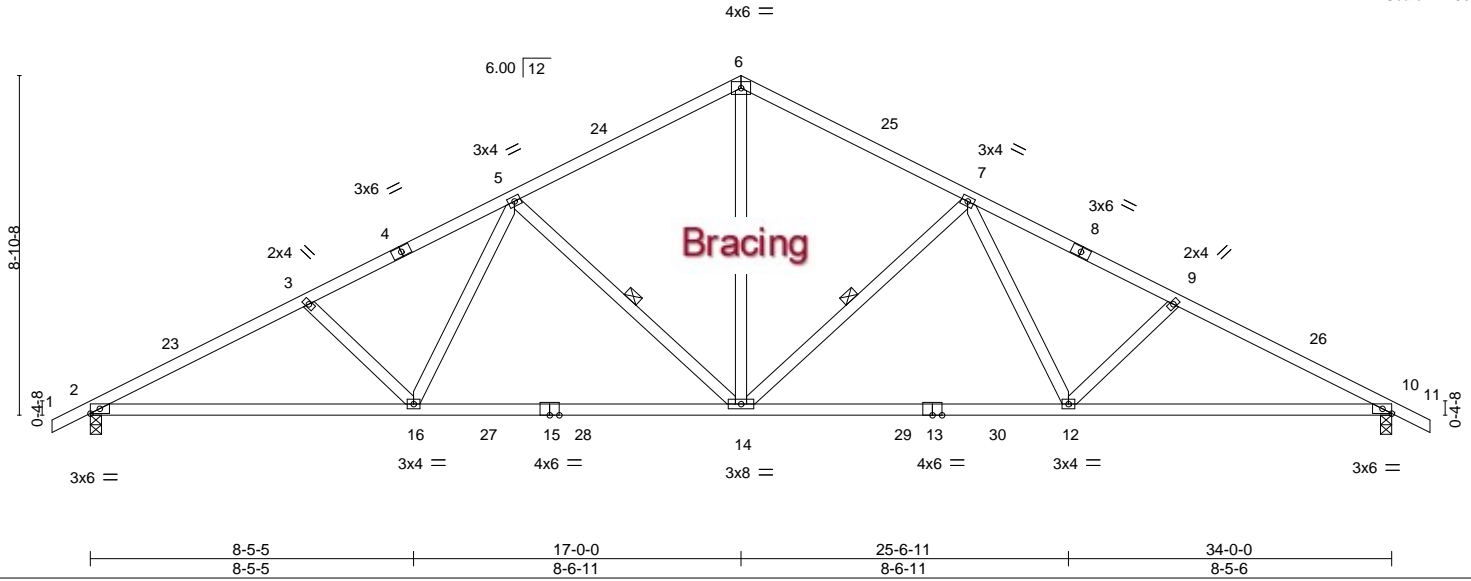


Plate Offsets (X,Y)-- [10:0-2-15,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.39	Vert(LL)	-0.24 14-16	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.93	Vert(CT)	-0.41 14-16	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.53	Horz(CT)	0.11 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 175 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 3-3-4 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 7-14, 5-14

REACTIONS.

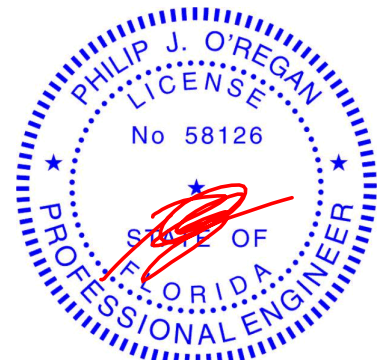
(size) 2=0-3-8, 10=0-3-8
Max Horz 2=193(LC 13)
Max Uplift 2=521(LC 12), 10=521(LC 13)
Max Grav 2=1424(LC 2), 10=1424(LC 2)

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

TOP CHORD 2-3=-2564/901, 3-5=-2399/837, 5-6=-1648/672, 6-7=-1648/672, 7-9=-2399/837,
9-10=-2564/901
BOT CHORD 2-16=-897/2268, 14-16=-640/1864, 12-14=-507/1864, 10-12=-704/2268
WEBS 6-14=-376/1173, 7-14=-620/423, 7-12=-160/555, 9-12=-283/269, 5-14=-620/422,
5-16=-160/555, 3-16=-283/268

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-4-13, Interior(1) 2-4-13 to 17-0-0, Exterior(2R) 17-0-0 to 20-4-13, Interior(1) 20-4-13 to 35-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=521, 10=521.



Philip J. O'Regan PE No.58126
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6904 Parke East Blvd. Tampa FL 33610
Date:

May 4, 2022

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

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

Safety Information available from Truss Plate Institute, 2670 Crain Highway, Suite 203 Waldorf, MD 20601
ANSI/TPI1 Quality Criteria, DSB-89 and BCSI Building Component



6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	WCH - WRIGHTS RES.	T27603760
3154702	T01G	Common Supported Gable	2	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon May 2 14:35:08 2022 Page 1

ID:xlvXulCmNkmDs6DSptupvzKdT2-99sTlgZHheSNykwzBCE3krmaWFXFDVKGAfXT_JzKW2H

1-0-0 1-0-0 17-0-0 17-0-0 34-0-0 34-0-0 35-0-0 1-0-0

Scale = 1:60.9

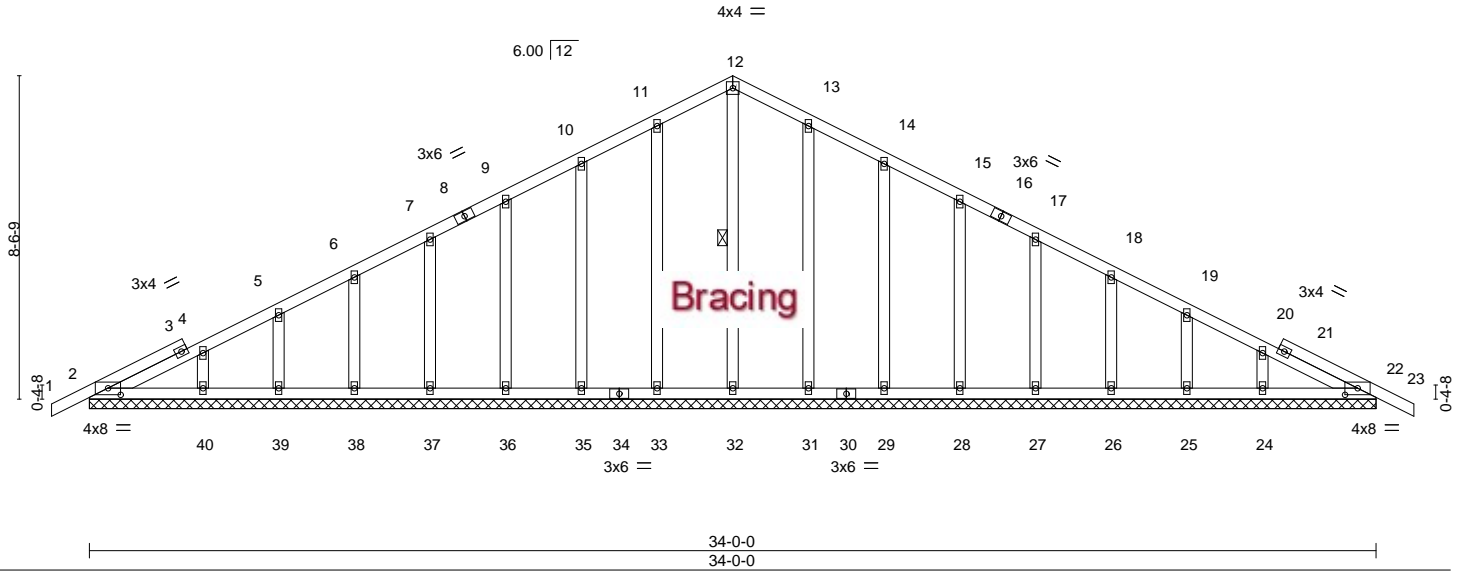


Plate Offsets (X,Y)-- [2:0-4-0,0-2-1], [22:0-4-0,0-2-1]

LOADING (psf)	SPACING-		CSI.	DEFL.	in	(loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.09	Vert(LL)	-0.00	22	n/r	120	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.06	Vert(CT)	0.00	22	n/r	120		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.12	Horz(CT)	0.01	22	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-S						Weight: 212 lb	FT = 20%

LUMBER-

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

BRACING-

TOP CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 10-0-0 oc bracing.
WEBS 1 Row at midpt 12-32

REACTIONS.

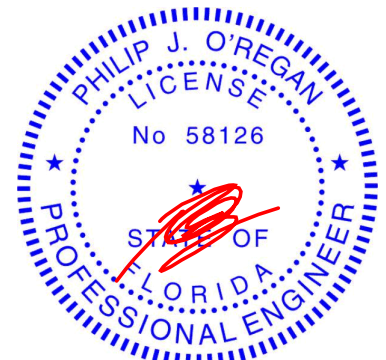
All bearings 34-0-0.
(lb) - Max Horz 2=186(LC 16)
Max Uplift All uplift 100 lb or less at joint(s) 2, 33, 35, 36, 37, 38, 39, 40, 31, 29, 28, 27, 26, 25, 22 except 24=104(LC 13)
Max Grav All reactions 250 lb or less at joint(s) 2, 32, 33, 35, 36, 37, 38, 39, 40, 31, 29, 28, 27, 26, 25, 24, 22

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 10-11=-96/276, 11-12=-117/334, 12-13=-117/334, 13-14=-96/276

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-0-0 to 2-4-13, Exterior(2N) 2-4-13 to 17-0-0, Corner(3R) 17-0-0 to 20-4-13, Exterior(2N) 20-4-13 to 35-0-0 zone; 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.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 33, 35, 36, 37, 38, 39, 40, 31, 29, 28, 27, 26, 25, 22 except (jt=lb) 24=104.



Philip J. O'Regan PE No.58126
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

May 4,2022

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6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	WCH - WRIGHTS RES.	T27603761
3154702	T02	Common	5	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon May 2 14:35:09 2022 Page 1

ID:xlVXulCmNkmDs6DSptupvzKdT2-dLQry0awSxaEZuJ7XujTcyOtkwfNymDQPJH0XizKW2G

1-0-0 5-8-8 11-0-15 17-0-0 22-11-1 28-3-8 34-0-0 35-0-0
1-0-0 5-8-8 5-4-8 5-11-1 5-11-1 5-4-8 5-8-8 1-0-0

Scale = 1:60.7

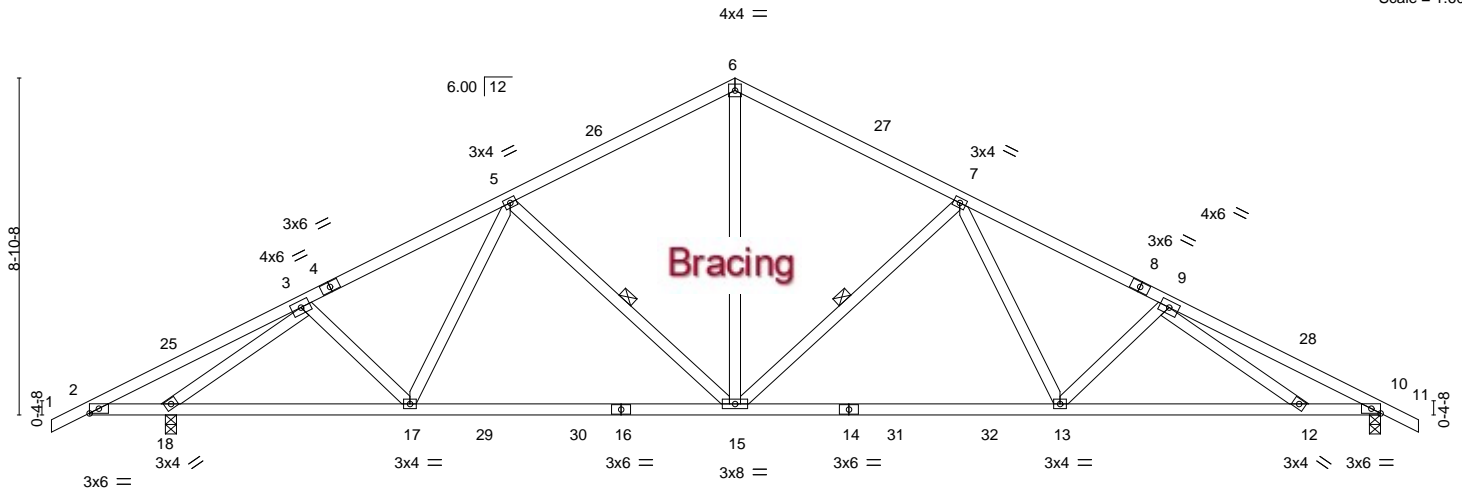


Plate Offsets (X,Y)-- [10:0-2-15,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.38	Vert(LL)	-0.20 13-15	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.90	Vert(CT)	-0.36 13-15	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.84	Horz(CT)	0.08 10	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 189 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 3-6-0 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-15, 5-15

REACTIONS.

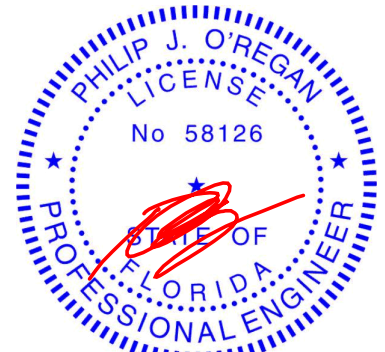
(size) 10=0-3-8, 18=0-3-8
Max Horz 18=-193(LC 13)
Max Uplift 10=-499(LC 13), 18=-552(LC 12)
Max Grav 10=1338(LC 2), 18=1510(LC 2)

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

TOP CHORD 2-3=-373/271, 3-5=-1808/624, 5-6=-1460/589, 6-7=-1460/600, 7-9=-2199/789,
9-10=-2523/866
BOT CHORD 2-18=-189/433, 17-18=-589/1457, 15-17=-510/1511, 13-15=-433/1693, 12-13=-661/2098,
10-12=-672/2214
WEBS 6-15=-320/1008, 7-15=-616/423, 7-13=-160/539, 9-13=-290/270, 5-15=-386/330,
3-17=-1/250, 3-18=-1981/938

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-4-13, Interior(1) 2-4-13 to 17-0-0, Exterior(2R) 17-0-0 to 20-4-13, Interior(1) 20-4-13 to 35-0-0 zone; cantilever left exposed ;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 10=499, 18=552.



Philip J. O'Regan PE No.58126
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

May 4,2022

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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	WCH - WRIGHTS RES.	T27603762
3154702	T03	Common	5	1	Job Reference (optional)	

Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon May 2 14:35:11 2022 Page 1

ID:xlVXulCmNkmDs6DSptupvzKdT2-ZkYbNibA_ZqxpCTVeJmxhNTD2jNMQLrjsdm7bezKW2E

1'-0-0 4'-1-12 8'-6-5 13'-6-5 19'-0-0 24'-5-11 29'-5-11 33'-10-4 38'-0-0 39'-0-0
1'-0-0 4'-1-12 4'-4-9 5'-0-1 5'-5-11 5'-5-11 5'-0-1 4'-4-9 4'-1-12 1'-0-0

Scale = 1:67.5

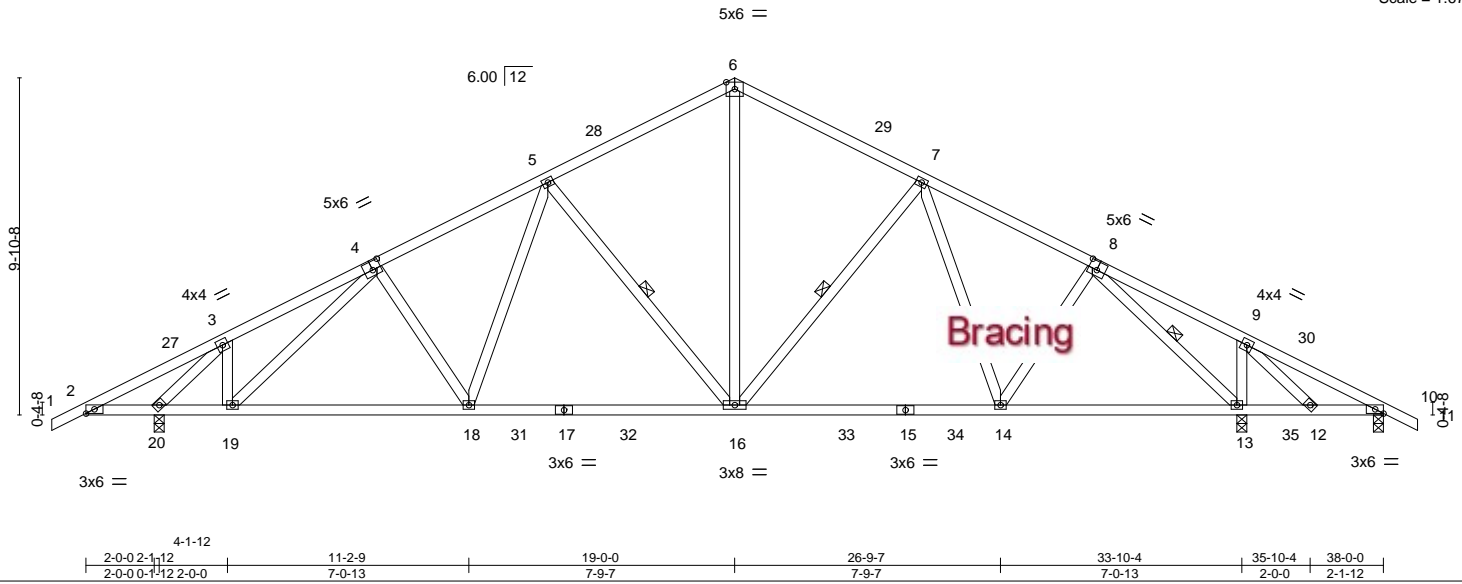


Plate Offsets (X,Y)-- [4:0-3-0,0-3-0], [8:0-3-0,0-3-0], [10:0-2-15,Edge]

LOADING (psf)	SPACING-		CSI.	DEFL.	in (loc)	I/defl	L/d	PLATES	GRIP
TCLL 20.0	Plate Grip DOL	1.25	TC 0.33	Vert(LL)	-0.14 16-18	>999	240	MT20	244/190
TCDL 7.0	Lumber DOL	1.25	BC 0.74	Vert(CT)	-0.24 16-18	>999	180		
BCLL 0.0 *	Rep Stress Incr	YES	WB 0.51	Horz(CT)	0.06 13	n/a	n/a		
BCDL 10.0	Code FBC2020/TPI2014		Matrix-MS					Weight: 228 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 4-4-14 oc purlins.
BOT CHORD Rigid ceiling directly applied or 6-0-0 oc bracing.
WEBS 1 Row at midpt 7-16, 8-13, 5-16

REACTIONS.

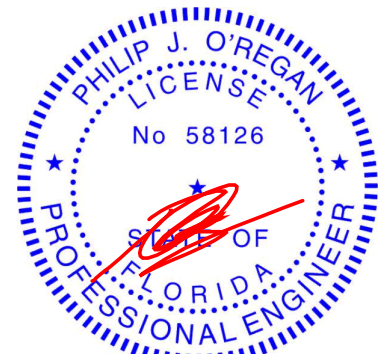
(size) 13=0-3-8, 10=0-3-8, 20=0-3-8
Max Horz 20=-215(LC 13)
Max Uplift 13=-596(LC 13), 10=-92(LC 10), 20=-557(LC 12)
Max Grav 13=1729(LC 2), 10=60(LC 24), 20=1482(LC 2)

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

TOP CHORD 2-3=-357/293, 3-4=-1309/524, 4-5=-1689/632, 5-6=-1244/545, 6-7=-1245/553,
7-8=-1344/512, 8-9=-123/445, 9-10=-137/414
BOT CHORD 2-20=-223/405, 19-20=-502/1219, 18-19=-587/1525, 16-18=-447/1388, 14-16=-254/1180,
13-14=-187/922, 12-13=-364/265, 10-12=-316/157
WEBS 6-16=-292/839, 7-16=-272/279, 8-14=-61/437, 8-13=-1829/609, 9-13=-259/277,
9-12=-286/67, 5-16=-495/371, 5-18=-114/359, 4-19=-492/248, 3-19=-102/493,
3-20=-1879/762

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-9-10, Interior(1) 2-9-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-0-0 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
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 3x4 MT20 unless otherwise indicated.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas 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) 10 except (jt=lb) 13=596, 20=557.



Philip J. O'Regan PE No.58126
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

May 4, 2022

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

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



6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	WCH - WRIGHTS RES.	T27603764
3154702	T04	Roof Special	10	1	Job Reference (optional)	

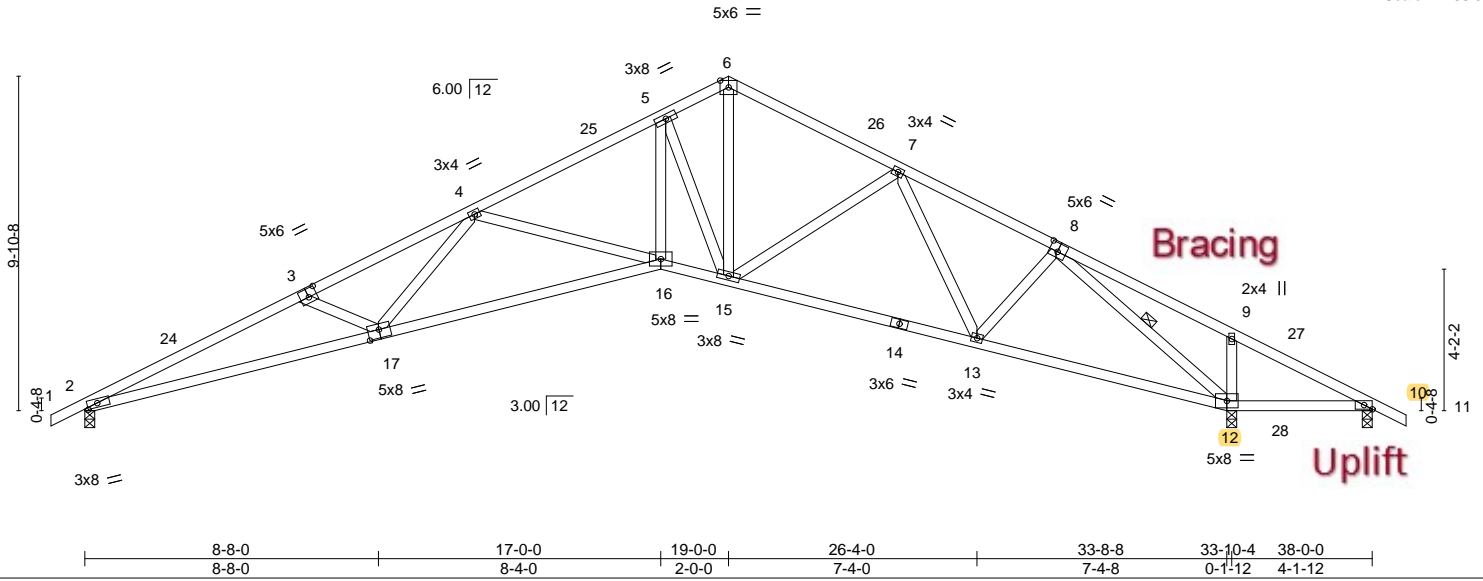
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon May 2 14:35:14 2022 Page 1

ID:xlVxulCmNkmDs6DSptupuvzKdT2-JEk?ke2GUCWgfC4JSJeJ?5cJxL5d0E9Zb_nCyzKW2B

1-0-0 6-6-0 11-6-0 17-0-0 19-0-0 24-0-0 28-8-0 33-8-8 38-0-0 39-0-0
1-0-0 6-6-0 5-0-0 5-6-0 2-0-0 5-0-0 4-8-0 5-0-8 4-3-8 1-0-0

Scale = 1:68.0



LOADING (psf)		SPACING-		CSI.		DEFL.		PLATES		GRIP	
TCLL	20.0	Plate Grip DOL	1.25	TC	0.77	Vert(LL)	0.35 16-17 >999	240	MT20	244/190	
TCDL	7.0	Lumber DOL	1.25	BC	0.99	Vert(CT)	-0.71 16-17 >573	180			
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.92	Horz(CT)	0.38 12 n/a	n/a			
BCDL	10.0	Code FBC2020/TPI2014		Matrix-MS							
								Weight: 200 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 2-8-3 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-12

REACTIONS.

(size) 12=0-3-8, 10=0-3-8, 2=0-3-8
Max Horz 2=-215(LC 17)
Max Uplift 12=-826(LC 12), 10=-733(LC 1), 2=-485(LC 12)
Max Grav 12=2472(LC 1), 10=329(LC 12), 2=1181(LC 1)

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

TOP CHORD 2-3=-3733/1577, 3-4=-3438/1426, 4-5=-2251/825, 5-6=-1578/661, 6-7=-1616/628,
7-8=-1161/516, 8-9=-706/1994, 9-10=-775/1993
BOT CHORD 2-17=-1554/3389, 16-17=-1127/2789, 15-16=-584/2009, 13-15=-284/1306,
12-13=-148/605, 10-12=-1716/722
WEBS 3-17=-289/304, 4-17=-251/624, 4-16=-774/543, 5-16=-537/1456, 5-15=-1487/691,
6-15=-506/1220, 7-15=-62/296, 7-13=-633/288, 8-13=-194/721, 8-12=-3112/1019,
9-12=-317/265

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-9-10, Interior(1) 2-9-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-0-0 zone; porch right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 12=826, 10=733, 2=485.



Philip J. O'Regan PE No.58126
MiTek USA, Inc. FL Cert 6634
6904 Parke East Blvd. Tampa FL 33610
Date:

May 4, 2022

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

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



6904 Parke East Blvd.
Tampa, FL 36610

Job	Truss	Truss Type	Qty	Ply	WCH - WRIGHTS RES.	T27603765
3154702	T04G	GABLE	1	1	Job Reference (optional)	

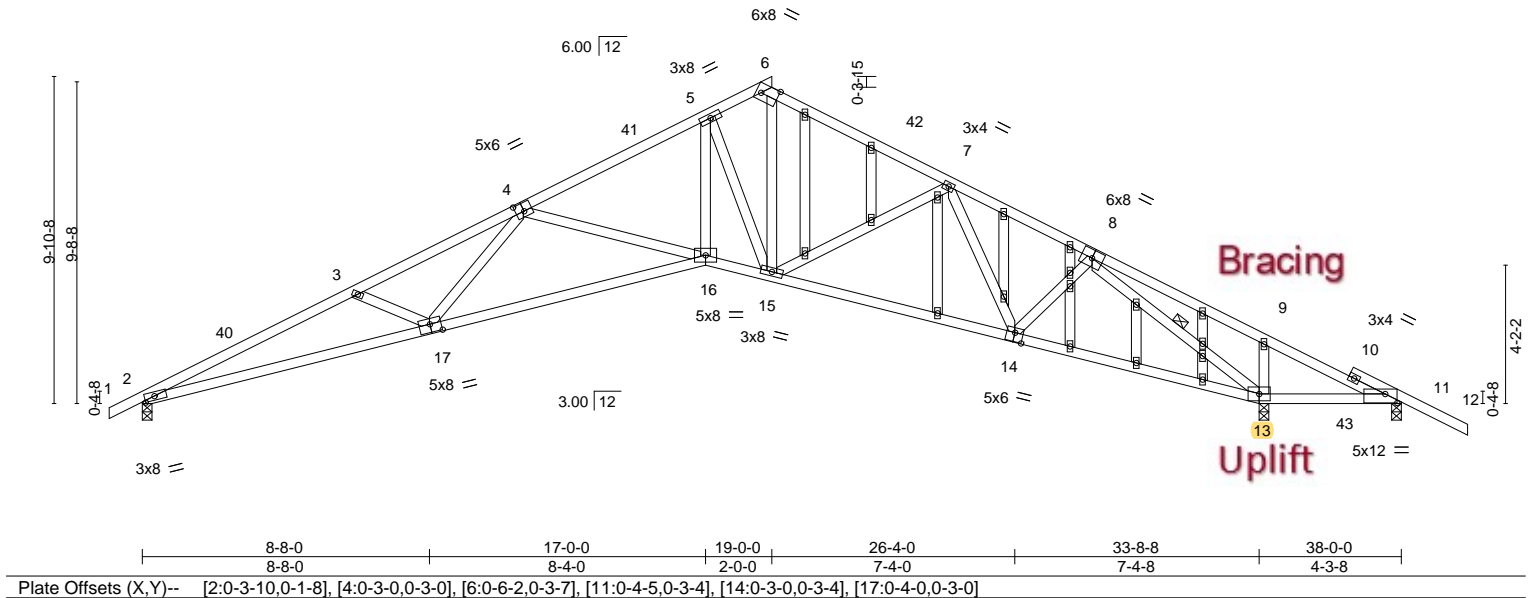
Builders FirstSource (Lake City, FL), Lake City, FL - 32055,

8.530 s Dec 6 2021 MiTek Industries, Inc. Mon May 2 14:35:16 2022 Page 1

ID:xlVXulCmNkmDs6DSptupvzKdT2-whLUQPFJoSEvzMRtL6OQB_nk1P5w2S0vTuHrzKW29

1-0-0 6-6-0 11-6-0 17-0-0 19-0-0 24-4-0 28-8-0 33-8-8 38-0-0 39-0-0
1-0-0 6-6-0 5-0-0 5-6-0 2-0-0 5-4-0 4-4-0 5-0-8 4-3-8 1-0-0

Scale = 1:69.5



LOADING (psf)	SPACING-	CSL	DEFL.	PLATES	GRIP
TCLL 20.0	2-0-0	TC 0.65	in (loc) l/defl L/d	MT20	244/190
TCDL 7.0	Plate Grip DOL 1.25	BC 1.00	Vert(LL) 0.37 16-17 >999 240		
BCLL 0.0 *	Lumber DOL 1.25	WB 0.90	Vert(CT) -0.74 16-17 >545 180		
BCDL 10.0	Rep Stress Incr YES	Matrix-MS	Horz(CT) 0.41 13 n/a n/a		
	Code FBC2020/TPI2014			Weight: 231 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 2-8-5 oc purlins.
BOT CHORD Rigid ceiling directly applied or 2-2-0 oc bracing.
WEBS 1 Row at midpt 8-13

REACTIONS.

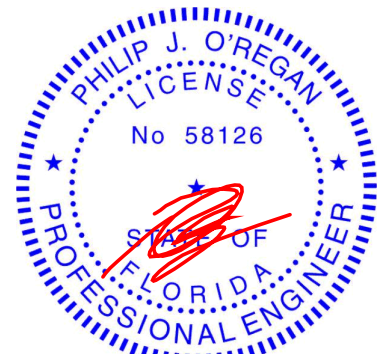
(size) 11=0-3-8, 2=0-3-8, 13=0-3-8
Max Horz 2=-235(LC 17)
Max Uplift 11=-510(LC 23), 2=-495(LC 12), 13=-726(LC 12)
Max Grav 11=230(LC 12), 2=1207(LC 1), 13=2237(LC 1)

FORCES.

(lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.
TOP CHORD 2-3=-3852/1620, 3-4=-3540/1443, 4-5=-2365/856, 5-6=-1671/671, 6-7=-1786/671,
7-8=-1472/588, 8-9=-637/1844, 9-11=-686/1802
BOT CHORD 2-17=-1584/3498, 16-17=-1150/2902, 15-16=-600/2113, 14-15=-337/1537,
13-14=-225/871, 11-13=-1583/660
WEBS 3-17=-298/315, 4-17=-230/612, 4-16=-782/549, 5-16=-546/1508, 5-15=-1517/691,
6-15=-546/1349, 7-15=-132/285, 7-14=-516/245, 8-14=-166/647, 8-13=-3230/1038

NOTES-

- Unbalanced roof live loads have been considered for this design.
- Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp C; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-0-0 to 2-9-10, Interior(1) 2-9-10 to 18-10-1, Exterior(2R) 18-10-1 to 22-7-10, Interior(1) 22-7-10 to 40-0-0 zone; porch 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.
- Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- All plates are 2x4 MT20 unless otherwise indicated.
- Gable studs spaced at 2-0-0 oc.
- This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- * This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- Bearing at joint(s) 2 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 11=510, 2=495, 13=726.



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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, 2670 Crain Highway, Suite 203 Waldorf, MD 20601



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Symbols

PLATE LOCATION AND ORIENTATION



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

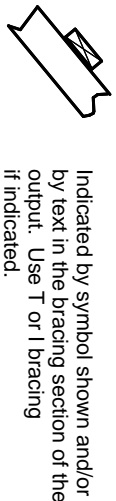
For 4 x 2 orientation, locate plates 0- 1/16" from outside edge of truss.

PLATE SIZE

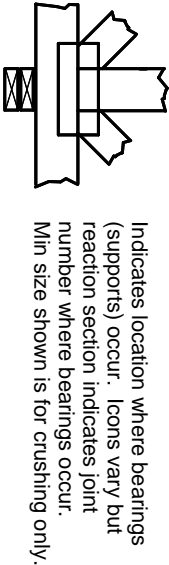
4 X 4

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

LATERAL BRACING LOCATION

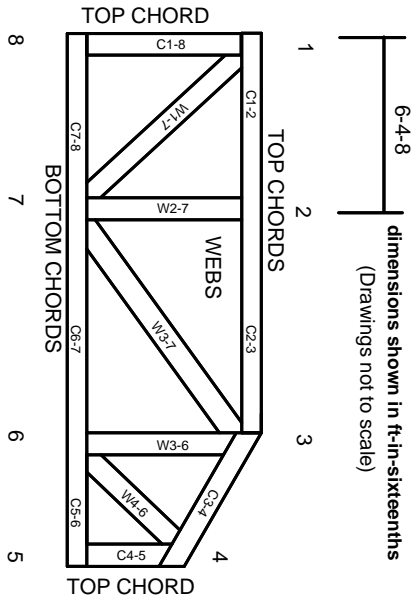


BEARING



Industry Standards:
ANSI/TPI 1: National Design Specification for Metal Plate Connected Wood Truss Construction.
DSB-89: 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. 5/19/2020

General Safety Notes

Failure to Follow Could Cause Property Damage or Personal Injury

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