

Name Date

4/24/23



RE: 3501836 - IC CONST. - HALL GUEST HSE

MiTek USA, Inc.

16023 Swingley Ridge Rd

Customer Info: IC CONSTRUCTION Project Name: Hall Guest Hse Model: Custom Chesterfield, MO 63017

Lot/Block: N/A Subdivision: N/A

Address: TBD, TBD

Site Information:

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 20 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	No.	Seal#	Truss I
1	T30392298	CJ01	4/24/23	15	T30392312	T09
2	T30392299	CJ03	4/24/23	16	T30392313	T10
3	T30392300	EJ01	4/24/23	17	T30392314	T10G
4	T30392301	HJ06	4/24/23	18	T30392315	V01
4 5 6	T30392302	T01	4/24/23	19	T30392316	V02
6	T30392303	<u>T</u> 01G	4/24/23	20	T30392317	V03
7	T30392304	T02	4/24/23			
8	T30392305	T03	4/24/23			
9	T30392306	T03G	4/24/23			
10	T30392307	T04	4/24/23			
11	T30392308	T05	4/24/23			
12	T30392309	<u>T06</u>	4/24/23			
13	T30392310	<u>T07</u>	4/24/23			
14	T30392311	T08	4/24/23			



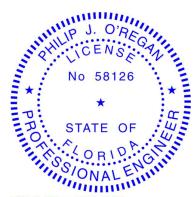
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The truss drawing(s) referenced above have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by Builders FirstSource-Lake City, FL.

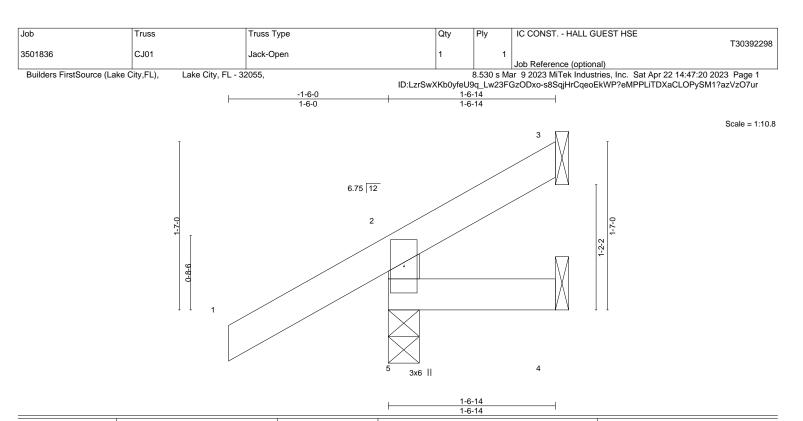
Truss Design Engineer's Name: ORegan, Philip

My license renewal date for the state of Florida is February 28, 2025.

**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 Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017



LOADING	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	I/defI	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.20	Vert(LL)	0.00	5	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.05	Vert(CT)	0.00	5	>999	180		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.00	Horz(CT)	-0.00	3	n/a	n/a		
BCDL	10.0	Code FBC2020/TP	12014	Matri	x-MR						Weight: 8 lb	FT = 20%

LUMBER-

WFBS

TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 BRACING-

TOP CHORD Structural wood sheathing directly applied or 1-6-14 oc purlins,

except end verticals

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS.

(size) 5=0-3-8, 3=Mechanical, 4=Mechanical

Max Horz 5=55(LC 12)

Max Uplift 5=-52(LC 12), 3=-13(LC 12), 4=-9(LC 9) Max Grav 5=193(LC 1), 3=7(LC 8), 4=22(LC 3)

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

### NOTES-

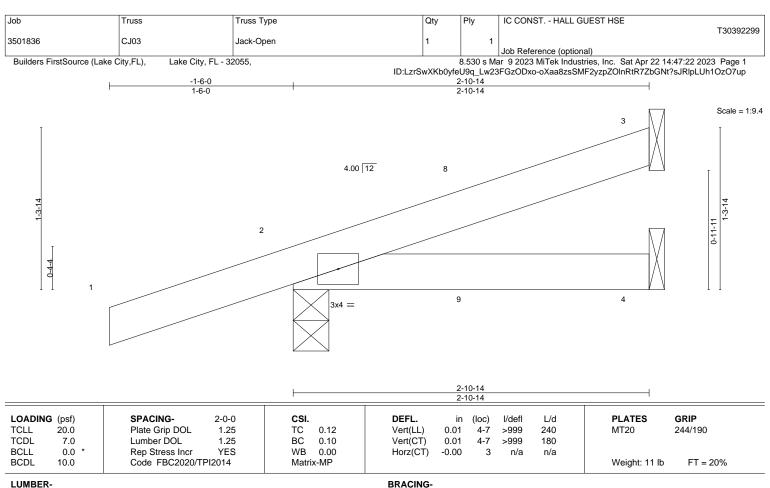
- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 52 lb uplift at joint 5, 13 lb uplift at joint 3 and 9 lb uplift at joint 4.

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TOP CHORD

BOT CHORD

LUMBER-

REACTIONS.

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

(size) 3=Mechanical, 2=0-3-8, 4=Mechanical

Max Horz 2=56(LC 8)

Max Uplift 3=-29(LC 8), 2=-118(LC 8), 4=-15(LC 9) Max Grav 3=56(LC 1), 2=208(LC 1), 4=46(LC 3)

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

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 2-10-2 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 29 lb uplift at joint 3, 118 lb uplift at joint 2 and 15 lb uplift at joint 4.

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April 24,2023



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

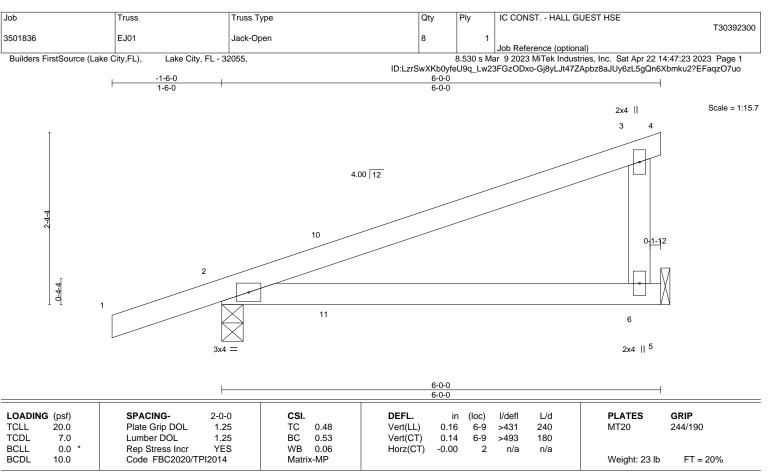
Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall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



Structural wood sheathing directly applied or 2-10-14 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.



LUMBER-

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

BRACING-

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 2=0-3-8, 6=Mechanical

Max Horz 2=91(LC 8)

Max Uplift 2=-156(LC 8), 6=-113(LC 8) Max Grav 2=303(LC 1), 6=211(LC 1)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 6-0-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 156 lb uplift at joint 2 and 113 lb uplift at ioint 6.

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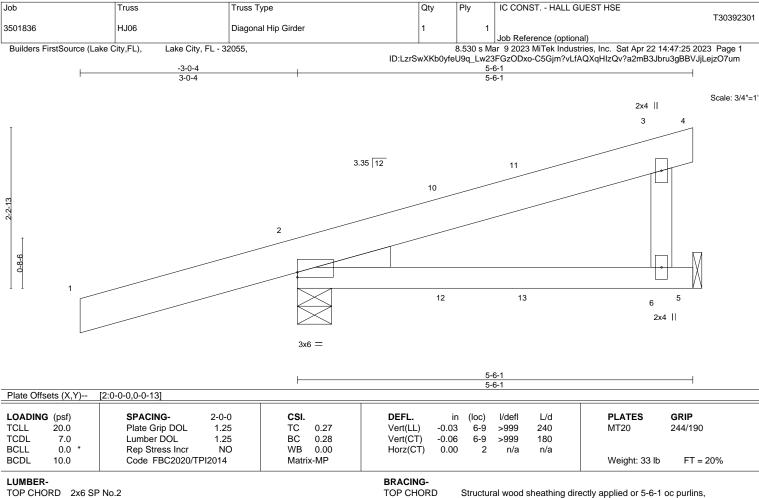


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BOT CHORD

except end verticals.

Rigid ceiling directly applied or 10-0-0 oc bracing.

TOP CHORD 2x6 SP No.2 BOT CHORD 2x4 SP No 2

WFBS 2x4 SP No 3

WEDGE Left: 2x4 SP No.3

REACTIONS. (size) 2=0-5-12, 5=Mechanical

Max Horz 2=91(LC 4)

Max Uplift 2=-236(LC 4), 5=-184(LC 8) Max Grav 2=409(LC 1), 5=347(LC 1)

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

### NOTES-

- 1) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; Lumber DOL=1.60 plate grip DOL=1.60
- 2) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 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) Refer to girder(s) for truss to truss connections.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 236 lb uplift at joint 2 and 184 lb uplift at joint 5.
- 7) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 18 lb down and 31 lb up at 2-1-3, and 56 lb down and 11 lb up at 3-2-14 on top chord, and 14 lb down and 23 lb up at 2-1-3, and 24 lb down and 15 lb up at 3-2-14, and 191 lb down and 136 lb up at 5-5-5 on bottom chord. The design/selection of such connection device(s) is the
- 8) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf)

Vert: 1-3=-54, 3-4=-54, 5-7=-20 Concentrated Loads (lb)

Vert: 5=-191(F) 12=-4(F) 13=9(B)

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IC CONST. - HALL GUEST HSE Job Truss Truss Type Qty Ply T30392302 3501836 T01 2 Common Job Reference (optional) Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Sat Apr 22 14:47:27 2023 Page 1 ID:LzrSwXKb0yfeU9q\_Lw23FGzODxo-9UNTBgwbBogF4aSLYK128BGJxOQDXWyUzdCSjbzO7uk 21-6-0 10-0-0 14-0-0 20-0-0 4-0-0 6-0-0 1-6-0 Scale = 1:41.4 4x4 = 5 6.75 12 2x4 || 20 2x4 || 3x4 / 3x4 <> 22 23 11 10 5x8 = 3x4 = 3x6 II 3x6 II 6-0-0 14-0-0 20-0-0

	6-0-0		8-0-0	6-0-0	1
Plate Offsets (X,Y) [2:	:0-3-10,0-0-5], [8:0-3-10,0-0-5], [11:0-4-0	0-3-4]			
LOADING (psf)	SPACING- 2-0-0	CSI.	<b>DEFL.</b> in (loc)	I/defl L/d PLATES	GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.64	Vert(LL) -0.25 10-11	>946 240 MT20	244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.74	Vert(CT) -0.49 10-11	>487 180	
BCLL 0.0 *	Rep Stress Incr NO	WB 0.30	Horz(CT) 0.04 8	n/a n/a	
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS		Weight: 106 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

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

2x4 SP No.1 \*Except\* 8-11: 2x4 SP 2850F 2.0E or 2x4 SP M 31

**WEBS** 2x4 SP No.3

**SLIDER** Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS. (size) 2=0-3-8, 8=0-3-8

Max Horz 2=129(LC 11)

Max Uplift 2=-247(LC 12), 8=-247(LC 13) Max Grav 2=1138(LC 19), 8=1138(LC 20)

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

TOP CHORD 2-4=-1647/337, 4-5=-1639/442, 5-6=-1648/443, 6-8=-1656/338

BOT CHORD 2-11=-289/1455, 10-11=-142/976, 8-10=-209/1381

WEBS 5-10=-267/878, 5-11=-265/865

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 21-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 247 lb uplift at joint 2 and 247 lb uplift at
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf)

Vert: 1-5=-54, 5-9=-54, 11-12=-20, 10-11=-80(F=-60), 10-16=-20

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Structural wood sheathing directly applied or 3-8-11 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

16023 Swingley Ridge Rd Chesterfield, MO 63017



20-0-0

10-0-0

2-0-0 oc purlins (6-0-0 max.).

Rigid ceiling directly applied or 10-0-0 oc bracing.

10-0-0

10-0-0

21-6-0

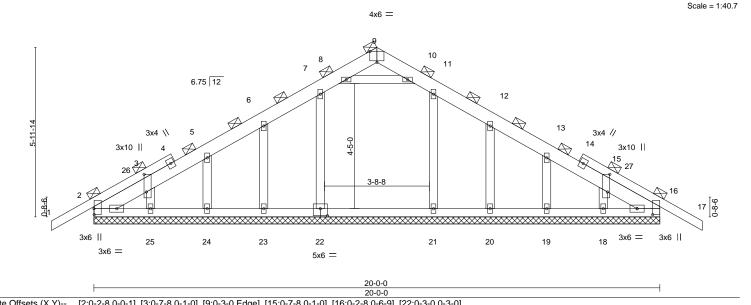


Plate Oil	rlate Offsets (A, Y) [2:0-2-8,0-0-1], [3:0-7-8,0-1-0], [9:0-3-0,⊏age], [15:0-7-8,0-1-0], [16:0-2-8,0-0-9], [22:0-3-0,0-3-0]											
LOADIN	G (psf)	SPACING-	2-0-0	CSI.		DEFL.	in	(loc)	l/defl	L/d	PLATES	GRIP
TCLL	20.0	Plate Grip DOL	1.25	TC	0.13	Vert(LL)	-0.01	17	n/r	120	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	BC	0.14	Vert(CT)	-0.01	17	n/r	120		
BCLL	0.0 *	Rep Stress Incr	YES	WB	0.06	Horz(CT)	0.00	16	n/a	n/a		
BCDL	10.0	Code FBC2020/TI	PI2014	Matri	x-S						Weight: 131 lb	FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

2x6 SP No 2 \*Except\*

TOP CHORD 1-4.14-17: 2x4 SP No.2

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

REACTIONS. All bearings 20-0-0.

Max Horz 2=120(LC 11) (lb) -

Max Uplift All uplift 100 lb or less at joint(s) 2, 16, 22, 23, 24, 25, 20, 19, 18

All reactions 250 lb or less at joint(s) 2, 16, 23, 24, 25, 20, 19, 18 except 22=316(LC 19), 21=291(LC Max Grav

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

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 1-6-0, Exterior(2N) 1-6-0 to 10-0-0, Corner(3R) 10-0-0 to 13-0-0, Exterior(2N) 13-0-0 to 21-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate
- 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 6) Gable requires continuous bottom chord bearing.
- 7) Gable studs spaced at 2-0-0 oc.
- 8) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 9) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 10) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2, 16, 22, 23, 24, 25, 20, 19, 18,
- 11) Beveled plate or shim required to provide full bearing surface with truss chord at joint(s) 2, 16.
- 12) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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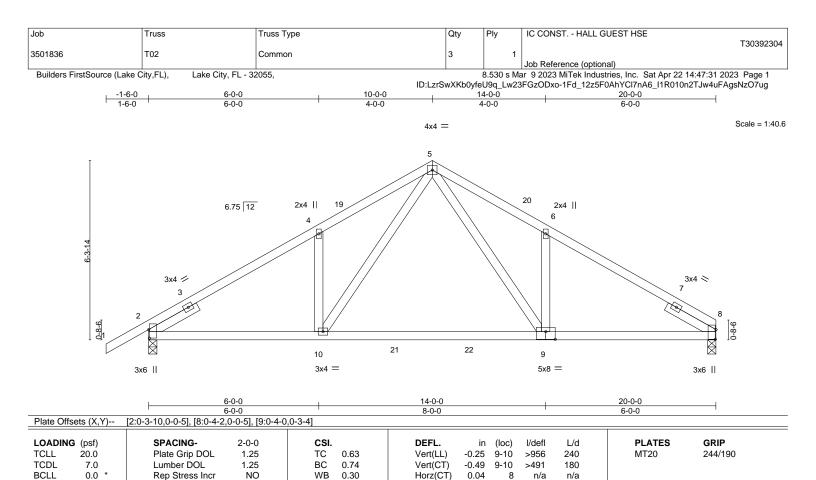
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Chesterfield, MO 63017



**BRACING-**

TOP CHORD

**BOT CHORD** 

LUMBER-

BCDL

TOP CHORD 2x4 SP No.2

BOT CHORD 2x4 SP 2850F 2.0E or 2x4 SP M 31 \*Except\*

8-9: 2x4 SP No.1

**WEBS** 2x4 SP No.3

10.0

**SLIDER** Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS.

(size) 8=0-3-8, 2=0-3-8 Max Horz 2=125(LC 9)

Max Uplift 8=-214(LC 13), 2=-247(LC 12) Max Grav 8=1064(LC 20), 2=1140(LC 19)

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

Code FBC2020/TPI2014

2-4=-1658/339, 4-5=-1651/443, 5-6=-1656/449, 6-8=-1660/343 TOP CHORD

2-10=-302/1456, 9-10=-155/970, 8-9=-226/1375 BOT CHORD

WEBS 5-9=-273/881, 5-10=-266/877

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 1-6-0, Interior(1) 1-6-0 to 10-0-0, Exterior(2R) 10-0-0 to 13-0-0, Interior(1) 13-0-0 to 20-0-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate arip DOL=1.60

Matrix-MS

- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 8=214, 2=247.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf)

Vert: 1-5=-54, 5-8=-54, 10-15=-20, 9-10=-80(F=-60), 9-11=-20

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Philip J. O'Regan PE No.58126 MITek Inc. DBA MITek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017 Date:

April 24,2023

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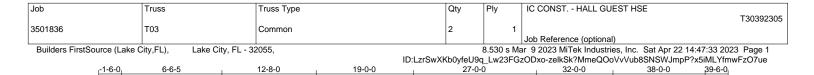
Weight: 104 lb

Structural wood sheathing directly applied or 3-8-11 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

FT = 20%

16023 Swingley Ridge Rd Chesterfield, MO 63017



8-0-0

6-4-0

Scale = 1:75.0 5x8 =

5-0-0

Bracing 6.75 12 3x4 🖊 3x4 ≥ 3x6 / 8 3x6 <> 2x4 \\ 2x4 | 10 3x4 🖊 3x4 < 11 3 ې,12 **]**ф3 ⊠ 18 30 17 31 32 34 35 19 33 15 16 14 3x6 || 3x4 =3x6 =2x4 || 5x8 = 3x4 = 3x6 || 3x4 =12-10-4 18-1-12 32-0-0 38-0-0 5-10-4 7-9-8 5-0-12 8-0-0 6-0-0 Plate Offsets (X,Y)--[2:0-3-6,0-0-1], [12:0-3-14,0-0-1], [15:0-3-12,0-3-4] LOADING (psf) SPACING-CSI. DEFL. (loc) I/defI L/d **PLATES** GRIP 20.0 Plate Grip DOL 1.25 TC 0.75 Vert(LL) 0.36 14-15 >653 240 MT20 244/190

Vert(CT)

Horz(CT)

**BRACING-**

TOP CHORD

**BOT CHORD** 

WFBS

-0.52 14-15

0.02

>460

1 Row at midnt

n/a

180

n/a

Rigid ceiling directly applied or 6-0-0 oc bracing.

Structural wood sheathing directly applied or 4-2-10 oc purlins.

7-16, 7-15, 7-18

Weight: 241 lb

FT = 20%

LUMBER-

**TCLL** 

TCDL

**BCLL** 

BCDL

TOP CHORD 2x4 SP No.2

7.0

0.0

10.0

**BOT CHORD** 2x4 SP No.1 \*Except\* 15-17: 2x4 SP No.2

WFBS 2x4 SP No.3 \*Except\*

7-18: 2x4 SP No.2

**SLIDER** Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

Lumber DOL

Rep Stress Incr

Code FBC2020/TPI2014

REACTIONS. All bearings 0-3-8.

(lb) -Max Horz 2=-230(LC 10)

Max Uplift All uplift 100 lb or less at joint(s) 2 except 18=-300(LC 12), 16=-178(LC

1.25

вс

WB

Matrix-MS

0.97

0.80

13) 12=-274(LC 13)

Max Grav All reactions 250 lb or less at joint(s) except 2=422(LC 25), 18=969(LC 2),

16=1483(LC 20), 12=1042(LC 20)

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

TOP CHORD 2-4=-395/398, 4-6=-189/298, 6-7=0/476, 7-8=-589/354, 8-10=-1446/609,

10-12=-1473/547

**BOT CHORD** 2-19=-253/229, 18-19=-402/257, 16-18=-299/232, 14-15=-172/666, 12-14=-382/1207 **WEBS** 4-19=-323/208, 6-19=-541/621, 6-18=-650/461, 7-16=-1284/443, 7-15=-547/1366,

8-15=-729/344, 8-14=-347/894

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10, Interior(1) 2-3-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) 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.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 2 except (jt=lb) 18=300 16=178 12=274
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25

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Philip J. O'Regan PE No.58126 MITek Inc. DBA MITek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017 Date:

April 24,2023

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16023 Swingley Ridge Rd

Job	Truss	Truss Type	Qty	Ply	IC CONST HALL GUEST HSE
					T30392305
3501836	T03	Common	2	1	
					Job Reference (optional)

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Sat Apr 22 14:47:34 2023 Page 2 ID:LzrSwXKb0yfeU9q\_Lw23FGzODxo-RqI7f40\_XxYFQfUiSIfhwf3UWDIEgYyWaCOKThzO7ud

LOAD CASE(S) Standard

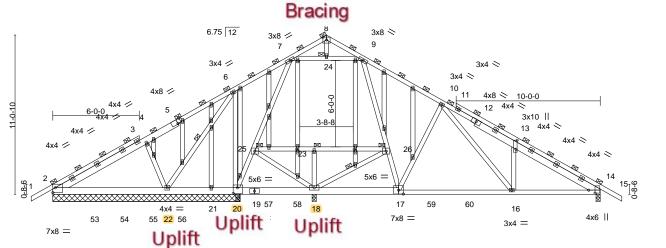
Uniform Loads (plf)

Vert: 1-7=-54, 7-13=-54, 15-20=-20, 14-15=-80(F=-60), 14-24=-20



ID:LzrSwXKb0yfeU9q\_Lw23FGzODxo-sP\_FH52sqsxqH7DG7RDOXlgyxQpMtwFyGAd\_30zO7ua 6-6-5 6-6-5 19-0-0 27-0-0 32-0-0 38-0-0 12-8-0 6-1-11 8-0-0 5-0-0 6-0-0

Scale = 1:80.0



	7-9-8	12-8-0	13 <sub>r</sub> Q-0	18-1-12	24-0-0	32-0-0	38-0-0
	7-9-8	4-10-8	0-4-0	5-1-12	5-10-4	8-0-0	6-0-0
Plate Offsets (X,Y)	[2:Edge,0-4-2], [5:0-2-15,Edge],	[13:0-7-8,0-1-0],	[14:0-2-8	,0-5-5], [17:0-4	4-0,0-3-4], [20:0-3-8,0-	-4-12], [27:0-1-8,0-1-0], [41:0	-1-8,0-1-0]

LOADING (	(psf)	SPACING-	2-0-0	CSI.		DEFL.	in (loc)	l/defl	L/d	PLATES	GRIP
TCLL 2	20.0	Plate Grip DOL	1.25	TC	0.93	Vert(LL)	-0.18 16-17	>999	240	MT20	244/190
TCDL	7.0	Lumber DOL	1.25	ВС	0.81	Vert(CT)	-0.32 16-17	>752	180		
BCLL	0.0 *	Rep Stress Incr	NO	WB	0.76	Horz(CT)	0.03 14	n/a	n/a		
BCDL 1	10.0	Code FBC2020/TF	PI2014	Matri	x-MS					Weight: 383 lb	FT = 20%

LUMBER-

TOP CHORD 2x4 SP No 2 \*Except\* 12-14.2-5: 2x6 SP No.2

**BOT CHORD** 2x6 SP No.2 \*Except\* 14-17: 2x4 SP No.2

**WEBS** 2x4 SP No.3 **OTHERS** 2x4 SP No.3

**BRACING-**

**JOINTS** 

TOP CHORD 2-0-0 oc purlins (5-0-13 max.).

**BOT CHORD** Rigid ceiling directly applied or 10-0-0 oc bracing. WERS 1 Row at midpt 6-22, 18-26

1 Brace at Jt(s): 8, 23, 24, 25, 26

REACTIONS. All bearings 13-0-0 except (jt=length) 14=0-3-8, 18=0-3-8, 20=0-3-8.

(lb) -Max Horz 2=-224(LC 6)

Max Uplift All uplift 100 lb or less at joint(s) except 14=-252(LC 9), 2=-294(LC 9), 22=-681(LC 8), 18=-705(LC 4), 21=-150(LC 19), 20=-1323(LC 16)

Max Grav All reactions 250 lb or less at joint(s) 21 except 14=938(LC 2), 2=826(LC 1), 22=1504(LC 1), 18=2288(LC 22), 20=932(LC 23), 2=826(LC 1)

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

TOP CHORD 2-4=-708/295, 4-6=-635/322, 6-7=-734/411, 9-10=-697/305, 10-13=-1222/422,

13-14=-1285/326

**BOT CHORD** 2-22=-163/581, 21-22=-79/563, 20-21=-79/563, 17-18=-58/382, 16-17=-108/754,

14-16=-225/1063

**WEBS** 4-22=-461/286, 6-22=-402/193, 20-25=-486/1161, 17-26=-338/958, 10-17=-501/255,

10-16=-187/499, 7-24=-485/316, 9-24=-485/316, 23-25=-522/1689, 23-26=-522/1689.

18-26=-1720/533, 18-25=-1568/480

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone; porch left and right exposed; 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) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 252 lb uplift at joint 14, 294 lb uplift at joint 2, 681 lb uplift at joint 22, 705 lb uplift at joint 18, 150 lb uplift at joint 21, 1323 lb uplift at joint 20 and 294 lb uplift at joint 2.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.
- 11) This truss has large uplift reaction(s) from gravity load case(s). Proper connection is required to secure truss against upward

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Continued on page 2

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Job	Truss	Truss Type	Qty	Ply	IC CONST HALL GUEST HSE
					T30392306
3501836	T03G	GABLE	1	1	
					Job Reference (optional)

Builders FirstSource (Lake City,FL),

Lake City, FL - 32055,

8.530 s Mar 9 2023 MiTek Industries, Inc. Sat Apr 22 14:47:37 2023 Page 2 ID:LzrSwXKb0yfeU9q\_Lw23FGzODxo-sP\_FH52sqsxqH7DG7RDOXIgyxQpMtwFyGAd\_30zO7ua

### NOTES-

- 12) Hanger(s) or other connection device(s) shall be provided sufficient to support concentrated load(s) 324 lb down and 221 lb up at 2-9-7, 191 lb down and 136 lb up at 4-10-3, 191 lb down and 136 lb up at 6-10-3, 191 lb down and 136 lb up at 8-10-3, 191 lb down and 136 lb up at 10-10-3, 191 lb down and 136 lb up at 12-10-3, and 191 lb down and 136 lb up at 14-10-3, and 191 lb down and 136 lb up at 16-10-3 on bottom chord. The design/selection of such connection device(s) is the responsibility of others.
- 13) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

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

Vert: 1-8=-54, 8-15=-54, 18-50=-20, 18-59=-80(F=-60), 46-59=-20

Concentrated Loads (lb)

Vert: 21=-191(F) 20=-191(F) 53=-324(F) 54=-191(F) 55=-191(F) 56=-191(F) 57=-191(F) 58=-191(F)



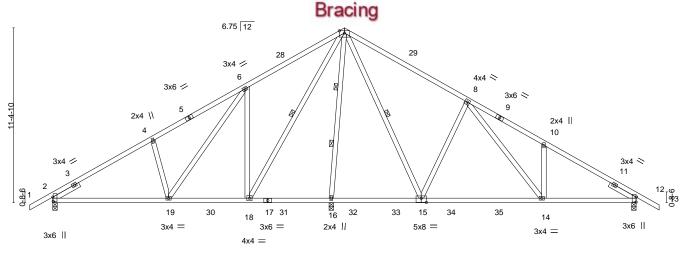
16023 Swingley Ridge Rd Chesterfield, MO 63017



ID:LzrSwXKb0yfeU9q\_Lw23FGzODxo-oo6?in47MUBYWQMfFsFsdjmLHETcLmGFjU658vzO7uY 12-8-0 19-0-0 , 27-0-0 32-0-0 38-0-0 6-4-0 8-0-0 5-0-0 6-0-0

5x8 =

Scale = 1:75.0



12-8-0 18-0-0 24-0-0 32-0-0 38-0-0 7-6-8 5-1-8 8-0-0 6-0-0 5-4-0 6-0-0 Plate Offsets (X,Y)--[2:0-3-6,0-0-5], [12:0-3-14,0-0-1], [15:0-4-0,0-3-4]

LOADING (ps	′	SPACING- Plate Grip DOL	2-0-0 1.25	CSI.	0.74	DEFL. Vert(LL)	in -0.27	(loc) 14-15	l/defl >891	L/d 240	PLATES MT20	<b>GRIP</b> 244/190
TCDL 7.	.0	Lumber DOL	1.25	ВС	0.95	Vert(CT)	-0.52	14-15	>457	180	IVITZO	244/190
BCLL 0. BCDL 10.	.0 * .0	Rep Stress Incr Code FBC2020/TF	NO PI2014	WB Matri	0.99 x-MS	Horz(CT)	0.02	12	n/a	n/a	Weight: 242 lb	FT = 20%

**BRACING-**

WFBS

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SP No 2

**BOT CHORD** 2x4 SP No.1 \*Except\* 15-17: 2x4 SP No.2

WFBS 2x4 SP No.3 \*Except\*

7-18: 2x4 SP No.2

**SLIDER** Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS. (size) 2=0-3-8, 12=0-3-8, 16=0-3-8

Max Horz 2=230(LC 11)

Max Uplift 2=-159(LC 12), 12=-263(LC 13), 16=-370(LC 12) Max Grav 2=625(LC 19), 12=981(LC 20), 16=2313(LC 19)

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

TOP CHORD 2-4=-581/163, 4-6=-574/241, 6-7=-214/251, 7-8=-469/297, 8-10=-1339/458,

10-12=-1364/364

**BOT CHORD**  $2-19 = -213/635,\ 16-18 = -462/259,\ 15-16 = -302/231,\ 14-15 = -66/572,\ 12-14 = -213/1114$ **WEBS** 4-19=-314/206, 6-19=-211/674, 6-18=-692/352, 7-18=-366/1040, 7-15=-375/1363,

8-15=-733/344, 8-14=-244/909, 7-16=-2102/413

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10, Interior(1) 2-3-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 159 lb uplift at joint 2, 263 lb uplift at joint 12 and 370 lb uplift at joint 16.
- 7) In the LOAD CASE(S) section, loads applied to the face of the truss are noted as front (F) or back (B).

### LOAD CASE(S) Standard

1) Dead + Roof Live (balanced): Lumber Increase=1.25, Plate Increase=1.25 Uniform Loads (plf)

Vert: 1-7=-54, 7-13=-54, 15-20=-20, 14-15=-80(F=-60), 14-24=-20

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Structural wood sheathing directly applied or 4-5-9 oc purlins.

7-16

7-18, 7-15

Rigid ceiling directly applied or 6-0-0 oc bracing.

1 Row at midpt

2 Rows at 1/3 pts

16023 Swingley Ridge Rd Chesterfield, MO 63017

Job Truss Truss Type Qty Ply IC CONST. - HALL GUEST HSE T30392308 3501836 T05 14 Common Job Reference (optional) Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Sat Apr 22 14:47:42 2023 Page 1 ID:LzrSwXKb0yfeU9q\_Lw23FGzODxo-CNn8Lp6?fPZ7Nu5Ew\_oZELOpvRUiYB0hPSKllEzO7uV 12-8-0 19-0-0 25-4-0 31-5-11 38-0-0 39-6-0 1-6-0 6-4-0 6-1-11 6-6-5 Scale = 1:74.9 5x6 = 6.75 12 28 3x6 / 3x6 <> 2x4 \\ 2x4 // 10 19 30 18 31 17 32 33 16 15 35 14 5x8 || 4x6 =4x6 =5x8 || 38-0-0 7-6-8 7-10-13 7-1-7 7-10-13 7-6-8 Plate Offsets (X,Y)--[2:0-4-6.Edge], [12:0-4-6.Edge]

1 1010 0110010 (71) 1	[2:0 : 0;2490]; [:2:0 : 0;2490]			
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL 20.0	Plate Grip DOL 1.25	TC 0.91	Vert(LL) -0.28 14-16 >999 240	MT20 244/190
TCDL 7.0	Lumber DOL 1.25	BC 0.99	Vert(CT) -0.47 14-16 >969 180	
BCLL 0.0 *	Rep Stress Incr YES	WB 0.73	Horz(CT) 0.13 12 n/a n/a	
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS		Weight: 227 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

Structural wood sheathing directly applied.

Rigid ceiling directly applied or 2-2-0 oc bracing.

LUMBER-

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

WFBS SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS.

(size) 2=0-3-8, 12=0-3-8

Max Horz 2=-230(LC 10)

Max Uplift 2=-318(LC 12), 12=-318(LC 13) Max Grav 2=1709(LC 19), 12=1709(LC 20)

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

TOP CHORD 2-4=-2593/453, 4-6=-2539/528, 6-7=-2001/451, 7-8=-2001/451, 8-10=-2539/528,

10-12=-2593/453

BOT CHORD 2-19=-462/2349, 17-19=-316/1982, 16-17=-137/1489, 14-16=-199/1864, 12-14=-290/2177 WEBS

7-16=-247/941, 8-16=-591/299, 8-14=-171/556, 7-17=-247/941, 6-17=-591/299,

6-19=-171/556

### NOTES-

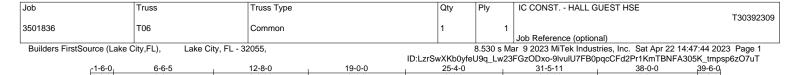
1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10. Interior(1) 2-3-10 to 19-0-0. Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 318 lb uplift at joint 2 and 318 lb uplift at joint 12.

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Philip J. O'Regan PE No.58126 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017 Date:





6-4-0

39-6-0 1-6-0 6-6-5 Scale = 1:74.9

7-9-8

Structural wood sheathing directly applied or 2-2-0 oc purlins.

4-20 6-19

Rigid ceiling directly applied or 2-2-0 oc bracing.

7-7-13

1 Row at midpt

5x6 = Bracing 6.75 12 3x6 / 8 3x6 < 2x4 // 5x6 / 10 19 31 18 17 16 15 34 14 4x8 || 3x6 =3x6 =3x6 II 2-1-12 22-6-11

Plate Offsets (X,Y)--[2:0-3-10,0-0-1], [12:0-4-6,Edge] LOADING (psf) SPACING-CSI. DEFL. (loc) I/defI L/d **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.25 TC 0.79 Vert(LL) -0.23 14-16 >999 240 MT20 244/190 TCDL Vert(CT) 7.0 Lumber DOL 1.25 BC 0.94 -0.38 14-16 >999 180 **BCLL** 0.0 Rep Stress Incr YES WB 0.74 Horz(CT) 0.10 12 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-MS Weight: 236 lb FT = 20%

**BRACING-**

TOP CHORD

**BOT CHORD** 

WFBS

LUMBER-

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x4 SP No 3 WFBS

SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS.

(size) 2=0-3-8, 20=0-4-15, 12=0-3-8

5-7-12

Max Horz 2=230(LC 11)

Max Uplift 2=-118(LC 26), 20=-270(LC 12), 12=-310(LC 13) Max Grav 2=147(LC 23), 20=1787(LC 19), 12=1622(LC 20)

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

TOP CHORD 2-4=-227/582. 4-6=-1868/414. 6-7=-1730/420. 7-8=-1828/432. 8-10=-2362/503.

10-12=-2426/440

 $2 - 20 = -264/180,\ 19 - 20 = -357/1634,\ 17 - 19 = -269/1666,\ 16 - 17 = -113/1328,\ 14 - 16 = -176/1707,$ BOT CHORD

12-14=-279/2035

**WEBS** 4-20=-2172/302, 4-19=-2/302, 6-17=-375/262, 7-17=-213/701, 7-16=-248/943,

8-16=-601/299, 8-14=-163/559

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

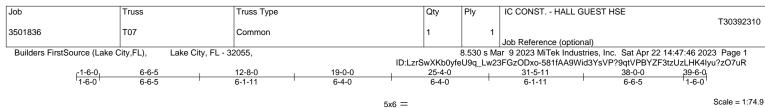
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10, Interior(1) 2-3-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 118 lb uplift at joint 2, 270 lb uplift at joint 20 and 310 lb uplift at joint 12.

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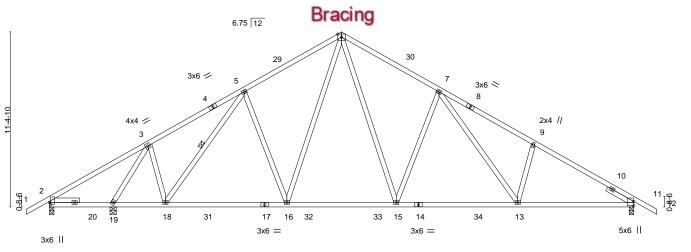


Plate Offsets (X,Y)	Plate Offsets (X,Y) [2:0-1-10,0-0-14]									
LOADING (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP						
TCLL 20.0	Plate Grip DOL 1.25	TC 0.70	Vert(LL) -0.22 13-15 >999 240	MT20 244/190						
TCDL 7.0	Lumber DOL 1.25	BC 0.84	Vert(CT) -0.37 13-15 >999 180							
BCLL 0.0 *	Rep Stress Incr YES	WB 0.84	Horz(CT) 0.08 11 n/a n/a							
BCDL 10.0	Code FBC2020/TPI2014	Matrix-MS	, , ,	Weight: 234 lb FT = 20%						

**BRACING-**

WFBS

TOP CHORD

BOT CHORD

30-5-8

7-10-13

6-0-0 oc bracing: 2-19.

1 Row at midpt

7-6-8

Structural wood sheathing directly applied or 2-8-12 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

5-18

LUMBER-

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

WFBS SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS. (size) 2=0-3-8, 19=0-4-15, 11=0-3-8

Max Horz 2=230(LC 11)

Max Uplift 2=-110(LC 26), 19=-331(LC 12), 11=-296(LC 13) Max Grav 2=127(LC 23), 19=1920(LC 19), 11=1517(LC 20)

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

3-4-12

TOP CHORD 2-3=-85/558, 3-5=-1019/297, 5-6=-1408/378, 6-7=-1622/404, 7-9=-2190/488,

9-11=-2240/413

BOT CHORD 2-19=-504/497, 18-19=-192/776, 16-18=-197/1280, 15-16=-77/1134, 13-15=-144/1516, 11-13=-256/1875

3-19=-2023/335, 3-18=-19/777, 5-18=-625/79, 6-16=-158/417, 6-15=-248/949,

7-15=-602/300, 7-13=-175/591

### NOTES-

**WEBS** 

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10, Interior(1) 2-3-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

7-10-13

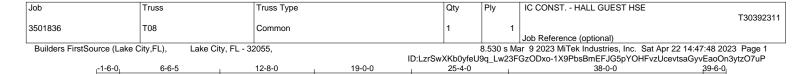
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 110 lb uplift at joint 2, 331 lb uplift at joint 19 and 296 lb uplift at joint 11.

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6-4-0

Scale = 1:75.0 5x6 =

12-8-0

Bracing 6.75 12 3x4 🖊 3x4 < 3x6 / 8 3x6 🗢 9 4x4 🖊 2x4 // 10 3x4 🖊 3x4 ≥ 11 3 ې,12 **]**ф3 **⊠** 20 19 17 32 33 16 15 34 31 18 14 5x6 || 3x6 =3x4 4x4 =3x4 =3x6 || 2x4 || 3x4 =3x6 =7-6-8 22-6-11 30-5-8 7-1-6 6-1-12 7-10-13 7-10-13 6-1-12 Plate Offsets (X,Y)--[2:0-3-10,0-0-1] LOADING (psf) SPACING-2-0-0 CSI. DEFL. (loc) I/defI L/d **PLATES** GRIP 20.0 Plate Grip DOL 1.25 TC 0.63 Vert(LL) -0.21 14-16 >999 240 MT20 244/190 Vert(CT) 7.0 Lumber DOL 1.25 BC 0.79 -0.35 14-16 >999 180

Horz(CT)

**BRACING-**

TOP CHORD

**BOT CHORD** 

WFBS

0.07

12

1 Row at midpt

n/a

n/a

Rigid ceiling directly applied or 6-0-0 oc bracing.

Structural wood sheathing directly applied or 3-0-14 oc purlins.

7-17 6-19

Weight: 233 lb

FT = 20%

LUMBER-

**TCLL** 

TCDL

**BCLL** 

BCDL

TOP CHORD 2x4 SP No.2 **BOT CHORD** 2x4 SP No.2 2x4 SP No 3 WFBS

0.0

10.0

SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS.

2=0-3-8, 20=0-4-15, 12=0-3-8

Rep Stress Incr

Code FBC2020/TPI2014

Max Horz 2=230(LC 11)

Max Uplift 2=-89(LC 12), 20=-272(LC 12), 12=-289(LC 13) Max Grav 2=341(LC 23), 20=1694(LC 19), 12=1447(LC 20)

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

TOP CHORD 4-6=-504/287, 6-7=-1209/370, 7-8=-1485/399, 8-10=-2063/476, 10-12=-2111/400 17-19=-167/1037, 16-17=-62/1011, 14-16=-139/1394, 12-14=-245/1765 BOT CHORD **WEBS** 7-16=-248/953, 8-16=-605/301, 8-14=-176/603, 10-14=-250/195, 7-17=-135/267,

YES

6-17=-60/298, 6-19=-1011/118, 4-19=-46/1095, 4-20=-1592/230

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10, Interior(1) 2-3-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60

WB

Matrix-MS

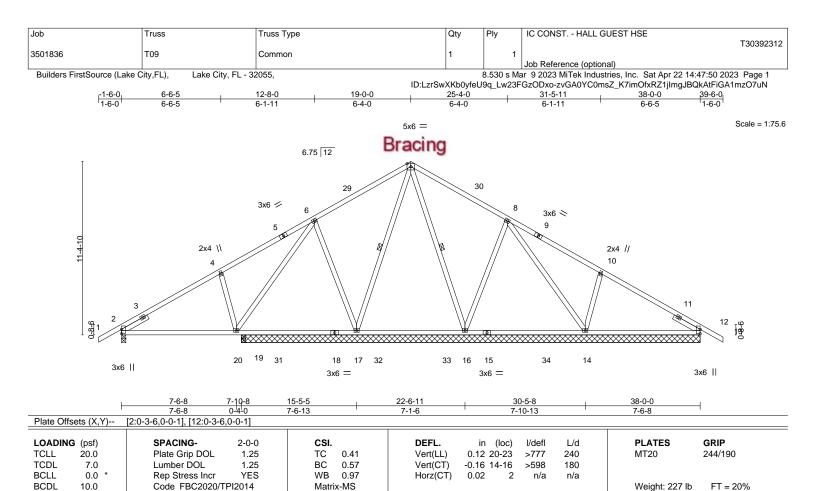
0.75

- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 6) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 89 lb uplift at joint 2, 272 lb uplift at joint 20 and 289 lb uplift at joint 12.

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LUMBER-TOP CHORD

2x4 SP No.2 **BOT CHORD** 2x4 SP No.2

2x4 SP No.3 WERS

SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8 **BRACING-**TOP CHORD

BOT CHORD

WFBS

Structural wood sheathing directly applied or 6-0-0 oc purlins. Rigid ceiling directly applied or 10-0-0 oc bracing, Except:

8-9-11 oc bracing: 2-20.

1 Row at midpt 7-16, 7-17

REACTIONS. All bearings 30-1-8 except (jt=length) 2=0-3-8, 19=0-3-8.

Max Horz 2=230(LC 11)

Max Uplift All uplift 100 lb or less at joint(s) 14, 19 except 2=-151(LC 12), 16=-112(LC 13), 17=-232(LC 12),

12=-149(LC 13)

Max Grav All reactions 250 lb or less at joint(s) except 2=568(LC 1), 16=698(LC 20), 14=532(LC 20), 17=815(LC

19), 12=521(LC 20), 19=389(LC 20), 12=470(LC 1)

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

TOP CHORD 2-4=-488/513, 4-6=-479/581, 8-10=-382/222, 10-12=-376/144 **BOT CHORD** 2-20=-366/480, 19-20=-86/274, 17-19=-86/274, 12-14=-26/312

**WEBS** 8-16=-364/254, 10-14=-317/208, 6-17=-460/436, 6-20=-606/308, 4-20=-312/207

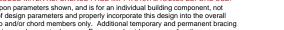
- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10, Interior(1) 2-3-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; porch left exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.

7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 14, 19 except (jt=lb) 2=151, 16=112, 17=232, 12=149, 12=149.

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Philip J. O'Regan PE No.58126 MITek Inc. DBA MITek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017 Date:

April 24,2023



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



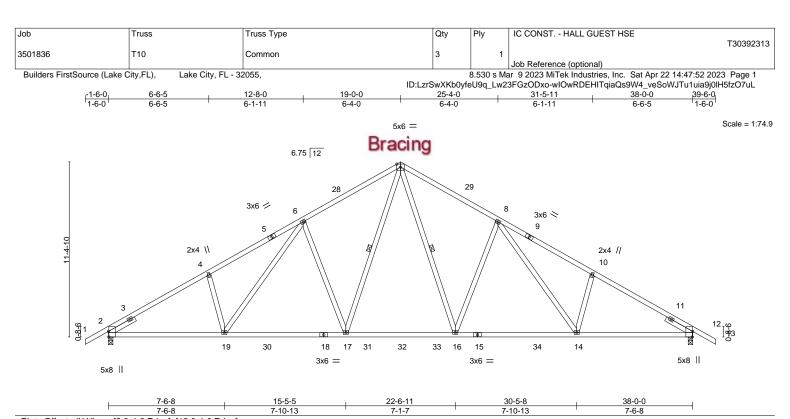


Plate Off	sets (X,Y)	[2:0-4-6,Edge], [12:0-4-6,Edge]			
LOADIN	G (psf)	SPACING- 2-0-0	CSI.	DEFL. in (loc) I/defl L/d	PLATES GRIP
TCLL	20.0	Plate Grip DOL 1.25	TC 0.92	Vert(LL) -0.29 14-16 >999 240	MT20 244/190
TCDL	7.0	Lumber DOL 1.25	BC 0.99	Vert(CT) -0.48 14-16 >959 180	
BCLL	0.0 *	Rep Stress Incr YES	WB 0.72	Horz(CT) 0.13 12 n/a n/a	
BCDL	10.0	Code FBC2020/TPI2014	Matrix-MS		Weight: 227 lb FT = 20%

**BRACING-**

WERS

TOP CHORD

BOT CHORD

Structural wood sheathing directly applied.

1 Row at midpt

Rigid ceiling directly applied or 2-2-0 oc bracing.

7-16 7-17

LUMBER-

WFBS

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

SLIDER Left 2x4 SP No.3 1-11-8, Right 2x4 SP No.3 1-11-8

REACTIONS.

(size) 2=0-3-8, 12=0-3-8 Max Horz 2=-230(LC 10)

Max Uplift 2=-318(LC 12), 12=-318(LC 13) Max Grav 2=1658(LC 2), 12=1658(LC 2)

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

TOP CHORD 2-4=-2544/1732, 4-6=-2463/1784, 6-7=-1983/1468, 7-8=-1983/1468, 8-10=-2463/1784,

10-12=-2544/1732

BOT CHORD  $2\text{-}19\text{=-}1406/2151,\ 17\text{-}19\text{=-}1126/1835,\ 16\text{-}17\text{=-}787/1401,\ 14\text{-}16\text{=-}1133/1835,}$ 12-14=-1413/2151

**WEBS** 7-16=-698/863, 8-16=-546/382, 8-14=-450/512, 7-17=-698/863, 6-17=-546/382,

6-19=-450/512

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) -1-6-0 to 2-3-10, Interior(1) 2-3-10 to 19-0-0, Exterior(2R) 19-0-0 to 22-9-10, Interior(1) 22-9-10 to 39-6-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 3x4 MT20 unless otherwise indicated.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members, with BCDL = 10.0psf.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) except (jt=lb) 2=318, 12=318.

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Philip J. O'Regan PE No.58126 MiTek Inc. DBA MiTek USA FL Cert 6634 16023 Swingley Ridge Rd. Chesterfield, MO 63017 Date:





Job Truss Truss Type Qty Ply IC CONST. - HALL GUEST HSE T30392314 3501836 **GABLE** T10G Job Reference (optional) Builders FirstSource (Lake City,FL), Lake City, FL - 32055, 8.530 s Mar 9 2023 MiTek Industries, Inc. Sat Apr 22 14:47:56 2023 Page 1 ID:LzrSwXKb0yfeU9q\_Lw23FGzODxo-o3eRHbHnMiK8229wlw2rplzFo4GOqUJlddjUEQzO7uH 19-0-0 <del>25-4-</del>0 38-0-0

6-1-11

6-6-5

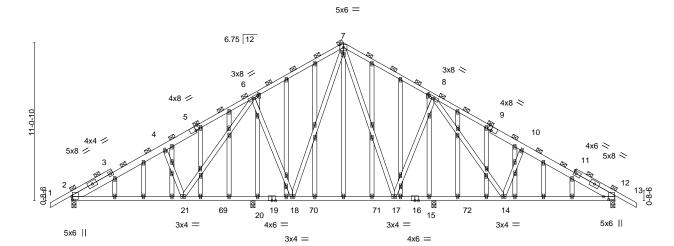
38-0-0

7-9-8

6-4-0

12-8-0

Scale = 1:80.6



3x4 ||

Plate Offsets (X,Y)--[2:0-2-8,0-0-5], [5:0-2-15,Edge], [7:0-1-8,0-1-8], [9:0-2-15,Edge], [12:0-2-8,0-4-5], [29:0-2-0,0-0-7], [48:0-2-0,0-0-7] LOADING (psf) SPACING-2-0-0 CSI. DEFL. (loc) I/defI L/d **PLATES** GRIP **TCLL** 20.0 Plate Grip DOL 1.25 TC 0.76 Vert(LL) -0.30 17-18 >479 240 MT20 244/190 TCDL 7.0 Lumber DOL 1.25 BC 0.90 Vert(CT) -0.50 17-18 >288 180 **BCLL** 0.0 Rep Stress Incr YES WB 0.87 Horz(CT) 0.08 12 n/a n/a BCDL 10.0 Code FBC2020/TPI2014 Matrix-MS Weight: 385 lb FT = 20%

22-6-11

7-1-6

**BRACING-**

TOP CHORD

**BOT CHORD** 

25-5-12

2-11-1

30-2-8

4-8-12

2-0-0 oc purlins (3-4-7 max.).

Rigid ceiling directly applied or 5-9-6 oc bracing.

LUMBER-TOP CHORD

2x4 SP No.2 \*Except\*

2-5.9-12: 2x6 SP No.2 **BOT CHORD** 2x4 SP No.2

**WEBS** 2x4 SP No.3 **OTHERS** 2x4 SP No.3

REACTIONS. All bearings 0-3-8.

Max Horz 2=-223(LC 10) (lb) -

10-12=-2011/1104

Max Uplift All uplift 100 lb or less at joint(s) 20, 15 except 2=-282(LC 12), 12=-289(LC 13)

12-6-4

4-8-12

15-5-5

2-11-1

All reactions 250 lb or less at joint(s) except 2=1310(LC 2), 20=344(LC 2), 15=344(LC 2), 12=1310(LC Max Grav

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

7-9-8

TOP CHORD 2-4=-2011/1105, 4-6=-1974/1175, 6-7=-1431/733, 7-8=-1431/732, 8-10=-1974/1173,

 $2-21 = -907/1828, \ 20-21 = -482/1426, \ 18-20 = -482/1426, \ 17-18 = -229/1049, \ 15-17 = -484/1354, \ 18-20 = -482/1426, \ 18-20 =$ 

14-15=-484/1354, 12-14=-913/1767 **WEBS** 7-17=-296/617, 8-17=-515/446, 8-14=-593/543, 10-14=-373/272, 7-18=-297/611,

6-18=-515/447, 6-21=-593/543, 4-21=-373/272

**BOT CHORD** 

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Corner(3E) -1-6-0 to 2-3-10, Exterior(2N) 2-3-10 to 19-0-0, Corner(3R) 19-0-0 to 22-9-10, Exterior(2N) 22-9-10 to 39-6-0 zone; porch left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Truss designed for wind loads in the plane of the truss only. For studs exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 5) All plates are 2x4 MT20 unless otherwise indicated.
- 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, with BCDL = 10.0psf.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 20, 15 except (jt=lb) 2=282, 12=289.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.

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April 24,2023

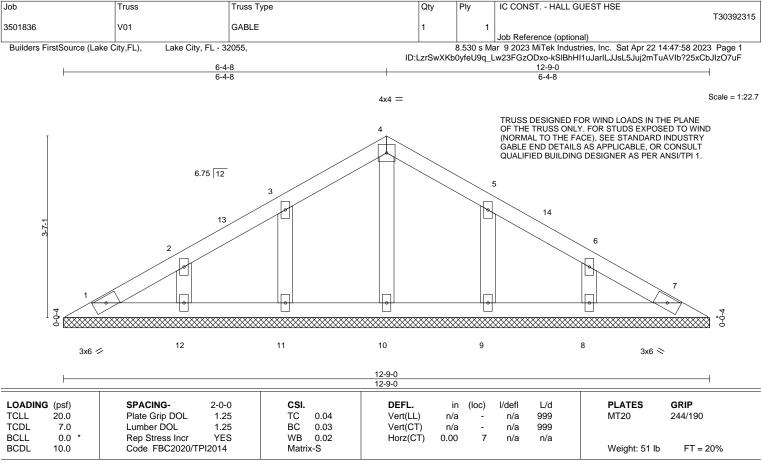
WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 5/19/2020 BEFORE USE.

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



Chesterfield, MO 63017



LUMBER-

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

BRACING-

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. All bearings 12-9-0.

Max Horz 1=-65(LC 8)

Max Uplift All uplift 100 lb or less at joint(s) 1, 7, 11, 12, 9, 8 Max Grav All reactions 250 lb or less at joint(s) 1, 7, 10, 11, 12, 9, 8

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 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-12 to 3-6-12, Interior(1) 3-6-12 to 6-4-8, Exterior(2R) 6-4-8 to 9-4-8, Interior(1) 9-4-8 to 12-2-5 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) All plates are 2x4 MT20 unless otherwise indicated.
- 5) Gable requires continuous bottom chord bearing.
- 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) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 7, 11, 12, 9, 8.

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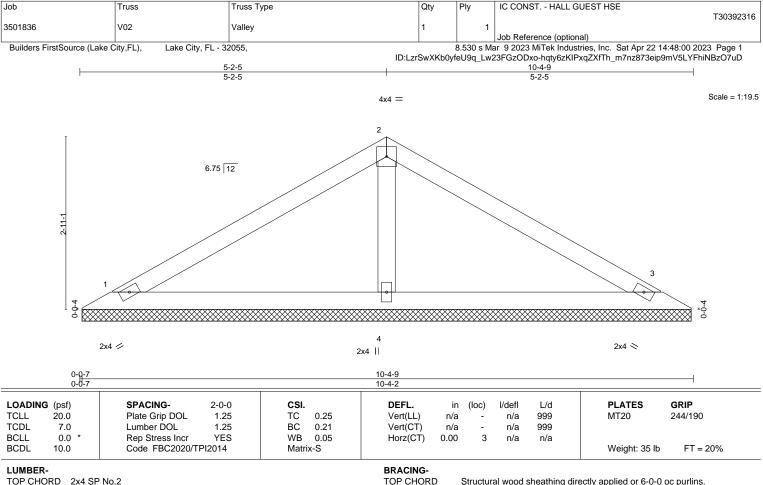


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BOT CHORD

Rigid ceiling directly applied or 10-0-0 oc bracing.

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

2x4 SP No.3

Max Horz 1=-52(LC 8) Max Uplift 1=-44(LC 12), 3=-52(LC 13), 4=-52(LC 12) Max Grav 1=160(LC 23), 3=160(LC 24), 4=365(LC 1)

(size) 1=10-3-11, 3=10-3-11, 4=10-3-11

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

### NOTES-

REACTIONS.

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-12 to 3-6-12, Interior(1) 3-6-12 to 5-2-5, Exterior(2R) 5-2-5 to 8-2-5, Interior(1) 8-2-5 to 9-9-14 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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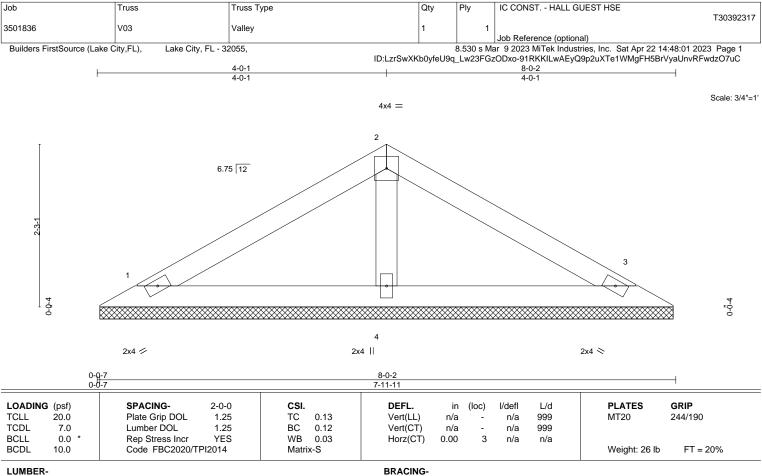
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TOP CHORD 2x4 SP No.2 BOT CHORD 2x4 SP No.2 2x4 SP No.3 **OTHERS** 

TOP CHORD BOT CHORD Structural wood sheathing directly applied or 6-0-0 oc purlins.

Rigid ceiling directly applied or 10-0-0 oc bracing.

REACTIONS. (size) 1=7-11-4, 3=7-11-4, 4=7-11-4

Max Horz 1=-39(LC 8)

Max Uplift 1=-33(LC 12), 3=-38(LC 13), 4=-39(LC 12) Max Grav 1=119(LC 23), 3=119(LC 24), 4=272(LC 1)

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

### NOTES-

- 1) Unbalanced roof live loads have been considered for this design.
- 2) Wind: ASCE 7-16; Vult=130mph (3-second gust) Vasd=101mph; TCDL=4.2psf; BCDL=3.0psf; h=20ft; Cat. II; Exp B; Encl., GCpi=0.18; MWFRS (envelope) gable end zone and C-C Exterior(2E) 0-6-12 to 3-6-12, Interior(1) 3-6-12 to 4-0-1, Exterior(2R) 4-0-1 to 7-0-1, Interior(1) 7-0-1 to 7-5-6 zone; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.60 plate grip DOL=1.60
- 3) Building Designer / Project engineer responsible for verifying applied roof live load shown covers rain loading requirements specific to the use of this truss component.
- 4) Gable requires continuous bottom chord bearing.
- 5) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 6) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 1, 3, 4.

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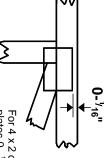


### Symbols

## 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- <sup>1</sup>/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 × 4

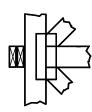
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## 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**



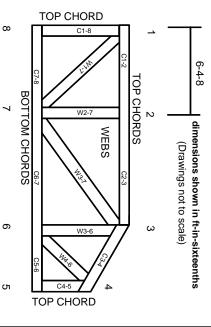
Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only.

### Industry Standards:

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Connected Wood Trusses.

ANSI/TPI1: DSB-89:

## **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

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- 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.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.

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- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other.

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- 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.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.

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- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- 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.
- Do not cut or alter truss member or plate without prior approval of an engineer.
- 17. Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use.
- 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.